CPIP Working Paper Series Paper #20203

How Valuable are Civil Liberties? Evidence from Gang Injunctions and Housing Prices in Southern California

UCI Center for Population, Inequality, and Policy

Emily Owens, UC Irvine
Michelle D. Mioduszewski, UC Irvine
Christopher J. Bates, UC Irvine

8-1-2020

How Valuable are Civil Liberties? Evidence from Gang Injunctions and Housing Prices in Southern California

Emily Owens
Michelle D. Mioduszewski
Christopher J. Bates

August 2020[1]

Abstract

Place-based and proactive policing strategies can reduce crime. However, the broader net impacts of these policies on targeted communities has yet to be quantified, meaning there is little empirical evidence on if, or when, policing is socially beneficial. Using a spatial discontinuity in constraints on police actions created by civil gang injunctions and temporal variation in when injunctions are enacted, we find that aggressive policing can reduce, rather than increase, people's desire to live in affected neighborhoods. Mover demographics suggest that homebuyers perceive injunction areas as safe places, but where negative police encounters are common. Dividing our sample by pre-injunction crime rates suggest that net willingness-to-pay to avoid aggressive police encounters falls as the possible expected benefit from crime reduction increases.

JEL Codes: K4, R2
Keywords: Policing, Crime, Inequality

[1] Owens: Department of Criminology, Law and Society and Department of Economics, University of California, Irvine, Irvine CA 92697, egowens@uci.edu. Mioduszewski: Department of Criminology, Law and Society, University of California, Irvine, Irvine CA 92697, mmiodusz@uci.edu. Bates: Department of Criminology, Law and Society, University of California, Irvine, Irvine CA 92697, batesc@uci.edu. We thank Matthew Freedman, Barry Friedman, Jeff Grogger, Rachel Harmon, Ying-Ying Lee, John MacDonald, Cheryl Maxson, Tracey Meares, Ana Muñiz, Maria Ponomarenko, George Tita, Hina Usman, and seminar participants at UC-Irvine Economics, George Mason Law School, Purdue University, the University of Chicago, AL CAPONE, NBER Summer Institute, the University of Houston, and the New York University Law School for feedback and comments. All errors are our own.

1. Introduction

Crime is costly. Despite the current historically low crime rates in the United States, violent and property crimes cost society over $376 billion in 2017.[2] Governments can reduce the crime rate through many mechanisms, and there is a large empirical literature quantifying the effects of various interventions (Nagin, 2015). One type of policy that has been a subject of increasing interest from academics and practitioners is place-based policing. Broadly, place-based policing involves identifying specific areas, sometimes as small as one street block, where crimes are disproportionately likely to occur (e.g. Minneapolis Hot Spots Patrol Experiment). Police are then proactively deployed to those places, sometimes with particular or unique legal authority, in order to identify and correct the source of crime. A large body of research in applied social science, including randomized control trials and well identified quasi-experimental studies, has shown that geographically targeting police activity in this way can generate substantial reductions in crime, with little evidence of crime displacement.[3]

Finding that a policy reduces crime is necessary, but not sufficient, to conclude that an intervention provides a net social benefit. Ethnographic, historical, and legal research has highlighted the fact that many crime control policies, particularly place-based ones that facilitate aggressive police and citizen interactions, can impose large costs on affected communities.[4] To date, however, the magnitude of these costs, which range from poor health outcomes to perceived racial oppression, has not been quantified in a way that can be directly compared to the benefit these same communities receive through reduced crime.[5] This study assesses the impact of a particular type of place-based policy, civil gang injunctions, on housing prices in the Southern California region. To the extent that housing prices reflect the net social willingness-to-pay for both the positive, and negative, effects of civil gang injunctions, we provide some of the first evidence on both the perceived crime reducing benefits of these policies and their costs on affected communities.

---

[2]This is based on the 2017 Uniform Crime Reports and the RAND Cost of Crime calculator, available at https://www.rand.org/jie/justice-policy/centers/quality-policing/cost-of-crime.html

[3] See National Academies of Sciences and Medicine (2018) for a recent review, and Bowers et al. (2011) or D. Weisburd et al. (2006) for specific examples.

[4] See Hinton (2016), Meares (2015), Muñiz (2015), or Rios (2011) for specific examples.

[5] This disconnect between research on the costs and benefits of these policies is also highlighted by National Academies of Sciences and Medicine (2018).

Civil gang injunctions aim to reduce crime in certain geographic areas, formally called "safety zones," that are identified by police, prosecutors, and sometimes community members, where criminal gang activity is a persistent problem. Injunctions increase the discretion and ability of police to arrest individuals believed to be gang associates, in those specific places, for a set of behaviors legally identified as precursors to crime. While currently used throughout the country, gang injunctions originated in the city of Los Angeles and continue to be a common form of crime control in the Southern California region. In this paper, we analyze the net benefit of civil gang injunctions filed in the city of Los Angeles, Orange County, and San Diego County.

The first ever gang injunction, against the Playboy Gangster Crips, was approved in 1987 in the Cadillac-Corning neighborhood of west Los Angeles. The first injunction in San Diego was institutionalized in 1997, and Orange County officially implemented one in 2006, after a failed attempt in 1993. Since 1987, the use of gang injunctions has drastically increased. Until recently, there were 46 active injunctions in the city of Los Angeles alone, an additional 15 in Orange County, and recurring modifications to expand existing gang injunctions in San Diego over time. In Los Angeles, reporters estimate that all the injunction areas cover 75 square miles, or 15 percent of the total city area (Queally, 2016).

Public discourse about gang injunctions mimics that of place-based policing in general. Supporters of this intervention tout their crime reduction benefits, supported by a small body of well identified empirical evaluations (Carr et al., 2017; Grogger, 2002; Ridgeway et al., 2018). Critics argue that the injunctions lead to draconian surveillance of disadvantaged communities and are racially disparate in their implementation. Additional areas of particular concern are the impact of injunctions on residents' legal recourse for police abuse, and on their individual rights otherwise protected by the US Constitution (Muñiz & McGill, 2012; Queally, 2016). These features generate potentially large costs in terms of civil liberties and police legitimacy. Further, to the extent that injunctions label a place as "high crime," these policies may erode the net wealth in affected communities, exacerbating spatial persistence in poverty.

In this paper, we provide the first estimates of citizen's net willingness to pay for place-based crime control policies, which include any positive benefits in terms of perceived crime reduction, and costs of both civil liberties, and negative neighborhood labeling. We utilize a geographic regression discontinuity design and four datasets to answer this question: parcel and transaction level housing price data from Zillow, geocoded, incident level crime data from the Southern

California Crime Study (SCCS), gang injunction attributes and shapefiles obtained from legal documents filed in Los Angeles City, Orange County, and San Diego County, and 2012-2016 tract level population demographic data from the American Community Survey. Combining the sharp discontinuity of legal constraints on police behavior at the gang injunction boundaries and temporal variation in the implementation of 105 distinct safety zones, we estimate the willingness-to-pay for homes just within, and just outside the boundaries before and after they are permanently filed.

Our data suggest that when an area is designated as a "safety zone" by a gang injunction, housing prices just inside the boundary fall by approximately $13,500 on average relative to houses just a few blocks away. Data on average home values, rental prices, and movers in the ACS suggest that when a civil gang injunction is permanently filed, neighborhoods appear to be safer, but also places where negative police interactions are common. Specifically, under California law, home buyers, but not renters, should be told if a home is in a safety zone, and we find evidence that rental prices inside safety zones rise relative to those outside safety zones. In addition, we find that women are more likely to move in once injunctions are put in place, but non-citizens are potentially less likely to live in a place where they would expect to regularly come into police contact. Perhaps surprisingly, given the racial composition of who is believed to be a gang member by the State of California, we find that Asian and White people are less likely to move into a safety zone, replaced by Black people. At the same time, we find suggestive evidence that the negative impact of injunctions on home values is largest when imposed on majority-Black communities.

When we focus on the 43 safety zones for which we also have pre-injunction crime data, we find evidence that the average social loss to crime per household is a negative predictor of the magnitude of this price change. Examining how prices change in samples with increasingly higher crime costs suggests that when households living in and around the safety zone can expect to lose more than $3,300 per year to violent and property crime (excluding rape), people do not perceive a discrete net benefit of living outside a safety zone.

The remaining sections of the paper proceed as follows: in section 2 we provide institutional background information on gang injunctions. In Section 3 we summarize the existing empirical literature on gang injunctions. Our hedonic estimates of the social impact of gang injunctions are presented in section 4. In section 5 we work through evidence on the potential mechanisms

driving the observed changes in home values. We conclude with a brief discussion of policy implications and suggestions for future research in section 6.

2. Gang Injunctions: Legal and Theoretical Background

2.1 Legal Background

Gang injunctions are civil restraining orders issued by state or district attorneys against specific gangs that are legally found to be public nuisances in particular places. The injunctions specify a set of activities that gang members and affiliates are prohibited from participating in within a specific geographic area, commonly referred to as a "safety zone," whose boundaries are defined in the legal order. Within the safety zone, now legally identified as a place where gang activity is a public nuisance, people named in the injunction (a process which, as we will describe, can be subjective, uncertain, and inaccurate during our sample period) are potentially subject to legal penalties for activities which are not ordinarily criminal.

Convincing a judge to issue a gang injunction requires prosecutors and police departments to build a case that a street gang satisfies the legal definition of a public nuisance, which is defined as a group whose activities are "obstructing the comfortable enjoyment of life and property" of others (Genelin, 1998; Maxson et al., 2003; Vannoy, 2009). The legal process itself, from initial prosecutorial evaluation to final judicial hearing, usually lasts a few months to just over one year (Maxson et al., 2005; O'Deane, 2011). Law enforcement officials must present compelling evidence of the gang's nuisance activities, identify members or gang entities, and specify a target area based on past criminal activity and resident complaints. Notably, a gang being a problematic presence does not necessarily mean that a place is a gang territory; using an ecological behavioral model, Smith et al. (2012) found that gang members frequently travel on the boundaries of other gang territories, and that gang related violence, which would justify and injunction, tends to occur outside of these territories.

Prosecutors, law enforcement, and community members are all involved in the legal process; "most gang injunction cases have numerous, sometimes hundreds, or declarations from police officers and community members that articulate the nuisance behavior of the gang and its members, including examples of crimes members have engaged in, and why particular members were selected for inclusion into the court order" (O'Deane, 2011).[6] While convincing a judge to

[6] An illustration of steps in the gang injunction process provided by the San Diego Attorney's office may be found here: https://www.sdcda.org/preventing/gangs/gang-injunction-workflow.pdf

issue a gang injunction is a non-trivial task, researchers have noted a "boilerplate" appearance to many injunctions, highlighting general similarities in the structure and language of different injunctions. This suggests that their terms are not obviously tailored to each specific context where they apply (Muñiz, 2015).[7] Notably, requests for injunctions are rarely denied in court,[8] in part because there is infrequently formal legal opposition to them. Unlike in criminal matters, individuals do not have the right to counsel in the civil courts where the injunctions are issued. In addition, establishing that you have standing to challenge an injunction may require identifying yourself in civil court as a member of the named criminal organization (Muñiz, 2015).

The specific actions prohibited in civil gang injunctions are considered contributing factors to gang related criminal activity. Commonly prohibited activities include associating with known gang members, hanging out in groups of more than two people, intimidating witnesses, fighting, trespassing, being in a private residence where you do not reside, wearing certain colors, carrying a cell phone, involvement with drugs, weapons, alcohol, riding a bicycle, being outside at night, and carrying a flashlight (see O'Deane (2011) for more examples, p.6-7, or Muñiz (2015), p. 48). Note that some of these activities are already legally prohibited. However, injunctions also criminalize otherwise legal behavior for named individuals within the safety zone boundaries, including routine activities such as socializing with friends and family and going to work or church (Maxson et al., 2003). A violation of these terms constitutes a violation of California Penal Code 166.9, misdemeanor contempt of court.[9]

Much of the legal controversy associated with gang injunctions in California has centered on who, exactly, is enjoined by the injunction. Since their initial adoption, gang injunctions have been the subject of active criticism, and they are not always welcomed by all community members.[10] The injunctions are generally filed against three groups of people: specifically named individuals, at least one street gang (identified as an unincorporated association) and up to 500 "does," individuals not actually named in the injunction at the time of filing. This means that

---

[7] This speaks to a more practical and general caveat of applying place-based policies from one context to another. Of course, boilerplate language is not necessarily evidence of an absence of fact finding. However, it is consistent with prohibited actions in a specific injunction not necessarily addressing any actual gang activity in a specific place.
[8] One exception includes the first gang injunction sought against the West Trece gang in Orange County in the city of Westminster in 1993 (O'Deane, 2012, p. 327-28). While a preliminary/temporary injunction was issued, a permanent injunction was denied in court due to the ACLU's involvement in countering the case.
[9] The standard penalty for being found guilty of this misdemeanor is a fine of $1,000 and/or jail time of 6 months.
[10] For a brief overview, see this news story: https://www.urbanpeaceinstitute.org/in-the-news/2018/3/7/orange-county-gang-injunctions-withdrawn , or, https://www.ocregister.com/2018/03/08/das-office-moves-to-dismiss-gang-injunctions-aimed-at-rival-placentia-crews/

some people are able to positively identify themselves as named in the injunction, but the injunction also is directed at anyone considered, by the State of California or local law enforcement, to be a member or associate of a particular street gang.

Researchers and advocates have raised particular concerns about the validity of the process by which individuals are identified as gang members, generally through a statewide database of suspected gang members and affiliates known as CalGang. CalGang is the target of some controversy, particularly after the release of a highly critical state audit in 2016, which concluded that insufficient and inconsistent oversight had led to myriad inaccuracies in who was included the database (Howle, 2016). In 2017, another audit by the Los Angeles City Attorney's office and the LAPD resulted in the release of 7,300 individuals from gang injunctions (about 1/3 of the number of people believed by the LAPD to be in a gang in 2017),[11] although the geographic safety zones were left in place. More recently, a federal judge has put a hold on the enforcement of gang injunctions in the city of Los Angeles on grounds of due process violations in how individual were enjoined (Youth Justice Coalition v. City of Los Angeles),[12] and similar cases in Orange County are underway. Indeed, concern about the process by which the LAPD identified people as gang members, and thus subject to the code effect, culminated in July 14th, 2020, when the California Department of Justice revoked the LAPD's access to CalGang.[13] During our sample period, law enforcement agencies were not required to notify adults that they were on CalGang, and thus subject to a gang injunction; notification for juveniles added to CalGang became required in 2014.

2.2 Theoretical Background

We identify the net social value of gang injunctions using a hedonic pricing method. This approach in commonly used to evaluate the value of non-market goods, particularly in environmental economics (e.g. Chay & Greenstone 2005). Hedonic models treat the non-market good, like pollution, airplane noise, or differential policing, as a neighborhood amenity like schools or parks. Home prices are assumed to reflect people's willingness to pay for this

[11] Aggregate data on the number of people in CalGang is made publicly available on the California OAG website. See Muñiz and Owens (2020) for a detailed history of CalGang.
[12] Read the court order here: https://www.aclusocal.org/sites/default/files/aclu_socal_yjc_v_la_20180315_order_granting_mtn_expand_pi.pdf
[13] https://oag.ca.gov/news/press-releases/attorney-general-becerra-restricts-access-lapd-generated-calgang-records-issues

particular feature, and so the value of this amenity can be backed out by examining how home prices vary with the amenity's quality or quantity.

There are multiple mechanisms though which gang injunctions may be capitalized into housing values. In this section we review three of the most salient: (1) Perceived crime rates, (2) Signaling of neighborhood quality and (3) Legal constraints on police behavior.[14] Of course, any change in housing values associated with gang injunctions is important to document on its face, as housing wealth is a major component of overall individual wealth, and often the only asset an individual possesses (Skinner, 1989). To the extent that gang injunctions are predominantly implemented in low income areas, this has implications for the persistence of geographically concentrated poverty by reducing the value and potential yield of the assets owned by members of these communities. Research by Chetty, Friedman, Hendren (2018) confirms this is important for individual life outcomes and is no trivial matter. However, the extent to which we can disentangle these mechanisms will allow us to generalize our results to different policy contexts.

2.2.a Gang Injunctions and Crime

There are three primary ways in which gang injunctions could reduce crime. First, people specifically named in the gang injunctions are subject to higher penalties for violating the law, which should deter those named individuals from engaging in crime. In addition, named individuals who engage in one of the otherwise legal precursors to gang crime are in violation of the court's restraining order, a misdemeanor. This should reduce the extent to which these specific individuals engage in behavior that is a compliment to crime. To the extent that individuals named in the injunction offend at higher rates than the general population, the increased incapacitation of those affected by the injunction should reduce crime as well.

[14] It is also possible that the capitalization of other public amenities may differ based on gang injunction status. Safety zones pose implications for land use types beyond just residential (e.g. recreational, educational, religious) within their boundaries. For example, while parks typically function as an amenity in lower crime areas, they may be a disamenity if they are viewed as dangerous crime hot spots or diminished in quality due to gang presence or high crime (Troy & Grove, 2008). Gang injunctions may decrease crime in parks and thus increase park quality and home values. They may impede the use of parks for fear of over-surveillance by police, or if family members of a gang member are unable to utilize them due to the non-association condition in injunctions. The non-association condition may also impact the use of other public amenities such as bus stops, shopping areas, or after school programs. On the other hand, residents that may have organized for and supported gang injunctions may be more inclined to frequent local areas inside the boundaries because of decreased crime and fear. Importantly, though, while the social value of a neighborhood feature inside a safety zone may be sharply different than a similar one outside, the extent to which that public feature is capitalized into housing values should not vary discontinuously at the injunction boundary.

Second, another probable feature of gang injunctions is increased police presence in the safety zone. The negative elasticity of crime with respect to police is well established in the economics of crime literature (e.g. Evans & Owens 2007). Note that unlike the enhanced penalties associated with violating the injunction, more police in a safety zone means that all residents, including those who think they are not in CalGang should be less likely to engage in criminal behavior.

Third, gang injunctions may reduce crime by altering police behavior; by construction gang injunctions encourage officers to interact with citizens in a more proactive, and frequently aggressive way, which can reduce crime. A recent review of the research by the National Academy of Sciences concluded that there is some evidence that changing police tactics in a particular place, particularly in high crime areas, is a reasonably effective way to reduce crime (National Academies of Sciences & Medicine, 2018).

For these reasons (changes in individual behavior, police presence, and police behavior), we would expect that crime would fall in areas under gang injunction, and indeed this has been shown to be true (Carr et al., 2017; Grogger, 2002; Ridgeway et al., 2018). A reduction in crime should place upwards pressure on home prices, which appear to be strongly responsive to even small changes in the probability of victimization (Pope & Pope 2012, Linden & Rockoff, 2008). More recent studies of housing and crime find a statistically significant relationship between crime and several dimensions of housing demand; housing volume turnover (Boggess et al., 2013), types of homeowners (Chamberlain et al., 2016) and homeowner stability (Boggess & Hipp, 2010).

Importantly, however, the theoretical mechanisms that link gang injunctions to crime, and available empirical evidence, do not clearly support the idea that treatment, or the probability of treatment, varies sharply at the geographic boundary. Since people named in the injunction are mobile, increased incapacitation should reduce crime both inside and outside of the safety zone, and crimes planned or coordinated inside of the safety zone may not actually occur there. While police may patrol safety zones more frequently, they will generally need to travel to the safety zone itself, thereby increasing officer presence in adjacent neighborhoods. Increased police presence in an area under injunction will likely reduce police response times in surrounding areas, which should also have a deterrent effect (Weisburd, 2016). Only the extent to which police engage in proactive or aggressive policing is likely to vary sharply at the safety zone

boundaries. Empirical evidence on proactive policing has generally found modest positive spillovers into surrounding areas, at least in the short run (National Academies of Sciences & Medicine, 2018).

While it remains an empirical question as to whether actual crime varies sharply at injunction boundaries, the theoretical mechanisms linking injunctions to safety, and existing empirical research, do not obviously point to this being a likely outcome. This is not the same as asserting that perceptions of crime and safety do not vary sharply at the injunction boundary. When a civil gang injunction is granted by a judge, it legally and publicly labels a particular place as "high crime," sending a signal to the general public that gang activity is a problem.[15] According to the California Association of Realtors (2005), sellers must disclose to buyers any "neighborhood noise problems or other nuisances," or "any notices of abatement or citations against the property" (p. 6). Because gangs under injunction are legally considered public nuisances, a home buyer would have to be made aware of whether their home is inside a gang injunction boundary through the disclosure process. Of course, the injunction also ensures that criminal justice resources are being directed to the area to reduce gang related crime. However, the clear labeling of the area as a place where gang activity is a problem may be a strong negative signal to potential home buyers. A discreet change in the signal that an area is high crime would serve to depress home values, and this signaling effect may be entirely separate for any actual impact on safety. Notably, landlords in California are not required to disclose the presence of a gang injunction to renters. This creates a natural contrast to any observed change in home prices: changes in residential rents.

2.2.b Gang Injunctions and Civil Liberties

The third mechanism linking gang injunctions to crime reductions is through a potential change in legal constraints on police officer behavior. While crime reductions achieved through this mechanism are valuable, they come at a clear cost to people within the safety zones. The 4th amendment of the US Constitution states: "The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and

[15] Under the California Housing Financial Discrimination Act of 1977, banks are generally prohibited from using any expectation about future neighborhood quality in setting the loan making process. This means that denying or altering the terms of a mortgage due to the presence of a gang injunction would likely be considered illegal redlining.,

particularly describing the place to be searched, and the persons or things to be seized." Legally, a "seizure" occurs when an officer "by means of physical force or show of authority, has in some way restrained the liberty of a citizen" (Terry v. Ohio). The 4th amendment is one of the primary legal constraints on police behavior, as essentially all arrests and non-consensual police stops constitute seizures.

From a legal standpoint, there are three categories of police-civilian encounters. The first category is consensual, where an individual voluntarily complies with an officer's request for additional information, but they are free to leave and have chosen to comply. The voluntary and consensual nature of the interaction means that, legally, the interaction is not a stop or seizure, and so the 4th amendment does not require that an officer is able to justify her decision to continue the interaction.

An investigative stop (sometimes referred to as Terry stop, in reference to Terry v. Ohio, 1967) occurs when an officer briefly detains someone. This category of stop requires the officer to have a reasonable, individualized, articulable suspicion that the person is involved in criminal behavior. In 2000, the Supreme Court held that characteristics of the place where an encounter occurs, specifically the crime rate, are relevant in determining whether an officer has a reasonable justification to make a stop (Illinois v. Wardlow 2000 528 US 119, 2000). After Wardlow, the courts have permitted less suspicious behavior to justify stops that occur in a "high crime" area, giving people in those areas less legal protection from intrusive police actions (Harris, 1998). Of course, areas placed under gang injunction may have been considered "high crime" prior to the injunction being put in place, and any ex-ante departmental designation as "high crime" would likely lead a court to defer to the officer's assessment. In addition, whether an area adjacent to, but not within, a safety zone would satisfy the legal definition of a "high crime" area is unclear. However, the legal and administrative nature of the safety zone declaration essentially guarantees that Illinois v. Wardlow would apply within its boundaries (Ferguson, 2011).

The final category of stop is an arrest, for which police need probable cause that a specific person has committed a crime. A civil gang injunction injunction effectively criminalizes otherwise legal acts within the safety zone, for people named in the injunction order. These legal acts are frequently unexceptional; enjoined individuals may be subject to a curfew or are prohibited from riding a bus or picking up family members. These non-criminal acts, in effect,

become misdemeanors only when they occur within the boundaries defined in the injunction. In effect, the civil gang injunction serves to expand the criminal code, for people included in the injunction and within the safety zone boundaries.

Once enacted, an injunction fundamentally changes the nature of what constitutes an arrestable offense within its boundaries, for people named in the injunction. For example, many injunctions prohibit being outside after a certain hour of night, because this behavior may facilitate to criminal activity like defacing public property. Outside of the safety zone, an officer would need probable cause to believe that an individual believed to be in a gang *had defaced public property* in order to arrest them. Within the safety zone, an officer can make an arrest (for contempt of court) if she observes that an individual included in the injunction has the *increased capability* to deface property by being out after dark. In this way, a small change in geographic distance, in or out of the safety zone, generates a big change in civil liberties and the risk of civil liberty infringement, for those who believe (or who are believed by the police) to be subject to its conditions.[16]

Gang injunctions therefore interact with an individual's 4th amendment rights in two ways: by relaxing the standard of what constitutes behavior that justifies a stop, and by expanding the set of individual conduct that can be the basis for an arrest. These two mechanisms can be thought of as a "Wardlow effect," in reference to a 2000 US Supreme Court Case Illinois v. Wardlow, and a "Code effect," referring to the injunctions effectively expanding the criminal code within safety zones.[17] The Wardlow effect imposes a cost on every person in the safety zone, although the cost is likely small. The Code effect, in contrast, represents a much larger change in legal police interactions, but operates only for a subset of people- those named in the injunction.[18]

Critically, two factors can extend some form of the Code effect to all people in a safety zone. First is the practical difficulty of discerning who is actually named an injunction – specifically

[16] A reduction in civil liberties is a theoretically possible consequence of gang injunctions. Whether or not this is an unintended consequence of gang injunctions is up for debate. A recurring theme among scholars and practitioners alike is the potential use of gang injunctions as tools of gentrification and displacement in the sense that wealthier and more educated in-movers welcome increased police presence (Barajas, 2007). Arnold (2011) argues that gang injunctions are "something that developers wanted" to change the demographics of affected neighborhoods, and notes that median neighborhood home values are lower in places with more safety zones. Whether the co-location of safety zone boundaries and gentrification processes occurred by chance, or through a causal process, remains to be empirically assessed both for any individual injunctions and injunctions over a larger geographic area over time.

[17] Thanks to Rachel Harmon for clarifying these two distinct impacts.

who is listed on CalGang as being a member of a particular gang - for both citizens and police officers not currently logged onto the CalGang interface. The second is the ease at which individuals can be added to the injunction, either by being served with the injunction or being added a list of gang members on CalGang. Taken together, this uncertainty and risk about who is subject to the Code effect can impose large expected costs on all people in the safety zone.

3. Existing Empirical Literature on Gang Injunctions

A small number of case studies argue that gang injunctions increase crime (e.g. ACLU 1997, Goulka et al. 2009). However, most empirical research has found that gang injunctions increase safety. Maxson and Allen (1997) identified a small reduction in serious crimes after the imposition of one gang injunction in Inglewood, California. Grogger (2002) used a differences-in-differences approach to evaluate 14 gang injunctions imposed in Los Angeles in the 1990s. Consistent with the theoretical mechanisms outlined in the previous section, Grogger (2002) found that while areas within gang injunctions experienced crime reductions of as much as 10%, there was some evidence of smaller reductions in neighborhoods adjacent to those targeted by the injunctions. Using a similar DID approach at neighborhood level in Los Angeles, Ridgeway et al. (2018) found reductions in violent crime due to injunctions in both the short and long run. Anecdotal evidence from many law enforcement officials tend to support these aggregate findings (Maxson et al., 2005). Carr et al. (2017) examine the impact of four different gang injunctions, imposed at various times in England and Wales, on the criminal behavior of 36 individuals. They find evidence that the criminal activity of the affected individuals declined during the injunction, with the named individuals committing less crime both inside and outside of the injunction spaces.

Research on the impact of injunctions on neighborhood quality or civil liberties has been primarily, historical, qualitative, or ethnographic. For example, Muñiz (2015) describes the generation and implementation of civil gang injunctions in Los Angeles, based on extensive interviews with both prosecutors and residents of the Cadillac-Corning neighborhood. This research highlights the previewed arbitrariness of who is enjoined, and the opaqueness of the process from the community standpoint. Rios (2011) documents how Black and Latino youth respond to police surveillance, including surveillance associated with anti-gang policies, in Southern California. Rios (2011) emphasizes how law enforcement surveillance can extend into, and dominate, other institutions in the lives of affected young people leading to a cascading

amount of social harm. While not specifically about gang injunctions, Hinton (2016) also emphasizes the bewilderment experienced by residents of places identified by police as "high crime," and the disengagement of people who feel they are excessively, and unnecessarily, targets of police activity as a result. We complement this literature by estimating these costs in a way that can be directly compared to the already quantified benefits of crime reduction.

4. What is the Net Effect of Civil Gang Injunctions on Home Prices?

4.1.a Measuring the Timing and Location of Civil Gang Injunctions

The first step in our analysis is to compile data on when, and where, gang injunctions are enacted. Data on the location and timing of gang injunctions was compiled from a series of sources. First, the legal documents associated with the gang injunctions were obtained from District Attorney's offices (county of San Diego, county of Orange, city of Los Angeles) and coded for the following information for 73 unique injunctions: file date of permanent injunction, safety zone street boundaries, and the name and number of gangs implicated in the safety zone areas. The legal filings themselves generally contained pdf maps of the affected areas, which were digitized using Google Earth Pro and ArcGIS. If pdf maps were not readily available, we relied on other sources, including official county district attorney press releases, reports, scholarly articles, police department websites, and news coverage, to retrieve the boundary street names and locations (see appendix A1 for a list of all injunctions).

An important caveat for our analysis is that it is possible for one gang injunction, or legal filing, to include two, or more, separate non-contiguous safety zones. Therefore, the same gang injunction may apply to more than one geographically designated area. The 73 injunctions in our sample correspond to 105 contiguous areas. For the sake of conceptual simplicity, we will refer to each non-contiguous area as its own injunction. Figure 1 displays the locations of all of the gang injunctions in our sample.

4.1.b Home Prices and Neighborhood Characteristics.

We measure the prices of homes sold using data from Zillow, specifically the ZTRAX Transaction and Assessment Dataset.[19] This database consists of two separate datasets that contain transactions at the parcel level. Variables about the physical characteristics of individual

[19] Data provided by Zillow through the Zillow Transaction and Assessment Dataset (ZTRAX). More information on accessing the data can be found at *http://www.zillow.com/ztrax*. The results and opinions are those of the author(s) and do not reflect the position of Zillow Group.

property units are provided for the year 2015, including total number of rooms, square feet of living space, and age of housing unit. Information on housing transactions and prices at the coordinate level are provided for 2002-2015. The coordinates of each single-family home transaction were geocoded and mapped onto the injunction areas. Table 1 displays summary statistics of housing characteristics and values in our data. To best represent the impacts on home sales, we adjust for inflation by normalizing all prices to the 2012 dollars based on GDP deflators from the St. Louis Federal Reserve.

We supplemented the ZTRAX data with information from the publicly available 2012-2016 American Community survey at the census tract level. After identifying the census tract where a ZTRAX home is located, we then use the ACS to calculate the average local home value, based on average reported home value in the tract of sale and all adjacent tracts. This allows us to differentiate between, for example, homes with views of the Pacific Ocean in competitive school districts from homes in inland locations with lower preforming schools. This also will allow us to differentiate between homes located in more or less desirable parts of particularly large safety zone boundaries, based on proximity to highways or parks.

On average, the single-family homes in our sample were sold for just over $416 thousand, well below the average estimated value of the existing housing stock, which is $503 thousand. The home sales which were inside safety zones were $70 thousand below home sales not in safety zones, a difference which is slightly larger than the average difference in surrounding house value ($464 for houses inside safety zones, $515 outside of them). That said, the homes sold inside the injunction area are slightly smaller, with 0.6 fewer rooms and about 250 fewer square feet than houses on average. The homes are also older, almost 65 years old at the time of sale versus 52 years old overall. Looking in a narrower band (800 meters) around the injunctions, homes inside and outside the injunction areas are more similar, although the houses outside the injunction area are still larger and newer, the differences in total rooms, square footage, age, and surrounding home values fall. Notably, however, when we characterize homes sold inside and outside of those same boundaries, but sold before the injunctions went into effect, we observe similar patterns in home characteristics, and more similar, but still substantively different, sales prices inside and outside of the “future” safety zones.

4.2 Gang Injunctions and Home Values: Graphical Discontinuity Evidence

The mean values reported in table 1 suggests that there is a negative correlation between being located in an area currently under gang injunction and housing prices. Of course, this does not necessarily reflect the cost of reduced civil liberties in those areas, as the housing stock or neighborhood amenities within the injunction area may be fundamentally different from untreated areas. Variation in other amenities that are capitalized into housing values, such as distance to parks and beaches, community centers, or grocery stores, age of construction, and lot size, will all diminish as the set of homes inside and outside of the safety zone become physically closer together, unless those features change discretely at the injunction boundary. The fact that a non-trivial difference in sales price ($57 thousand) remains across injunction boundaries suggests this may be the case.

In figure 2 we plot the relationship between the mean sales price (in 2012 dollars) of housing transactions relative to how far that house in question was from a safety zone boundary at the date of sale. We also include simple quadratic lines of best fit inside and outside of the injunction boundary. Houses generally increase in value as one moves from the center of a safety zone outwards, and there is a clear break in prices at the boundary, with houses 100 meters inside the safety zone selling for approximately $50 thousand less than houses 100 meters outside.

The observed breaks in housing values can only be attributed to the gang injunction if no other feature varies sharply at the injunction boundary. As cursory examination of home features in the ZTRAX data, like table 1, suggest that this is unlikely to be true. In addition, the boundaries of safety zones frequently corresponded with large roads and census tract boundaries. We show in appendix figure A1 that there is clearly evidence of a discontinuity in home characteristics at injunction boundaries. This means that a cross section RDD will not yield causal estimates of the impact of gang injunctions on housing values. However, the fact that we observe temporal variation in the enactment of gang injunctions means that we do not necessarily have to rely on the typical RDD assumptions. Rather, the impact of the injunctions on housing prices can still be identified under the assumption that these discontinuous factors are equally discontinuous, and equally capitalized into house prices, before and after the injunction goes into effect, an identification strategy referred to as a “difference-in-discontinuities” (Grembi, Nannicini, & Troiano, 2016).

Figure 3 presents an intuitive counterfactual for the observed break in figure 2. Rather than identifying the distance from a sold home to the closest injunction boundary in effect at the date

of sale, we identify the distance from that home to the closest injunction that would be imposed in the future, ignoring the actual gang injunction boundaries that were in effect when the home sale occurred. This figure suggests that roughly $30k of the observed $50k jump in home prices at safety zone boundaries is not due to the injunction itself. In appendix figure A2, we confirm that the observed breaks in the characteristics of homes sold prior to an injunction's enactment also change in a similar way at "future" and "active" boundaries. Appendix figures A3 and A4 show that the number of homes sold in 100-meter bins around the injunction boundary also appears to be stable over time.

In figure 4, we further disaggregate home sales prices by year, for the five years leading up to, and after, an injunction with the addition of 95% confidence intervals around each mean. There is a clear difference between the typical breaks in prices in the first row, which corresponds to sales before the injunction goes into effect, and the typical break in prices in the second row, when the injunction boundary is active. Prior to the enactment, small breaks in home prices are evident, but the confidence intervals surrounding these means are quite close or overlapping. When the injunction is in effect, the unadjusted mean home sales on either side of the boundary are statistically distinguishable in every year. The absence of consistent differences prior to enactment confirms that common trend assumptions in Difference-in-Differences models is plausible, and the impact of gang injunctions on housing values can be identified by comparing the difference in the break in prices at injunction boundaries, before and after the injunction is imposed. To the extent that we observe a change in housing prices only after the boundaries of the safety zone are legally defined, there is a very limited scope for alternate explanations of the observed patterns.

4.3 Empirical Framework

In a standard RDD, identification of a treatment effect of treatment D, β, on an outcome Y, is based on the difference in values of an outcome as one approaches the limit of a running variable r, which determines treatment assignment from above or below. Mathematically, if $Y_{it} = \beta D_{it} + X_{it} + \varepsilon_{it}$ with $D_{it} = 1 \; if \; r_{it} > 0$, $D_{it} = 0 \; if \; r_{it} < 0$, then, following the Rubin causal framework, this can be re-written as $\hat{\beta} = \lim_{r \downarrow 0} Y - \lim_{r \uparrow 0} Y$, or $\hat{\beta} = \lim_{r \downarrow 0}(\beta + \theta X_{it} + \varepsilon_{it}) - \lim_{r \uparrow 0}(\theta X_{it} + \varepsilon_{it})$ and $\hat{\beta} = \beta + \theta\,[\lim_{r \downarrow 0}(X_{it}) - \lim_{r \uparrow 0}(X_{it})] + [\lim_{r \downarrow 0}(\varepsilon_{it}) - \lim_{r \uparrow 0}(\varepsilon_{it})]$.

The assumption of continuity of all characteristics, besides treatment, at the threshold means that $\hat{\beta} = \beta$. In the case of Southern California, this assumption clearly does not hold. However, as long as there is a constant relationship between prices and relevant characteristics X_{it} over time, an unbiased estimate of β can be obtained by comparing the traditional RDD with an estimate from a falsification test: how did housing prices vary around the border of gang injunctions that had not yet gone into effect? Just as we aggregated home values based on future injunctions in figure 3, for each housing transaction, we calculate *r*, the distance from that house to the closest gang injunction at the date of sale, and then *f*, which is the distance from that house to the closest gang injunction boundary that would be imposed by the end of our sample period.[20] Note that this also effectively creates a "pre" sample for each injunction, based on home sales prior to its enactment, and a "post" sale for each injunction, based on home sales that occurred while it was in effect. We use these alternate distances to calculate a difference in discontinuities, or Diff-in-Disc, estimate:

$$\hat{\beta} = \beta + \theta\,[\lim_{r\downarrow 0}(X_{it}) - \lim_{r\uparrow 0}(X_{it})] + [\lim_{r\downarrow 0}(\varepsilon_{it}) - \lim_{r\uparrow 0}(\varepsilon_{it})] - \theta^{f}\,[\lim_{f\downarrow 0}(X_{it}) - \lim_{f\uparrow 0}(X_{it})] - [\lim_{f\downarrow 0}(\varepsilon_{it}) - \lim_{f\uparrow 0}(\varepsilon_{it})]$$

Under the assumption that the relationship between X_{it} and home prices at the gang injunction boundary does not depend on the imposition of an injunction, then the Diff-in-Disc, estimate of the impact of gang injunctions on house prices will produce an unbiased estimate of β. Note that this assumption can be tested by estimating the same difference in discontinuities model with the individual values of X_{it} as the outcome variables.

In practice, we provide several estimates of β. First, we estimate a naïve cross-sectional RDD, where we estimate a standard OLS model of gang injunctions on home values, assuming a quadratic relationship between distance from a boundary and price, which varies inside and outside of the safety zone (Gelman and Imbens 2019). The basic, cross sectional, model we will use is equation 1:

[20] In the case of homes that fall inside more than one safety zone, we calculate this distance as the shortest distance one would have to travel to be outside of any safety zone, and effectively assign the home the corresponding injunction for fixed effect and inference purposes.

$$eq.1: SalesPrice_{pcnt} = \alpha_{ct} + Injunction_p + \pi_n + \beta Outside\ Injunction_{pcnt} + \gamma f(Dist_{pcnt}) + \pi f(Dist_{pcnt}) x Outside\ Injunction_{pcnt} + \varepsilon_{pcnt}$$

Here, $SalesPrice_{pny}$ is the real sales price of the house located on parcel *p* in county *c* in neighborhood (census tract) *n* sold on date *t.* As in figures 2, 3 and 4, we define "distance" as positive outside injunctions and negative inside injunctions. The outcome of interest is our estimate of β, which reflects the average conditional difference in $Salesprice_{pnt}$ at the boundary. We include fixed effects corresponding to the year and month of sale, α_{ct}, which we allow to vary by county, as well as census tract, π_n, and injunction, $Injunction_p$ fixed effects.

The next step is to implement the Diff-in-Disc estimate. We first show the Diff-in-Disc estimate analogue of our parametric estimates, created by generating two observations per transaction: one where distance is measured using the injunctions in effect at the date of sale, and a second distance based on future gang injunctions. We define the dummy variable T_{pnt}=1 if the distance calculation was based on the actual, rather than future, injunction boundaries. Our basic Diff-in-Disc is described in equation 2.

$$eq.2: SalesPrice_{pcnt} = \alpha_{ct} + Injunction_p + \pi_n + \beta\left(T_{pcnt} x\ Outside\ Injunction_{pcnt}\right) + \delta Outside\ Injunction_{pcnt} + \gamma f(Dist_{pcnt}) + \pi f(Dist_{pcnt}) x Outside\ Injunction_{pcnt} + \varphi T_{pcnt} + \gamma T_{pcnt} f(Dist_{pcnt}) + \pi T_{pcnt} f(Dist_{pcnt}) x Outside\ Injunction_{pcnt} + \upsilon_{pcnt}$$

In this model, β represents the change in housing prices at active injunction boundaries over and above what we see at inactive ones.

4.4. Empirical Evidence on Civil Gang Injunctions and Housing Prices

Panel A of table 2 presents our main results. A traditional RD analysis, which ignores the overlap between safety zone boundaries and other administrative or physical boundaries, suggests that people are willing to pay $20 thousand (se=$10 thousand) to avoid living in safety zones. Our Diff-in-Disc estimates suggest that this overstates willingness-to-pay by about 15%; when we compare this level difference to the jump in prices we observe at injunctions that are not yet in effect, the parametric estimates fall to $17 thousand (se=$9 thousand) per household. To provide some initial context for this amount, 17 thousand in 2012 dollars is roughly equivalent to the social cost of one burglary and one larceny (Heaton 2010). As expected, adding

control variables describing physical house features slightly increases the precision of our estimates, and increases the amount of variation in sales price that we can explain by 14%. We then replace spatial fixed effects with the average home value in the tract a parcel is sold in, and all adjacent tracts, as reported in the ACS. This substitution improves our precision but has little substantive impact on our point estimate. We then estimate the Diff-in-Disc using local linear regression, adjusting for continuous covariates and county by time fixed effects following Calonico, et al. (2018).[21] While slightly these LLR estimates are less precise, all parametric Diff-in-Disc estimates are well within 2 standard deviations of the bootstrapped distribution of nonparametric estimates.[22]

In Panel B of table 2 shows how our estimates change in different samples, and with different parametric functional forms of our running variable. We first allow a different relationship between a home's sales price and its location relative to the nearest safety zone boundary in each year of sale. This slightly lowers our estimated willingness-to-pay to avoid gang injunctions, suggesting some correlation between their passage and the 2008 housing bust. Separate quadratic relationships between distance and price in each county makes less of a difference in average willingness-to-pay. In columns 3 and 4, of panel B, table 2, we show that our average estimates are consistent in two subsamples: in the sample of homes sold near safety zones for which we have pre-injunction data on crimes known to police and in the sample of home sales near safety zones that we observe in both pre- and post- periods. Finally, in column 5 of panel B, we extend the safety zone boundaries of 84 safety zones where the legal injunction identifies a 100 year "buffer zone" around the (legally distinct) safety zone where police may enforce the injunction. Legally, it is unclear what the constraints on officer behavior are in these places, and if homes located in these buffer zones are required to disclose that gang activity is a public nuisance.[23]

---

[21] Specifically, the reported point estimate is the estimated impact of crossing a gang injunction boundary using the actual injunctions at the date of sale, minus the estimated impact of crossing an injunction boundary using only future injunctions. This difference is calculated in 2000 randomly drawn samples (with replacement), and the reported standard errors are the standard deviation of this distribution of these estimates. Since census tract and

[22] In most specifications replacing the real value of home sales with its natural log leads to positive, but less precise estimates. We place less emphasis on this functional form (1) in order to directly generate average marginal effects that are comparable to the cost of crime literature and (2) estimating an average percentage change in housing values implicitly assumes that willingness-to-pay in absolute terms increases in baseline home value. While this may be true for most amenities, people with lower incomes almost certainly have a higher expected likelihood of encountering police than higher income people, generating additional variation in the estimated marginal effect across relatively wealthier and less well-off neighborhoods that would lead to less efficient estimates.

[23] We were unable to determine why some injunctions had these buffers and some did not. Personal communication with attorneys in the Orange County Public Defender's Office provided some possible explanations regarding this

Practically, we find no evidence that people are less willing to move into these zones than just outside of them.

In figure 4, we present parametric estimates of equation 2, including housing controls, with bandwidths varying from 100 to 2000 meters. We estimate particularly large willingness-to-pay for avoiding safety zones when we compare homes sold 200 or 300 meters from safety zone boundaries, and our estimates are stable for bandwidths ranging from 400 to 1200 meters. When we start to include homes located a mile away from a safety zone boundary, we observe a progressively smaller increase in prices outside of safety zones.

The results in table 2 suggest that, even if gang injunctions increased perceived in safety zones, as the existing literature suggests, on net people are willing to pay less to live just inside, rather than just outside of these spaces. Further support for a causal interpretation of this effect is provided in table 3, where we replace the left hand side of our main specification with the continuous control variables in table 1, and the number of housing transactions.[24] In no case do we find statistically significant changes in the variables at the boundary of the safety zones. Further, the point estimates, and standard errors, are at least an order of magnitude smaller than the mean values of the dependent variables and are substantively small relative to the observed change in home values in table 2.

5. Why do Housing Prices Fall Inside of Safety Zones?

ZTRAX data suggest that after the enactment of gang injunctions, home values within the safety zones fall relative to the price of homes just outside of the safety zone. This is the net capitalization of any change in perceptions of crime at the injunction boundary, and the value of changes in civil liberties, through Code or Wardlow effects.

In the absence of survey data on perceptions of safety, we cannot ultimately rule out gang injunctions signaling to potential residents that neighborhoods are unsafe, in the same way that it

---

legal stipulation. It is possible that some legal standards for the placement of a safety zone were met, so a judge may have been willing to give additional leeway for police intervention in these areas. Alternately, since gang injunctions originate in civil courts, they may mimic other types of restraining, or protective, orders. Other types of restraining orders typically also include a 100 yard buffer (Euclidean distance). But, this means the original specified boundary, and not the 100 yard buffer, are the main intervention of interest. In addition, unlike the boundaries of the safety zones themselves, which are defined using street names or clear geographic markers (e.g. 18th street, a park, or a lake), these 100 yard buffers do not clearly correspond to any visible spatial feature that would alert citizens, without access to mapping software, whether or not a home was located in them

[24] When transactions are the outcome of interest, we round distances to single meter units and aggregate the number of transactions by injunction and meter "bin." In theory, this could lead to missing data where no homes are sold, but all relevant "bins" are represented in our sample.

may signal that their civil liberties may be curtailed in these places. However, we can combine the ZTRAX data with the 2012-2016 tract level ACS to infer how, and what, people may learn about gang injunctions.

5.2 Gang Injunctions as a Signal of Neighborhood Quality

5.2.a What do potential buyers learn about injunctions?

We use the ACS to make a rough inference about the characteristics of safety zone residents. In order to do so, we assign each census tract in California four different weights, based on the number of homes sold in that tract which were within 800 meters of a future gang injunction boundary at the date of sale, and (1) inside the future safety zone or (2) outside the future safety zone, and within 800 meters of an active gang injunction boundary at the date of sale, and (3) inside the safety zone or (4) outside the safety zone. Examining how the weighted means change in a coarse Difference-in-Differences framework will allow us to characterize parameters of interest that are not measured in ZTRAX- specifically characteristics of who moves into these neighborhoods, and prices paid by people based on housing tenure (renter or homeowners).

5.2.b Rental prices vs Home Sales

Recall that California law requires that gang injunctions be disclosed to homebuyers, but not renters. We can therefore measure the extent to which an injunction is creating a signal to potential homebuyers by comparing changes in the value of owner-occupied homes to changes in rents. Two important caveats to this analysis: to the extent that renters are more likely to have higher time discount rates than home buyers (Glaeser et al. 2002, Engelhardt et al. 2010), they might also be more likely to anticipate coming into negative contact with the police. However, forward looking homebuyers should be concerned not only about their own risk of police contact and crime victimization, but the potential concerns of any future homebuyer.

In table 4, we present estimates of the average home values and average rents inside and outside of future and active safety zones. First, we note that the ACS data suggest that, overall, turnover in these neighborhoods is unaffected by the enactment of gang injunctions, with roughly 11% of all households reporting that they moved into their current residence within the past year. We observe a small (7.6%) statistically insignificant increase in the fraction of movers who are renters just inside of safety zones once an injunction is enacted.

When we weight tracts by on where home sales occur, home values rise outside of safety zones, and fall substantially inside of the safety zones. On average, a very cursory “differences in

differences" suggests that the injunctions lead to a decline in home values by about $24,000. This estimate is highly imprecise but is noticeably (1) similar to our Diff-in-Disc estimates, and (2) different from the observed pattern of rents. The weighted ACS also suggests that rents are roughly $400 lower inside of future safety zones relative to outside, consistent with the presence of concerns about crime in these places. After injunctions go into effect, rents are still lower inside these areas, but the mean rent inside of safety zones increases by $200 a month. This is consistent with homebuyers learning about injunctions (the reason why crime rates have fallen) during the disclosure process and subsequently discounting the value of these homes.

5.2.c Categorical Differences in Taste for Crime Victimization and Police Encounters

Patterns in rents and home values suggest that the presence of a gang injunction sends a different signal to home buyers than it does to renters. What is less apparent is what the content of that signal is. In order to infer the type of signal that injunctions send about neighborhoods, we will examine the characteristics of people who move into safety zones, based on some regularities found in social science data.

First, relative to men, women are more likely to be concerned about crime victimization and perceive the police to be more legitimate. In contrast to their relatively low rate of non-intimate partner victimization, women consistently report more fear of crime (see Snedker 2015 for a relatively recent review). Similarly, women report higher levels of trust in the police. (e.g. Miller and David 2008). Non-citizens tend to be less likely to be victims of violent crime than citizens (National Crime Victimization Survey, 2017), however the cost of police interaction is quite high for this group, as non-citizens who are convicted of serious crimes face deportation. Finally, White people are less likely than non-White people to be considered gang members by the state of California- in 2012 almost 11% of all Black people between the ages of 20 and 24 in LA county were listed in the CalGang database, compared with 3.5% of Hispanic people and 0.3% of White people (Muñiz and McGill 2012). We therefore assume that any Code effects of the injunction would be highest for Black residents.

Based on these observations, some insight into the relative importance of crime versus police activity in the signal sent by injunctions can be discerned by comparing the fraction of movers who are female, the fraction who are non-citizens, and the racial composition of movers. A strong signal of crime should be particularly discouraging for women. Non-citizens, Black

people, and Hispanic people should be particularly discouraged by a signal of higher levels of police activity.

In table 5, we report the fraction of movers who fall into each of these identity groups. Prior to an injunction being enacted, only 45% of the people who move into future safety zones are female. After an injunction is enacted, this gender gap disappears. While we are unable to break out movers by gender and tenure, this certainly suggests that safety zones are viewed, by women, as safer once the injunction is in place. At the same time, we also observe a reduction in the fraction of non-citizens choosing to move into safety zones although we cannot reject the null hypothesis that these geographic patterns are constant over time. Both patterns suggest that injunctions signal safer neighborhoods (placing upwards pressure on home values) with more police activity (placing downwards pressure).

The racial composition of movers appears to be roughly identical outside of future and active boundaries. However, the ACS suggests that when a safety zone is established, there is a substantively large increase in the fraction of people moving into the neighborhood who are Black, replacing White and Asian movers. Mobility patterns of Hispanic people appear to be unchanged. What is striking about this pattern, particularly the increase in Black movers, is that Black California residents are the most likely to be identified by the state of California as gang members. Of course, to the extent that these movers are Black women replacing White or Asian men it is unclear how much to interpret this finding.

We pursue this further in table 6, where we divide our ZTRAX sample based on the predominant racial and ethnic identity group in an injunction space. Specifically, we link each home sale to the racial and ethnic composition of its corresponding census tract in the ACS. We then calculate the mean percent of residents who are Black, White, or Hispanic for every home sale in a safety zone, prior to its enactment. If this mean is more than 50% for an identity group, we define this injunction as being associated with that group. While our estimates are highly imprecise, the point estimates suggest the largest impact on home prices happens in Black neighborhoods, followed by White neighborhoods (consistent with the observed changing racial composition of movers) and Hispanic neighborhoods. While merely suggestive, this again points towards the Code effects of the injunction, which should disproportionately affect Black

residents, being an important component of the reduced willingness-to-pay for homes inside of safety zones.[25]

5.3 Do People Trade-off Safety and Civil Liberties? Evidence from Home Sales and Crimes Known to Police

Our analysis of who moves into safety zones suggests that injunctions are viewed as having both positive and negative features. We conclude our analysis by exploring whether injunctions imposed in higher crime areas, where public safety improvements may be viewed as more necessary, have a more positive effect on the value of the affected homes. We would expect variation in the net effect of gang injunctions on home values if people placed a homogenous value on the 4th amendment, but there was variation across injunction in the perceived return to increased police action. Specifically, the change in home values reflects the net impact of the perceived change in crime risk minus the cost through which that perceived crime risk is mitigated. The point at which we observe no net change in home values identifies the point where the value of civil liberties offsets the "need" for the injunction's crime reducing benefits.

While our period of analysis does not cover the particularly high crime wave of the 1990s, there is substantial variation in the total number of index crimes known by police across safety zones. There are 43 injunction areas for which we observe pre-injunction crime, based on the SCCS maintained by the Irvine Laboratory for the Study of Space and Crime. This data includes crimes known to police responsible for over 80% of the southern California population between 2005 and 2016, and in appendix table A3, we show that we can qualitatively replicate the finding that reported crimes inside of safety zones (weakly) fell after injunctions were enacted. For each of these injunctions, we calculated the average annual loss to index crime, excluding rape, occurring in tracts with some crime occurring within 800m of a future safety zone (on either side) in order to get a proxy for how "desired" additional police protection was in the local area.[26] We then re-estimated equation 2 for all homes sold near these injunctions, replicating

[25] This is not a function of the base value of home sales prices across these samples, which are roughly equal to Black and White neighborhoods ($530 thousand), but much lower for Hispanic neighborhoods ($358 thousand).
[26] Many of these agencies provide crime incident data with sub-census tract identification. However, the quality of this data is irregular and unpredictable, particularly in Los Angeles. These quality issues also affect the smoothness of the function relating crime to distance from an injunction boundary, violating one of the basic requirements of a regression discontinuity analysis. As we show in appendix table A3, we estimate highly imprecise 12% reduction in murder, 7% reduction in robbery, a 7% reduction in assault, a 17% reduction in burglary, and a 12% reduction in car theft in census tracts with at least some area inside of safety zones relative to tracts with crimes within 800 meters, but outside of the safety zone, and a 9% increase in larcenies known to police.

panel B, column 3, of table 2. We then sequentially eliminated injunctions from our sample, starting with the lowest crime injunction and ending with the two injunctions where the cost to crime was the highest. Figure 6 plots the estimated break in home values that we observe at the boundaries of these safety zones, plotted against the mean pre-injunction annual loss to crime in that particular sample.[27] For sake of comparison, we scale the annual loss to crime by 1,404, the average number of housing units per tract in Los Angeles County, making the horizontal axis annual crime loss per nearby housing unit prior to the injunction. This loss ranges from $558 per year to $2,895 per year. In 2015, based on data from the SSCS and ACS, and Heaton (2010), Los Angeles, Orange, and San Diego county households lost $1,180 to non-sexual index crimes.

Consistent with potential homeowners making tradeoffs between crime and civil liberties, we observe a negative relationship between the extent to which home values fall inside of safety zones and how much crime existed there prior to the enactment of an injunction. Note that, to the extent that we would expect perceptions of crime to be correlated with actual crime, this is inconsistent with the dominant signal associated with an injunction being one of danger.[28] Estimating a linear relationship between home prices and injunctions, weighted by the number of home sales in each sample, suggests that the net return to gang injunctions is substantively zero in places where the annual losses to crime (excluding sexual assault, which is not reported in the SCCS) was approximately $3,300 a year. In places where the loss to crime is higher, we would expect gang injunctions to raise home values inside of safety zones. This is a reasonably high incidence crime in 2018, when 11 states exceeded $3,000 in crime loss (excluding rape) per household.

6. Conclusion

Civil gang injunctions are one of many policing strategies that aim to reduce crime by targeting criminal justice resources on a specific subset of the population in a specific place. By increasing the discretion police have in making stops, and proactively criminalizing behaviors that may be precursors to crime, injunctions are intended to reduce the social harm from crime, specifically gang violence. However, the structure of gang injunctions, specifically the

[27] Note that this mean is implicitly weighted by the number of homes sold within each injunction.
[28] According to the 2018 UCR, and cost of crime estimates from Heaton (2010) there was roughly $2,200 lost to crime per US household, excluding rape. This obviously varies over space; the District of Columbia had the highest loss per household, at over $7,000, followed by New Mexico and Louisianan ($4,150) and Alaska ($3,840) per household. In 2018, DC, New Mexico, Louisiana, Alaska, Missouri, Tennessee, Alabama, South Carolina, Maryland, and Nevada all had over $3,000 in loss, per household, to UCR crime.

designation of a particular area as a “high crime” one, and the ease at which officers are able to add individuals to the injunction, has potentially important negative consequences for all people living inside the gang injunction’s boundaries. Previous research has found evidence that crime rates fall in safety zones, but ours is the first to directly estimate the cost associated with the way those crime reductions are achieved.

A relatively large body of field experiments suggest that place-based policing strategies, particularly focusing police resources in relatively high crime areas can lower crime rates. However, the results of this paper suggest that this finding is insufficient to conclude these are good policies when crime rates are low; the social cost of these policies is non-trivial, even relative to the high cost of many crimes. Indeed, in our sample period we find that where constraints the ability of police officers to conduct legal seizures and make arrests were loosened, willingness-to-pay to live in these places fell. The pattern of results, as well as characteristics of movers and residents in the ACS, suggest that injunctions signal both increased perceived safety but also increased police contact to potential home buyers, and in most places the cost of increased police contact was dominant. We find that in neighborhoods losing less than $3,300 to crime each year, injunctions imposed in Southern California after 2005 were unlikely to be worth it.

References

ACLU. (1997). *False Premises, False Promises: The Blythe Street Gang Injunction and Its Aftermath*. Retrieved from Los Angeles:

Arnold, E. K. (2011). Oakland Gang Injunctions: Gentrification or Public Safety? *Race, Poverty & the Environment, 18*(2).

Barajas, F. P. (2007). An invading army: a civil gang injunction in a Southern California Chicana/o community. *Latino Studies, 5*(4), 393-417.

Boggess, L. N., Greenbaum, R. T., & Tita, G. E. (2013). Does crime drive housing sales? Evidence from Los Angeles. *Journal of Crime and Justice, 36*(3), 299-318.

Boggess, L. N., & Hipp, J. R. (2010). Violent Crime, Residential Instability and Mobility: Does the Relationship Differ in Minority Neighborhoods? *Journal of Quantitative Criminology, 26*(3), 351-370.

Bowers, K. J., Johnson, S. D., Guerette, R. T., Summers, L., & Poynton, S. (2011). Spatial displacement and diffusion of benefits among geographically focused policing initiatives: a meta-analytical review. *Journal of Experimental Criminology, 7*(4), 347-374.

Calonico, S., Cattaneo, M. D., Farrell, M. H., & Titiunik, R. (2018). Regression Discontinuity Designs Using Covariates. *The Review of Economics and Statistics*.

Carr, R., Slothower, M., & Parkinson, J. (2017). Do Gang Injunctions Reduce Violent Crime? Four Tests in Merseyside, UK. *Cambridge Journal of Evidence-Based Policing, 1*(4), 195-210.

Chamberlain, A. W., Wallace, D., Pfeiffer, D., & Gaub, J. (2016). Housing Disinvestment and Crime in a Phoenix Suburb: Exploring the Differential Effects of Investors and Owner-Occupants. *Urban Affairs Review, 54*(1), 190-224.

Engelhardt, G., M. Eriksen, W. Gale. & G. Mills. (2010) "What are the Social Benefits of Homeownership? Experimental Evidence for Low-Income Households" *Journal of Urban Economics.* 67(3): 249-258.

Ferguson, A. G. (2011). Crime Mapping and the Fourth Amendment: Redrawing 'High Crime Areas'. *Hastings Law Journal, 63*(1), 179-232.

Gelman, A. and G. Imbens. (2019). Why High-Order Polynomials Should Not Be Used in Regression Discontinuity Designs. *Journal of Business & Economic Statistics* 37(3):447-456

Genelin, M. (1998). Community Prosecution: A Difference. *Prosecutor's Brief, 10*(3), 13-17.

Goulka, J., Heaton, P., Tita, G., Matthies, C. F., Whitby, A., & Cooper, A. (2009). *FY2006 Anti-Gang Initiative Grants in the Central District of California: Report to the U.S. Attorney*. Retrieved from Santa Monica, CA: https://www.rand.org/pubs/working_papers/WR660.html

Glaeser, E., Laibson, D., Sacerdote, B. (2002). An economic approach to social capital, *Economic Journal* 112: F437-F458.

Grembi, V., Nannicini, T., & Troiano, U. (2016). Do Fiscal Rules Matter? *American Economic Journal: Applied Economics, 8*(3), 1-30.

Grogger, J. (2002). The Effects of Civil Gang Injunctions on Reported Violent Crime: Evidence from Los Angeles County. *The Journal of Law & Economics, 45*(1), 69-90.

Heaton, P. (2010). *Hidden in Plain Sight: What Cost-of-Crime Research Can Tell Us About Investing in Police*. Retrieved from Santa Monica, CA: http://www.rand.org/pubs/occasional_papers/OP279.html

Hinton, E. (2016). *From the War on Poverty to the War on Crime: The Making of Mass Incarceration in America*. Cambridge, MA: Harvard University Press.

Howle, E. M. (2016). *The CalGang Criminal Intelligence System: As the Result of Its Weak Oversight Structure, It Contains Questionable Information That May Violate Individuals' Privacy Rights*. (2015-130). Sacramento, CA.

Linden, L., & Rockoff, J. E. (2008). Estimates of the Impact of Crime Risk on Property Values from Megan's Laws. *American Economic Review, 98*(3), 1103-1127.

Maxson, C. L., & Allen, T. L. (1997). *An Evaluation of the City of Inglewood's Youth Firearms Violence Initiative*. Retrieved from Los Angeles, CA:

Maxson, C. L., Hennigan, K. M., & Sloane, D. C. (2003). For the Sake of the Neighborhood?: Civil Gang Injunctions as a Gang Intervention Tool in Southern California. In S. Decker (Ed.), *Policing Youth Gangs and Violence* (pp. 239-266). Belmont, CA: Wadsworth.

Maxson, C. L., Hennigan, K. M., & Sloane, D. C. (2005). "It's Getting Crazy Out There": Can A Civil Gang Injunction Change A Community? *Criminology & Public Policy, 4*(3), 577-605.

Meares, T. L. (2015). Programming Errors: Understanding the Constitutionality of Stop-and-Frisk as a Program, Not an Incident. *University of Chicago Law Review, 159*(82), 20.

Miller, J. and Davis, R. 2008. Unpacking public attitudes to the police: contrasting perceptions of misconduct with traditional measures of satisfaction. *International Journal of Police Science & Management*, 10: 9–22.

Muñiz, A. (2015). *Police, Power, and the Production of Racial Boundaries*. New Brunswick, UNITED STATES: Rutgers University Press.

Muñiz, A., & McGill, K. (2012). *Tracked and Trapped*. Retrieved from Los Angeles, CA: http://www.youth4justice.org/wp-content/uploads/2012/12/TrackedandTrapped.pdf

National Academies of Sciences, E., & Medicine. (2018). *Proactive Policing: Effects on Crime and Communities*. Washington, DC: The National Academies Press.

O'Deane, M. D. (2011). *Gang Injunctions and Abatement: Using Civil Remedies to Curb Gang-Related Crimes*. Boca Raton, FL: CRC Press.

Queally, J. (2016, 11/06/2016). LAPD gang injunctions deny targets due process, ACLU lawsuit says. *The Los Angeles Times*. Retrieved from http://www.latimes.com/local/lanow/la-me-ln-aclu-gang-lawsuit-20161024-snap-story.html

Ridgeway, G., Grogger, J., Moyer, R. A., & MacDonald, J. M. (2018). Effect of Gang Injunctions on Crime: A Study of Los Angeles from 1988–2014. *Journal of Quantitative Criminology*.

Rios, V. M. (2011). *Punished: Policing the Lives of Black and Latino Boys*: New York: NYU Press.

Skinner, J. (1989). Housing wealth and aggregate saving. *Regional Science and Urban Economics, 19*(2), 305-324.

Smith, L., Bertozzi, A., Brantingham, P. J., Tita, G., & Valasik, M. (2012). Adaptation of an Ecological Territorial Model of Street Gang Spatial Patterns in Los Angeles. *Discrete and Continuous Dynamical Systems, 32*, 2.

Snedker, K. A. (2015). Neighborhood Conditions and Fear of Crime: A Reconsideration of Sex Differences. *Crime & Delinquency, 61*(1), 45–70.

Vannoy, B. (2009). Turning Their Lives Around: California Cities Pioneer Injunction Removal Procedures. *J. Nat'l Ass'n Admin. L. Judiciary, 29*, 283.

Weisburd, D., Wyckoff, L. A., Ready, J., Eck, J. E., Hinkle, J. C., & Gajewski, F. (2006). Does Crime Just Move Around the Cornder? A Controlled Study of Spatial Displacement and Diffusion of Criem Control Benefits." *Criminology, 44*(3), 549-592.

Weisburd, S. (2016). Police Presence, Rapid Response Rates, and Crime Prevention. *Working Paper*.

Zillow. 2017. “ZTRAX: Zillow Transaction and Assessor Dataset, 2017-Q4.” Zillow Group, Inc. http://www.zillow.com/ztrax/

Figure 1: In-Sample Gang Injunctions in Southern California

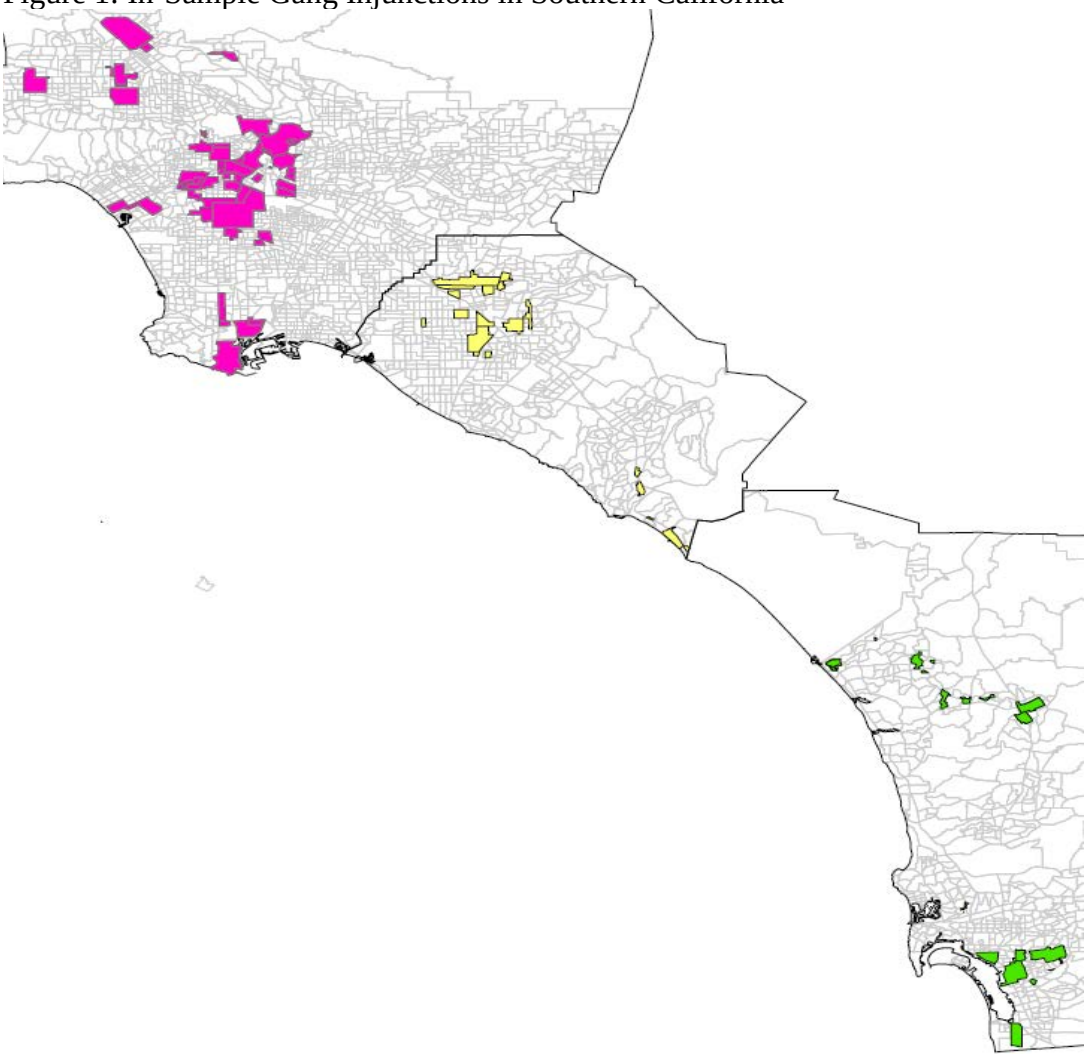

Figure 2: Gang Injunctions and Home Sales in Southern California Relative to Active Injunctions, 2002-2015, in 2012 $100k

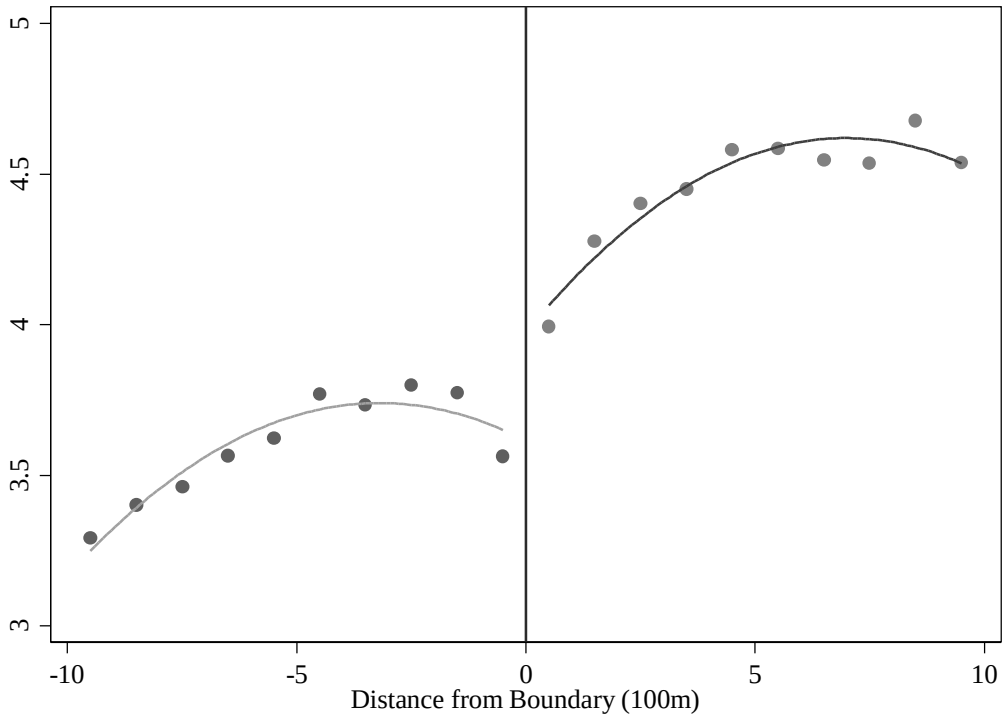

Figure 3: Gang Injunctions and Home Sales in Southern California Relative to Future Injunctions, 2002-2015, in 2012 $100k

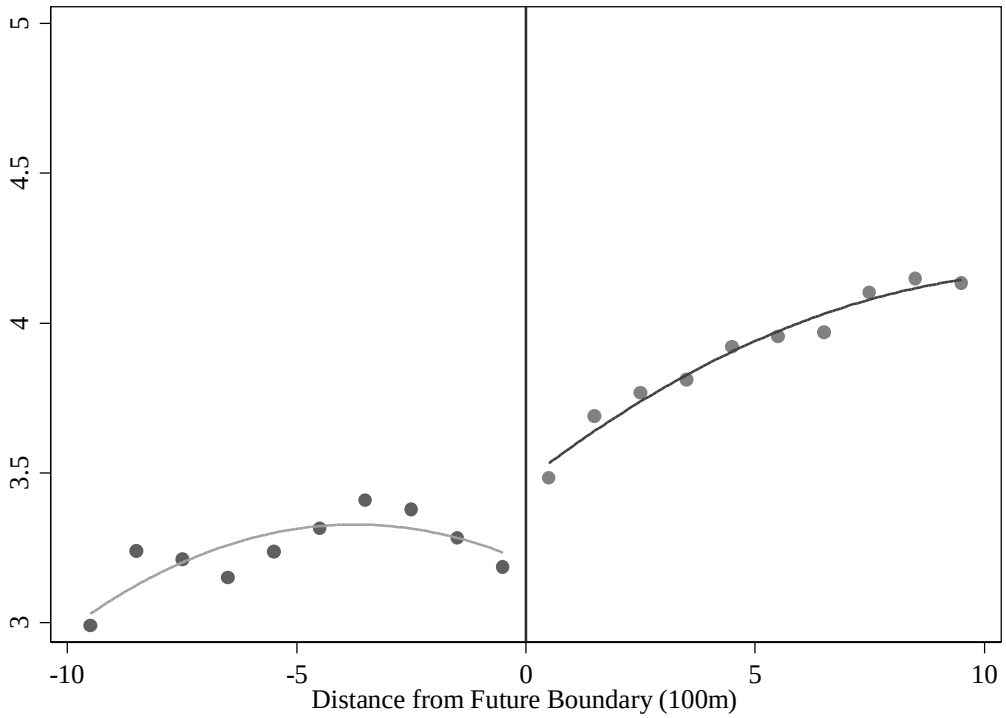

Figure 4: Home Sales in Southern California Relative to Injunction Enactment, 2002-2015, in 2012 $100k

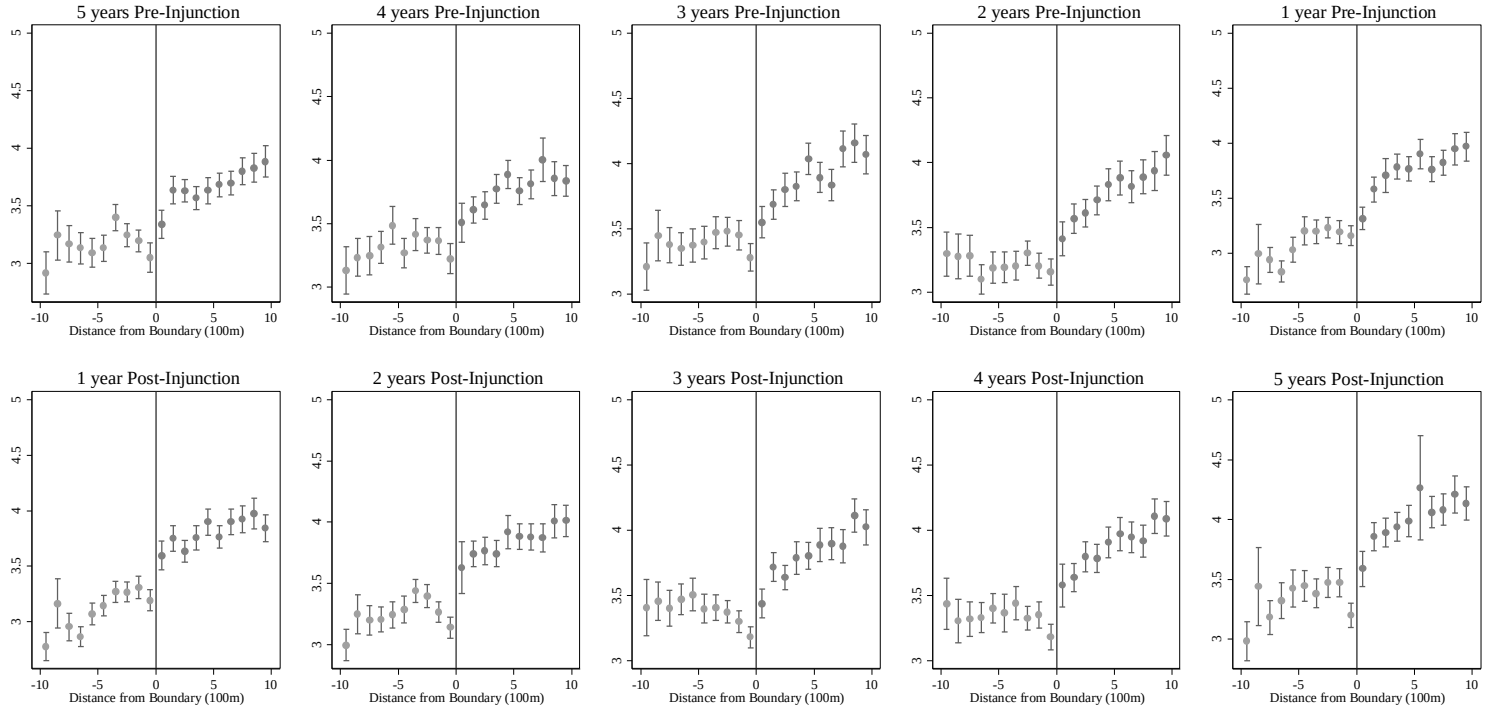

Figure 5: Parametric Diff-in-Disc estimates of Injunctions and Home Price, alternate bandwidths

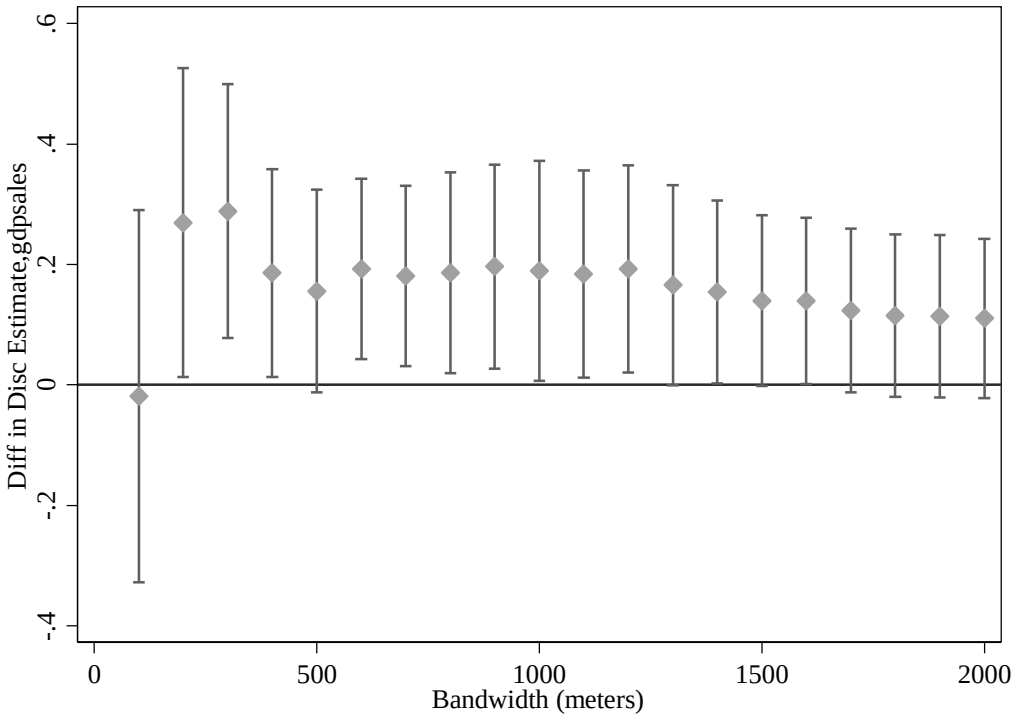

Figure 6: Parametric Diff-in-Disc estimates of Home Price by Perceived Crime Problem

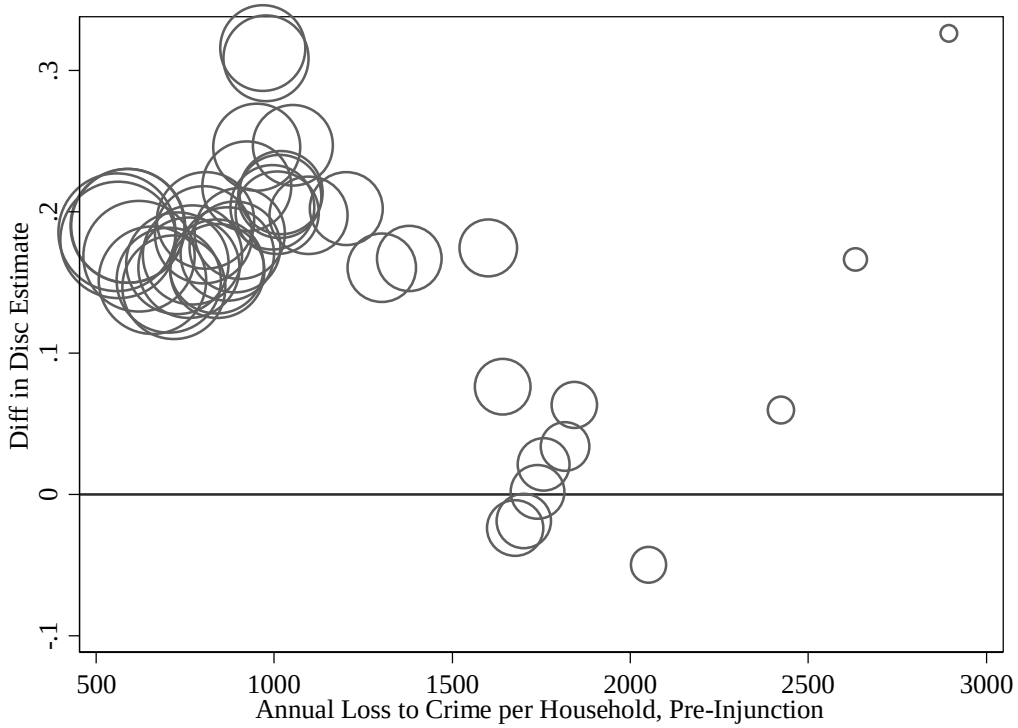

Table 1: Housing Characteristics and Values in Southern California, 2002-2015

				800m from Active Boundary		800m from Future Boundary	
	Full Sample	Injunction Areas	Non-Injunction Areas	Injunction Areas	Non-Injunction Areas	Injunction Areas	Non-Injunction Areas
House Price	416,010	362,364	431,745	371,314	447,209	317,820	374,709
	(383,853.9)	(295,812.3)	(404,727.3)	(318,662.9)	(403,791.6)	(172,815.7)	(228,777.5)
Number of Rooms	5.2	4.7	5.3	4.8	5.2	4.7	5.1
	(1.6)	(1.5)	(1.6)	(1.5)	(1.6)	(1.6)	(1.6)
Building Size	1,562.3	1,371.3	1,618.3	1,387.7	1,576.6	1,376.4	1,562
	(698.2)	(519.3)	(733.1)	(523.6)	(697.1)	(564.1)	(660.6)
Housing Age	54.7	64.6	51.8	62.7	54.8	60.5	52.1
	(25.1)	(26.5)	(24)	(26.2)	(23.9)	(24.4)	(23.9)
ACS Area Home Value	503,390	463,862	514,991	473,907	514,671	452,690	495,660
	(227,295.3)	(205,079.6)	(232,140.3)	(221,851.2)	(248,559.3)	(156,142.9)	(206,811)
N	383,191	86,941	296,250	68,850	102,162	38,381	54,004

Notes: Unit of observation is a Housing Transaction. Housing Characteristics measured in 2015. All prices measured in 2012 dollars. Standard deviations in parentheses.

Table 2: RD Estimates of the Impact of Gang Injunctions on Housing Prices in Southern California, in 2012 $100k

	Panel A: Central Results				
	RDD	Difference in Discontinuities			
	(1)	(2)	(3)	(4)	(5)
f(Dist)	2nd Order	2nd Order	2nd Order	2nd Order	Robust LLR
Effect of Leaving Gang Injunction	.202 [.105]	.174 [.092]	.187 [.085]	.199 [.079]	.222 [.12]
Bandwidth (m)	800	800	800	800	150.4
Sample Size	171,169	283,836	283,836	283,562	52,082.1
R-Squared	.49	.5	.57	.52	
Structure Controls			x	x	x
Spatial Controls				x	x
Spatial FE	x	x	x		
	Panel B: Robustness Tests				
f(Dist)	2nd Order, by Year	2nd Order, by County	2nd Order, Crime Sample	2nd Order, Pre-Post Only	2nd Order, 100y Buffers
Effect of Leaving Gang Injunction	.165 [.083]	.179 [.083]	.185 [.092]	.188 [.085]	.023 [.082]
Bandwidth	800	800	800	800	800
Sample Size	283,836	283,836	155,786	282,073	291,777
R-Squared	.57	.57	.54	.57	0.57
Structure Controls	x	x	x	x	x
Spatial Controls					
Spatial FE	x	x	x	x	x

All estimates include county specific year and month of sale fixed effects. Standard errors in brackets allow for two-way clustering at the relevant gang injunction and census tract level. Standard errors, bandwidth, and sample size in robust LLR based on moments from 2,000 bootstrapped replications.

Table 3: Difference in Discontinuity Estimates of Control Variables and Number of Sales

DV	Total Rooms	Square Feet	Age of Housing	Mean Area Home Value	Number of Sales
Effect of Leaving Gang Injunction	-.023 [.036]	-3.87 [10.86]	-.942 [.734]	-0.163 [0.101]	.004 [.005]
Mean of DV	5.07	1,500	56.0	*4.94*	1.02
Spatial FE	x	x	x		x
Sample Size	283,556	283,556	283,556	283,556	279,243
R-Squared	.63	.64	.62	0.21	0.04

All estimates include controls for county specific year and month of sale fixed effects, along with all controls listed in table 1, excluding the specific outcome used as a DV. Standard errors in brackets allow for two-way clustering at the relevant gang injunction and census tract level. Observations in "Number of Sales" aggregated to 100m bin level.

Table 4: Movers, Tenure, Home Values, and Rents, 2011-2016 Tract level ACS

	(1) Inside Future Safety Zones	(2) Outside Future Safety Zones	*p(1=2)*	(3) Inside Active Safety Zones	(4) Outside Active Safety Zones	*p(3=4)*	DID	*p(DID =0)*
Percent of Residents who Moved in Last Year	11.06	11.07	*0.991*	11.35	11.02	*0.252*	0.338	*0.710*
% of Movers who are Renters	70.93	67.61	*0.368*	71.37	62.74	*0.000*	5.310	*0.172*
Mean Home Value	$ 473,634	$ 512,543	*0.569*	$ 438,832	$ 502,105	*0.006*	$ -24,364	*0.736*
Mean Rent	$ 1,070	$ 1,443	*0.000*	$ 1,296	$ 1,458	*0.000*	$ 212	*0.001*

Mean ACS values with tract weights based on (1) number of homes sold within future safety zones, (2) number of homes sold outside of future safety zones, (3) number of homes sold within safety zones, (4) number of homes sold outside of safety zones. All homes used in weighting are located with 800 meters of a safety zone boundary. P values assume no covariance across columns.

Table 5: Characteristics of Movers in Census Tracts near Safety Zone Boundaries, 2012-2016

	(1) Inside Active Safety Zones	(2) Outside Active Safety Zones	*p(1=2)*	(3) Inside Future Safety Zones	(4) Outside Future Safety Zones	*p(3=4)*	DID	*p(DID =0)*
% Female	45.4	51.1	*0.001*	50.5	50.5	*0.983*	5.62	*0.002*
% Non-Citizens	25.8	19.4	*0.002*	21.4	17.3	*0.000*	-2.25	*0.309*
% Asian	11.9	9.8	*0.272*	8.6	11.0	*0.001*	-4.43	*0.030*
% Black	2.0	9.3	*0.000*	10.1	8.4	*0.029*	9.00	*0.000*
% Hisp.	41.3	34.0	*0.012*	39.1	31.5	*0.000*	0.28	*0.928*
% White	24.1	28.2	*0.202*	22.0	32.9	*0.000*	-6.75	*0.051*

(1) number of homes sold within future safety zones, (2) number of homes sold outside of future safety zones, (3) number of homes sold within safety zones, (4) number of homes sold outside of safety zones. All homes used in weighting are located with 800 meters of a safety zone boundary. Percent of movers identifying as other/multiple races not reported. P values assume no covariance across columns.

Table 6: RD Estimates of the Impact of Gang Injunctions on Housing Prices in Southern California, by Pre-Injunction Neighborhood Composition, in 2012 $100k

Neighborhood Composition	Black	Hispanic	White
Effect of Leaving Gang Injunction	1.32	.188	.747
	[1.36]	[.165]	[.480]
Sample Size	34,370	106,049	45,735
R-Squared	.64	.65	.66

All estimates include county specific year and month of sale fixed effects, relevant gang injunction, and census tract fixed effects, and controls for structure characteristics, along with quadratic controls for distance from the boundary, which vary inside and outside the active and future injunction spaces, with an 800m bandwidth. Standard errors in brackets allow for two-way clustering at the relevant gang injunction and census tract level. The racial and ethnic composition of a neighborhood is based on the mean 2012-2016 census tract population for homes sold inside a safety zone, prior to the injunction's enactment. If this mean is more than 50%, the injunction is identified as being associated with that identity group.

Appendix

Figure A1: Characteristics of Homes Sold in Southern California Relative to Active Injunctions, 2002-2015

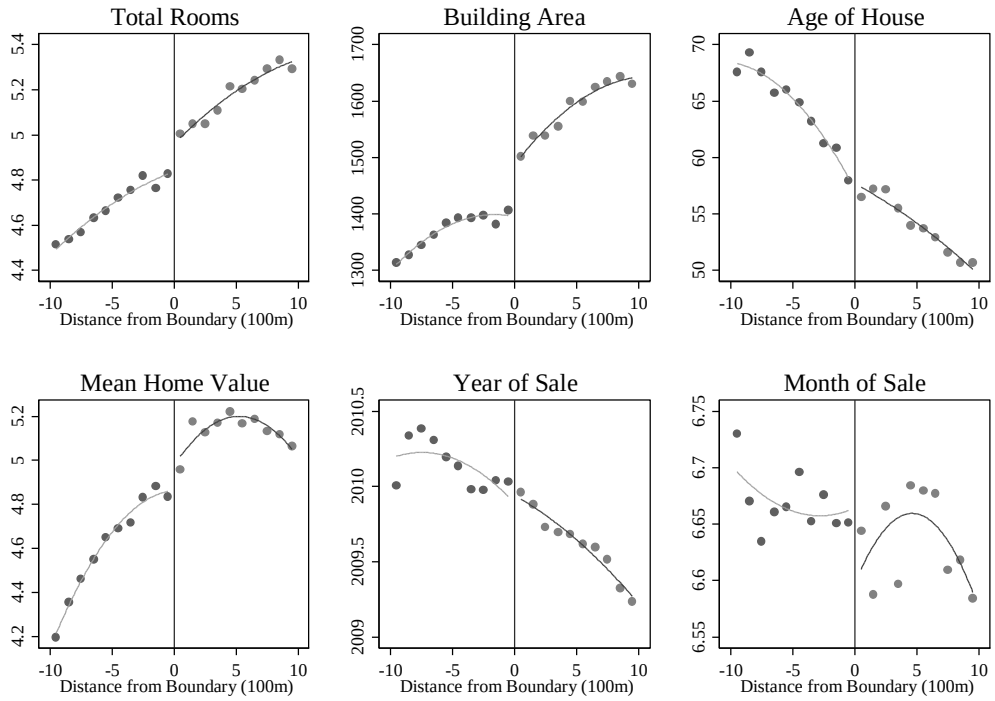

Figure A2: Characteristics of Homes Sold in Southern California Relative to Future Injunctions, 2002-2015

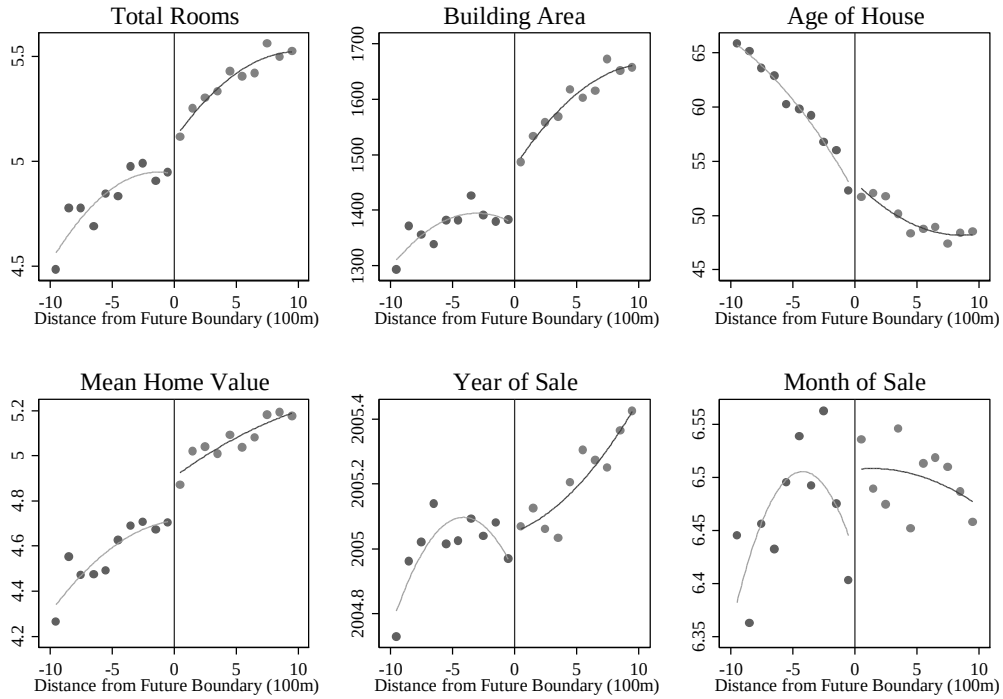

Figure A3: Number of Homes Sold in Southern California Relative to Active Injunctions, 2002-2015

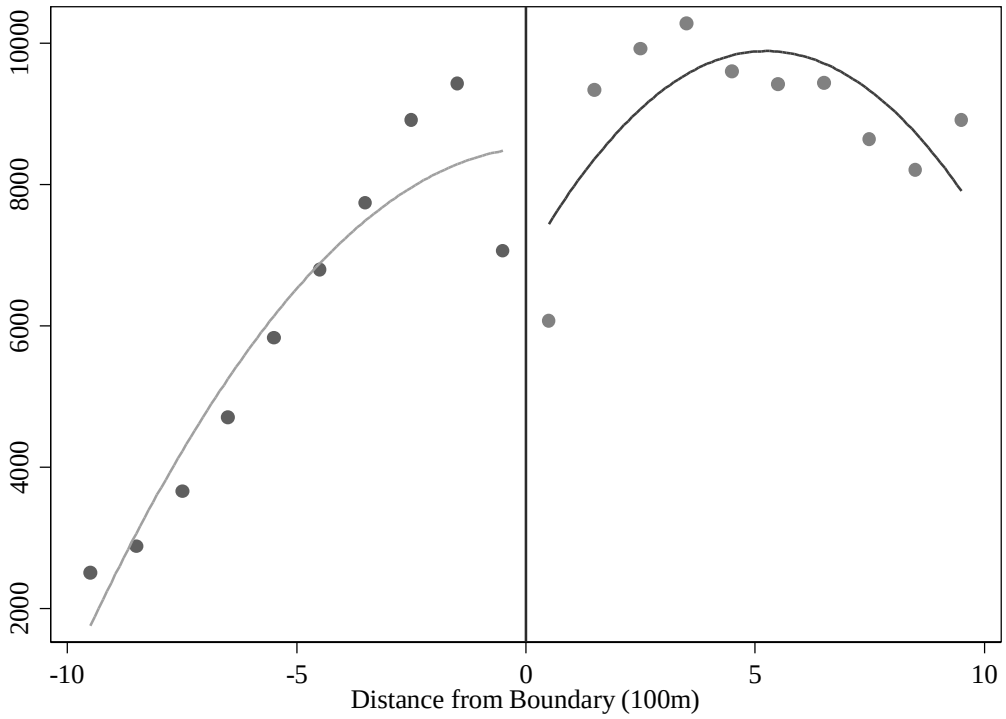

Figure A4: Number of Homes Sold in Southern California Relative to Future Injunctions, 2002-2015

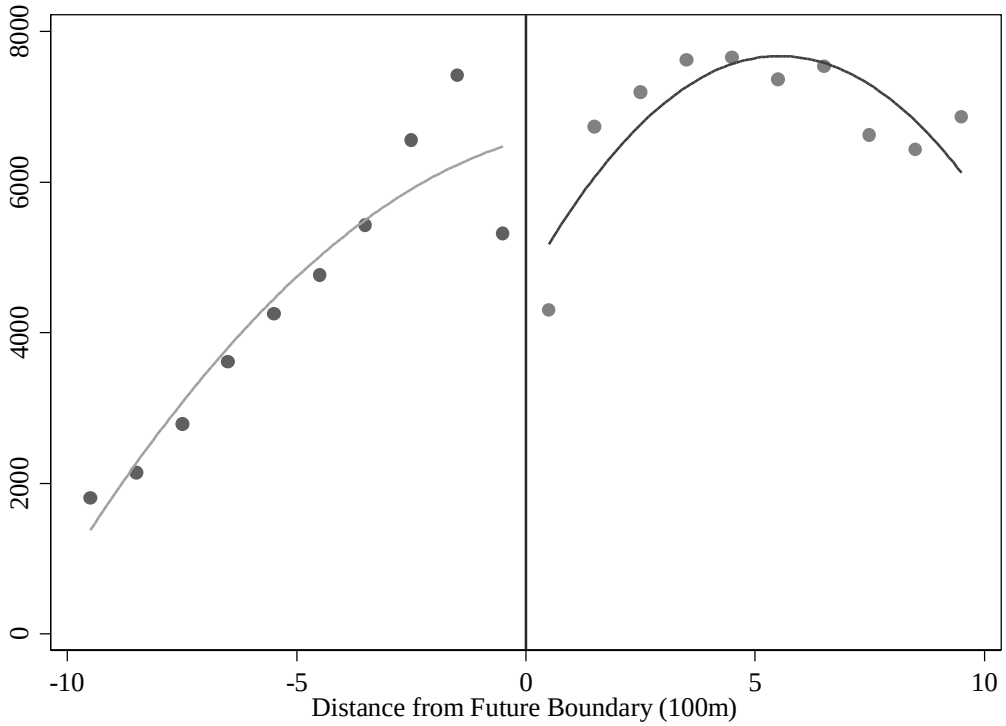

Table A1: Southern California Gang Injunctions

Injunction (* = in crime sample)	City	County	Permanent File Date
Santa Nita *	Orange	Orange	11/3/2006
Boys from the Hood *	Anaheim	Orange	2/9/2007
Varrio Chico * (3 areas)	San Clemente	Orange	1/25/2008
Varrio Viejo * (2 areas)	San Juan Capistrano / Mission Viejo	Orange	1/25/2008
Orange County Criminals *	Orange	Orange	9/26/2008
Orange Varrio Cypress (OVC) *	Orange	Orange	5/14/2009
Orange County Criminals – Expansion *	Orange	Orange	5/14/2009
Hard Times *	Garden Grove	Orange	1/28/2010
Jeffrey Street *	Anaheim	Orange	6/30/2010
FOLKS *	Fullerton	Orange	5/23/2011
Tokers Town *	Anaheim	Orange	3/30/2011
Big Stanton *	Stanton	Orange	10/12/2012
Eastside Anaheim *	Anaheim	Orange	1/16/2013
Townsend *	Santa Ana	Orange	1/16/2015
Varrio Posole Locos	Oceanside	San Diego	11/25/1997
Varrio San Marcos	San Marcos	San Diego	11/1/1999
Varrio Mesa Locos	Oceanside	San Diego	6/1/2000
Linda Vista 13	Linda Vista	San Diego	3/23/2001
Westide & Diablos	Escondido	San Diego	7/13/2001
Nestor	San Diego	San Diego	7/15/2002
Logan Red Steps	San Diego	San Diego	4/10/2003
Center Street Gang	Oceanside	San Diego	12/3/2003
Vario Posole Locos	Oceanside	San Diego	3/2/2004
Eastside Piru	San Diego	San Diego	5/14/2004
Vista Home Boys	Vista	San Diego	9/30/2005
Old Town	National City	San Diego	10/31/2005
Westside & Diablos *	Escondido	San Diego	9/5/2007

Westside & Diablos Expansion	Escondido	San Diego	3/22/2010
Varrio San Marcos * (3 areas)	San Marcos	San Diego	11/28/2007
Center Street Gang * (2 areas)	Oceanside	San Diego	5/24/2010
Varrio Posole Locos	Oceanside	San Diego	1/11/2011
Blythe Street Gang	Los Angeles	Los Angeles	2/17/2000
18th Street Gang Southwest (Alsace Clique, Jefferson Park)	Los Angeles	Los Angeles	2/8/2005
18th Street (Pico-Union) I (Pico Union II)	Los Angeles	Los Angeles	10/18/2002
Mara Salvatrucha I (Mara Salvatrucha II)	Los Angeles	Los Angeles	5/10/2004
Harpys	Los Angeles	Los Angeles	7/17/2000
Langdon Street Gang	Los Angeles	Los Angeles	2/17/2000
Culver City Boys	Los Angeles	Los Angeles	3/27/2001
Venice Shoreline Crips	Los Angeles	Los Angeles	10/18/2000
Harbor City & Harbor City Crips	Los Angeles	Los Angeles	2/1/2000
Venice 13 Gang	Los Angeles	Los Angeles	1/12/2001
Pacoima Project Boys	Los Angeles	Los Angeles	8/22/2001
Eastside Wilmas Gang & Westside Wilmas Gang	Los Angeles	Los Angeles	3/9/2004
Canoga Park Alabama	Los Angeles	Los Angeles	4/24/2002
18th Street - Pico Union II (Hoover St, Red Shield)	Los Angeles	Los Angeles	10/18/2002
KAM	Los Angeles	Los Angeles	1/16/2003
Avenues	Los Angeles	Los Angeles	4/7/2003
Rolling 60 Crips	Los Angeles	Los Angeles	11/24/2003
Bounty Hunters	Los Angeles	Los Angeles	12/2/2003
18th Street - Hollywood	Los Angeles	Los Angeles	3/16/2004
Mara Salvatrucha II	Los Angeles	Los Angeles	5/10/2004
Wilshire 18th Street	Los Angeles	Los Angeles	6/29/2004
38th Street	Los Angeles	Los Angeles	11/22/2004
Varrio Nuevo Estrada	Los Angeles	Los Angeles	11/15/2004

42nd Street, 43rd Street & 48th Street Gangster Crips	Los Angeles	Los Angeles	4/7/2005
Grape Street Crips	Los Angeles	Los Angeles	5/25/2005
Hoover & Trouble	Los Angeles	Los Angeles	11/7/2005
18th Street, Crazy Riders, Down in Action, Krazy Town, La Raza Loca, Orphans, Rockwood Street Locos, Varrio Vista RIFA, Wanderers, Witmer Street Locos	Los Angeles	Los Angeles	7/21/2005
Big Hazard	Los Angeles	Los Angeles	9/9/2005
School Yard Crips & Geer Street Crips	Los Angeles	Los Angeles	9/22/2006
Playboys	Los Angeles	Los Angeles	9/21/2006
Black P Stones	Los Angeles	Los Angeles	9/21/2006
White Fence (Hollywood) * (2 areas)	Los Angeles	Los Angeles	10/3/2006
Clover, Eastlake & Lincoln Heights *	Los Angeles	Los Angeles	1/9/2007
Dogtown	Los Angeles	Los Angeles	12/13/2006
Highland Park *	Los Angeles	Los Angeles	2/16/2007
Rolling 40, 46 Top Dollar Hustler & 46 Neighborhood Crips *	Los Angeles	Los Angeles	4/10/2008
5th & Hill *	Los Angeles	Los Angeles	1/6/2009
204th Street & Eastside Torrance *	Los Angeles	Los Angeles	7/7/2008
San Fer *	Los Angeles	Los Angeles	8/11/2008
All for Crime, Barrio Mojados, Blood Stone Villains, Florencia, Oriental Boyz, Pueblo Bishops *	Los Angeles	Los Angeles	1/23/2009
Eastside Pain *	Los Angeles	Los Angeles	6/11/2009
Temple Street *	Los Angeles	Los Angeles	3/27/2009
Toonerville * (2 areas)	Los Angeles	Los Angeles	3/18/2009
Barrio Van Nuys *	Los Angeles	Los Angeles	9/2/2009
Fremont (Swan Bloods, Florencia 13, Main Street Crips, 7 Trey, Hustlers/Gangster Crips) *	Los Angeles	Los Angeles	12/15/2009

Rancho San Pedro *	Los Angeles	Los Angeles	7/11/2011
Columbus Street *	Los Angeles	Los Angeles	6/27/2013
Glendale Corridor (Big Top Locos, Crazys, Diamond Street Locos, Echo Park Locos, Frog Town Rifas, Head Hunters) *	Los Angeles	Los Angeles	9/24/2013

Table A2: Sources used to create injunction boundaries and retrieve dates

San Diego County District Attorney	https://www.sdcda.org/preventing/gangs/injunctions.html
Los Angeles City Attorney	https://www.lacityattorney.org/gang-injunction
Orange County	Data were not made freely available by the Orange County District Attorney's Office, so data were obtained from a combination of sources: legal documents, press releases, news stories, and maps.
Gang Injunctions and Gang Abatement Book	O'Deane, Matthew D. Gang injunctions and abatement: Using civil remedies to curb gang-related crimes. CRC Press, 2011.

Table A3: Difference in Differences Estimates of Crimes known to Police and Civil Gang Injunctions, 2006-2016

DV	Homicide	Robbery	Assault	Burglary	Motor Vehicle Theft	Larceny
Inside Injunction	-.001	-.020	-.026	-.110	-.076	.168
x Post	[.002]	[.016]	[.021]	[063]	[.033]	[.219]
Mean of DV	*.008*	*.274*	*.393*	*.660*	*.627*	*1.78*
R-Squared	.03	.29	.36	.39	.31	.73

All estimates include month and county by year fixed effects, injunction by census tract fixed effects. It also includes dummy variables for any part of the tract being inside of a safety zone, and the safety zone being active. Robust standard errors in brackets allow of clustering at the census tract level. N=203,457

The SSCS consists of a compilation of point-identified data on crimes known to police collected through a series of research agreement and web scraping done by affiliates of the Irvine Laboratory for the Study of Space and Crime. In order to generate the data used in this analysis we identified, for each crime incident in the data, the closest active safety zone boundary at the date of the crime, the closest future safety zone boundary, and the census tract where the crime occurred. In order to mirror our analysis of home sales, we identified a census tract as "inside" a safety zone if any crimes within that tract occurred 800 meters or less inside of that safety zone (pre or post enactment). Census tracts are "outside" the safety zone if a crime occurs within 800 meters of a safety zone, but no crimes in that tract occur inside of the safety zone. We exclude observations from Los Angeles in 2008 due to clear data anomalies. Note that census tracts which never have any crimes within 800m of a safety zone boundary are excluded from the analysis, but if any crimes in that tract meet our inclusion criteria, all crimes in the tract are included. In addition, since the data consist of crimes known to police, DID results are almost certainly biased upwards, to the extent that additional officers patrolling in and around a safety zone will learn about more crimes. Our point estimates are somewhat smaller, but qualitatively similar, from those implied by Ridgeway et al. 2018, who examine the impact of gang injunctions in Los Angeles from 1988 to 2014 on quarterly crimes know to police.