The Association of Adult Businesses with Secondary Effects: Legal Doctrine, Social Theory, and Empirical Evidence

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THE ASSOCIATION OF ADULT BUSINESSES WITH SECONDARY EFFECTS: LEGAL DOCTRINE, SOCIAL THEORY, AND EMPIRICAL EVIDENCE*

ALAN C. WEINSTEIN* & RICHARD McCLEARY**

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INTRODUCTION

In the decade since the U.S. Supreme Court’s decision in City of Los Angeles v. Alameda Books, Inc., the adult entertainment

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industry\(^2\) has attacked the legal rationale local governments rely upon as the justification for their regulation of adult businesses: that such businesses are associated with so-called negative secondary effects.\(^3\) These attacks have taken a variety of forms, including: trying to subject the studies of secondary effects relied upon by local governments to the Daubert standard\(^4\) for admission of scientific evidence in federal litigation;\(^5\) producing studies that purport to show no association between adult businesses and negative secondary effects in a given jurisdiction;\(^6\) and claims that distinct business models\(^7\) and/or specific local conditions\(^8\) are not associated with the secondary effects demonstrated in the studies relied on by many local governments.

In this Article, we demonstrate that, contrary to the industry’s claims, methodologically appropriate studies confirm

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\(^2\) Commercially available adult entertainment in the form of “adult cabarets” (or “strip clubs”) featuring live dancers and retail stores selling pornographic magazines and electronic media—some of which also feature so-called “viewing booths”—is a multi-billion dollar industry. See, e.g., Ronald Weitzer, Sex Work: Paradigms and Policies, in SEX FOR SALE: PROSTITUTION, PORNOGRAPHY, AND THE SEX INDUSTRY 1 (Ronald Weitzer ed., 2d ed. 2010) (“In 2006 alone, Americans spent $13.3 billion on X-rated magazines, videos and DVDs, live sex shows, strip clubs, adult cable shows, computer pornography, and commercial telephone sex. Rentals and sales of X-rated films jumped from $75 million in 1985 to $957 million in 2006. In just one decade, the number of X-rated films released annually more than doubled, from 5700 in 1995 to 13,588 in 2005. There are around 3500 strip clubs in America and the number has grown over the past two decades.”).

\(^3\) See generally Christopher J. Andrew, The Secondary Effects Doctrine: The Historical Development, Current Application, and Potential Mischaracterization of an Elusive Judicial Precedent, 54 RUTGERS L. REV. 1175 (2002); John Fee, The Pornographic Secondary Effects Doctrine, 54 RUTGERS L. REV. 291, 292 (2009) (“[A] regulation will be treated as content-neutral and subject to intermediate scrutiny, despite its content-discriminatory form, if the primary purpose of the regulation is to control the secondary effects rather than the primary effects of speech”).

\(^4\) Daubert v. Merrell Dow Pharm., 509 U.S. 579, 590 (1993) (“[N]or to qualify as ‘scientific knowledge’ [under Federal Rule of Evidence 702] an inference or assertion must be derived by the scientific method[, but does not need to be ‘known’ to a certainty.”).


\(^7\) See, e.g., Encore Videos, Inc. v. City of San Antonio, 330 F.3d 288, 294 (5th Cir. 2003) (declaring adult business ordinance unconstitutional because none of the secondary effects studies cited in the legislative record had studied “take-home” adult media stores where no adult entertainment is presented or viewed on the premises), opinion clarified 352 F.3d 938 (5th Cir. 2003). Contra Doctor John’s v. Wahlen, 542 F.3d 787, 793 (10th Cir. 2008) (retracting claim that the “on-site/off-site” distinction is relevant in initially judging whether a local government reasonably relied on the studies in enacting its regulations); Richland Bookmart, Inc. v. Knox Cnty., 555 F.3d 512, 526 (6th Cir. 2009) (holding that a local government may rely on a study of secondary effects that did not address the particular category of adult business challenging the ordinance).

\(^8\) See, e.g., Abilene Retail #30, Inc. v. Bd. of Comm’rs, 492 F.3d 1164, 1175 (10th Cir. 2007), cert. denied, 552 U.S. 1296 (2008) (ruling that a local government in a rural area could not have reasonably relied on studies of secondary effects that did not examine businesses in an entirely rural area).
I. LAND-USE REGULATION OF ADULT ENTERTAINMENT BUSINESSES9 AND THE EVOLUTION OF THE SECONDARY EFFECTS DOCTRINE

In the late 1960s, Boston’s city planners proposed to concentrate the city’s adult businesses in a single, small “adult entertainment district” located in the city’s downtown area near Chinatown. Popularly known as the “Combat Zone,” the district was formally established in 1974.10 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. These theoretical advantages, however, were not realized in practice. Soon after the district had been established, crime and disorderly conduct escalated and the failure of Boston’s “Combat Zone” experiment was obvious.11

At about this same time, city officials in Detroit began to notice “the emergence of clusters of ‘adult’ movie theatres and bookstores together with topless bars and ‘go go’ establishments in certain areas of the City.”12 Detroit then added adult entertainment businesses to an existing ordinance that already prohibited the concentration of a number of other businesses that were associated with negative effects on surrounding properties—including bars, transient hotels, and poolrooms—by setting minimum distances between adult businesses and certain other uses.13 Several existing adult businesses that were being forced to relocate challenged the constitutionality of the Detroit ordinance, but the ordinance was upheld by the district court noting that the

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9 This article focuses exclusively on land-use regulation of adult entertainment businesses. We do not discuss, other than tangentially, two other forms of regulation that have been used extensively: restrictions on nudity in adult performances and licensing of adult businesses, owners and employees. The Supreme Court has decided two cases involving restrictions on nudity – Barnes v. Glen Theatre, Inc., 501 U.S. 560 (1991) and City of Eric v. Pap’s A.M., 529 U.S. 277 (2000) – and two cases involving licensing of adult entertainment: FW/PBS, Inc. v. City of Dallas, 493 U.S. 215 (1990) and City of Littleton v. Z.J. Gifts D-4, L.L.C., 541 U.S. 774 (2004). For a discussion of these forms of regulation, see generally, BRIAN W. BLAESER & ALAN C. WEINSTEIN, FEDERAL LAND USE LAW & LITIGATION ch. 6 (2011 ed. 2011).


11 Id. at 1107; see also Norman Marcus, Zoning Obscenity: Or, the Moral Politics of Porn, 27 BUFF. L. REV. 1, 3–4 (1978); see generally WESLEY G. SKOGAN, DISORDER AND DECLINE: CRIME AND THE SPIRAL OF DECAY IN AMERICAN NEIGHBORHOODS (1990).


13 Id. at 1016, 1018.
city had relied on the opinions of social scientists and real estate experts who agreed that prohibiting adult businesses from concentrating in any one area would mitigate negative effects on surrounding properties associated with a concentration of such businesses: primarily increased crime and downward pressure on property values.\textsuperscript{14}

After the Sixth Circuit reversed the district court’s decision because it saw the ordinance as a prior restraint,\textsuperscript{15} a fractured Supreme Court upheld the ordinance.\textsuperscript{16} Justice Stevens’ plurality opinion in \textit{Young v. American Mini Theatres, Inc.}\textsuperscript{17} viewed the pornographic speech at issue as not worthy of the most robust protection under the First Amendment, citing the Court’s treatment of commercial speech as precedent for varying the protection afforded under the First Amendment.\textsuperscript{18} Justice Powell, who provided the fifth vote to uphold the ordinance, wrote separately to argue that Detroit was justified in enacting the ordinance because it was aimed at mitigating adverse secondary effects associated with the regulated businesses.\textsuperscript{19}

Although \textit{Young} accepted that regulations could be based on the enacting legislative body’s concern with addressing the secondary effects associated with adult businesses, it said nothing about the quantity or quality of the evidence that was needed to demonstrate that such a concern was legitimate. These questions were addressed ten years later in \textit{City of Renton v. Playtime Theatres, Inc.}\textsuperscript{20} In the early 1980s, the Seattle suburb of Renton, Washington, enacted a zoning ordinance that in many respects resembled the ordinance challenged in \textit{Young}. Since Renton had no adult businesses at the time the ordinance was enacted, it could not base its regulations on a study of secondary effects in Renton itself and so looked to a Washington Supreme Court opinion reviewing studies from nearby Seattle.\textsuperscript{21} The following year, two theaters located in a district where adult businesses were prohibited began to show “X-rated” films and immediately sought

\textsuperscript{14} \textit{Id.} at 1018.

\textsuperscript{15} \textit{Id.} at 1019–20.


\textsuperscript{17} \textit{Id.}

\textsuperscript{18} \textit{Id.} at 68–69.

\textsuperscript{19} \textit{Id.} at 80–82. Justice Stewart, joined by Justices Brennan, Marshall and Blackmun dissented, arguing that the ordinance was unconstitutional because its distinction between theaters was based on the content of the films they exhibited and thus was not a valid content neutral regulation of the time, place or manner of expression. \textit{Id.} at 83–88. Justice Blackmun also dissented separately, objecting to the majority’s refusal both to consider respondent’s vagueness claims and to overturn the ordinance on those grounds. \textit{Id.} at 88.

\textsuperscript{20} \textit{City of Renton v. Playtime Theatres, Inc.}, 475 U.S. 41 (1986).

\textsuperscript{21} \textit{Id.} at 50–51 (discussing Northend Cinema, Inc. v. City of Seattle, 585 P.2d 1153 (Wash. 1978) (en banc)).
a declaratory judgment that the ordinance was unconstitutional. The trial court upheld the ordinance, but the Ninth Circuit reversed.

The Supreme Court reversed the Ninth Circuit, ruling that the ordinance complied with the Young standard in that its sole purpose was the mitigation of secondary effects. Further, the Court explicitly stated that a city did not have to conduct its own study of secondary effects or produce evidence of secondary effects in addition to those already available from other cities before enacting an ordinance regulating adult businesses, so long as the city reasonably believed that whatever studies or evidence it relied on were relevant to the problem the city was addressing. Renton thus legitimized the practice of basing the governmental purpose for enacting a local adult business 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 need only be “reasonably believed to be relevant to the problem that the city addresses.”

The Supreme Court revisited this issue sixteen years later in its decision in City of Los Angeles v. Alameda Books, Inc. In 1977, Los Angeles had conducted a comprehensive secondary effects study that found, among other things, that concentrations of adult businesses were associated with high ambient crime rates. Based on this finding, Los Angeles enacted an ordinance requiring adult businesses to be separated by a minimum distance. In 1983, concerned that the ordinance contained a loophole that would allow multiple adult businesses to operate in a single structure, the city amended the ordinance to prohibit the operation of more than one adult business in the same building or structure. Instead of requiring minimum distances between adult businesses, the amended ordinance required minimum distances between distinct adult entertainment activities. Adult businesses that combined on-site coin-operated video viewing booths with sales of videos for off-site use were prohibited and existing multiple-activity businesses were forced to segregate their on-site and off-site activities.

In 1995, two multiple-activity businesses challenged the
amended ordinance. Since the 1977 study had said nothing about the secondary effects of combining multiple activities under one roof, they argued that Los Angeles had no evidence that multiple-activity businesses were associated with secondary effects. The district court agreed and the Ninth Circuit affirmed on the ground that because the 1977 Los Angeles study had not investigated the effects of multiple-activities under one roof, the evidence for the amended ordinance did not meet Renton’s threshold of being reasonably relevant. But the U.S. Supreme Court took a different view.

As often happens in First Amendment cases, the Supreme Court’s decision in Alameda Books did not produce a clear majority holding. Justice O’Connor authored a plurality opinion, joined by Chief Justice Rehnquist and Justices Thomas and Scalia, with Justice Scalia also filing a concurring opinion. Justice Kennedy filed an opinion concurring in the judgment, but departing from the rationale announced by Justice O’Connor. Justice Souter authored a dissenting opinion, joined by Justices Stevens and Ginsburg and, in part, by Justice Breyer.

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 the evidentiary requirement of Renton. 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 adult businesses. 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 a concentration of establishments rather than a concentration of operations within a single establishment. While acknowledging that the city’s 1977 study did not assess whether multiple adult businesses 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 operations, no less than a concentration of establishments, would be associated with an increase in negative secondary effects. She also 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.

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28 Id. at 420–30 (majority opinion).
29 Id. at 428.
30 Id. at 436–37.
31 Id. at 437–38.
Justice O’Connor then addressed 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.33

Both Justice Scalia and Justice Kennedy wrote concurring opinions. Justice Scalia did nothing more than reiterate his long-standing claim that businesses engaged in “pandering sex” are not protected under the First Amendment and that communities may not merely regulate them with impunity, but may suppress them entirely.34

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.35 Justice Kennedy contended that Alameda Books 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?”36 He argued that the plurality answered only the second question, and while he believed that answer was correct, in

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32 Id. at 438–39.
33 Id. at 439, 442.
36 Id. at 449.
his view, more attention needed to be paid to the first.\textsuperscript{37}

The critical inquiry that Justice Kennedy believed the plurality skipped was “how speech will fare under the city’s ordinance.”\textsuperscript{38} 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.”\textsuperscript{39} In short, “[t]he rationale of the ordinance must be that it will suppress secondary-effects and not by suppressing speech.”\textsuperscript{40} 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 establishment operating two adult businesses under one roof: one of the businesses must either move or close. 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 adult businesses—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.

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.”\textsuperscript{41} 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 its conclusion.”\textsuperscript{42} 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 adult entertainment businesses very little.\textsuperscript{43}

In his dissenting opinion, Justice Souter, joined by Justices

\begin{footnotes}
\item[37] \textit{Id.}
\item[38] \textit{Id.} at 450.
\item[39] \textit{Id.} at 449.
\item[40] \textit{Id.} at 449–50.
\item[41] \textit{Id.} at 451.
\item[42] \textit{Id.} at 451–52 (citations omitted).
\item[43] \textit{Id.} at 450–51.
\end{footnotes}
Stevens and Ginsburg and 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. He stated:

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.31

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.35

Justice Souter claimed that his call for empirical evidence did not impose a Herculean task on government; rather, the harms allegedly caused by adult establishments “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.”36 He also noted that the need for “independent 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.”37

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.48

Although Alameda Books reaffirmed Renton in crucial respects, thereby supporting government regulation of adult businesses,
Justice O'Connor’s plurality opinion described exactly how an adult business could challenge such 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.

The adult entertainment industry, along with some scholars, soon began to “cast doubt” on the legal rationale local governments rely upon as the justification for their regulation of adult businesses in both of the ways suggested by Justice O’Connor’s opinion. As noted previously, these efforts have taken a variety of forms: trying to subject the studies of secondary effects relied upon by local governments to the Daubert standard for scientific evidence in federal litigation; producing jurisdiction-specific studies that purport to show no association between adult businesses and negative secondary effects; and claims that distinct business models and/or specific local conditions are not associated with the secondary effects demonstrated in the studies relied on by many local governments. With a few exceptions, most of these challenges have failed. The decisions to date indicate that so long as a regulation has a plausible rationale and is supported by at least some evidence, the courts

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51 See, e.g., Encore Videos, Inc. v. City of San Antonio, 330 F.3d 288, 294 (5th Cir. 2003) (declaring adult business ordinance unconstitutional because none of the secondary effects studies cited in the legislative record had studied “take-home” adult media stores where no adult entertainment is presented or viewed on the premises), opinion clarified, 352 F.3d 938 (5th Cir. 2003). Contra Doctor John’s v. Wahlen, 542 F.3d 787, 793 (10th Cir. 2008) (rejecting claim that the “on-site/off-site” distinction is relevant in initially judging whether a local government reasonably relied on the studies in enacting its regulations); Richland Bookmart, Inc. v. Knox Cnty., 555 F.3d 512, 526 (6th Cir. 2009) (holding that a local government may rely on a study of secondary effects that did not address the particular category of adult business challenging the ordinance).
52 See, e.g., Abilene Retail #30, Inc. v. Bd. of Comm’rs, 492 F.3d 1164, 1175 (10th Cir. 2007), cert. denied, 552 U.S. 1296 (2008) (ruling that local government in rural area could not have reasonably relied on studies of secondary effects, none of which examined businesses in an entirely rural area).
53 See, e.g., Encore Videos, 330 F.3d 288; Abilene Retail, 492 F.3d 1164.
continue to show substantial deference to legislatures.\textsuperscript{55}

In the following sections, we describe each of the major types of challenges to the rationales for adult entertainment regulations, discuss how those have been treated in the courts, and, where appropriate, critique each in terms of both methodological validity and criminological theory.

II. CHALLENGES BASED ON DAUBERT CLAIMS

In the wake of \textit{Alameda Books}, Daniel Linz, a Professor in the Department of Communication at the University of California, Santa Barbara, who has frequently been retained as an expert witness for adult businesses,\textsuperscript{56} co-authored an article\textsuperscript{57} arguing that when the studies relied upon by most jurisdictions are subjected to “appropriate” scrutiny, they are revealed to be seriously flawed methodologically and should not be accepted by courts as supporting the government’s claim that it is regulating adult businesses because of their demonstrated association with negative secondary effects. The methodological rules endorsed in the article are derived from the four criteria for admissibility of scientific expert witness testimony stated by Justice Blackmun’s opinion in \textit{Daubert v. Merrell Dow Pharmaceuticals}.

Following publication of the article, plaintiffs challenging adult business regulations attempted to cast doubt on the government’s factual basis for regulating adult businesses by

\textsuperscript{55}See, \textit{e.g.}, G.M. Enters., Inc. v. Town of St. Joseph, 350 F.3d 631 (7th Cir. 2003); Giovani Carandola, Ltd. v. Fox, 396 F. Supp. 2d 630, 651 (M.D.N.C. 2005) (deferring to North Carolina General Assembly’s belief that “sexually oriented businesses are associated with higher incidents of crime”). \textit{But 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).

\textsuperscript{56}JULES B. GERARD & SCOTT D. BERGTHOLD, LOCAL REGULATION OF ADULT BUSINESSES 295 (2011 ed. 2010).

\textsuperscript{57}Paul et al., \textit{supra} note 5. Professor Linz’s co-authors, Bryant Paul and Bradley Shafer were, at the time the article was published, respectively, a Ph.D. candidate in the UC, Santa Barbara Department of Communication and an attorney in private practice in Lansing, Michigan. Bryant Paul is currently an Assistant Professor in the Department of Telecommunications at Indiana University. Bradley Shafer is still in private practice in Lansing.

\textsuperscript{58}Daubert v. Merrill Dow Pharm., 509 U.S. 579 (1993). In brief, the four criteria are: (1) Has the scientific theory or technique used by the witness been tested—or can it be tested—for reliability?; (2) Has the theory or technique used been subjected to peer review and publication?; (3) In the case of a particular scientific technique, the court ordinarily should consider the known or potential rate of error; and (4) To what degree has the theory or technique been accepted in the scientific community? \textit{Id.} at 593-94. Subsequently, in \textit{Kimho Tire Co. v. Carmichael}, 526 U.S. 137 (1999), the Court adopted similar criteria for the admissibility of all evidence. \textit{See also} Gen. Elec. Co. v. Joiner, 522 U.S. 136 (1997) (addressing issue of the standard of appellate review for admissibility decisions made by courts under \textit{Daubert}).
introducing the article.59 These attempts have largely been unsuccessful. The Tenth Circuit’s discussion of the article in Doctor John’s v. Whalen,60 and the subsequent discussion by the Minnesota federal district court in PAO Xiong v. City of Moorhead,61 illustrate the approach to the article by courts that have rejected it as a basis for casting doubt on a city’s rationale or evidence. In 2008, the Tenth Circuit stated:

The article’s main premise is also problematic because it argues that secondary effects studies relied on by municipalities should meet the requirements of Daubert v. Merrell Dow Pharm., Inc. . . . However, the Supreme Court has “flatly rejected [the] idea” of requiring cities to rely on empirical analysis. . . . In fact, among the specific empirical studies that the Supreme Court rejected in City of Erie, were Dr. Linz’s studies cited by an amicus curiae, and relied on by the dissent.62

One year later, the Minnesota federal district court elaborated:

Requiring adherence to scientific standards of analysis would be inconsistent with the deference that municipal authorities are given to analyze and address community issues when acting in their legislative function. In fact, adopting such an analytical standard would require municipalities to ignore the valid, but not necessarily scientific, concerns expressed by average citizens in their communities. Further, other courts have concluded that the analysis advocated by the Linz article is insufficient to meet the burden to cast doubt on a municipality’s reasoning, even when supplemented by additional evidence, and the Court finds the reasoning employed in those cases persuasive. See Doctor John’s v. Wahlen (concluding that the Linz article failed to meet burden to cast doubt because municipality relied on studies not considered by article and because empirical evidence is not required in enactment of ordinances).

In addition, the Linz article’s approach largely ignores the fact-finding function in which municipalities engage when enacting ordinances. The Linz article acknowledges that existing studies

59 See, e.g., Doctor John’s v. Wahlen, 542 F.3d 787 (10th Cir. 2008); G.M. Enters., Inc. v. Town of St. Joseph, 350 F.3d 631 (7th Cir. 2003).
60 Doctor John’s, 542 F.3d at 787.
62 Doctor John’s, 542 F.3d at 792 (citations omitted). The court also noted: At first glance, the article does appear to cast doubt on secondary effects studies generally in stating that its authors reviewed 107 relevant studies. However, the article only analyzes the 10 most frequently cited studies by municipalities, and the City of Roy only relies on 4 of those 10 studies. Consequently, it is difficult to see how the article casts doubt on the other 14 studies relied on by the City, let alone the other 7 reports and the many cases cited by the ordinance. Id. at 791–92.
conflict as to whether negative secondary effects arise from adult businesses. Conflicting evidence does not require a municipality to find that negative secondary effects are unlikely to occur. Where a municipality is presented with conflicting evidence, municipal authorities may engage in fact-finding and ultimately may determine that a study finding such a link is more relevant or credible than a study that does not. A municipality may also decide to disregard some studies. The relevant question for courts reviewing these ordinances becomes whether the municipalities reasonably believed that secondary effects were likely to occur.63

There have, however, been cases in which the Linz article, when submitted with other evidence, has been sufficient to cast doubt on the government’s evidence.64 For example, in Abilene Retail, in addition to the Linz article, the plaintiff submitted five studies indicating that sexually oriented businesses were not the cause of negative secondary effects and called Dr. Linz as an expert witness to critique every study relied on by the government.65 This differs from the plaintiff in Doctor John’s who just submitted the Linz article without specifically addressing each study relied on by the City of Roy.66

In the cases where the Linz article was offered along with other types of evidence, it appears that the evidence that addressed the specific studies relied on by the governments involved played a greater role in the courts’ decisions that the various plaintiffs had succeeded in casting direct doubt on the government’s rationale or evidence. As noted above by the Tenth Circuit and Minnesota federal district court, studies such as the one offered by Dr. Linz would only be valid to cast direct doubt if the Supreme Court required governments to produce empirical data obtained by the methodological standards required by Daubert.67 The Court has refused to impose such a requirement. Rather, the plaintiff must show that the government was not reasonable in its reliance on the evidence in order to meet the direct doubt burden required under the Alameda test. This requires more than just evidence that suggests the government could have reached a different reasonable conclusion. Courts will

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63 PAO Xiong, 641 F. Supp. 2d at 828 (citation omitted).
64 See Abilene Retail # 30, Inc. v. Bd. of Comm’rs, 492 F.3d 1164 (10th Cir. 2007); 22nd Ave. Station, Inc. v. City of Minneapolis, 429 F. Supp. 2d 1144 (D. Minn. 2006); Giovani Carandola, Ltd. v. Fox, 396 F. Supp. 2d 630 (M.D.N.C.2005), aff’d in part, vacated in part, rev’d in part, 470 F.3d 1074 (4th Cir. 2006).
65 Abilene Retail, 492 F.3d at 1170.
66 Doctor John’s, Inc. v. City of Roy, No. 1:03-cv-00081, 2007 WL 1302757, at *8–9 (D. Utah May 2, 2007), aff’d 542 F.3d 787 (10th Cir. 2008).
67 See supra notes 62–63 and accompanying text. See also G.M. Enters., Inc., v. Town of St. Joseph, 550 F.3d 631, 640 (7th Cir. 2008).
defer to local governments’ legislative judgments, so long as the judgments meet the Court’s standard under Renton and as long as the local government reasonably believed the evidence was relevant to the issue of reducing negative secondary effects. The fact that another, contradictory conclusion may also be reasonable does not cast doubt on a municipality’s conclusion. So long as the Renton standard is met, “Alameda Books does not require a court to re-weigh the evidence considered by a legislative body, nor does it empower a court to substitute its judgment in regards to whether a regulation will best serve a community.”

III. CHALLENGES BASED ON JURISDICTION-SPECIFIC STUDIES

In a number of challenges to adult business regulations, the plaintiff has produced an expert report, often authored by Dr. Linz and his colleagues, demonstrating that the adult business—or businesses—in the jurisdiction are not associated with negative secondary effects. Several other courts have rejected Dr. Linz’s studies, finding them insufficient to rebut evidence of secondary effects. See, e.g., Imaginary Images, Inc. v. Evans, 612 F.3d 736, 748 (4th Cir. 2010) (“So while the Linz study and others may well be of interest to legislatures or those formulating policy, it does not provide the kind of ‘clear and convincing’ evidence needed to rebut the government’s showing and invalidate the ordinance.”) The court further went on to state that the government “may regulate secondary effects in sexually oriented businesses . . . notwithstanding the existence of secondary effects in other types of businesses.” Id. (citing City of Renton v. Playtime Theatres, Inc., 475 U.S. 41, 52-53 (1986)). Even when a plaintiff can cast direct doubt on one piece of evidence cited by the government, she meets her burden only when they cast doubt on all evidence cited by the government. Id. at *5 (citing Daytona Grand, Inc. v. City of Daytona Beach, 490 F.3d at 884 (11th Cir. 2007)). For example, in Doctor John’s, the plaintiff presented evidence that directly questioned the legitimacy of four of the fourteen studies cited by the City of Roy in enacting its ordinance. Regardless of whether this evidence was sufficient to cast direct doubt on the studies (the court determined that it was not), the court held that the plaintiff failed to meet its burden because she offered no evidence to undermine the ten other studies cited by the City. Doctor John’s, 2007 WL 1302757 at *9.

Dr. Linz and his colleagues have produced such reports in litigation involving the cities of Greensboro, North Carolina, San Diego, California, and Toledo, Ohio among others. ABCDE Operating, L.L.C. v. City of Detroit, No. 10-13435, 2011 WL 3607072 (E.D. Mich. Aug. 16, 2011).
In addition to the legal concerns that have led many courts to find that such studies fail to cast doubt on the association of adult businesses with secondary effects, there are sound methodological reasons why these studies should be rejected. While a comprehensive critique of these various jurisdiction-specific studies is beyond the scope of this article, not to mention the reader’s attention span, we note two of the methodological concerns with these studies.

First, many of these studies base their measurement of crimes committed in the vicinity of adult businesses on data that is questionable because they use an inappropriate metric for the reporting of crimes. Criminologists use crime *incidents* (or “crimes known to the police”) to measure crime risk. These are traditionally measured through Uniform Crime Reports (“UCRs”).

Given this well established convention, it is surprising that many of the jurisdiction-specific reports employ a different measure for crime, Calls for Service (“CFSs”) to police, which are generated through calls to the “911” emergency number or to police departments directly. A justification for the use of CFSs instead of UCRs to measure crime was provided in the study of

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71 Id. at *4. See also Entm’t Prods., Inc. v. Shelby Cnty., No. 08-2047, 2011 WL 3903002 (W.D. Tenn. Sept. 6, 2011), decided after ABCDE Operating and reaching same result.

72 “The Uniform Crime Reporting ... Program was conceived in 1929 by the International Association of Chiefs of Police to meet a need for reliable, uniform crime statistics for the nation. In 1930, the FBI was tasked with collecting, publishing, and archiving those statistics.” Law enforcement agencies throughout the United States collect data on crimes reported to police and then provide that data to the FBI. Uniform Crime Reports, FED. BUREAU OF INVESTIGATION, http://www.fbi.gov/about-us/cjis/ucr/ucr (last visited Oct. 30, 2011).
secondary effects in Toledo, Ohio, prepared by Dr. Linz and a colleague:

We employ calls for service in this study for four reasons: 1) The use of these indicators of crime is compatible with criminology research; 2) Studies of secondary effects relied on by the City of Toledo have also employed this measure. It is possible, therefore, to directly compare the findings of the present study to these studies; 3) CFS are known to be consistent with victimization data; 4) The Justice Department endorses their use as indicators of criminal activity. 23

We disagree strongly with these rationales. The third and fourth rationales are unsubstantiated and, in our view, simply incorrect: CFSs are not consistent with victimization data and the U.S. Department of Justice has never endorsed the use of CFSs as a measure of “criminal activity.” As regards the first two, in fact, criminologists rarely, if ever, use CFSs to measure crime risk 24 and only a few of the secondary effect studies relied on by the City of Toledo used CFSs for any purpose whatsoever. 25

Second, when the conclusions derived from the data presented in many of these studies is examined critically in light of that data, the conclusions are found to be insupportable or even contradictory to the data. Readers who lack statistical backgrounds may wonder how two teams of experts can analyze the same data with the same methods, yet, arrive at radically different conclusions. Simply put, the stark differences between the original analyses in these reports and a subsequent reanalysis are due to differences in the underlying statistical assumptions and differences in the interpretation of analytic results. In our view, the statistical analyses in these studies often are based on highly questionable assumptions and this error is then compounded through a misinterpretation of the study’s results.

23 DANIEL LINZ & MIKE YAO, EVALUATING POTENTIAL SECONDARY EFFECTS OF ADULT CABARETS AND VIDEO/BOOKSTORES IN TOLEDO, OHIO: A STUDY OF CALLS FOR SERVICE TO THE POLICE 16 (Feb. 15, 2004) (unpublished study) (on file with authors).
24 A review undertaken by graduate students under the authors’ direction of writings published between 2000 and 2004 in four national criminology journals, Criminology, Justice Quarterly, the Journal of Quantitative Criminology, and the Journal of Criminal Justice comprised 705 bibliographic items, primarily articles. Most of the articles were either non-empirical (theoretical essays, reviews, etc.) or else, analyzed phenomena other than crime (police behavior, sentencing decisions, etc.). Of the 254 articles that analyzed a crime statistic, 134 (52.8%) analyzed UCRs; 119 (46.8%) analyzed victim or offender surveys. Only five articles (1.9%) analyzed CFSs. These data reflect the consensus view among criminologists that CFSs are not the best—or even a good—measure of crime. See RICHARD MCCLEY & JAMES W. MEEKER, A METHODOLOGICAL CRITIQUE OF THE LINZ-YAO REPORT: REPORT TO THE CITY OF TOLEDO, OH 17 (May 15, 2004) (unpublished report) (on file with the authors).
25 Two-thirds of the studies relied on by the City of Toledo used UCRs. See id. at 16.
Every statistical analysis is predicated on a set of assumptions that, taken together, constitute a “model.” If one or more of the predicate assumptions is unwarranted, the model will yield analytic results that are biased in some way. The consequences of this bias can be benign. Results predicated on “wrong” assumptions can still be approximately “right.” But the consequences of bias are not always benign. In many instances, the accrued bias violated assumptions can have disastrous consequences. Further, model assumptions notwithstanding, the results of every statistical analysis must be interpreted. Except for results derived from randomized controlled trials (experiments), analytic results cannot be expressed as a single number. Results derived from quasi-experimental designs, such as examining data before or after the opening (or closing) of an adult business or examining data from an area with an adult business compared to an area without an adult business, invariably consist of several numbers which must be integrated. This opens the door to subjectivity. Focusing exclusively on only one of several numerical results can lead to a misinterpretation of the larger set of results.

In short, we claim that methodologically appropriate studies of secondary effects that are interpreted in an appropriate manner will always demonstrate an association between adult entertainment businesses and negative secondary effects.

IV. CHALLENGES BASED ON THE ON-SITE/OFF-SITE DISTINCTION OR THE URBAN/RURAL DISTINCTION

A. The On-Site/Off-Site Distinction

While there are a number of different adult entertainment business types, almost all such businesses can readily be classified as either a business where adult entertainment (whether in hard-copy format, electronic media or live performances) is viewed on the premises or where adult entertainment material is sold for viewing off the premises. Encore Videos, Inc. v. City of San Antonio, exemplifies challenges to adult entertainment regulations brought by operators of off-site businesses claiming that the studies relied

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76 See, e.g., ERIC DAMIAN KELLY & CONNIE COOPER, EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT REGULATING SEX BUSINESSES 27–37 (2000), which lists the following types: Mixed-Retail Outlets, comprising mainstream retail stores with back rooms of sexually explicit material and retail percentage stores; Adults-Only or Sexually Oriented Retail Outlets, comprising adult media outlets and sex shops; Sexually Oriented Entertainment, comprising movie theatres, video-viewing booths, and live entertainment; and Touching and Encounter Businesses, comprising lingerie modeling studios, nude encounter studios, nude photography studios, massage parlors not operated by medical professionals or certified massage therapists and body-painting studios.

77 Encore Videos, Inc. v. City of San Antonio, 330 F.3d 288 (5th Cir. 2003), opinion clarified, 352 F.3d 938 (5th Cir. 2003), cert. denied, 540 U.S. 982 (2003).
on by the enacting jurisdiction either dealt only with on-site businesses or failed to distinguish between the secondary effects associated with on-site businesses versus off-site businesses.

In Encore Videos, the San Antonio ordinance classified off-site book and video stores as adult entertainment businesses if their inventories included twenty percent adult material. Citing Alameda Books, an off-site book store challenged the ordinance’s rationale and underlying evidence, arguing that San Antonio had relied on studies that either excluded off-site adult businesses or, otherwise, had not distinguished between the effects of on-site and off-site adult businesses. The Fifth Circuit agreed; moreover, in the court’s view, the city’s rationale for ignoring the differences between on-site and off-site businesses 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. If consumers of pornography cannot view the materials at the sexually oriented establishment, they are less likely to linger in the area and engage in public alcohol consumption and other undesirable activities. 78

The Encore Videos approach was subsequently adopted by the Seventh Circuit in Annex Books v. City of Indianapolis. 79 In that case, the City of Indianapolis relied on studies of secondary effects involving on-site adult businesses to support an ordinance regulating adult bookstores. The court held that if Indianapolis could not produce sufficient evidence for off-site adult businesses, then “its ordinance must meet the same fate as San Antonio’s.” 80

78 Id. at 295. The court’s view on this issue was, however, significantly colored by the fact that the ordinance targeted businesses with as little as twenty percent adult material, and thus could potentially ensnare “mainstream” businesses with adult sections. The court stated: “Given the expansive reach of the ordinance in the instant case, we must require at least some substantial evidence of the secondary effects of establishments that sell adult products solely for off-site consumption. Otherwise, even ordinary bookstores and video stores with adult sections could be subjected to regulation that restricts their First Amendment rights without evidence that they cause ‘secondary effects.’” Id. (citation omitted); see also, Giggles World Corp. v. Town of Wappinger, 341 F. Supp. 2d 427 (S.D.N.Y. 2004) (questioning, on motion for summary judgment, secondary effects basis for ordinance regulating businesses with only twenty percent adult material). But see PAO Xiong v. City of Moorhead, 641 F. Supp. 2d 822 (D. Minn. 2009) (approving, on motion for summary judgment, the city’s use of studies based on “on-site” adult businesses, coupled with citizen testimonials, to justify an ordinance restricting “off-site” adult businesses which sold more than twenty percent adult goods).

79 Annex Books, Inc. v. City of Indianapolis, 581 F.3d 460 (7th Cir. 2009).

80 Id. at 467 (citing Encore Videos, 330 F.3d 288); see also, New Albany DVD, L.L.C. v. City of New Albany, 581 F.3d 556, 560 (7th Cir. 2009) (discounting city’s proof as to the undesirable secondary effects of plaintiff’s off-site business because the studies the city relied upon did not “fairly support[]” a causal connection between the adult business and the secondary effects the ordinance sought to address).
Other courts, however, have explicitly rejected this approach. As early as 1994, the approach had been rejected by the Eighth Circuit in *ILQ Investments v. City of Rochester,* but that ruling, of course, pre-dated *Alameda Books.* In a ruling made after *Alameda Books,* the Tenth Circuit rejected the Fifth Circuit’s approach in *Encore Videos* that the “on-site/off-site” distinction is relevant to the “casting doubt” first step of the *Alameda Books* analysis. In *Dr. John’s v. Wahlen,* the Tenth Circuit held that the distinction between an on-site and off-site adult business was not relevant when determining whether a local government produced evidence to meet its initial burden. The court did acknowledge that this distinction may become relevant once the burden shifted to the plaintiffs, but the relevance cannot be assumed. Thus, a city may enact regulations on an “off-site” business based on secondary effects that do not focus solely on such businesses. The burden would then shift to the plaintiff to cast doubt on the relevancy of such studies to “off-site businesses.”

The Ninth Circuit also upheld a restriction on “off-site” businesses after the *Encore Videos* ruling, but its decision in *World Wide Video of Washington, Inc. v. City of Spokane* focused more on additional evidence upon which the city relied rather than on an outright rejection of the on-site/off-site distinction. In this case, the plaintiff’s expert demonstrated that the studies the city relied on did not deal exclusively with “take-out” (i.e., off-site) businesses and provided his own studies showing that such businesses did not cause negative secondary effects in Spokane. The Tenth Circuit ruled that the plaintiff had not met its burden of “casting doubt” on the city’s rationale or supporting evidence, despite the plaintiff’s expert’s findings, because, in addition to the studies from other cities, Spokane had relied on citizen testimony linking “off-site” businesses with pornographic litter and public lewdness, and this evidence, “standing alone, was sufficient to meet the ‘very little’ evidence standard of *Alameda Books.*”

In contrast, a 2009 Sixth Circuit decision, *Richland Bookmart, Inc. v. Knox County, Tenn.,* implicitly rejected the *Encore Videos* approach, although it did not explicitly rule that the distinction

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81 *ILQ Invs., Inc. v. City of Rochester,* 25 F.3d 1413 (8th Cir. 1994).
82 *Doctor John’s v. Wahlen,* 542 F.3d 787 (10th Cir. 2008).
83 *Id.* at 793; *see also* *Enlightened Reading, Inc. v. Jackson County,* No. 08-0209-CV-W-FJG, 2009 WL 792492 (W.D. Mo. Mar. 24, 2009).
84 *World Wide Video of Wash., Inc. v. City of Spokane,* 368 F.3d 1186 (9th Cir. 2004), *as amended on denial of reh’g and reh’g en banc* (July 12, 2004).
85 *Id.* at 1195; *see also* *H & A Land Corp. v. City of Kennedale,* 480 F.3d 336, 339–41 (5th Cir. 2007) (upholding the city’s regulation of “off-site” businesses, and distinguishing *Encore Videos,* where the city had relied, in part, on evidence from surveys of real estate appraisers that focused strictly on “off-site” businesses).
86 *Richland Bookmart, Inc. v. Knox Cnty.,* 555 F.3d 512 (6th Cir. 2009).
between on-site and off-site businesses was irrelevant. In this case, the court reviewed an ordinance aimed at off-site businesses with at least thirty-five percent adult material, which led it to focus on a claimed distinction between businesses that carried a large percentage of adult materials and those businesses that barely met the thirty-five percent threshold for regulation. Ruling that the County had met its burden under *Alameda Books*, the court flatly rejected the plaintiffs’ argument that the studies relied upon by the County were irrelevant on the ground that off-site “combination” stores, defined as stores primarily offering “mainstream” merchandise which barely met the thirty-five percent percentage threshold, are substantially different from stores that have a greater percentage of adult items.\(^87\) The court reasoned:

Requiring local governments to produce evidence of secondary effects for all categories created by every articulable distinction is a misapprehension of the Supreme Court’s holding that governments may rely on any evidence “reasonably believed to be relevant.” While the 35% threshold may be arbitrarily chosen, and it very well may be that this threshold sweeps in some relatively benign establishments, it is not for us to decide that some higher, equally arbitrary percentage would lessen the burden on expression without compromising the efficacy of the Ordinance in controlling secondary effects.\(^88\)

The case stands for the proposition that local governments can reasonably rely on evidence of secondary effects associated with a variety of adult businesses and are not required to obtain evidence that any given category of adult business—defined by a plaintiff’s “articulable distinction” of its business category from whatever categories were included in the city’s studies—is associated with negative secondary effects.

B. The Urban/Rural Distinction

Another type of recent challenge, conceptually similar to the “on-site/off-site” distinction, focuses on the claim that the studies relied on by a local government are not germane to local conditions, most particularly, the rural nature of a jurisdiction. This claim was accepted by the Tenth Circuit in *Abilene Retail #30, Inc. v. Board of Commissioners of Dickinson County, Kansas*.\(^89\) The

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\(^{87}\) See *id.* at 526.

\(^{88}\) *Id.* (citations omitted).

\(^{89}\) *Abilene Retail #30, Inc. v. Bd. of Comm’rs*, 492 F.3d 1164 (10th Cir. 2007), *cert. denied*, 552 U.S. 1296 (2008).
court, finding that none of the studies of secondary effects relied upon by the Board examined businesses in an entirely rural area, concluded that the Board could not have “reasonably believed” that a single business in a rural area was associated with secondary effects and ruled that the district court had improperly granted an award of summary judgment to the County. The court stated:

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 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.90

The panel was split, however, on precisely where in the Alameda Books analysis the Board was required to look for evidence of secondary effects other than the “pre-packaged” studies it had relied on. The majority of the panel argued that the Board’s reliance on such studies failed to meet even the initial burden in Alameda Books.91 In a concurring opinion, one member of the panel argued that the Board could have reasonably believed that such studies supported the notion that even a single business in a rural location could be associated with negative secondary effects, but that since the plaintiff adult business had presented evidence to refute that belief, the burden had shifted to the Board to find further evidence linking the single rural business with negative secondary effects.92

V. THEORETICAL AND CASE STUDY SUPPORT FOR THE ASSOCIATION OF ADULT BUSINESSES WITH SECONDARY EFFECTS

Taken at face value, many of the claims made by plaintiffs

90 Id. at 1175. But see Independence News, Inc. v. City of Charlotte, 568 F.3d 148 (4th Cir. 2009) (ruling that city need not show that an individual adult business actually produces negative secondary effects in order to enforce ordinance because the absence of any evidence of adverse secondary effects associated with a given business today is no guarantee that such effects will not be present tomorrow), cert. denied, 130 S.Ct. 507 (2009).
91 Id. at 1175–76.
92 Id. at 1181–85 (Ebel, J., concurring).
and their experts in challenges to adult entertainment ordinances seem attractive, or even compelling, from a common sense perspective. The problem is that these claims either ignore theoretically relevant characteristics of adult businesses or are methodologically flawed. In particular, such claims ignore the routine activity theory of crime associated with adult businesses or use inappropriate data sources and methods to demonstrate that adult businesses are not associated with secondary effects or both.

A. The Prevailing Criminological Theory of Secondary Effects

The prevailing criminological theory of secondary effects is derived as a special case from the routine activity theory of crime. Applied to secondary effects, the theory can be written as:

\[
\frac{N \text{ of Targets} \times \text{Expected Value}}{\text{Ambient Crime Risk}} = \frac{\times N \text{ of Predators}}{\text{Police Presence}}
\]

In simple terms, the routine activities at an adult business site attract predators, generating a “hot spot of predatory crime.” The relative attractiveness of a site is determined by the number of targets at the site, their expected value, and the level of police presence at the site. Sites with a relatively large number of high-value targets and a relatively low police presence attract a relatively large number of predators.

The hotspot theory assumes a pool of rational predators who move freely from site to site, choosing sites with high-value targets and low police presence. Because these predators lack legitimate means of livelihood and devote substantial time to illegitimate activities, they are “professional thieves” by Edwin Sutherland’s classic definition. Otherwise, they are a heterogeneous group.

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93 This section is adapted from Richard McCleary, Rural Hotspots: The Case of Adult Businesses, 19 CRIM. JUST. POL’Y REV. 153 (2008).
Some are vice purveyors who dabble in crime; others are criminals who use the promise of vice to lure and pull their victims. Despite their heterogeneity, these predators share a rational decision-making calculus that draws them to adult business sites.

The crime-vice connection has been a popular plot device for at least 250 years. John Gay’s *The Beggar’s Opera*, written in 1728, for example, centers on 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, Clifford Shaw’s *The Jack-Roller*, written in 1930, describes “Stanley,” a delinquent who lives with a prostitute and preys on her clients.

Criminological thinking concerning the connection between crime and vice has changed little in the eight decades since Shaw’s *Jack-Roller*. To document the rational choices of predatory criminals, Richard Wright and Scott Decker interviewed eighty-six 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: “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.” Moreover, the rational calculus described by these prostitute-robbers echoes the descriptions of other predators.

Like tourist attractions and sporting events, adult business sites attract targets from wide catchment areas. Compared to the targets attracted to these other hotspots, however, adult business patrons are disproportionately male, open to vice overtures, and

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100 Id. at 69.
carry cash. When victimized, moreover, adult business patrons are reluctant to involve the police. They are “perfect” victims, from the rational predator’s perspective.

Given a choice among equally lucrative sites, of course, rational predators prefer sites with low levels of police presence. In the original statement of the routine activity theory, Lawrence Cohen and Marcus Felson included police in the pool of “capable guardians,” along with the targets themselves and any potential witnesses. The stigma associated with adult business sites limits the effectiveness of non-police guardians, however. With minor exceptions, the level of guardianship at adult business sites is proportional to the level of physical (e.g., motor or foot patrols) or virtual (e.g., security cameras) police presence.

Of course, the relative effectiveness of a fixed level of police presence can be affected by broadly defined environmental factors. Because conventional police patrolling is less effective in darkness, ambient crime risk rises after dark. Architectural structures that obscure vision can have a similar effect but outdoor lighting can be used to mitigate the risk. Because rural areas have fewer police resources, rational predators may view rural adult business sites as more attractive.

B. The Role of Adult Business Types in Criminological Theory

Secondary effects are realized in terms of “victimless” vice crimes (prostitution, drugs, etc.), predatory personal crimes (assault, robbery, etc.), predatory property crimes (theft, auto theft, etc.), “opportunistic” nuisance crimes (vandalism, trespass, etc.), and disruption of order (public drunkenness, disturbing the peace, etc.). Nevertheless, within these broad etiological categories, criminological theory allows for quantitative and qualitative differences among distinct adult business models.

These differences accrue through either of two mechanisms. First, the distinguishing characteristic of an adult business model can create idiosyncratic opportunity structures for a particular type of crime. Second, the distinguishing characteristic can reduce the effectiveness of common policing strategies. Compared to the complementary model, for example, adult

101 See Cohen & Felson, supra note 94; Felson & Cohen, supra note 94.
108 McCleary, supra note 93, at 157.
businesses that serve alcohol present opportunities for non-instrumental personal crimes (assault, disorderly conduct, etc.). Proactive policing strategies are also less effective for adult businesses that serve alcohol.

The private viewing booths that distinguish on-site from off-site adult businesses lead to differences through both mechanisms. First, the booths generate idiosyncratic opportunities for “victimless” vice crimes. Second, the booths pose a special problem for policing. Other than victimless vice crimes, however, there are no differences between the on-site and off-site adult business models. To the extent that both models attract high-value targets from wide catchment areas, both are expected to attract predators to their neighborhoods, thereby generating ambient victimization risk. As will be seen in the case study discussion below, the data corroborate this theoretical expectation.

C. The Role of Adult Business Location in Criminological Theory

The Tenth Circuit’s \textit{Abilene Retail} \textsuperscript{109} decision effectively accepted the proposition that studies of secondary effects associated with adult businesses in urban areas could not be relied upon to support the regulation of adult businesses in a rural area. Because most criminological research has been conducted in non-rural areas, criminological theories do not necessarily generalize to rural crime. Because relatively little crime occurs in rural areas, of course, few criminologists are interested in urban-rural questions. Thus, the potential cost of the Tenth Circuit’s decision was staggering. At minimum, local governments would be forced to undertake studies of adult businesses located in more rural areas, rather than relying on existing studies from less rural jurisdictions. In the absence of such studies, adult businesses could have an incentive to relocate to rural areas since local governments could not demonstrate that they had a factual basis for enacting regulatory ordinances. In either case, the ability of local governments to mitigate public safety hazards associated with adult businesses would be compromised.

Of course, if criminological theories can be generalized to rural areas, then the \textit{Abilene Retail} decision may be called into question. Although the generalization may be difficult for some criminological theories, the relevant theory of “hotspots,” discussed previously in the context of distinguishing between on-site and off-site adult businesses as regards their association with

\textsuperscript{109} Abilene Retail \#30, Inc. v. Bd. of Comm’rs, 492 F.3d 1164 (10th Cir. 2007), \textit{cert. denied}, 552 U.S. 1296 (2008).
secondary effects, applies to any accessible area, rural or urban, and can explain why an adult business that opens in a sparsely populated rural community could be associated with an increase in ambient crime risk, in effect making a hotspot of the community.

Writing a decade after the advent of Uniform Crime Reports in 1930, George Vold confirmed that a city's crime rate was proportional to its population. The observed relationship had an obvious explanation: "[B]ehavior in the country in all probability comes under much greater informal control of the opinions and disapprovals of the neighbors than is the case in the relative anonymity of the city . . . " The negative correlation confirmed not only grand sociological theory, but also the related criminological theory of social disorganization.

As proposed by Shaw and McKay in 1942, the theory of social disorganization predicts that neighborhoods with low residential stability will have high rates of delinquency and vice versa. To the extent that a small town has the characteristics of a stable neighborhood, social disorganization theory would predict the low crime rates observed by Vold. When a small town is disrupted by an influx of newcomers, however, the same theory predicts an abrupt increase in the town's crime rate.

This increase in crime can occur in at least two ways. First, the newcomers may victimize the town's residents. Indeed, fear of victimization by newcomers is implicated in the rapid spread of gated communities. Second, the influx of newcomers may disrupt the town's routine activities in a way that attracts predatory criminals, creating a local “hot spot of predatory crime.”

The outline we previously presented of criminological theory regarding the creation of a local “hot spot of predatory crime” applies equally in the rural setting, with one significant difference. With respect to the quantity and quality (or value) of the targets at a site, urban and rural adult business sites are equally attractive to

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110 See supra notes 89–104 and accompanying text.
111 For information about Uniform Crime Reports, see supra note 72.
113 Id.
115 CLIFFORD R. SHAW & HENRY D. MCKAY, JUVENILE DELINQUENCY AND URBAN AREAS (1942).
116 See McCleary, supra note 93.
118 Sherman et. al., supra note 95.
the rational offender; however, police presence is generally lower at rural sites. Some part of this urban-rural disparity in policing is due to obvious factors. Rural police agencies protect larger areas with fewer personnel, for example, and drive longer distances in response to calls. Though less obvious, “fuzzier” jurisdictional lines and more complex demands for service make policing more difficult and less effective in rural areas.119 Because police presence is relatively lower at rural sites, controlling for the quantity and quality of targets, rural sites are more attractive to the rational offender.

D. Case Studies Confirming the Prevailing Criminological Theory of Secondary Effects

The authors have previously published two case studies that confirm the prevailing criminological theory of secondary effects as applied, respectively, to an adult off-site business and an adult business located in a rural area.120 The case study involving an adult off-site business was conducted in Sioux City, Iowa. The case study involving an adult business located in a rural area was conducted in Montrose, Illinois. Each case study is briefly described below.

1. Off-Site Business Case Study

Sioux City, Iowa is located on the Missouri River, which forms the border between Iowa and Nebraska. In 2010 it had a population of 82,684.121 Adult businesses are nothing new to Sioux City, Iowa. Two adult businesses had operated without incident in the city’s older downtown area for decades. Although both businesses sold sexually explicit DVDs for off-site use, most of their revenue came from coin-operated viewing booths. In terms of “look and feel,” the two businesses were indistinguishable from adult businesses in larger cities.

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

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119 See supra note 107.
The 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.\(^{122}\)

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 adult businesses lacked the typical crime-related secondary effects associated with adult businesses. 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 1, 2002, and December 31, 2005. This time period comprised 793 days before and 668 days after Dr. John’s opened. For purposes of quasi-experimental control, reports of incidents occurring with 500 feet of a nearby motel were also retrieved.

The data showed that in the area within 500 feet of Dr. John’s, the annual crime rate rose from 7.8 to 22.4 incidents per year, an increase of approximately 190 percent. Crime in the 500 foot area surrounding the control area—the motel—rose as well but the increase was more modest: an increase from 20.3 to 25.1 incidents per year amounts to a twenty-five percent increase. Based on a crude comparison of these rates, Dr. John’s appears to pose an ambient victimization risk. Of course, this assumes that other plausible alternative hypotheses can be ruled out. As more fully discussed in our “Off-Site” article,\(^{123}\) statistical analysis demonstrated that the various plausible alternative hypotheses—for example, the “null hypothesis” that the before and after effect was simply due to chance—were unlikely to have produced the

\(^{122}\) Doctor John’s, Inc. v. City of Sioux City, 389 F. Supp. 2d 1096, 1103 (N.D. Iowa 2005) (quoting from court’s ruling on plaintiff’s motion for preliminary injunction).

\(^{123}\) McCleary & Weinstein, supra note 120.
 Due to the small number of incidents that occurred in the areas surrounding Dr. John’s and the control site during 2002-2005, the statistical significance of the secondary effects shown in the data could be arguable. Critics might characterize the evidence as interesting but not compelling. That is the nature of case study evidence. By the Renton criteria, on the other hand, the data constitute a sufficient factual predicate for the regulation of off-site adult businesses. In light of the strong underlying theory described earlier, which predicts such results, few criminologists would find the case study results surprising or controversial.

2. Rural Case Study: Montrose, Illinois

An unincorporated village of fewer than 250, Montrose, Illinois is located on I-70 midway between St. Louis, Missouri, and Indianapolis, Indiana. Interstate 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, an adult business, 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 many Illinois villages, Montrose had no adult business ordinances. However, the Lion’s Den was located within 1,000 feet of a public park in violation of an Illinois statute. When the State moved to enforce its statute, the Lion’s Den sued, arguing that “off-site” adult businesses could not generate the public safety hazards associated with adult cabarets, video arcades, and other on-site adult entertainment businesses. The trial in Illinois v. Lion’s

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125 65 ILL. COMP. STAT. ANN. 5/11-5-1.5 (West 2009).
Den lasted four days. The court upheld the statute and, in July 2005, the Montrose Lion’s Den closed its doors.\(^{126}\)

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. While neither party presented local crime data, our examination of the available data bearing on the crime-related secondary effects of the adult business in Montrose shows that during the 1,642-day period beginning January 1, 2002, the Effingham County Sheriff’s Office recorded eighty-three 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. Incidents involving danger or harm to persons (robbery, assault, etc.) were rare.

When this 1,642 day period is separated 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 respectively. From these raw rates, it appears that crime in Montrose rose when the Lion’s Den opened and fell when the Lion’s Den closed. As with the previous case-study, this assumes that plausible alternative hypotheses for the difference can be ruled out, which they were for this case study as well.\(^{127}\)

In short, following the opening of an adult business on an interstate highway off-ramp into a sparsely populated rural village, total crime in the village rose by approximately sixty percent. Two years later, when the business closed, total crime in the village dropped by approximately sixty percent. In light of the strong before and after quasi-experimental design, the only plausible explanation for this effect is that, like adult businesses in urban and suburban settings, adult businesses in sparsely populated rural areas generate ambient crime-related secondary effects.

This finding was not unexpected. Although criminological theories are based largely on data collected in urban and suburban areas, the routine activity theory of hotspots\(^{128}\) generalizes to rural settings. Put simply, adult businesses 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. The spatio-temporal conjunction of targets and offenders generates


\(^{127}\) McCleary, supra note 93, at 158–60.

\(^{128}\) See Sherman, supra note 93.
ambient victimization risk—a hotspot of predatory crime. This theoretical mechanism operates identically in rural, suburban, and urban areas. Moreover, because rural areas ordinarily have lower levels of visible police presence, rural hotspots may be riskier than their suburban and urban counterparts.\textsuperscript{129}

In contrast, “common sense” secondary effect theories rely on the premise that an “average” patron spends less time at an off-site adult business and, hence, faces a relatively smaller victimization risk at the business. This implies that off-site adult businesses have relatively smaller secondary effects. If the secondary effects of off-site adult businesses are no larger than the effects of, say, a convenience store, there may be no legitimate basis for regulating off-site adult businesses \textit{qua} adult businesses. Plaintiffs have made this theoretical argument, of course, and in the absence of either theory or evidence to the contrary, courts have accepted it.\textsuperscript{130}

The argument and underlying theory assume that the “average” patron drives up to the store, runs in, makes a purchase, runs out, and drives off. Although this “average” behavior may be consistent with common sense, it is inconsistent with the data: an ethnographic study of an off-site adult business reports that patrons spend significant periods of time in the immediate vicinity of the site.\textsuperscript{131} 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.

CONCLUSION

The ongoing efforts by the adult entertainment industry to discredit the secondary effects rationale local governments rely upon as the justification for their regulation of adult businesses have enjoyed only limited success. The fundamental reason for this is that, contrary to the industry’s claims, methodologically appropriate secondary effects studies confirm criminological theory’s prediction that adult businesses are associated with heightened incidences of crime regardless of jurisdiction, business model or location. Further, the studies that have been produced

\textsuperscript{129} For a discussion of some of the regulatory issues that are posed by adult businesses locating in rural communities, see Matthew L. McGinnis, Note, \textit{Sex, but Not the City: Adult-Entertainment Zoning, the First Amendment, and Residential and Rural Municipalities}, 46 B.C. L. REV. 625 (2005).


\textsuperscript{131} Kristen Hefley, \textit{Stigma Management of Male and Female Customers to a Non-Urban Adult Novelty Store}, 28 DEVIAN'T BEHAV. 79 (2007).
on behalf of the adult industry are frequently flawed either in their methods or in the analyses of their findings.