However, the presence of other outlets diminishes this effect and there is some evidence that property crime has simply been displaced to other areas further away. Violent crime density does not appear to be affected by outlet closings: There appears to be a tiny and insignificant 1% increase in violent crime density when outlet closes and this effect becomes negative when there just two other outlets in operation.

Examining Table VIII, there appears to be strong evidence that the closing down of outlets in low-SES neighborhoods decreases property crime density in the immediate vicinity of the outlet. There is some evidence, however, that this decrease in property crime results in an increase in property crime further (beyond 0.1 miles) away. This is consistent with earlier findings that suggest that property crimes are relatively mobile and tend to occur wherever human traffic increases. For violent crimes, the closure of outlets in low-SES neighborhoods appears to have virtually no effect on crime density when there are other outlets around.

From Table IX, we see that the closure of outlets in high-SES neighborhoods appear to increase property crime and also violent crime. While the effect of a closure on violent crime is mitigated by the presence of other outlets, the increase in property crime density is magnified by the presence of other outlets. One possible explanation for this is that the other outlets that remain after the outlet closure may be located in relatively lower-SES neighborhoods if the outlet that closed was situated near the edge of a high-SES tract. Another possibility is that the business that replaced the alcohol outlet that closed may not draw as desirable a clientele as before[10].

4.2.3 Varying Effects of Alcohol Outlets across Different Times of the Day

Table X illustrates how each category of crime is affected differentially during different times of the day when new alcohol outlets open. From Table XI, there is some evidence that property crime density falls throughout the day when outlets close while violent crime density appears to increase.

[10] I plan to address this in a follow-up paper upon the acquisition of a new data set that will allow me to determine the business that was in operation at the same location prior to the alcohol outlet and also the business that came into operation after the alcohol outlet closure.

For violent crimes, there is evidence that crime density jumps discretely within 0.1 miles as a result of an outlet opening during 0000-0559 hours. This jump is estimated to be around 13%. This is consistent with anecdotal observations that alcohol outlets are problematic partly because they open late at night and also because they are magnets for alcohol abusers and individuals involved in illicit activities, most of whom are most active from after dark until the early hours of the day. As for outlet closings, there may be some evidence that violent crime density experiences no significant changes for most of the day within 0.1 miles from the location of the outlet that closed. The only exception is during 1200-1759 hours, where the evidence is suggestive of an increase in violent crime density after an outlet closure. This may be due to the vacancy status of the site previously occupied by an alcohol outlet although I am unable to confirm this hypothesis with the data I have at hand.

In the case of property crimes, the evidence for a discrete jump in crime density upon the opening of an additional outlet is the strongest during 1200-1759 hours and 1800-2400 hours. The estimated jump is estimated to be between 2 and 9 percent within 0.25 miles from the store. This is consistent with when we think property crimes such as vandalisms, vehicle thefts and burglaries typically happen. When outlets close, the coefficients taken together suggest that there is a re-distribution of property crimes away from the outlet though the statistical evidence is admittedly weak.

5 Do Liquor Stores Lead to Urban Decay?

To the extent that the existence of alcohol outlets has an effect on crime, one would expect it to also have an effect on property transaction prices and perhaps quantities[11] as well, since areas with higher crime rates (both actual and perceived) are also usually less desirable to potential property buyers or renters. Assuming that externalities (both positive and negative) created by alcohol outlets are fully capitalized into land values, we can use the change in residential property prices as a proxy for the degree of urban decay resulting from additional outlets. These estimates will then shed

[11] I perform an analysis of property transaction density using the same empirical strategy as in section 4.1. However, given that these results are less interesting than the ones relating to changes in property transaction prices, I defer the discussion of this analysis to the appendix.

some light on the extent to which alcohol outlets affect urban decay both spatially and temporally. I begin by presenting a simple model of the hedonic framework I use to estimate households' marginal willingness to pay for the presence of alcohol outlets in their neighborhood.

5.1 A Simple Hedonic Model

The housing market, given the heterogeneous nature of housing, is usually described as a hedonic market. Households are assumed to derive utility U by consuming a housing bundle that consists of a vector, A^H, the amenity derived from H different characteristics of the physical structure of the property (number of baths, number of stories etc.), another vector, A^N, the amenity derived from N different characteristics of the neighborhood in which the property is located in, and by the consumption of a composite good, X. Hence, the preferences of household h, located in neighborhood n, at time t, with a vector of household preference parameters, π, is given by the utility function:

(8) $U_{hnt} = U(A^H, A^N, X, \pi)$

Households receive a fixed income, Y, and the price of the property is given by $P(A^H, A^N)$.

Given utility, U, income, Y, the physical characteristics of the property, A^H, and the neighborhood characteristics of the property, A^N, the willingness of the household to pay for the property can be summarized by the function $W(U, Y, A^H, A^N, \pi)$ and the utility function can be re-written as:

(9) $U_{hnt} = U(A, Y\text{-}W, \pi)$

where $A = A(A^H, A^N)$.

Hence, the utility maximization problem of the household is:

(10) $\max\limits_{A,X}\ U(A, X, \pi)$ subject to the budget constraint $Y \geq P(A) + X$.

Solving the maximization problem, I arrive at this condition:

(11) $\dfrac{U_{A,I}}{U_Y} = \dfrac{\delta P}{\delta A_I}$ = Hedonic price of amenity I = Marginal willingness to pay for amenity I.

For the purpose of this paper, we can think of alcohol outlets as an amenity, I. In locations where the opening or closing of outlets result in an increase in crime level, $U_A < 0$, and since $U_Y > 0$, the opening or closing of these outlets creates a negative externality and decreases a representative household's marginal willingness to pay for a property in this neighborhood. However, when the opening or closing of outlets generates a positive externality either through no increase or decrease in crime level and/or an increase in convenience for residents, thereby increasing the desirability of the neighborhood, $U_A > 0$, and a representative household's marginal willingness to pay for a property in this neighborhood increases.

5.2 Examining the Change in the Average Value of Housing Transactions

5.2.1 Empirical Strategy

It is common practice for home buyers to search for properties within a set of pre-selected neighborhoods that they consider to be a good match for their family's needs. The *location* of the property is important because it determines, among many things, the schools your children go to, the length of your commute to work and how far you will have to drive to your favorite restaurant. Therefore, to the extent that the set of local amenities (and disamenities) are fully capitalized into property prices, we can use transaction prices to estimate resident's marginal willingness to pay for alcohol outlets in their neighborhood. As we discussed before, alcohol outlets located in different neighborhoods can be very different. While my data allows me to compare transaction prices within small local areas where properties are presumably more homogeneous than in bigger aggregated areas, there may still be other unobservable characteristics of the property that I cannot control for. Hence, instead of relying solely on the cross sectional variation, I look at how the average value of transactions is affected by the presence of new alcohol outlets in the neighborhood and whether average transaction values change when existing alcohol outlets in the neighborhood close. This time round, I restrict the sample of housing transactions to those that occurred within the City of Los Angeles (Appendix 4 list I). The reason for doing so is to ensure I do not under-count the number of alcohol outlets within a 0.5 mile radius from the property that was transacted. By integrating a difference-in-difference set-up into the standard hedonic framework, I arrive at:

$$\textbf{(12)} \quad \ln(Price_{ijt}) = \alpha_j + \beta X_{it} + \rho_1 Outlets[0,0.1]_{it} + \rho_2 Outlets[0.1,0.25]_{it}$$

$$+ \rho_3 Outlets[0.25,0.5]_{it} + \kappa_1 (Outlets[0,0.1]_{it} * Open12_{it})$$

$$+ \kappa_2 (Outlets[0.1,0.25]_{it} * Open12_{it}) + \kappa_3 (Outlets[0.25,0.5]_{it} * Open12_{it})$$

$$+ Month\ dummies + Year\ dummies + \varepsilon_{ijt}$$

Where $\ln(Price_{ijt})$ is the natural logarithm of the real[12] transaction price of property i located in location j transacted at calendar time t, α_j is the location (5-digit zip code or zip+4) fixed effect and X_{it} is a vector of housing characteristic including year built, size, number of bedrooms and bathrooms, number of stories and the presence of a pool or jacuzzi[13] at calendar time t. Outlets$[0,0.1]_{it}$ is number of alcohol outlets that *ever* existed between a distance of 0 and 0.1 miles away from property i and $Open12_{it}$ is an indicator variable that takes on the value 1 if the outlet has been open for 12 months or less at calendar time t. The coefficients, κ_1, κ_2 *and* κ_3 are the estimates of the change in transaction price due to the location of new alcohol outlets at various distances away from the property. As before, since the error terms are not independent across space, they are clustered at either the 5-digit zip code or the zip+4 level. Similarly, to estimate the change in transaction price due to the closure of alcohol outlets at various distances away from property i, I replace $Open12_{it}$ in equation (12) with $Close12_{it}$, an indicator variable that takes on the value 1 if the outlet has been closed for 12 months or less at calendar time t. Table XII summarizes the results from equation (12).

As before, I separate the alcohol outlets by the median household income of the census tract they are located in order to take into account the heterogeneity of outlets

[12] Property transaction prices are deflated by annual levels of the West Urban CPI downloaded from the Bureau of Labor Statistics website: http://www.bls.gov/cpi/home.htm

[13] The number of bedrooms is top-coded at 6; the number of baths is top-coded at 6; the number of rooms is top-coded at 15; the number of stories is top-coded at 3.

located in different areas. In equation (13), $Bottom_i$ is an indicator variable that is equal to 1 if the outlet is located within a census tract that belongs to the bottom 2 quintiles in terms of median household income among all the census tracts in my sample. On the other hand, Top_i indicates that the particular outlet is located within a tract in the top 2 quintiles:

$$\textbf{(13)} \quad ln\ (Price_{ijt}) = \alpha_j + \beta X_{it} + \rho_1 Outlets[0,0.1]_{it} + \rho_2 Outlets[0.1,0.25]_{it}$$
$$+ \rho_3 Outlets[0.25,0.5]_{it} + \eta b_1 (Outlets[0,0.1]_{it} * Open12_{it} * Bottom_i)$$
$$+ \eta b_2 (Outlets[0.1,0.25]_{it} * Open12_{it} * Bottom_i)$$
$$+ \eta b_3 (Outlets[0.25,0.5]_{it} * Open12_{it} * Bottom_i)$$
$$+ \eta t_1 (Outlets[0,0.1]_{it} * Open12_{it} * Top_i)$$
$$+ \eta t_2 (Outlets[0.1,0.25]_{it} * Open12_{it} * Top_i)$$
$$+ \eta t_3 (Outlets[0.25,0.5]_{it} * Open12_{it} * Top_i) + Month\ dummies$$
$$+ Year\ dummies + \varepsilon_{ijt}$$

Thus, $Bottom_i$ identifies outlets in low-SES neighborhoods while Top_i identifies outlets in high-SES neighborhoods and equation (13) allows for the estimation of the differential effects of the opening of these 2 types of outlets. To understand the differential effects from closing outlets in low and high-SES neighborhoods, I re-estimated equation (13), replacing $Open12_{it}$ by $Close12_{it}$. The regression results of equation (13) are presented in Table XIII.

5.2.2 The Effect of Alcohol Outlets on Property Transaction Values[14]

Table XII illustrates that overall, the opening of new outlets have no statistically significant effect on the price of residential property transactions while the closing of outlets have a positive and economically significant effect on transaction prices. However,

[14] Note that the time frame of the property transactions data (January 1980 - June 2000) is different from that of the incident crime reports (January 1991 – December 2004). As a result, a different sample of the alcohol licensing data is used in this section than in section 4.

when the outlets are separately identified as being located in low and high-SES neighborhoods, I find that homes located within 0.5 miles away from new outlets in low-SES neighborhoods sold for between 2 and 4 percent less on average but homes located within 0.5 miles away from new outlets in high-SES neighborhoods sold for between 0.75 and 1.6 percent more on average. Given that the average property in my dataset sold for about $223,000 between 1980 and 2000, homeowners who live close to a new outlet in a low-SES neighborhood lost between $4,500 and $9,000 relative to the amount they would have received had an outlet not opened within 0.5 miles from their home while homeowners who live close to a new outlet in a high-SES neighborhood stand to gain between $1,700 and $3,600. Furthermore, the closing of outlets in low-SES neighborhoods increase transaction prices by between 4 and 5 percent, translating to a gain of between $9,000 and $11,150. The closure of an outlet in a high-SES neighborhood led to a decrease of transaction prices by between 0.1 to 1 percent, translating to a loss of between $220 and $2,200.

In general, we see that new outlets located further away from the residential property have a smaller impact on the price of the property. This is reasonable since we would expect amenities that are located closer to the property to have a relatively larger effect. However, column (2) of Table XIII seems to indicate that the closure of an outlet further away from the residential property has a bigger impact on its price than a closure of an outlet within 0.1 miles. This may be due in part to the imprecision of the estimates of the effect of the changes in the number of outlets closer to the property. We also observe that outlets in high-SES neighborhoods have a smaller effect on property prices than outlets in low-SES neighborhoods. This is consistent with the findings in the earlier part of the paper where we find that outlets in low-SES neighborhoods have a relatively larger impact on crime.

The heterogeneity of alcohol outlets are evident when we look at new outlets located in low and high-SES neighborhoods individually: Outlets located in low-SES neighborhoods are seen as a disamenity by existing and potential homeowners. On the other hand, outlets located in high-SES neighborhoods are valued by homeowners. In addition, outlets located in low-SES neighborhoods impose a larger shock on the transaction price of the property than outlets in high-SES neighborhoods.

Reassuringly, the estimates of the effect of alcohol outlets on residential property values are similar in magnitude to the effect of other changes in local amenities other recent studies find: Black (1999) finds that parents are willing to pay 2.5% more for a 5% increase in test scores; Chay and Greenstone (2005) find that homeowners' marginal willingness to pay for reductions in air pollution to be around 2% ; Linden and Rockoff (2006) find that value of properties in the immediate vicinity of a sex offender's home fall by 4% on average.

6 Concluding Remarks

Does the presence of alcohol outlets actually *cause* crime and urban decay – as suggested by situational models of criminal activity – or are alcohol outlets more likely to open in declining neighborhoods? This paper tests this question using an event study framework. One important take-away of this paper is the vast heterogeneity that exists between outlets located in low and high-SES neighborhoods and their resulting effects on the neighborhoods they are situated in.

I find that while both types of outlets result in a displacement of property crime to the immediate vicinity of the outlet, the magnitude of this effect is bigger for outlets located in low-SES neighborhoods. Furthermore, additional outlets in low-SES neighborhoods appear to increase violent crime, and there is some evidence that this increase in violent crime is not contained within the immediate vicinity of the outlet but instead, spills over to locations further away. Likewise, outlets located in low-SES neighborhoods have a more pronounced effect on residential property transaction values within a 0.5 mile radius from the outlet: transaction prices fall upon the opening of an additional outlet and rise when an outlet closes. Conversely, transaction values increase, albeit to a smaller extent, with additional outlets in high-SES neighborhoods and decrease correspondingly when such outlets close.

Together, these results indicate that policy makers should be mindful of the differences between the 'good' and the 'bad' outlets when formulating policy. While some outlets may potentially increase crime and urban decay in their neighborhoods, others may be an important source of tax revenue, create jobs for residents and may also provide residents with services that they value. It is encouraging that some cities are already recognizing this difference: The City of San Francisco is proposing new legislation that exempts "larger grocery and other retail stores that also sell alcoholic beverages from regulations that prevent liquor stores from opening in five special use districts".

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8 Appendices

Appendix 1

Examining the Change in Residential Property Transaction Density

Empirical Strategy

In order to have a complete picture of the effect of alcohol outlets on urban decay, one has to consider both the change in property prices and the change in transaction quantities since both price and quantity are required to map out the housing market's equilibrium point. Moreover, quantity data tends to have less error than price data and sheds light on the rate of turnover in the neighborhood. The empirical strategy I use in this part of the paper is the same as the one in section 4.1 except that I substitute in Crime_$den[p,q]_{it}$ in equations (1), (4), (5), (6) and (7) with $Trans\_den[p,q]_{it}$, the property transaction density (number of property transactions per square mile per month) in the area between p and q miles away from outlet i at event time t:

(A1) $$Trans\_den[p,q]_{it} = \alpha_i + \beta_{(c)}\, t_{i(c)} + \gamma\, 1(t_i \geq 0) + Month\ dummies + Year\ dummies + \varepsilon_{it}$$

(A2) $$Trans\_den[p,q]_{it} = \alpha_i + \beta_{(c)}\, t_{i(c)} + \gamma\, 1(t_i \geq 0) + \varpi\, (Outlets[0,q]_{it} - 1) * 1(t_i \geq 0) + Month\ dummies + Year\ dummies + \varepsilon_{it}$$

(A3) $$Trans\_den[p,q]_{it} = \alpha_i + \beta_{(c)}\, t_{i(c)} + \gamma\, 1(t_i \geq 0) + \delta\, t_i * 1(t_i \geq 0) + Month\ dummies + Year\ dummies + \varepsilon_{it}$$

(A4) $$Trans\_den[p,q]_{it} = \alpha_i + \beta_{(c)}\, t_{i(c)} + \gamma\, 1(t_i \geq 0) + \delta\, t_i * 1(t_i \geq 0) + \varpi\, (Outlets[0,q]_{it} - 1) * 1(t_i \geq 0) + Month\ dummies + Year\ dummies + \varepsilon_{it}$$

$$\textbf{(A5)}\quad Trans\_den[p,q]_{it} = \alpha_i + \beta_{(c)}\, t_{i(c)} + Outlets[0,q]_{it} + (Outlets[0,q]_{it})^2$$

$$+ \; Month\ dummies + Year\ dummies + \varepsilon_{it}$$

As before, the standard errors are clustered at the store level since the error terms are not independent across space. In an attempt to make sure that there is no undercounting of the number of transactions as a result of crossing city boundaries, I considered all transactions that occurred in neighborhoods within a 0.5 mile radius of all the alcohol outlets in the City of Los Angeles (Appendix 4 List II) in addition to those that occurred within the neighborhoods of the city (Appendix 4 List I). The results of equations (A1) to (A5) with outlet-tract specific time trends are summarized in Appendix Table I.

As before, in order to account for the heterogeneity of outlets, I separate the alcohol outlets into two groups: those located in high-SES areas (top 2 quintiles of average median household income) and those located in low-SES areas (bottom 2 quintiles). I then re-estimated equations (A1) – (A5) separately for each group. Selected results from this set of regressions are presented in Appendix Tables II and III.

The Effect of Alcohol Outlets on Residential Property Transaction Density

Perhaps unsurprisingly, most of the coefficients in this part of the paper are estimated imprecisely. One explanation is the small number of property transactions that occur during the 49 month window makes it difficult for us to detect any changes. Another explanation is we probably will not expect the opening or closing of one alcohol outlet to have any ramifications on transaction volume but on transaction prices instead. Nonetheless, from Appendix Table I, the general pattern we observe is that the number of property transactions generally increases following an outlet opening and decreases following the closing of an outlet. Also, the magnitude of the effects is larger closer to the outlet than further away. This is consistent with the pattern we see in crime density. However, the implications are difficult to interpret given the lack of any strong evidence.

In the case of outlets in low-SES neighborhoods, while only a handful of the coefficients are estimated precisely, taken together, the coefficients in Appendix Table II suggest that transaction density increases within 0.1 miles from a new outlet but decreases at locations further away. There is no consistent pattern when outlets in low-SES neighborhoods close. Again, while the decrease in transaction density between 0.1 and 0.5 miles away from the outlet is consistent with residents demonstrating loss aversion when transaction prices fall (Genesove and Mayer, 2001), the increase in transactions closer to the outlet is puzzling.

On the contrary, the opening of outlets in high-SES neighborhoods appears to decrease transaction density within 0.1 miles from the new outlet and increase transaction density further away from the outlet. The closing of outlets in high-SES neighborhoods appear to decrease transaction density up to 0.5 miles away. Again, this is loosely consistent with sellers demonstrating loss aversion.

Appendix 2

Geocoding Procedure

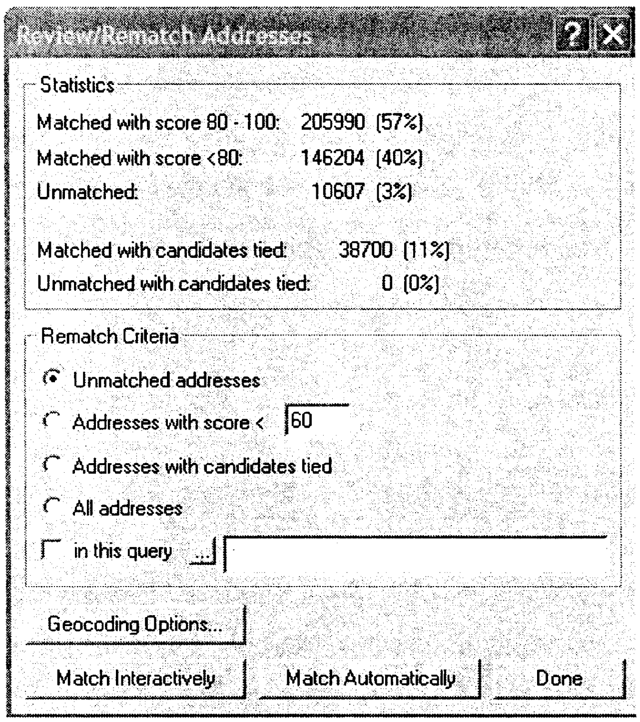
Data Retrieval from the Los Angeles Police Department (LAPD)

Due to third party privacy rights issues, the LAPD did not allow me to retrieve their incident crime reports with the location field in its original form. In cases where the location field variable takes the form of an intersection of two streets, I was allowed to retrieve it as is. However, in cases where the location field variable contained a street address, I had to run the list of street addresses through a software, ZP4, that in turn determined the corresponding ZIP+4 codes of the addresses. I then replaced the street addresses with their corresponding ZIP+4 codes before retrieving the data.

However, complications arose from the lack of a readily available spatial database of ZIP+4 codes for geocoding purposes. Instead, the only spatial databases I had available for geocoding were made up of street addresses and intersections. In order to circumvent this problem, I made used of the official United States Postal Service (USPS) data files available in my version of ZP4 to manually construct a database consisting of ZIP+4s and street addresses that corresponded to approximately the centroid of the ZIP+4 codes. Finally, I proceed to geocode this list of artificially constructed crime locations.

Geocoding in ArcGIS Version 9.1

The address locator was created using a combination of 2 street address databases: The Census Bureau's Tiger line files and ESRI's StreetMap USA database. Geocoding results are displayed in the following format after each geocoding procedure:



The score indicates how closely the individual street addresses in the list of geocoded addresses correspond to the street address it is matched to in the street address databases in terms of its various components such as the street number, street name and directional prefix and suffix. For many reasons including but not limited to the errors in the data and the street address databases, I did not find these scores to be particularly indicative of how accurately each data point is being geocoded. Instead, I found that geocoding accuracy was greatly improved by using other geographical variables in the data sets, such as the reporting district in the LAPD crime data and the 5 digit zip code in the DataQuick and liquor licensing data, for cross checking purposes. Unfortunately, due to the manually intensive nature of this process and the immense number of addresses I had to geocode (well over 1 million), I could only cross check each individual address in the liquor licensing data. As for the LAPD crime data and the DataQuick transactions data, I limited the cross checking to points that were "matched with candidates tied" (i.e. addresses matched to 2 or more points with the same score). I did, however, individually cross check each address for a subset of my data and found that the geocoding errors of the address locators were not systematic such that my results will be biased in a particular way. Nevertheless, these data and geocoding errors will certainly affect the precision of my estimates and bias me against estimating significant coefficients.

Appendix 3
Where Do Alcohol Outlets Locate?

The general perception is areas that have a higher minority presence, a higher proportion of female headed households, a lower median household income and a lower proportion of high school graduates tend also to have many undesirable alcohol outlets. While my data does not allow me to easily differentiate between desirable and undesirable alcohol outlets, it remains interesting to ask where alcohol outlets tend to locate, and whether certain types of neighborhoods tend to have more alcohol outlets than others. To answer this set of questions, I regressed the number of alcohol outlets per thousand in each census tract (Outlets) against the following demographic variables: per cent high school plus (HS), per cent college plus (College), per cent White (White), per cent Black (Black), per cent Asian (Asian), median household income (MedHHY), per capita income (percapY), number of households (HH), number of owner occupied households (Owner), average family size (FamSize), per cent receiving public assistance (PubAssist), per cent ratio of income to poverty level equals two (YPov2) and per cent ratio of income to poverty level is greater than two (YPov2plus). The above list of demographic variables is downloaded at the census tract level from the 1990 and 2000 decennial census and interpolated for each year from 1990 to 2004.

I begin with an OLS regression of equation (A6):

(A6)
$$Outlets_{it} = \phi_1\, HS_{it} + \phi_2\, College_{it} + \phi_3\, White_{it} + \phi_4\, Black_{it} + \phi_5\, Asian_{it} + \phi_6\, MedHHY_{it} + \phi_7\, percapY_{it} + \phi_8\, HH_{it} + \phi_9\, Owner_{it} + \phi_{10}\, FamSize_{it} + \phi_{11}\, PubAssist_{it} + \phi_{12}\, YPov2_{it} + \phi_{13}\, YPov2plus_{it} + \varepsilon_{it}$$

In this equation, i and t index census tracts and years respectively. The results are reported in the first column of Appendix Table IV. Next, I added dummy variables for each year. The results are reported in column 2 of Appendix Table IV. Finally, I augmented equation (A6) with fixed effects for each census tract. The results of this fixed effects regression can be found in the third column of Appendix Table IV.

Prior to controlling for census tract fixed effects, the estimated coefficients for per cent high school plus, median household income, number of households and average family size are negative and significant at the 1% level, while the estimated coefficients for per capita income, per cent White, per cent Asian, per cent receiving public assistance, per cent ratio of income to poverty level equals two and per cent ratio of income to poverty level is greater than two are positive and significant at the 1% level. However, only the estimated coefficients for per cent college plus, number of households, average family size and per cent receiving public assistance remain significant once census tract fixed effects are controlled for. The same set of regressions is repeated for the number of alcohol outlets with type 20 (off-sale beer and wine) and type 21 (off-sale general) licenses per thousand separately. From columns 4-9 of Appendix Table IV, we see that the results from separating alcohol outlets based on their license types is very similar to the results obtained from using the total density of alcohol outlets. Overall, Appendix Table IV suggests that census tracts that are less residential (fewer number of households), poorer (higher per cent receiving public assistance and higher per cent of population with their ratio of poverty level to income greater than or equals to 2) and less educated (lower per cent of population with college and above level of education) tend to have higher alcohol outlet density. One caveat to note is that because demographic data is only available at the census tract level once every 10 years, interpolating 2 observations over the course of fifteen years may result in over-smoothing of the data, which may then cause the tract fixed effects to explain more of the variance than they would have if demographic data is available at a higher frequency.

Appendix 4

List I: Neighborhoods Within the City of Los Angeles

1. Arleta
2. Canoga Park
3. Chatsworth
4. Encino
5. Granada Hills
6. Harbor City
7. Highland Park
8. Hollywood
9. Lake View Terrace
10. Los Angeles
11. Mission Hills
12. North Hills
13. North Hollywood
14. Northridge
15. Pacific Palisades
16. Pacoima
17. Panorama City
18. Playa Del Rey
19. Reseda
20. San Pedro
21. Sepulveda
22. Shadow Hills
23. Sherman Oaks
24. Studio City
25. Sun Valley
26. Sunland
27. Tarzana
28. Toluca Lake
29. Tujunga
30. Valley Village
31. Van Nuys
32. Venice
33. West Hills
34. West Los Angeles
35. Westchester
36. Wilmington
37. Winnetka
38. Woodland Hills

List II: Neighborhoods Surrounding the City of Los Angeles

1. Alhambra
2. Beverly Hills
3. Burbank
4. Calabasas
5. Carson
6. Commerce
7. Compton
8. Culver City
9. East Los Angeles
10. El Segundo
11. Gardena
12. Glendale
13. Hidden Hills
14. Huntington Park
15. Inglewood
16. Lennox
17. Lomita
18. Long Beach
19. Lynwood
20. Marina Del Rey
21. Monterey Park
22. Pasadena
23. Rancho Palos Verdes
24. Rolling Hills
25. San Fernando
26. Santa Monica
27. South Gate
28. South Pasadena
29. Torrance
30. Universal City
31. Vernon
32. West Los Angeles
33. Willowbrook

9 Tables

TABLE I
SAMPLE CRIME DENSITY MEANS IN 1992 BY TRACT LEVEL MEDIAN OUTLET NUMBER

	All LA	Tracts with 0 outlets	Tracts with 2 or less outlets	Tracts with 5 or more outlets
	(1)	(2)	(3)	(4)
Violent crimes	9.6	1.6	5.0	16.2
Assault with deadly weapon	4.1	0.9	2.2	6.9
Robbery	5.5	0.7	2.8	9.4
Property crimes	16.0	3.1	9.3	24.5
Burglary	5.9	1.1	3.3	9.1
Vandalism	2.8	0.7	1.7	4.3
Vehicle theft	7.3	1.2	4.3	11.1

The entries correspond to the mean number of crimes per square mile per month in each census tract in the geographic subsample of downtown Los Angeles during 1992. We observe that census tracts with more alcohol outlets also have higher crime densities.

TABLE II
THE EFFECT OF ALCOHOL OUTLET OPENINGS ON CRIME DENSITY

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (1)	$1(t_i \geq 0)$	2.41	0.81	1.60 ***	2.76 *	0.53	0.38
		(2.02)	(0.98)	(0.51)	(1.53)	(0.63)	(0.35)
	Percent jump	3.7	1.7	3.7	6.0	2.0	1.5
Equation (4)	$1(t_i \geq 0)$	2.20	2.86 **	4.67 ***	2.01	1.50 *	3.77 ***
		(2.51)	(1.20)	(0.96)	(1.75)	(0.81)	(0.89)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.15	-0.52 *	-0.25 ***	0.56	-0.25	-0.28 ***
		(1.27)	(0.27)	(0.08)	(0.81)	(0.17)	(0.07)
	Percent jump (for first outlet)	3.4	6.0	10.8	4.3	5.6	14.7
Equation (5)	$1(t_i \geq 0)$	2.33	0.32	1.36 ***	2.62 *	0.59	0.42
		(2.05)	(0.97)	(0.51)	(1.52)	(0.63)	(0.36)
	$t_i * 1(t_i \geq 0)$	-0.03	-0.21 ***	-0.10 **	-0.06	0.02	0.02
		(0.17)	(0.08)	(0.05)	(0.11)	(0.05)	(0.04)
	Percent jump	3.6	0.7	3.1	5.6	2.2	1.6
Equation (6)	$1(t_i \geq 0)$	2.12	2.41 **	4.45 ***	1.87	1.55 *	3.79 ***
		(2.52)	(1.21)	(0.95)	(1.74)	(0.84)	(0.91)
	$t_i * 1(t_i \geq 0)$	-0.03	-0.21 ***	-0.11 **	-0.06	0.02	0.01
		(0.17)	(0.08)	(0.05)	(0.11)	(0.05)	(0.04)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.15	-0.54 **	-0.26 ***	0.56	-0.25	-0.28 ***
		(1.27)	(0.27)	(0.08)	(0.81)	(0.17)	(0.07)
	Percent jump (for first outlet)	3.2	5.1	10.3	4.0	5.8	14.8
Equation (7)	*Number of outlets*	4.26 *	1.93 **	1.38 ***	2.12	1.20 *	-0.11
		(2.56)	(0.97)	(0.47)	(1.52)	(0.76)	(0.42)
	(Number of outlets)^2	0.20	-0.03	-0.00	-0.12	0.01	0.04 ***
		(0.48)	(0.09)	(0.01)	(0.28)	(0.06)	(0.01)
	Mean crime density	65.24	47.4	43.31	46.38	26.74	25.69

The dependent variable is the number of crimes per $mile^2$ per month. There were 703 outlet openings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE III

THE EFFECT OF ALCOHOL OUTLET OPENINGS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (1)	$1(t_i \geq 0)$	3.43 *	0.47	1.00 **	2.40	0.48	0.24
		(1.94)	(0.93)	(0.48)	(1.57)	(0.61)	(0.34)
	Percent jump	5.3	1.0	2.3	5.2	1.8	0.9
Equation (4)	$1(t_i \geq 0)$	1.40	0.63	0.93	1.37	0.06	-0.04
		(2.42)	(1.35)	(0.81)	(1.67)	(0.82)	(0.65)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	1.52	-0.04	0.01	0.77	0.11	0.02
		(1.19)	(0.35)	(0.07)	(0.98)	(0.22)	(0.06)
	Percent jump (for first outlet)	2.1	1.3	2.1	3.0	0.2	-0.2
Equation (5)	$1(t_i \geq 0)$	3.05	0.08	0.86 *	2.32	0.50	0.25
		(1.97)	(0.93)	(0.49)	(1.56)	(0.61)	(0.35)
	$t_i * 1(t_i \geq 0)$	-0.20	-0.20 **	-0.07	-0.04	0.01	0.01
		(0.17)	(0.09)	(0.05)	(0.12)	(0.05)	(0.04)
	Percent jump	4.7	0.2	2.0	5.0	1.9	1.0
Equation (6)	$1(t_i \geq 0)$	1.09	0.38	0.86	1.31	0.07	-0.03
		(2.42)	(1.34)	(0.80)	(1.70)	(0.83)	(0.64)
	$t_i * 1(t_i \geq 0)$	-0.19	-0.20 **	-0.07	-0.04	0.01	0.01
		(0.17)	(0.09)	(0.05)	(0.12)	(0.05)	(0.04)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	1.47	-0.08	0.00	0.76	0.11	0.02
		(1.20)	(0.35)	(0.07)	(1.00)	(0.22)	(0.06)
	Percent jump (for first outlet)	1.7	0.8	2.0	2.8	0.3	-0.1
Equation (7)	*Number of outlets*	1.83	0.71	0.72 *	0.02	0.38	-0.02
		(2.23)	(0.97)	(0.40)	(1.59)	(0.63)	(0.31)
	(Number of outlets)^2	0.63	-0.04	-0.01	0.08	0.03	0.02 **
		(0.44)	(0.10)	(0.01)	(0.31)	(0.05)	(0.01)
	Mean crime density	65.24	47.4	43.31	46.38	26.74	25.69

The dependent variable is the number of crimes per mile^2 per month. There were 703 outlet openings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE IV
THE EFFECT OF ALCOHOL OUTLET CLOSINGS ON CRIME DENSITY

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (1)	$1(t_i \geq 0)$	-1.48	-0.20	-0.09	0.49	0.03	-0.32
		(1.12)	(0.46)	(0.29)	(1.05)	(0.38)	(0.25)
	Percent jump	-2.1	-1.2	-0.8	-2.4	-1.5	-1.0
Equation (4)	$1(t_i \geq 0)$	-0.74	3.38 ***	5.31 ***	1.74	3.14 ***	4.18 ***
		(1.29)	(0.95)	(0.70)	(1.48)	(1.11)	(0.71)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.67	-1.05 ***	-0.46 ***	-1.13	-0.91 ***	-0.38 ***
		(0.70)	(0.23)	(0.06)	(0.90)	(0.33)	(0.06)
	Percent jump (for first outlet)	-1.4	8.7	14.5	4.0	12.4	17.4
Equation (5)	$1(t_i \geq 0)$	-1.48	-0.21	-0.08	0.47	0.04	-0.33
		(1.13)	(0.46)	(0.29)	(1.05)	(0.39)	(0.25)
	$t_i * 1(t_i \geq 0)$	-0.00	-0.02	0.01	-0.03	0.01	-0.01
		(0.09)	(0.04)	(0.03)	(0.08)	(0.03)	(0.02)
	Percent jump	-2.8	-0.5	-0.2	1.1	0.2	-1.4
Equation (6)	$1(t_i \geq 0)$	-0.74	3.36 ***	5.31 ***	1.72	3.15 ***	4.17 ***
		(1.30)	(0.95)	(0.70)	(1.48)	(1.11)	(0.71)
	$t_i * 1(t_i \geq 0)$	-0.00	-0.02	-0.00	-0.03	0.01	-0.02
		(0.09)	(0.04)	(0.03)	(0.08)	(0.03)	(0.02)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.67	-1.05 ***	-0.46 ***	-1.13	-0.91 ***	-0.38 ***
		(0.70)	(0.23)	(0.06)	(0.90)	(0.33)	(0.06)
	Percent jump (for first outlet)	-1.4	8.7	14.5	4.0	12.4	17.4
Equation (7)	*Number of outlets*	1.49	-1.98 **	-1.01 ***	0.80	-2.37 **	-0.69 **
		(1.54)	(0.93)	(0.34)	(1.78)	(1.20)	(0.34)
	(Number of outlets)^2	0.09	0.25 ***	0.05 ***	0.03	0.34 ***	0.04 ***
		(0.22)	(0.09)	(0.01)	(0.27)	(0.13)	(0.01)
	Mean crime density	53.74	38.64	36.65	43.32	25.38	24.03

The dependent variable is the number of crimes per mile^2 per month. There were 634 outlet closings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of $1(t_i \geq 0)$ by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE V

THE EFFECT OF ALCOHOL OUTLET CLOSINGS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (1)	$1(t_i \geq 0)$	-1.58	-0.15	-0.05	0.48	0.01	-0.29
		(1.13)	(0.46)	(0.29)	(1.05)	(0.38)	(0.25)
	Percent jump	-2.9	-0.4	-0.1	1.1	0.0	-1.2
Equation (4)	$1(t_i \geq 0)$	-2.18 *	0.68	2.20 ***	1.73	0.72	1.29 **
		(1.31)	(0.81)	(0.67)	(1.57)	(1.01)	(0.63)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.54	-0.25	-0.19 ***	-1.13	-0.21	-0.14 **
		(0.76)	(0.21)	(0.06)	(1.01)	(0.30)	(0.06)
	Percent jump (for first outlet)	-4.1	1.8	6.0	4.0	2.8	5.4
Equation (5)	$1(t_i \geq 0)$	-1.59	-0.17	-0.03	0.47	0.01	-0.30
		(1.14)	(0.46)	(0.29)	(1.06)	0.38	(0.25)
	$t_i * 1(t_i \geq 0)$	-0.02	-0.02	0.02	-0.01	0.00	-0.02
		(0.09)	(0.04)	(0.03)	(0.08)	(0.03)	(0.02)
	Percent jump	-3.0	-0.4	-0.1	1.1	0.0	-1.2
Equation (6)	$1(t_i \geq 0)$	-2.19 *	0.66	2.21 ***	1.72	0.72	1.28 **
		(1.32)	(0.81)	(0.67)	(1.58)	(1.01)	(0.63)
	$t_i * 1(t_i \geq 0)$	-0.02	-0.02	0.02	-0.01	0.00	-0.02
		(0.09)	(0.04)	(0.03)	(0.08)	(0.03)	(0.02)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.54	-0.24	-0.19 ***	-1.13	-0.21	-0.14 **
		(0.76)	(0.21)	(0.06)	(1.01)	(0.30)	(0.06)
	Percent jump (for first outlet)	-4.1	1.7	6.0	4.0	2.8	5.3
Equation (7)	*Number of outlets*	2.31	-0.68	-0.54 *	-0.18	-1.79 *	-0.48 **
		(1.50)	(0.77)	(0.29)	(1.84)	(1.04)	(0.24)
	(Number of outlets)^2	-0.37	0.11	0.03 ***	0.04	0.28 **	0.04 ***
		(0.25)	(0.07)	(0.01)	(0.30)	(0.11)	(0.01)
	Mean crime density	53.74	38.64	36.65	43.32	25.38	24.03

The dependent variable is the number of crimes per mile^2 per month. There were 634 outlet closings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE VI

THE EFFECT OF ALCOHOL OUTLET OPENINGS IN LOW-SES NEIGHBORHOODS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
<u>*Equation (4)*</u>	$1(t_i \geq 0)$	5.33	-1.53	4.32 ***	0.03	0.14	1.47
		(4.22)	(2.63)	(1.53)	(3.05)	(1.76)	(1.40)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.55	0.25	-0.16 *	3.08 **	0.05	-0.07
		(1.71)	(0.56)	(0.10)	(1.54)	(0.34)	(0.09)
	Percent jump (for first outlet)	6.8	-2.6	7.6	0.0	0.3	3.6
<u>*Equation (6)*</u>	$1(t_i \geq 0)$	4.80	-1.65	4.26 ***	-0.15	0.29	1.48
		(4.28)	(2.61)	(1.51)	(3.12)	(1.77)	(1.40)
	$t_i * 1(t_i \geq 0)$	-0.30	-0.12	-0.11	-0.10	0.15	0.01
		(0.32)	(0.16)	(0.08)	(0.20)	(0.10)	(0.08)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.60	0.22	-0.17 *	3.06 **	0.08	-0.06
		(1.70)	(0.56)	(0.10)	(1.53)	(0.34)	(0.09)
	Percent jump (for first outlet)	6.1	-2.8	7.5	-0.2	0.7	3.6
<u>*Equation (7)*</u>	*Number of outlets*	6.19	1.35	1.19 **	-1.24	1.43	0.00
		(3.37)	(1.57)	(0.60)	(2.80)	(1.19)	(0.53)
	(Number of outlets)^2	-0.11	-0.06	-0.02 *	0.17	-0.02	0.02
		(0.40)	(0.13)	(0.01)	(0.50)	(0.08)	(0.01)
	Mean crime density	78.76	59.61	56.97	63.78	40.35	40.99

The dependent variable is the number of crimes per $mile^2$ per month. 313 outlets in low-SES neighborhoods opened in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE VII
THE EFFECT OF ALCOHOL OUTLET OPENINGS IN HIGH-SES NEIGHBORHOODS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (4)	$1(t_i \geq 0)$	-3.44	-0.18	-1.46	0.80	-1.53 *	-0.83 **
		(2.78)	(1.38)	(0.95)	(1.94)	(0.92)	(0.43)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	4.26 **	0.59	0.29 **	-0.89	0.64 **	0.18 ***
		(1.76)	(0.37)	(0.14)	(1.04)	(0.26)	(0.07)
	Percent jump (for first outlet)	-6.9	-0.5	-5.4	3.3	-12.7	-8.7
Equation (6)	$1(t_i \geq 0)$	-3.32	-0.37	-1.46	0.72	-1.63 *	-0.83 *
		(2.76)	(1.38)	(0.95)	(1.95)	(0.92)	(0.43)
	$t_i * 1(t_i \geq 0)$	0.07	-0.17 *	0.01	-0.05	-0.09 *	0.01
		(0.18)	(0.09)	(0.05)	(0.14)	(0.05)	(0.02)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	4.27 **	0.55	0.30 **	-0.90	0.62 **	0.18 ***
		(1.77)	(0.37)	(0.14)	(1.04)	(0.26)	(0.07)
	Percent jump (for first outlet)	-6.7	-1.1	-5.4	3.0	-13.5	-8.7
Equation (7)	*Number of outlets*	-5.42 **	1.43	0.54	-1.32	-0.29	-0.09
		(2.49)	(0.99)	(0.48)	(1.81)	(0.76)	(0.20)
	(Number of outlets)^2	1.95 ***	-0.07	0.00	0.25	0.04	0.04 ***
		(0.60)	(0.13)	(0.02)	(0.31)	(0.09)	(0.01)
	Mean crime density	49.63	33.64	27.07	24.23	12.08	9.49

The dependent variable is the number of crimes per mile^2 per month. 255 outlets in high-SES neighborhoods opened in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of $1(t_i \geq 0)$ by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE VIII

THE EFFECT OF ALCOHOL OUTLET CLOSINGS IN LOW-SES NEIGHBORHOODS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
<u>Equation (4)</u>	*1* (t_i ≥ 0)	-4.46 **	1.74	3.50 ***	1.67	1.64	1.70
		(1.88)	(1.24)	(1.10)	(2.78)	(1.68)	(1.08)
	1 (t_i ≥ 0)*(*Number of outlets - 1*)	1.46	-0.52 *	-0.23 ***	-1.54	-0.51	-0.16 **
		(1.06)	(0.28)	(0.08)	(1.90)	(0.45)	(0.08)
	Percent jump (for first outlet)	-7.2	3.7	7.6	2.9	4.5	4.9
<u>Equation (6)</u>	*1* (t_i ≥ 0)	-4.43 **	1.74	3.51 ***	1.65	1.65	1.67
		(1.91)	(1.24)	(1.10)	(2.79)	(1.68)	(1.08)
	t_i**1* (t_i ≥ 0)	0.03	-0.00	0.03	-0.03	0.02	-0.04
		(0.13)	(0.06)	(0.04)	(0.14)	(0.06)	(0.04)
	1 (t_i ≥ 0)*(*Number of outlets - 1*)	1.45	-0.52 *	-0.23 ***	-1.53	-0.51	-0.16 **
		(1.06)	(0.28)	(0.08)	(1.90)	(0.45)	(0.08)
	Percent jump (for first outlet)	-7.1	3.7	7.6	2.8	4.6	4.8
<u>Equation (7)</u>	*Number of outlets*	3.05	-1.56	-0.87 **	-0.66	-3.00 **	-0.50
		(2.18)	(0.99)	(0.36)	(3.49)	(1.20)	(0.32)
	(Number of outlets)^2	-0.75 *	0.19 **	0.03 ***	0.24	0.45 ***	0.03 ***
		(0.41)	(0.09)	(0.01)	(0.69)	(0.12)	(0.01)
	Mean crime density	62.06	47.65	46.10	58.39	36.21	34.64

The dependent variable is the number of crimes per mile^2 per month. 331 outlets in low-SES neighborhoods closed in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE IX

THE EFFECT OF ALCOHOL OUTLET CLOSINGS IN HIGH-SES NEIGHBORHOODS ON CRIME DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (4)	*1* $(t_i \geq 0)$	2.19	-0.04	0.15	2.24	-0.06	0.30
		(2.15)	(1.06)	(0.62)	(1.51)	(0.58)	(0.38)
	1 $(t_i \geq 0)$*(*Number of outlets - 1)*	0.02	0.10	-0.04	-1.10	0.23	-0.02
		(1.17)	(0.31)	(0.07)	(0.87)	(0.18)	(0.05)
	Percent jump (for first outlet)	5.0	-0.2	0.7	11.5	-0.6	3.9
Equation (6)	*1* $(t_i \geq 0)$	2.15	-0.12	0.15	2.24	0.07	0.31
		(2.15)	(1.06)	(0.61)	(1.51)	(0.60)	(0.39)
	t_i **1* $(t_i \geq 0)$	-0.03	-0.05	0.01	0.01	-0.01	0.01
		(0.16)	(0.06)	(0.04)	(0.09)	(0.03)	(0.02)
	1 $(t_i \geq 0)$*(*Number of outlets - 1)*	0.03	0.12	-0.03	-1.11	0.23	-0.02
		(1.18)	(0.31)	(0.07)	(0.87)	(0.18)	(0.05)
	Percent jump (for first outlet)	4.9	-0.5	0.7	11.5	0.7	4.0
Equation (7)	*Number of outlets*	-2.90	0.55	0.20	-1.43	-0.06	-0.32 **
		(2.16)	(0.77)	(0.28)	(1.56)	(0.40)	(0.14)
	(Number of outlets)^2	-0.03	-0.07	-0.01	0.07	0.00	0.01 ***
		(0.25)	(0.05)	(0.01)	(0.32)	(0.03)	(0.00)
	Mean crime density	43.70	25.95	21.85	19.56	9.55	7.74

The dependent variable is the number of crimes per $mile^2$ per month. 180 outlets in high-SES neighborhoods closed in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean crime density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE X: THE EFFECT OF ALCOHOL OUTLET OPENINGS ON CRIME DENSITY DURING DIFFERENT TIMES OF THE DAY

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
0000 - 0559 hrs	$1(t_i \geq 0)$	0.12	0.55 *	0.50 ***	1.33 *	-0.05	1.21 ***
		(0.71)	(0.32)	(0.18)	(0.69)	(0.29)	(0.28)
	$t_i * 1(t_i \geq 0)$	-0.09 *	-0.04 **	0.00	-0.06	-0.01	0.01
		(0.05)	(0.02)	(0.01)	(0.05)	(0.02)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.07	-0.04	-0.02	-0.22	0.04	-0.07 ***
		(0.32)	(0.06)	(0.01)	(0.34)	(0.06)	(0.02)
	Mean crime density	8.72	6.24	5.72	10.14	5.81	5.71
	Percent jump (for first outlet)	1.4	8.8	8.7	13.1	-0.9	21.2
0600 - 1159 hrs	$1(t_i \geq 0)$	-0.80	-0.33	0.54 **	0.75	0.05	0.34 **
		(0.75)	(0.37)	(0.24)	(0.54)	(0.23)	(0.15)
	$t_i * 1(t_i \geq 0)$	-0.02	-0.02	0.00	-0.01	0.03 *	0.02 **
		(0.05)	(0.02)	(0.01)	(0.04)	(0.01)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.51	0.04	-0.03 **	0.09	-0.04	-0.03 ***
		(0.33)	(0.07)	(0.02)	(0.22)	(0.05)	(0.01)
	Mean crime density	11.08	8.64	8.09	5.95	3.48	3.42
	Percent jump (for first outlet)	-7.2	-3.8	6.7	12.6	1.4	9.9
1200 - 1759 hrs	$1(t_i \geq 0)$	1.56	0.24	1.25 ***	-0.23	0.75 **	0.69 **
		(1.18)	(0.48)	(0.29)	(0.79)	(0.37)	(0.29)
	$t_i * 1(t_i \geq 0)$	0.04	-0.04	-0.05 ***	0.07	0.02	-0.02
		(0.07)	(0.03)	(0.02)	(0.05)	(0.02)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.03	-0.14	-0.09 ***	0.37	-0.17 **	-0.06 ***
		(0.50)	(0.12)	(0.02)	(0.42)	(0.08)	0.02
	Mean crime density	17.78	12.23	11.21	11.95	7.00	6.62
	Percent jump (for first outlet)	8.8	2.0	11.2	-1.9	10.7	10.4
1800 - 2359 hrs	$1(t_i \geq 0)$	1.24	1.91 ***	2.13 ***	0.03	0.80 *	1.54 ***
		(1.38)	(0.61)	(0.49)	(1.10)	(0.43)	(0.38)
	$t_i * 1(t_i \geq 0)$	0.05	-0.12 ***	-0.07 ***	-0.06	-0.01	0.00
		(0.10)	(0.04)	(0.02)	(0.07)	(0.02)	(0.02)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.24	-0.39 ***	-0.11 ***	0.32	-0.08	-0.11 ***
		(0.73)	(0.13)	(0.04)	(0.46)	(0.09)	(0.03)
	Mean crime density	27.63	20.27	18.27	18.33	10.45	9.94
	Percent jump (for first outlet)	4.5	9.4	11.7	0.2	7.7	15.5

The dependent variable is the number of crimes per $mile^2$ per month during a particular 6 hour interval. There were 703 outlet openings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of $1(t_i \geq 0)$ by the mean crime density of the sample. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE XI: THE EFFECT OF ALCOHOL OUTLET CLOSINGS ON CRIME DENSITY DURING DIFFERENT TIMES OF THE DAY

		Property crimes			Violent crimes		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
0000 - 0559 hrs	$1(t_i \geq 0)$	-0.01	0.64 ***	1.02 ***	0.81	0.52 *	1.25 ***
		(0.40)	(0.21)	(0.17)	(0.53)	(0.30)	(0.21)
	$t_i * 1(t_i \geq 0)$	0.03	-0.00	0.00	0.05	-0.00	0.01
		(0.03)	(0.01)	(0.01)	(0.04)	(0.01)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.21	-0.20 ***	-0.08 ***	-0.64 **	-0.15 *	-0.11 ***
		(0.18)	(0.05)	(0.01)	(0.29)	(0.08)	(0.02)
	Mean crime density	7.30	5.09	4.85	9.22	5.40	5.10
	Percent jump (for first outlet)	-0.1	12.6	21.0	8.8	9.6	24.5
0600 - 1159 hrs	$1(t_i \geq 0)$	-0.46	0.35	0.87 ***	0.02	0.19	0.72 ***
		(0.50)	(0.25)	(0.16)	(0.42)	(0.21)	(0.12)
	$t_i * 1(t_i \geq 0)$	0.01	-0.01	0.00	-0.02	0.00	-0.01
		(0.03)	(0.02)	(0.01)	(0.03)	(0.01)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.11	-0.09 *	-0.07 ***	-0.15	-0.12 **	-0.05 ***
		(0.22)	(0.05)	(0.01)	(0.15)	(0.06)	(0.01)
	Mean crime density	9.95	7.61	7.28	6.05	3.55	3.38
	Percent jump (for first outlet)	-4.6	4.6	12.0	0.3	5.4	21.3
1200 - 1759 hrs	$1(t_i \geq 0)$	-0.26	0.60 *	1.15 ***	0.78	1.00 ***	1.01 ***
		(0.57)	(0.32)	(0.23)	(0.58)	(0.36)	(0.22)
	$t_i * 1(t_i \geq 0)$	0.03	-0.01	-0.00	-0.00	0.00	-0.01
		(0.04)	(0.02)	(0.01)	(0.04)	(0.01)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.39	-0.21 ***	-0.11 ***	-0.23	-0.27 ***	-0.10 ***
		(0.28)	(0.07)	(0.02)	(0.33)	(0.10)	(0.02)
	Mean crime density	14.78	10.31	9.75	11.71	6.87	6.50
	Percent jump (for first outlet)	-1.8	5.8	11.8	6.7	14.6	15.5
1800 - 2359 hrs	$1(t_i \geq 0)$	-0.02	1.77 ***	2.28 ***	0.12	1.43 ***	1.18 ***
		(0.77)	(0.50)	(0.31)	(0.75)	(0.48)	(0.27)
	$t_i * 1(t_i \geq 0)$	-0.07	0.00	-0.00	-0.05	0.01	-0.01
		(0.05)	(0.02)	(0.01)	(0.05)	(0.02)	(0.01)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.17	-0.55 ***	-0.20 ***	-0.11	-0.38 ***	-0.13 ***
		(0.34)	(0.13)	(0.02)	(0.38)	(0.13)	(0.02)
	Mean crime density	21.70	15.62	14.76	16.33	9.56	9.05
	Percent jump (for first outlet)	-0.1	11.3	15.4	0.7	15.0	13.0

The dependent variable is the number of crimes per mile^2 per month during a particular 6 hour interval. There were 634 outlet closings in this geographic subsample of downtown Los Angeles between 1992 and 2004. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of crime density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti ≥0) by the mean crime density of the sample. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE XII

THE IMPACT OF ALCOHOL OUTLETS ON RESIDENTIAL PROPERTY TRANSACTION PRICES

	Openings within the last 12 months		Closings within the last 12 months	
	(1)	(2)	(3)	(4)
Number of outlets that ever existed ...				
within 0 - 0.1 miles	-.0239 ***	-.0132 ***	-.0255 ***	-.0152 ***
	(.0037)	(.0040)	(.0036)	(.0040)
within 0.1 - 0.25 miles	-.0105 ***	-.0024	-.0111 ***	-.0030 *
	(.0017)	(.0016)	(.0016)	(.0016)
within 0.25 - 0.5 miles	-.0070 ***	-.0002	-.0074 ***	-.0008
	(.0013)	(.0009)	(.0013)	(.0009)
Number of new openings or closings ...				
within 0 - 0.1 miles	-.0246	-.0194	.0362 **	.0509 ***
	(.0173)	(.0153)	(.0155)	(.0173)
within 0.1 - 0.25 miles	-.0022	-.0031	.0271 ***	.0240 ***
	(.0056)	(.0053)	(.0077)	(.0059)
within 0.25 - 0.5 miles	-.0042	-.0049 *	.0120 ***	.0158 ***
	(.0037)	(.0026)	(.0045)	(.0029)
Zip code fixed effects	√		√	
Zip+4 fixed effects		√		√
Month and year dummies	√	√	√	√
Sample size	303735	303735	303735	303735
Adjusted R-squared	0.58	0.67	0.58	0.67

The dependent variable is the natual logarithm of the real transaction price of the property. In addition to the size of the property, a full set of housing characteristic dummies were also included: the number of bedrooms is top-coded at 6; the number of baths is top-coded at 6, the number of rooms is top-coded at 15; the number of stories is top-coded at 3; the year built and the presence of a pool, jacuzzi or both. Huber-White standard errors clustered at either the 5-digit zip code or zip+4 level are in parentheses. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

TABLE XIII
THE DIFFERENTIAL IMPACT OF ALCOHOL OUTLETS IN LOW-SES AND HIGH-SES NEIGHBORHOODS ON RESIDENTIAL PROPERTY TRANSACTION PRICES

	Openings within the last 12 months (1)	Closings within the last 12 months (2)
Number of outlets that ever existed ...		
within 0 - 0.1 miles	-.0136 ***	-.0147 ***
	(.0040)	(.0040)
within 0.1 - 0.25 miles	-.0024	-.0030 *
	(.0016)	(.0016)
within 0.25 - 0.5 miles	-.0000	-.0007
	(.0009)	(.0009)
Number of new openings or closings in low-SES neighborhoods ...		
within 0 - 0.1 miles	-.0440 *	.0424 *
	(.0243)	(.0252)
within 0.1 - 0.25 miles	-.0223 **	.0527 ***
	(.0106)	(.0110)
within 0.25 - 0.5 miles	-.0321 ***	.0440 ***
	(.0050)	(.0055)
Number of new openings or closings in high-SES neighborhoods ...		
within 0 - 0.1 miles	.0157	-.0010
	(.0245)	(.0263)
within 0.1 - 0.25 miles	.0102	-.0047
	(.0072)	(.0081)
within 0.25 - 0.5 miles	.0075 **	-.0109 ***
	(.0037)	(.0041)
Zip+4 fixed effects	√	√
Month and year dummies	√	√
Sample size	303735	303735
Adjusted R-squared	0.67	0.67

The dependent variable is the natual logarithm of the real transaction price of the property. In addition to the size of the property, a full set of housing characteristic dummies were also included: the number of bedrooms is top-coded at 6; the number of baths is top-coded at 6; the number of rooms is top-coded at 15; the number of stories is top-coded at 3; the year built and the presence of a pool, jacuzzi or both. Huber-White standard errors clustered at either the 5-digit zip code or zip+4 level are in parentheses. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

APPENDIX TABLE I

THE EFFECT OF ALCOHOL OUTLETS ON RESIDENTIAL PROPERTY TRANSACTION DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Outlet openings			Outlet closings		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (A1)	$1(t_i \geq 0)$	0.05	0.07	0.05	-0.26	-0.15	0.24 **
		(0.08)	(0.05)	(0.03)	(0.34)	(0.21)	(0.12)
	Percent jump	2.8	2.7	1.7	-8.6	-3.8	5.6
Equation (A2)	$1(t_i \geq 0)$	0.03	0.03	0.01	-0.66	-0.50	-0.05
		(0.09)	(0.06)	(0.04)	(0.63)	(0.44)	(0.22)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.02	0.02	0.00	0.20	0.08	0.03 *
		(0.04)	(0.01)	(0.00)	(0.20)	(0.07)	(0.01)
	Percent jump (for first outlet)	1.7	1.1	0.3	-21.7	-12.5	-1.2
Equation (A3)	$1(t_i \geq 0)$	0.06	0.07	0.05 *	-0.63	-1.52 **	-0.53
		(0.08)	(0.05)	(0.03)	(1.27)	(0.74)	(0.44)
	$t_i * 1(t_i \geq 0)$	0.01	0.00	0.00	0.29	-0.13	-0.04
		(0.01)	(0.00)	(0.00)	(0.33)	(0.10)	(0.05)
	Percent jump	3.4	2.7	1.7	-20.7	-38.1	-12.4
Equation (A4)	$1(t_i \geq 0)$	0.04	0.03	0.01	-2.00	-1.78	-0.73
		(0.09)	(0.06)	(0.04)	(1.99)	(1.08)	(0.64)
	$t_i * 1(t_i \geq 0)$	0.01	0.00	0.00	0.29	-0.13	-0.04
		(0.01)	(0.00)	(0.00)	(0.32)	(0.10)	(0.05)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.02	0.02	0.00	0.64	0.06	0.02
		(0.04)	(0.01)	(0.00)	(0.76)	(0.15)	(0.03)
	Percent jump (for first outlet)	2.3	1.1	0.3	-65.8	-44.6	-17.1
Equation (A5)	*Number of outlets*	0.01	-0.02	-0.06	0.07	-0.05	0.09
		(0.08)	(0.04)	(0.01)	(0.26)	(0.10)	(0.05)
	(Number of outlets)^2	0.01	0.01 **	0.00	0.03	0.00	-0.00
		(0.01)	(0.00)	(0.00)	(0.03)	(0.01)	(0.00)
	Mean transaction density	1.77	2.62	2.86	3.04	3.99	4.28

The dependent variable is the number of residential property transactions per $mile^2$ per month. 3201 outlets opened and 732 outlets closed in this sample of the City of Los Angeles between 1980 and 2002. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of transaction density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean transaction density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

APPENDIX TABLE II
THE EFFECT OF ALCOHOL OUTLETS IN LOW-SES NEIGHBORHOODS ON RESIDENTIAL PROPERTY TRANSACTION DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Outlet openings			Outlet closings		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
<u>*Equation (A2)*</u>	$1(t_i \geq 0)$	0.13	-0.11	-0.03	-0.65	0.39	0.37
		(0.13)	(0.08)	(0.05)	(1.25)	(0.61)	(0.30)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.01	0.04 **	0.00	0.27	0.01	-0.01
		(0.06)	(0.01)	(0.00)	(0.49)	(0.09)	(0.01)
	Percent jump (for first outlet)	7.9	-5.8	-1.5	-22.5	12.1	11.0
<u>*Equation (A4)*</u>	$1(t_i \geq 0)$	0.14	-0.10	-0.03	3.08	0.73	-1.22 *
		(0.13)	(0.08)	(0.05)	(3.55)	(1.80)	(0.72)
	$t_i * 1(t_i \geq 0)$	0.01	0.00	-0.00	-0.03	-0.14	-0.10
		(0.01)	(0.00)	(0.00)	(0.24)	(0.09)	(0.08)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	-0.01	0.03 **	0.00	-0.27	-0.11	0.03
		(0.06)	(0.01)	(0.00)	(1.27)	(0.24)	(0.03)
	Percent jump (for first outlet)	8.5	-5.3	-1.5	106.6	22.6	-36.4
<u>*Equation (A5)*</u>	*Number of outlets*	0.02	-0.06	-0.04 **	0.22	0.17	0.20
		(0.12)	(0.05)	(0.02)	(0.37)	(0.12)	(0.07)
	(Number of outlets)^2	0.02	0.01	0.00 *	0.00	-0.01	-0.00
		(0.02)	(0.00)	(0.00)	(0.06)	(0.01)	(0.00)
	Mean transaction density	1.64	1.90	1.97	2.89	3.23	3.35

The dependent variable is the number of residential property transactions per $mile^2$ per month. 1268 outlets opened and 359 outlets closed in low-SES neighborhoods in this sample of the City of Los Angeles between 1980 and 2002. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of transaction density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean transaction density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

APPENDIX TABLE III

THE EFFECT OF ALCOHOL OUTLETS IN HIGH-SES NEIGHBORHOODS ON RESIDENTIAL PROPERTY TRANSACTION DENSITY, WITH OUTLET-TRACT SPECIFIC TRENDS

		Outlet openings			Outlet closings		
		(1)	(2)	(3)	(4)	(5)	(6)
		0 - 0.1	0.1 - 0.25	0.25 - 0.5	0 - 0.1	0.1 - 0.25	0.25 - 0.5
Equation (A2)	$1(t_i \geq 0)$	-0.07	0.07	0.03	-0.39	-0.70	-0.20
		(0.15)	(0.09)	(0.06)	(0.81)	(0.68)	(0.31)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.02	-0.01	0.01	0.18	0.03	0.03
		(0.06)	(0.03)	(0.01)	(0.20)	(0.12)	(0.03)
	Percent jump (for first outlet)	-3.8	2.2	0.9	-13.8	-14.9	-3.8
Equation (A4)	$1(t_i \geq 0)$	-0.06	0.07	0.03	0.39	-1.35	-1.11
		(0.15)	(0.10)	(0.06)	(1.76)	(1.33)	(1.03)
	$t_i * 1(t_i \geq 0)$	0.00	0.00	-0.00	0.47	-0.22 *	0.01
		(0.01)	(0.01)	(0.00)	(0.50)	(0.12)	(0.06)
	$1(t_i \geq 0)$*(*Number of outlets - 1*)	0.02	-0.01	0.01	-0.20	-0.03	0.13
		(0.06)	(0.03)	(0.01)	(0.63)	(0.27)	(0.11)
	Percent jump (for first outlet)	-3.3	2.2	0.9	13.8	-28.7	-21.1
Equation (A5)	*Number of outlets*	-0.05	0.00	-0.06	-0.46	-0.15	0.03
		(0.14)	(0.07)	(0.03)	(0.43)	(0.18)	(0.07)
	(Number of outlets)^2	0.01	0.00	0.00	0.07	0.01	-0.00
		(0.02)	(0.01)	(0.00)	(0.04)	(0.01)	0.00
	Mean transaction density	1.83	3.18	3.52	2.82	4.71	5.27

The dependent variable is the number of residential property transactions per mile^2 per month. 1299 outlets opened and 252 outlets closed in high-SES neighborhoods in this sample of the City of Los Angeles between 1980 and 2002. Clustered Huber-White standard errors are in parentheses. Each column (1)-(6) presents the results of a separate OLS regression using measures of transaction density at various distances away from the outlet. Percent jump refers to the estimated percent change in crime density and is obtained by dividing the coefficient of 1(ti≥0) by the mean transaction density of the sample presented at the bottom row of the table. ***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

APPENDIX TABLE IV
WHERE DO ALCOHOL OUTLETS LOCATE?

	Outlets per 1000			Type 20 Outlets per 1000			Type 21 Outlets per 1000		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Per cent high school plus	-1.32 ***	-1.62 ***	0.28	-0.80 ***	-0.81 ***	0.35	-0.53 ***	-0.82 ***	-0.07
	(-0.26)	(0.29)	(0.69)	(0.15)	(0.16)	(0.41)	(0.16)	(0.19)	(0.40)
Per cent college plus	-0.28	-0.20	-1.14 **	0.17	0.17	-1.05 **	-0.45 ***	-0.37 ***	-0.09
	(0.20)	(0.20)	(0.56)	(0.14)	(0.14)	(0.42)	(0.08)	(0.08)	(0.23)
Per cent white	0.47 ***	0.70 ***	-0.34	0.21 *	0.22 **	-0.26	0.26 ***	0.47 ***	-0.08
	(0.18)	(0.17)	(0.40)	(0.12)	(0.11)	(0.27)	(0.09)	(0.09)	(0.19)
Per cent black	0.05	0.22	0.36	-0.18	-0.17	-0.06	0.23 **	0.40 ***	0.41
	(0.18)	(0.17)	(0.61)	(0.12)	(0.11)	(0.41)	(0.09)	(0.09)	(0.33)
Per cent asian	0.52 **	0.71 ***	-0.32	0.17	0.17	-0.16	0.36 ***	0.54 ***	-0.16
	(0.23)	(0.23)	(0.55)	(0.15)	(0.14)	(0.39)	(0.13)	(0.14)	(0.26)
Median household income (100,000s)	-0.61 ***	-0.68 ***	0.07	-0.50 ***	-0.50 ***	0.05	-0.11 *	-0.18 ***	0.02
	(0.10)	(0.10)	(0.38)	(0.07)	(0.07)	(0.29)	(0.06)	(0.05)	(0.21)
Per capita income (100,000s)	0.52 ***	0.38 **	-0.20	0.16	0.15	-0.15	0.37 ***	0.23 ***	-0.05)
	(0.17)	(0.18	(0.76)	(0.11)	(0.12)	(0.51)	(0.08)	(0.08)	(0.38)
Number of households (10,000s)	-3.74 ***	-3.65 ***	-5.36 ***	-1.86 ***	-1.85 ***	-3.35 ***	-1.88 ***	-1.80 ***	-2.01 ***
	(0.34)	(0.33)	(0.82)	(0.17)	(0.17)	(0.55)	(0.23)	(0.21)	(0.40)
Number of owner occupied households (10,000s)	-0.06	-0.09	2.10	-0.63 **	-0.63 **	1.73	0.57 *	0.53 *	0.37
	(0.48)	(0.47)	(2.20)	(0.17)	(0.25)	(1.37)	(0.33)	(0.32)	(1.20)
Average family size	-0.70 ***	-0.72 ***	-0.36 **	-0.26 ***	-0.26 ***	-0.13	-0.44 ***	-0.46 ***	-0.23 ***
	(0.09)	(0.09)	(0.15)	(0.03)	(0.03)	(0.11)	(0.07)	(0.07)	(0.07)
Per cent public assistance	1.76 ***	2.16 ***	1.70 **	1.04 ***	1.05 ***	1.03 **	0.73 **	1.11 ***	0.67 *
	(0.42)	(0.48)	(0.67)	(0.18)	(0.22)	(0.43)	(0.32)	(0.34)	(0.39)
Poverty level/Income =2	1.65 ***	1.75 ***	0.85	0.58 **	0.59 **	0.44	1.07 ***	1.16 ***	0.41
	(0.54)	(0.55)	(0.92)	(0.25)	(0.26)	(0.57)	(0.39)	(0.40)	(0.44)
Poverty level/Income >2	1.03 ***	1.36 ***	1.61 *	0.69 ***	0.70 ***	1.13 **	0.34 **	0.66 ***	0.48
	(0.25)	(0.30)	(0.88)	(0.14)	(0.17)	(0.57)	(0.15)	(0.17)	(0.39)
Year fixed effects	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Tract fixed effects	No	No	Yes	No	No	Yes	No	No	Yes
(Adjusted) R-squared	0.09	0.10	0.56	0.07	0.08	0.47	0.09	0.10	0.81

The dependent variables are the number of outlets per 1000 people, the number of type 20 outlets per 1000 people and the number of type 21 outlets per 1000 people. Huber-White standard errors are in parentheses. They are clustered at the census tract leve in columns (3), (6) and (9). Each column (1)-(9) presents the results of a separate OLS regression.
***, ** and * denote coefficients significant at the 1%, 5% and 10% levels respectively.

Engelmann
Real Estate Services, Inc.

July 25, 2011

Via Email

Honorable Mayor and City Council
City of Pasadena
100 North Garfield Avenue
Pasadena, CA 91103

Re: Call for Review of a Code Enforcement Commission Decision to the City Council Regarding Modification of Conditions of Operation
125 E. Orange Grove Boulevard
Agenda Item 10.

Dear Mayor and Council Members:

We concur with Staff's recommendation and urge you to approve it. The undersigned and affiliates own properties at 140 East Orange Grove Boulevard and 672 North Summit Avenue. Our properties are located kitty-corner from the applicant's liquor store.

The applicant's business attracts loiterers and drunks, and contributes to littering, pan-handling, public drunkenness, public urination and other nuisance activities. The applicant's business and the nuisance activities of its customers have (i) had adverse effects to the health, welfare, peace, or safety of our tenants and our tenants' customers and guests; (ii) jeopardized or endangered the public health, welfare, or safety of our tenants and our tenants' customers and guests; and (iii) adversely affect the livability of our tenants, and adversely affected our ability to develop and finance our properties. Over the years these nuisance issues have cost us many thousands of dollars in vacancy, reduced rent, and increased financing costs.

The previously imposed conditions of operation have helped. Unfortunately, as discussed in the Agenda Report, there continues to be similar problems in the neighborhood because of other liquor stores, especially Andy's and Joe's. Rather than backtracking on previous progress by weakening the conditions on Super Liquor, the City should seek to move forward and reduce the nuisances caused by Andy's and Joe's.

Of special concern is the removal of Condition No. 18 requiring package labeling. Most stores do this of their own accord because they appreciate the added advertising. Unlike some other conditions which likely come with significant cost to the applicant, the cost of sticky labels are de minimis. The only plausible reason for objecting to this condition is that the applicant knows that the labels track the poor behavior of its customers. Without labels, the applicant can resort to blaming Andy's and Joe's for all neighborhood ills (at tactic used throughout the letter from the applicant's attorney). But the flipside holds as well, if Andy's and Joe's are the real problem and not Super Liquor, why would the applicant object to labeling?

122 W. Sierra Madre Blvd., Suite D, Sierra Madre, CA 91024
Phone: 626-355-7600 • Fax: 626-355-7601

The fact is that our tenants and other area residents continue to find bottles and other litter with Super Liquor labels or with labels partially removed. Public drunkenness, vandalism, public urination and other nuisance activities continue. While Super Liquor is not the whole problem in the neighborhood, and while it has improved since the imposition of conditions of operation, it is still a net nuisance to the neighborhood generally and to us and our tenants specifically.

Much is made by the applicant concerning the number of police reports specifically naming Super Liquor as a problem. However, police reports are not the best measure of nuisance activity. I'm sure there are a number of nuisances reported to the police in which Super Liquor may have been a contributing factor but was not specifically listed in the report. More importantly, most nuisances don't get reported to the police. Picking up trash and washing human defecation from our parking lot and lawn is a regular occurrence. It's something we and our tenants long ago realized was not worth calling the police over (believe me, they have more important things to deal with in our neighborhood). Nonetheless it's a nuisance that adversely affects health, safety and livability. Resident and property owner testimony such as ours is a far more useful measure of nuisance activity. Further, code enforcement and regulatory actions such as this are much better at dealing with nuisances that the police department.

In summary, please do not weaken the conditions of operation on Super Liquor any more than required by the court – adopt the Staff recommendation. Finally, please note our new office address set forth on this first page of this letter for future correspondence. Should you have any questions, please feel free to contact me or my business partner, David Hitchcock.

Very truly yours,

John C. Hutt, President
Engelmann Real Estate Services, Inc.

cc: Jon Pollard
Vannia de la Cuba
David Hitchcock