LIQUOR AND BEER MEETING
LOCAL LICENSING AUTHORITY
CITY OF GRAND JUNCTION, COLORADO
MUNICIPAL HEARING ROOM, CITY HALL, 250 NORTH 5TH STREET

M I N U T E S

WEDNESDAY, AUGUST 15, 2012, 1:00 P.M.

HEARING OFFICER MICHAEL GRATTAN

I. **CALL TO ORDER -** The meeting convened at 2:00 p.m. Those present were Hearing Officer Michael Grattan, City Attorney John Shaver, and Deputy City Clerk Juanita Peterson.

II. APPLICATIONS TO RENEW LIQUOR AND BEER LICENSES

1. Malabo, LLC dba GC Discount Liquors, 200 W. Grand Avenue, Unit #10, Grand Junction, CO 81501, Retail Liquor Store

   Ms. Susan Sixby, Owner, was present.

   The application for renewal for Malabo, LLC dba GC Discount Liquors was found to be in order and approved.

2. Orange Coast Investment, Inc. dba Grand Vista Hotel, 2790 Crossroads Blvd., Grand Junction, CO 81506, Hotel and Restaurant

   Ms. Debra Revis, General Manager, was present.

   The application for renewal for Orange Coast Investment, Inc. dba Grand Vista Hotel was found to be in order and approved.

3. Valero Diamond Metro, Inc., dba Corner Store #1720, 2520 Broadway, Grand Junction, CO 81507, 3.2% Beer Retail (Off-Premise)

   No one was present representing the applicant.

   The application for renewal for Valero Diamond Metro, Inc. dba Corner Store #1720 was found to be in order and approved.

4. Dillon Companies, Inc., dba City Market #1, 2770 Hwy. 50 South and City Market #32, 200 Rood Avenue, Grand Junction, CO 81501, 3.2 % Beer Retail (Off-Premises)

   Mr. Keith Whittier, Assistant Manager, was present.

   The applications for renewal for Dillon Companies, Inc., dba City Market #1 and City Market #32 were found to be in order and approved.

III. APPLICATION TO RENEW LIQUOR AND BEER LICENSE WITH LATE FILING – 18 DAYS LATE

1. Vegas Momma LLC dba ¡sabrosa! restaurante, 122 and 124 5th Street, Grand Junction, CO 81507, Tavern

   Kari Boukhalfa, Owner, was present. Ms. Peterson said this paperwork is in order but the applicant filed 18 days late. Ms. Peterson read the letter Ms. Boukhalfa submitted to the Authority. Since the application was sent to the State, the date stamp the State used is the date the City Clerk's office goes off of which in this case was July 20, 2012. Once Ms. Boukhalfa received the renewal back from the State she immediately brought it in.

   City Attorney Shaver asked if this was the first late filing for this applicant. Ms. Peterson said yes and that this is their first renewal.

   Hearing Officer Grattan said that he finds good cause for the late filing but reminded Ms. Boukhalfa this is a responsibility put on her to file 45 days in advance in the future with the City Clerk's office. Ms. Boukhalfa assured the Authority it would not happen again. The application for renewal was approved.

IV. APPLICATION FOR MODIFICATION OF PREMISES

1. Mesa Theater and Lounge, LLC dba Mesa Theater and Lounge, 538 Main Street, Grand Junction, CO, 81501, Tavern

   Add outdoor dining lease

   Ms. Peterson said this Outdoor Dining Lease was just approved on August 1, 2012 by the City Council, the same day the Authority approved the Transfer of Ownership for Mr. Pittman. For this modification the applicant was required to conduct a survey of the needs and desires of the neighborhood which Ms. Peterson read into the record (see attached).

   City Attorney Shaver asked Mr. Pittman if the diagram submitted Exhibit A (see attached) reflect the dimensions the Council approved. Mr. Pittman said yes, it was reduced by about one foot so the snow plow equipment could get by.

   Hearing Officer Grattan asked if there was anyone present in opposition of this modification. Seeing no one, he asked City Attorney Shaver if he had anything else. City Attorney Shaver recommended approval. The application for modification for Mesa Theater and Lounge was approved.

V. APPLICATION FOR CHANGE IN CORPORATE STRUCTURE

1. Breckenridge Ale House GJ, LLC dba Breckenridge Ale House, 2531 N. 12th Street, Grand Junction, CO 81501, Hotel and Restaurant

   Add: Tracy R. Hansen, 329 Cliff View Drive, Grand Junction, CO 81507 as a Member

   No one was present representing the applicant.

   Ms. Peterson reported the paperwork was submitted in a timely manner and C.B.I./F.B.I. is still pending, but the local background check is in compliance.

   Hearing Officer Grattan approved the Change in Corporate Structure pending a clear report from C.B.I./F.B.I.

VI. APPLICATION TO MODIFY STORAGE PERMIT AREA

1. JN Restaurants, LLC dba Bin 707 Food Bar, 225 N. 5th Street, Suite 105, Grand Junction, CO, 81501, Hotel and Restaurant

   Modify existing storage permit area, increase by 1600 sq. ft.

   Ms. Peterson reported that the paperwork is in order and she called the State and there is no modification to an existing Storage Permit so the applicant would just have to apply for a new one. The change was to increase the area by 1600 sq. ft.

   Hearing Officer Grattan said since there was already a storage permit there, he would approve this one.

VII. APPLICATION FOR REGISTRATION OF A NEW MANAGER

1. Brightstar Golf Redlands Mesa, LLC dba The Golf Club at Redlands Mesa, 2325 West Ridges Blvd., Grand Junction, CO 81507, Hotel and Restaurant with 5 optional premises

   Carson J. Rhyne, 1102 W. Addington Lane, Fruita CO 81521 replaces Tad Holloway

   Ms. Peterson reported the paperwork was submitted in a timely manner and C.B.I./F.B.I. is still pending, but the local background check is in compliance. No other reports were required as the license just renewed in June.

   Hearing Officer Grattan approved the registration of new manager for The Golf Club at Redlands Mesa pending a clear C.B.I./F.B.I report.

VIII. APPLICATION FOR SPECIAL EVENTS PERMIT

1. Grand Junction Elks Home Association, P.O. Box 1987, Grand Junction, CO 81502 “Fly Fishing Swap Meet" September 15, 2012 from 8:00 a.m. to 10:00 p.m., 249 S. 4th Street, Malt, Vinous, and Spirituous

   Don Mear, 627 Darren Way, Grand Junction, CO 81504

   Mr. Don Mear, Lodge Officer, was present. Ms. Peterson reported that the application was in order.

   City Attorney Shaver asked Mr. Mear to describe the event and asked him questions from the special event permit questionnaire Exhibit A (see attached). Mr. Mear said they hoped to make this an annual event and a local boy scout troop will be selling hotdogs.

   Hearing Officer Grattan asked Mr. Mear to take a look at the diagram which he marked Exhibit B (see attached) and described the area the event will be in. Mr. Mear said the event will take place in the ballroom area but if they need additional space they will include the Heritage Room.

   Hearing Officer Grattan asked City Attorney Shaver if he had anything else. City Attorney Shaver said he recommends approval. Hearing Officer Grattan concurred and approved the special event permit.

2. Grand Junction Elks Home Association, P.O. Box 1987, Grand Junction, CO 81502 "Birthday Party" – September 28, 2012 from 3:00 p.m. to Midnight., 249 S. 4th Street, Malt, Vinous, and Spirituous

   Don Mear, 627 Darren Way, Grand Junction, CO 81504

   Mr. Don Mear, Lodge Officer, was present for this one also. Ms. Peterson reported that the application was in order.

   City Attorney Shaver asked Mr. Mear to describe the event and asked him questions regarding the event as to who Misty Castaneda was. Mr. Mear said the Lodge was asked to rent the ballroom facilities Exhibit A (see attached) for her for a birthday party and she is not a member. Mr. Mear said they have signed a contract with the Lodge to meet their requirements.

   Hearing Officer Grattan asked Mr. Mear about these types of events. Mr. Mear said they rent the facilities to generate revenue for the Lodge.

   Hearing Officer Grattan asked City Attorney Shaver if he had anything else. City Attorney Shaver said he recommends approval. Hearing Officer Grattan concurred and approved the special event permit.

3. Colorado Mesa University Foundation**,** 1450 N. 12th Street, Grand Junction, CO 81501 – Mucked Up Desert Challenge on September 1, 2012 from 7:00 a.m. to

4:00 p.m., Desert Northwest of Grand Junction Regional Airport, 2828 Walker Field Drive, Grand Junction, CO 81506, Malt, Vinous, and Spirituous

Event Manager: Rick Adleman, 3021 Oakwood Drive, Grand Junction, CO 81504
Peggy Lamm, 507 Dove Court, Grand Junction, CO 81507

Mr. Rick Adleman, Event Manager, was present.

Ms. Peterson reported the paperwork was in order and there was a bit of confusion on the area being in or out of City limits Exhibit A (see attached). It is in City limits. City Attorney Shaver asked Mr. Adleman to describe the event. Mr. Adelman said this is being sponsored by the cross country team and will be used as a fund raiser with a beer garden. The fence on one side is permanent airport fencing and the other three sides will be temporary fencing brought in. There will be two Grand Junction Police Officers present along with at least two TIPS certified trained staff.

Hearing Officer Grattan said he is very familiar with this area and asked Mr. Adleman a few questions regarding the enlarge photo Exhibit B (see attached). Mr. Adleman said the area will be 20' x 40' with the bar area on one side and tables in the middle.

Hearing Officer Grattan and City Attorney Shaver concurred to approve the special event permit for the Mucked Up Desert Challenge.

4. City of Grand Junction – Parks and Recreation, 1340 Gunnison Avenue, Grand Junction, CO 81501 – Colorado Pork and Hops Challenge – Lincoln Park Loop – September 7th from 4:00 p.m. to 10:00 p.m. and September 8th from 11:00 a.m. to 10:00 p.m., Malt and Vinous

Event Manager: Larry Manchester, 2287 Vista Rio Court, Grand Junction, CO 81507
Department Head: Rob Schoeber, 2598 Kayden Court, Grand Junction, CO 81505

Mr. Larry Manchester, Event Manager, was present. Mr. Manchester said this is the 6th year for this event.

Ms. Peterson said the paperwork was in order. Mr. Manchester wanted to explain the two alcohol areas noted on the diagram Exhibit A (see attached). Mr. Manchester said that due to the Grand Junction Rockies ball team using the field and not knowing if they will be in the play-offs at the time of filing this application, they listed two areas. Alcohol Area 1 will be the area used if there are no play-off games. If they are in the play-offs this is a practice area for the Grand Junction Rockies. The date and time of knowing this information might not be until right before this event. If this happens, Alcohol Area 2 will be used for Pork and Hops.

Hearing Officer Grattan wanted to confer with City Attorney Shaver that this could be approved today with an either or location, just not both. City Attorney Shaver said that is correct since the City does issue these on a local level.

Hearing Officer Grattan reiterated to Mr. Manchester it is his responsibility to let the City Clerk's office know which area will be used prior to the issuance of this permit. Mr. Manchester said he would comply with that at the earliest time that he knows. Hearing Officer Grattan approved the special event permit.

IX. OTHER BUSINESS

The Liquor Authority did recess at 1:45 p.m. and then reconvene at 2:00 p.m. with Hearing Officer Sam Starritt presiding.

X. CALL TO ORDER - The meeting convened at 2:00 p.m. Those present were Alternate Hearing Officer Sam Starritt, City Attorney John Shaver, and Deputy City Clerk Juanita Peterson.

XI. APPLICATION FOR NEW LICENSE – RESOLUTION AND FINDINGS AND DECISION – CONTINUED FROM JULY 18, 2012

1. Junction Liquors, LLC dba Fun Junction Liquors, 510 28 ¾ Road, Unit 202, Grand Junction, CO 81501, Retail Liquor Store

   Sole Member: Cody Ryan Snider, 2538 Brenna Way, Grand Jct., CO 81505

   Hearing Officer Starritt said that he will continue where the hearing left off on the 18th of July regarding the testimony of this request for a new Retail Liquor Store license as it looks like all parties involved are present. Those present were Tom Volkmann representing the applicant and Dan Wilson representing Don Comte who submitted the counterpetitions.

   Hearing Officer Starritt said that at the last hearing he asked for a report regarding the effects of the need for law enforcement resources due to undue concentration of retail liquor licenses in this area for a statistical analysis.

   Both attorneys said they understood they would be given a copy of this information prior to todays hearing (see attached memo). Mr. Wilson said if the report is longer than a few pages he would ask for a continuance to evaluate the information. There was a discussion as to if this hearing should be continued since neither party has had a chance to look at this information. Hearing Officer Starritt said that he might not give much weight in evidence to the information from this memorandum and that it is only one factor of many to make his findings.

   Mr. Volkmann opposed the continuance for the applicant and wanted to proceed. Hearing Officer Starritt concurred.

Joe Patrick, Liquor Enforcement Officer with the Grand Junction Police Department, put this memorandum together with the help of Chris Wilson, Grand Junction Police Department Crime Analyst. She is also in the audience if there were questions of her. Officer Patrick said that he has been with the department for 10 years and gave information on his duties as a PST officer.

Officer Patrick said the information compiled does indicate law enforcement will respond to calls for service to retail liquor stores and some stores generate more calls than others. This information indicates some of the retail liquor stores numbers have decreased over the past 2 years and eight months. Officer Patrick also explained the call type code on the list of calls by retail liquor stores provided as part of the report.

Attorney Wilson asked several questions regarding the call types on the report. He also asked how hard it would be to generate another report to include tavern licenses or to include all liquor licenses.

Mr. Wilson then called Brian Turner, Supervisory Investigator with State of Colorado Liquor Enforcement Division. Mr. Wilson asked Mr. Turner how long he has been with the State. Mr. Turner responded 17 years. Mr. Wilson asked Mr. Turner what type of regulation he does. Mr. Turner said numerous things such as regulatory issues such as compliance checks, investigations whether they are owner or citizen initiated. Mr. Turner explained the difference between what the City does versus what the State does.

Mr. Wilson asked Mr. Turner if in his experience he has seen a difference in social economic conditions and the number of calls received such as the studies indicate a higher number in minority population areas and is there a correlation in outlets and crime/violence due to drinking. Mr. Wilson asked Mr. Turner if he has ever experience this. Mr. Turner said no. Mr. Turner explained that it doesn't matter the neighborhood say if the homes have a higher value, it doesn't mean there will be less crime. Mr. Wilson asked Mr. Turner how he would describe the survey area in relation to the concentration of outlets. Mr. Volkmann objected due to lack of foundation as this is the Hearing Officer's decision to make and Mr. Turner has not been established as an expert witness on this matter.

Mr. Volkmann asked Mr. Turner if he was familiar with Eastgate Liquor when it was open. Mr. Turner responded yes. Mr. Volkmann asked if he also dealt with Crown and Enterprise Liquors. Mr. Turner responded yes to both, but very little. Mr. Volkmann asked about All Pro Liquors. Mr. Turner said they have not had to deal with them much in the last few years. Mr. Volkmann asked Mr. Turner if in his experience if his agency's level of involvement is determined by the licensee not by location. Hearing Officer Starritt restated what he is hearing is that the problem is driven by the licensee rather than the physical location. Mr. Turner agreed.

Mr. Wilson asked Ms. Chris Wilson, Grand Junction Police Department Crime Analyst who compiled the report, to address how long it would take to do this

same report to include tavern licenses also. She responded by describing how she complied this report from two different systems and this report took about 5 hours; that this could be done but she could not determine the length of time it would take.

Mr. Wilson asked Mr. Comte (Owner of Crown Liquor Store, 2851 ½ North Avenue) to give a recap with him of the exhibits submitted from the first hearing which they did. Mr. Wilson asked Mr. Comte to explain Exhibit 8 (see attached). Mr. Comte said it is his opinion of the Liquor Stores that have come and gone showing undue concentration.

Exhibit 10 (see attached) was introduced and Mr. Wilson asked Mr. Comte to explain this. It is a letter from Mr. Joe Patrick responding to Mr. Comte's request for the number of DUI's and liquor violations for 2011 and to date 2012.

Mr. Wilson introduced Exhibit 12 (see attached) which he explained as an area similar to the survey boundary with the census figures downloaded from the United States Census maps as to the Hispanic population in the area of the proposed license.

Mr. Volkmann objected to the submission of all this testimony; he does not know where this areas is that is shown on Exhibit 12 and its relationship to Crown Liquors or the neighborhood area and fundamentally he has no idea why it is important to issuing a liquor license on North Avenue or why it is important to know the Hispanic population that live in this valley; it is wholly irrelevant and borderline offensive. Mr. Wilson said it will be known after he submits all of the studies. Mr. Volkmann said he does not see how that would relate to Grand Junction when those reports are not generated for this area. He believes the local police department's report is what should be considered these are the facts for this area.

Mr. Wilson submitted Exhibit 13 (see attached) being Mr. Comte's report on Retail Liquor License Density Analysis by road mile for the City of Grand Junction. Mr. Wilson said density mile is a different way of looking at this data which the term will later come up in forthcoming data submitted.

Mr. Volkmann objected to this being submitted as it is not relevant as Mr. Comte is not an expert.

Mr. Wilson submitted Exhibit 14 (see attached) which uses the 2010 US Census Report to compare median income by race.

Mr. Wilson then submitted Exhibit 15 (see attached Exhibits 15-19) for the changes in Outlet Densities Affect Violence Rates; Exhibit 16 Alcohol Environments and Disparities in Exposure Associated with Adolescent Drinking in California; Exhibit 17 a Spatial Analysis of the Moderating Effects of Land Use on the Association between Alcohol Outlet Density and Violence in Urban Areas; Exhibit 18 2011 Issue Briefs for States Explanations of Common Alcohol Regulatory Issues Facing State and Local Communities; and Exhibit 19 Alcohol and Environmental Justice: The Density of Liquor Stores and Bars in Urban

Neighborhoods in the United States. Mr. Wilson quoted information from each of these documents which he thought would pertain to the objection of the issuance of this new retail liquor store license and support his statement of violence in relationship to crime and density issues.

Exhibit 20 (see attached) is the legend to the City's Public Safety Map from the GIS maps on the City's website showing the types of liquor establishments which Mr. Wilson referenced in the first hearing.

Exhibit 21 and 22 (see attached) are two papers of case study from N. Prabha Unnithan, PhD from Colorado State University, Fort Collins, Colorado that he has cited as expert opinion on changing the density of alcohol outlets in relationship to related problems.

Mr. Volkmann objected to the submission of these studies (Exhibit 21 and 22) due to those being from urban neighborhoods and not meaningful to this area and this license.

Mr. Wilson submitted Exhibit 23, a study of crime. Mr. Volkmann objected and Hearing Officer Starritt would not allow this to be admitted.

Hearing Officer Starritt called a 4 minute break. The hearing resumed at 4:16 p.m.

Mr. Volkmann asked Mr. Comte how long he has owned Crown Liquors. Mr. Comte said 19 years. Mr. Volkmann asked Mr. Comte if he has objected to other liquor licenses. Mr. Comte said yes, Eastgate and All Pro Liquor stores. Mr. Volkmann asked Mr. Comte if he has any objection to Exhibit A that was presented showing the distances from Crown Liquors, Enterprise Liquors, All Pro Liquors, and the former Eastgate Liquors to the proposed new license that was submitted in the first hearing. Mr. Comte said no. Mr. Volkmann asked Mr. Comte if he has ever done a study of his customer base in relationship to Hispanic census as presented. Mr. Comte said yes he believes there is a higher percentage in the area of his store.

Mr. Volkmann asked Mr. Comte about the counterpetitions he submitted and what his role was. Mr. Comte said he got a blank survey petition from the City Clerk's office and he only circulated it to people who contacted him and asked to sign it and they were mostly businesses. Mr. Comte said he had three volunteers from his employees and he gave them instructions on how to circulate the other petitions. Mr. Volkmann asked Mr. Comte how these folks would know Mr. Comte had a petition to circulate. Mr. Comte responded that he has known them for years. Mr. Comte said he received phone calls prior to him getting the petitions.

Mr. Volkmann asked Mr. Comte to explain how he gave instructions to his employees. Mr. Comte said they were paid their hourly rate and to go door to door in the residential areas. Mr. Comte told them to dress neat and introduce themselves, inform them what they are doing and ask if they would be willing to answer questions on the form. There were 3 volunteers from his staff and they

split the area in half and the third person bounced back and forth. Mr. Comte asked them to go in the evenings from 6-8 p.m. Mr. Volkmann asked Mr. Comte if he had conducted other surveys. Mr. Comte said yes, when Eastgate Liquor went in. Mr. Volkmann asked Mr. Comte if he remembers the number and the outcome of those petitions. Mr. Comte said no he could not remember. Mr. Volkmann asked Mr. Comte if he shared the economic impact with these employees and what it would mean for Crown Liquors if this other license was issued. Mr. Comte said yes and it would affect them negatively. Mr. Volkmann asked Mr. Comte if he remembers on his Exhibit 1 submitted that he indicated he would lose 50% of his business if this license is issued. Mr. Comte said he does now.

Mr. Wilson called Mr. Doug Ronan, 2980 ½ Hall Avenue, Grand Junction, who was one of the three circulating the counterpetitions for Mr. Comte. Mr. Wilson asked Mr. Ronan to describe what he was asked to do. Mr. Ronan said he was instructed to be as neutral as possible, not to impart their opinion and who they were unless they were asked. Mr. Wilson asked how long did they spent on this? Mr. Ronan responded probably somewhere in the neighborhood of 4-5 days over a two week period. Mr. Ronan said that the first day he went out early morning and did not find many people home. Mr. Wilson asked how many of the people he talked to asked if he was an employee. Mr. Ronan said two, but that he was an employee of one of the liquor stores. Mr. Wilson asked Mr. Ronan about the handwritten comments in the last column if they were written by those conducting the survey or by the person who signed the form. Mr. Ronan said the person who signed the form and that he did not complete anything on the form; it was all done by the respondents.

Mr. Volkmann asked Mr. Ronan if he was given written instructions by Mr. Comte. Mr. Ronan said both written and verbal and told the instructions to the best of his memory and the dialog he had with the people he encountered. Mr. Volkmann asked Mr. Ronan if he had circulated a survey before. He responded no; this is his first time. Mr. Volkmann asked of the 132 responses how many of these signatures did Mr. Ronan get. He responded 30-35. Mr. Volkmann asked how many residents he went to in order to achieve this number. Mr. Ronan said easily times that number by 4 or 5, one out of every seven were home. Mr. Volkmann asked Mr. Ronan if he and Mr. Comte ever discussed the outcome of the survey. He said yes, but not in a formal setting. His main comment was that how many people were not at home and how many were in the consensus that there was already enough liquor stores in the area.

Neither Mr. Volkmann nor Mr. Wilson had anything further.

Hearing Officer Starritt asked for a written closing from both sides within 5 days, by Wednesday August 22nd. Then he will get a final response out as soon as possible. Mr. Starritt said to send those to John Shaver, Juanita Peterson, Dan Wilson, Tom Volkmann, and himself; this can be electronically. Mr. Volkmann and Mr. Wilson said they both will put theirs in the mail to each other on Wednesday and the others electronically.

Hearing Officer Starritt did not admit Exhibits 6, 9, and 23.

XII. <u>ADJOURNMENT</u> - 5:00 p.m.

NEXT REGULAR MEETING – September 5, 2012

CITY OF Grand Junction COLORADO

CITY CLERK

MEMO: Local Licensing Authority

FROM: Juanita Peterson, Deputy City Clerk

DATE: August 6, 2012

SUBJECT: Application for a modification of premises to add outdoor dining area

Mesa Theater & Lounge LLC filed an application with the Local Licensing Authority on July 26, 2012 for a modification of premises at 538 Main Street under the trade name of Mesa Theater and Lounge. The application and supplementary documents were reviewed, found to be in order, and accepted. The hearing date was set for August 15, 2012.

In order to address the reasonable requirements of the neighborhood and the desires of the adult inhabitants of the neighborhood, the applicant conducted a survey. The neighborhood boundaries are defined as: Gunnison Avenue on the north, South Avenue on the south, 9th Street on the east, and 1st Street on the west and includes both sides of the streets as the outer boundaries.

The results of that survey are as follows:

If you support/oppose this proposed modification of premises as described above because this will not conflict with the reasonable requirements of the designated area and it is your desire the modification be approved/not approved.

Business Results:	FAVOR:	75
	OPPOSE:	0
Residential Results:	FAVOR:	54
	OPPOSE:	0

No letters of opposition or counterpetitions have been filed to date.

There were 8 responses that were disqualified because they were out of the area, listed no address, and listed no last name.

There were 56 "Exhibits to Survey Petition" submitted. Not 21 years of age – 2; Refused to sign – 2; No answer – 44; No solicitors – 6; Other - 13

The number of similar-type outlets in the survey area is as follows:

Tavern – 8 (Main Street Suites, Spring Hill Suites, Boomers, Quincy Bar and Grill, Rocky Mountain Pub, !sabrosa¡ restaurant, Tenacious Brothers Pub, Weavers' Red Room)

That concludes this report.

cc: Applicant
John Shaver, City Attorney
Joe Patrick, Grand Junction Police Department
File

Grand Junction
COLORADO

PETITION TO THE LOCAL LICENSING AUTHORITY FOR MODIFICATION OF A LIQUOR LICENSE
City Clerk's Office 970.244.1509
250 N. 5th Street
Grand Junction CO 81501

Applicant/Trade Name of Establishment:	Mesa Theater & Lounge dba Mesa Theater and Lounge
Location:	538 Main Street, Grand Junction CO 81501
Type of Modification:	Create an outdoor seating area on the sidewalk in front of the Mesa Theater – enclosed by wrought iron fencing
Public Hearing Date/Time:	**August 15, 2012 @ 2:00 p.m.** **Survey Due back to City Clerk's Office on: Monday, August 6, 2012 by 5:00 p.m.**
Hearing Location:	Grand Junction City Hall, Municipal Hearing Room, 250 N. 5th St.
Survey Area:	Gunnison Avenue on the North, South Avenue on the South, 9th Street on the East and 1st Street on the West

BEFORE SIGNING THIS PETITION YOU NEED TO CONFIRM THE FOLLOWING:

- You are at least twenty-one (21) years of age
- You are a resident, owner or manager of a business within the designated area (see attached map)
- You have specified the correct address for either your residence or business
- You have signed your name only (first and last name). You cannot sign for another person
- You have not signed another petition concerning the same application
- You have read the petition and understand its meaning
- The petition circulator has witnessed your signature

- Check, the **YES** column if you **SUPPORT** the proposed modification of premises as described above because this will not conflict with the reasonable requirements of the designated area and it is your desire the modification **be approved**
- Check the **NO** column if you **OPPOSE** the proposed modification of premises as described above because this will conflict with the reasonable requirements of the designated area and it is your desire the modification **not be approved**

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: MATT BOLLIG Signature: [signature]	Home/Business Address: 401 COLORADO AVE GJ, CO, 81501. ☐ Resident ☒ Business Owner ☐ Manager (Check one)	X	8/2/12	X		
Printed Name: Brad Stewart Signature: [signature]	Home/Business Address: 431 Colorado Ave Grand Junction CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	X	8/2/12	X		
Printed Name: Ryan Smith Signature: [signature]	Home/Business Address: 431 Colorado Ave G.J. CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	✓	8-2-12	✓		

B-3 30

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Tim Gibson Signature: [signature]	Home/Business Address: 437 Colorado Ave. Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	08-2-12	✓		
Printed Name: CARSON PARK Signature: [signature]	Home/Business Address: 449 Colorado Ave Grand Jct, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		
Printed Name: MARY Alice Myers Signature: [signature]	Home/Business Address: 457 Colorado Ave Grd Jct, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	X	8/2/12	✓		
Printed Name: Alex Mackey Signature: [signature]	Home/Business Address: 502 Colorado Ave GJ CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		
Printed Name: JoEllen T. Foutz Signature: [signature]	Home/Business Address: 136 N. 5th Street GJ CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Tina Snapp Signature: [signature]	Home/Business Address: 134 N. 5th St Grand Jct, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/2/12	Y		
Printed Name: Dave Snapp Signature: [signature]	Home/Business Address: 132 N. 5th St Grand Jct, CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	X		
Printed Name: Lloyd Quenteky Signature: [signature]	Home/Business Address: 200 Grand Ave Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	yes	8/2/12	✓		Have a nice Day!

Page ___ of ___

B-8 80

256-4134

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: George G Gatseus III **Signature:**	**Home/Business Address:** 300 Ouray Ave Grand Jct, CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Glenn Nash **Signature:**	**Home/Business Address:** 924 Ouray AVE #2 GRAND Junction CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		
Printed Name: CYNDI EDMUNDS **Signature:**	**Home/Business Address:** 554 Main St GRAND JCT, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Becky Brehmer **Signature:**	**Home/Business Address:** 552 Main St. Grand Jct. CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Oscar Ramirez **Signature:**	**Home/Business Address:** 541 main st. Grand Junction CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Joel Thaden **Signature:**	**Home/Business Address:** 541 MAIN ST Grand Junction CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Sheila Cordova **Signature:**	**Home/Business Address:** 523 Main Street Grand Junction, CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/2/12	✓		
Printed Name: Michael Parento **Signature:**	**Home/Business Address:** 601 MAIN ST G.J. CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		

Page ___ of ___ R-2 B-6 80

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Claire Codling **Signature:**	**Home/Business Address:** 637 Main Street Grand Junction, CO, 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	✓	8/3/12	✓		
Printed Name: Emera Thornton **Signature:**	**Home/Business Address:** 225 N. 5th St. #105 Grand Junction, CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	✓	8/3/12	✓		
Printed Name: Kim Leyerly **Signature:**	**Home/Business Address:** Encore Shoppe Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	✓	8/3/12	✓		
Printed Name: John Schmidt **Signature:**	**Home/Business Address:** 200 Grand Avenue, 81501 Bank of Colorado ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/3/12	✓		This is needed downtown
Printed Name: KENT SHEFFLER **Signature:**	**Home/Business Address:** RAYMOND JAMES FINANCIAL 200 GRAND JCT CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/7/12	✓		
Printed Name: Stefanie Bish **Signature:**	**Home/Business Address:** 200 Grand Ave, 81501 Bank of Colorado ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/3/12	✓		
Printed Name: Terry Labato **Signature:**	**Home/Business Address:** 200 Grand Ave. Bank of Colorado ☒ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/3/12	✓		
Printed Name: JULIE HAYDEN **Signature:**	**Home/Business Address:** 200 Grand Ave. Bank of Colorado ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/3/12	✓		

Page ___ of ___ B-8 80

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Amanda McCain Signature: Amanda McCain	Home/Business Address: 200 Grand Ave Grand Jct., CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/3/12	✓		
Printed Name: Debra J. Pace Signature: Debra J. Pace	Home/Business Address: 202 Grand Ave Grand Jct, Co 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8-3-12	✓		
Printed Name: ~~Kendall Montagriff~~ Signature: [signature]	Home/Business Address: ~~615 Siena Ct. Grand Junction, CO 81504~~ ☐ Resident ☐ Business Owner ☐ Manager (Check one)	X	8/3/12	✓		out of area
Printed Name: Shawn Langley Signature: Shawn Langley	Home/Business Address: 406 Chipeta Ave GJ CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/3/12	✓		
Printed Name: Steven Schafer Signature: [signature]	Home/Business Address: 406 Chipeta Ave ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/3/12	✓		I think It would Be a great Idea!
Printed Name: Jesse Denick Signature: Jesse Denick	Home/Business Address: 359 Colorado Ave ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/4/12	✓		
Printed Name: ~~[illegible]~~ Signature: [signature]	~~Home/Business Address:~~ ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/6/12	✓		no address
Printed Name: Jodi Hines Signature: Jodi Hines	Home/Business Address: 200 Grand Ave GJ CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/6/12	✓		

Page ___ of ___ R-2 B-4 6 0 2 disq.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Allyson Kenagy Signature: Allyson Kenagy	Home/Business Address: 200 Grand Ave Grand Jct Co 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/6/12	✓		
Printed Name: Dessa Hand Signature: D Hand	Home/Business Address: 200 Grand Ave GJ CO ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/6/12	✓		
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					

Page ___ of ___ R-2 2 0

CITY OF Grand Junction COLORADO

CIRCULATOR'S AFFIDAVIT

I, Andrew Pittman (print name), who resides at 525 Lilac Lane (print address) do hereby swear or affirm:

That I circulated the foregoing survey for a modification of a tavern liquor liquor license application within the area described as the neighborhood on the date(s) of 8-2-12 / 8-6-12, 2012, and;

That each signature thereon was affixed in my presence;

That each signature thereon is the signature of the person whose name it purports to be;

That to the best of my knowledge and belief, each of the persons signing was, at the time of signing, an adult resident in the neighborhood, a business owner/manager, a business lessee of property for more than six (6) months each year, and;

That the signers were not paid and will not be paid, directly or indirectly, any money or other thing of value for the purpose of inducing or causing signature on this survey.

[signature] Signature of Circulator — 8-6-12 Date

The foregoing instrument was executed before me this 6th day of August, 2012.

My commission expires October 31, 2013

(Seal) NOTARY PUBLIC LAURIE MARTIN STATE OF COLORADO My Commission Expires 10/31/2013

Laurie Martin Notary Public

CITY OF Grand Junction COLORADO

PETITION TO THE LOCAL LICENSING AUTHORITY FOR MODIFICATION OF A LIQUOR LICENSE
City Clerk's Office 970.244.1509
250 N. 5th Street
Grand Junction CO 81501

Applicant/Trade Name of Establishment:	Mesa Theater & Lounge dba Mesa Theater and Lounge
Location:	538 Main Street, Grand Junction CO 81501
Type of Modification:	Create an outdoor seating area on the sidewalk in front of the Mesa Theater – enclosed by wrought iron fencing
Public Hearing Date/Time:	**August 15, 2012 @ 6:00 p.m.** **Survey Due back to City Clerk's Office on: Monday, August 6, 2012 by 5:00 p.m.**
Hearing Location:	Grand Junction City Hall, Municipal Hearing Room, 250 N. 5th St.
Survey Area:	Gunnison Avenue on the North, South Avenue on the South, 9th Street on the East and 1st Street on the West

BEFORE SIGNING THIS PETITION YOU NEED TO CONFIRM THE FOLLOWING:

- You are at least twenty-one (21) years of age
- You are a resident, owner or manager of a business within the designated area (see attached map)
- You have specified the correct address for either your residence or business
- You have signed your name only (first and last name). You cannot sign for another person
- You have not signed another petition concerning the same application
- You have read the petition and understand its meaning
- The petition circulator has witnessed your signature

- Check, the **YES** column if you **SUPPORT** the proposed modification of premises as described above because this will not conflict with the reasonable requirements of the designated area and it is your desire the modification **be approved**
- Check the **NO** column if you **OPPOSE** the proposed modification of premises as described above because this will conflict with the reasonable requirements of the designated area and it is your desire the modification **not be approved**

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Chaze Martinez Signature: [signature]	Home/Business Address: 1127 Main St ■ Resident ☐ Business Owner ☐ Manager (Check one)					out of area
Printed Name: Richard Lane Signature: [signature]	Home/Business Address: 446 Main St. ~~Business / 2020 N. 6th St.~~ ■ Resident ■ Business Owner ☐ Manager (Check one)	Y	7/27/12	✓		
Printed Name: Matthew P Cesaro Signature: [signature]	Home/Business Address: 530 Main Street Grand Junction, Co 81501 ☐ Resident ☐ Business Owner ☑ Manager (Check one)	Y	7/23/12	✓		

B-2 20 1 disq.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes √	No √	Comments
Printed Name: Christopher Brown Signature: [signature]	Home/Business Address: 549 Main St. Brown Cycles Bike Shop. Grand Junction Co 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/30/12	√		
Printed Name: [illegible] Signature: [signature]	Home/Business Address: 549 Main St Brown Cycles GJ CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/30/12	√		
Printed Name: Rock Cesario Signature: [signature]	Home/Business Address: 530 MAIN ST TRIPLE PLAY Grand Junction Co 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/30/12	√		
Printed Name: Jamie Mahoney Signature: [signature]	Home/Business Address: 524 main st Main St Minerals & Beads ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7-30-12	√		
Printed Name: Shelly Ramos Signature: [signature]	Home/Business Address: 514 Main St Grand Jct Co 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	X	7/30/12	√		
Printed Name: Ben Hall Signature: [signature]	Home/Business Address: 500 Main GJ CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	X	7/30/12	√		
Printed Name: Erik Hall Signature: [signature]	Home/Business Address: 500 Main st Candy Time Shoppe GJ 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7-30-12	√		Super Idea!
Printed Name: Spencer Pike Signature: [signature]	Home/Business Address: 535 Main Street GJ, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/30/12	√		

Page ___ of ___ B-8 8 0

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes √	No √	Comments
Printed Name: Julie Kleinrath Signature: [signature]	Home/Business Address: 537 Main St Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/30/12	√		
Printed Name: ANGELO MURRAY Signature: [signature]	Home/Business Address: 545 MAIN ST GRAND JUNCTION CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7-30-12	√		
Printed Name: JAMIE WILKINS Signature: [signature]	Home/Business Address: 559 MAIN ST ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7-30-12	√		
Printed Name: Megan Reinertsen Signature: [signature]	Home/Business Address: 560 Main Street ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/30/12	√		
Printed Name: Francesca Cavender Signature: [signature]	Home/Business Address: La Bamba 546 MAIN ST. G. Jct Co 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7-30-12	√		
Printed Name: CHAD PINNER Signature: [signature]	Home/Business Address: 118 S 7th STREET ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/30/12	√		
Printed Name: Malinda Miller Signature: [signature]	Home/Business Address: 516 Main Grand Jct Co 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	X	7-31-12	√		
~~Printed Name: Lisa Searle~~ Signature: [signature]	~~Home/Business Address:~~ ☐ Resident ☒ Business Owner ☐ Manager (Check one)	~~Y~~	~~7-31-12~~	~~√~~		no address

Page ___ of ___ B-7 7 0 1 disq

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
✓ Printed Name: Joleen Paiz Signature:	Home/Business Address: 428 Main Grand Jct 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: John Lintott Signature:	Home/Business Address: 412 Main Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Margie Wilson Signature: Margie Wilson	Home/Business Address: 350 Main St. (Grand Valley Books) GJT, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		More outdoor dining !! Yeah !!
✓ Printed Name: Mike Hazen Signature: Mike Hazen	Home/Business Address: 578 MAIN ST. GRAND JUNCTION, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Jessica Nerone Signature:	Home/Business Address: 507 MAIN ST. GRAND JCT, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		YES! OUTSIDE SEATING!
✓ Printed Name: Mark Wingerter Signature:	Home/Business Address: 461 Main St Grand Junction, CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: John Bucher Signature:	Home/Business Address: 449 Main St. GJ, Co 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Cheryl Lucas Signature: Cheryl Lucas	Home/Business Address: 437 Main Street GJ, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		

Page ___ of ___ B-8 80

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
✓ Printed Name: Lori Smith Signature:	Home/Business Address: Il Bistro Italian -400 Main St. - Admin Mgr Grand Jct. CO 81501 ☐ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Karen Hildebrandt Signature: Karen Hildebrandt	Home/Business Address: Unique Expressions 336 main Street Gj 81501 ☐ Resident ☐ Business Owner ☐ Manager (Check one)	Yes	7/31/2012	✓		
✓ Printed Name: Peggy Page Signature: Peggy Page	Home/Business Address: 444 main St. Grand Junction Co. 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Terri Schafer Signature: Terri L. Schafer	Home/Business Address: 448 Main St. Grand Jct. CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
~~Printed Name: Rick Horn~~ Signature:	~~Home/Business Address: 459 MAIN TRADECRAFT GJ, CO 81507~~ ☐ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		out of area
✓ Printed Name: Ron Hazy Signature:	Home/Business Address: 420 Main GJ CO 81501 ☐ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Rick Horn Signature:	Home/Business Address: 429 Main GJ CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/31/12	✓		
✓ Printed Name: Shannon Castañeda Signature: Shannon Castañeda	Home/Business Address: 735 Rood Ave, Grand Junction, CO 81504 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	7/31/12	✓		

Page ___ of ___ B-7 70 1 disq.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Meighan Marquis Signature: Meigh Marq	Home/Business Address: 207 N. [redacted] St. Grand Junction, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/31/12	✓		
Printed Name: Sarah Cameron Signature: Sarah	Home/Business Address: 1002 Colorado Ave Grand Junction CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		out of area
Printed Name: Jackie Moore Signature: Jackie Moore	Home/Business Address: 520 main St Grand Jct. 81501 ☒ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Scott Miller Signature: Scott Miller	Home/Business Address: 516 Main St. Grand Jct CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Christina Caspari Signature:	Home/Business Address: 525 Main St GJ CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Jackie Laumann Signature: Jackie Laumann	Home/Business Address: 455 Main St. GJ Co 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12 ~~8/1/12~~	✓		
Printed Name: Brian Badini Signature:	Home/Business Address: 321 Main St G.J. Co 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Allyce Lobdell Signature: Allyce Lobdell	Home/Business Address: 319 Main St Grand Jct. CO 81501 ☐ Resident ☐ Business Owner ☒ Manager (Check one)	Y	8-1-12	✓		

Page ___ of ___ R-~~2~~ 1 B-6 70 1 disq.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Eric Wise Signature:	Home/Business Address: 326 Main St Suit 101 Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	X		
Printed Name: Jarred Eddy Signature:	Home/Business Address: 336 Main Street #201 Grand Jct., Co. 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	X		
Printed Name: Jerome Gonzales Signature:	Home/Business Address: 336 Main St. Ste 207 Grand Junction, CO 81501 ☐ Resident ☒ Business Owner ☐ Manager (Check one)	Y	8/1/12	X		
Printed Name: CARLA P BRUTON Signature: Carla P Bruton	Home/Business Address: [redacted] 5733 MAIN ST GJ CO 81501 ☐ Resident ☑ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Casey Dittmer Signature:	Home/Business Address: 546 Main St Suite 401 GJ CO 81501 ☐ Resident ☑ Business Owner ☐ Manager (Check one)	X	8/1/12	✓		
Printed Name: Dylan Roberts Signature:	Home/Business Address: 596 Main St. Suite 103 Grand Junction, CO 81501 ☐ Resident ☐ Business Owner ☑ Manager (Check one)	X	8/2/12	✓		
Printed Name: Clinton Thomas Signature:	Home/Business Address: 546 Main St. Suite 405 Grand Junction, CO 81501 ☐ Resident ☐ Business Owner ☑ Manager (Check one)	X	8/2/12	✓		
Printed Name: Alberto Alfaro Signature:	Home/Business Address: 560 Main St. Grand Junction CO 81501 ☐ Resident ☑ Business Owner ☐ Manager (Check one)	Y	8/2/12	✓		

Page ___ of ___ 13-8 80

EXHIBIT TO SURVEY PETITION

Page ___ of ____

FOR: ____

Street No.	Street Name	Reason	Additional Attempts
552	Main St. 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other not open	☐ Yes ☐ No # of attempts
516	Main St. 6.J.	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other not open.	yes. / Signed.
466	Main St. 6J.	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other manager meeting (Donna)	yes / wanted to have meeting about it
461	Main St. 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No manager or owner	no
519	Main St 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No owner/manager.	yes/signed
400	Main St. 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☒ No Answer ☐ No Solicitors ☐ Other	~~NO~~
527	Main St. 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☒ No Solicitors ☐ Other	NO
455	Main St. 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No owner/manager	yes, signed.
443	Main St 6.J	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No owner/manager.	
536 2nd 203	Main St.	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No owner/manager.	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		8 Other 1 1	10

EXHIBIT TO SURVEY PETITION

Page ___ of ____

FOR: ____

Street No.	Street Name	Reason	Additional Attempts
601	Main St.	☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☒ Other No Owner/Manager	☒ Yes ☐ No # of attempts Signed.
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	
		☐ Not 21 Years of Age ☐ Refused to Sign ☐ No Answer ☐ No Solicitors ☐ Other	

1 Other

CITY OF Grand Junction COLORADO

CIRCULATOR'S AFFIDAVIT

I, Andrew Pittman (print name), who resides at 525 Lilac Lane. (print address) do hereby swear or affirm:

That I circulated the foregoing survey for a Tavern liquor modification liquor license application within the area described as the

neighborhood on the date(s) of 7/27/12 – 8/2/12, 2012, and;

That each signature thereon was affixed in my presence;

That each signature thereon is the signature of the person whose name it purports to be;

That to the best of my knowledge and belief, each of the persons signing was, at the time of signing, an adult resident in the neighborhood, a business owner/manager, a business lessee of property for more than six (6) months each year, and;

That the signers were not paid and will not be paid, directly or indirectly, any money or other thing of value for the purpose of inducing or causing signature on this survey.

Signature of Circulator

8-6-12
Date

The foregoing instrument was executed before me this 6th day of August, 2012.

My commission expires October 31, 2013

(Seal)

NOTARY PUBLIC LAURIE MARTIN STATE OF COLORADO
My Commission Expires 10/31/2013

Laurie Martin
Notary Public

CITY OF Grand Junction COLORADO

PETITION TO THE LOCAL LICENSING AUTHORITY FOR MODIFICATION OF A LIQUOR LICENSE
City Clerk's Office 970.244.1509
250 N. 5th Street
Grand Junction CO 81501

Applicant/Trade Name of Establishment:	Mesa Theater & Lounge dba Mesa Theater and Lounge
Location:	538 Main Street, Grand Junction CO 81501
Type of Modification:	Create an outdoor seating area on the sidewalk in front of the Mesa Theater – enclosed by wrought iron fencing
Public Hearing Date/Time:	**August 15, 2012 @ 2:00 p.m.** **Survey Due back to City Clerk's Office on: Monday, August 6, 2012 by 5:00 p.m.**
Hearing Location:	Grand Junction City Hall, Municipal Hearing Room, 250 N. 5th St.
Survey Area:	Gunnison Avenue on the North, South Avenue on the South, 9th Street on the East and 1st Street on the West

BEFORE SIGNING THIS PETITION YOU NEED TO CONFIRM THE FOLLOWING:

- You are at least twenty-one (21) years of age
- You are a resident, owner or manager of a business within the designated area (see attached map)
- You have specified the correct address for either your residence or business
- You have signed your name only (first and last name). You cannot sign for another person
- You have not signed another petition concerning the same application
- You have read the petition and understand its meaning
- The petition circulator has witnessed your signature

- Check, the **YES** column if you **SUPPORT** the proposed modification of premises as described above because this will not conflict with the reasonable requirements of the designated area and it is your desire the modification **be approved**
- Check the **NO** column if you **OPPOSE** the proposed modification of premises as described above because this will conflict with the reasonable requirements of the designated area and it is your desire the modification **not be approved**

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Chris Jasperk Signature: Chris Jasperk	Home/Business Address: 804 Chipeta ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7-28-12	✓		
Printed Name: Alice Griggs Signature: Alice E. Griggs	Home/Business Address: 824 Chipeta ☒ Resident ☐ Business Owner ☐ Manager (Check one)	X	7/28/12	✓		
Printed Name: Joe Nevhof Signature:	Home/Business Address: 999 Chipeta ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/2012	✓		Stone Inn

R-3 30

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over **Y or N**	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Richard I. Cardenas Signature: Richard I. Cardenas	Home/Business Address: 844 Ouray Ave ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	7-28-12	✓		
Printed Name: Ron Yaffe Signature: [signature]	Home/Business Address: 810 Ouray Ave ☒ Resident ☐ Business Owner ☐ Manager (Check one)	✓	7-28-12	✓		
Printed Name: Kassie ElBaki Signature: Kassie ElBaki	Home/Business Address: 810 Ouray Ave ☒ Resident ☐ Business Owner ☐ Manager (Check one)	✓	7/28/12	✓		
Printed Name: Tom Schaffer Signature: [signature]	Home/Business Address: 760 Ouray Ave ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Gordon Nicholson Signature: [signature]	Home/Business Address: 726 Ouray Ave ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Heather Jagelski Signature: [signature]	Home/Business Address: 710 Ouray Ave. Grand Jct. Co. 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7.28.12	✓		
Printed Name: James Garland Signature: [signature]	Home/Business Address: 505 N. 7th St. GJ, CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Craig Dubois Signature: [signature]	Home/Business Address: 755 Ouray Ave. ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7-28-12	✓		

Page ___ of ___ R-8 8 0

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over **Y or N**	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: SP Inglis Signature: [signature]	Home/Business Address: 811 Ouray ☐ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Bronwen Agajanian Signature: Bronwen Agajanian	Home/Business Address: 821 Ouray Ave ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Ralph W. Berryman Signature: [signature]	Home/Business Address: 835 Ouray Ave ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: JC Hale Signature: JC Hale	Home/Business Address: 853 Ouray Ave gr Jct Co 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	7/28/12	✓		
Printed Name: Don Levins Signature: Don Levins	Home/Business Address: 618 N. 2nd Grand Junction, CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-2012	✓		
Printed Name: Leah Andres Signature: Leah C. Andres	Home/Business Address: 618 N. 2nd St GJ Co 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-12	✓		
Printed Name: ~~Ryan McDa~~ not 6 months Signature:	Home/Business Address: VOID ☐ Resident ☐ Business Owner ☐ Manager (Check one)					
Printed Name: ~~Bertha M~~ Signature: Bertha M	Home/Business Address: ~~139 Chipeta~~ Grand Junction Co ☑ Resident ☐ Business Owner ☐ Manager (Check one)	~~Y~~	~~8/1/12~~	~~✓~~		no last name

Page ___ of ___ R-6 6 0 1 disq.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over **Y or N**	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Scott Sparks **Signature:** [signature]	**Home/Business Address:** 203 Chipeta Ave Grand Junction CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Jason Keesler **Signature:** [signature]	**Home/Business Address:** 215 Chipeta Ave Grand Junction, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	X		
Printed Name: CHARLES BUDERUS **Signature:** [signature]	**Home/Business Address:** 227 CHIPETA GJ. 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/2012	X		
Printed Name: Andrew Scott **Signature:** [signature]	**Home/Business Address:** 611 North 3rd St GJ CO. 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Katja Augustin **Signature:** ~~611 N. 3rd St~~ [signature]	**Home/Business Address:** 611 N. 3rd St GJ CO. 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Dan Bauer **Signature:** [signature]	**Home/Business Address:** 331 Chipeta Ave Grand Jct 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Jenny Dwight-Barnes **Signature:** [signature]	**Home/Business Address:** 537 N. 4th St. Grand Junction, Co 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/1/12	✓		
Printed Name: Edward Ybarra **Signature:** [signature]	**Home/Business Address:** 811 Gunnison AVE Grand Jct colo 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-12	✓		

Page ___ of ___ R-8 80

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over **Y or N**	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: David Carroll **Signature:** [signature]	615 N 4 St Grand Jct **Home/Business Address:** 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-12	✓		
Printed Name: Anna Drissel **Signature:** [signature]	**Home/Business Address:** 337 Gunnison GJ CO. 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-12	✓		
Printed Name: JAMES COLLIER **Signature:** [signature]	**Home/Business Address:** 321 GUNNISON AVE GRAND JUNCTION, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-1-12	✓		
Printed Name: J Mae Collier **Signature:** [signature]	**Home/Business Address:** "321 Gunnison Ave" Grand Junction, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	yes	8-1-12	X		
Printed Name: HAROLD P. OLSON **Signature:** [signature]	**Home/Business Address:** 445 No. 7th St. GRAND JCT., CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	yes	8-4-12	X		
Printed Name: Rhiannon Foelker **Signature:** [signature]	**Home/Business Address:** 631 Ouray Ave. GJ CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8-4-12	X		
Printed Name: Alice Nitchel **Signature:** [signature]	**Home/Business Address:** 624 Ouray GJ CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/4/12	✓		
Printed Name: PHILLIP L. FREITAS **Signature:** [signature]	**Home/Business Address:** 614 OURAY AVE, GJ, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/4/12	✓		

Page ___ of ___ R-8 80

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Randalee Gross Signature:	Home/Business Address: 428 Ouray Ave #5 GJ. CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		
Printed Name: Richard Buffington Signature:	Home/Business Address: 604 N 7th St GJ CO 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		
Printed Name: Karen Buffington Signature:	Home/Business Address: ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		no address
Printed Name: Paul Wetherstein Signature:	Home/Business Address: 744 Chipeta Ave Grand Junction CO 81503 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8-4-12	✓		
Printed Name: Brunella Gualerzi Signature:	Home/Business Address: 730 Chipeta Ave Grand Jct 81501 ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		
Printed Name: Doug Walsh Signature:	Home/Business Address: 755 Chipeta Ave GJ CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		
Printed Name: Nick Straws Signature:	Home/Business Address: 815 Chipeta Ave GJ, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		
Printed Name: Joe L. White Signature:	Home/Business Address: 821 Chipeta ave ☑ Resident ☐ Business Owner ☐ Manager (Check one)	✓	8/4/12	✓		

Page ___ of ___ R-7 7 0 1 dwg.

Please **SIGN** your Full Name – NOTE: You must be 21 years of age or older and either a Resident, Business Owner or Manager of the business **within the petitioned neighborhood**.	**Complete Home Address including space or apartment #** (if signing as a Resident) or **Complete Business Address** (if signing as a Business Owner/Manager)	21 or over Y or N	Today's Date with Year	Yes ✓	No ✓	Comments
Printed Name: Casey B Bartman Signature:	Home/Business Address: 854 Chipeta Ave Grand Jct CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	X	08/04/12	X		
Printed Name: Amber Fink Signature:	Home/Business Address: 843 Chipeta Ave Grand Jct CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	y	8/4/12	X		
Printed Name: Katy Brown Signature:	Home/Business Address: 812 Chipeta Ave Grand Jct, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	y	8/4/12	X		
Printed Name: Joshua Fitzpatrick Signature:	Home/Business Address: 605 N. 7th St Grand Junction, CO. 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	y	8.4.12	X		
Printed Name: Kristyn Rose Signature:	Home/Business Address: 648 Chipeta Ave. Grand Junction, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	y	8/4/12	X		
Printed Name: Sherry Cole Signature:	Home/Business Address: 617 Gunnison Avenue Grand Junction, CO 81501 ☒ Resident ☐ Business Owner ☐ Manager (Check one)	Y	8/4/12	X		
Printed Name: Mike McDermott Signature:	Home/Business Address: 603 Chipeta Ave GJ 81501 ☐ Resident ☐ Business Owner ☐ Manager (Check one)	y	8-4-12	X		
Printed Name: Signature:	Home/Business Address: ☐ Resident ☐ Business Owner ☐ Manager (Check one)					

Page ___ of ___ R-7 70

EXHIBIT TO SURVEY PETITION
Page ___ of ____

FOR: _____

Street No.	Street Name	Reason	Additional Attempts
861	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	☐ Yes ☐ No # of attempts
855	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
847	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
835	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
827	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
817	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
812	Chipeta	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	1 yes
820	Chipeta	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
840	" "	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	1 no answer
856	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
830	" "	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
828	" "	☑ Not 21 Years of Age ☐Refused to Sign ☐No Answer ☐No Solicitors ☐Other	
820	" "	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
802	" "	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	

1 - 21 13- No Ans

EXHIBIT TO SURVEY PETITION
Page ___ of ____

FOR: _____

Street No.	Street Name	Reason	Additional Attempts
752	Ouray	☑ Not 21 Years of Age ☐Refused to Sign ☐No Answer ☐No Solicitors ☐Other	☐ Yes ☐ No # of attempts
746	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
522	7th	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
520	7th	☐ Not 21 Years of Age ☐Refused to Sign ☐No Answer ☐No Solicitors ☑Other on the phone	
440	7th	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
725	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
735	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
737	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
801	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
829	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
841	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☐No Answer ☑No Solicitors ☐Other	
893	" "	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
857	Ouray	☐ Not 21 Years of Age ☐Refused to Sign ☑No Answer ☐No Solicitors ☐Other	
733	Gunnison	☐ Not 21 Years of Age ☐Refused to Sign ☐No Answer ☑No Solicitors ☐Other	

1-21 other 1 10 No Ans 2 No Sol-

EXHIBIT TO SURVEY PETITION

Page ___ of ___

FOR: _____

Street No.	Street Name	Reason	Additional Attempts
135	Gunnison	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	□ Yes □ No # of attempts
621	2nd	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors ☑Other not 6 months	
135	Chipeta	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
133	Chipeta	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
122	Chipeta	□ Not 21 Years of Age □Refused to Sign □No Answer ☑No Solicitors □Other	
134	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
233	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
241	" "	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors ☑Other not 6 months	
261	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
305	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
315	" "	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors ☑Other not 6 months	
325	" "	□ Not 21 Years of Age □Refused to Sign □No Answer ☑No Solicitors □Other	
341	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
620	4th	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
		other 3	9 2

EXHIBIT TO SURVEY PETITION

Page ___ of ___

FOR: _____

Street No.	Street Name	Reason	Additional Attempts
632	4th	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	□ Yes □ No # of attempts
327	Gunnison	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
315	" "	□ Not 21 Years of Age ☑Refused to Sign □No Answer □No Solicitors □Other	
620	Ouray	□ Not 21 Years of Age □Refused to Sign □No Answer ☑No Solicitors □Other	
634	Ouray	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
615	7th	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
729	Chipeta	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors □Other	
735	" "	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors □Other	
743	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
749	" "	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
927	Chipeta	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
936	7th	□ Not 21 Years of Age ☑Refused to Sign □No Answer □No Solicitors □Other	
611	7th	□ Not 21 Years of Age □Refused to Sign □No Answer □No Solicitors □Other	
625	7th	□ Not 21 Years of Age □Refused to Sign ☑No Answer □No Solicitors □Other	
		2	11 1

CITY OF Grand Junction COLORADO

CIRCULATOR'S AFFIDAVIT

I, Amanda Pittman (print name), who resides at 525 Lilac Lane, Grand Jct Co 81505 (print address) do hereby swear or affirm:

That I circulated the foregoing survey for a modification of a tavern liquor license application within the area described as the

neighborhood on the date(s) of 7/28/12 - 8/4, 20 12, and;

That each signature thereon was affixed in my presence;

That each signature thereon is the signature of the person whose name it purports to be;

That to the best of my knowledge and belief, each of the persons signing was, at the time of signing, an adult resident in the neighborhood, a business owner/manager, a business lessee of property for more than six (6) months each year, and;

That the signers were not paid and will not be paid, directly or indirectly, any money or other thing of value for the purpose of inducing or causing signature on this survey.

Amanda Pittman
Signature of Circulator

8/6/12
Date

The foregoing instrument was executed before me this 6th day of August, 20 12.

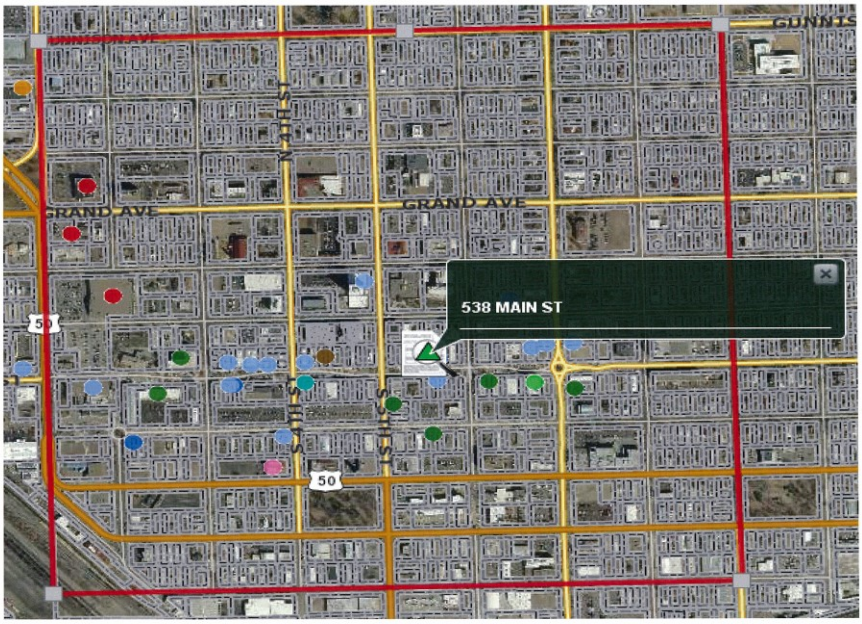
My commission expires October 31, 2013

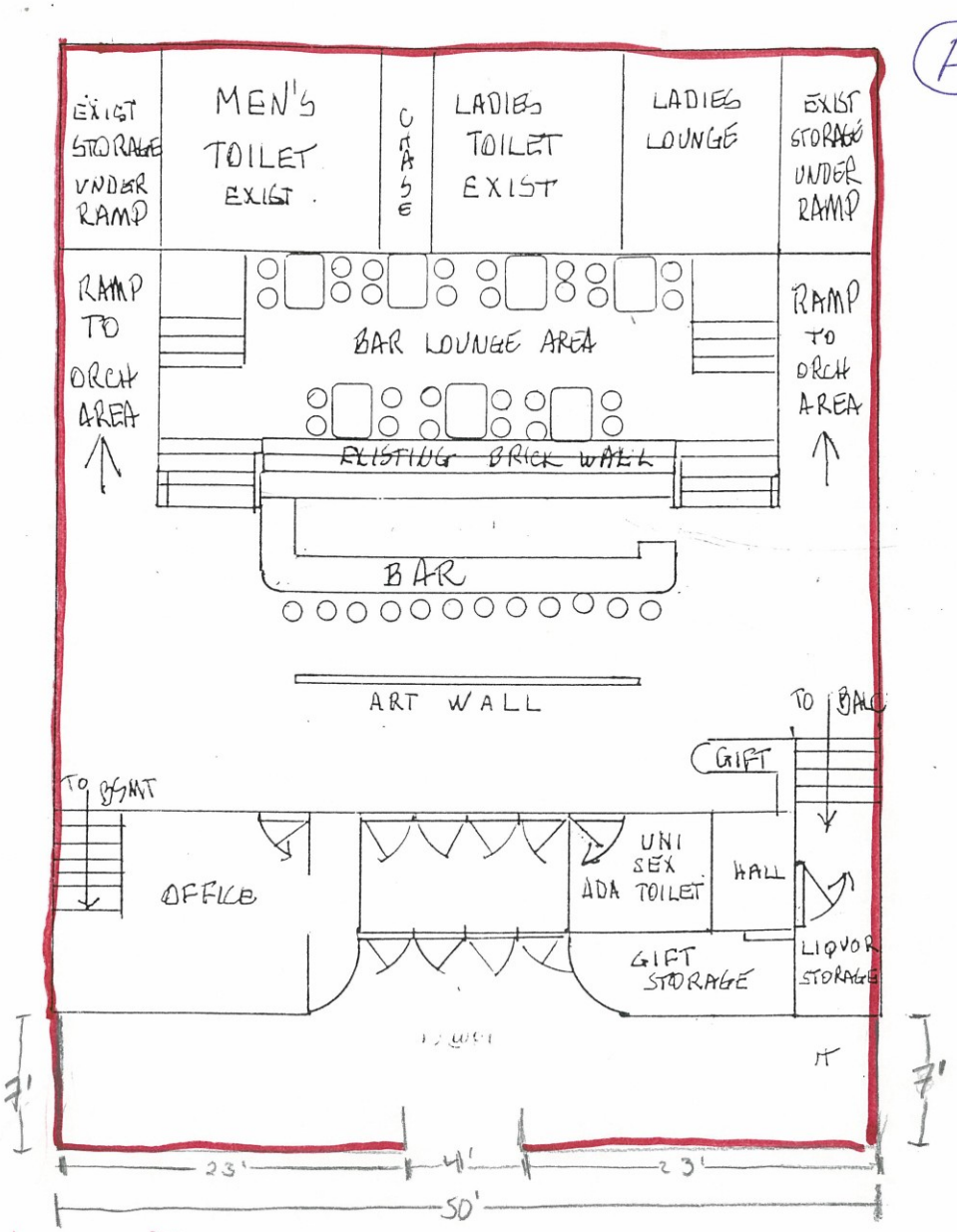
(Seal)

NOTARY PUBLIC LAURIE MARTIN STATE OF COLORADO
My Commission Expires 10/31/2013

Laurie Martin
Notary Public

Mesa Theater and Lounge Survey Boundary Map





A

Outside: 32
Lounge: Bar = 12
Lounge = 76
10
= 284

Theater: upper 80
lower 126
217

Proposed diagram

A

SPECIAL EVENT PERMIT
QUESTIONNAIRE AND AFFIDAVIT

1. Name of Event: Fly Fishing Swap Meet

2. How many attendees are expected at this event?
50-100

3. Describe the premises at which this event will take place.
Grand Junction Elks Lodge

4. What type of security will be provided at this event?
Lodge officers & Volunteer

5. How many security personnel will be on hand?
2-3 officers

6. How will security personnel be identified?
Lodge uniforms

7. If this event is being held outdoors, how will the exterior boundaries of the premises be marked (i.e., roped, fenced, etc.)?
N/A

8. What method will be used in checking identification for proper age of attendees (i.e., at the door, at the bar, etc.) and how will underage patrons be identified so as not to be served alcohol beverages (i.e., stamp or mark on the hand, etc.)
Government issued ID with photo - checked by bar personnel Hand stamp applied

9. How will the conduct and level of intoxication of attendees be monitored and by whom?

BAR PERSONNEL & MONITORING lodge OFFICERS HAVE EITHER ATTENDED ALCOHOL TRAINING CLASSES OR BEEN PROVIDED SIGNS OF INTOXICATION.

10. Have the volunteers or members of your organization been trained in the sale/service of alcohol beverages?

YES

11. What types of alternate beverages and food/snacks will be available?

SODA & JUICES ARE AVAILABLE. HOT DOGS WILL BE AVAILABLE

12. Has a State and City Sales Tax Number been initiated by you or a member of your organization? If so, provide those numbers in the space provided.

YES - 00401746 0000

I hereby certify, under penalty of perjury, that the information provided to the Grand Junction Liquor Licensing Authority contained in this affidavit is true and accurate to the best of my knowledge.

[signature] Date 6/27/12

Applicant's Signature

STATE OF COLORADO)
COUNTY OF MESA) SS.
CITY OF GRAND JUNCTION)

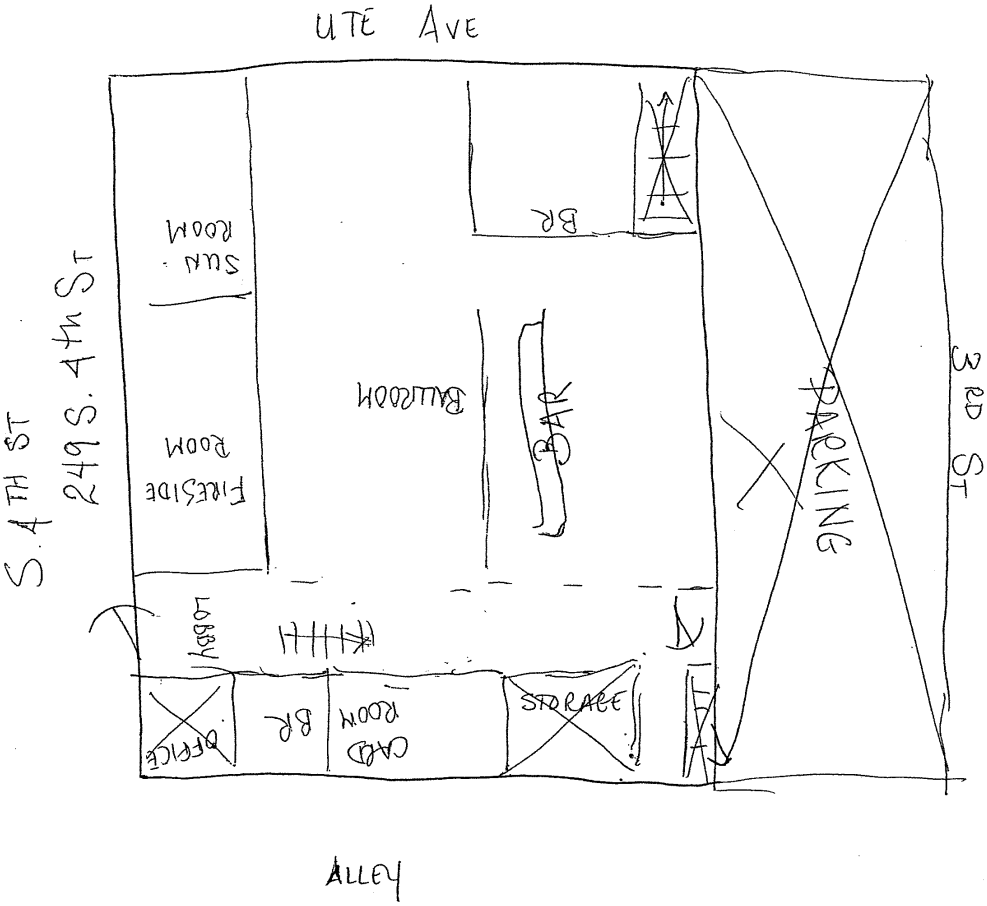
Subscribed and sworn to before me this 27 day of June, 20 12.

Witness my hand and official seal.

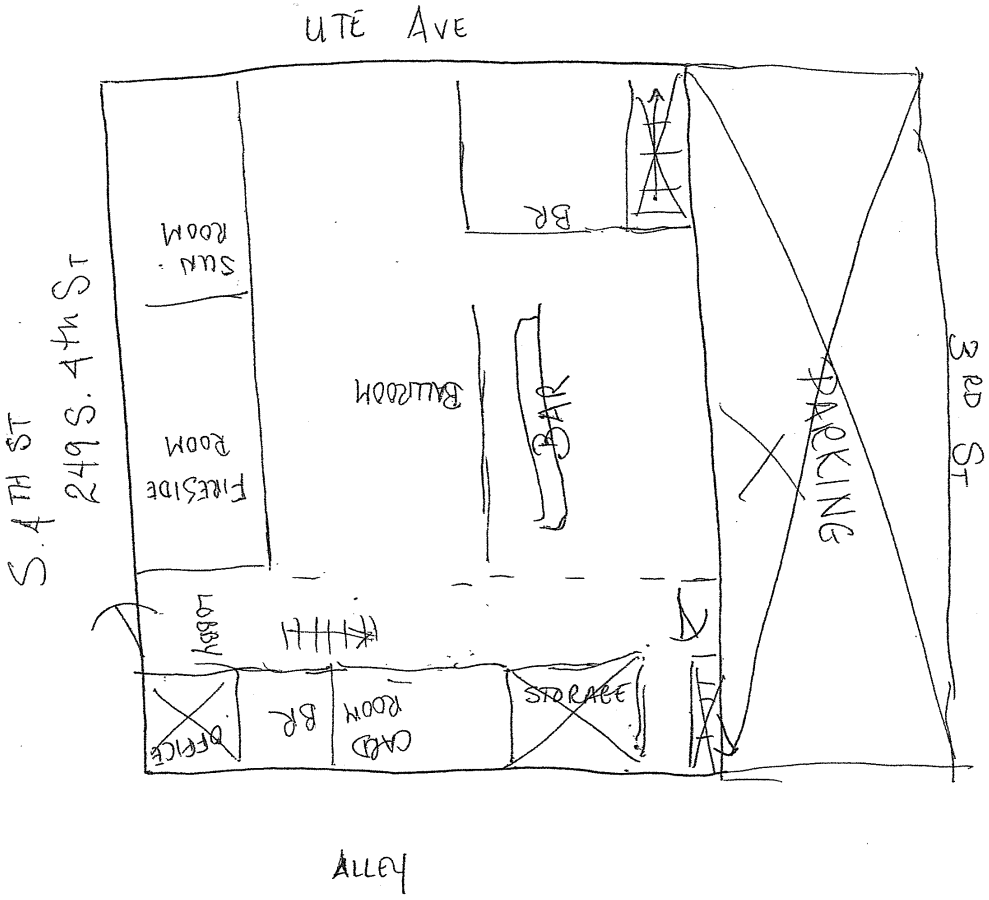
[signature] My commission expires 6/1/2016

Notary Public

NOTARY PUBLIC SAM WENTLING STATE OF COLORADO


UTE AVE
S. 4TH ST
249 S. 4TH ST
3RD ST
SUN ROOM
FIRESIDE ROOM
BALLROOM
BAR
BR
PARKING
LOBBY
OFFICE
BR
CARD ROOM
STORAGE
ALLEY

A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S. 4TH ST
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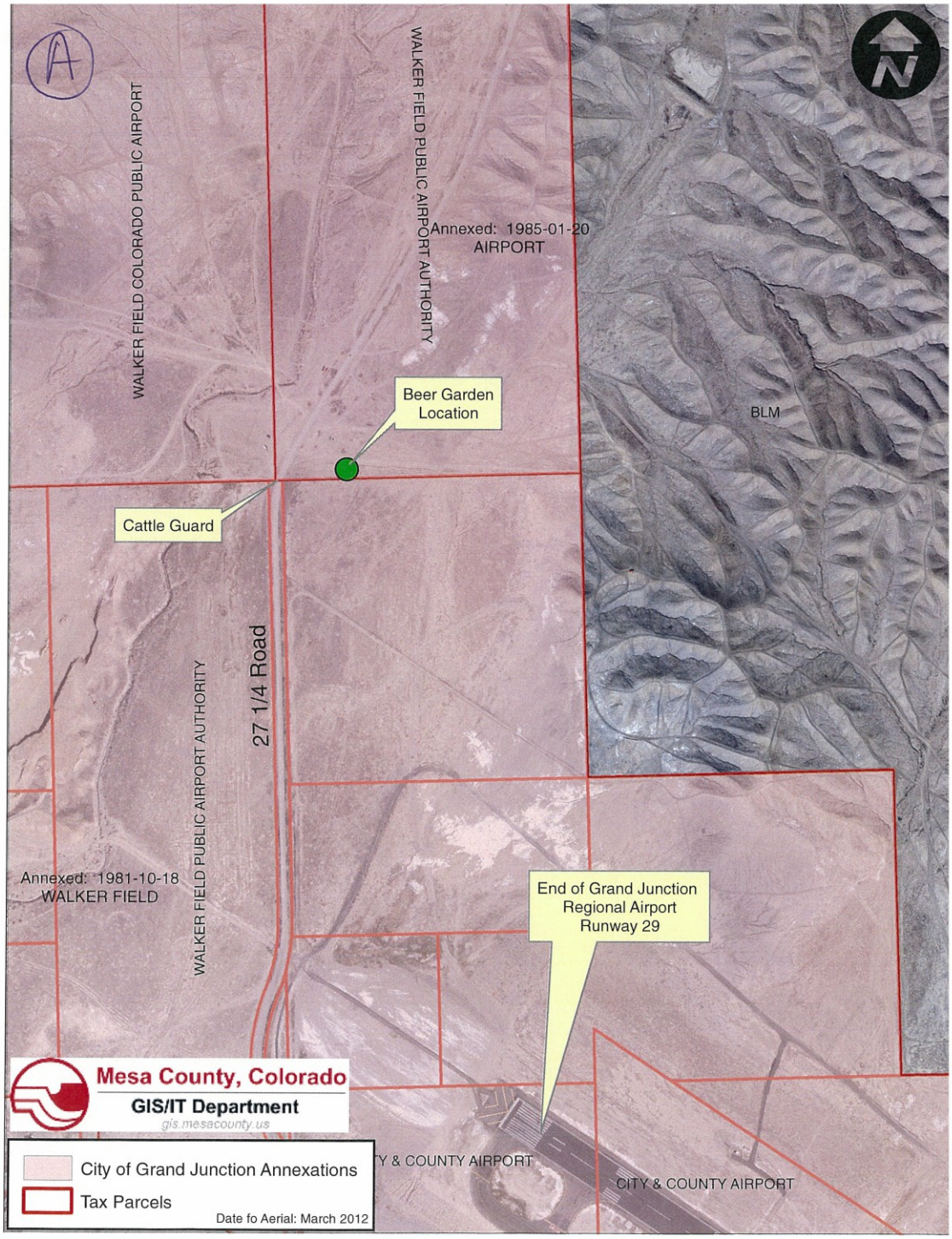
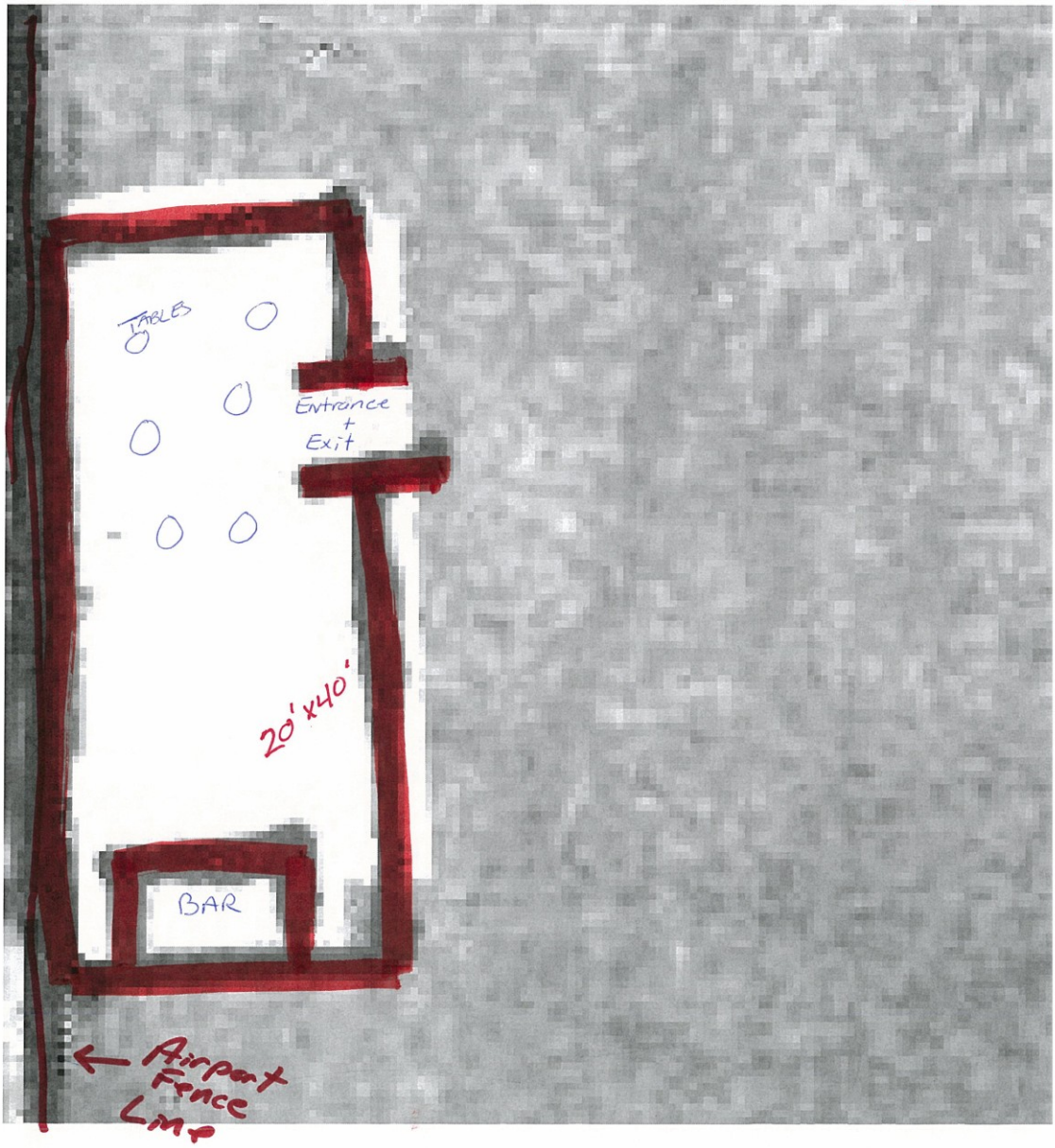
3RD ST
ALLEY


A
WALKER FIELD COLORADO PUBLIC AIRPORT
WALKER FIELD PUBLIC AIRPORT AUTHORITY
Annexed: 1985-01-20
AIRPORT
Beer Garden
Location
BLM
Cattle Guard
27 1/4 Road
WALKER FIELD PUBLIC AIRPORT AUTHORITY
Annexed: 1981-10-18
WALKER FIELD
End of Grand Junction
Regional Airport
Runway 29
Mesa County, Colorado
GIS/IT Department
gis.mesacounty.us
City of Grand Junction Annexations
Tax Parcels
Date fo Aerial: March 2012
CITY & COUNTY AIRPORT
CITY & COUNTY AIRPORT

B



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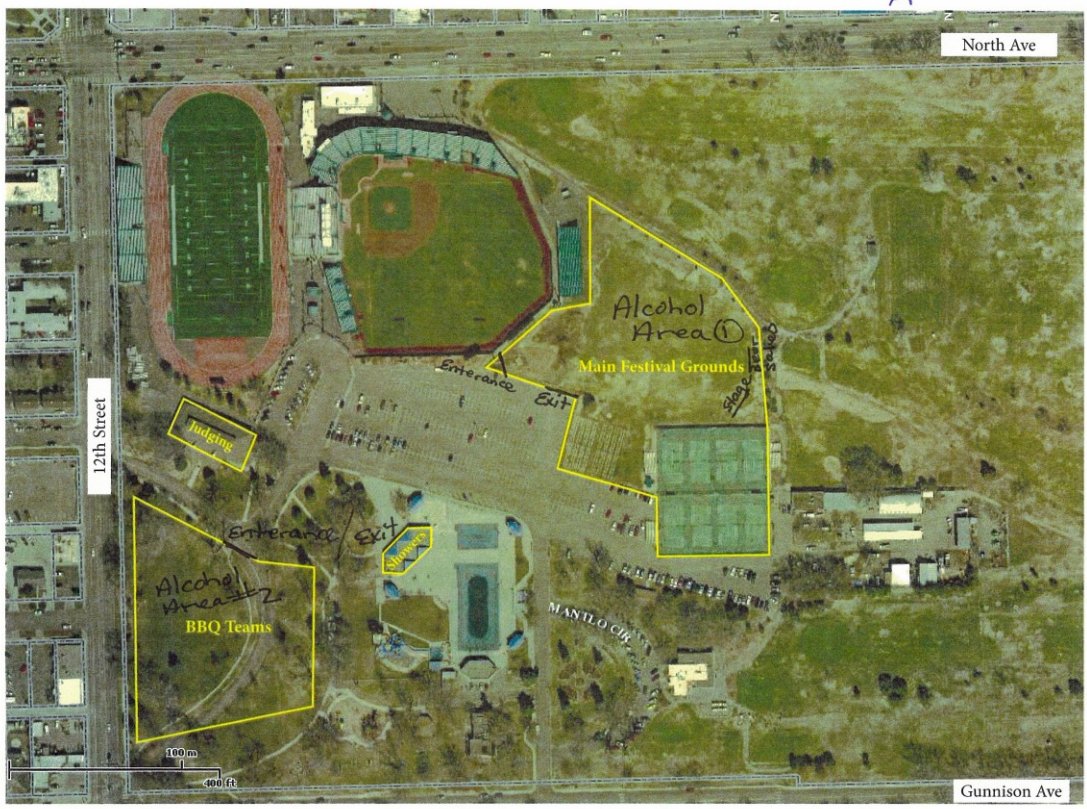

North Ave
12th Street
Gunnison Ave
Alcohol Area (1)
Main Festival Grounds
Entrance
Exit
Stage
Judging
Entrance
Exit
Showers
Alcohol Area (2)
BBQ Teams
MANTLO CIR
100 m
400 ft

CITY OF Grand Junction COLORADO

POLICE

Memorandum

TO: **Liquor and Beer Licensing Authority**

FROM: **Joe Patrick, Liquor Enforcement Officer**

DATE: **August 6, 2012**

SUBJECT: **Regulation 47-301 (Undue Concentration of Licenses)**

On July 18, 2012 I was asked by the liquor authority for the City of Grand Junction to respond to application for a new liquor license for a retail liquor store (Fun Junction Liquors, 510 28 ¾ Rd, Unit 202, Grand Junction, CO 81501) regarding the effects on the need for law enforcement resources.

The police department does have historical data specific to retail liquor stores. The below listed data is for 2010, 2011 and year to date 2012. Below is a breakdown of the number of calls for service for every retail liquor license establishment within the city of Grand Junction boundaries and those Mesa County retail liquor stores close to the city boundaries.

The information listed below does indicate law enforcement will respond to calls for service to retail liquor stores. The information indicates some liquors stores generate more calls for service than others. The information also indicates some of the retail liquor stores numbers have decreased over the past 2 years and eight months.

LOCATION	2010	2011	2012
1203 PITKIN AVE - LAST CHANCE LIQUORS	8	9	5
1560 NORTH AVE - PETE'S HOUSE OF SPRITS	20	18	14
1563 S HWY 50 - HILLTOP LIQUORS	0	17	9
200 W GRAND AVE - GRAND CENTRAL LIQUORS	22	8	4
2148 BROADWAY - MONUMENT VILLAGE LIQUORS	4	3	3
2353 BELFORD AVE - TELLER ARMS LIQUORS	16	20	1
2438 F RD - FISHER'S LIQUOR BARN	18	12	12
2500 BROADWAY - REDLANDS LIQUORS	5	0	1
2513 HWY 6 AND 50 - COTTONWOOD LIQUORS	0	9	0
2648 PATTERSON RD - JOHNNYS LIQUORS	0	0	7
2681 UNAWEEP AVE - JACK RABBIT LIQUOR	23	11	8
2851 1/2 NORTH AVE - CROWN LIQUORS	1	2	0
2913 PATTERSON RD - ALL PRO LIQUORS	0	0	2
2923 NORTH AVE - ENTERPRISE LIQUORS	4	5	3
2996 D RD - KOKOPELLI LIQUORS	10	11	9
3026 F RD - BOOKCLIFF LIQUORS	18	12	4
3225/3233 I70 BUSINESS LOOP - MT GARFIELD LIQUORS	7	3	0
3255 F RD - CLIFTON LIQUORS	13	9	7
418 32 RD - EAST VALLEY LIQUORS	7	0	17
420 MAIN ST - PLANET WINES	8	1	0

CITY OF Grand Junction COLORADO

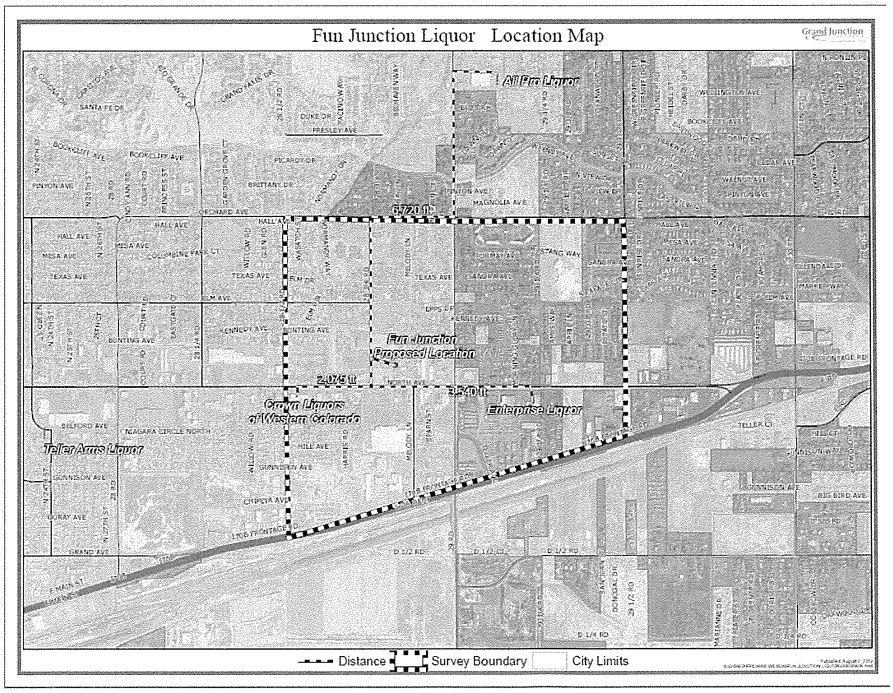
POLICE

Memorandum

505 30 RD - FRUITVALE LIQUORS	0	1	0
569 32 RD - CORONADO LIQUOR MART	12	17	13
611 24 RD - CROSSROADS LIQUOR AND WINE	4	5	4
683 HORIZON DR - COUNTRY CLUB LIQUORS	6	3	2
715 HORIZON DR - HORIZON LIQUORS	5	7	4
922 N 1ST ST - ANDYS LIQUOR MART	28	13	4
2654 BANGS CANYON - FAIRGROUND WINE & LIQUOR	0	0	0
807 NORTH AVE - NORTH AVE LIQUOR	0	0	0
2695 PATTERSON RD - COLLEGE LIQUORS	0	0	0

See attachment for breakdown of calls for service for each retail liquor store listed above. The attachment shows the Incident number, call current address, common name, call type and Date and Time.

The above information was compiled by Chris Wilson, the Grand Junction Police Departments Crime Analyst.



LIQUOR STORE CALLS FOR SERVICE
1/1/10 THRU 8/2/12

	CALL COUNTS		
LOCATION	**2010**	**2011**	**2012**
1203 PITKIN AVE - LAST CHANCE LIQUORS	8	9	5
1560 NORTH AVE - PETE'S HOUSE OF SPRITS	20	18	14
1563 S HWY 50 - HILLTOP LIQUORS	0	17	9
200 W GRAND AVE - GRAND CENTRAL LIQUORS	22	8	4
2148 BROADWAY - MONUMENT VILLAGE LIQUORS	4	3	3
2353 BELFORD AVE - TELLER ARMS LIQUORS	16	20	1
2438 F RD - FISHER'S LIQUOR BARN	18	12	12
2500 BROADWAY - REDLANDS LIQUORS	5	0	1
2513 HWY 6 AND 50 - COTTONWOOD LIQUORS	0	9	0
2648 PATTERSON RD - JOHNNYS LIQUORS	0	0	7
2681 UNAWEEP AVE - JACK RABBIT LIQUOR	23	11	8
2851 1/2 NORTH AVE - CROWN LIQUORS	1	2	0
2913 PATTERSON RD - ALL PRO LIQUORS	0	0	2
2923 NORTH AVE - ENTERPRISE LIQUORS	4	5	3
2996 D RD - KOKOPELLI LIQUORS	10	11	9
3026 F RD - BOOKCLIFF LIQUORS	18	12	4
3225/3233 I70 BUSINESS LOOP - MT GARFIELD LIQUORS	7	3	0
3255 F RD - CLIFTON LIQUORS	13	9	7
418 32 RD - EAST VALLEY LIQUORS	7	0	17
420 MAIN ST - PLANET WINES	8	1	0
505 30 RD - FRUITVALE LIQUORS	0	1	0
569 32 RD - CORONADO LIQUOR MART	12	17	13
611 24 RD - CROSSROADS LIQUOR AND WINE	4	5	4
683 HORIZON DR - COUNTRY CLUB LIQUORS	6	3	2
715 HORIZON DR - HORIZON LIQUORS	5	7	4
922 N 1ST ST - ANDYS LIQUOR MART	28	13	4
2654 BANGS CANYON - FAIRGROUND WINE & LIQUOR	0	0	0
807 NORTH AVE - NORTH AVE LIQUOR	0	0	0
2695 PATTERSON RD - COLLEGE LIQUORS	0	0	0

NOTE: CALLS WITH SMALL NUMBERS MAY NOT BE NO CALLS FOR SERVICE - THEY MAY HAVE OTHER CALLS THAT ARE OFC INITIATED

CALLS FOR SERVICE
2010 2011 2012

Incident Number	Call Current Address	Common Name	Call Type	Date and Time
2011-00000188	1203 PITKIN AVE	LAST CHANCE LIQUORS	ALARMB	01/02/2011 10:00:13
2011-00014153	1203 PITKIN AVE	LAST CHANCE LIQUORS	ASSIST	03/25/2011 20:27:30
2011-00014629	1203 PITKIN AVE	LAST CHANCE LIQUORS	FOLLOW	03/28/2011 19:22:59
2011-00044073	1203 PITKIN AVE	LAST CHANCE LIQUORS	REMOVE	09/12/2011 08:27:04
2011-00051400	1203 PITKIN AVE	LAST CHANCE LIQUORS	INTOX	10/23/2011 16:50:37
2011-00052050	1203 PITKIN AVE	LAST CHANCE LIQUORS	CRASH-CLOSEST C3	10/27/2011 14:09:46
2011-00053451	1203 PITKIN AVE	LAST CHANCE LIQUORS	PANIC	11/04/2011 16:33:38
2011-00053910	1203 PITKIN AVE	LAST CHANCE LIQUORS	ASSLT	11/07/2011 12:43:20
2011-00059075	1203 PITKIN AVE	LAST CHANCE LIQUORS	PROP	12/09/2011 13:44:03
2012-00004278	1203 PITKIN AVE	LAST CHANCE LIQUORS	ASSIST	01/26/2012 21:20:16
2012-00005453	1203 PITKIN AVE	LAST CHANCE LIQUORS	HARASI	02/03/2012 17:16:48
2012-00015283	1203 PITKIN AVE	LAST CHANCE LIQUORS	LIQUOR	04/01/2012 17:19:02
2012-00019097	1203 PITKIN AVE	LAST CHANCE LIQUORS	ALARMB	04/22/2012 09:40:31
2012-00029515	1203 PITKIN AVE	LAST CHANCE LIQUORS	LIQUOR	06/21/2012 09:49:44
LGJ100210008062	1203 PITKIN AVE	LAST CHANCE LIQUORS	INTOX	2/10/2010 16:50
LGJ100301012195	1203 PITKIN AVE	LAST CHANCE LIQUORS	TRAFFI	3/1/2010 18:17
LGJ100406019618	1203 PITKIN AVE	LAST CHANCE LIQUORS	INTOX	4/6/2010 18:26
LGJ100529031035	1203 PITKIN AVE	LAST CHANCE LIQUORS	INTOX	5/29/2010 17:50
LGJ100601031732	1203 PITKIN AVE	LAST CHANCE LIQUORS	SUSP	6/1/2010 18:31
LGJ100921056992	1203 PITKIN AVE	LAST CHANCE LIQUORS	THRETI	9/21/2010 16:06
LGJ101002059599	1203 PITKIN AVE	LAST CHANCE LIQUORS	REMOVE	10/2/2010 11:30
LGJ101120069368	1203 PITKIN AVE	LAST CHANCE LIQUORS	THEFTI	11/20/2010 17:10
2010-00100790	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	12/18/2010 00:49:08
2010-00101850	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	12/25/2010 00:20:33
2011-00000403	1560 NORTH AVE	HOUSE OF SPIRITS	THEFT	01/03/2011 19:48:53
2011-00001250	1560 NORTH AVE	HOUSE OF SPIRITS	CODE6	01/08/2011 23:45:41
2011-00001892	1560 NORTH AVE	HOUSE OF SPIRITS	LIQUOR	01/12/2011 16:14:24
2011-00001965	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	01/13/2011 00:23:53
2011-00002769	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	01/17/2011 20:30:21
2011-00006560	1560 NORTH AVE	HOUSE OF SPIRITS	ASSAULT-C2	02/10/2011 23:01:48
2011-00008229	1560 NORTH AVE	HOUSE OF SPIRITS	STRUC	02/21/2011 01:32:09
2011-00008230	1560 NORTH AVE	HOUSE OF SPIRITS	STRUC	02/21/2011 01:32:09
2011-00014641	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	03/28/2011 21:29:49
2011-00014757	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	03/29/2011 12:50:52
2011-00015399	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	04/01/2011 17:50:54
2011-00017118	1560 NORTH AVE	HOUSE OF SPIRITS	INTOX	04/11/2011 21:57:05
2011-00024830	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	05/28/2011 00:17:23
2011-00026446	1560 NORTH AVE	HOUSE OF SPIRITS	HITRUN	06/05/2011 23:29:28
2011-00042667	1560 NORTH AVE	HOUSE OF SPIRITS	REMOVE	09/04/2011 12:53:18
2011-00044233	1560 NORTH AVE	HOUSE OF SPIRITS	VANDI	09/13/2011 03:19:37
2011-00051733	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	10/25/2011 15:42:42
2011-00061094	1560 NORTH AVE	HOUSE OF SPIRITS	HITRUN	12/21/2011 23:09:51
2012-00012191	1560 NORTH AVE	HOUSE OF SPIRITS	THEFT	03/15/2012 10:45:19
2012-00014634	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	03/29/2012 07:59:03
2012-00014820	1560 NORTH AVE	HOUSE OF SPIRITS	ROB	03/29/2012 23:35:02
2012-00014823	1560 NORTH AVE	HOUSE OF SPIRITS	ROB	03/29/2012 23:35:02
2012-00014824	1560 NORTH AVE	HOUSE OF SPIRITS	ROB	03/29/2012 23:35:02
2012-00019103	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	04/22/2012 10:34:45
2012-00019108	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	04/22/2012 11:08:43
2012-00023564	1560 NORTH AVE	HOUSE OF SPIRITS	WELFARE	05/17/2012 20:07:25
2012-00025053	1560 NORTH AVE	HOUSE OF SPIRITS	SUSP	05/25/2012 23:03:35
2012-00026123	1560 NORTH AVE	HOUSE OF SPIRITS	SUSP	06/01/2012 00:54:02
2012-00028745	1560 NORTH AVE	HOUSE OF SPIRITS	HITRUN	06/16/2012 18:57:51
2012-00030148	1560 NORTH AVE	HOUSE OF SPIRITS	THEFT	06/24/2012 19:28:25
2012-00032143	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	07/05/2012 18:54:25
2012-00034474	1560 NORTH AVE	HOUSE OF SPIRITS	SUSP	07/19/2012 01:16:20
LGJ100305013012	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	3/5/2010 12:07
LGJ100309013865	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	3/9/2010 18:52

CALLS FOR SERVICE
2010 2011 2012

LGJ100329017687	1560 NORTH AVE	HOUSE OF SPIRITS	BURG	3/29/2010 4:58
LGJ100329017777	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	3/29/2010 13:16
LGJ100403018790	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	4/3/2010 0:13
LGJ100422023171	1560 NORTH AVE	HOUSE OF SPIRITS	WEAPON	4/22/2010 21:23
LGJ100509026830	1560 NORTH AVE	HOUSE OF SPIRITS	SHOP	5/9/2010 20:38
LGJ100611034261	1560 NORTH AVE	HOUSE OF SPIRITS	ASSIST	6/11/2010 20:43
LGJ100615035067	1560 NORTH AVE	HOUSE OF SPIRITS	THEFTI	6/15/2010 19:42
LGJ100626037502	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	6/26/2010 7:59
LGJ100716042355	1560 NORTH AVE	HOUSE OF SPIRITS	PROP	7/16/2010 23:22
LGJ100730045295	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	7/30/2010 14:44
LGJ100809047424	1560 NORTH AVE	HOUSE OF SPIRITS	HITRUN	8/9/2010 11:32
LGJ100906053548	1560 NORTH AVE	HOUSE OF SPIRITS	FOLLOW	9/6/2010 12:49
LGJ100910054391	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	9/10/2010 0:14
LGJ100925058012	1560 NORTH AVE	HOUSE OF SPIRITS	ASSIST	9/25/2010 21:10
LGJ101022063629	1560 NORTH AVE	HOUSE OF SPIRITS	ALARMB	10/22/2010 0:24
LGJ101104066295	1560 NORTH AVE	PETE'S HOUSE OF SPIRITS	INTOX	11/4/2010 10:28
2011-00013837	1563 S HWY 50	HILLTOP LIQUOR	INTOX	03/23/2011 20:17:36
2011-00015431	1563 S HWY 50	HILLTOP LIQUOR	INTOX	04/01/2011 20:40:29
2011-00019417	1563 S HWY 50	HILLTOP LIQUOR	ASSTL	04/25/2011 21:44:05
2011-00020593	1563 S HWY 50	HILLTOP LIQUOR	CRASH	05/02/2011 18:57:15
2011-00024732	1563 S HWY 50	HILLTOP LIQUOR	TRAFFI	05/27/2011 08:39:16
2011-00033500	1563 S HWY 50	HILLTOP LIQUOR	SUSP	07/15/2011 01:49:19
2011-00038096	1563 S HWY 50	HILLTOP LIQUOR	VERB	08/09/2011 21:20:32
2011-00041327	1563 S HWY 50	HILLTOP LIQUOR	SUSP	08/28/2011 00:10:08
2011-00042500	1563 S HWY 50	HILLTOP LIQUOR	BURG	09/03/2011 08:19:52
2011-00045772	1563 S HWY 50	HILLTOP LIQUOR	INTOX	09/21/2011 14:58:42
2011-00053205	1563 S HWY 50	HILLTOP LIQUOR	DRUG	11/03/2011 08:32:36
2011-00053745	1563 S HWY 50	HILLTOP LIQUOR	CRASH	11/06/2011 10:49:49
2011-00054873	1563 S HWY 50	HILLTOP LIQUOR	TRAFFI	11/12/2011 09:51:27
2011-00055518	1563 S HWY 50	HILLTOP LIQUOR	FAUTO	11/16/2011 10:12:23
2011-00055650	1563 S HWY 50	HILLTOP LIQUOR	FOLLOW	11/17/2011 08:21:11
2011-00056716	1563 S HWY 50	HILLTOP LIQUOR	REST	11/24/2011 04:56:44
2011-00060896	1563 S HWY 50	HILLTOP LIQUOR	THEFTI	12/20/2011 15:45:50
2012-00004342	1563 S HWY 50	HILLTOP LIQUOR	INTOX	01/27/2012 11:01:23
2012-00006440	1563 S HWY 50	HILLTOP LIQUOR	OVERDOSE-C2	02/09/2012 14:57:05
2012-00007225	1563 S HWY 50	HILLTOP LIQUOR	SUSP	02/14/2012 16:23:32
2012-00008071	1563 S HWY 50	HILLTOP LIQUOR	TRAFFI	02/20/2012 09:55:33
2012-00010595	1563 S HWY 50	HILLTOP LIQUOR	TRAUMA-C2	03/06/2012 10:11:43
2012-00014833	1563 S HWY 50	HILLTOP LIQUOR	DUI	03/30/2012 01:53:33
2012-00021464	1563 S HWY 50	HILLTOP LIQUOR	CRASH	05/05/2012 12:33:30
2012-00028590	1563 S HWY 50	HILLTOP LIQUOR	SUSP	06/15/2012 22:28:27
2012-00029067	1563 S HWY 50	HILLTOP LIQUOR	SEX	06/18/2012 19:05:49
2010-00101186	200 W GRAND AVE	LIQUOR STORE	TRAFFI	12/20/2010 15:42:25
2011-00006096	200 W GRAND AVE	GRAND CENTRAL LIQUORS	CHEST PAIN-C3	02/07/2011 17:27:35
2011-00018662	200 W GRAND AVE	GRAND CENTRAL LIQOURS	ALARMB	04/21/2011 04:50:50
2011-00030431	200 W GRAND AVE	GRAND CENTRAL LIQUORS	SUSP	06/28/2011 19:05:40
2011-00032849	200 W GRAND AVE	GRAND CENTRAL LIQ	THRETI	07/11/2011 22:31:21
2011-00032970	200 W GRAND AVE	GRAND CENTRAL LIQUORS	THRETI	07/12/2011 13:31:35
2011-00045329	200 W GRAND AVE	GRAND CENTRAL LIQUORS	FALLS-C2	09/19/2011 11:18:01
2011-00052028	200 W GRAND AVE	GRAND CENTRAL LIQUORS	SHOP	10/27/2011 12:18:55
2011-00052531	200 W GRAND AVE	GRAND CENTRAL LIQ	ALARMB	10/30/2011 08:21:01
2012-00000030	200 W GRAND AVE	GRAND CENTRAL LIQUOR	ALARMB	01/01/2012 01:50:09
2012-00015694	200 W GRAND AVE	GRAND CENTRAL LIQUORS	ALARMB	04/04/2012 07:05:17
2012-00018614	200 W GRAND AVE	GRAND CENTRAL LIQUORS	ALARMB	04/19/2012 19:50:46
2012-00029116	200 W GRAND AVE	GRAND CENTRAL LIQUOR	ALARMB	06/19/2012 03:14:31
LGJ100206007251	200 W GRAND AVE	GRAND CENTRAL LIQUORS	SUSP	2/6/2010 19:53
LGJ100219010018	200 W GRAND AVE	GRAND CENTRAL LIQUOR	HARAS	2/19/2010 16:20
LGJ100417021998	200 W GRAND AVE	GRAND CENTRAL LIQUOR	SUSP	4/17/2010 10:08
LGJ100418022184	200 W GRAND AVE	GRAND CENTRAL LIQUOR	ALARMB	4/18/2010 5:55

CALLS FOR SERVICE
2010 2011 2012

LGJ100502025286	200 W GRAND AVE	GRAND CENTRAL LIQUOR	VERB	5/2/2010 18:35
LGJ100713041539	200 W GRAND AVE	GRAND CENTRAL LIQUOR	SUSP	7/13/2010 18:17
LGJ100715041981	200 W GRAND AVE	GRAND CENTRAL LIQUOR	THREAT	7/15/2010 13:27
LGJ100715042090	200 W GRAND AVE	GRAND CENTRAL LIQUOURS	HARASI	7/15/2010 21:33
LGJ100715042098	200 W GRAND AVE	GRAND CENTRAL LIQUOURS	HARASI	7/15/2010 22:02
LGJ100721043332	200 W GRAND AVE	GRAND CENTRAL LIQUOR	TRAFFI	7/21/2010 19:09
LGJ100728044901	200 W GRAND AVE	GRAND CENTRAL LIQUOR	LIQUOR	7/28/2010 21:13
LGJ100907053892	200 W GRAND AVE	GRAND CENTRAL LIQUOR	ASSTM	9/7/2010 22:19
LGJ100908054094	200 W GRAND AVE	GRAND CENTRAL LIQUORS	ASSTM	9/8/2010 20:47
LGJ100927058489	200 W GRAND AVE	GRAND CENTRAL LIQUOR	FOLLOW	9/27/2010 22:28
LGJ101004060137	200 W GRAND AVE	GRAND CENTRAL LIQUOR	FOLLOW	10/4/2010 23:37
LGJ101021063596	200 W GRAND AVE	GRAND CENTRAL LIQUOR	TRESP	10/21/2010 19:19
LGJ101022063778	200 W GRAND AVE	GRAND CENTRAL LIQUOR	FOLLOW	10/22/2010 20:18
LGJ101102065933	200 W GRAND AVE	GRAND CENTRAL LIQUOR	INTOX	11/2/2010 19:09
LGJ101104066388	200 W GRAND AVE	GRAND CENTRAL LIQUOR	INTOX	11/4/2010 16:27
LGJ101119069222	200 W GRAND AVE	GRAND CENTRAL LIQUORS	THEFTI	11/19/2010 23:11
LGJ101120069331	200 W GRAND AVE	GRAND CENTRAL LIQUOR	ASSIST	11/20/2010 14:19
2011-00005123	2148 BROADWAY	MONUMENT VILL LIQ	PANIC	03/03/2011 14:06:27
2011-00011684	2148 BROADWAY	MONUMENT VILL LIQ	PANIC	05/11/2011 17:44:55
2011-00014840	2148 BROADWAY	MONUMENT VILL LIQ	WELFARE	06/12/2011 17:41:46
2012-00008629	2148 BROADWAY	MONUMENT VILL LIQ	ALARMO	04/01/2012 19:59:05
2012-00021675	2148 BROADWAY	MONUMENT VILLAGE LIQUORS	ALARMB	07/30/2012 22:29:17
2012-00021879	2148 BROADWAY	MONUMENT VILLAGE LIQUORS	CRASH	08/02/2012 03:28:12
2011-00000064	2353 BELFORD AVE	TELLER ARMS LIQUORS	SUSP	01/01/2011 09:01:52
2011-00000580	2353 BELFORD AVE	TELLER ARMS LIQUORS	PRIVAT	01/04/2011 16:38:36
2011-00008028	2353 BELFORD AVE	TELLER ARMS LIQUORS	WELFARE	02/19/2011 16:42:26
2011-00019094	2353 BELFORD AVE	TELLER ARMS LIQUORS	REMOVE	04/23/2011 19:11:42
2011-00028796	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMO	06/20/2011 02:40:39
2011-00028809	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMO	06/20/2011 08:19:26
2011-00033773	2353 BELFORD AVE	TELLER ARMS LIQUORS	ROBI	07/16/2011 17:50:14
2011-00034240	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	07/19/2011 12:34:15
2011-00034604	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	07/21/2011 08:39:13
2011-00035128	2353 BELFORD AVE	TELLER ARMS LIQUORS	SUSP	07/24/2011 02:46:36
2011-00035226	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	07/24/2011 23:11:43
2011-00036194	2353 BELFORD AVE	TELLER ARMS LIQUORS	FIGHT	07/30/2011 01:03:02
2011-00040199	2353 BELFORD AVE	TELLER ARMS LIQUORS	SUSP	08/21/2011 14:37:59
2011-00041814	2353 BELFORD AVE	TELLER ARMS LIQUORS	ASSLTI	08/30/2011 15:03:28
2011-00043298	2353 BELFORD AVE	TELLER ARMS LIQUORS	CHEST PAIN-C3	09/07/2011 17:00:43
2011-00053150	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	11/02/2011 18:06:20
2011-00053271	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	11/03/2011 14:39:50
2011-00058094	2353 BELFORD AVE	TELLER ARMS LIQUORS	DUI	12/02/2011 23:48:06
2011-00061994	2353 BELFORD AVE	TELLER ARMS LIQUORS	ASSAULT-C2	12/28/2011 21:05:38
2011-00062127	2353 BELFORD AVE	TELLER ARMS LIQUORS	FOLLOW	12/29/2011 19:31:29
2012-00018701	2353 BELFORD AVE	TELLER ARMS LIQUORS	FAUTO	04/20/2012 11:23:58
LGJ100213008787	2353 BELFORD AVE	TELLER ARMS LIQUOR	THEFTI	2/13/2010 21:19
LGJ100418022263	2353 BELFORD AVE	TELLER ARMS LIQUORS	DRUG	4/18/2010 18:53
LGJ100423023342	2353 BELFORD AVE	TELLER ARMS LIQUORS	LIQUOR	4/23/2010 19:18
LGJ100527030445	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMO	5/27/2010 7:50
LGJ100605032811	2353 BELFORD AVE	TELLER ARMS LIQUORS	PANIC	6/5/2010 18:45
LGJ100616035152	2353 BELFORD AVE	TELLER ARMS LIQUORS	LIQUOR	6/16/2010 9:09
LGJ100621036389	2353 BELFORD AVE	TELLER ARMS LIQUORS	DRUG	6/21/2010 12:25
LGJ100804046447	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMB	8/4/2010 16:37
LGJ100804046489	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMB	8/4/2010 20:24
LGJ100804046511	2353 BELFORD AVE	TELLER ARMS LIQUORS	PANIC	8/4/2010 22:16
LGJ100823050334	2353 BELFORD AVE	TELLER ARMS LIQUORS	REDDI	8/23/2010 12:39
LGJ100902052555	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMB	9/2/2010 6:09
LGJ100903052880	2353 BELFORD AVE	TELLER ARMS LIQUORS	GRAFFI	9/3/2010 12:09

CALLS FOR SERVICE
2010 2011 2012

LGJ101022063724	2353 BELFORD AVE	TELLER ARMS LIQUORS	SHOTS	10/22/2010 15:17
LGJ101028064771	2353 BELFORD AVE	TELLER ARMS LIQUORS	PARK	10/28/2010 12:04
LGJ101106066713	2353 BELFORD AVE	TELLER ARMS LIQUORS	ALARMB	11/6/2010 9:06
2011-00000696	2438 F RD	FISHERS LIQUOR BARN	THEFT	01/05/2011 13:34:08
2011-00000739	2438 F RD	FISHERS LIQUOR BARN	PROP	01/05/2011 17:38:31
2011-00006133	2438 F RD	FISHERS LIQUOR BARN	CRASH	02/07/2011 22:56:37
2011-00021733	2438 F RD	FISHERS LIQUOR BARN	PROP	05/09/2011 17:08:22
2011-00031013	2438 F RD	FISHERS LIQUOR BARN	FLASHI	07/01/2011 18:36:51
2011-00036400	2438 F RD	FISHERS LIQUOR BARN	VAND	07/31/2011 07:51:12
2011-00041397	2438 F RD	FISHERS LIQUOR BARN	TRAFFI	08/28/2011 10:56:07
2011-00045678	2438 F RD	FISHERS LIQUOR BARN	ALARMB	09/21/2011 01:57:37
2011-00045684	2438 F RD	FISHERS LIQUOR BARN	ALARMB	09/21/2011 02:50:11
2011-00046139	2438 F RD	FISHERS LIQUOR BARN	THRETI	09/23/2011 17:10:58
2011-00049756	2438 F RD	FISHERS LIQUOR BARN	VAND	10/14/2011 08:36:16
2011-00052644	2438 F RD	FISHERS LIQUOR BARN	CRASH	10/31/2011 08:01:59
LGJ100129005599	2438 F RD	FISHERS LIQUOR BARN	ASSIST	1/29/2010 16:21
LGJ100215009164	2438 F RD	FISHER'S LIQUOR BARN	SHOP	2/15/2010 20:00
LGJ100225011339	2438 F RD	FISHERS LIQUOR BARN	THEFT	2/25/2010 13:51
LGJ100410020563	2438 F RD	FISHER'S LIQUOR BARN	ROB	4/10/2010 16:26
LGJ100413021075	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	4/13/2010 8:21
LGJ100525029976	2438 F RD	FISHERS LIQUOR BARN	REDDI	5/25/2010 15:53
LGJ100710040776	2438 F RD	FISHERS LIQUOR BARN	SHOP	7/10/2010 13:14
LGJ100716042213	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	7/16/2010 11:47
LGJ100721043335	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	7/21/2010 19:41
LGJ100730045354	2438 F RD	FISHERS LIQUOR BARN	THRETI	7/30/2010 19:08
LGJ100821049968	2438 F RD	FISHERS LIQUOR BARN	TRAFFI	8/21/2010 13:13
LGJ100908054101	2438 F RD	FISHER'S LIQUOR BARN	LIQUOR	9/8/2010 21:47
LGJ101013061834	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	10/13/2010 9:02
LGJ101013061859	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	10/13/2010 10:41
LGJ101118068982	2438 F RD	FISHER'S LIQUOR BARN	THEFTI	11/18/2010 18:12
LGJ101119069177	2438 F RD	FISHERS LIQUOR BARN	FOLLOW	11/19/2010 18:12
LGJ101204071671	2438 F RD	FISHERS LIQUOR BARN	SUSP	12/4/2010 1:00
LGJ101210072820	2438 F RD	FISHERS LIQUOR BARN	PRIVAT	12/10/2010 11:09
2012-00003903	2438 PATTERSON RD	FISHERS LIQUOR BARN	FIGHT	01/24/2012 18:22:36
2012-00006561	2438 PATTERSON RD	FISHERS LIQUOR BARN	FRAUD	02/10/2012 10:37:49
2012-00016026	2438 PATTERSON RD	FISHERS LIQUOR BARN	LIQUOR	04/05/2012 18:36:33
2012-00016287	2438 PATTERSON RD	FISHERS LIQUOR BARN	HARASI	04/06/2012 21:51:10
2012-00021719	2438 PATTERSON RD	FISHERS LIQUOR BARN	ALARMB	05/07/2012 04:52:03
2012-00023506	2438 PATTERSON RD	FISHERS LIQUOR BARN	LIQUOR	05/17/2012 12:49:06
2012-00023584	2438 PATTERSON RD	FISHERS LIQUOR BARN	SUSP	05/17/2012 22:45:10
2012-00028201	2438 PATTERSON RD	FISHERS LIQUOR BARN	SUSP	06/13/2012 18:51:07
2012-00029850	2438 PATTERSON RD	FISHERS LIQUOR BARN	INTOX	06/22/2012 20:43:01
2012-00029961	2438 PATTERSON RD	FISHERS LIQUOR BARN	VERB	06/23/2012 14:36:30
2012-00030566	2438 PATTERSON RD	FISHERS LIQUOR BARN	FRAUDI	06/26/2012 20:16:11
2012-00036363	2438 PATTERSON RD	FISHERS LIQUOR BARN	LOITER	07/29/2012 18:04:11
2012-00032811	2500 BROADWAY	REDLANDS LIQUORS	UNK PROBLEM-C2	07/09/2012 22:46:17
LGJ100411020771	2500 BROADWAY	REDLANDS LIQUORS	FELMEN	4/11/2010 18:09
LGJ100417021987	2500 BROADWAY	REDLANDS LIQUOR	ALARMB	4/17/2010 8:46
LGJ100813048353	2500 BROADWAY	REDLANDS LIQ	REDDI	8/13/2010 16:32
LGJ100903053026	2500 BROADWAY	REDLANDS LIQUORS	ALARMB	9/3/2010 23:51
LGJ101122069767	2500 BROADWAY	REDLANDS LIQUORS	ASSTM	11/22/2010 19:58
2011-00007890	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	INTOX	02/18/2011 19:17:10
2011-00015722	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	CRASH	04/03/2011 11:27:42
2011-00018419	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	FRAUD	04/19/2011 20:43:58
2011-00018532	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	SUSP	04/20/2011 13:48:18
2011-00022636	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	CRASH-CLOSEST C3	05/14/2011 13:20:24
2011-00022639	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	CRASH	05/14/2011 13:49:57
2011-00023936	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	CRASH-CLOSEST C3	05/22/2011 16:06:43
2011-00027837	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	SUSP	06/14/2011 11:38:50

CALLS FOR SERVICE
2010 2011 2012

2011-00049515	2513 HWY 6 AND 50	COTTONWOOD LIQUORS	SUSP	10/13/2011 01:59:25
2012-00018426	2648 PATTERSON RD	JOHNNYS LIQUOR	SUSP	04/18/2012 19:40:35
2012-00019594	2648 PATTERSON RD	JOHNNYS LIQUOR	INTOX	04/25/2012 00:02:22
2012-00023322	2648 PATTERSON RD	JOHNNYS LIQUOR	FOLLOW	05/16/2012 13:05:15
2012-00024640	2648 PATTERSON RD	JOHNNYS LIQUOR	THEFTI	05/23/2012 22:39:05
2012-00027576	2648 PATTERSON RD	JOHNNYS LIQUOR	SUSP	06/09/2012 17:00:28
2012-00028331	2648 PATTERSON RD	JOHNNYS LIQUOR	VERB	06/14/2012 15:54:24
2012-00035443	2648 PATTERSON RD	JOHNNYS LIQUOR	REDDI	07/24/2012 15:07:45
2010-00100680	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	LIQUOR	12/17/2010 11:38:11
2010-00101142	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	PANIC	12/20/2010 12:08:24
2011-00003382	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	PANIC	01/21/2011 16:49:54
2011-00026460	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	SEIZURE-C2	06/06/2011 00:54:00
2011-00034016	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	WELFARE	07/18/2011 10:58:00
2011-00039122	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	THEFT	08/15/2011 11:58:55
2011-00043952	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	ALARMB	09/11/2011 02:48:08
2011-00050094	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	ALARMB	10/16/2011 00:51:50
2011-00051054	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	REMOVE	10/21/2011 15:18:17
2011-00059311	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	THEFTI	12/10/2011 23:50:39
2011-00059981	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	SUSP	12/14/2011 22:30:08
2011-00060067	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	12/15/2011 09:25:13
2011-00060653	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	12/19/2011 09:26:56
2012-00005341	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	REDDI	02/02/2012 21:43:02
2012-00006706	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	ALARMB	02/11/2012 08:41:37
2012-00015133	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	SICK PERSON-C2	03/31/2012 15:37:49
2012-00017207	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	VAND	04/12/2012 07:45:48
2012-00020362	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	HARASI	04/28/2012 18:33:52
2012-00026541	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FALLS-C2	06/03/2012 14:53:55
2012-00028324	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	06/14/2012 15:23:42
2012-00033368	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	HITRUN	07/12/2012 18:38:19
LGJ100504025598	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	ALARMB	5/4/2010 0:49
LGJ100514027705	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	BURG	5/14/2010 0:41
LGJ100516028087	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	5/16/2010 5:33
LGJ100523029523	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	TRAFFI	5/23/2010 16:06
LGJ100610034040	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	SUSP	6/10/2010 19:59
LGJ100622036709	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	REDDI	6/22/2010 21:21
LGJ100624037162	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	ASSLTI	6/24/2010 19:00
LGJ100717042529	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	LIQUOR	7/17/2010 19:35
LGJ100720043154	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	TRAFFI	7/20/2010 20:12
LGJ100729045150	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	INTOX	7/29/2010 22:11
LGJ100730045411	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	CODE6	7/30/2010 22:26
LGJ100730045417	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	CODE6	7/30/2010 22:52
LGJ100817049094	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	THEFT	8/17/2010 9:18
LGJ100820049749	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	REDDI	8/20/2010 12:52
LGJ100926058231	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	THEFT	9/26/2010 21:34
LGJ100927058476	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	9/27/2010 19:20
LGJ100927058485	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	THEFT	9/27/2010 21:25
LGJ100929058952	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	9/29/2010 17:16
LGJ100929058972	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	9/29/2010 19:32
LGJ100930059079	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	FOLLOW	9/30/2010 9:24
LGJ101008060849	2681 UNAWEEP AVE	JACK RABBIT LIQUOR	LIQUOR	10/8/2010 13:24
2010-00100958	2851 1/2 NORTH AVE	CROWN LIQUOR	BURG	12/19/2010 02:31:25
2011-00001229	2851 1/2 NORTH AVE	CROWN LIQUORS	SUSP	01/08/2011 21:47:45
2011-00058943	2851 1/2 NORTH AVE	CROWN LIQUORS	WELFARE	12/08/2011 16:09:33
2012-00035619	2913 PATTERSON RD	ALL PRO LIQUORS	WELFARE	07/25/2012 13:11:59
2012-00036233	2913 PATTERSON RD	ALL PRO LIQUORS	REDDI	07/28/2012 19:33:05
2011-00000431	2923 NORTH AVE	ENTERPRISE LIQUORS	THEFT	01/06/2011 18:00:50
2011-00012533	2923 NORTH AVE	ENTERPRISE LIQUORS	ASSIST	05/20/2011 19:58:10
2011-00018330	2923 NORTH AVE	ENTERPRISE LIQUORS	INTOX	07/14/2011 13:39:53
2011-00026939	2923 NORTH AVE	ENTERPRISE LIQUORS	BURGI	10/08/2011 01:30:49

CALLS FOR SERVICE
2010 2011 2012

2011-00048712	2923 NORTH AVE	ENTERPRISE LIQUORS	BURGI	10/08/2011 01:30:49
2012-00015473	2923 NORTH AVE	ENTERPRISE LIQUORS	INFO	06/06/2012 10:54:25
2012-00016488	2923 NORTH AVE	ENTERPRISE LIQUORS	911	06/14/2012 13:54:14
2012-00017760	2923 NORTH AVE	ENTERPRISE LIQUORS	LOITER	06/25/2012 20:31:08
LSO100603020291	2923 NORTH AVE	ENTERPRISE PARK/LIQUOR STO	CIVIL	6/3/2010 14:31
LSO100714026231	2923 NORTH AVE	ENTERPRISE LIQUORS	TRESPI	7/14/2010 20:39
LSO100729028279	2923 NORTH AVE	ENTERPRISE LIQUORS	911	7/29/2010 15:21
LSO101120043007	2923 NORTH AVE	ENTERPRISE LIQUORS	SUSP	11/20/2010 22:06
2011-00019347	2996 D RD	KOKOPELLI LIQUORS	THEFT	04/25/2011 12:06:20
2011-00023064	2996 D RD	KOKOPELLI LIQUORS	VAND	05/17/2011 07:47:26
2011-00023916	2996 D RD	KOKOPELLI LIQUORS	CODE5	05/22/2011 13:23:54
2011-00032447	2996 D RD	KOKOPELLI LIQUORS	HITRUN	07/09/2011 17:23:20
2011-00035291	2996 D RD	KOKOPELLI LIQUORS	ASSIST	07/25/2011 10:06:49
2011-00054423	2996 D RD	KOKOPELLI LIQUORS	THEFT	11/09/2011 17:14:35
2011-00054703	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	11/11/2011 11:58:53
2011-00054741	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	11/11/2011 14:48:27
2011-00055212	2996 D RD	KOKOPELLI LIQUORS	WELFARE	11/14/2011 17:49:40
2011-00059908	2996 D RD	KOKOPELLI LIQUORS	ASSIST	12/14/2011 13:22:09
2011-00059935	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	12/14/2011 15:34:31
2012-00000242	2996 D RD	KOKOPELLI LIQUORS	THEFTI	01/02/2012 21:42:09
2012-00000408	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	01/03/2012 18:02:49
2012-00002444	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	01/16/2012 07:53:42
2012-00002572	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	01/16/2012 21:19:32
2012-00006318	2996 D RD	KOKOPELLI LIQUORS	HITRUN	02/08/2012 20:59:37
2012-00008911	2996 D RD	KOKOPELLI LIQUORS	INTOX	02/24/2012 19:52:00
2012-00015060	2996 D RD	KOKOPELLI LIQUORS	ALARMB	03/31/2012 03:28:09
2012-00022474	2996 D RD	KOKOPELLI LIQUORS	HARAS	05/11/2012 11:17:05
2012-00027069	2996 D RD	KOKOPELLI LIQUORS	FOLLOW	06/06/2012 17:00:05
LGJ100116002944	2996 D RD	KOKOPELLI LIQUORS	PRIVAT	1/16/2010 9:02
LGJ100130005845	2996 D RD	KOKOPELLI LIQUORS	WELFAR	1/30/2010 21:05
LGJ100515027924	2996 D RD	KOKOPELLI LIQUORS	WELFAR	5/15/2010 9:52
LGJ100521029062	2996 D RD	KOKOPELLI LIQUORS	FRAUD	5/21/2010 10:02
LGJ100701038731	2996 D RD	KOKOPELLI LIQUORS	REDDI	7/1/2010 20:38
LGJ100807047197	2996 D RD	KOKOPELLI LIQUORS	PROP	8/7/2010 21:25
LGJ100823050415	2996 D RD	KOKOPELLI LIQUORS	PRIVAT	8/23/2010 18:22
LGJ101008060922	2996 D RD	KOKOPELLI LIQUORS	REDDI	10/8/2010 19:34
LGJ101128070690	2996 D RD	KOKOPELLI LIQUORS	FIGHT	11/28/2010 19:20
LGJ101206072092	2996 D RD	KOKOPELLI LIQUOR	CRASH	12/6/2010 11:37
2011-00000417	3026 F RD	BOOKCLIFF LIQUORS	THEFTI	01/06/2011 15:51:28
2011-00000610	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	01/09/2011 06:09:18
2011-00000772	3026 F RD	BOOKCLIFF LIQUORS	FOLLOW	01/11/2011 10:53:04
2011-00000925	3026 F RD	BOOKCLIFF LIQUORS	SUSP	01/13/2011 13:06:45
2011-00002553	3026 F RD	BOOKCLIFF LIQUORS	ASSLTI	01/30/2011 17:52:47
2011-00002601	3026 F RD	BOOKCLIFF LIQUORS	REST	01/31/2011 10:53:36
2011-00002695	3026 F RD	BOOKCLIFF LIQUORS	TRESPI	02/01/2011 12:54:36
2011-00002879	3026 F RD	BOOKCLIFF LIQUORS	TRESP	02/03/2011 14:11:14
2011-00003397	3026 F RD	BOOKCLIFF LIQUORS	TRESPI	02/10/2011 15:19:48
2011-00008497	3026 F RD	BOOKCLIFF LIQUORS	SUSP	04/06/2011 14:12:55
2011-00023008	3026 F RD	BOOKCLIFF LIQUORS	SUSP	08/28/2011 13:48:12
2011-00023013	3026 F RD	BOOKCLIFF LIQUORS	FOLLOW	08/28/2011 14:13:03
2012-00002582	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	01/29/2012 09:45:01
2012-00003781	3026 F RD	BOOKCLIFF LIQUORS	PANIC	02/11/2012 16:02:32
2012-00011928	3026 F RD	BOOKCLIFF LIQUORS	INTOX	05/04/2012 20:57:17
2012-00022071	3026 F RD	BOOKCLIFF LIQUORS	REDDI	08/03/2012 22:20:55
LGJ100308013659	3026 F RD	BOOKCLIFF LIQUORS	ICRASH	3/8/2010 17:39
LGJ100710040868	3026 F RD	BOOKCLIFF LIQUORS	ASSIST	7/10/2010 22:53
LSO100113001443	3026 F RD	BOOKCLIFF LIQUORS	THEFT	1/13/2010 9:26
LSO100113001544	3026 F RD	BOOKCLIFF LIQUORS	FOLLOW	1/13/2010 20:49
LSO100114001655	3026 F RD	BOOKCLIFF LIQUORS	FOLLOW	1/14/2010 15:06

CALLS FOR SERVICE
2010 2011 2012

LSO1002110005226	3026 F RD	BOOKCLIFF LIQUORS	SUSP	2/11/2010 23:16
LSO100321010118	3026 F RD	BOOKCLIFF LIQUORS	ASSLTI	3/21/2010 17:45
LSO100704024721	3026 F RD	BOOKCLIFF LIQUORS	THEFTI	7/4/2010 13:45
LSO100710025684	3026 F RD	BOOKCLIFF LIQUORS	ASSIST	7/10/2010 22:49
LSO100712025839	3026 F RD	BOOKCLIFF LIQUORS	FOLLOW	7/12/2010 9:40
LSO100801028614	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	8/1/2010 0:18
LSO100801028628	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	8/1/2010 5:52
LSO100803028861	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	8/3/2010 4:24
LSO100830032586	3026 F RD	BOOKCLIFF LIQUORS	FRAUD	8/30/2010 21:19
LSO100831032598	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	8/31/2010 0:41
LSO100930036715	3026 F RD	BOOKCLIFF LIQUORS	ALARMB	9/30/2010 23:35
LSO101124043332	3026 F RD	BOOKCLIFF LIQUORS	TRAFFI	11/24/2010 0:11
LSO101124043439	3026 F RD	BOOKCLIFF LIQUORS	ASSLTI	11/24/2010 21:20
2012-00009849	3026 PATTERSON RD	BOOKCLIFF LIQUORS	THEFTI	04/13/2012 21:38:44
LSO101107041578	3225 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	THEFTI	11/7/2010 19:04
2011-00020782	3225 I70B	MT GARFIELD LIQUORS	SUSP	08/06/2011 20:40:05
2011-00022790	3225 I70B	MT GARFIELD LIQUORS	REMOVE	08/26/2011 18:47:50
2011-00032192	3225 I70B	MT GARFIELD LIQUORS	LIQUOR	12/02/2011 21:56:40
LSO100309008520	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	THEFTI	3/9/2010 22:23
LSO100529019589	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	REDDI	5/29/2010 16:18
LSO100604020464	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	INFO	6/4/2010 15:34
LSO100712025924	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	SUSP	7/12/2010 18:38
LSO100712025949	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	SUSP	7/12/2010 21:26
LSO101203044302	3233 I70 BUSINESS LOOP	MT GARFIELD LIQUORS	WELFAR	12/3/2010 17:35
2010-00100794	3255 F RD	CLIFTON LIQUORS	WELFARE	12/22/2010 16:59:49
2011-00000119	3255 F RD	CLIFTON LIQUORS	ALARMB	01/02/2011 09:54:06
2011-00017842	3255 F RD	CLIFTON LIQUORS	ALARMB	07/10/2011 03:15:02
2011-00018813	3255 F RD	CLIFTON LIQUORS	ALARMB	07/19/2011 09:07:49
2011-00020607	3255 F RD	CLIFTON LIQUORS	ALARMB	08/05/2011 02:08:19
2011-00020810	3255 F RD	CLIFTON LIQUORS	ALARMB	08/07/2011 01:21:15
2011-00024955	3255 F RD	CLIFTON LIQUORS	CRASH	09/17/2011 16:06:33
2011-00028187	3255 F RD	CLIFTON LIQUORS	ALARMB	10/21/2011 05:08:09
2011-00031380	3255 F RD	CLIFTON LIQUORS	INTOX	11/23/2011 20:41:33
2011-00034825	3255 F RD	CLIFTON LIQUORS	UNCON/FAINT-C3	12/31/2011 01:34:00
2012-00007885	3255 F RD	CLIFTON LIQUORS	FOLLOW	03/26/2012 10:13:10
2012-00009013	3255 F RD	CLIFTON LIQUORS	THEFT	04/05/2012 13:34:20
2012-00010559	3255 F RD	CLIFTON LIQUORS	INFO	04/21/2012 12:25:13
2012-00012472	3255 F RD	CLIFTON LIQUORS	VERB	05/10/2012 14:55:27
2012-00016425	3255 F RD	CLIFTON LIQUORS	WELFARE	06/13/2012 22:10:32
2012-00018340	3255 F RD	CLIFTON LIQUORS	REST	06/30/2012 21:47:40
2012-00018347	3255 F RD	CLIFTON LIQUORS	FOLLOW	06/30/2012 23:10:53
LSO100118002145	3255 F RD	CLIFTON LIQUORS	PANIC	1/18/2010 23:15
LSO100122002703	3255 F RD	CLIFTON LIQUORS	ALARMB	1/22/2010 23:20
LSO100129003456	3255 F RD	CLIFTON LIQUORS	ALARMB	1/29/2010 7:52
LSO100206004587	3255 F RD	CLIFTON LIQUORS	REDDI	2/6/2010 16:23
LSO100322010279	3255 F RD	CLIFTON LIQUORS	SUSP	3/22/2010 23:18
LSO100413013198	3255 F RD	CLIFTON LIQUORS	LIQUOR	4/13/2010 11:43
LSO100502015857	3255 F RD	CLIFTON LIQUORS	ALARMB	5/2/2010 0:57
LSO100619022682	3255 F RD	CLIFTON LIQUORS	REDDI	6/19/2010 20:40
LSO100905033355	3255 F RD	CLIFTON LIQUORS	PROP	9/5/2010 18:08
LSO100906033421	3255 F RD	CLIFTON LIQUORS	PROP	9/6/2010 7:53
LSO101012038228	3255 F RD	CLIFTON LIQUORS	FIGHT	10/12/2010 21:59

CALLS FOR SERVICE
2010 2011 2012

LSO101204044412	3255 F RD	CLIFTON LIQUORS	ICRASH	12/4/2010 16:59
2012-00007523	418 32 RD	EAST VALLEY LIQUORS	FIGHT	03/22/2012 16:25:05
2012-00014833	418 32 RD	EAST VALLEY LIQUORS	DUI	05/31/2012 17:34:11
2012-00015232	418 32 RD	EAST VALLEY LIQUORS	FOLLOW	06/04/2012 11:09:51
2012-00015698	418 32 RD	EAST VALLEY LIQUORS	PUBLIC	06/07/2012 23:59:07
2012-00015734	418 32 RD	EAST VALLEY LIQUORS	FOLLOW	06/08/2012 11:25:04
2012-00016978	418 32 RD	EAST VALLEY LIQUORS	FOLLOW	06/19/2012 10:27:19
2012-00017248	418 32 RD	EAST VALLEY LIQUORS	RECOV	06/21/2012 20:38:49
2012-00017254	418 32 RD	EAST VALLEY LIQUORS	DRUG	06/21/2012 20:58:53
2012-00017255	418 32 RD	EAST VALLEY LIQUORS	CODE6	06/21/2012 20:59:15
2012-00017340	418 32 RD	EAST VALLEY LIQUORS	FOLLOW	06/22/2012 10:11:50
2012-00018005	418 32 RD	EAST VALLEY LIQUORS	REDDI	06/27/2012 17:45:02
2012-00019298	418 32 RD	EAST VALLEY LIQUORS	THEFTI	07/09/2012 11:23:43
2012-00019581	418 32 RD	EAST VALLEY LIQUORS	FIGHT	07/12/2012 06:21:32
2012-00020579	418 32 RD	EAST VALLEY LIQUORS	DUI	07/21/2012 16:51:53
2012-00021593	418 32 RD	EAST VALLEY LIQUORS	THEFT	07/30/2012 08:28:24
2012-00021965	418 32 RD	EAST VALLEY LIQUORS	FIGHT	08/02/2012 21:50:21
2012-00029634	418 32 RD	EAST VALLEY LIQUORS	DRUG	06/21/2012 20:58:53
LSO100203004141	418 32 RD	EAST VALLEY LIQUOR	THEFTI	2/3/2010 11:36
LSO100330011251	418 32 RD	EAST VALLY LIQUOR	SHOP	3/30/2010 13:43
LSO100330011280	418 32 RD	EAST VALLEY LIQ/ D131	FOLLOW	3/30/2010 16:15
LSO100419013993	418 32 RD	PEACH VALLEY LIQUOR	THEFT	4/19/2010 8:46
LSO100424014663	418 32 RD	EAST VALLEY LIQUOR	FOLLOW	4/24/2010 8:44
LSO100913034414	418 32 RD	32 RD LAUNDROMAT	PROP	9/13/2010 13:51
LSO100921035517	418 32 RD	EAST VALLEY LIQUOR	SHOP	9/21/2010 19:59
2011-00058039	420 MAIN ST	PLANET WINES	LIQUOR	12/02/2011 19:23:24
LGJ100220010253	420 MAIN ST	LIQUOR STOR	PARK	2/20/2010 13:11
LGJ100226011646	420 MAIN ST	PLANET WINES	PARK	2/26/2010 18:49
LGJ100226011661	420 MAIN ST	PLANET WINES	PARK	2/26/2010 20:04
LGJ100227011786	420 MAIN ST	PLANET WINES	PARK	2/27/2010 11:12
LGJ100408020042	420 MAIN ST	PLANET WINES	PARK	4/8/2010 14:49
LGJ101002059618	420 MAIN ST	PLANET WINES	PARK	10/2/2010 14:30
LGJ101211073090	420 MAIN ST	PLANET WINES	PARK	12/11/2010 14:57
LGJ101211073103	420 MAIN ST	PLANET WINES	PARK	12/11/2010 16:26
2011-00058170	505 30 RD	LIQUOR		12/03/2011 13:31:09
2011-00001111	569 32 RD	CORONADO LIQUOR	THEFT	01/15/2011 15:39:46
2011-00002378	569 32 RD	CORONADO LIQUOR	HARAS	01/28/2011 21:27:15
2011-00002899	569 32 RD	CORONADO LIQUOR	THEFTI	02/03/2011 18:05:28
2011-00012045	569 32 RD	CORONADO LIQUOR	THEFTI	05/15/2011 11:54:57
2011-00013317	569 32 RD	CORONADO LIQUOR	THEFT	05/28/2011 21:48:22
2011-00013798	569 32 RD	CORONADO LIQUOR	PROP	06/02/2011 13:57:40
2011-00023048	569 32 RD	CORONADO LIQUOR	THEFTI	08/28/2011 21:30:41
2011-00024939	569 32 RD	CORONADO LIQUOR	REMOVE	09/17/2011 13:46:31
2011-00028738	569 32 RD	CORONADO LIQUOR	VERB	10/27/2011 15:33:18
2011-00028753	569 32 RD	CORONADO LIQUOR	FOLLOW	10/27/2011 16:18:49
2011-00030317	569 32 RD	CORONADO LIQUOR	INTOX	11/13/2011 12:36:40
2011-00032358	569 32 RD	CORONADO LIQUOR	THEFTI	12/04/2011 20:32:23
2011-00032496	569 32 RD	CORONADO LIQUOR	THEFT	12/06/2011 15:12:14
2011-00032510	569 32 RD	CORONADO LIQUOR	CODE6	12/06/2011 21:23:06
2011-00032812	569 32 RD	CORONADO LIQUOR	FOLLOW	12/09/2011 20:30:34
2011-00033337	569 32 RD	CORONADO LIQUOR	FRAUD	12/15/2011 10:10:13
2011-00034547	569 32 RD	CORONADO LIQUOR	SHOP	12/28/2011 13:05:47
2012-00002602	569 32 RD	CORONADO LIQUOR	REMOVE	01/29/2012 13:26:39
2012-00003946	569 32 RD	CORONADO LIQUOR	WELFARE	02/13/2012 17:12:26
2012-00004912	569 32 RD	CORONADO LIQUOR	THEFTI	02/24/2012 16:56:29
2012-00007155	569 32 RD	CORONADO LIQUOR	WELFARE	03/19/2012 11:39:08
2012-00008528	569 32 RD	CORONADO LIQUOR	THEFTI	03/31/2012 20:52:35
2012-00009266	569 32 RD	CORONADO LIQUOR	THEFT	04/08/2012 10:19:06
2012-00009289	569 32 RD	CORONADO LIQUOR	FOLLOW	04/08/2012 17:17:24

CALLS FOR SERVICE
2010 2011 2012

2012-00009626	569 32 RD	CORONADO LIQUOR	FOLLOW	04/11/2012 17:08:58
2012-00009651	569 32 RD	CORONADO LIQUOR	THEFTI	04/11/2012 21:17:14
2012-00009912	569 32 RD	CORONADO LIQUOR	THEFT	04/14/2012 14:23:05
2012-00011120	569 32 RD	CORONADO LIQUOR	THEFTI	04/26/2012 16:51:45
2012-00020139	569 32 RD	CORONADO LIQUOR	TRESP	07/17/2012 15:55:41
2012-00021536	569 32 RD	CORONADO LIQUOR	REMOVE	07/29/2012 13:56:14
LSO100302007550	569 32 RD	CORONADO LIQUOR	THEFT	3/2/2010 11:43
LSO100303007650	569 32 RD	CORONADO LIQ MART	THEFT	3/3/2010 10:00
LSO100317009564	569 32 RD	CORONADO LIQUOR MART	REDDI	3/17/2010 18:55
LSO100416013656	569 32 RD	CORONADO LIQUOR MART	THEFTI	4/16/2010 19:09
LSO100417013759	569 32 RD	CORONADO LIQUOR MART	FOLLOW	4/17/2010 11:58
LSO100418013904	569 32 RD	CORONADO LIQUOR MART	THEFTI	4/18/2010 11:56
LSO100418013922	569 32 RD	CORONADO LIQUOR MART	FOLLOW	4/18/2010 14:57
LSO100426015029	569 32 RD	CORONADO LIQUOR MART	FOLLOW	4/26/2010 18:52
LSO100612021677	569 32 RD	CORONADO LIQ/B154	THEFTI	6/12/2010 11:28
LSO100710025584	569 32 RD	CORONADO LIQUOR MART	THEFT	7/10/2010 10:55
LSO100710025587	569 32 RD	CORONADO LIQUOR MART	FOLLOW	7/10/2010 11:19
LSO100720027018	569 32 RD	CORONADO LIQUOR MART	FRAUD	7/20/2010 14:47
2011-00017010	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	ALARMB	04/11/2011 08:35:51
2011-00017394	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	WELFARE	04/13/2011 16:31:02
2011-00019750	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	SUSP	04/27/2011 17:23:19
2011-00021289	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	ALARMB	05/06/2011 22:47:09
2011-00039271	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	LIQUOR	08/16/2011 10:46:54
2012-00010424	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	FOLLOW	03/05/2012 10:32:36
2012-00016065	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	ALARMB	04/05/2012 21:30:09
2012-00026165	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	CRASH	06/01/2012 10:55:33
2012-00033047	611 24 RD	CROSSROADS LIQUOR AND WINE 24 RD	ALARMB	07/11/2012 08:30:34
LGJ100505026043	611 24 RD	CROSSROADS WINE	ALARMB	5/5/2010 23:01
LGJ100811048017	611 24 RD	CROSSROADS WINE	ALARMB	8/11/2010 21:50
LGJ101023063838	611 24 RD	CROSSROADS WINE	ALARMB	10/23/2010 8:27
LGJ101124070000	611 24 RD	CROSSROADS WINE	HITRUN	11/24/2010 8:45
2011-00033330	683 HORIZON DR	COUNTRY CLUB LIQUORS	FAUTOI	07/14/2011 10:24:37
2011-00042546	683 HORIZON DR	COUNTRY CLUB LIQUORS	HARAS	09/03/2011 16:28:22
2011-00060643	683 HORIZON DR	COUNTRY CLUB LIQUORS	PROP	12/19/2011 08:23:27
2012-00009719	683 HORIZON DR	COUNTRY CLUB LIQUORS	FALLS-C2	02/29/2012 19:37:02
2012-00010331	683 HORIZON DR	COUNTRY CLUB LIQUORS	CODE6	03/04/2012 19:04:48
LGJ100423023359	683 HORIZON DR	COUNTRY CLUB LIQUORS	REDDI	4/23/2010 20:16
LGJ100523029522	683 HORIZON DR	COUNTRY CLUB LIQUORS	INTOX	5/23/2010 16:03
LGJ100523029524	683 HORIZON DR	COUNTRY CLUB LIQUORS	PANIC	5/23/2010 16:07
LGJ100610033880	683 HORIZON DR	COUNTRY CLUB LIQUORS	INTOX	6/10/2010 9:31
LGJ100701038691	683 HORIZON DR	COUNTRY CLUB LIQUORS	WELFAR	7/1/2010 17:56
LGJ100822050210	683 HORIZON DR	COUNTRY CLUB LIQUORS	PANIC	8/22/2010 19:36
2010-00102611	715 HORIZON DR	HORIZON LIQUORS	INTOX	12/30/2010 22:24:53
2011-00003853	715 HORIZON DR	HORIZON LIQUORS	INTOX	01/24/2011 18:32:28
2011-00023875	715 HORIZON DR	HORIZON LIQUORS	DUI	05/22/2011 01:25:22
2011-00032343	715 HORIZON DR	HORIZON LIQUORS	THRETI	07/08/2011 21:12:22
2011-00035159	715 HORIZON DR	HORIZON LIQUORS	INTOX	07/24/2011 12:04:44
2011-00046024	715 HORIZON DR	HORIZON LIQUORS	INTOX	09/22/2011 21:05:28
2011-00046409	715 HORIZON DR	HORIZON LIQUORS	SHOTS	09/24/2011 23:52:50
2011-00050647	715 HORIZON DR	HORIZON LIQUORS	FRAUD	10/19/2011 10:34:40

CALLS FOR SERVICE
2010 2011 2012

2012-00003552	715 HORIZON DR	HORIZON LIQUORS	RESTI	01/22/2012 16:20:07
2012-00013608	715 HORIZON DR	HORIZON LIQUORS	HARAS	03/23/2012 15:19:40
2012-00019825	715 HORIZON DR	HORIZON LIQUORS	THEFTI	04/25/2012 22:59:01
2012-00022763	715 HORIZON DR	HORIZON LIQUORS	REDDI	05/12/2012 22:47:24
LGJ100518028421	715 HORIZON DR	HORIZON LIQUORS	ALARMB	5/18/2010 3:43
LGJ100817049170	715 HORIZON DR	HORIZON LIQUOR	INTOX	8/17/2010 14:35
LGJ101006060488	715 HORIZON DR	HORIZON LIQUOR	INTOX	10/6/2010 17:46
LGJ101110067580	715 HORIZON DR	HORIZON LIQUORS	TRESPI	11/10/2010 18:19
2010-00101823	922 N 1ST ST	ANDYS LIQUORS	UNK PROBLEM-C3	12/24/2010 20:38:27
2010-00102216	922 N 1ST ST	ANDYS LIQUORS	ALARMB	12/28/2010 00:04:11
2011-00003599	922 N 1ST ST	ANDYS LIQUORS	DUI	01/22/2011 22:57:20
2011-00012776	922 N 1ST ST	ANDYS LIQUORS	HARAS	03/18/2011 00:11:47
2011-00019107	922 N 1ST ST	ANDYS LIQUORS	ASSTL	04/23/2011 21:39:54
2011-00021271	922 N 1ST ST	ANDYS LIQUORS	ASSIST	05/06/2011 21:11:33
2011-00023011	922 N 1ST ST	ANDYS LIQUORS	INTOX	05/16/2011 20:45:57
2011-00029307	922 N 1ST ST	ANDYS LIQUORS	THEFTI	06/22/2011 23:13:20
2011-00030010	922 N 1ST ST	ANDYS LIQUORS	ASSLTI	06/26/2011 17:37:27
2011-00040415	922 N 1ST ST	ANDYS LIQUORS	INFO	08/22/2011 21:53:38
2011-00048307	922 N 1ST ST	ANDYS LIQUORS	PROP	10/05/2011 15:16:49
2011-00051775	922 N 1ST ST	ANDYS LIQUORS	THEFTI	10/25/2011 20:13:35
2011-00051909	922 N 1ST ST	ANDYS LIQUORS	FOLLOW	10/26/2011 19:03:49
2011-00052253	922 N 1ST ST	ANDYS LIQUORS	ASSIST	10/28/2011 15:55:48
2011-00059264	922 N 1ST ST	ANDYS LIQUORS	REDDI	12/10/2011 18:11:07
2012-00012452	922 N 1ST ST	ANDYS LIQUORS	LIQUOR	03/16/2012 21:17:01
2012-00012547	922 N 1ST ST	ANDYS LIQUORS	WELFARE	03/17/2012 13:36:29
2012-00018834	922 N 1ST ST	ANDYS LIQUORS	LIQUOR	04/20/2012 23:10:21
2012-00025282	922 N 1ST ST	ANDYS LIQUORS	HARAS	05/27/2012 00:27:04
LGJ100105000698	922 N 1ST ST	ANDYS LIQUOR MART	SHOP	1/5/2010 9:13
LGJ100106000885	922 N 1ST ST	ANDYS LIQUORS	FOLLOW	1/6/2010 9:33
LGJ100106000934	922 N 1ST ST	ANDYS***632/1083	FOLLOW	1/6/2010 13:51
LGJ100307013394	922 N 1ST ST	ANDYS LIQUORS	TRESP	3/7/2010 0:04
LGJ100324016773	922 N 1ST ST	ANDYS LIQUORS	LIQUOR	3/24/2010 16:19
LGJ100330018011	922 N 1ST ST	ANDYS LIQUORS	WELFAR	3/30/2010 13:11
LGJ100416021884	922 N 1ST ST	ANDYS LIQUORS	LIQUOR	4/16/2010 20:20
LGJ100430024899	922 N 1ST ST	ANDYS LIQUORS	WEAPON	4/30/2010 23:40
LGJ100501024938	922 N 1ST ST	ANDYS LIQUORS	FOLLOW	5/1/2010 3:46
LGJ100501024946	922 N 1ST ST	ANDYS LIQUORS	PRIVAT	5/1/2010 5:24
LGJ100615035075	922 N 1ST ST	ANDYS LIQUORS	WELFAR	6/15/2010 20:39
LGJ100620036289	922 N 1ST ST	ANDYS LIQUORS	INFO	6/20/2010 23:01
LGJ100626037545	922 N 1ST ST	ANDYS LIQUOR MART	REMOVE	6/26/2010 15:13
LGJ100724043982	922 N 1ST ST	ANDYS LIQUORS	ASSTM	7/24/2010 17:02
LGJ100922057050	922 N 1ST ST	ANDYS LIQUORS	ALARMB	9/22/2010 0:04
LGJ100922057076	922 N 1ST ST	ANDYS LIQUORS	PANIC	9/22/2010 5:38
LGJ101010061326	922 N 1ST ST	ANDY'S LIQUORS	REDDI	10/10/2010 17:16
LGJ101010061334	922 N 1ST ST	ANDY'S LIQUOR MART	INTOX	10/10/2010 18:10
LGJ101017062717	922 N 1ST ST	ANDYS LIQUORS	ALARMB	10/17/2010 9:34
LGJ101028064704	922 N 1ST ST	ANDYS LIQUORS	ALARMB	10/28/2010 0:05
LGJ101028064724	922 N 1ST ST	ANDYS LIQUORS	ALARMB	10/28/2010 7:34
LGJ101029064940	922 N 1ST ST	ANDYS LIQUORS	ALARMB	10/29/2010 7:33
LGJ101105066483	922 N 1ST ST	ANDYS LIQUORS	ALARMB	11/5/2010 5:09
LGJ101109067250	922 N 1ST ST	ANDYS LIQUORS	ALARMB	11/9/2010 2:22
LGJ101109067258	922 N 1ST ST	ANDYS LIQUORS	ALARMB	11/9/2010 6:47
LGJ101110067442	922 N 1ST ST	ANDYS LIQUORS	ALARMB	11/10/2010 5:31

Most Recent Liquor Licenses

2001 All Pro Liquor
3915 Patterson Road
Grand Junction, CO 81504

2004 Out of Business Eastgate Liquor
2830 North Ave, Suite 46
Grand Junction, CO 81501

County Club Liquor
683 Horizon Drive #105
Grand Junction, CO 81506

Moved Crossroads Liquor
2546 Rimrock Ave.
Grand Junction, CO 81505

Johnny Bee's Liquor
2648 Patterson Road, Unit A
Grand Junction, CO 81506

2008 Out of Business Grapes, Grain & Barley Liquor
1040 Independent Ave.
Grand Junction, CO 81505

50% are no longer in place
30% are out of business

DEFENDANT'S EXHIBIT 8

CITY OF
Grand Junction
COLORADO

POLICE

July 6, 2012

Donald J. Comte, Pres.
Crown Liquors of Western Colorado, Inc.
2851 ½ North Ave.
Grand Junction, CO 81501

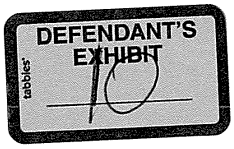
Mr. Comte,

Per your letter dated July 5, 2012 requesting the number of DUI's and liquor violations for 2011 and to date 2012 are listed below:

511 DUI's arrest in 2011
382 Liquor Violations in 2011

186 DUI's arrest, to date 2012
153 Liquor Violations, to date 2012

Joe Patrick
Liquor Enforcement Investigator
Grand Junction Police Department



CITY OF Grand Junction COLORADO

POLICE

Reported Crime and Traffic Report
Five Year Comparison
2007 - 2011

	2007	2008	2009	2010	2011
Violent Crime					
Homicide (not including vehicular or attempted)	1	6	1	5	4
Rape	37	42	44	47	67
Robbery	36	35	57	40	43
Aggravated Assault	99	118	88	72	98
Total Violent Crime	***173***	***201***	***190***	***164***	***212***
Property Crime					
Burglary	450	448	471	433	446
Theft	826	926	1,060	940	1,285
Theft from Auto (including parts & accessories)	569	541	772	563	657
Theft by Shoplift	503	522	634	510	617
Auto Theft	197	167	146	120	154
Total Property Crime	***2,545***	***2,624***	***3,083***	***2,566***	***3,159***
TOTAL VIOLENT & PROPERTY CRIME	***2,718***	***2,825***	***3,273***	***2,730***	***3,371***
Other Offenses					
Child Abuse	101	99	121	104	98
Disorderly Conduct	291	298	252	248	314
Harassment / Stalking	341	353	384	417	395
DUI	480	565	560	483	511
Fraud / Forgery	603	711	692	519	553
[redacted]					
Liquor Violation	333	511	445	325	382
Drug Violation	1,771	1,343	1,359	1,180	1,204
Assault	363	372	376	359	384
Vehicular Assault	9	10	13	7	5
Menacing	148	114	77	107	91
Intimidation / Retaliation	16	19	18	25	34
Sex Offenses	130	164	126	149	156
1st deg Criminal Trespass from Auto	523	669	700	534	614
Trespass (all other)	352	383	378	383	468
Vandalism	1,414	1,656	1,218	1,260	1,493
Weapons Violation	93	89	109	76	86
All Other Offenses	669	769	662	690	565
Total Other Crime	***7,676***	***8,177***	***7,537***	***6,901***	***7,393***
TOTAL ALL REPORTED CRIME	***10,394***	***11,002***	***10,810***	***9,631***	***10,764***
Warrant Arrests	1,240	1,230	1,251	1,193	1,167
Municipal Court Criminal Summons Issued	not available	1,710	1,802	1,560	1,495
County Court Criminal Summons Issued	not available	1,933	1,459	1,671	1,210
Runaways / Missing Persons	305	231	226	249	203
Traffic Accidents					
Fatal Accidents	7	7	6	6	5
Total Fatalities	8	8	7	6	5
Injury Accidents	223	207	197	185	197
Injured Persons	263	250	251	229	207
Private Property Accidents	534	600	537	510	518
Property Damage Accidents	2,074	1,955	1,709	1,480	1,426
Traffic Violations					
Municipal Court Traffic Tickets Issued	not available	7,780	5,680	9,583	6,887
County Court Traffic Tickets Issued	not available	1,574	1,988	1,777	1,919
Total Traffic Tickets		***9,354***	***7,668***	***11,360***	***8,806***

Data reported is INCIDENT BASED, not summary (hierarchy) and should not be compared to data reported for the GJPD by the CBI or FBI

Colors correspond to noteworthy items listed on page 2.

CITY OF Grand Junction COLORADO

POLICE

Reported Crime and Traffic Report
May 2012

	2011 YTD	2012 YTD	Inc / Dec	Percent Change
Violent Crime				
Homicide (not including vehicular or attempted)	2	0	-2	-100.00%
Rape	25	27	2	8.00%
Robbery	13	9	-4	-30.77%
Aggravated Assault	36	39	3	8.33%
Total Violent Crime	***76***	***75***	***-1***	***-1.32%***
Property Crime				
Burglary	172	137	-35	-20.35%
Theft	405	546	141	34.81%
Theft from Auto (including parts & accessories)	201	301	100	49.75%
Theft by Shoplift	204	247	43	21.08%
Auto Theft	54	81	27	50.00%
Total Property Crime	***1,036***	***1,312***	***276***	***26.64%***
TOTAL VIOLENT & PROPERTY CRIME	***1,112***	***1,387***	***276***	***24.73%***
Other Offenses				
Child Abuse	38	34	-4	-10.53%
Disorderly Conduct	115	165	50	43.48%
Harassment / Stalking	147	170	23	15.65%
DUI	237	186	-51	-21.52%
Fraud / Forgery	233	192	-41	-17.60%
Kidnapping	5	4	-1	-20.00%
False Imprisonment	14	7	-7	-50.00%
Liquor Violation	161	153	-8	-4.97%
Drug Violation	474	648	174	36.71%
Assault	180	155	-25	-13.89%
Vehicular Assault	2	4	2	100.00%
Menacing	39	46	7	17.95%
Intimidation / Retaliation	3	5	2	66.67%
Sex Offenses	71	54	-17	-23.94%
1st deg Criminal Trespass from Auto	197	273	76	38.58%
Trespass (all other)	128	139	11	8.59%
Vandalism	542	486	-56	-10.33%
Weapons Violation	30	45	15	50.00%
All Other Offenses	258	265	7	2.71%
Total Other Crime	***2,874***	***3,031***	***157***	***5.46%***
TOTAL ALL REPORTED CRIME	***3,986***	***4,418***	***432***	***10.84%***
Warrant Arrests	429	622	193	44.99%
Municipal Court Criminal Summons Issued	608	524	-84	-13.82%
County Court Criminal Summons Issued	735	968	233	31.70%
Runaways / Missing Persons	91	85	-6	-6.59%
Traffic Accidents				
Fatal Accidents	1	0	-1	-100.00%
Total Fatalities	1	0	-1	-100.00%
Injury Accidents	67	72	5	7.46%
Injured Persons	79	98	19	24.05%
Private Property Accidents	193	238	45	23.32%
Property Damage Accidents	565	646	78	13.73%
Traffic Violations				
Municipal Court Traffic Tickets Issued	4,489	3,121	-1368	-30.47%
County Court Traffic Tickets Issued	1,144	1,160	16	1.40%
Total Traffic Tickets	***5,633***	***4,281***	***-1352***	***-24.00%***

Data reported is INCIDENT BASED, not summary (hierarchy) and should not be compared to data reported for the GJPD by the CBI or FBI

CITY OF Grand Junction COLORADO

GRAND JUNCTION POLICE DEPARTMENT
625 Ute Avenue,
Grand Junction, CO 81501
(970) 244-3555

FACSIMILE TRANSMISSION COVER SHEET

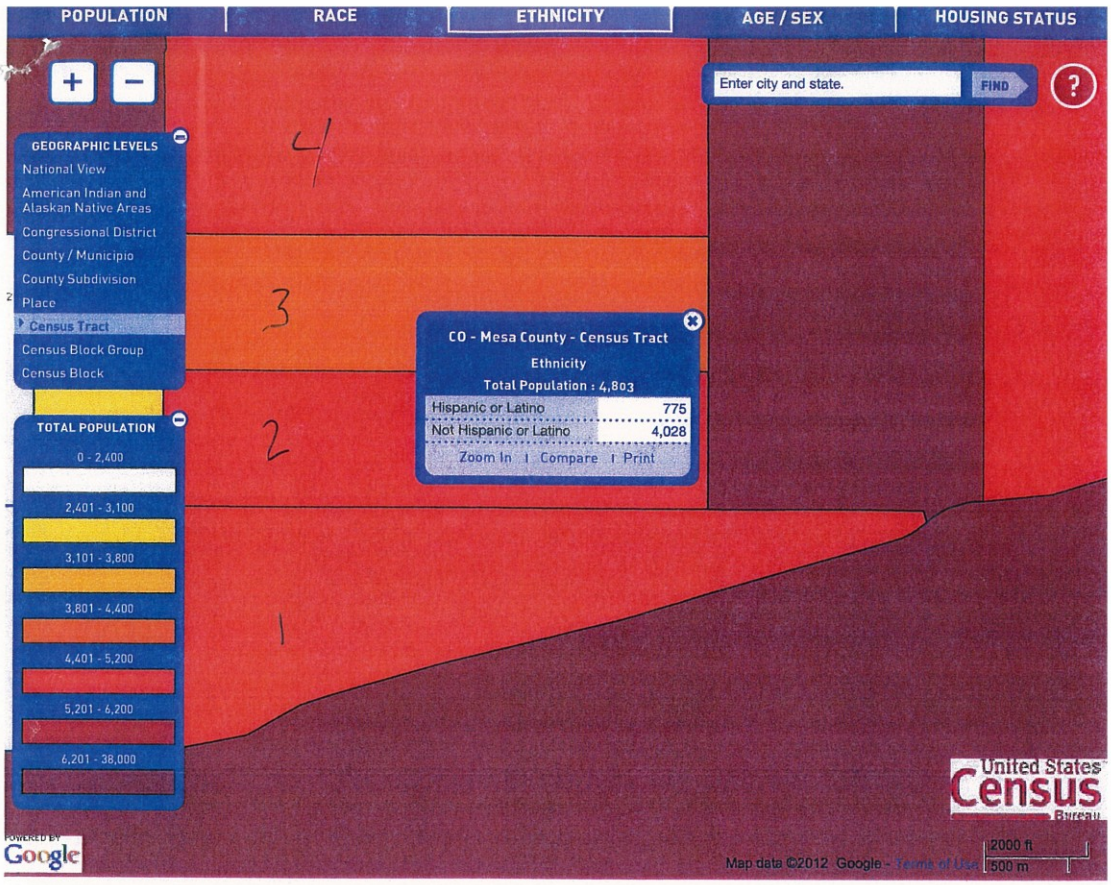
To: Donald Comte
Location: 2851 ½ North Ave
Fax Number: (970) 243-2258

No. of pages including cover sheet: 4

Comments:

From: GRAND JUNCTION POLICE DEPARTMENT

DIVISION:	FAX NO:	
Records & Customer Service	244-3617	X
Laboratory Services	244-3699	
Community Advocacy Program	244-3781	
Patrol Division	244-3631	
Investigations	244-3611	
Administration	244-3799	



Census Tract
(28 1/2 Road to 29 1/2 Road
North of North Ave.

Hispanic Population Percent

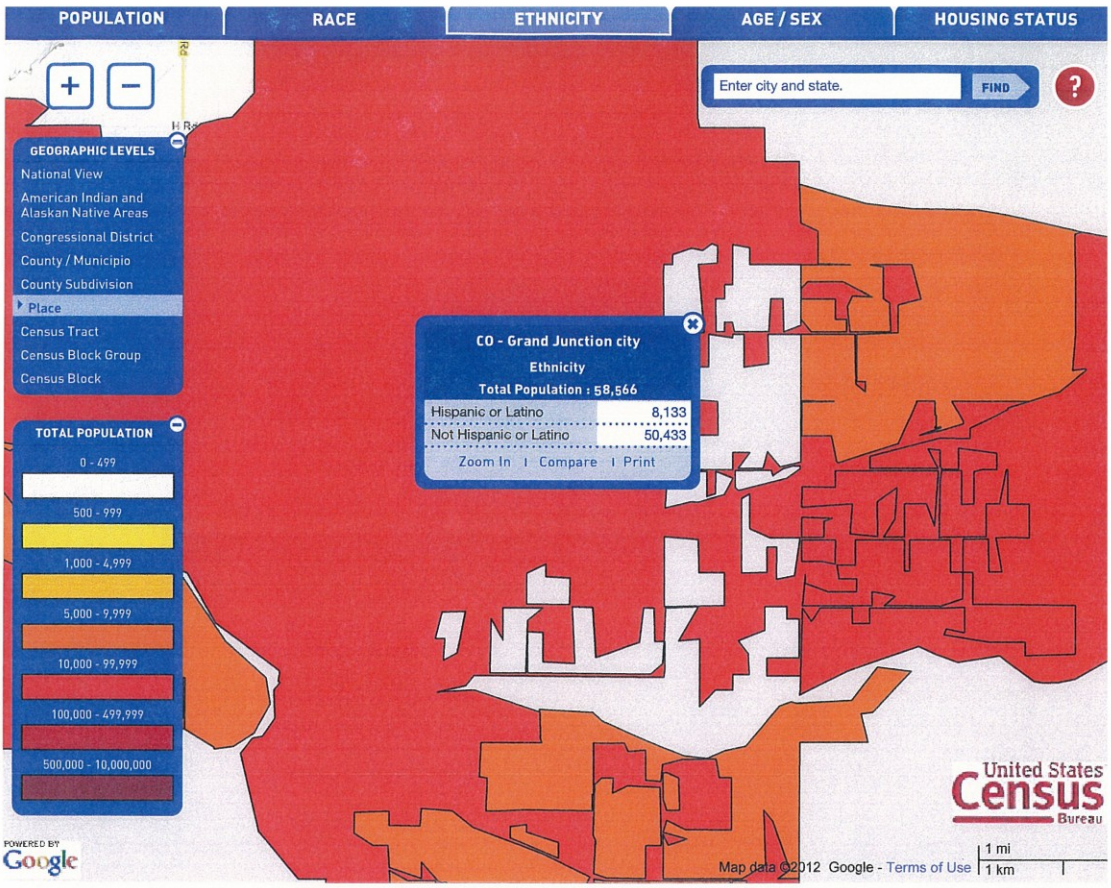
775 ÷
4,803 =
0.161357484 %

0.c

A. 16.2% higher than the city average of 13.9%

B. 40% higher than the National average of 11.5%

DEFENDANT'S EXHIBIT
12



Grand Junction - City
Hispanic Population
Percent

8,133. ÷
58,566. =
0.13886896834 *

0 - C

Donald J. Comte, Pres.
Crown Liquors of Western
Colorado Inc.
2851 1/2 North Ave.
Grand Junction, CO 81501

August 9, 2012

City of Grand Junction
Liquor Hearings
250 N. 5th Street
Grand Junction, CO 81501

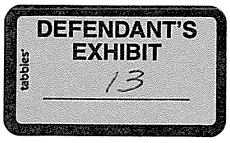
Dear Sirs;

Please find attached a Retail Liquor License Density Analysis by road mile for the City of Grand Junction. This shows the density of retail liquor licenses on North Avenue to be from nearly 100% greater to nearly 500% greater than any other street in Grand Junction. This illustrates the average distance from one license to another per street. This emphasizes distance in measuring concentration of licenses not just population in an area. This was done by measuring distances with each actual retail liquor license on each street listed. In my opinion this supports the population concentration numbers previously submitted against the Junction Liquors license application.

Respectfully,

Donald J Comte

Donald J. Comte, Pres.



Retail Liquor Store License Density Analysis for Grand Junction by Road Mile.

North Avenue - 1st street to 30 Road - 4 Miles!

1. Andy's Liquor, 922 N. 1st Street.
2. North Avenue Liquor, 801 North Ave.
3. Pete's House of Spirits, 1560 North Ave., Suite A
4. Teller Arms Liquor, 2353 Belford
5. Crown Liquor, 2851 1/2 North Ave.
6. Enterprise Liquor, 2923 North Ave.
7. Fruitvale Liquor, 505 30 Road

One Retail Liquor License per .57 miles!

Patterson Road - 1st Street to 30 Road - 4 Miles!

1. Johny's Beer and Liquor, 2648 Patterson Road
2. College Liquor, 2695 Patterson Road #9
3. All Pro Liquor, 2913 Patterson Road
4. Bookcliff Liquor, 3026 Patterson Road

One Retail Liquor License per 1 miles!

Patterson Road - Highway 50 to 1st Street - 2.2 Miles!

1. Crossroads Liquor, 611 24 Road
2. Fishers Liquor, 2438 Patterson Road

One Retail Liquor License per 1.1 miles!

Horizon Drive - 7th Street to H Road - 2.3 Miles!

1. Country Club Liquor, 683 Horizon Drive
2. Horizon Liquor, 715 Horizon Drive

One Retail Liquor License per 1.5 miles!

Orchard Mesa Highway 50 - Unaweep Ave. to 29 Road - 3.1 Miles!

1. Trading Post Liquor, 2898 Highway 50
2. Fairground Wine and Liquor, 2771 B 1/2 Road

One Retail Liquor License per 1.55 miles!

Pitkin Ave. I-70 Business Loop - 1st Street to 30 Road - 4 Miles!

1. Last Chance Liquor, 1203 Pitkin Ave.
2. Fruitvale Liquor, 505 30 Road

One Retail Liquor License per 2 miles!

Highway 50-- Main Street to Patterson Road - 2.9 Miles!

1. Grand Central Liquor, 200 W. Grand Ave #12

One Retail Liquor License per 2.9 miles!

The distance between the proposed new retail liquor store license for Junction Liquors at 510 28 3/4 Road and Crown Liquors at 2851 1/2 North Ave. would be 3 tenths (.30) of a mile measured door to door. The density of Retail Liquor Store Licenses on North Ave. would increase from one Retail Liquor License per .57 miles to one per .50 miles as the new average distance between Retail Liquor Store Licenses on North Avenue!

U.S. Census Bureau

AMERICAN FactFinder

S1903

MEDIAN INCOME IN THE PAST 12 MONTHS (IN 2010 INFLATION-ADJUSTED DOLLARS)
2008-2010 American Community Survey 3-Year Estimates

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2010, the 2010 Census provides the official counts of the population and housing units for the nation, states, counties, cities and towns. For 2008 to 2009, the Population Estimates Program provides intercensal estimates of the population for the nation, states, and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

1 - 30 of 30

Subject	United States			
	Total		Median income (dollars)	
	Estimate	Margin of Error	Estimate	Margin of Error
Households	114,596,927	+/-112,092	51,222	+/-46
One race--				
White	78.2%	+/-0.1	54,168	+/-64
Black or African American	12.0%	+/-0.1	34,751	+/-120
American Indian and Alaska Native	0.7%	+/-0.1	36,579	+/-413
Asian	4.0%	+/-0.1	68,810	+/-355
Native Hawaiian and Other Pacific Islander	0.1%	+/-0.1	54,943	+/-1,747
Some other race	3.5%	+/-0.1	39,702	+/-225
Two or more races	1.5%	+/-0.1	45,401	+/-374
Hispanic or Latino origin (of any race)	11.5%	+/-0.1	40,914	+/-109
White alone, not Hispanic or Latino	70.8%	+/-0.1	55,747	+/-65
HOUSEHOLD INCOME BY AGE OF HOUSEHOLDER				

DEFENDANT'S EXHIBIT 14 tabbies

	15 to 24 years	4.5%	+/-0.1	25,732	+/-136
1	25 to 44 years	34.7%	+/-0.1	56,058	+/-111
-	45 to 64 years	39.4%	+/-0.1	62,228	+/-82
30	65 years and over	21.4%	+/-0.1	34,303	+/-52
of					
30					
	FAMILIES				
	Families	76,262,975	+/-103,687	62,112	+/-80
	With own children under 18 years	45.3%	+/-0.1	59,572	+/-171
	With no own children under 18 years	54.7%	+/-0.1	64,210	+/-83
	Married-couple families	73.8%	+/-0.1	74,258	+/-94
	Female householder, no husband present	19.2%	+/-0.1	30,663	+/-83
	Male householder, no wife present	6.9%	+/-0.1	42,561	+/-205
	NONFAMILY HOUSEHOLDS				
	Nonfamily households	38,333,952	+/-58,659	31,066	+/-43
	Female householder	53.7%	+/-0.1	26,647	+/-60
	Living alone	45.7%	+/-0.1	23,879	+/-59
	Not living alone	8.0%	+/-0.1	52,128	+/-257
	Male householder	46.3%	+/-0.1	36,493	+/-82
	Living alone	36.1%	+/-0.1	31,924	+/-65
	Not living alone	10.2%	+/-0.1	56,996	+/-233
	PERCENT IMPUTED				
	Household income in the past 12 months	27.4%	(X)	(X)	(X)
	Family income in the past 12 months	27.9%	(X)	(X)	(X)
	Nonfamily income in the past 12 months	24.8%	(X)	(X)	(X)

Source: U.S. Census Bureau, 2008-2010 American Community Survey

Explanation of Symbols:
An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical

Alcoholism: Clinical and Experimental Research

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Changes in Outlet Densities Affect Violence Rates

Paul J. Gruenewald and Lillian Remer

Background: Previous assessments of empirical relationships between alcohol outlets and rates of interpersonal violence have been conducted using cross-sectional spatial data, data collected across small geographic units such as Census Tracts and zip codes. These assessments demonstrate that the availability of alcohol, measured by the number and types of alcohol outlets, is related to violence. These analyses have examined many potential confounds of the outlets–violence connection (i.e., population and place characteristics) and statistically corrected for biases that arise in analyses of spatial data. The current study contributes the first observation of longitudinal relationships between alcohol outlets and violence.

Method: The study examined longitudinal data from 581 consistently defined zip code areas represented in the California Index Locations Database, a geographic information system that coordinates population and ecological data with spatial attributes for areas across the state. Six years of data were collected on features of local populations (e.g., household size) and places (e.g., retail markets) thought to be related to 1 measure of violence (i.e., hospital discharges related to violent assaults). Assault rates were related to changes in population and place characteristics using random effects models with controls for spatial autocorrelation ($n \times t$ = 3,486 observations). Changes in population and place characteristics of bordering (spatial lagged) areas were also considered.

Results: Lower median household income and greater percentages of minorities (African American, Hispanic, and Asian) were related to increased rates of violence. Ten percent increases in numbers of off-premise outlets and bars were related to 1.67 and 2.06% increases in violence rates across local and lagged spatial areas. Every 6 outlets accounted for 1 additional violent assault that resulted in at least 1 overnight stay at hospital. These effects increased with larger male populations, doubling with every 3% increase in percent males.

Conclusion: Assault rates were most strongly related to median household incomes and minority populations within zip code areas. Controlling for changes in assault rates related to these measures, greater numbers of licensed alcohol retail establishments, especially bars and off-premise outlets, were related to rates of assault. Failures to regulate the growth in numbers of bars will increase rates of violence, especially in urban areas.

Key Words: Alcohol Outlets, Assaults, Violence, Panel Model, Population Ecology.

CALIFORNIA

PUBLISHED EMPIRICAL OBSERVATIONS of direct relationships between alcohol outlets and measures of interpersonal violence now number in the dozens. Greater numbers of off-premise outlets and bars or taverns, but not restaurants, are directly correlated with greater rates of violence measured through calls to police, arrests by police, and the appearance of severe assaults in hospital emergency rooms (reviewed in Stockwell and Gruenewald, 2004). These studies have examined ecological data from Census Tracts, zip code areas, and cities to assess these relationships and, given the spatial nature of these geographic data, adopted statistical procedures appropriate to correct for a number of biases that arise in assessments of these relationships (e.g., spatial autocorrelation; Lipton and Gruenewald, 2002). Spatial analyses have also afforded researchers the opportunity to assess the scope of outlet–violence effects. The spatial interrelationships of data from geographic units, for example adjacent Census Tract areas, contribute to the prediction of violence rates. Characteristics of populations in nearby areas are related to violence, such as the wealth or poverty of populations in adjacent neighborhoods, so-called spatial lag effects (Gorman et al., 2001). These studies have revealed that the effects of outlets on violence appear to be "local"; restricted to the unit of analysis and unrelated to violence elsewhere. Population characteristics, conversely, appear to act more globally, with population movements appearing to support the diffusion of violence across community areas.

Over the past 15 years, considerable effort has gone into developing the theoretical foundations for explaining outlet–violence relationships. Most recently, this work has resulted in integrated ecological models at the population level, models of population–environment interactions that

From the Prevention Research Center, Berkeley, California.

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DOI: 10.1111/j.1530-0277.2006.00141.x

support violence. In outline, these theoretical models suggest that (a) violence will most likely occur among populations that are socially disorganized and economically distressed, (b) violent acts will occur most often in places that encourage social contact among at-risk populations and in which there is an absence of guardianship by enforcement agents, and (c) spatial interactions between these 2 facets of the etiology of violence among human populations will focus and accelerate violent outcomes (spatial interaction effects that form "hot spots" for violence). These theoretical foundations draw upon a long history of research into the characteristics of populations most prone to violence (e.g., social disorganization theory; Sampson et al., 1997; Shaw and McKay, 1947), the human activities that support violence (e.g., routine activity theory; Felson, 1987; Felson et al., 1997), and the spatial ecologies of crime and violence (e.g., crime potential theory; Brantingham and Brantingham, 1993, 1999). Applied in the context of suitably rich cross-sectional data on population characteristics and crime environments, the predictions of these theoretical models have been borne out in some detail (Gruenewald et al., 2006). In this context, alcohol outlets serve as locations where at-risk populations may interact while consuming an intoxicating, and for aggression a potentially disinhibiting, substance (Giancola et al., 2003). Indeed, studies of the microenvironments of off-premise establishments (Alaniz et al., 1998) and bars (Haines and Graham, 2004) suggest that this social process is active much of the time.

Limitations of Population Models

Two great motivating concerns have guided most empirical work over the past 2 decades: first, alcohol outlets might serve as markers for other population or environmental features of places that are related to violence. These particularly include specific population characteristics related to greater levels of violence (e.g., poverty; Gorman et al., 2001) and place characteristics that are related to lower levels of police enforcement and surveillance (e.g., vacant housing and other retail activities; Gruenewald et al., 2006). Second, alcohol outlets are part of the continuous spatial fabric of communities and, as such, standard statistical analyses of data from populations and places where outlets are located require the application of spatial models that correct for the variety of biases that arise from failures of spatial independence (Griffith, 1988; Gruenewald et al., 1996). These 2 general concerns have been well addressed in the literature and, although observed too often in the breach, comprehensive spatial analyses of outlet–violence relationships are becoming the norm rather than the exception.

This groundwork having been laid, current ecological studies are now addressing the 2 remaining limitations of previous work: the absence of identified temporal associations between outlets and violence, and inadequate theoretical formulations of the social processes that support violence in those community settings that include alcohol outlets. The first issue is an analytic one: the identification and assessment of statistical associations over time. The second issue is a conceptual one: the identification of the specific mechanisms by which the addition of an outlet to a community area may lead to increased violence rates. The current study addresses the first limitation. The empirical implication of cross-sectional analyses of the outlet–violence relationship is that changes in numbers of outlets should be related to changes in violence rates over time. The policy implication is that regulating numbers or densities of outlets will lead, of necessity, to reductions in violence. To justify policies intended to regulate numbers and densities of outlets, a much stronger case must be made that the simple addition, or subtraction, of outlets will lead to increases and decreases in violence in different community settings.

The goals of the current study are (1) to provide a first observation of the relationships between alcohol outlets and violence over time and (2) to establish whether these longitudinal effects are context specific; that is, whether the addition or subtraction of an outlet from different places with different populations will have different effects. The suggestion of the cross-sectional work by Gruenewald et al. (2006) is that the addition of alcohol outlets in places with large at-risk populations will accelerate violence rates, providing opportunities for violence that release potentials for violence. These potentials are greatest in disorganized, impoverished neighborhoods, with great income inequality, and low socioeconomic status.

METHODS

This study adopts a purely population-based ecological approach to the examination of rates of violence across community areas. Aggregate archival data on population and place characteristics were collected for 581 index zip codes over 6 years within the state of California. This large number of observations was subjected to a statistical analysis that enabled the examination of temporal effects relating changes in numbers of alcohol outlets to changes in violence rates. Data sources included all hospital discharges identified as related to an assault event that resulted in at least 1 overnight stay, the primary outcome measure used in the study.

Geographic Basis

The geographic basis for the study was regions defined using electronic maps of the state of California obtained from Claritas (Ithaca, NY) and Environmental Systems Research Institute Inc. (ESRI, 2001, 2002) of Redlands, CA. These maps were developed by GDT (Geographic Data Technology, Lebanon, NH) by geocoding U.S. postal route zip code information and estimating unspecified areas based on topology. The resulting electronic zip code base maps have 100% coverage of the state, but include synthetic zip codes for extremely low population density areas such as national forests and state parks, and include some zip codes such as post offices and government buildings with negligible geographic area. Considering only zip codes with some geographic extent, 1,646 zip codes from the year

2000 served as the source of 581 "stable" zip codes for the current study. "Stable" areas were defined as those zip codes that maintained a consistent area definition over the 6 years of the study (adjudicated by reference to Census 2000 block internal points). These areas, by definition, were consistent over time, thus obviating the severe interpretive problems that arise in analyzing data from continuously modifiable area units (Openshaw, 1984). The use of stable geographic areas lends other benefits to the current project: the infilling and loss of alcohol and other retail establishments in these areas could be simply represented by outlet counts, distributed within consistently defined areas over time. These data are contained in the California Index Locations Database, a geographic information system that compiles population and individual-level data into data frames suitable for spatial analysis.

Hospital Discharge Data

Hospital discharge data were obtained from the California Office of Statewide Health Planning and Development and were geocoded to the residential zip code of the injured party. These records provide information on all admissions that result in at least 1 overnight hospital stay, including ICD-9 diagnostic codes. Among other information recorded on admission records are "E-codes," event codes that identify the cause of injury. E-coded "assaults" identify injuries resulting from interpersonal violence (E960–E969). In California, with the exception of medical misadventures, E-codes are obtained from 99% of all injury admissions to hospitals in the state that result in at least 1 overnight stay (Abellera, et al., 2005). In California, E-coded injury records have a sensitivity and specificity of better than 90% in record check and patient follow-up studies (Abellera, et al., 2005; Meux, 1993; Meux et al., 1990). The data used in the current study were filtered for patients age 15 and older to eliminate child abuse and cases where alcohol use was improbable. Hospital discharge assault events are more serious than most police incident reports because they exclude altercations with minimal or no physical injury. Thus, only those events that result in injuries that require at least an overnight hospitalization for treatment are included. Discounting persons below age 15, homeless persons, out-of-state residents, and the very few patients without zip code information, and converting postal box zip codes to the zip code in which the post office was located, geocoding to electronic base maps exceeded 99%.

Alcohol Outlets

Data on the locations of alcohol outlets were obtained from California Alcohol Beverage Control. Outlet locations were geocoded to zip code based upon street address of the establishment. Numbers of active alcohol outlets by zip code were tabulated for off-premise establishments, restaurants, and bars plus pubs. Geocoding rates exceeded 99%, a rate comparable with those obtained in previous investigations (Gruenewald, et al., 2006) and by previous investigators using other data at this level of geographic resolution (Alaniz, et al., 1998; Gorman et al., 2001).

Retail Data

County business pattern data are collected annually by the U.S. Department of Commerce and published electronically as Zip Code Business Patterns by the U.S. Census Bureau. The data include counts of retail establishments within zip codes by type (NAICS, North American Industry Classification System codes), although counts may be low because the census is voluntary for small businesses that do not have any paid employees. Numbers of nonalcohol retail establishments were tabulated for 4 categories: accommodations (NAICS 721, e.g., hotels and motels), gas stations (NAICS 447, as an index of traffic density), clothing (NAICS 448), and other nonalcohol retailers (NAICS 451, 452, and 453, e.g., sporting goods, hobbies, books, music, general merchandise, and miscellaneous retail stores). Converting nonspatial zip codes (PO boxes and single-building zip codes) to the surrounding zip code, geocoding rates exceeded 99%. Although these data are maintained by the Census with zip code identifiers, there was a small loss of some retail outlet location information because of Internal Revenue Service reporting restrictions.

Demographic Data

Variables that characterized population living in zip code areas were obtained from *Sourcebook America* (CACI Marketing Systems, 1996, 1997, 1998, 1999, and ESRI-BIS, 2001, 2002) annual estimates. At the zip code level, these estimates are available for a limited number of measures that represent changes in core population characteristics previously identified to be associated with violence rates: population size (×1,000), percent population age 15 and older, average household size, median age, percent male population, median household income (×1,000, not adjusted for inflation), percent African American population, percent Hispanic population, and percent Asian population.

Statistical Analyses

The dependent measure for these analyses was the natural logarithm of numbers of assaults per 1,000 population. Population characteristics were identified by population size and the census demographics noted above. Place characteristics were identified by number of nonalcohol retail establishments and alcohol outlets per zip code. All independent measures (population and place) were obtained for each of the 581 zip codes over the 6 years of study and for every zip code adjacent to each zip code. The latter measures were averaged across adjacent areas of each zip code and included in analysis models as measures of spatial lag effects, the effects of physically external (i.e., geographically adjacent) population, and place characteristics on local rates of outcomes in each zip code. Thus, 4 different effects of local and lagged population and place characteristics were considered in the analysis, population and place characteristics measured within "local" zip code areas and measured in geographically adjacent "lagged" areas.

The easiest way to conceive the analyses of these data is to view each zip code as an independent time series with local and lagged population and place characteristics used to predict rates of assault measured using hospital discharge data. The 581 zip code areas constitute 581 replicates of this short time series, providing the statistical power necessary to assess change over time. The primary concern to be addressed when statistically analyzing panel data of this sort is whether cross-sectional differences between units, so-called unit effects, may bias coefficient estimates of longitudinal relationships. This concern can be allayed either by random sampling observations from the universe of observable units, impossible in the current case, or through statistical assessments of bias between different model specifications. The latter step is achieved through a statistical comparison of observed effects between a known asymptotically consistent model [i.e., a least squares dummy variable (LSDV) regression model] and a model treating unit effects as random (i.e., as if randomly drawn from the population of units). If a Hausman test comparing these models is not significant, then results from the more efficient random effects, REM, model can be accepted (Greene, 1993). In the current case, the results of this test indicated that model coefficients from the REM were consistent, asymptotically unbiased, relative to LSDV estimates (Hausman test $\chi^2 = 0.21$, $df = 35$, $p = \text{NS}$). Additional statistical controls were introduced in all models representing time trends (5 *df*) and controlling for heteroskedasticity between units due to population size (using

appropriate population weights in the REM specification, Greene, 1993).

Another statistical problem that can arise in analyses of data from geographic areas is a loss of unit independence because of spatial autocorrelation, the tendency of data from nearby spatial units to be correlated one with the other. Spatial autocorrelation can lead to substantial biases in statistical tests and must be controlled using one of several techniques when observed (Waller and Gotway, 2004). In the current case, spatial autocorrelated error among residuals from the REM model was found to be positive and significant (Moran coefficient = 0.419, $z = 28.418$, $p < 0.001$), indicating some risk for Type I errors in this uncorrected model. Unbiased estimates of effects were subsequently obtained through application of an REM that incorporated a statistical control for spatial autocorrelated error (Ponicki and Gruenewald, 2005). This spatial random effects model also incorporated explicit controls for groupwise heteroskedasticity related to population size. The results of both the original REM and the spatial REM are reported here.

RESULTS

The goals of the current study were (1) to provide a first observation of the relationships between changes in numbers and types of alcohol outlets and violence over time and (2) to establish whether these longitudinal effects were context specific. To answer the first question, it was necessary to establish that there was sufficient variation in measures between units, and over time, to provide efficient estimates of outlet effects. As shown in Table 1, this was certainly the case. Numbers of assaults per year varied substantially across units with an average rate of 16.4 and a range from 0 to 342. Importantly, the percent change in numbers of assaults within units over the 6 years of the study averaged −4.6%, with some 30% of the units exhibiting levels of change in excess of 82.2%. Similar levels of variation were to be seen in the exogenous measures. The average population comprised 23,344 persons, ranging from 17 to 73,670 persons, with 30% of the units exhibiting more than 9.4% population growth (or decline) over the 6 years of the study. The average number of off-premise establishments was 24.7, ranging from 0 to 135 outlets, with 30% of the units exhibiting more than 24.6% growth (or decline) over time. The average number of bars was 6.2, ranging from 0 to 61, with 30% of the units exhibiting more than 42% growth (or decline) over time.

The REM analyses of data from the 581 zip code areas included the core measures of population size and time ("Base Variables"), demographic measures, nonalcohol retail establishments, and alcohol establishments. The impacts of demographic and retail establishment measures from spatial lagged areas were also assessed. As shown in Table 2, estimates of the contributions of each block of variables to the fit of the model demonstrated that all were significant (F-tests of equality constraints). Overall, the spatial lagged effects were also significant, showing that the changing characteristics of nearby places significantly affected violence rates over time.

Effects related to the individual measures in the study are presented in Table 3. Each group of effects is distinguished by whether the assessment involved local or lagged measures of the specific model components (base variables, demographics, and retail effects). Coefficient estimates, t-values, and 2-tailed tests of significance are provided for each measure. The last column presents elasticities relating 10% changes in independent measures to percent changes in the measure of assault rates for significant effects. Arc elasticities provide a method by which the relative sizes of effects can be compared across heterogeneous independent measures.

As shown in this table, rates of assaults per population decreased as a function of population size. Within these fixed geographic units, greater population densities were related to lower rates of assault per person, a density dependence that appears only when other exogenous variables are included in the model. Among the demographic measures, assault rates were greater among populations with larger percentages of males and African Americans, and lower median income. Among the nonalcohol retail measures, places with greater numbers of miscellaneous

Table 1. Descriptive Statistics and Percent Change in Measures Over Time

Variable group	Variable name	Mean	Standard deviation	Minimum	Maximum	Percent[a] change
Endogenous measure	Assaults	16.38	23.32	0	342	−4.623 (82.247)
Population	Population (×1,000)	23.34	15.19	0	73	0.339 (9.413)
Demographics	Household size	2.79	0.53	1	4	−1.690 (2.521)
	Percentage male	50.09	2.70	4	80	0.200 (3.145)
	Median household income (×1,000)	41.28	15.14	11	124	31.785 (17.989)
	Median age	34.71	5.58	21	68	3.024 (5.431)
	Percent African-American	6.83	12.45	0	86	−3.894 (31.828)
	Percent Hispanic	27.17	20.90	1	98	16.291 (18.157)
	Percent Asian	10.31	10.75	0	61	5.157 (25.360)
Retail markets	Accommodations	4.94	6.98	0	87	25.485 (188.640)
	Gas stations	7.47	5.74	0	31	23.578 (70.011)
	Clothing stores	13.85	20.71	0	148	22.166 (89.503)
	Miscellaneous retail	22.181	22.53	0	165	−4.520 (148.574)
Alcohol outlets	Off-premise	24.69	18.13	0	135	−0.431 (24.584)
	Restaurants	27.15	25.85	0	195	5.273 (54.086)
	Bars	6.17	6.289	0	61	−3.981 (42.061)

[a]Average percent change within zip codes from 1995 to 2000 (standard deviation in parentheses).

Table 2. Significance Tests for Components of the Random Effects Regression Model

Spatial relationship	Component	ΔF^a	*df*	*p*
Local effects	Base variables	3.03	6	0.014
	Demographics	52.89	7	<0.001
	Nonalcohol retail	7.13	4	<0.001
	Alcohol outlets	15.29	3	<0.001
Lagged effects	Demographics	11.51	8	<0.001
	Nonalcohol retail	2.99	4	0.030
	Alcohol outlets	5.62	3	0.001
Total lagged effects	—	7.51	15	<0.001

[a] *F*-tests calculated with denominator degrees of freedom equal to 3,450.

retail establishments were related to greater rates of assault. Among the alcohol retail measures, places with more off-premise establishments and more bars exhibited greater rates of assaults; places with more restaurants exhibited lower rates of assault.

Effects related to spatially lagged demographic measures were significant and reflected characteristics of populations in surrounding areas that increased risks for assaults; greater household sizes related to lower rates of assault and greater percent population Asians related to greater rates of assault. Among nonalcohol retail establishments, greater numbers of gas stations were related to greater rates of assault. Among alcohol retail establishments, greater numbers of bars were related to greater rates of assault.

As residuals from the REM exhibited significant spatial autocorrelation, a spatial REM was used to assess statistical relationships between the independent variables and violence rates that included an explicit correction for spatial autocorrelation. For this purpose, spatial relationships among units were represented by a binary connection matrix indicating units that shared common boundaries. The results of this analysis are shown in Table 4. As shown at the bottom of the table, spatial autocorrelation was substantive and significant in this analysis. However, although the details of the results of this analysis are somewhat different from those in Table 3, effects related to local and lagged outlet densities were significant and robust using this alternative specification. Local densities of bars and off-premise outlets remained positively related to assaults; densities of restaurants remained negatively related to assaults. Again, lagged bar densities were particularly important to assault rates. The remaining dif-

Table 3. Effects Estimates and Elasticities for the Random Effects Regression Model

Spatial relationship	Model component	Variable	*b*	*t*	*p*[a]	Elasticity[b] (%)
Local effects	Base variables	Population age 15+(×1,000)	−15.426	−4.761	<0.001	−3.24
		Time 1	−43.976	−1.537		
		2	80.038	2.208	0.027	
		3	24.700	0.661		
		4	−26.337	−0.676		
		5	−47.400	1.122		
	Demographics	Household size	105.501	1.248		
		% Male	15.614	2.156	0.031	7.05
		Median income (×1,000)	−20.470	−9.067	<0.001	−7.64
		Median age	1.936	0.314		
		% African American	23.438	6.705	<0.001	1.44
		% Hispanic	3.398	1.388		
		% Asian	−3.059	−0.748		
	Nonalcohol retail	Accommodations	−1.311	−0.345		
		Gas stations	0.282	0.059		
		Clothing	−0.506	−0.033		
		Miscellaneous	3.096	2.059	0.040	0.62
	Alcohol outlets	Off-Premise	12.435	4.137	<0.001	2.76
		Restaurants	−4.188	−2.184	0.029	−1.03
		Bars	11.839	1.966	0.049	0.66
Lagged effects	Demographics	Population age 15+(×1,000)	0.065	0.315		
		Household size	−161.876	−2.174	0.030	−4.06
		% Male	−0.001	−0.035		
		Median age	−0.008	−1.897		
		Median income	0.001	0.107		
		% African American	0.004	1.557		
		% Hispanic	0.002	1.777		
		% Asian	0.005	2.514	0.012	1.17
	Nonalcohol retail	Accommodations	0.569	0.116		
		Gas stations	26.964	2.739	0.006	1.63
		Clothing	−1.792	−0.540		
		Miscellaneous	4.687	1.640		
	Alcohol outlets	Off-premise	−2.400	−0.427		
		Restaurants	−3.981	−1.103		
		Bars	25.432	2.160	0.031	1.23

[a] Two-tailed tests. Nonsignificant effects have no entry.
[b] Arc elasticity centered at grand mean, relative to a 10% change in exogenous measures. Elasticities not reported for time dummies.

Table 4. Effects, Estimates, and Elasticities for the Spatial Random Effects Regression Model

Spatial relationship	Model component	Variable	*b*	*t*	*p*[a]	Elasticity[b] (%)
Local effects		Population age 15+(×1,000)	−6.649	−3.504	<0.001	−1.40
		Time 1	−47.278	−1.708		
		2	30.383	0.853		
		3	−36.540	−1.014		
		4	−78.794	−2.106	−0.035	
		5	−21.829	−0.555		
	Demographics	Household size	48.477	0.726		
		% Male	8.597	1.052		
		Median income (×1,000)	−21.854	−11.206	<0.001	−8.15
		Median age	−0.774	−0.123		
		% African American	31.180	13.558	<0.001	1.91
		% Hispanic	15.114	7.698	<0.001	0.93
		% Asian	8.090	3.158	0.002	0.50
	Nonalcohol retail	Accommodations	1.277	0.506		
		Gas stations	7.154	2.236	0.025	0.73
		Clothing	0.073	0.077		
		Miscellaneous	1.677	1.514		
	Alcohol outlets	Off-premise	7.529	4.211	<0.001	1.67
		Restaurants	−3.016	−2.578	0.010	−0.74
		Bars	11.408	3.267	0.001	0.64
Lagged effects	Demographics	Population age 15+(×1,000)	22.393	1.430		
		Household size	−132.510	−2.103	0.035	3.32
		% Male	0.133	0.523		
		Median age	−0.462	−1.536		
		Median income	−3.641	−0.058		
		% African American	−0.065	−0.596		
		% Hispanic	−0.189	−2.448	0.014	1.11
		% Asian	−0.068	−0.542		
	Nonalcohol retail	Accommodations	−7.949	−1.335		
		Gas stations	11.945	1.514		
		Clothing	−2.073	−0.912		
		Miscellaneous	2.406	1.009		
	Alcohol Outlets	Off-premise	−3.842	−0.954		
		Restaurants	−2.790	−1.057		
		Bars	29.360	3.627	<0.001	1.42
Spatial	Autocorrelation	ρ_s	0.112	5.927	<0.001	

[a]Two-tailed tests. Nonsignificant effects have no entry.
[b]Arc elasticity centered at grand mean, relative to a 10% change in exogenous measures. Elasticities not reported for time dummies or spatial autocorrelation.

ferences were effects found to be significant in the original model but no longer significant in the spatial REM (i.e., effects related to percent males in the population and miscellaneous retail stores, and percent Asian and gas stations in lagged areas) or effects newly observed to be significant in the spatial REM (i.e., effects related to percent Hispanics and Asians in local populations).

One additional concern in these analyses was that the great differences in sizes of zip code units, or lengths of roadway systems, served as a source of bias in estimates of assault rates (Openshaw, 1984). When included as covariates in the previous analysis, neither of these independent measures were significantly related to assaults ($b = -0.266$, $t = -1.370$, and $b = -0.187$, $t = -0.372$, respectively).

The last column of Tables 3 and 4 presents a general means by which the relative sizes of effects between independent measures may be compared. Using the estimates provided by the spatial random effects model (Table 4), the most "effective" means of reducing violence, by this criterion, was attributable to increases in median household income. A 10% increase in median household income was related to a −8.15% decrease in rates of hospital discharges related to violence. This reaffirms the relevance of impoverishment to greater rates of violence in community areas. Elasticities related to percent minority populations reaffirm the impact of minority status upon rates of violence, with elasticities of 1.91, 0.93, and 0.50% related to 10% greater populations of African Americans, Hispanics, and Asians, respectively. Compared with these effects, changes in numbers of alcohol outlets contributed a proportionately smaller share to rates of violence. A 10% increase in local numbers of off-premise outlets was related to a 1.67% increase in violence. A 10% increase in numbers of bars was related to a .64% increase in violence. Across local and lagged areas, a 10% increase in numbers of bars was related to a 2.06% increase in violence.

Contribution of Bars

These results indicate that the contribution of a single bar in any 1 zip code area to the rate of violent assaults that result in hospital discharges is relatively small. Based upon the analyses presented in Table 4, the addition of 1

bar to the average zip code area in the current study would produce about 0.17 hospitalized assaults per year or 1 assault for every 6 bars. It is important to note, however, that zip code areas with very large numbers of bars or pubs (up to 61 in the current study) and very dense populations (up to 73,000 persons age 15 and older) can expect to have far greater numbers of assaults related to bars, a figure ranging up to 76 per year based on current analyses. Thus, it would appear that numbers of bars or pubs within zip code areas provide a small but pervasive upward pressure upon rates of assault that particularly affects violence in urban areas. With this observation in mind, it makes sense to consider the impacts that equally pervasive controls could have upon violence related to bars.

An evaluation of the contribution of bar densities to violence rates based upon the model presented in Table 4 is presented in Table 5. The first column of this table indexes the range of changes in the number of bars observed across zip codes over the 6 years of the study (± 6 outlets). The second column provides an estimate of the percent change in rates of assault in local areas. The third indicates the "savings" from the change in numbers of outlets. "Savings" are defined by estimated reductions in numbers of assaults per year across the 581 places examined in this study. Columns 4 and 5 repeat this information, but now include reductions and increases in both local and lagged areas.

Demographic Context

To assess whether locating bars in different population contexts differentially affected violence rates, local bar count-by-population characteristic interactions were added to the model presented in Table 4. For this purpose, all local demographic measures were considered (household size, percent male, median income, median age, percent African American, percent Hispanic, and percent Asian). In the context of this new set of variables, only the interaction of bars with percent males was significant ($b = 3.929$, $t = 4.144$, $p < 0.001$). However, this effect was quite substantive. Each percent increase in the size of the male population was related to a 34% increase in the size of the bar coefficient. With changes in the percent male population varying by as much as 3% or more over the years of the current study, this suggests that some places could see a doubling of rates of assault related to alcohol outlets.

Table 5. Estimated Impacts of Increasing or Reducing Numbers of Bars Across Zip Code Areas

Average change in numbers of bars per zip code	Percent change in rates of assault (local only)	Savings[a]	Percent change in rates of assault (local and adjacent)	Savings
−6	−6.56	604	−18.30	1742
−4	−4.23	403	−12.20	1161
−2	−2.12	201	−6.10	581
−1	−1.06	101	−3.05	290
0	0.00	0	0.00	0
+1	1.06	−101	3.05	−290
+2	2.12	−201	6.10	−581
+4	4.23	−403	12.20	−1161
+6	6.56	−604	18.30	−1742

[a]Expected number of assaults reduced per year (across 581 units with a total population of 13,562,864 persons 15 years of age or older with a total of 9,517 expected assaults per year).

DISCUSSION

The results of this study demonstrated that changes in outlet counts over time were directly related to changes in violence rates across 581 index locations, stable zip codes that exhibited growth and decline in population and place characteristics over time. As expected from prior theoretical and empirical work, local and lagged population characteristics were related to local rates of violence. The most salient of these characteristics were median household income and percent African American populations. Elasticities related to median household income (7.64 and 8.15% in the REM and spatial REM analyses) suggest the strength and importance of impoverishment as a potential cause of greater levels of violence. Clearly, risks for violence were greater in areas with growing poor minority populations. However, in support of established cross-sectional findings, bar and off-premise outlet densities were also related to violence.

Elasticities related to changes in outlet densities were much smaller than those observed for changes in median household income and generally reflect effect sizes expected from previous cross-sectional research (i.e., a 2% increase in assaults related to a 10% increase in outlets). These numbers do not reflect, however, the generally pervasive effects that outlets may have on violence across communities in the state. The results of the current analyses suggest that 1 assault will result from every 6 bars in the average zip code area. Considering that there were some 3,500 bars or pubs in the 581 zip code areas studied here, and these too would produce assaults at this rate, violence related to bars may be considerable (about 600 admissions to hospital for assault injuries per year). As shown in Table 5, although these effects are relatively small, their regulatory potential for reducing violence may nevertheless be substantial. States can, and do, regulate numbers of outlets through which alcohol may be sold. As Table 5 shows, failures to regulate numbers of bars can place continuous upward pressure upon violence rates. Regulation of alcohol outlets can constrain these rates.

In addition to these observations, the current longitudinal panel analyses indicate that violence rates may also be affected by other place characteristics including densities of other retail outlets (e.g., miscellaneous retail stores or gas stations) and lagged densities of bars and off-premise establishments. The effects related to other retail establishments would appear to have no other theoretical interpretation than that these places are markers for areas

in communities with substantial human activities. The effects related to alcohol outlets continue to support the view that some sort of spatial interactions between populations and places with more alcohol outlets are associated with rates of violence. The results of the current analyses also suggest that numbers and densities of bars in nearby areas may also affect local rates of violence. This is contrary to the theoretical position that the effects of greater or lesser numbers of outlets are to increase and decrease rates of violence on a purely local scale (Gorman et al., 2001). Rather, the current longitudinal data suggest that such effects are more global in nature, reflecting either social-normative effects or human activities that bridge larger spatial scales.

As noted in the introduction, and confirmed by the current work, the observation that numbers of bars, in particular, are related to rates of violence over time emphasizes a direct relationship between bars and violence that appears very robust. The current study contributes to this literature by demonstrating that these effects can be observed over time, are independent of concurrent changes in other population and place characteristics, and are independent of effects related to other alcohol outlets (off-premise establishments and restaurants). This latter observation is particularly important as off-premise outlets, often observed to be directly related to violence rates, may be so related because of a variety of reasons that are unrelated to the use of alcohol. Within urban areas, off-premise outlets are often sites for other social exchanges that entail greater levels of violence (e.g., prostitution, illegal drug sales, Alaniz et al., 1998). Without a correspondingly adequate model of illegal drug sales and distribution and their impacts on violence across community areas, interpretation of specific effects related to off-premise outlets remains a concern. In the current study, the multiple contexts in which bar densities continue to affect violence rates suggest that these effects go beyond those observed for off-premise establishments.

Implications of Demographic Context

As noted in the introduction, one of the essential hypotheses regarding the mechanisms by which greater numbers of bars may affect rates of violence is that these places serve as attractors to individuals more likely to commit violent acts (e.g., young males) and provide them with an intoxicating substance that may enhance likelihoods for aggression. This being the case, one would expect that the addition of outlets in areas with larger at-risk populations would be much more problematic than the addition of outlets to places with larger low-risk populations. As shown in these analyses, this appeared to be the case only for percent males in the local population. Greater concentrations of alcohol outlets in places with larger proportions of males placed unique upward pressure on violence rates. As estimated here, a 3% increase in the percent males in any population will double the rate of assaults related to bars. Thus, rates of assault related to bars in areas of the state where the proportion of males in the population are quite large (up to 80% in the current study) could be very substantial, increasing rates by up to 1 order of magnitude.

Limitations

Despite the statistical benefits conferred by the use of these longitudinal data, a number of problems arise in the interpretation of these results that are not resolved in this study. Of first concern is the short length of the time series of observations measured for each geographic unit. Although panel data and spatial analysis models attempt to overcome some of the limitations of short time series by the replication of these series across units, they can do so without bias only to the extent that the observed units are random samples from larger populations or differences between units are unrelated to modeled effects. The diagnostic tests presented here give some assurance that unit effects have not biased the outcomes observed, but the only guarantee of the consistency of these estimators is to be provided through the collection of further longitudinal data.

A second concern is the interpretation of demographic effects related to populations living in lagged spatial areas, outside of the local areas under study. The analyses indicate that both lagged household size and lagged percent Hispanic population were inversely related to local rates of assault. This could be interpreted as reflecting the activities of populations living in lagged areas as affecting contacts and interactions with populations in local areas. This being the case, however, it is difficult to explain why these effects are either not significant within, rather than between, localities (i.e., household size) or are related to violence but with different signs (i.e., percent Hispanic). As for many other ecological processes, interpretation of these effects is contingent upon well-developed theoretical models of the population processes involved, reflected in suitable mathematical representations of these effects, and captured by adequate well-conditioned statistical analyses of these types of panel data. Although there is little reason to believe that the observed lag effects are statistically in error (multicollinearity of these effects, independent of cross-sectional differences between units, was moderate with a condition index of 26.3; Greene, 1993), the mapping between theoretical assertions regarding population processes and reduced form equations is not complete. Techniques for suitably representing and modeling these spatial lag effects require further development.

Related to the problem of determining the meaning of effects related to local and spatially lagged measures of demographic effects is the determination of the meaning of effects related to alcohol outlets across local and lagged areas. Here it is at least logically possible that lagged measures of numbers of outlets improve model fit

by providing better measurement (multiple measures of change) rather than indexing direct impacts of changes in alcohol outlets in adjacent regions on rates of violence in local areas over time. This argument presumes that there is substantial measurement error in the estimation of numbers of alcohol outlets across areas. Given the quality of archival data related to locations and numbers of alcohol outlets (with low rates of classification error between active and nonactive outlets and high geocoding hit rates) and the substantial range over which numbers of outlets vary between places and over time (Table 1), measurement error in both local and lagged areas would appear generally quite low.

In this context, it is also reasonable to consider an alternative causal path by which changes in numbers of alcohol outlets may be related to local rates of violence over time: reversing the causal scheme, perhaps places with higher levels of violence are also places with greater social disorganization and more rapid turnover in alcohol outlets? Sampson et al. (1997) suggest that homicide rates have temporally lagged effects on residential instability, greater homicide rates leading to subsequent changes in housing turnover some years later. For alcohol outlets, this requires the somewhat heroic assumption that annual variations in violence rates will effect changes in outlet turnover within each year, a process that would appear much slower than the obverse (i.e., outlets affecting violence). Complete exploration of these relationships will require the development of separate equation models for the growth and development of alcohol outlets across community areas independent of the growth of violence rates.

A final concern with the results of the current analyses is their limited generalizability to all areas throughout the state of California. As shown in Table 1, the demographic range of the populations observed in the current study reflects the broad diversity found across all populations in California. The units themselves, however, are far from a random sample from the state and the analysis method, random effects models, does not imply or require such generalizability to provide unbiased statistical estimates of longitudinal effects for the units observed (a benefit of the procedure). It is feasible to apply poststratification adjustments to data from the current sample of places to approximate more closely results for the population of the state. However, the results of such an analysis would be artificial in the extreme; the units selected are geographically stable and reflect local characteristics of relatively stable populations and places, making generalization to places that exhibit rapid population growth (and, hence, redefinition of zip code areas) difficult. The solution to this problem requires further development of the California Index Locations Database to incorporate information about places that do and do not change area definitions over time. The current analysis, however, did include a large variety of statistical controls for variations in population and place characteristics known, or believed, to be related to alcohol use and violence rates. These include measures of median population age (likely to be low in areas with substantial college age populations), gender composition (likely to be skewed toward males in areas near military bases), and tourism (likely to be high in places with larger numbers of retail accomodations, Table 1). These controls enabled the best assessment to date of the independent effects of changes in outlet densities on one measure of violence over time.

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Alcohol Environments and Disparities in Exposure Associated with Adolescent Drinking in California

CALIFORNIA

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Objectives. We investigated sociodemographic disparities in alcohol environments and their relationship with adolescent drinking.

Methods. We geocoded and mapped alcohol license data with ArcMap to construct circular buffers centered at 14595 households with children that participated in the California Health Interview Survey. We calculated commercial sources of alcohol in each buffer. Multivariate logistic regression differentiated the effects of alcohol sales on adolescents' drinking from their individual, family, and neighborhood characteristics.

Results. Alcohol availability, measured by mean and median number of licenses, was significantly higher around residences of minority and lower-income families. Binge drinking and driving after drinking among adolescents aged 12 to 17 years were significantly associated with the presence of alcohol retailers within 0.5 miles of home. Simulation of changes in the alcohol environment showed that if alcohol sales were reduced from the mean number of alcohol outlets around the lowest-income quartile of households to that of the highest quartile, prevalence of binge drinking would fall from 6.4% to 5.6% and driving after drinking from 7.9% to 5.9%.

Conclusions. Alcohol outlets are concentrated in disadvantaged neighborhoods and can contribute to adolescent drinking. (*Am J Public Health.* 2009;99: XXX–XXX. doi:10.2105/AJPH.2007.122077)

Despite federal, state, and local interventions, underage drinking continues to be a serious problem. A national survey found that 17.6% of adolescents drank alcohol in the past 30 days, 11.1% were binge drinkers, and 2.7% were heavy drinkers.[1] Health and social problems associated with youths' drinking include motor vehicle crashes,[2,3] violence,[4] risky sexual behaviors,[5,6] assault and rapes,[7] and brain impairment.[8–11] Adolescent alcohol use has substantial societal costs.[12] Drinking at an early age also increases the risk of addiction and other alcohol-related problems in adulthood.[13–15] In 2007, the surgeon general responded to this problem in the *Call to Action to Prevent and Reduce Underage Drinking*, which emphasized environmental contributions to the problem.[16]

Underage drinkers obtain their alcoholic beverages from a variety of sources, including parents' stocks, friends, parties, and commercial outlets.[17] In 1 study, buyers who looked underage were able to purchase alcohol with high success rates from both on-site (for consumption on the premises, such as bars and restaurants) and off-site (for consumption elsewhere, such as liquor stores) establishments.[18,19] Sales to minors have been found to be significantly associated with the percentage of Hispanic residents in a neighborhood and with population density.[20]

As long as adolescents can obtain alcohol from commercial sources, neighborhood outlets are likely to play a role in underage drinking. Rhee et al. argued that environment plays an essential role in drinking initiation and that genetics are important in developing alcohol dependence.[21] Perceived alcohol availability was significantly associated with higher levels of alcohol consumption among young men[22] and with drinking in public locations for adolescent girls.[23] Density of outlets for alcohol in cities was associated with youths' drinking and driving and with riding in a car driven by a person under the influence of alcohol.[24]

Differences in alcohol environments may exacerbate health disparities across sociodemographic groups. LaVeist and Wallace found that in Baltimore, MD, predominantly Black and low-income census tracts have more liquor stores per capita than do tracts of other race and income groups.[25] Gorman and Speer found retail liquor outlets abundantly located in poor and minority neighborhoods in a city in New Jersey.[26] Only 1 national study has been published, and it reported higher densities of liquor stores in zip codes with higher percentages of Blacks and lower-income non-Whites.[27] That study covered all urban areas in the United States, but the urban zip codes had a mean land area of 40.1 square miles and a mean population of 21920 persons,[27] arguably too large to represent neighborhoods. Even census tracts may be too large and too dissimilar to capture neighborhood effects: in Los Angeles County they can range from 0.04 square miles to 322 square miles.

The objectives of this study were (1) to describe the quantity and geographic pattern of alcohol retailers in small areas around individual homes and (2) to examine relationships between alcohol environments and adolescent drinking. We analyzed data from the entire state of California to investigate the effects of spatial accessibility on alcohol sales to adolescents.

METHODS

Data

Data on alcohol outlets came from the California Department of Alcoholic Beverage Control database and included addresses and license types of all alcohol retailers in the state.[28] We classified alcohol outlets by license type: off-site or on-site. In 2003, California had 30650 active on-site licenses and 21836 active off-site licenses.[28]

Participant data were obtained from the California Health Interview Survey a computer-assisted telephone interview with a 2-stage, geographically stratified, random-digit-dialing design that attempts to interview 1 adult and 1 adolescent per household and to get information on 1 child in households with children. The survey is representative of the state's noninstitutionalized population living in households. Details are available elsewhere.[29]

The California Health Interview Survey 2003 included survey data for 42 044 adults, 4010 adolescents, and 8526 children, who were linked by family identifiers. We excluded 3679 households in rural areas because their environments were not comparable. For our analysis of alcohol environments, we focused on 14 595 households with children younger than 18 years (not all households with children participated in the child and adolescent surveys). For our analysis of adolescent drinking, we used data on 3660 adolescents aged 12 to 17 years. We used a subsample of 687 adolescents aged 16 to 17 years who had ever had a few sips of alcoholic drinks for our analysis of adolescent driving after drinking.

Measures of Alcohol Environments

We defined alcohol environments by distance from homes. We used ArcMap version 9.1 (ESRI, Redlands, CA) to draw circles with radii of 0.1 miles, 0.5 miles, 1.0 mile, and 2.0 miles centered at respondents' residences. We first looked at immediate distances with 0.1-mile-radius circles and at circular bands between 0.1-mile and 0.5-mile radii. We considered that outlets in these areas might be the most problematic because of their proximity to adolescents' residences. A distance of 0.5 miles is approximately a 10-minute walk[30] and thus within the reach of adolescents. Outlets beyond easy walking distance were examined in circular bands between 0.5- and 1.0-mile radii and between 1.0- and 2.0-mile radii (all 4 constructed buffers were mutually exclusive). We mapped the business locations in the Department of Alcoholic Beverage Control database to the buffers around each household and calculated the number of alcohol retailers within each buffer.

Previous research focused on density measures, such as the number of establishments per city, per resident, or per roadway mile.[27,31–33] We used the raw count in each buffer rather than outlet-density measures in a predefined geographic area (such as census tracts) because individuals may live close to alcohol outlets in what is defined as a low-density area if that area includes large sections that are lightly populated, such as deserts or mountains. Similarly, in densely populated urban areas, population measures may yield low densities of alcohol outlets per resident even when most households are within walking distance of these outlets.

Statistical Analyses

We compared the mean and median number of alcohol outlets (for all licenses and for on-site and off-site establishments separately) across racial/ethnic groups (non-Hispanic White, non-Hispanic Black, Hispanic, Asian/Pacific Islander, and other) and income groups (incomes quartiles derived from self-reported total household annual income before tax). We then stratified by both race/ethnicity and income. We also performed a zero-inflated Poisson regression with number of outlets as the dependent variable and race/ethnicity and income as the key explanatory variables, controlling for population density in the census tracts. We estimated this model separately for each definition of the dependent variable (all licenses, on-site, and off-site) within each buffer. The data included all households with children younger than 18 years.

We analyzed 3 dichotomous dependent variables for adolescent drinking with logistic regression: at least 1 alcoholic drink in the past 30 days, at least 1 heavy drinking episode (5 drinks in a row, also referred to as binge drinking) in the past 30 days, and ever driving after drinking. The primary explanatory variables were the number of alcohol outlets within the 0.5-mile radii, 0.5- to 1.0-mile bands, and 1.0- to 2.0-mile bands. For each dependent variable, we estimated 2 models that differed in the key explanatory variables. For the first model, total number of licenses was the key explanatory variable. For the second model, off-site and on-site establishments were the key explanatory variables. We used the latter model to determine what type of outlets had predictive power for adolescent drinking, because the underlying processes in illegally obtaining alcoholic beverages may differ.

Additional explanatory variables included in all models were adolescents' characteristics (gender, age, race, paid employment in the past 12 months, current smoking, and marijuana use in the past 30 days), family characteristics (household income and parents' marital status), parents' drinking behavior (self-reporting by parent or guardian of any heavy drinking episode, defined as 5 drinks in a row in the past 30 days, and excess drinking, defined as consuming more than 60 drinks per month), and neighborhood sociodemographic characteristics (census tract total population, tract median household income, and percentage of Whites and Blacks in the population, according to data extracted from the 2000 US Census).

In all regression models we used robust standard errors to account for clustering data caused by the survey's multistage sample design. First, the state was divided into 44 geographic sampling strata, including 41 single-county strata and 3 multicounty strata comprising the 17 remaining counties in California. Second, within each geographic stratum, residential telephone numbers were selected through random-digit-dialed sampling. The regression was also weighted to control for differential sampling rates within geographic stratum and racial/ethnic groups.

To improve the interpretation of logistic regression coefficients, we changed levels of alcohol availability in adolescents' neighborhoods and predicted the resulting prevalence of adolescent drinking in the estimated model. We changed only the key explanatory variable, retaining all other variables. This provided the adjusted difference in the prevalence of a drinking measure between 2 levels of alcohol availability, that is, it accounted for all individual, family, and neighborhood sociodemographic characteristics in the model except the alcohol environments. For the differences in alcohol environments, we compared the average number of outlets around Asian/Pacific Islander and White households and around low- and high-income households.

RESULTS

Disparities in Alcohol Environments

Table 1 provides descriptive statistics of the sample, divided into 4 quartiles of gross annual household income: less than $24 000, $24 000 to $49 000, $50 000 to $90 000, and more than $90,000. Fewer than 11% of non-Hispanic Whites belonged to the bottom income quartile, compared with 32.0% of non-Hispanic Blacks, 50.4% of Hispanics, 20.8% of Asian/Pacific Islanders, and 32.9% of other groups. By contrast, 36.0% of non-Hispanic Whites, 15.1% of non-Hispanic Blacks, 4.7% of Hispanic, 29.1% of Asian/Pacific Islanders,

TABLE 1—Descriptive Statistics of Sample Population: California, 2003

	Percentage of Total Sample	Mean % (SD)
Adults		
Non-Hispanic Whites	47.6	
Lowest income quartile		10.8 (0.31)
Second income quartile		22.5 (0.42)
Third income quartile		30.7 (0.46)
Highest income quartile		36.0 (0.48)
Non-Hispanic Blacks	7.1	
Lowest income quartile		32.0 (0.47)
Second income quartile		27.7 (0.45)
Third income quartile		25.2 (0.43)
Highest income quartile		15.1 (0.36)
Hispanics	30.1	
Lowest income quartile		50.4 (0.50)
Second income quartile		33.0 (0.47)
Third income quartile		11.9 (0.32)
Highest income quartile		04.7 (0.21)
Asian/Pacific Islanders	11.4	
Lowest income quartile		20.8 (0.41)
Second income quartile		25.0 (0.43)
Third income quartile		25.1 (0.43)
Highest income quartile		29.1 (0.45)
Other racial/ethnic groups	3.8	
Lowest income quartile		32.9 (0.47)
Second quartile		31.6 (0.47)
Third quartile		22.4 (0.42)
Highest income quartile		13.2 (0.34)
Adolescents (N = 3660)		
Ever had alcoholic drinks		35.1 (0.48)
At least 1 drink in past 30 d		15.0 (0.36)
Any binge drinking in past 30 d		05.6 (0.23)
Ever driven after drinking[a]		06.0 (0.24)
Current smoker		05.0 (0.22)
Used marijuana in past 30 d[b]		05.0 (0.22)
Girl		48.9 (0.50)
Age, y		14.36[c] (1.67)
Paid employment in past 12 mo		40.5 (0.49)
Parents married or living with a partner		82.2 (0.38)
Parent's excess drinking		02.1 (0.13)
Parent's binge drinking in past mo		13.1 (0.34)

Note. All statistics were weighted. Adults included in the sample were only from households with children under 18 years (n = 14 595). Race/ethnicity was that of the adult interviewed. Lowest income quartile was $24 000 or less; second quartile was $24 000 to $49 000; third quartile was $50 000 to $90 000; and the highest quartile was more than $90 000.
[a]Among respondents 16 years or older who ever had more than a few sips of alcoholic drinks.
[b]Among respondents with parent or guardian's permission to be asked questions about illicit drug use (98.7%).
[c]Mean age.

and 13.2% of other groups were in the top income quartile.

Average age in the adolescent sample was 14.3 years, reflecting the period of drinking initiation. However, the survey did not ask for age at first alcoholic drink. Approximately 35% of adolescent respondents reported ever having more than just a few sips of alcoholic drinks. Fifteen percent reported having at least 1 drink, and 5.6% reported at least 1 heavy drinking episode in the past 30 days. Five percent reported they were current smokers (i.e., had had ≥1 cigarette per day in the past 30 days), and 5.0% reported marijuana use in the past 30 days. Of those aged 16 or 17 years who ever consumed alcohol, 6.0% reported ever driving after drinking.

Table 2 shows the mean number of alcohol outlets within different buffers, stratified by income and race/ethnicity. Compared with non-Hispanic Whites, people of other groups were surrounded by more alcohol outlets, regardless of the size of the buffers. For instance, within 0.1 mile, we found an average 0.21 outlets around residences of Whites; Blacks had 0.24, Hispanics 0.39, and Asian/Pacific Islanders 0.33 ($P<.001$). Participants who were in lower-income quartiles were surrounded by more alcohol outlets. We found this geographic pattern even within each racial/ethnic group. We observed the same distribution pattern across income groups within each racial/ethnic group. Our results were consistent in the sensitivity analyses: comparison of the median number of outlets, separation of off-site from on-site outlets, and zero-inflated Poisson regression model with income and race/ethnicity as key predictors of alcohol outlets.

Alcohol Sales and Adolescent Drinking

The results from 6 logistic regression models (3 dependent variables×2 model specifications) are reported in Table 3. In model 1, the total number of alcohol outlets within 0.5 miles from homes was significantly associated with adolescent binge drinking ($P<.001$) and driving after drinking ($P<.001$), after taking into account adolescents' individual and family characteristics, parent or guardian's drinking behavior, and neighborhood sociodemographic characteristics. Alcohol outlets located farther away man 0.5 miles of homes appeared to have no relationship with any measure of adolescent drinking.

For model 2 we separated off-site and on-site establishments. Both types of outlet, when located within 0.5 miles of residences, were independently and significantly associated with binge drinking, and the magnitude of their effects was approximately the same. On-site retailers located within 0.5 miles were significantly associated with driving after drinking.

TABLE 2—Mean Number of All Alcohol Outlets Around Residences, by Race/Ethnicity and Income: California, 2003

	0.1-Mile Radii, Mean	0.1- to 0.5-Mile Bands, Mean[a]	0.5- to 1.0-Mile Bands, Mean[b]	1.0- to 2.0-Mile Bands, Mean[c]
All income groups				
All racial/ethnic groups	0.30	6.97	19.20	61.55
Non-Hispanic Whites (Ref)	0.21	5.27	15.23	49.78
Non-Hispanic Blacks	0.24**	6.22**	17.50**	63.63**
Hispanics	0.39**	8.10**	21.79**	68.38**
Asian/Pacific Islanders	0.33**	9.18**	24.04**	74.53**
Other racial/ethnic groups	0.36**	6.22**	19.15***	62.44***
All racial/ethnic groups				
Lowest income quartile (Ref)	0.44	9.09	23.70	74.55
Second income quartile	0.34**	7.03**	19.37**	59.81**
Third income quartile	0.20**	5.66**	16.16**	52.52**
Highest income quartile	0.16**	5.21**	15.67**	54.54**
Non-Hispanic Whites				
Lowest income quartile (Ref)	0.29	6.24	16.87	49.66
Second income quartile	0.28	5.78*	15.34	48.09
Third income quartile	0.15**	4.67**	14.14***	45.47
Highest income quartile	0.18***	5.19***	15.60	44.54*
Non-Hispanic Blacks				
Lowest income quartile (Ref)	0.30	8.41	21.46	78.42
Second income quartile	0.24*	5.43**	16.84	60.48*
Third income quartile	0.24*	5.46**	16.17*	57.63***
Highest income quartile	0.10***	4.29**	12.58***	48.16**
Hispanics				
Lowest income quartile (Ref)	0.47	9.38	24.72	76.79
Second income quartile	0.35**	7.28**	19.88**	62.48**
Third income quartile	0.23**	6.00**	16.93**	54.90**
Highest income quartile	0.15**	5.43**	16.00**	53.93**
Asian/Pacific Islanders				
Lowest income quartile (Ref)	0.53	12.02	29.54	96.67
Second income quartile	0.49	11.01*	29.83	78.97***
Third income quartile	0.21***	9.01***	22.10***	70.54**
Highest income quartile	0.14**	5.72**	16.80**	58.31**
Other racial/ethnic groups				
Lowest income quartile (Ref)	0.44	8.83	21.20	68.27
Second income quartile	0.34	5.24***	19.69	65.23
Third income quartile	0.45	5.80***	18.44	62.48
Highest income quartile	0.06***	2.79**	13.98***	41.21*

Note. Sample included 14 595 households with children aged 0 to 17 years. Lowest income quartile was $24 000 or less; second quartile was $24 000 to $49 000; third quartile was $50 000 to $90 000; and the highest quartile was more than $90 000.
[a]Area between the 0.1-mile radius and the 0.5-mile radius.
[b]Area between the 0.5-mile radius and the 1.0-mile radius.
[c]Area between the 1.0-mile radius and the 2.0-mile radius.
*$P < .05$; **$P < .01$; ***$P < .001$.

With a binge drinking rate of 5.6% among adolescents, an odds ratio of 1.03 (all licensed outlets, 0.5-mile radii, 5 drinks in past 30 days) corresponds to an increase of 0.1 percentage point for a single additional alcohol outlet within 0.5 miles. The difference in the mean number of all alcohol outlets located within the 0.5-mile radii between the bottom and top income quartile was approximately 4 (Table 2).

We used model 1 to simulate changes in the prevalence of adolescent drinking if changes were made in the alcohol environment within the 0.5-mile radii. If everyone lived in neighborhoods that had the number of alcohol outlets found in the neighborhoods of typical Asian/Pacific Islander households, the prevalence of adolescent binge drinking and driving after drinking would be 6.4% and 7.9%, respectively (Table 4). If the average number of outlets in the neighborhoods of White households were the same for all households with adolescents, the corresponding statistics would drop to 5.6% and 6.0%, respectively. Table 4 also shows the simulation results of changing alcohol environments by income quartiles and the groups exposed most and least to alcohol sales.

Age, current smoking, and marijuana use were positively and significantly associated with adolescent drinking. Adolescent girls were least likely to binge drink. Asian/Pacific Islander and Black adolescents were least likely to drink at all. Family income did not predict the first 2 measures of drinking but was significantly associated with driving after drinking. Parents' marital status and drinking behavior did not predict youths' drinking except that living with married parents was a protective factor against having at least 1 drink. Hispanic adolescents were much more likely to drive after drinking even after accounting for other factors than were other adolescents. Percentage of Blacks in neighborhoods was significantly associated with youths' driving after drinking.

DISCUSSION

We found that alcohol outlets within walking distance from homes were associated with 2 adverse alcohol behaviors among adolescents: increased binge drinking and driving after drinking. The potential effects of differences in alcohol environments could be substantial. Our estimated model indicated that changing the number of outlets within 0.5 miles from 9.5 (the environment of Asian/Pacific Islander adolescents) to 5.5 (the environment of White adolescents) for all adolescents would reduce binge drinking from 6.4% to 5.6% and driving after drinking from 7.9% to 6.0%.

TABLE 3—Effects of Alcohol Outlets on Adolescent Drinking: California, 2003

Explanatory Variable	1 Drink in Past 30 Days,[a] OR (95% CI)	5 Drinks in Past 30 Days,[a] OR (95% CI)	Ever Driven after Drinking,[b] OR (95% CI)
	Model 1		
All licensed outlets, 0.5-mile radii	1.01 (0.90, 1.03)	1.03** (1.01, 1.05)	1.11** (1.05, 1.17)
All licensed outlets, 0.5- to 1.0-mile bands	0.99 (0.98, 1.01)	0.98 (0.97, 1.01)	0.96 (0.90, 1.01)
All licensed outlets, 1.0- to 2.0-mile bands	1.00 (1.00, 1.00)	1.00 (0.99, 1.01)	1.00 (0.99, 1.01)
	Model 2		
Off-site outlets			
0.5-mile radii	1.00 (0.94, 1.07)	1.03* (1.01, 1.07)	1.06 (0.87, 1.30)
0.5- to 1.0-mile bands	0.98 (0.94, 1.02)	0.99 (0.97, 1.01)	0.90 (0.75, 1.07)
1.0- to 2.0-mile bands	1.00 (0.98, 1.01)	1.00 (0.98, 1.01)	1.05 (0.99, 1.12)
On-site outlets			
0.5-mile radii	1.01 (0.99, 1.03)	1.03* (1.01, 1.07)	1.14** (1.05, 1.23)
0.5- to 1.0-mile bands	1.00 (0.98, 1.02)	0.99 (0.97, 1.01)	0.99 (0.88, 1.11)
1.0- to 2.0-mile bands	1.00 (1.00, 1.01)	1.00 (1.00, 1.03)	0.97 (0.93, 1.01)
Girl	0.95 (0.73, 1.25)	0.65* (0.42, 1.00)	0.57 (0.23, 1.44)
Age, y	1.60** (1.46, 1.76)	1.79** (1.58, 2.03)	2.05 (0.77, 5.48)
Race/ethnicity			
Non-Hispanic Whites (Ref)	1.00	1.00	1.00
Hispanics	1.15 (0.78, 1.67)	1.17 (0.57, 2.39)	4.31*** (1.44, 12.93)
Asian/Pacific Islanders	0.56* (0.31, 1.01)	0.59 (0.24, 1.40)	1.05 (0.08, 13.91)
Non-Hispanic Blacks	0.42* (0.19, 0.90)	0.56 (0.14, 2.20)	1.21 (0.16, 9.16)
Other	0.82 (0.41, 1.63)	1.07 (0.34, 3.34)	2.07 (0.36, 11.97)
Paid employment in past 12 mo	1.14 (0.85, 1.52)	1.18 (0.74, 1.87)	1.00 (0.38, 2.66)
Current smoker	2.63** (1.48, 4.68)	4.30** (2.15, 8.60)	7.93** (2.93, 21.45)
Marijuana use in past 30 d	15.66** (9.03, 27.15)	17.91*8 (9.59, 33.44)	5.42** (2.44, 12.04)
Income quartile			
Lowest income quartile (Ref)	1.00	1.00	1.00
Second income quartile	1.39 (0.91, 2.13)	0.86 (0.44, 1.68)	6.89*** (1.71, 27.75)
Third income quartile	1.17 (0.72, 1.90)	0.78 (0.38, 1.60)	4.69* (1.19, 18.55)
Highest income quartile	1.46 (0.85, 2.48)	1.17 (0.56, 2.43)	11.20*** (2.12, 59.16)
Parents married or living with a partner	0.59*** (0.42, 0.85)	0.65 (0.36, 1.16)	0.47 (0.17, 1.32)
Parent's excess drinking	0.28 (0.08, 1.00)	0.14 (0.01, 1.38)	0.30 (0.11, 2.22)
Parent's binge drinking	1.51 (0.98, 2.33)	1.64 (0.92, 2.91)	1.55 (0.65, 3.69)
Census tract population	1.00 (1.00, 1.00)	1.00 (1.00, 1.00)	1.00 (1.00, 1.00)
Tract median household income	0.94 (0.62, 1.43)	1.02 (0.50, 2.08)	0.83 (0.23, 2.99)
Tract White population, %	0.61 (0.28, 1.29)	0.99 (0.25, 3.96)	3.32 (0.46, 24.12)
Tract Black population, %	0.42 (0.07, 2.35)	0.98 (0.04, 23.29)	9.09* (2.46, 34.23)

Note. OR = odds ratio; CI = confidence interval. All statistics were weighted. Lowest income quartile was $24 000 or less; second quartile was $24 000 to $49 000; third quartile was $50 000 to $90 000; and the highest quartile was more than $90 000. Model 1 included the same other explanatory variables as model 2, but these estimates were not reported because of space limitations.

[a]Among adolescents aged 12 to 17 years (n = 3660).

[b]Among adolescents aged 16 to 17 years (n = 687).

*$P < .05$; **$P < .01$; ***$P < .001$.

On-site and off-site alcohol outlets contributed to adolescent binge drinking with the same magnitude of effects. For driving after drinking, the effect of on-site establishments was larger and statistically significant. However, each of the point estimates for on-site and off-site outlets was contained in the confidence interval of the other, indicating that there were no major differences between them. Another study showed that the likelihood that on-site establishments sold alcohol to underage youths was not much lower than that for off-site establishments.[19] We therefore concluded that any alcohol outlets within a half mile of residences had an effect and that we did not have the statistical precision to distinguish between the effects of on-site and off-site outlets on driving after drinking.

Our findings also confirm sociodemographic disparities in alcohol environments.[25–27] Alcohol availability, measured by mean and median

TABLE 4—Simulated Prevalence of Adolescent Drinking by Alcohol Availability

Mean No. of Alcohol Outlets Within 0.5 Mile of Residences[a]	Binge Drinking, %	Ever Driven After Drinking, %
Asian/Pacific Islander level (mean = 9.51)	6.4	7.9
Non-Hispanic White level (mean = 5.48)	5.6	6.0
Lowest income level (mean = 9.53)	6.4	7.9
Highest income level (mean = 5.37)	5.6	5.9
Asian/Pacific Islander lowest income level (mean = 12.55)	6.7	9.8
Non-Hispanic White highest income level (mean = 5.37)	5.6	5.9

Note. Regression model 1 with total number of alcohol outlets as key explanatory variables was used. All statistics were weighted.
[a]In the simulation, only alcohol outlets in the 0.5-mile radii changed. Alcohol environments in the outer bands were kept constant.

number of licenses, was significantly higher around residences of minority and lower-income families. Some of the descriptive associations are attributable to the tendency of minority and lower-income people to live in more-densely populated areas. But even after control for population density in the census tracts, race and income of individual respondents remained highly significant predictors of number of outlets around their homes. Zoning is likely to play an important role not captured by density measures, and more desirable (and expensive) residences are usually at a distance from high-traffic commercial areas. Interestingly, however, the demographic effect was not limited to residential neighborhoods: around secondary schools nationwide, the percentage of minority students, especially Asian American students, positively predicted the number of liquor stores within 400 meters (0.25 miles) of their schools.[34]

From an ecological standpoint, higher levels of alcohol outlets and advertising within minority and poorer communities stand in stark contrast to lower rates of alcohol use among minorities. Among non-Hispanic White adults, 65.3% report currently drinking, compared with 46.6% of Blacks and 51.2% of Hispanics.[35] Among young people aged 12 to 20 years, prevalence of drinking in the past 30 days was 34.3% among non-Hispanic Whites, 20.2% among non-Hispanic Blacks, and 26.6% among Hispanics.[36] Culture seems to be an important factor in suppressing drinking prevalence among minorities, even with their higher exposure to alcohol sales. Nevertheless, the geographic mismatch between supply and demand may cause minority and low-income residents to suffer disproportionately from some alcohol-related problems not from their own consumption but from that of others. Living near alcohol outlets may expose them to risks such as violent crimes,[33,37] motor vehicle crashes[31] and assaults,[38] and misdemeanor and felony drunken driving.[39,40]

We found no association between family income and any drinking or binge drinking, but higher-income youths were more likely to drive after drinking, probably because of greater access to motor vehicles. Given the significant findings of binge drinking and driving after drinking, the lack of association between proximity of outlets and at least 1 drink in the past 30 days was surprising. One possible explanation is that the source of alcohol for this level of consumption is parents' stock or what is served at the dinner table. Binge drinking, which often takes place at parties or in a group of friends, requires larger quantities of alcohol. Youths who binge drink are also more likely to engage in other problem behaviors, including illegal alcohol purchases. Hispanic youths were more likely to drive after drinking, a finding that is supported by national statistics[41] and a study that showed a positive relationship between alcohol sales to minors and percentage of Hispanic residents.[20]

Limitations

Our study had important limitations. Observational studies of neighborhood effects are subject to a self-selection bias. Drinkers with certain unobserved or unobservable characteristics can choose to live near alcohol outlets (and outlets may open in areas of higher demand), thus making the presence of outlets appear to have a greater effect. Controlling for parents' drinking behavior and focusing on adolescents, who have little or no influence over where they live, should ameliorate such possible biases at least partially.

In a sensitivity analysis, we computed alcohol outlet statistics for the sample of households without children and found that the average number of alcohol outlets was higher for all sociodemographic groups, suggesting that households with children sort themselves into neighborhoods with less alcohol availability. Many other factors might explain the association between sociodemographics and outlet density, varying from zoning regulations to economic factors that affect location decision-making by the alcohol retail industry, but they would not affect the association between youths' drinking and alcohol outlets that we observed. Our sample was not large enough to detect interactions between sociodemographic groups and alcohol sales, especially because factors associated with adolescent drinking tend to offset one another. For example, higher-income families are more likely to have children who drive, and thus these youths are more likely to be engaged in driving after drinking, even though they are the least exposed to alcohol sales.

Conclusions

Many long-term health behaviors are shaped during adolescence. Problems that require treatment often do not manifest themselves until much later in life, so primary prevention is crucial for young people. The highest prevalence of alcohol dependence in the United States is among young adults aged 18 to 29 years[42]; typically they began drinking during their early adolescent years.[43]

Our results suggest that living close to alcohol outlets is a risk factor for youths. In California, retail licenses are not typically approved within 100 feet of a residence or within 600 feet of schools, public playgrounds, and nonprofit youth facilities, but proximity by itself is not sufficient to deny a license.[28] Our findings suggest that the proximity rule needs to be tightened and more stringently enforced and that environmental interventions are needed to curtail young people's access to commercial sources of alcohol, through tightening licensure or enforcing minimum-age drinking laws. ■

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Contributors

K.D. Truong originated the study, conducted the analysis, and wrote the article. R. Sturm advised on the analysis, contributed to the writing and interpretation of the data, and supervised the research process.

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Human Participant Protection

No protocol approval was required for this study because it relied on secondary, nonidentifiable aggregate data

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A spatial analysis of the moderating effects of land use on the association between alcohol outlet density and violence in urban areas

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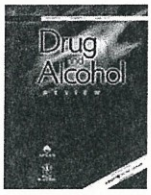

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Abstract

Aims.*While there is substantial evidence of an association between alcohol outlet density and assault, it is unlikely this association is constant across the urban environment. This study tested the moderating influence of land use on the outlet–violence association.*

Design.*Cross-sectional ecological study that controlled for spatial autocorrelation.*

Setting, Participants and Measurements.*Police-recorded data on simple and aggravated assaults were obtained for all 302 block groups (mean population = 1038) in Cincinnati, Ohio, USA. Addresses of alcohol outlets for Cincinnati were obtained from the Ohio Division of Liquor Control, geocoded to the street level, and aggregated to census block groups. Data on eight categories of land use were obtained from the Cincinnati Area Geographic Information System, with location quotients computed for each block group.*

Findings.*We found substantial evidence that the impact of total alcohol outlet*

density, bar density and carryout density on assault density was moderated by land use.

Conclusions.*By taking into account local characteristics, policy-makers can make more informed decisions when regulating the placement and density of alcohol licenses in urban areas. Similarly, more systematic knowledge of how the association between alcohol outlet density and assault varies across the urban landscape should reduce harm and promote responsible retailing. Nevertheless, ours is one of the first studies to address the moderating effect of land use and we encourage further research to test the stability and generalisability of our results.*[Pridemore WA, Grubesic TH. A spatial analysis of the moderating effects of land use on the association between alcohol outlet density and violence in urban areas. *Drug Alcohol Rev* 2012;31:385–393]

Introduction

This study examined the moderating effects of land use on the association between alcohol outlet density and assault. While there is empirical evidence

of a connection between outlet density and violence, it is unlikely the strength of this relationship is constant across the urban environment. Instead, neighbourhood-level characteristics likely moderate the effects of alcohol outlet density on crime, and land use seems a likely candidate. Both theory [1–3] and recent empirical findings suggest that, net of other social structural factors, rates of crime and violence are related to land use in urban areas [4–6]. There are no studies, however, of how alcohol outlet density and land use may interact to influence local violence rates.

Alcohol outlets and violence

Although early research on the association with violence rates of alcohol availability and outlet density provided null results [7–9], recent studies of Washington, DC [10], Minneapolis [11], Miami [12], Newark [13], and Austin and San Antonio [14] all found a positive association between outlet density and violence. Further, analyses of panel data from Melbourne, Australia, post codes [15] and California ZIP codes [16] found an association between changes in outlet density and changes in assault rates.

Bars and clubs are high-risk drinking settings [17–19]. Establishments that promote irresponsible serving practices and binge drinking [20] and those in which other poor managerial decisions are made are more likely to be associated with concentrations of crime [21]. Work by Graham and colleagues [22–24] highlighted important characteristics associated with violence in and around bars, including how well staff members are organised, intoxication level of patrons, and people loitering after closing. Off-premise alcohol outlets can also be problematic. Recent research revealed off-premise outlet density to be more strongly linked to violence rates than the density of bars and alcohol-serving restaurants [25,26]. In the USA, many such outlets are convenience

stores, which serve not only as retail outlets but as gathering places for local residents. The spaces surrounding liquor and convenience stores may serve also as de facto taverns [7] or host illegal activity like drug dealing and prostitution [27].

Land use and violence

Although urban landscapes and the built environment have a long history in the study of crime, the impact of land use on violent crime only recently received attention in aggregate studies [4]. However, most of these studies: (i) include only one or two general land use types like central business districts, non-residential, or mixed; (ii) combine multiple land use types into scales that can mask relationships with crime of component types; or (iii) examine specific locations like schools or shopping centres [5,6,28–33]. Further, there has been little consideration of how alcohol outlets and land use interact to influence local violence rates, although prior research hints at such effects by revealing how neighbourhood types (based on social, economic and demographic variables) [15,25] and neighbourhood characteristics (e.g. the proportion of female-headed households) [33] moderate the association between alcohol outlets and assault and robbery. There are reasons to believe that the impact of alcohol outlet density on violence may be different in areas of single family residences, public housing, heavy industry or vacant land. For example, the generally higher levels of social organisation, socioeconomic status and informal social control in areas devoted to single-family residential land use may reduce the impact of alcohol outlets on crime. Conversely, the generally lower levels of these characteristics in public housing and in areas devoted to industry may increase the strength of the association between outlets and crime. Local land use patterns may also influence the presence of

suitable victims, motivated offenders and guardianship via routine daily activities. To test these theoretical hypotheses, which are also important to more practical alcohol licensing questions, our study examined the conditioning effects of several different types of land use on the strength of the association between alcohol outlet density and assault.

Methods

Study area and data

Cincinnati, Ohio, had a population of about 332 000 residents and a violent crime rate of 1079 per 100 000 residents in 2007 [34]. The latter is similar to several other large US cities. Our unit of analysis was the block group, which is a census tract subdivision. There were 302 block groups in our analysis—a complete enumeration for Cincinnati—with a mean population of 1038 residents. The block group is the smallest administrative unit for which census data are publicly available, provides a higher resolution of local social structure

than census tracts and ZIP codes, and are superior units for spatial analyses of epidemiological data [35].

The dependent variables were simple and aggravated assault density per square mile between January and June of 2008. These data were obtained from the Cincinnati Police Department and represent reported incidents rather than calls for service. The Uniform Crime Report (UCR) defines simple assaults as those that do not involve a firearm, knife, cutting instrument or other dangerous weapon, and in which the victim did not sustain serious injuries. The UCR defines aggravated assault as an unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. These assaults are usually accompanied by the use of a weapon or other means likely to produce death or great bodily harm. We geocoded the assault incidents using the Centrus geocoding engine from Group 1 software (Pitney Bowes Business Insight, Troy, NY, USA) [36]. Only those events assigned a street-level match were utilised for analysis.

We used density per square mile instead of standardising by population for two reasons. First, two block groups may contain an equal number of outlets and of residents but vary dramatically in geographic size. When using a per capita measurement each block group would have the same value. While this captures a basic measure of *population* exposure to outlets, it does not reflect *spatial proximity* to outlets. Our measure of spatial density reflects the latter. The second problem stems from the construction of the numerator and denominator. With a traditional crime rate, the denominator is based on the population living in a block group, which makes an implicit assumption that victims and offenders come solely from the block group population. This is not a reasonable assumption. Urban residents patronise liquor stores and bars, and become offenders and victims of assault, in block groups in which they do not

reside, and thus the resident population cannot be equated with the population at risk. This is a serious matter as the mean block group population in our sample was only about 1000 residents. Our spatial measure of assault density overcomes this limitation.

It is also important to mention that previous work in this field has utilised roadway miles as the denominator in the density metric to overcome irregularities associated with polygonal units [25,37] and heterogeneous population distributions. As Livingston [37] notes, however, while roadway miles can offer a viable alternative, studies that use area or population denominators in rate calculations typically find similar results. Further, given the relatively large variability in the areal extent of census block groups, including those found in Cincinnati, the use of roadway mileage can lead to unstable measures of outlet density, especially as block groups and their constituent blocks are structured to maintain relatively constant population counts, not balanced roadway miles.

The two main independent variables were alcohol outlet density per square mile and land use. Total alcohol outlet density included bars, alcohol-serving restaurants and outlets licensed to sell alcohol for off-premise consumption. We also undertook analyses that disaggregated total outlet density into the two most theoretically relevant outlet types: bars and off-premise outlets. Data were obtained from the Ohio Division of Liquor Control for Hamilton County [38]. There were 683 outlets in Cincinnati during the summer of 2008. Each was geocoded using the same process described above for assaults.

Land use data were obtained from the Cincinnati Area Geographic Information System for each parcel in the city (n = 169 694). There are two land use demarcations for each parcel. The first is a specific land use type (e.g. residential mobile homes), and the second is a general category (e.g. multi-

family residential). We focused on the general categories, which were vacant, single-family residential, multi-family residential, general commercial, dedicated commercial, light industry, heavy industry and public housing. Another important component of this database is parcel size. We used location quotients (LQ) [39] to measure differences in local specialisations of these general categories at the block group level as follows:

$$LQ_i = (b_i/b)/(B_i/B)$$

where b_i = square footage of land use in category i, b = total square footage of land use for all categories included in the block group, B_i = square footage of land use for category i in the city, and B = total square footage of land use for all categories included in the city. The use of this size metric in the LQ has a notable benefit. Unlike many studies which simply tabulate the frequency of land use types in each block group, the use of square footage allows one to summarise the magnitude of land use for each category. For example, if a block group consists of three commercial parcels (1200 square feet) and one industrial parcel (8000 square feet), the frequentist-based approach would suggest that commercial land use is dominant. However, when using the size-based approach, one can highlight the magnitude of the industrial land use, even though it only consists of a single parcel. As a result, for the purposes of this study, block groups with a higher relative share of a particular land use (in square feet) will have LQ values greater than 1.0. Block groups with a lower relative share will have values less than 1.0.

We controlled for population density because our measures of assault and alcohol outlets were standardised by geographic space. We also controlled for social disorganisation using an index of three well-established covariates of urban violence rates [40–42]: the proportion of the population living below the

poverty line, the proportion of households headed by a female and with a child under the age of 18, and the proportion of housing that was renter-occupied. *Z*-scores for these items were summed to create the scale, which had a Cronbach's $\alpha = 0.70$. These are common indicators of social disorganisation in the social structure and crime literature, and two of the three (poverty and female headed households) were included in a similar index in recent research examining the impact of social disorganisation on offsite alcohol availability [43]. We did not control for demographic characteristics like ethnic and age composition of block groups because our prior research on this sample showed these factors to be unimportant in predicting neighbourhood assault rates when controlling for outlet density and socioeconomic factors [26].

Analyses

We estimated spatially lagged regression models to account for spatial dependence [11,14,26,44–47]. A first-order queen's contiguity matrix was utilised to capture neighbourhood structure. We first estimated the direct effects of outlet density and land use on simple and aggravated assault. We then estimated the effects of the interaction terms of outlet density by each land use type. To reduce the destabilising effects of multicollinearity, the two variables were mean-centred prior to generating the interaction term [48]. Given theoretical expectations, all *P*-values were for one-tailed tests.

Results

Figure 1 displays a map of Cincinnati block groups shaded by total alcohol outlet density, with the location of each assault noted. Table 1 shows descriptive statistics. Results of model estimation showing the direct effects of total alcohol outlet density and land use on simple and aggravated assault are shown in Table 2. The direct effects of bar density, off-premise density and land use on simple and aggravated assault are shown in Table 3. There were positive and significant direct effects of total and off-premise outlet density on simple and aggravated assaults, while bar density was positively associated with simple but not aggravated assault density. In the total outlet models, there was a negative and significant association between three land use variables and both simple and aggravated assaults: dedicated commercial areas (e.g. business and entertainment districts), multi-family residential and public housing. The latter two associations were unexpected, although because we have controlled for social disorganisation and alcohol outlets these findings are less surprising. The direct effects of land use on assault were less consistent in the models disaggregating alcohol outlets into bars and off-premise outlets.

Figure 1. *Alcohol outlet density and assaults: Cincinnati, Ohio (January–June 2008).*

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Table 1. Table 1. ***Descriptive st groups*** **(n =** ***302)***

	Minimum	M
Dependent variables		
Simple assault density	0.00	8(
Aggravated assault density	0.00	3:
Outlet density		
Total	0.00	5-
Bar	0.00	2'
Off-premise	0.00	1(
Land use variables		
Vacant	0.00	3.
Single-family residential	0.00	3.
Multi-family residential	0.00	5.
General		

Table 2. Table 2. ***Simple and a total alcohol outlet density, land***

	Simple assau	
	b	**SE**
Outlet density	0.922	0.0
Land use variables		
Vacant	−2.492	5.7
Single-family residential	7.544	6.1
Multi-family residential	−8.173	4.5
General commercial	−0.184	1.8
Commercial area	−1.417	0.8
Light industry	−0.353	2.9
Heavy industry	0.283	2.5
Public housing	−1.095	0.6
Controls		

Table 3. Table 3. *Simple and f*
(n = 302)

	Bars	
	Simple assau	
	b	**SE**
Outlet density	1.371	0.1
Land use variables		
Vacant	−1.329	6.0
Single-family residential	5.440	6.5
Multi-family residential	−7.691	4.7
General commercial	1.676	1.9
Commercial area	−0.699	0.9
Light industry	−0.866	3.1
Heavy industry	1.945	2.7
Public housing	−1.312	0.6

Table 4 summarises the interaction effects for total outlet density (Panel A), bar density (Panel B) and off-premise outlet density (Panel C). All moderating effects were adjusted for social disorganisation, population density, all other land use types and spatial autocorrelation. The results show clearly that the strength of the association between alcohol outlet density and assault was consistently conditioned by land use. In the results for total outlet density, 10 of the 16 interaction terms were significant at the 0.05 level, and another had a *P*-value of 0.06. For example, the strength of the association between outlet density and both simple and aggravated assaults was weaker in block groups with a higher proportion of single-family residences and a higher proportion of general commercial area. The association was stronger in block groups with more heavy industry and more public housing. The outlet-aggravated assault association was stronger in block groups with more vacant space, and the outlet–simple assault association was stronger in block groups with a greater amount of dedicated commercial use. The only unexpected finding was for multi-family residential housing, which weakened the association between outlet density and simple assault. While not completely consistent with the results for total outlet density (and we would not expect them to be), the results in Panels B and C also show many more significant moderating effects than we would expect by chance.

Table 4. Table 4. *Summary of*

	P Si as
Outlets × Vacant	0
Outlets × Single-family residential	–
Outlets × Multi-family residential	–
Outlets × General commercial	–
Outlets × Commercial area	+
Outlets × Light industry	0
Outlets × Heavy industry	+
Outlets × Public housing	+

Outlets × Vacant
Outlets × Single-family residenti
Outlets × Multi-family residentia
Outlets × General commercial

Discussion

A better understanding of local level dynamics is invaluable for effective alcohol policy and licensing. Although there is a large literature examining the global effects on alcohol-related harm of policies meant to limit alcohol availability and consumption at the national and provincial levels [49–51], there has been relatively little consideration of how local environments and residents' daily routines moderate the effects of alcohol policy and availability on harm [15,25,33,52,53]. Knowing that there might be critical thresholds at which additional outlets will have accelerating effects on violence [37], that density may be less important than retailing and serving practices [20], and that the impact of alcohol outlet density on assaults might be greater in disorganised neighbourhoods [54] should aid us in reducing both alcohol-related problems and government intrusion into responsible retailing.

Our findings indicate that land use should be added to the list of local characteristics that influence the association between alcohol outlet density and violence. Land use, the built environment, urban landscapes and how residents

navigate these via their daily routines not only play a powerful role in human activity [55], but have been linked to crime. Recent research has also shown that land use moderates the effects on local violence rates of neighbourhood socioeconomic disadvantage [4], which is the strongest and most consistent predictor of area violence rates in the empirical literature. Further, while not focusing on land use per se, prior empirical work showed that social, economic and demographic characteristics of neighbourhoods condition the effects of alcohol outlet density on crime [15,25,33]. We should not be surprised, then, that land use conditions the impact of alcohol outlet density on local levels of assault.

Given the lack of research on the interaction between alcohol outlet density and land use, our study was purposely exploratory in nature. Thus, we focused less on how specific land use types influenced the association between alcohol outlet density and violence and more on whether such conditioning effects existed. Nevertheless, we not only found that there were consistent moderating effects, but that they made sense theoretically. For example, the association with both simple and aggravated assault of alcohol outlet density was weaker in areas with a higher proportion of single-family residences relative to the rest of the city. On the other hand, the strength of this association was stronger in public housing areas, which is worrisome given recent findings that showed a greater concentration of alcohol availability in socioeconomically disadvantaged urban areas [43]. Future research should not only explore more carefully the moderating effects of individual land use types, but also how other land use features like the presence of transportation nodes, major street intersections and night-time business districts may condition the effects of alcohol outlet density on alcohol-related harm in local communities.

There are a few main limitations that must be considered. First, ours was a

cross-sectional study, so the restrictions on inferring causality from our findings are more rigorous. Second, we were unable to control for alcohol sales or consumption because such information was unavailable. In the USA, this type of data is considered proprietary information and is not generally available for analysis. The problematic nature of this limitation, however, may be exaggerated unless there are reasons to believe that outlet sizes or sales vary systematically by neighbourhood type in a way that would bias estimates in the direction of theoretical expectations, and other research has shown that the association between outlet density and violence remains when controlling for sales volume [56]. Nevertheless, land use patterns may dictate the size and sales volume of individual stores (e.g. inner-city land use patterns may generally result in more and smaller carryout stores whereas suburban areas may contain fewer but larger carryout stores) and even alcohol pricing. For a variety of reasons, including zoning practices, it is plausible also that different outlet types are differentially distributed across land use types. Thus, the inability to control for sales volume and related factors cannot be dismissed, and a better understanding of the conditioning effects of land use on the association between alcohol outlet density and crime can be expected to emerge as more precise studies are conducted. Third, as with other types of people and places at high risk for violence, it is likely that a smaller number of problematic outlets are responsible for a disproportionate amount of harm. There has been substantial research that highlights these high-risk characteristics for bars [20–24], but little similar research for off-premise outlets. Finally, our measures of assault density were obtained from the police and so are subject to the usual caveats, and while research has shown that key neighbourhood characteristics do not play a role in reporting aggravated assault to the police, the reporting of simple assault to the police does vary by neighbourhood characteristics like socioeconomic disadvantage [57], and local

land use configuration itself may influence reporting crimes to police.

Our findings showed that the positive effects of alcohol outlet density on simple and aggravated assault were consistently conditioned by land use in urban areas. We are among the first to test for such moderating effects, and thus our initial findings require further research that examines their consistency and generalisability, as well as further theoretical and empirical consideration of individual interactions that seeks the precise mechanisms through which these conditioning effects operate. Nevertheless, our results suggest the importance of including land use variables in ecological studies of alcohol availability, acquisition, consumption and alcohol-related harm. These findings also provide further evidence that high alcohol outlet density is associated with a range of social problems and that liberalisation of licensing will likely result in increased alcohol-related harms. On the other hand, together with recent findings that reveal important threshold effects [37] and the moderating role of social organisation in the association between outlet density and violence [54], our results suggest that citywide restrictions may not be required. Instead, officials must take into account the micro-local characteristics of neighbourhoods, including land use, to make effective decisions about alcohol licensing, which should promote informed and responsible policy-making and responsible retailing.

Acknowledgements

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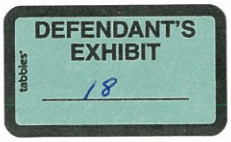
2011 ISSUE BRIEFS FOR STATES

Brief Explanations of Common Alcohol Regulatory Issues Facing State and Local Communities

Produced by Pamela S. Erickson, President/CEO

Public Action Management, PLC

January, 2011



An Introduction to the

2011 Issue Briefs for State Policy Makers

This is a package of simple briefs that address common issues about alcohol regulation that arise during state legislative sessions. It is designed for legislators and other policy-makers who need a short, straightforward explanation of a given issue. For each brief, research citations are given where appropriate. The outline also includes further resources for each topic if any are available.

Alcohol problems are very complex and result from many social factors, some of which we don't yet fully understand. For example, drinking tends to be more prevalent and to cause greater social problems in northern countries and in northern states within the US. Wisconsin is the state with the highest alcohol consumption. Northern European countries also have high drinking rates, but no one has yet adequately explained why people drink more in colder climates. On the other hand, some religions appear to play a role in lowering consumption. Utah has the lowest drinking rates in the US and Muslim countries typically have low drinking rates. Other socio-economic factors can also come into play--young people, males and some ethnic groups drink at higher rates than other groups do.

A complex social problem generally requires a comprehensive system of regulation to address all its facets. Alcohol regulations form a comprehensive system, so changing a single regulation can change the workings of the entire system. For example, removing a ban on volume discount sales for alcohol may seem like a simple change and one that could lower prices for consumers, but it also makes alcohol more available to problem drinkers. In addition, this one change could allow large retailers to drive smaller stores out of business.

The primary purpose of the alcohol regulatory system and its individual regulations is to protect public health and safety. Whenever a change is proposed, the first question should be: How will this change affect public health and safety? Citizens usually want alcohol laws to protect them first. Convenience is a lower priority.

From time to time, these issue briefs may be revised and new ones added. These changes will be available on www.healthyalcoholmarket.com. You can also go to this website to sign up for a concise, informative monthly newsletter detailing the latest developments on alcohol regulation.

Inquiries can be addressed to the author of this package, Pamela S. Erickson, at pam@pamaction.com. Suggestions and news about your legislative session are always appreciated. I look forward to hearing from you!

Outline of 2011 Issue Briefs:

1. Why can't alcohol be sold in a completely free market scenario?

Problems with frequent buyer programs, marketing campaigns aimed at youth, and incentives for high-volume purchase.

Resource: "Why can't we sell alcohol like tires and mayonnaise?" a PowerPoint presentation by Pamela S. Erickson available at www.healthyalcoholmarket.com.

2. What happened in countries that experimented with selling alcohol in a deregulated market?

A case study of the United Kingdom, plus information from Brazil, Russia and Finland.

Resource: "The Danger of Alcohol Deregulation: the United Kingdom Experience," by Pamela S. Erickson, a report available at www.healthyalcoholmarket.com.

3. Alcohol is a legal product, so why can't it be sold like orange juice or any other legal product?

Why alcohol and other potentially dangerous products need special controls to protect public health and safety.

Resource: "Alcohol, No Ordinary Commodity," Second Edition, Thomas Babor, et al, Oxford University Press, 2010.

4. What does a good alcohol regulatory system look like?

A chart and description of the ABC's of a good alcohol regulation system.

Resource: "What are the most effective and cost-effective interventions in alcohol control?" World Health Organization, February 2004, www.who.int.

5. What are the benefits of a three-tiered system of alcohol controls?

The Three-Tiered System and how it works.

Resources: "The High Cost of Cheap Alcohol," Pamela S. Erickson, a report available at www.healthyalcoholmarket.com and Toward Liquor Control, Fosdick, R.D. and Scott, A.L., 1933, London: Harper & Brothers.

6. Why are beer, wine and spirits regulated differently?

The story behind alcohol retail systems in the US.

Resource: "The High Cost of Cheap Alcohol," Pamela S. Erickson, a report available at www.healthyalcoholmarket.com.

For more information: www.healthyalcoholmarket.com

7. Why shouldn't alcohol be more convenient for customers to buy? Shouldn't those who drink exercise personal responsibility?

Who buys alcohol and what their drinking patterns are.

Resource: Health Behaviors of Adults: United States, 2005-2007, Centers for Disease Control and Prevention.

8. What is the problem with allowing more stores to sell alcohol?

Summary of research on outlet density.

Resource: Task Force on Community Preventive Services. "Recommendations for reducing excessive alcohol consumption and alcohol-related harms by limiting alcohol outlet density", Am J Prev Med 2009; 37(6):570-1. Available at www.thecommunityguide.org.

9. Why shouldn't we be able to buy alcohol on Sundays, holidays, or any hours of the day or night?

Summary of research on extending the days and hours of sale.

Resource: Task Force on Community Preventive Services. "Recommendations on maintaining limits on days and hours of sale of alcoholic beverages to prevent excessive alcohol consumption and related harms." Am J Prev Med 2010; 39(6):605-6. Available at www.thecommunityguide.org.

10. Why are some states in the liquor business? Couldn't we just replace state package stores with a license-and-tax system that would earn the same amount of revenue for our state and local governments?

Explanation of why some states are in the alcohol business and the difficulties of a simple conversion to a license system.

Resource: "The Effects of Privatization of Alcohol Control Systems," The Alcohol Research Group, 2009, an update of a previous version by the Pacific Institute for Research and Evaluation. Available at www.nabca.org.

11. Isn't alcohol regulation bad for business? Shouldn't we loosen alcohol regulations to help local business?

How regulation maintains balance and evens the playing field for large and small operators.

Resource: "The High Price of Cheap Alcohol," Pamela S. Erickson, a report available at www.healthyalcoholmarket.com

For more information: www.healthyalcoholmarket.com

#1: Why can't alcohol be sold in a completely free market scenario?

The simple answer is that some common business practices which work well for other products usually produce social harm with alcohol. For example, a typical business plan would include the following elements:

1. Efforts to retain and increase purchases by customers who are **"frequent buyers."**
2. Discounts and promotions to gain **new frequent buyer** customers.
3. Advertising to **young people** to build a future customer base.

When applied to alcohol sales, such business practices would:

1. Increase sales to frequent buyers, including **heavy drinkers and alcoholics**.
2. Use volume discounts and incentives to **encourage heavy use**.
3. Market alcohol to youth, thus encouraging **underage drinking**.

Public health and safety must be the first priority when making any change in how alcohol is sold to the public. Prices should not be so low that they encourage increased consumption, particularly among price-sensitive youth. Nor should alcohol be so ubiquitous that its availability increases consumption and adds costs to social service and law enforcement programs. In particular, alcohol should not be marketed in a way that encourages youth consumption or dangerous consumption practices. Alcohol is a potentially dangerous product that requires special handling in the marketplace.

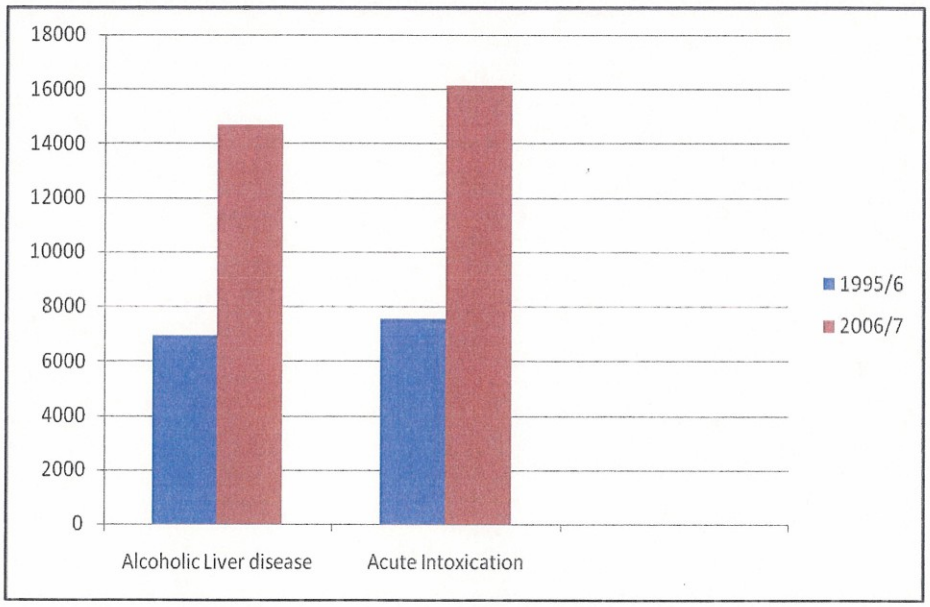
- ***Estimates indicate the alcohol market includes:***
- *17.5% underage drinkers*
- *20.1% adult abusive/dependent drinkers*

(Archives of Pediatrics and Adolescent Medicine, 2006)

For more information: www.healthyalcoholmarket.com

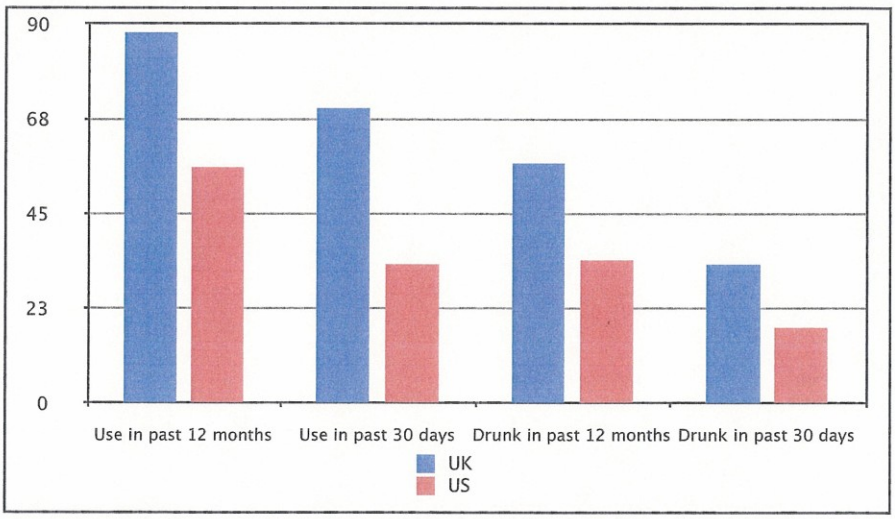
#2: What happened in countries that experimented with selling alcohol in a deregulated market?

The United Kingdom is a good example. They deregulated alcohol and this has resulted in a dramatic increase in consumption, with resulting increases in health, safety, and social problems. Today in the UK you can buy all forms of alcohol everywhere with few restrictions, 24 hours a day, 7 days a week; this "convenience" has caused a serious alcoholism epidemic. For example, hospital admissions for liver disease and acute intoxication have more than doubled over 10 years.



Source: Hospital Episode Statistics, The Information Centre, 2008.

Underage drinking in the UK is almost twice the US rate. This chart uses the European School study and compares the intoxication rate of 15 year olds:



Source: 2007 European School Survey Project on Alcohol and Other Drugs

Other countries have also suffered severe problems from alcohol deregulation:

- **Finland** cut tax on alcohol by 30% and loosened regulations. Alcohol quickly became the leading cause of death for men. Regulations then had to be strengthened and taxes increased.
- In **Russia**, alcohol is a primary cause for drastically reduced life expectancy for men. In the Russian culture, men drink more than women; currently men die at an average age of just 63, versus 74 for Russian women. Recently, Russia introduced minimum prices for alcohol, in addition to taxes and other measures to help control this rampant public health problem.
- **New Zealand** loosened regulations in 1989 and now is considering the reinstatement of stronger regulatory measures in the face of increasing public health and safety problems.

For more information: www.healthyalcoholmarket.com

#3: Alcohol is a legal product, so why can't it be sold like orange juice or any other legal product?

Most products that are "legal" are regulated to protect the public's health and safety. In the US, food products are regulated by the Food and Drug Administration to ensure that products are safe, and that the contents match their labels. When regulation is weak or sloppy, we are at risk of food poisoning, food-borne illnesses, fraudulent packaging and other problems. For similar reasons, restaurants are regularly inspected locally to ensure that they serve only safe and healthy products. Fines and other penalties are issued to those in violation. No one would suggest that we should have no food regulations merely because the sale of food products is legal.

One highly regulated product in today's market is the automobile. Regulations require that each car sold must contain a long list of equipment to ensure its safety, fuel economy, and to reduce air pollution. Once you buy a car, there are more regulations to follow, including those for proper use of children's car seats, seat belts, safe driving speeds, and so on. Once again, no one would ever suggest that we should eliminate regulations just because the automobile is a legal product.

Cigarettes are highly regulated products that have some interesting parallels with alcohol. While cigarettes are legal to buy and smoke, there are many restrictions on their sale and use. You have to be 18 to purchase cigarettes. You may not smoke in most public places. And you may have to pay higher insurance fees if you are a smoker. We all know that the reason behind these regulations is the great harm cigarettes can cause to the human body, including to those who inhale passive smoke from others. Research has shown a connection between cigarette smoke and cancer and many other health problems.

Alcohol is unique in that it is invariably harmful when used to excess. It is particularly dangerous because it can damage both the user and innocent bystanders. Alcohol addiction and alcohol-caused diseases harm users directly, while highway deaths, domestic violence, alcohol-fueled crimes and date rape can afflict non-drinking victims.

Although there are some situations where alcohol should not be used at all, alcohol can usually be enjoyed if used in moderation. Alcohol regulations both encourage moderation and restrict excessive use. This preserves individual choice while protecting public health and safety.

For more information: www.healthyalcoholmarket.com

#4: What does a good alcohol regulatory system look like?

Today we know a great deal about what works in alcohol regulation thanks to a large body of high-quality research. The World Health Organization has done extensive review of this research and developed recommendations on how best to regulate alcohol. The following chart presents many of those recommendations in an easy-to-understand "alphabet" format:

Our greatest protection is an effective alcohol control system which addresses the ABC's of regulation:

- **Availability.** Allows alcohol to be sold by the bottle and the drink, but limits the number, location, types of alcohol products, and hours of outlets.
- **No "Bargain Booze".** Regulations balance prices, control price competition, and restrict dangerous marketing and promotional practices.
- **Children and Teens.** Age restrictions protect young people from the serious problems of underage drinking.
- **Drunk driving.** Creates and enforces strict measures against drinking and driving—sobriety checks, blood alcohol limits, driver's license suspension.
- **Education and Enforcement.** Uses the carrot of education (alcohol awareness programs, "schools" for offenders) and the stick of enforcement (fines, community service and jail) when education fails.

Source: Adapted from World Health Organization recommendations.

For more information: www.healthyalcoholmarket.com

5: What are the benefits of a three-tiered system of alcohol control?

The United States has a unique system that requires alcohol to be sold through three separate market tiers:

- manufacturer/supplier,
- wholesaler/distributor, and
- retailer

Generally, the tiers must be separately licensed and owned, independent of one another. This prevents marketplace domination by large companies that seek to greatly increase the sale of alcohol through aggressive sales practices, or by controlling the entire alcohol distribution chain, from manufacturer to consumer.

Before Prohibition, large manufacturers dominated the alcohol marketplace by owning chains of retail establishments. They pushed the retailers to sell very aggressively to make high profits. A modern version of marketplace domination can be found in the United Kingdom where four large grocery chains dominate the market and sell alcohol so cheaply that it has fueled an epidemic of alcohol-related illnesses. It is also believed that this domination has caused many traditional pubs to close since more people are drinking cheap alcohol at home.

The tiered system in the US keeps prices balanced, prohibits or inhibits aggressive sales practices, and allows both small and large operators to be profitable. This system also uses checks and balances from one tier to another to enforce many provisions, and the middle tier is used to collect taxes and track products (a function the government would otherwise have to perform at extra cost to the taxpayers).

On the next page is an illustration of the three-tier regulatory system and how it works. While each state has a three-tiered system, there is a lot of variation. So this illustration is a general model designed to convey the basic concept. The actual regulations are very detailed in specific federal and state law. Many of these details, including federal, state and local licensing systems, have been omitted for the sake of simplicity.

How the Three-Tier Alcohol Control System Supports a Healthy Alcohol Marketplace

Tier 1: Manufacturers of Alcohol Products

- Remain functionally independent from firms in other tiers so that vertically integrated pipelines or exclusive deals don't force huge quantities of alcohol into the system.
- Stay financially separate from firms in other tiers to prevent "sweetheart deals," and to promote product diversity and responsible alcohol management.
- Sell only to licensed wholesalers.

Tier 2: Distributors and Wholesalers

- Follow functional and financial separation controls similar to those for alcohol manufacturers.
- Keep records of sales, excise, and taxes on all alcohol product sales within the system. Collect and remit state excise taxes.
- Track inventory as products move through the system to prevent the distribution of tainted and counterfeit products.
- Maintain balanced prices through requirements to sell all products at the same price to all retailers; post and hold prices for a period of time.
- Buy only from licensed manufacturers and sell only to licensed retailers.

Tier 3: Retailers

- Follow functional and financial separation controls similar to those for manufacturers, distributors, and wholesalers.
- Check customer identification to prevent under-age drinking.
- Advertise responsibly, avoiding deals that promote over-consumption.
- Limit problem drinking by preventing sales to those who are visibly drunk or who disturb the peace.
- Follow public regulations that control the locations, hours, and number of outlets.
- Buy only from licensed wholesalers.

For more information: www.healthyalcoholmarket.com

6: Why are beer, wine and spirits regulated differently?

After Prohibition, both a new alcohol marketplace and a new regulatory system had to be created. Since state legislators knew little about alcohol markets, all states relied—more or less—on a study called *Toward Liquor Control* by R. B. Fosdick and A.L. Scott. This work was sponsored by John D. Rockefeller, a leading entrepreneur of the day. The two authors studied alcohol regulatory systems in other countries and developed a set of recommendations designed to foster public safety by eliminating violence in public drinking places and encouraging moderation among those who wanted to drink.

One of the methods they discovered to foster moderate consumption and reduce public violence was to promote "lighter products" sold in smaller containers designed for home consumption. This approach called for establishing a system of places to buy alcohol products for at-home consumption. Two different licenses were developed as illustrated on the next page.

The first license type was for retailers who sold "lighter" beverages, which usually meant a weak 3.2% beer because Americans did not drink much wine. While quotas or local controls were common, the idea was to have widespread availability for the sale of these "light" products. The new approach meant that beer would no longer be sold primarily in kegs and buckets, as it was before Prohibition, but in single-serving size cans and bottles. The license for these stores usually allowed the sale of other products, so the grocery store became the most common type of licensee.

The second type of license (or state-operated store) was the liquor store—often referred to as a "package store." There were fewer of these stores, their hours were curtailed, they did not permit entrance to those underage, and they were the only places where hard liquor and high-alcohol wine or beer could be sold. Generally, these licenses did not permit extensive sale of other products. The idea was that licensees would become specialists in the proper selling of alcohol. Moreover, they would not be able to sell alcohol very cheaply because they had no other products from which to make up profits that would be lost by deep discounting.

Campaign for a Healthy Alcohol Marketplace

Alcohol Retail System Design – Original Objective:

Promote consumption of "light alcohol" beverages (beer and wine)

Through greater availability and fewer controls in grocery stores and small shops

Grocery stores	Liquor stores
Sell beer of 3.2 % alcohol in single serving containers. (Many states have increased the percentage alcohol content for sale of beer in grocery stores.) Sell "light" wine (often 12-13% alcohol)	Sell spirits and other higher alcohol content products (in some states this includes strong beer and fortified wine)
Other products such as groceries, available. Sale of alcohol not necessary to be a profitable store.	Primarily sell alcohol; loss leader is difficult without non-alcohol products to sell. Promotion/advertising practices sometimes controlled.
Outlets more widely available.	Outlets limited by state quotas, local ordinance or state-ownership.
Greater days/hours of sale.	Limited hours and days of sale. Generally no Sunday or holiday sales. No late evening sales.
Customers of any age may be present.	Customers must be 21. Some states can cite a 21-year old for entering store.
Clerks may be under 21. Many states allow clerks under 21 to sell alcohol. High turnover in stores provides less expertise in regulatory requirements to avoid sales to minors and intoxicated persons.	Clerks must be at least 21. Mandatory training in alcohol regulation is common.

For more information: www.healthyalcoholmarket.com

While this system remains in place today, it has eroded in several ways:

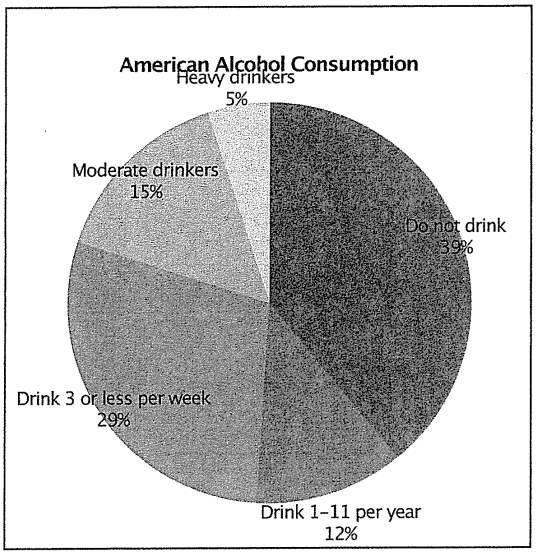
- The alcohol content of "lighter" products has increased. While 3.2% beer is still produced, the alcohol content of beer now averages around 4-5%, with some craft brews much higher. The percentage of alcohol in wine has increased from around 12% to 13-14%, with some varieties much higher.
- The place of wine in our markets has changed. For some time after Prohibition, few Americans drank wine. That has changed as about 1/3 of Americans now drink wine as their primary alcoholic beverage. And, the availability of wine has increased as more states have allowed it to be sold in grocery and convenience stores.
- New products, many of which appeal primarily to youth, are sold in grocery and convenience stores because they are "malt-based" and qualify as beer or they are "wine-based" and qualify as wine.
- Products which appeal to youth or problem drinkers are often sold in large containers--over 20 ounces with 12% alcohol.
- Several states have allowed hard liquor and other high-alcohol content products to be sold in grocery and convenience stores without the additional controls that liquor stores have.
- Hours and days of sale have been extended; and many states are moving toward allowing the sale of all forms of alcohol for extended hours, seven days a week.

For more information: www.healthyalcoholmarket.com

7: Why shouldn't alcohol be more convenient for customers to buy? Shouldn't those who drink exercise personal responsibility?

Additional convenience for alcohol consumers would mean more stores, longer opening hours, and more forms of alcohol in more locations. A review of the research indicates that all of these things increase consumption which leads to more social problems. This, in turn, puts a large and costly burden on social services and law enforcement. When regulations are relaxed, most of the additional alcohol sold is purchased by heavy drinkers, a category which also includes youth.

A survey by the Centers for Disease Control reveals that most Americans do not consume alcohol regularly.



Source: CDC Health Behaviors of Adults: United States, 2005-2007.

As one can see, 39% of Americans do not drink at all, and another 12% drink only a few times a year. In addition, 29% have three drinks or fewer per week which means they buy less than a six-pack of beer or one bottle of wine a week. This leaves moderate drinkers (1-2 drinks per day) and heavy drinkers (3 or more drinks per day) as regular alcohol customers. Thus the expanded availability of alcohol would benefit only 20% of the population at most, but the increased social and law enforcement costs would be borne by every taxpayer.

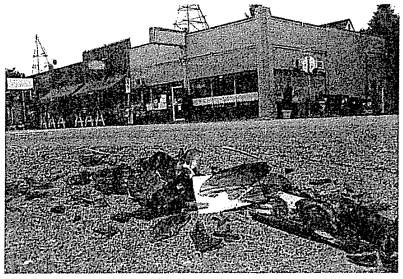
Another point of this survey is that the vast majority of Americans already exercise personal responsibility by limiting their consumption of alcohol. Only 5% are heavy drinkers, and only a portion of these drinkers cause serious public health and safety problems.

Given these statistics, the question becomes: "Is it sensible to inconvenience 20% of the population to protect the other 80% from the social ills and law enforcement costs that occur when problem drinkers have unlimited access to alcohol?"

As it is not illegal to be a heavy drinker, regulating the availability of alcohol remains the most effective way to control problem drinking. Such regulations have the added benefit of being minimally intrusive for the rest of society because they affect just a small percentage of the population.

For more information: www.healthyalcoholmarket.com

#8: What is the problem with increasing the number of stores that sell alcohol?



It is important for state and local communities to retain control over the number and location of alcohol outlets within their borders. Every year more studies on this topic show that local control of alcohol outlets make communities safer. Recently, two Indiana University professors reported on their analysis of crime and outlet density in Cincinnati. They found that off-premise outlets were responsible for one in four simple assaults and one in three aggravated assaults. In another study of eight college communities, E. R. Weitzman and her team from the Harvard School of Public Health found that alcohol outlet density was correlated with heavy drinking, frequent drinking, and drink-related problems, particularly among women, underage students, and students who did not drink prior to coming to college.

Why should this be the case? Cheap alcohol may be partly to blame. Here is a theory posed by researcher Paul Gruenewald: "As alcohol markets mature, the number of outlets increases to meet demand and eventually the market becomes saturated. At this point new outlets can compete only if they replace old outlets or find a way to increase demand." ("Why do alcohol outlets matter? A look into the future," by Paul Gruenewald, Editorial, Addiction, 2008, Society for the Study of Addiction.)

Stores that sell alcohol can use varied ways to increase demand. Small wine shops draw in wealthy customers with an exclusive selection of fine wines. Grocery stores may use temporary price reductions to bring in customers. Bars may use drink promotions, or draw customers with live entertainment. Some convenience stores stock cheap, high alcohol-content products that attract street drinkers. Some of these sales strategies increase social problems more than others. This argues for a good balance of outlets in a neighborhood.

The difficulty is that no one has come up with a precise formula that says how many outlets are too many. We don't yet know enough about the alcohol market and social dynamics of individual neighborhoods. However, it is generally agreed that the best balance is struck by local decision-makers, not large corporate interests that seek a "free market" for alcohol distribution without local input.

Local groups have mapped crime incidents and locations of licenses to identify problem areas. These are the areas where caution is needed when considering applications for new licenses. This is particularly true for the types of licenses that generate the most police calls, i.e. places where alcohol constitutes the bulk of sales.

Those advocating balance and prevention also need to remember that alcohol policy must be comprehensive and not rely on a single measure. As the World Health Organization recommends, alcohol policies need to address a whole spectrum of related issues: availability, price, marketing practices, age restriction, impaired driving, alcohol education, and enforcement policies.

For more information: www.healthyalcoholmarket.com

#9: Why shouldn't we be able to buy alcohol on Sunday, holidays, or any hour of the day or night?

Research shows that when regulations change to allow more hours and days of sale, alcohol-based problems get worse. In fact, a national task force has generally recommended that these types of limits be retained. The Task Force on Community Preventive Services states, "On the basis of strong evidence of effectiveness, the Task Force recommends maintaining existing limits on the days on which alcoholic beverages are sold as one strategy for the prevention of excessive alcohol consumption and related harms." This evidence came from the Task Force's assessment of studies on the impact of repeal of these limits. The Task Force is an independent, nonfederal group that is developing a Guide to Community Prevention Services with the support of the US Department of Health and Human Services.

These limits are wrongly characterized as religious or old-fashioned because they prohibit sales on Sundays or on some religious or local holidays such as election days. However, their impact primarily comes from the fact that they reduce availability.

Generally, research has found that the more widely available alcohol is in a community, the more problems that community has with alcohol. The Task Force, which conducted a systematic review of research, noted that removal of days of sale for off-premise (grocery and convenience stores) resulted in small increases in alcohol consumption and motor vehicle fatalities. Removal of such limits for on-premise licensees (bars, taverns, restaurants) was associated with substantial increases in motor-vehicle related harm and smaller increases in consumption.

Regarding hours of sale, the Task Force states, "On the basis of sufficient evidence of effectiveness, the Task Force recommends maintaining existing limits on the hours during which alcoholic beverages are sold at on-premise outlets as another strategy for preventing alcohol-related harms. " They found that increasing hours of sale by two or more hours for on-premise places resulted in significant increases in vehicle crash injuries, emergency room admissions, and alcohol-related assault and injury. Changes less than two hours showed inconsistent results, and there were no studies of off-premises hour changes to review.

The United Kingdom has generally abandoned limits on hours and days of sale, now allowing alcohol to be sold 24 hours a day. The theory was that bar violence would decrease when there was no "last call" for drinks, and patrons could exit any time of the day or night. This regulation is now widely recognized as a failure because patrons drink for more hours per bar visit, and stress and utilization has increased on police and emergency medical resources.

A final consideration is that of police resources. Laws cannot be effective with little or no enforcement. As more hours and days of sale are added, this puts a strain on enforcement agencies that work to prevent illegal sales to minors, sales to intoxicated patrons, disturbances at bars and drunk driving. All of these things increase with longer hours, creating more dangers for our communities.

For more information: www.healthyalcoholmarket.com

10: Why are some states in the liquor business? Couldn't we just replace state stores with a license-and-tax system that would still earn the same amount of revenue for our state and local governments?

If state stores were eliminated, the only way to replace lost revenue with a privatized system is to both sell a lot more alcohol in the state and impose large new taxes. Higher taxes and higher alcohol related problems are usually not political winners. A state which attempts to raise a lot more revenue from alcohol sales usually must abandon alcohol controls such as curbs on additional alcohol outlets, bans on discount or high volume sales, and advertising restrictions. That scenario has negative social consequences, including increases in underage drinking, alcohol addiction, and drunk driving incidents.

Why did states get into the alcohol business in the first place? Eighteen of the states and a few individual local governments adopted the "Control System" (government owned liquor stores) because that removed the profit motive from selling alcohol. Before Prohibition, large alcohol companies were strongly profit-driven and pushed retailers to sell alcohol aggressively to factory workers, heavy drinkers and even to children. They used credit, volume discounts, and other inducements to increase the sale and consumption of alcohol. This encouraged intoxication and created major social problems.

A Control System ensures that no one will have a profit incentive to sell alcohol to people who shouldn't drink, such as youth and intoxicated persons. Several states, most Canadian provinces and some Northern European countries have some version of a Control System. Since the state takes the profit from the sale of hard liquor, it can then use those funds to offset the costs to taxpayers of alcohol abuse. These costs are substantial. Using Washington State as an example, the cost for underage drinking alone was $1.4 billion in 2007, according to the Pacific Institute for Research and Evaluation.

To illustrate, lets again use the example of Washington State. By operating a state system, Washington gains revenue from taxes, fees, and mark-up (profit). After paying for the Washington Liquor Board's expenses, the remaining funds are sent to state and local governments. In Fiscal Year 2010, that amount totaled $360 million. To gain the same amount of revenue from privatization you must retain all current taxes, fees and raise the alcohol tax to cover the mark-up as shown on the next page:

Current System--$14.95 bottle price		Private system--$14.95 bottle price	
25%	$3.79 distillery price	25%	$3.79 distillery price
14%	$2.14 federal tax	14%	$2.14 federal tax
33%	$4.88 state sales/liter taxes	60%	$9.02 state sales/ liter taxes
28%	$4.14 mark-up (profit)	0%	left for mark-up (profit)

Total of $9.02 is needed per bottle to get equal revenue for state and local governments

Both of these scenarios produce $9.02 from a $14.95 bottle of alcohol state and local government programs. The difference is that the state makes about half of the money from mark-up in the first scenario and makes it all from taxes in the second.

There are major problems with this type of simple conversion:

1. The tax rate is extremely high: 60% of the purchase price. It may be difficult for policy makers or the public to accept a tax that high. Plus, laws and referenda in several states now limit a state's ability to raise new taxes and fees.

2. There is nothing left for profit. One can't expect the private sector to operate businesses where the profit is taxed away, so it may be necessary to increase prices to create profit.

3. Large corporations may accept a high tax to get into the business, but then use their substantial lobbying power to seek a change in the tax, eventually lowering tax revenue and reducing state and local revenue. Or, they may pressure the state to eliminate regulations that curtail high volume sales.

It is generally assumed that the private sector could operate liquor stores at lower cost because they are more efficient or could merely add shelf space for liquor without adding employees. In addition, some large corporations have enormous purchasing power and are able to drive hard bargains with alcohol manufacturers. These factors could decrease both operating costs and the "distillery price" or cost of sale. But, there are other cost factors which must be considered:

1. A private sector operation has advertising and promotional costs that the state doesn't have. Because the state has a monopoly on the product, they do usually little or no advertising. This will increase private operational costs.

2. The private sector must pay federal, state and local taxes plus any required business license fees. This is a considerable expense that the public sector does not have.

3. While the private sector may have cheaper labor costs, the savings may not be particularly great since state stores are open fewer hours per week and can operate on leaner staffs.

Privatization increases profits mainly by increasing sales. Supermarkets are set up to operate on small profit margins (less than 2%), but in order to make money, they have to sell in high volume.

For more information: www.healthyalcoholmarket.com

Therefore, they have the incentive to do exactly what an alcohol Control System tries to avoid: promote loss leaders (cheap alcohol products) to sell at high volume, and to offer quantity discounts and other enticements that result in over-consumption. Some states have privatized their retail sector by auctioning off retail liquor store licenses via a bidding process. West Virginia has such a system which requires a new auction every 10 years. That method can bring in a substantial amount of dollars, depending on how the finances are allocated, but it is not necessarily enough to offset the amount the state takes from the mark-up.

In summary, the state is in the liquor business to remove the profit motive that can promote high volume sales, especially to those who are already heavy drinkers. It is difficult for a privatized system to raise as much revenue as a control system because taxes and fees must be set high at very high levels to capture the revenues lost from state store taxes, fees and mark-ups. This leaves such a small margin for profit that private operators will be induced to greatly increase the volume of alcohol sold through bargain offerings and quantity discounts. This has been shown to greatly increase threats to public health and safety. The resulting increase in social service and law enforcement costs are borne by all taxpayers, not just the problem drinkers who incur them.

#11: Isn't alcohol regulation bad for business? Shouldn't we loosen alcohol regulations to help local businesses?

The answer is generally no to both questions. In fact, for most businesses alcohol regulation offers some real benefits. While the system sometimes seems cumbersome and a business owner may wish for a free market system, most free markets end up benefiting only a few large companies. The states' alcohol regulatory systems are designed to foster alcohol moderation, prevent underage drinking and other problems **AND to allow the owners of all sizes and types of businesses to make a reasonable profit.** Much has been said about the public safety issues, but policy makers should also consider the following benefits to business:

The Three-Tiered System prevents market domination: Look at the soda pop shelf in your grocery store and you have an idea of what alcohol might look like in a deregulated environment. The soda space is occupied by two major companies. The alcohol regulatory system requires that alcohol be sold through three separate, independent tiers: manufacturer, wholesaler and retailer. In addition, most states require price policies that level the playing field. For example, uniform price laws require the wholesaler to sell their products at the same price to all retailers. This means the large corporation can't get a better deal than the local mom-and-pop store. It also keeps prices from going so low that "bargains" encourage people to drink more.

Regulations reduce some costs of doing business: For most commodities, large grocery stores require slotting fees; that is, payments made to the grocer to assure products a place on their shelves. Manufacturers and wholesalers may also have to stock shelves, pay for advertising, provide promotional point-of-sale items, and buy refrigerated units. These are generally illegal for alcohol products. If controls are removed, small players would not be able to get their product to market without paying for these "extras."

Freedom from price wars and other forms of market volatility: Most states have several ways of keeping the price of alcohol balanced, i.e. not low enough to encourage volume consumption, nor so high as to encourage bootlegging and illegal importation. Laws such as bans on volume discounts and selling below cost keep prices reasonably stable. Without these laws, large corporations with huge economic buying power would undercut small—usually local—businesses, and possibly put them out of operation.

Product tracking protects against unwarranted business ruination: Even the best manufacturing companies can make a mistake that creates a tainted batch or product. In today's market, even minor problems with product quality can ruin a company or disrupt a commodity market. This is much less likely to happen in the alcohol marketplace because wholesalers are required to track every bottle and can. With this system, a problem batch or product can be quickly identified and removed from the retail shelf. This minimizes harm and can save a business.

Predictability: Because the regulations keep the alcohol marketplace balanced and free from extreme volatility, business owners can have confidence in their investments. Predictability reduces risks and makes business planning easier.

Compliance with regulations helps prevent neighborhood and community problems: Most businesspeople find that a clean and safe neighborhood is good for business. Alcohol regulations help. By preventing sales to underage youth and intoxicated people, fewer neighborhood problems are likely.

For more information: www.healthyalcoholmarket.com

Policy makers should consider these points very carefully when alcohol deregulation measures are under review. While being free of regulations may sound good, the reality is often very different. Remember that the change in rules must apply to all licensees. For example, if the law requiring uniform prices is abandoned, wholesalers would then be allowed to give some retailers special prices. Who would get that special price and how would that impact local businesses? Chances are that large, global corporations would be the only ones getting the best deals because they alone can buy a very large volume of product. Thus, a so-called "free market" would only benefit a few companies.

For more information: www.healthyalcoholmarket.com

Alcohol and Environmental Justice: The Density of Liquor Stores and Bars in Urban Neighborhoods in the United States*

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ABSTRACT. Objective: This study had two purposes: (1) to characterize the density of liquor stores and bars that individuals face according to race, economic status, and age in the urban United States and (2) to assess alternative measures of retailer density based on the road network and population. **Method:** We used census data on business counts and sociodemographic characteristics to compute the densities facing individuals in 9,361 urban zip codes. **Results:** Blacks face higher densities of liquor stores than do whites. The density of liquor stores is greater among nonwhites in lower-income areas than among whites in lower- and higher-income areas and nonwhites in higher-income areas. Nonwhite youths face higher densities of liquor stores than white youths. The density of liquor stores and bars is lower in higher-income areas, especially for nonwhites. **Conclusions:** Mismatches between alcohol demand and the supply of liquor stores within urban neighborhoods constitute an environmental injustice for minorities and lower-income persons, with potential adverse consequences for drinking behavior and other social ills. Our results for bars are sensitive to the measure of outlet density as well as population density. Although neither measure is clearly superior, a measure that accounts for roadway miles may reflect proximity to alcohol retailers and thus serve as a useful refinement to the per-capita measure. If so, alcohol policy might also focus on density per roadway mile. Further research on the existence, causes, and consequences of environmental injustice in alcohol retailing is warranted. (*J. Stud. Alcohol Drugs* **68:** 48-55, 2007)

DISPARITIES IN HEALTH RISKS across racial/ethnic and income groups have been documented for toxic waste sites, air pollution, and industrial sites (Brown, 1995; Environmental Protection Agency, 1992). In response, a 1994 Presidential Order requires every federal agency to make " . . . achieving environmental justice part of its mission . . . " and to reduce disproportionate impacts on minority low-income populations (Federal Register, 1994, p. 1). Most of the research and policy efforts have focused on toxic substances near residences, but environmental justice advocates argue that a wider range needs to be considered. The Institute of Medicine (1999) report expands the focus to all places where people live, work, and play; others include in the definition of a "toxic environment" (Horgen and Brownell, 2002) factors that compromise healthy lifestyles, such as barriers to physical activity/healthy eating or environmental factors that encourage tobacco use or excess alcohol consumption.

This broader view may be particularly relevant for reducing sociodemographic health disparities, because health behaviors are the main causes of premature mortality (McGinnis, 1993; Mokdad, 2004, 2005). Yet whereas national data show that there are sociodemographic disparities in unhealthy lifestyles, data on environmental influences are almost all of limited geographic scope. This is true for alcohol or tobacco availability, food outlets, or environments conducive to physical activity.

In this article, we study the association between residential sociodemographic characteristics and alcohol outlet density. There are several local studies that have found higher alcohol outlet density (Gorman and Speer, 1997; LaVeist and Wallace, 2000) or more outdoor advertising of alcohol or tobacco (Altman et al., 1991; Hackbarth et al., 1995) in minority neighborhoods. Although the studies cover very different cities, including Baltimore, Chicago, San Francisco, and a city in New Jersey, it is not clear whether these studies reflect a general pattern. In New Jersey, the neighborhood with the highest alcohol outlet density was also one of the wealthiest (Gorman and Speer, 1997). There may also be a selection bias from those case studies, because they are most likely to be conducted in sites where there appear to be noticeable inequities. For example, the Chicago study is often cited, but it is also the same site where the city council passed one of the nation's toughest anti-alcohol and tobacco billboard ordinances because of perceived disparities (Hackbarth et al., 2001). There are no data on a national scale showing that alcohol retailer presence is greater in high-minority and lower-income minority neighborhoods. This article tries to fill this gap.

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Higher alcohol availability in minority neighborhoods is unlikely to be a result of higher demand. To the contrary, national individual-level data show lower consumption by blacks, Hispanics, and Asians than non-Hispanic whites (Native Americans have higher consumption). This is true for both any alcohol consumption (55% for non-Hispanic whites compared with 39.9% for blacks and 42.3% for Hispanics) and heavy alcohol use (7.5% for non-Hispanic whites compared with 4.4% for blacks or 5.9% for Hispanics) (National Center for Health Statistics, 2004). Lower-income groups do have higher alcohol consumption; therefore, demand factors may lead to higher alcohol availability in lower-income neighborhoods. However, the most recent study based on four cities in California concludes that, although alcohol availability is concentrated in the most-deprived neighborhoods, more women and men in the least-deprived neighborhoods are heavier drinkers (Pollack et al., 2005). This mismatch between supply and demand may cause people in the most-deprived neighborhoods to disproportionately suffer the negative health consequences of living near alcohol outlets (Pollack et al., 2005). Such mismatches are at the heart of the environmental justice movement.

There are several pathways through which differential availability of alcohol can contribute to sociodemographic disparities. In California, type and number of outlets predict arrest rates for public drunkenness, misdemeanor, and felony drunken-driving arrest rates and cirrhosis mortality rate (Rabow and Watts, 1982). Spatial analysis suggests that alcohol outlets elevate the rate of violent crime within the neighborhood context (Gorman et al., 2001; Scribner et al., 1995, 1999; Speer et al., 1998; Zhu et al., 2004), and alcohol availability seems to be related to self-reported injury rates (Treno et al., 2001), both health problems that are greater in more-deprived neighborhoods. Data from some cities suggest that the physical availability of alcohol is a contextual factor that may increase alcohol consumption and alcohol-related problems over what individuals in those communities would otherwise consume (Scribner et al., 1994, 2000), although data from other cities find no evidence for this (Pollack et al., 2005). Discrepancies in findings may be a consequence of the level of geographic units analyzed, and it is desirable to examine the relationship between alcohol availability and consequences at geographic units of analysis that are smaller than cities (Gorman et al., 2001; Scribner et al., 1999).

The ideal measure of exposure to alcohol outlets depends on the scale of the processes through which alcohol outlets are thought to affect social outcomes. For drunk driving accidents, the scale is obviously much larger than for barroom brawls, but heavy drinking, alcoholism, crime, and assaults fall somewhere in the middle ground. Empirical evidence is sparse because data are generally available only at a fixed resolution, which does not permit testing different spatial definitions. Some studies have measured outlet density at the city level (Scribner et al., 1994, 1995), some at the zip code level (Gruenewald et al., 2000, 2002), and some at the census tract level (Cohen et al., 2006; LaVeist and Wallace, 2000, Reid et al., 2003; Scribner et al., 1999; Zhu et al., 2004). All found adverse effects of alcohol at their level of analysis, whether city, zip code, or tract level. In an initial analysis of the California Health Interview Survey, heavy drinking had the strongest association with outlet density within 0.5 miles for men and between 0.5 miles and 1 mile for women, suggesting that, for this outcome, a census tract would be too small and a city too large a unit (Sturm, 2006).

Different types of alcohol retail outlets have different consequences. Restaurants and grocery stores are thought to be more desirable types of businesses, with liquor stores and bars less desirable. Most research distinguishes on-site retail (restaurants, bars) from off-site retail (liquor stores, grocery stores), although that distinction is not useful in all areas. In New Jersey, for example, most licenses are for combined on- and off-site sales (Gorman et al., 2001). In California, license data do not distinguish liquor stores from grocery stores. When on- and off-site sales can be distinguished, off-site retail outlets seem to be more strongly associated with increased crime and violence rates (Scribner et al., 1999), and bars with binge drinking (Sturm, 2006).

This article matches data on businesses to demographic information from the 2000 census to investigate the association between the density of liquor stores and bars and sociodemographic characteristics at the zip code level within urban areas in the United States. We use codes from the North American Industry Classification System (NAICS; Bureau of the Census, 1998) to identify categories of outlets, because differences in data quality and definition across states in licensing data make it impossible to create comparable categories nationwide. The NAICS codes also allow us to focus on liquor stores and bars.

Our main research question is to what extent the perception that minorities and low-income individuals face higher densities of these two less desirable types of alcohol outlets in their neighborhoods is confirmed across the urban United States. Particularly important is whether outlet density differs for youth across racial/ethnic groups.

Method

Alcohol outlets

We obtained outlet counts within zip codes from the U.S. Bureau of the Census's 2001 release of ZIP Code Business Patterns. The zip code is the finest geographic level at which census outlet data are provided. Because of their potentially large size and arbitrary shape, zip codes correspond imperfectly to important features of the alcohol-

retailing environment, such as how far from home people purchase alcohol. On the other hand, our focus on urban zip codes may mitigate the problem of too-large zip codes, and environmental impacts have been found at scales larger than the zip code, such as cities.

We focused on NAICS industries 445310 and 722410, whose formal definitions are "Beer, wine and liquor stores" and "Drinking places (alcoholic beverages)." The former includes government-operated liquor stores. For simplicity, we refer to these two kinds of outlets as liquor stores and bars, respectively. The Bureau of the Census does not release information about the number outlets with no employees at the level of the zip code. In 2001, 74.2% of liquor stores and 68.9% of bars in the United States had employees (Bureau of the Census, 2001). Nonemployers are typically small operations. Although their distribution across zip codes may not be random, they account for small shares of industry sales in the aggregate (for example, nonemployers earned 9.2% of bar revenues in 2002).

Density measures

We used two measures of outlet density within zip codes. The first is the number of outlets per 100 roadway miles; the second is the number of outlets per 1,000 persons. The per-capita measure has been widely used in alcohol studies (LaVeist and Wallace, 2000; Watts and Rabow, 1983). The roadway-miles measure is more recent and may be a more natural measure than density per square mile, because alcohol is typically obtained through the road system. Cohen et al. (2006) found that a unit decrease in alcohol outlets per roadway mile is associated with 21 fewer gonorrhea cases per 100,000 persons in areas affected by the civil unrest in Los Angeles in 1991 than in unaffected areas (for another example, see Gruenewald et al., 2000).

The roadway-miles measure may also provide a better characterization of exposure when comparing areas that differ in urban design. Figure 1 compares a sprawling suburban environment with a denser design, such as a center city with apartment buildings. Although there are the same number of residents and alcohol outlets (and therefore the same population-adjusted outlet density), twice as many residents in the center-city environment are exposed to the alcohol outlet in their immediate neighborhood (as defined by the dashed circle). In this case, the per-capita measure underestimates the differences between neighborhoods. We therefore compare the per-capita and roadway-miles measures.

To obtain roadway length, we identified and summed the lengths of roads within zip codes using ArcGIS 9.0 (Environmental Systems Research Institute, 2004) and GDT Dynamap/ZIP Code Boundary & Inventory Files version 12.0 (Geographic Data Technology, 2004). Our counts of roadway miles excluded freeways and parkways, because these roads do not provide direct access to alcohol outlets. Some zip codes include only post office boxes at a particular mail facility. We exclude such zip codes, because the physical locations of alcohol retailers using post office boxes are unclear. Our geodatabase includes streets and zip codes as of 2003. Hence, our roadway-miles counts do not correspond exactly in time to our data on alcohol outlets.

Population sociodemographics

We obtain data on population counts for the per-capita outlet measure and on race, age, neighborhood economic status, and urbanicity from the 2000 Census of Population and Housing. We distinguished among non-Hispanic whites, Hispanics, blacks, Asian/Pacific Islanders, and Native Americans, leaving 2.2% of the population with ambiguous or multiple races unclassified. The census reports population by age classes for all persons and for non-Hispanic whites and Hispanics. We distinguished between those who are younger than 18 years old and those who are 18 and older. We used median household income within zip codes as a measure of neighborhood economic status. In our main analyses, we distinguished "lower-income" from "higher-income" neighborhoods according to whether income lies below or above the sample median of $42,970. Finally, the 2000 census reports the number of respondents residing within urban areas within each zip code.

The geography of these sociodemographic data is the five-digit ZIP Code Tabulation Area (ZCTA; Bureau of the Census, 2000). Although ZCTAs are meant to correspond to zip codes, the correspondence is imperfect (Bureau of the Census, 2000). In addition, between the Census 2000 and the 2001 Economic Census, new zip codes may have been introduced or old zip codes redefined or retired. Thus, the matching is less than perfect and constitutes a limitation of our analysis (Krieger et al., 2002).

Sample

We were able to match 31,428 of the 40,426 (77.7%) five-digit zip codes/ZCTAs in our two data sources (including zip codes with no alcohol outlets); 20.8% appear only as zip codes, probably because the algorithm by which ZCTAs are constructed excludes some zip codes (Bureau of the Census, 2000); 1.5% appear only as ZCTAs. The match rate for ZCTAs that are entirely urban is especially high (99.8%).

Our focus is on urban zip codes, paralleling the policy debate. Typical local alcohol-control policies, such as zoning, do not apply to rural areas, and it would not be meaningful to include rural areas in our analysis. Although it may be interesting to conduct a separate analysis for rural areas, our data are of high quality for urban areas (the match rate between zip codes and ZCTAs reaches 99.8% among zip codes whose population is entirely urban) but not for rural areas.

We defined a zip code as urban if the urban share of its population exceeded the median value (73.1%) among zip codes with both urban and rural residents. Our sample includes 205.2 million persons in 2000 (72.9% of the total population).

Analysis

We assessed the outlet densities that average individuals with particular socioeconomic characteristics encounter within their zip codes. Because the data are at the level of the zip code, the two measures of zip-code density were weighted by the populations of interest. Although zip-code density could have been regressed on sociodemographic composition, our approach is more direct and potentially less sensitive to misspecification.

With respect to race/ethnicity, we distinguished among whites, nonwhites, Hispanics, blacks, Asian/Pacific Islanders, and Native Americans. For whites and nonwhites, we further distinguished the following: (1) those residing in lower-income neighborhoods and those residing in higher-income neighborhoods and (2) those younger than 18 years old and those 18 or older. For the analyses of economic status, ideally the status of particular individuals would be used, rather than median household income within the zip code. However, the census does not report information at this level of detail.

We also performed sensitivity analyses. First, the threshold defining lower-income neighborhoods was set at the bottom one third of the income distribution (≤$33,300). Second, we replicated our main analyses for the subsample of zip codes whose population density was in the top one third of the distribution (≥3,000 persons/square mile).

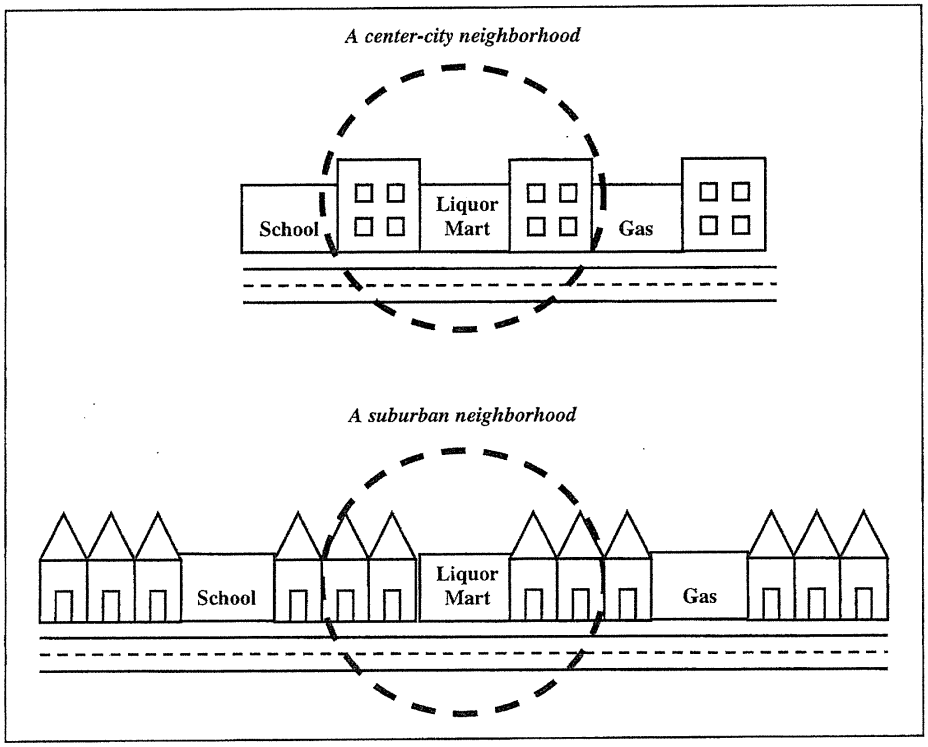

FIGURE 1. Two neighborhoods with equal numbers of residents and alcohol outlets

Results

Table 1 presents some descriptive statistics for our sample. The mean (SD) land area of the 9,361 urban zip codes is 40.1 (128.1) square miles. (The mean area of rural zip codes is 107.1 miles.) The mean population is 21,920 (16,232) persons, and the mean roadway miles is 173.9 (288.8). For the individuals residing in these zip codes, Hispanics are the largest group, with a share of 15.5%, followed by blacks at 13.5%, and Asian/Pacific Islanders at 4.8%. Roughly 25% of the population is younger than age 18; for nonwhites, this statistic is 32.2%. Table 1 indicates that about 50% of the population resides in lower-income zip codes; for nonwhites, this statistic is 64.5%.

Liquor stores by race, economic status, and age

Table 2 reports the mean density of liquor stores facing individuals. All minorities, except for Native Americans, live in zip codes with a significantly higher density of liquor stores per mile than do whites. Across all minority groups, the density is 71% higher ($z = 11.27$, $p < .001$). On a per-capita basis, the differences are much smaller in percentage terms. The density of liquor stores, across all minority groups, is only about 1% higher than among whites, a statistically insignificant difference ($z = 0.58$, $p = .36$). Blacks continue to live in areas with a higher density (12.5%; $z = 3.55$, $p < .001$), whereas other minorities face a lower density of liquor stores than whites.

The next set of results in Table 2 stratifies by median income in a zip code. Minorities in lower-income zip codes face the highest densities of liquor stores under both measures. Under the roadway-miles measure, the mean density (5.22 per roadway mile) is about 98% higher than that for whites in lower-income (2.64) and higher-income zip codes (2.62). Liquor store density is lower in higher-income areas, especially for minorities. The results for the per-capita liquor-store measure are fairly similar. Density is lowest for minorities in higher-income zip codes under the per-capita measure. The difference between the density facing nonwhites in lower-income zip codes and that facing whites in lower-income zip codes, although still positive, is no longer significantly different at the 10% level.

From a policy perspective, arguably the most important group is youths, who are not even legally allowed to be customers. Here we see a fairly consistent picture across all measures. Minority youths are exposed to more liquor stores than white youths. Again, the difference is larger in percentage terms for the roadway measure (92% higher for minority youth; $z = 13.00$, $p < .001$) than for the per-capita measure (3% higher for minority youth; $z = 1.61$, $p = .107$).

Bars by race, economic status, and age

Table 3 reports the same results for bars, which are slightly different. Again, on the roadway measure of bar density, blacks, Hispanics, and especially Asian/Pacific Islanders face statistically significantly higher densities of bars than do whites (5.44, 6.55, 9.00, and 4.99, respectively). However, when density is measured on a per-capita basis, members of these minority groups face lower densities than do whites (1.60, 1.50, 1.60, and 1.91, respectively).

Turning to race and economic status, the measures again differ with respect to the density facing minorities relative to whites. On a roadway-miles basis, the density of bars facing minorities in lower-income zip codes (7.52) is 21% higher than that facing whites in such zip codes (6.20). Under the per-capita density measure, this disparity changes

TABLE 1. Descriptive statistics for sampled zip codes

Characteristic	Mean (SD) or %
Zip codes (9,361 sampled)	
Mean land area of sampled zip codes, square miles	40.1 (128.1)
Mean population of sampled zip codes	21,921 (16,232)
Mean roadway miles	173.9 (288.8)
Total census within sampled zip codes (205,200,841 persons included)	
White	63.4%
Nonwhite	36.6%
Hispanic alone	15.5%
Black alone	13.5%
Asian or Pacific Islander alone	4.8%
Native American alone	0.5%
>18 years old	25.5%
>18 years old and nonwhite	32.2%
Resident of lower-income neighborhood	49.9%
Resident of lower-income neighborhood and nonwhite	64.5%

TABLE 2. Mean number of liquor stores per 100 roadway miles and per 1,000 capita, by race, age, and income

	Per 100 roadway miles		Per 1,000 capita	
Variable	Mean (SD)		Mean (SD)	
All	3.31 (6.00)		1.04 (1.20)	
White	2.63 (5.30)		1.04 (1.21)	
Nonwhite	4.50[a] (6.89)		1.05 (1.17)	
Black	4.42[a] (6.13)		1.17[a] (1.31)	
Hispanic	4.66[a] (7.32)		0.98[a] (1.09)	
Asian/Pacific Islander	4.68[a] (7.74)		0.96[a] (1.00)	
Native American	2.27[a] (4.02)		1.01 (1.39)	
	Lower income	Higher income	Lower income	Higher income
White	2.64 (4.31)	2.62 (5.90)	1.10 (1.32)	0.99[c] (1.13)
Nonwhite	5.22[b] (7.19)	3.18[b,c] (6.10)	1.13 (1.25)	0.91[b,c] (0.99)
	Younger than 18	18 and older	Younger than 18	18 and older
White	2.16 (3.82)	2.76[c] (5.63)	0.98 (1.06)	1.05[c] (1.25)
Nonwhite	4.15[b] (6.12)	4.67[b,c] (7.23)	1.02 (1.04)	1.06[c] (1.23)

[a]Mean is statistically significantly different from that for whites at $p = .10$; [b]mean is statistically significantly different from the mean in the row above at $p = .10$; [c]mean is statistically significantly different from the mean in the column to the left at $p = .10$.

TABLE 3. Mean number of bars per 100 roadway miles and per 1,000 capita, by race, age, and income

Variable	Per 100 roadway miles Mean (SD)	Per 1,000 capita Mean (SD)
All	5.52 (13.92)	1.79 (2.69)
White	4.99 (3.58)	1.91 (2.72)
Nonwhite	6.45[a] (14.45)	1.58[a] (2.63)
Black	5.44[a] (10.58)	1.60[a] (2.91)
Hispanic	6.55[a] (13.67)	1.50[a] (2.29)
Asian/Pacific Islander	9.00[a] (22.91)	1.60[a] (2.70)
Native American	4.42[a] (8.85)	2.12[a] (3.35)

	Lower income	Higher income	Lower income	Higher income
White	6.20 (11.41)	4.14[c] (14.87)	2.69 (3.44)	1.35[c] (1.86)
Nonwhite	7.52[b] (14.04)	4.50[b,c] (14.97)	1.84[b] (3.07)	1.10[b,c] (1.42)
	Younger than 18	18 and older	Younger than 18	18 and older
White	3.76 (8.47)	5.33[c] (14.67)	1.73 (2.15)	1.96[c] (2.86)
Nonwhite	5.67[b] (11.35)	6.82[b,c] (15.69)	1.51[b] (2.08)	1.61[b,c] (2.85)

[a]Mean is statistically significantly different from that for whites at $p = .10$; [b]mean is statistically significantly different from the mean in the row above at $p = .10$; [c]mean is statistically significantly different from the mean in the column to the left at $p = .10$.

TABLE 5. Mean number of liquor stores among zip codes whose population density is in top third

Variable	Per 100 roadway miles Mean (SD)	Per 1,000 capita Mean (SD)
All	5.77 (8.27)	1.13 (1.03)
White	4.96 (8.28)	1.11 (1.02)
Nonwhite	6.59[a] (8.19)	1.14 (1.04)
Black	6.43[a] (7.22)	1.27[a] (1.14)
Hispanic	6.83[a] (8.59)	1.07 (0.96)
Asian/Pacific Islander	6.52[a] (9.23)	1.03[a] (0.98)
Native American	4.24[a] (5.81)	1.05 (1.02)

	Lower income	Higher income	Lower income	Higher income
White	5.01 (6.11)	4.92 (9.68)	1.16 (1.06)	1.07 (0.99)
Nonwhite	7.41[b] (8.10)	4.72[c] (8.08)	1.21 (1.08)	0.97[b,c] (0.92)
	Younger than 18	18 and older	Younger than 18	18 and older
White	4.06 (6.23)	5.17[c] (8.67)	1.04 (0.95)	1.13[c] (1.04)
Nonwhite	6.18[b] (7.31)	6.78[b,c] (8.56)	1.12[b] (1.00)	1.15[c] (1.06)

[a]Mean is statistically significantly different from that for whites at $p = .10$; [b]mean is statistically significantly different from the mean in the row above at $p = .10$; [c]mean is statistically significantly different from the mean in the column to the left at $p = .10$.

directions. Regardless of measure, minorities in higher-income zip codes face a lower density of bars than whites in lower-income zip codes.

The bottom of Table 3 shows the age group comparisons. The two density measures yield opposite results. Under the roadway-miles measure, minority youths face a 51% higher density of bars, whereas under the per-capita measure density is lower among minority youths (1.51) than white youths (1.73).

Sensitivity analyses

Table 4 reports the results when the threshold for lower-income zip codes was set at the bottom one third of the income distribution. The results are qualitatively similar. For liquor stores, the density is higher among nonwhites than among whites in lower-income zip codes under both measures. For nonwhites, density decreases with increased income. For bars, density also decreases with increased income. However, the two measures continue to disagree about the direction of the disparity among whites and nonwhites in higher-income zip codes.

The next two tables report the results for the subsample of zip codes whose population densities are in the highest

TABLE 4. Mean number of liquor stores and bars when lower income is bottom third of income distribution

Variable	Per 100 roadway miles: Lower income Mean (SD)	Per 100 roadway miles: Higher income Mean (SD)	Per 1,000 capita: Lower income Mean (SD)	Per 1,000 capita: Higher income Mean (SD)
Liquor stores				
White	2.65 (4.29)	2.62 (5.56)	1.14 (1.54)	1.01[c] (1.10)
Nonwhite	5.48[b] (7.39)	3.67[b,c] (6.34)	1.16 (1.35)	0.95[b,c] (0.98)
Bars				
White	6.50 (10.32)	4.54[c] (14.39)	2.98 (4.14)	1.58[c] (2.01)
Nonwhite	7.36[b] (12.38)	5.68[b,c] (15.94)	1.88[b] (3.38)	1.32[b,c] (1.71)

[b]Mean is statistically significantly different from the mean in the row above at $p = .10$; [c]mean is statistically significantly different from the mean in the column to the left at $p = .10$.

TABLE 6. Mean number of bars among zip codes whose population density is in top third

Variable	Per 100 roadway miles Mean (SD)	Per 1,000 capita Mean (SD)
All	9.73 (20.00)	1.95 (2.51)
White	10.05 (21.85)	2.20 (2.63)
Nonwhite	9.41[a] (17.9)	1.69[a] (2.35)
Black	7.78[a] (13.07)	1.72[a] (2.56)
Hispanic	9.44[a] (16.68)	1.58[a] (2.03)
Asian/Pacific Islander	13.12[a] (28.05)	1.83[a] (2.59)
Native American	8.21[a] (13.02)	2.23[a] (2.70)

	Lower income	Higher income	Lower income	Higher income
White	11.58 (16.66)	8.80[c] (25.22)	2.93 (3.17)	1.89[c] (2.60)
Nonwhite	10.41[b] (16.60)	7.14[b,c] (20.52)	1.89[b] (2.60)	1.24[b,c] (1.58)
	Younger than 18	18 and older	Younger than 18	18 and older
White	7.45 (14.27)	10.65[c] (23.22)	1.92 (2.09)	2.26[c] (2.74)
Nonwhite	8.33[b] (14.19)	9.90[b,c] (19.40)	1.61[b] (2.08)	1.73[b,c] (2.47)

[a]Mean is statistically significantly different from that for whites at $p = .10$; [b]mean is statistically significantly different from the mean in the row above at $p = .10$; [c]mean is statistically significantly different from the mean in the column to the left at $p = .10$.

one third of the distribution. (Lower income is again defined by the median of the income distribution.) The results for liquor stores in Table 5 are similar to those in Table 2. For example, nonwhites living in dense zip codes with lower income face higher densities than do whites in these same zip codes, regardless of density measure. In contrast with Table 2, however, the two measures now agree that nonwhites in higher-income zip codes face lower densities than whites in lower- as well as higher-income zip codes.

The results for bars in Table 6 are quite different from those in Table 3. Whereas in Table 3 the two measures generally disagreed about the direction of white/nonwhite disparities, they now agree that nonwhites generally face lower densities than do whites, both in the aggregate and when compared by economic status.

Discussion

This article has examined disparities in the density of liquor stores and bars across racial groups nationwide. In some respects, the study confirms the perception that has emerged from localized case studies. First, blacks face higher densities of liquor stores than do whites. Second, minorities in lower-income neighborhoods have more liquor stores in their neighborhoods than whites in lower- and higher-income neighborhoods and minorities in higher-income neighborhoods. Third, minority youth have more liquor stores in their neighborhoods than do white youth. Fourth, the density of liquor stores and bars decreases with increased income, especially for minorities. These results, although subject to data limitations, suggest that there is a mismatch between alcohol demand and the supply of liquor stores in particular within urban neighborhoods. In view of alcohol retailing's adverse consequences, these disparities may represent an important kind of environmental injustice, and further research is warranted.

Yet, in other respects, the results are less clear. In particular, under the traditional measure of outlet density per capita, the results for bars are very sensitive to population density. In the full sample of zip codes, white/nonwhite disparities sometimes differ in direction in comparison with the roadway-miles measure. On the other hand, for zip codes in the top one third of the population-density distribution, the two measures generally agree that whites face higher densities of bars than do nonwhites (with the exception of nonwhite youths under the per-capita measure).

Recalling Figure 1, we have suggested that the number of outlets per roadway mile may be an important aspect of the alcohol environment distinct from per-capita density. Nevertheless, we do not believe we can draw clear conclusions when our measures disagree. Further research is warranted with respect to the consequences of alcohol retailing, and our methods may be useful in exploring these consequences. If indeed the number of outlets per roadway mile is its own pathway, existing policies intended to mitigate the localized impacts of alcohol retailing—such as restrictions on proximity to schools (Ashe et al., 2003) or per-capita restrictions—might be supplemented with restrictions on outlets per roadway mile.

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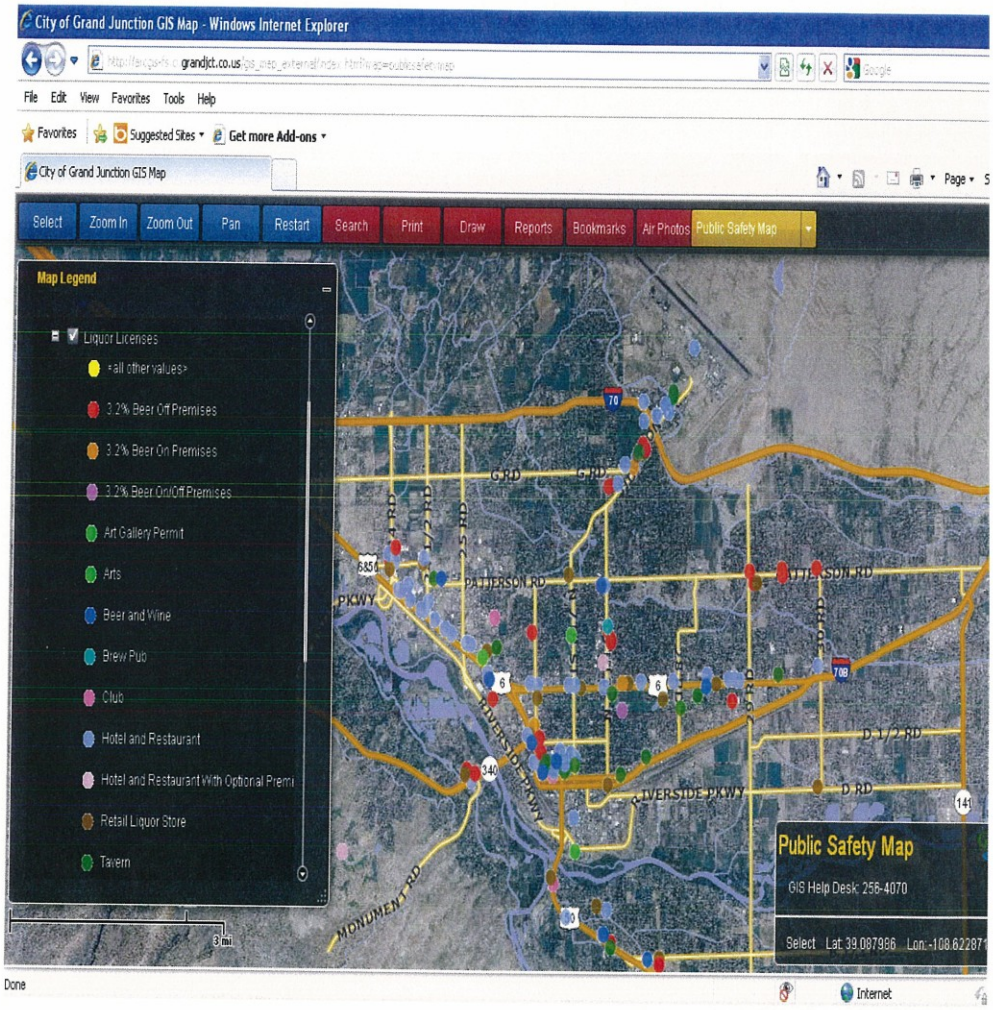

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EX 21

Drug and Alcohol Review (September 2007), 26, 557–566

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HARM REDUCTION DIGEST 38

Changing the density of alcohol outlets to reduce alcohol-related problems

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Increasingly, it seems, legal and political debates regarding the granting of new liquor licences are turning to the issue of whether the number and density of alcohol outlets makes a difference in rates of alcohol consumption and alcohol-related harm. But what is the state of the evidence on this question? In this Harm Reduction Digest Livingston, Chikritzhs and Room review the research literature on the effects of density of alcohol sales outlets on alcohol consumption and alcohol-related problems; suggest a new way of conceptualising the relationships; and discuss the implications for reducing alcohol-related harm.

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Guest Editor, Harm Reduction Digest

Introduction

Across many countries and cultures, restricting the number of places where alcohol may be sold has long been used as a strategy to reduce alcohol-related harms. The rationales behind restricting the numbers of alcohol sales outlets have been many. The aim may be to increase the trouble the average drinker has to take to be supplied, as a way of discouraging consumption. The aim may be to limit competition in retail alcohol sales, thus removing incentives for hard-pressed sellers to cut corners, for instance by selling to under-age customers; or the aim may be to leave space between sales establishments, to avoid the trouble that may accompany the bunching of outlets (particularly on-premise outlets).

Restricting the number of liquor outlets creates a loose form of oligopoly, where those with a permit to sell are given an advantage by the state, and other potential sellers are excluded from the market. In times and places with a dominant market liberalism, the legitimacy of restricting outlet density may be met with scepticism. For instance, the Australian National Competition Policy has brought considerable pressure to bear upon state and territory governments (responsible for the content and administration of Liquor Acts) to replace needs-based tests for new licenses with public-interest tests [1,2]. Similarly, the Guidance issued for the 2003 Licensing Act in England states that 'need' is not a proper consideration for licensing authorities in deciding on an application for a new alcohol sales licence: '"need" concerns the commercial demand for another pub or restaurant or hotel. This is not a matter for a licensing authority', but for the market [3].

In this context, the issue of the extent to which the number and density of alcohol outlets makes a difference in rates of alcohol consumption and alcohol-related harm has become a live political issue, fought in Victoria, for instance, case-by-case in licensing hearings. This paper summarises the research literature on the effects of density of alcohol sales outlets on

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alcohol consumption and alcohol-related problems, and discusses its implications for harm reduction strategies.

Historical background

Places where alcohol is sold have been linked to alcohol-related harm for many centuries [4], and to a greater or lesser degree have been subject to regulation. One recurrent theme in that history has been the issue of physical 'density' of alcohol outlets. Social surveyors in the United States a century ago, considering what might offer competition to the saloon as the 'working man's club', drew maps of the downtown areas of American cities documenting the great density of drinking places, in comparison to the paucity of other attractions [5]. In the 1890s a British government inquiry, after hearing statistical evidence that there was a causal link between the number of licensed premises in a particular area and convictions for offences of drunkenness, recommended that the number of premises should be reduced systematically. Until 1981, the British licensing rules accordingly provided for the suppression of licenses deemed to be surplus, with compensation to the owners [6]. The systems of alcohol licensing and control which were the eventual settlement of the burning disputes of the temperance era accordingly often had provisions limiting the number of one or more types of alcoholic beverage licence. In a number of places, the limit was set as a rate per population; thus in California the number of liquor stores allowed in a county is tied to the county's population [7]. In other places, the criterion was one of 'need', to be adjudicated by a magistrate or other authority.

As already indicated, in recent years in Australia such requirements have been seen as impermissible limits on the free market, and states have been under heavy pressure from the National Competition Council to remove these provisions from state and territory liquor licensing laws [1]. In part reflecting these pressures, changes in Victorian legislation have resulted in a steep rise in recent years in the number of alcohol licenses (unpublished data, Liquor Licensing Branch). Reflecting various commercial and ideological pressures, increases in the number of alcohol outlets have also occurred elsewhere.

Interest in the effects of licensing, and in particular of the density and clustering of alcohol sales outlets, as an issue for both policy and research has been renewed in recent years [8]. The modern literature on the effects of alcohol outlet density [9] can be seen as part of a wider contemporary literature on the effects of alcohol availability, defined in physical, economic and sometimes also psychological terms [10,11]. Limitations on availability which have been studied include taxation and other price measures [11, pp. 101 – 15], restrictions on the minimum drinking age [12] and changes to opening hours and days of sale for alcohol outlets [13,14].

Overview of the outlet density literature

Effects on alcohol consumption

Studies examining the relationship between outlet density and alcohol consumption have produced mixed results. The studies fall into three broad categories: cross-sectional studies; natural experiments; and time-series analyses. Cross-sectional studies assess the spatial association between outlet density and alcohol consumption at a single point in time. These studies can provide some indication of the link between outlet density and consumption, but provide little insight into what will happen to consumption as outlet density changes within a particular region. Natural experiment studies examine what happens when a discontinuous change in the variable of interest takes place (e.g. allowing alcohol sales from supermarkets). Such studies are the most robust method (short of the chance for a full random-assignment experiment; e.g. [13]), generally allowing causal inferences to be made where subsequent changes in an outcome variable (e.g. consumption) are identified. However, by their nature, natural experiment studies examining outlet density rely on dramatic changes, while outlet density is more likely to change gradually. Time – series studies focus on the gradual, long-term changes in rates of outlets and consumption or problems. Rather than evaluating a specific systemic change, these studies attempt to determine whether, over a certain amount of time, changes in outlet rates are related to changes in problems.

Cross-sectional studies focusing on the relationship between outlet density and alcohol consumption at the local community level have produced mixed results. These studies have been based on multi-level models that combine individual-level data from population sample surveys with aggregate community-level data from administrative sources. Scribner *et al.* [15] found that neighbourhood-level outlet density, but not individual-level measures of accessibility, was related significantly to both drinking norms and consumption levels in 24 New Orleans census tracts. In contrast, an analysis of 82 neighbourhoods in California by Pollack *et al.* [16] found that, while bars and off-premise outlets were concentrated in the most economically disadvantaged neighbourhoods, alcohol consumption was highest in economically advantaged neighbourhoods. A series of studies focusing on college students consistently found a significant link between outlet densities around colleges and rates of binge-drinking and

drinking-relating problems, both for the students and the surrounding community [17–19].

Studies which have capitalised on natural experiments in alcohol availability have come largely from the Nordic countries, where access to alcohol has traditionally been more restricted than in many other developed countries. These studies have examined substantial changes in alcohol availability such as the opening of a store in a community that previously had none, or the introduction of beer or wine into supermarkets. Studies in Finland (summarised in [20]) used the introduction of outlets into rural villages and changes to regulations permitting grocery stores to sell beer to study the impact on changes in consumption. These changes resulted in a marked increase in the consumption of beer, with marginalised and heavy drinkers affected more than the average. Swedish studies have focused similarly on the introduction and removal of medium-strength beer (4.5% by volume) from supermarket shelves, finding substantial effects on consumption as well as alcohol-related hospitalisations, particularly among teenagers [21]. In contrast, similar studies in Norway found little effect on total alcohol consumption when beverage-specific (beer) outlet densities changed. Further studies found that changes in the physical availability of legal alcohol were often related to changes in consumption of illegal alcohol (moonshine), without changing overall consumption levels [20]. Outside the Nordic countries, studies have focused on the dismantling of government retail monopolies, generally resulting in substantial increases in numbers of outlets. The privatisation of the retail wine monopolies in five US states produced significant increases in wine sales, without substantial changes in beer or spirits sales [22]. Similar results were found when the privatisation of wine sales in Quebec was studied [23].

There have been few studies examining the effect of gradual changes in outlet density on alcohol consumption. An econometric analysis by Godfrey [24] in the United Kingdom attempted to ascertain the relationship between demand for alcohol (measured by consumption) and licensing. It aimed to determine whether demand drove licensing (i.e. increased demand resulting in new outlets opening) or vice versa (i.e. more licences producing more demand), using annual time-series data from 1956 to 1980. The analysis used instrumental variable regression to disentangle the simultaneous relationship between outlet density and demand. The study found that licensing and beer consumption were related, with new licences stimulating more demand, but found no relationship for wine and spirits. Gruenewald *et al.* [25] examined a similar question using a cross-sectional time-series analysis of sales, price and outlet data for wine and spirits from 38 US states. Their analyses, using a two-stage regression model to examine the simultaneous relationships between outlet density and sales, found that outlet densities were related significantly to sales for both wine and spirits, and that the direction of the relationship was strongest from outlets to sales (i.e. increased outlets led to increased sales more than increased sales leading to increased outlets). However, a replication of this study at the neighbourhood level in five Californian communities [26] did not reproduce this result, finding no relationship between outlet densities and consumption. Outside the United States, Trolldal [27] conducted time-series analyses of spirits, wine and beer sales in four provinces of Canada, examining their relationship with price and availability. Price was the strongest predictor of sales, with physical availability significant in only two of 20 analyses, suggesting at most a small effect of outlet density on consumption.

Effects on violence

Many cross-sectional studies have examined the spatial relationship between outlet density and rates of violence, almost all of which have found significant positive relationships [28–41]. Despite the broad similarities in findings, the specifics of the relationships between outlet and violence vary markedly from place to place and from study to study. Different localities have found different effects by outlet type, with bars significant in some studies [34], off-premise outlets in others [32] and both types (sometimes in differing ways) in others [35,39]. Where interaction effects have been explored, results are also inconsistent. Smith *et al.* [41] found that the relationship between outlets and violence was stronger in socially disorganised areas, while Nielsen & Martinez [35] found that the effect of outlets on violence did not vary with social disorganisation. Gruenewald *et al.* [39] found that bars were related to violence in unstable, poor areas *and* in rural middle-income areas, but not otherwise. Finally, the results from analyses which have examined how surrounding areas affect violence in the target area have been complex. Gorman *et al.* [33] found that outlets in surrounding areas were not related to violence in the target area, while Zhu *et al.* [36] found that outlet density in neighbouring suburbs was related significantly to violence in a particular suburb.

Again, the best evidence on how changes in outlet-density will affect violence rates comes from longitudinal studies. Longitudinal analyses allow the examination of changes in outlet density within a particular region, minimising the possibility that the effects attributed to changes in outlet density are related to other, unobserved, variables. Norström [42] conducted a time-series analysis relating two measures of assault to on-premise outlet density in Norway between

1965 and 1990. This study found significant associations, suggesting that as the density of outlets in Norway changed, assault rates changed correspondingly. Further evidence of a longitudinal relationship was found by Gruenewald & Remer [43], who used 6 years of data from 581 Californian postal areas to undertake cross-sectional time-series analyses of the link between outlet density and assault. The study incorporated a range of environmental controls (e.g. other retail places) and socio-demographic controls (e.g. median household income) across the 6 years, as well as measures of densities of three types of outlet: bars, restaurants and off-premise retailers. The study found significant positive effects for both bars and off-premise outlets on violence, and a negative effect for restaurants. The density of bars in neighbouring regions was also associated positively with violence, suggesting that new bars influence violence not only in their local area, but in surrounding regions as well. The authors estimate that an average reduction of one bar in each of the 581 postal codes analysed would have resulted in 290 fewer assaults over the 6 years studied.

Effects on other alcohol-related problems

A substantial number of cross-sectional studies have examined the relationship between outlet density and a variety of alcohol-related problems. Recent studies which have examined the link between outlet density, drink-driving and motor vehicle accidents have generally found positive relationships ([44–46]; although see Meliker *et al.* [47] for an exception). In addition, studies have found cross-sectional links between outlet density and pedestrian injury [48], child maltreatment [49,50], neighbourhood amenity problems [17,51] and rates of sexually transmitted disease [52].

Longitudinal studies of these problems have been less common. Trolldal [53] used an interrupted time-series model to examine the impact of the privatisation of retail sales of alcohol in Alberta and found no impact on rates of fatal motor vehicle accidents. A more recent study, focusing on rates of gonorrhoea as a measure of risky sexual behaviour, presents the best evidence from a natural experiment on the effects of a reduction in alcohol outlets [54]. After the 1992 civil unrest in Los Angeles, in which many liquor stores were burned, 270 alcohol outlets surrendered their licenses in the wake of a community campaign to prevent damaged outlets from reopening. This provided an unusually unambiguous natural experiment, with a well-defined 'intervention' and a substantial reduction in outlets. Using data at the census tract level, Cohen *et al.* [54] examined the impact that this reduction in outlets had on rates of gonorrhoea. The study attempted to differentiate between alcohol outlets as a causal factor (through alcohol consumption and risky behaviour) and as a marker of social disorganisation. The results of this study showed a marked impact of alcohol outlets on gonorrhoea rates, suggesting that outlets play a significant role in the spread of gonorrhoea, even when social disorganisation was controlled for. Although confounding effects related to social disorganisation were controlled for, it remains possible that some unmeasured features of the 1992 unrest were responsible for the observed reduction in gonorrhoea rates. None the less, this study provides some of the strongest evidence that reducing the number of alcohol outlets in a community will reduce the incidence of alcohol-related problems.

Alcohol outlet density and theory

The theoretical foundations of outlet density studies have not yet been developed fully. Many older studies [55,56] have relied heavily on classic 'availability theory', which posits three inter-related propositions: (i) as the availability of alcohol in a community increases, the mean consumption of its population also increases; (ii) as the mean alcohol consumption in a population increases so the number of heavy drinkers increases; and (iii) heavy drinking is associated with adverse health and social outcomes and as the number of heavy drinkers in a population increases, so too does the level of alcohol-related health and social problems [57]. There is a wealth of evidence to support the classical postulates of availability theory [58], but in itself the theory does not adequately explain the variable and complex relationships demonstrated by studies of outlet density and harm.

Stockwell & Gruenewald [9] have expanded the basic propositions of availability theory to take into account variation in how changes in availability may be experienced across drinking groups and the contribution of other factors to rates of harm. Changes in availability are redefined more precisely, in terms of changes in the 'full price' of alcohol, including the real price adjusted for the cost of living and convenience in terms of the time and effort required to obtain it. Thus Stockwell & Gruenewald's first postulate states that:

> Greater availability of alcohol in a society will increase the average consumption of its population when such changes reduce the 'full price' of alcohol, i.e. the real price of beverages at retail markets plus the convenience costs of obtaining them [9, p. 217].

In addition, Stockwell & Gruenewald recognise that alcohol-related harms can be affected by changes in availability that do not necessarily alter overall

consumption levels. Thus Stockwell & Gruenewald's second postulate asserts that:

> Greater availability of alcohol in a society will directly affect alcohol-related harm when such changes affect the distribution of 'routine drinking activities'; behaviours drinkers engage in when consuming alcohol (e.g. drinking at bars vs. at home; drinking socially vs. alone) [9, p. 217].

The mention of 'routine activities' in this proposition, a term derived from criminology [59], signals that Stockwell & Gruenewald have moved towards integrating criminological theory with availability theory. This is indicative of the growing focus of analysts on theories which seek to explain how characteristics of drinkers and their neighbourhoods predispose to criminal activity (e.g. routine activities theory; social disorganisation theory). Routine activities theory [59] posits that crime takes place when potential offenders and victims come into contact during their day-to-day activities. Roncek & Maier [28] and Smith *et al.* [41] have both suggested that alcohol outlet density is linked to violence through the ability of the outlets to attract large numbers of uninhibited young males, who serve as ready supplies of both motivated offenders and potential victims. Social disorganisation theory, on the other hand, postulates that violence is more likely to take place in communities lacking in collective efficacy or informal social control [60]. Alcohol outlets have been suggested as a marker for social disorganisation; as well, organised communities may be better equipped than poorly organised ones to resist the addition of outlets to their community through legal and political means [61]. In addition, some researchers have suggested that alcohol outlets represent visible signs of neighbourhood decay, effectively announcing that the community cannot respond to problems collectively, thus making it a more attractive area in which to commit crime [33].

Most studies have discussed plausible theories that may explain their results, but little work has gone into developing how such theories might inform study design. In this section, we suggest a basic theoretical framework for outlet density studies. We propose that the effects of alcohol outlet density can be separated conceptually into: (i) a proximity effect (how easily one can access alcohol); and (ii) an amenity effect (how outlets influence the quality and characteristics of surrounds within the local community). This conceptual separation links the broad availability theory propositions put forward by Stockwell & Gruenewald [9] with the specific issue of outlet density. The proximity effect focuses on the impact of outlet density on the convenience costs described in their first postulate, while the amenity effect provides a specific link between outlet density and specific types of routine drinking activities discussed in their second postulate.

The proximity effect (i) is the outcome focused upon by much of the work on outlet density, which approached the issue from the perspective of simple availability theory. Increased outlet density—whether for on-premise or off-premise sales—makes alcohol more accessible (each new store makes someone closer to a liquor store), and it is hypothesised that, *ceteris paribus*, this increases consumption and alcohol-related problems. It may also have a second effect in this direction: each new outlet potentially increases the competitive pressures on existing outlets, which may result in price reductions which tend to lead to increased levels of consumption [11].

The amenity effect (ii) relates to the negative effects (e.g. violence, street disturbances, etc.) of licensed premises on the neighbourhoods in which they operate (and possibly adjacent neighbourhoods). From this perspective, alcohol outlets are seen as attractors of trouble, particularly violence, which might or might not have happened elsewhere. This may involve increased alcohol consumption overall, but it may also involve a simple redistribution of where consumption takes place. Both on- and off-premise outlets may have an amenity effect, in terms of who they attract and how they behave, but the primary emphasis in Australia and the United Kingdom [8], for instance, has been on on-premise outlets. The amenity effect of bunches of alcohol outlets in the same district often results from crowds of young people, in various stages of intoxication, moving between outlets or spilling out onto the streets at closing time.

These two different aspects of density of alcohol outlets have different implications for the relationship between outlet density and alcohol-related problems. A proximity effect for alcohol outlets may operate in a similar way to the 'retail gravity model', whereby the effect of a new outlet declines with the square of the distance to the outlet. Norström [62] has demonstrated the applicability of this model to alcohol purchases, finding the effect of the availability of cheaper alcohol in Denmark on Swedish drinking diminished with the square of the distance from the main gateway between the two countries. If a similar effect were to exist for outlet density on consumption, the impact of extra outlets would diminish as the number of outlets per square kilometre increased. This is demonstrated in Figure 1, which illustrates the proximity effect of additional outlets added at random locations within a hypothetical 25-km^2 neighbourhood. Where there are large numbers of alcohol outlets in operation, the community will be in the flat part of the effect shown in Figure 1, with extra outlets adding little in terms of a proximity effect. It should be noted that this figure assumes that extra outlets reduce only convenience

costs, without attention to the possibility of price reductions from increased competition.

The nature of the amenity effect of outlet density is less clear. If each additional outlet attracts the same amount of additional problems, a straightforward linear relationship is plausible (at least until such time as the number of outlets reaches the maximum the market can support). However, addition of outlets in bunches may create a different effect. At a certain point, a growing bunch of outlets, particularly on-premise outlets such as hotels and bars, becomes fixed in people's mental maps as an entertainment district, and thus starts attracting crowds above and beyond what would be attracted by the same number of outlets on their own. In this situation, there are likely to be large numbers of people circulating from outlet to outlet, creating the potential for additional alcohol-related problems. Thus, it is possible that the amenity effect of outlet density on alcohol-related problems has a critical point—the point at which an area is seen as an entertainment district—after which alcohol-related trouble increases more sharply with extra outlets. An example of what this might look like is provided in Figure 2.

Broadly speaking, studies examining levels of consumption should be looking for a proximity effect of outlet density, while studies focusing on alcohol-related disorder and violence should be looking for an amenity effect. The situation for motor vehicle accidents is less clear. Increased accessibility via the proximity effect will reduce the distance required to drive to the nearest outlet, which will reduce the risk of an accident on a particular trip but might increase the likelihood of someone deciding to make the trip. The amenity effect, particularly the creation of entertainment districts, may increase the number of people driving longer distances to and from licensed premises, although this will depend upon the accessibility of public transport and taxis and social norms regarding driving after drinking.

The implications of this theoretical framework are twofold. First, studies examining the effect of outlet density on alcohol consumption and related problems need to be clear about which type of effect they are studying. This will depend upon the setting, the type of outlet and the type of outcome being examined, and is something that needs to be discussed explicitly. Secondly, there is a good chance that the relationships between outlet density and alcohol-related problems are not strictly linear, and studies should not use statistical analyses that test only for/assume a straight-line relationship.

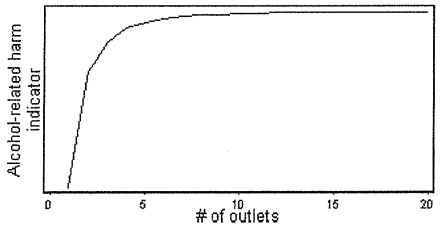

Figure 1. *Model of proximity effect of outlets based on the square of the average distance to the nearest outlet in a hypothetical community measuring 5 × 5 km.*

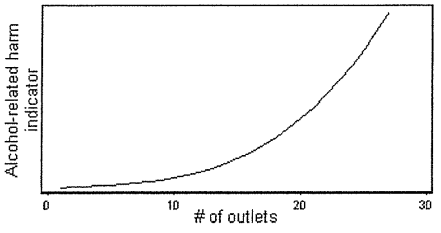

Figure 2. *Model of amenity effect of outlets in an area where around 15 outlets stimulates the creation of an entertainment district.*

Gaps in the literature

The outlet density literature has grown dramatically in recent years, as advances in spatial data and methods for its analysis have taken place. However, the majority of the studies have taken a very similar approach, regressing rates of a particular outcome measure (consumption, violence, etc.) on outlet density, while controlling for socio-economic and demographic factors and statistical biases inherent in spatial analyses. The variety of results suggests that further thought is needed both in formulating an appropriate theoretical framework, as discussed above, and in developing new approaches to tease out the specifics of the relationships being examined.

One of the major weaknesses of most outlet density studies is the underlying assumption that every outlet (within broad licence categories) is equivalent. Thus, in most published studies both a small bar and a sprawling multi-level nightclub would be counted as one on-premise licence. This has obvious limitations. There are two plausible ways in which this can be overcome, at least in part. First, data relating the amount of alcohol sold by premises (or a proxy measure of sales such as wholesale alcohol purchases) would provide an extra dimension for analysis, allowing both density and consumption to be studied. Secondly, data linking alcohol-related harms to specific premises would allow a deeper understanding of the premise-specific drivers of alcohol-related harm.

Only a handful of studies [30,63,64] have incorporated both outlet density and wholesale alcohol purchases into their analyses. Wider application of these data would enable further exploration of how changes in outlet density actually influence levels of consumption. Such data could also be used to examine the degree to which changes in outlet density which affect levels of harm can be explained by changes in volumes of alcohol sales (or not) and in relation to particular types of beverages (e.g. [63]). Unfortunately, the systematic collection of alcohol sales or purchases made by individual licensed premises by administrative authorities is rare. In principle, private wholesalers could volunteer or be required to provide such data, but this is presently also very uncommon. In the main, alcohol consumption data is only available in aggregate for large geographical areas—a country as a whole (United Kingdom, Australia), or a state or province (United States, Canada), based usually on production, imports and exports data or tax collections. In Australia, only two jurisdictions collect wholesale purchase information from licensees and make the information available for research purposes (Northern Territory, Western Australia). Expanded collection of these types of data is essential to enable studies that can illuminate some of the complex effects of outlet density and, ultimately, to predict the likely outcomes of change.

Data relating to specifically identifiable individual premises associated with alcohol-related problems are not routinely collected in many jurisdictions. In many cases, therefore, it is not possible to distinguish rates of harms by type of licence (e.g. on-premise or off-premise) or other characteristics of the premises. However, there is good evidence to suggest that some types of liquor licences contribute disproportionately to alcohol-related harms [65]. Reporting systems such as the Alcohol Linking programme in New South Wales and New Zealand [66] or the recording of 'place of last drink' information for impaired drivers in Western Australia could be introduced more widely into standard policing practices. Further work using these types of data could explore the impact of bunching by examining whether or not people involved in alcohol-related problems had visited multiple alcohol outlets prior to the incident. These types of data will also allow for studies examining the impact on alcohol-related problems of changes in licensing conditions (e.g. opening hours) for particular premises by providing before and after data on alcohol-related harms associated with individual premises [67].

Finally, there is a lack of recent longitudinal studies assessing how individual alcohol consumption is affected by changes in outlet density. The Nordic studies provided some evidence that changes in alcohol availability were particularly likely to affect young or marginalised drinkers [20]. In addition, studies that have examined extensions of opening hours [68,69] have found that problematic drinkers were the most likely to make use of increased availability. This raises the possibility that effects of outlet density which are specific to smaller subgroups may be difficult to detect using population-level data. Neither of the recent longitudinal studies that have examined the effect of outlet density on consumption [25,26] was able to examine the effects on subpopulations. Further study, particularly through longitudinal data collection on individual consumption, is necessary to ascertain whether outlet density is related to problematic consumption and long-term harm among some subgroups of drinkers.

On the whole, there is scant modern evidence applicable to the situation in many countries—where there is an abundance of alcohol outlets—of the effects of outlet density on alcohol consumption levels or on long-term alcohol-related health problems. The most compelling studies to have found positive relationships between outlet density and these outcomes have been undertaken in small-town Scandinavia and have generally examined situations of very low availability (e.g. the addition of a liquor store in a town where none previously existed) [20]. Recent longitudinal studies that have examined the effect of outlet density on consumption in regions with reasonably high alcohol availability found mixed results [25–27].

The implications for harm reduction

Despite this lack of clear evidence we propose that where the network of alcohol outlets is relatively dense, small changes in density are unlikely to affect alcohol consumption levels or rates of alcohol-related *chronic* health problems. There are two important caveats to this proposal. First, it should be noted that increased outlet density leads to an increasingly competitive alcohol market-place, possibly resulting in lower prices. In this circumstance, alcohol consumption levels would be expected to increase (see [11] for a summary of studies examining the impact of changes in price on alcohol consumption). Secondly, some studies [20] have suggested that socially marginalised drinkers are more likely to be influenced by changes in alcohol availability than other drinkers. This implies that changes to outlet density could markedly affect the consumption and long-term health problems of some population subgroups, sometimes without noticeable changes in population-level consumption estimates.

On the other hand, outlet density, and particularly bunching, are more likely to have an effect on rates of binge drinking, on alcohol-related injuries and violence, and on other short-term consequences related to concentrated drinking during discrete occasions. It is

in this area of problems that there are the strongest findings of an effect for outlet density. These effects are likely to take place at a local level: within a postcode or neighbourhood in urban areas. Hadfield [8] documents that, in Britain at least, a pub property is worth twice as much if it is located in proximity to existing attractive pubs and nightspots. There is thus substantial commercial value in bunching. Inherent in such bunching is the idea of night-time customers progressing from site to site in the course of a night out. This means that there are bound to be noise and disturbances in the neighbourhood while the night-time economy is flourishing. Close proximity of licensed premises makes it easier for customers to react to promotions such as cost undercutting. The movement of patrons between bars complicates the assignment of responsibility to any one server or establishment to forestall intoxication by cutting supply. These are all factors that can increase the level of problems from drinking.

Furthermore, although there are only a few cross-sectional studies that focus on it [18,51], the presence of a bar or liquor store can impact negatively upon neighbourhood amenity: noise late at night, street disturbances, disruptive behaviour, litter, vandalism and so on. More bars or liquor stores further reduce neighbourhood amenity. This is the classic situation that brought forward a common Australian response in terms of 'community accords' [70], where local police or authorities try to stimulate agreements among licensees to forswear overselling and limit promotions, with mixed results [71]. In Britain, the response has been provision for 'Alcohol Disorder Zones', where alcohol outlets within the zone are taxed to provide resources to counter alcohol-related disorder occurring as a result of the 'expansion in the night-time economy' [72].

This suggests that, where the primary aim is to limit or reduce rates of injury and other alcohol-related problems, particularly violence, greater attention might be paid to bunching than to density *per se*. Increasing the number of bars or stores close to each other, besides the additive effect from bringing together sources of trouble, is likely to increase competition (not a good thing in alcohol markets from a public health or order perspective), make server intervention more difficult and encourage disruptive strolling from pub to pub, increasing the likelihood of violence. It is worth noting, however, that bunching of alcohol outlets does make the targeted provision of some measures aimed at reducing alcohol related harm, such as policing and public transport, more straightforward.

Comprehensive policies for regulating outlet density and bunching should be based firmly on local level information, sound theoretical framework and well-designed research. Given the consistent links between outlet density and violence rates across a range of settings, study designs and data sources, a liquor licensing regime serving the interest of public health and order should incorporate consideration of outlet density and bunching into licensing decisions.

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22

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Alcohol outlet density and assault: a spatial analysis

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ABSTRACT

Aims A large number of studies have found links between alcohol outlet densities and assault rates in local areas. This study tests a variety of specifications of this link, focusing in particular on the possibility of a non-linear relationship. **Design** Cross-sectional data on police-recorded assaults during high alcohol hours, liquor outlets and socio-demographic characteristics were obtained for 223 postcodes in Melbourne, Australia. These data were used to construct a series of models testing the nature of the relationship between alcohol outlet density and assault, while controlling for socio-demographic factors and spatial auto-correlation. Four types of relationship were examined: a normal linear relationship between outlet density and assault, a non-linear relationship with potential threshold or saturation densities, a relationship mediated by the socio-economic status of the neighbourhood and a relationship which takes into account the effect of outlets in surrounding neighbourhoods. **Findings** The model positing non-linear relationships between outlet density and assaults was found to fit the data most effectively. An increasing accelerating effect for the density of hotel (pub) licences was found, suggesting a plausible upper limit for these licences in Melbourne postcodes. **Conclusions** The study finds positive relationships between outlet density and assault rates and provides evidence that this relationship is non-linear and thus has critical values at which licensing policy-makers can impose density limits.

Keywords Alcohol availability, assaults, outlet density, violence.

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INTRODUCTION

This paper examines the nature of the link between alcohol outlet density and assault in Melbourne, Australia. Alcohol-related violence in Australia is a substantial problem. In 1998/99, an estimated 62 534 alcohol-related assaults were reported to the police, and 8661 people were admitted to hospital for injuries sustained from alcohol-related assaults [1]. The links between alcohol consumption and violence have been well established in the international research literature [2]. In turn, alcohol consumption levels have been linked to the degree of alcohol availability through retail outlets and on-premise drinking establishments [3]. A series of studies have linked violence directly to alcohol outlets, with alcohol-related assaults often taking place in or around licensed premises [4] and substantial proportions of all assault victims injured while on licensed premises [5].

In recent years, a growing body of literature has examined the relationship between violence rates and alcohol outlet densities in local areas [6]. These studies, largely from urban areas of the United States, have focused on the cross-sectional associations between violence and alcohol outlets in small areas such as census tracts, while adjusting for a series of socio-economic and demographic factors. The results of these studies have almost uniformly suggested significant positive relationships between outlet density and violence [7–15], with units of analysis varying from cities down to street blocks. The results of the one study that found no relationship between outlet density and violence at the city level in New Jersey [16] were explained later as an artefact of the geographic units used [17]. In addition, one US study has shown that changes in outlet density over time are related to changes in violence rates [18]. A handful of studies from outside the United States have also found positive relationships between outlet density and violence, both cross-sectionally [19] and over time [20].

Despite the broadly consistent results found in these studies, the specifics of the relationships between outlet

density and violence have varied substantially. The effect of specific outlet types has been variable, with bars [13], off-premise outlets [11] and both types (sometimes in differing ways) [12,21] significant in various studies. When the interactions between outlet density and neighbourhood disadvantage have been studied, the results have also varied. Smith *et al.* [22] found that the relationship between outlets and violence was stronger in socially disorganized areas, while Nielsen & Martinez [21] found no significant interaction and Gruenewald *et al.* [12] found that bars were related to violence in unstable, poor areas *and* in rural middle-income areas, but not otherwise. Some studies have examined how the characteristics of surrounding areas affect violence in the target area using spatially lagged data (e.g. the average outlet density in neighbouring areas), with varying results. Gorman *et al.* [23] found that outlets in surrounding areas were not related to violence in the target area, while Zhu *et al.* [15] found that spatially lagged outlet density was related positively to violence. In addition, studies that have focused on population characteristics of surrounding areas have found powerful effects for population density [12,24].

Outlet density control policies, theory and non-linear outlet density effects

The theories that motivate the analyses of the relationship between outlet density and violence have been reviewed in two recent publications [6,25] and will be addressed here only to explore the expected form of the relationship between outlet density and assault rates. Livingston *et al.* [6] disaggregate the effect of outlet density on alcohol-related problems into two kinds of effects: proximity and amenity. They posit that proximity effects will be most relevant when exploring outcomes relating to consumption levels and that the increase in these outcomes related to outlet density will decelerate as outlet density increases towards 'saturation'. Contrastingly, they suggest that amenity effects may demonstrate accelerating increases as outlet density increases, bringing increasing numbers of drinkers into close contact with each other in entertainment districts ([6], p. 561). Gruenewald's theory of assortative drinking suggests that the increase in alcohol-related harm as outlet density increases may be non-linear, with phase transitions in harm rates at particular outlet densities ([25], p. 876).

These theorized non-linear effects have important policy implications. One obvious suggestion flowing on from studies that draw a link between alcohol outlet densities and violence rates is the application of local limits on outlet density to minimize the associated problems. The obvious question raised by this idea is how to determine outlet density limits for a particular region. If the relationships between alcohol outlet density and harms are strictly linear, then the decision is simply a matter of weighing up predicted levels of alcohol-related harm with the benefits of alcohol outlets, as each extra outlet contributes the same increase in harms. On the other hand, if the relationship is non-linear there may be more obvious threshold points, after which increases in alcohol outlet density lead to marked increases in associated harms, or saturation points, where any further increases have less or no effect.

Few studies have explored whether the effect of alcohol outlet on density is a linear one. An Australian study examining neighbourhood disorder rather than violence [26] used a categorical variable for outlet density, finding that the effect of outlets on alcohol-related problems was non-linear, with problems increasing more steeply at higher outlet densities. In a more rigorous examination of non-linearity, Gyimah-Brempong & Racine [27] used a non-parametric method to determine the best specification of the relationship between outlet density and crime at the census tract level in an unnamed US city, finding non-linear relationships, with the expected increase in crime for each additional licence rising as the number of licences increased.

The current study

This study examined the spatial relationship between alcohol outlet density and alcohol-related assaultive violence in Melbourne, Australia, controlling for a range of socio-demographic factors. Models exploring non-linear relationships between outlet density and violence, interactions between outlet density and socio-economic disadvantage and the effect of spatially lagged outlet density were developed and compared.

METHODS

Aggregated administrative data were used to assess whether the number of active liquor licences was related to police recorded assaults when a range of neighbourhood characteristics were controlled. The analysis was undertaken using data from 2001, ensuring demographic data from the 2001 national census could be used without inconsistencies in the study timeframe.

Geographical units

The study focused on the Greater Melbourne area, approximately 5600 km^2 containing the city of Melbourne, the second largest city in Australia, and its surrounding suburbs. The study was undertaken using postcodes as the unit of analysis. These regions are an administrative unit, defined by Australia Post, and represent the smallest geographical units for which reliable

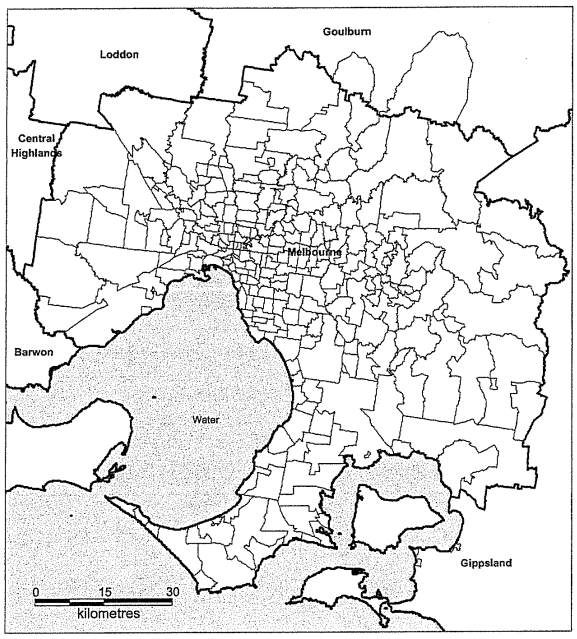

Figure 1 Postcodes within Melbourne Statistical Division, based on 2001 Australian Standard Geographical Classification boundaries

data were available for all the variables required for this study. Within the study region there were 223 postcodes and, at the time of the 2001 census, approximately 3 350 000 residents. A map of the postcodes in Melbourne is provided in Fig. 1. Postcodes generally represent local suburbs or communities, although in the outer areas of the city some encompass large non-residential areas including state parks or industrial zones. Geographical data relating to postcodes (e.g. area, neighbouring postcodes) were extracted from the digital boundaries released as part of the Australian Standard Geographical Classification (ASGC) [28]. Assault rates and outlet densities were calculated for each postcode on a population basis as rates per 1000 residents. Some previous studies have used roadway miles to denominate their measures (e.g. [12]), but studies using either area or population as denominators in rates have found similar results [8]. Two postcodes that represented particularly unusual land uses and low residential populations (i.e. an airport and a military base) were excluded from all analyses. In addition, initial analyses highlighted three outliers (central postcodes with high outlet and assault numbers and very low resident populations) that were excluded from the regression models. With these five units excluded, the final analyses were undertaken using 217 postcodes.

Licensing data

The Licensing Branch of the Victorian Department of Consumer Affairs provided data on active liquor licences. The licensing data include postcode information for each premise location and this field was used to assign outlets to postcodes. A check on the addresses of 110 random records found that the postcode data were accurate in 97% of cases. In this study, three types of licences are examined: general, on-premise and packaged. These three licence categories made up more than three-quarters of the licences in Victoria in 2001. General licences allow the licensee to sell alcohol for consumption both on and off the premises, and apply to taverns, hotels and pubs. On-premise licences allow the licensee to sell alcohol on the premises only, and generally apply to restaurants, bars and nightclubs. Packaged licences allow alcohol to be sold for off-premise consumption only and apply to retail liquor stores (including some supermarkets). The models in this paper include densities for all three of the licence categories. Separate models were

developed including only one category at a time, with broadly similar results.

Assault data

Assault data were provided by the Victorian Police from their Law Enforcement Assistance Program (LEAP) database. Due to the lack of a reliable indicator of alcohol involvement in the police data, assaults taking place between 8 p.m. and 6 a.m. on Friday and Saturday were considered 'alcohol-related' [29]. Thus the term 'alcohol-related assaults' in this paper refers to assaults that that took place between these times. It should be noted that these data may be influenced by policing practices and that it was not possible to assess the validity of police recording of postcode data. However, it is expected that these influences will be minor and that police-recorded assault data provide a reasonable basis for analysing postcode-level rates of violence. Alcohol-related assault rates were calculated on a per 1000 population basis. To ensure that the rates used were stable, the average assault rates over 3 years (1999/00–2001/02) were used.

Census data

Data from the 2001 Australian Census of Population and Housing were used for a range of socio-demographic variables in this study. Postcode level socio-economic status was measured using a composite measure, the Index of Relative Socio-Economic Disadvantage (IRSED) [30] derived from census data. The other census variables used were: the number of people counted in the area; the percentage of the population male and aged between 15 and 34 years (the population subgroup most involved in assaults); population per km^2; average number of people per household; percentage of the population that had moved house in the previous year; percentage of the population that spoke a language other than English at home; and the percentage of the population counted in the postcode who were not usual residents (as a proxy for tourist activity). Two other variables (the percentage of households that were owner-occupied; the percentage of the population who were born overseas) were considered, but were excluded from the final analysis as they resulted in multicollinearity in the final models.

Analyses

All statistical analyses were undertaken using the R software package [31], with the 'spdep' package [32] used for spatial analyses.

The dependent variable for this study was the 3-year average of the rate of alcohol-related assaults. The independent variables were the outlet densities for each of the three licence types, the population density, the IRSED index and the Census-derived variables listed above. Using these variables, a series of multiple regression models were developed.

The initial model included only linear effects for each independent term. This model was then expanded in three ways. First, cubic polynomial terms for the significant outlet density variables were included in a multiple regression model. An initial quadratic model was also fitted, but it was significantly poorer than the cubic model and is not discussed further. This provides an opportunity to explore whether the impact of outlets on alcohol-related assaults is steady (i.e. each extra outlet has the same effect on the alcohol-related assault rate) or whether there are non-linearities in the relationship suggesting densities beyond which extra outlets have either little impact or a more pronounced impact on violence. Secondly, interaction effects between outlet densities and the IRSED indicator were included to assess whether outlet density was related differentially to assaults in neighbourhoods of differing levels of socio-economic disadvantage. Finally, a model incorporating spatial lags was developed, to assess whether the characteristics of neighbouring postcodes were related to the assault rate in the target postcode.

In order to assess whether the final models were biased due to the lack of independence of the geographic units, each of these models was examined for evidence of spatial autocorrelation (see [12] for a good discussion of spatial autocorrelation in outlet density studies). In each case, the Moran coefficient (MC) was non-significant, precluding the need for more sophisticated spatial error models. Despite the non-significant MC, generalized least-squares models incorporating spatial error terms were developed to ensure spatial autocorrelation was not influencing the study's results. These models did not produce markedly different results from the regular ordinary least squares (OLS) models presented in this paper. Finally, the four fitted models were compared to ascertain which provided the best explanation of the observed data.

RESULTS

The zero-order correlations between the dependent variables and the alcohol-related assault rate provided in Table 1 demonstrate that without other control variables, each measure of outlet density is associated positively with the alcohol-related assault rate.

The results of the four regression analyses are presented in Table 2, models 1–4. Model 1 includes linear effects for each of the outlet density measures and socio-demographic factors, model 2 includes cubic polynomial functions for each of the three outlet density measures, with linear, quadratic and cubic terms, model 3 incorpo-

Table 1 Descriptive statistics of measures used in analysis.

	Min	*Max*	*Mean*	*SD*	*Correlation with alcohol-related assault rate*
Alcohol-related assault rate	0.0	4.4	0.6	0.7	1.00
General licence density	0.0	3.3	0.1	0.3	0.65**
On premise licence density	0.0	10.9	0.5	0.9	0.57**
Packaged licence density	0.0	1.5	0.2	0.3	0.17*
IRSED index	707.0	1152.0	1048.0	1034.0	−0.02
% Males aged 15–34 years	10.2	34.3	14.3	15.0	0.26
Population density	5.6	6405.0	1593.0	1637.0	0.19**
% Moved in the last year	5.9	41.8	14.8	16.2	0.47**
Average household size	1.7	3.7	2.7	2.7	−0.38**
% Non-English-speaking background	1.8	77.1	20.0	24.0	0.05
% In postcode who were not usual residents	0.0	22.1	0.8	1.3	0.69**

*Significant at the 0.05 level. **Significant at the 0.01 level. SD: significant difference. IRSED: Index of Relative Socio-Economic Disadvantage.

rates interaction terms between socio-economic disadvantage and outlet density and model 4 incorporates spatially lagged measures for a each of the outlet density measures, the IRSED measure of socio-economic disadvantage and population density. The results for the socio-demographic factors are largely consistent across the four models, with socio-economic disadvantage related positively to violence rates and household size and the percentage of the population from non-English-speaking backgrounds related negatively to violence.

The results for the outlet density measures varied slightly depending upon the model specification, although it is clear across all models that general and on-premise outlets were much more relevant than packaged outlets. In model 1, both general and on-premise outlet densities were related positively to assault rates, while there was no significant effect for packaged outlet density. In model 2, there were significant non-linear effects for general and packaged outlet densities and a positive, linear effect for on-premise density. General licence density remained associated positively with violence in model 3, while effects for on-premise and packaged densities and all interaction terms were non-significant. In model 4, both general and on-premise densities were related positively to assault rates, but only for local densities, while there was a negative effect for the spatially lagged density of packaged licences.

The four models produced were compared using the Akaike information criterion (AIC), which measures the goodness-of-fit of regression models, with a penalty for increasing the number of parameters that are estimated [33]. Lower values of the AIC represent models that use the fewest parameters possible to fit the data most effectively. The AIC values for the models fitted in this study are provided in Table 3. Clearly, model 2, incorporating non-linear effects for outlet densities, is the best fit to the data. Thus, the remainder of this paper will focus on model 2, and particularly on the implications of the non-linear terms for the outlet density measures. It should be noted that standard regression diagnostics were run on all models, with no substantial problems discovered. There was some evidence of inflated multicollinearity in the non-linear model, with a condition index of 35 due to the correlation between the polynomial terms. This is higher than normal, but is not indicative of substantial problems with the final model.

Comparing non-linear and linear relationships between outlet density and assault

The final model (model 2) includes cubic polynomial terms for each outlet density measure. This formulation allows the relationship between outlet density and alcohol-related assault rate to vary, so that the effect of an extra outlet is not fixed. That is, the effect on the assault rate in a particular postcode of changing the number of outlets from two to three may not be the same as the effect of changing the number of outlets from 20 to 21. This is demonstrated in Figs 2–4, which illustrate the relationship between alcohol outlets (general, on-premise and packaged, respectively) and alcohol-related assaults in a hypothetical community. All the characteristics of this illustrative community, except for the particular outlet type being examined, have been set to the median values in the sample and multiplied by the regression coefficients to provide model-based predictions for assault numbers. Thus, in Fig. 2, the hypothetical community has the number of on-premise and packaged outlets specified by the median on-premise and packaged densities, while the effect of general licence density is plotted between the minimum and maximum rates found in the data. In Fig. 3 everything is fixed at median levels except for

Table 2 Regression models of alcohol-related assaults.

	Model 1			*Model 2*			*Model 3*			*Model 4*		
Variable	*Parameter estimate*	*SE*	*Significance*	*Parameter estimate*	*SE*	*Significance*	*Parameter estimate*	*SE*	*Significance*	*Parameter estimate*	*SE*	*Significance*
Constant	5.259	0.767	<0.001**	4.825	0.763	<0.001**	6.064	1.024	<0.001**	5.333	0.995	<0.001**
General licence density	0.413	0.082	<0.001**	0.840	0.309	0.007*	2.437	1.098	0.028*	0.409	0.088	<0.001**
On premise licence density	0.168	0.033	<0.001**	0.265	0.104	0.011*	−0.532	0.473	0.263	0.158	0.033	<0.001**
Packaged licence density	−0.227	0.143	0.113	0.892	0.625	0.155	−3.146	2.175	0.150	−0.240	0.145	0.098
IRSED index	−0.003	0.001	<0.001**	−0.004	0.001	<0.001**	−0.004	0.001	<0.001**	−0.004	0.001	<0.001**
Population per km^2	<0.001	<0.001	0.249	<0.001	<0.001	0.211	<0.001	<0.001	0.422	<0.001	<0.001	0.807
Average household size	−0.333	0.143	0.021*	−0.218	0.145	0.134	−0.359	0.150	0.018*	−0.354	0.159	0.027*
% Population that were males aged 15–35 years	0.007	0.018	0.753	0.011	0.018	0.520	0.008	0.018	0.664	0.007	0.018	0.675
% Population that had moved in last year	−0.007	0.010	0.494	−0.009	0.010	0.345	−0.008	0.010	0.409	−0.011	0.010	0.273
% Non-English speaking background	−0.011	0.003	<0.001**	−0.012	0.003	<0.001**	−0.011	0.003	<0.001**	−0.011	0.003	0.002**
% In postcode who were not usual residents	−0.027	0.019	0.163	−0.017	0.019	0.376	−0.031	0.020	0.114	−0.041	0.021	0.052
(General licence density)^2				−0.845	0.314	0.007**						
(General licence density)^3				0.251	0.076	0.001**						
(On premise licence density)^2				0.005	0.030	0.878						
(On premise licence density)^3				−0.002	0.002	0.271						
(Packaged licence density)^2				−2.647	1.317	0.046*						
(Packaged licence density)^3				1.327	0.674	0.050						
IRSED × general licence density							−0.002	0.001	0.068			
IRSED × on premise licence density							0.003	0.002	0.182			
IRSED × packaged licence density							0.001	0.001	0.142			
Lag (general licence density)										−0.002	0.171	0.993
Lag (on premise licence density)										0.102	0.064	0.114
Lag (packaged licence density)										−0.656	0.312	0.037*
Lag (IRSED)										0.001	0.001	0.574
Lag (population per km^2)										<0.001	<0.001	0.581
Adjusted R^2	0.580			0.620			0.581			0.587		
Moran's coefficient	−0.024		0.913	−0.039		0.662	−0.029		0.826	−0.024		0.994

*Significant at 0.05 level. **Significant at 0.01 level. IRSED: Index of Relative Socio-Economic Disadvantage; SE: standard error.

Table 3 Akaike information criterion (AIC) for model comparison.

Model	*AIC*
Model 1 (linear, main effects)	274.5
Model 2 (non-linear)	258.9
Model 3 (interaction terms)	276.0
Model 4 (lagged terms)	274.8

on-premise outlet density, and for Fig. 4 only packaged outlet density varies. The number of alcohol-related assaults in the postcode predicted by model 1 (linear) and model 2 (non-linear) are both included to demonstrate the benefits of considering non-linear relationships compared with the standard linear relationships.

The linear model shows that as the number of general licences in this postcode increases from zero to 42, the predicted annual number of alcohol-related assaults increases steadily from seven to 25. The non-linear model, on the other hand, shows little difference in the number of assaults expected between zero and 25 licences (approximately 12) and a sharp increase between 30 and 42. This more complex relationship provides some indication of a crucial threshold level of general licences for the postcode (approximately 30), above which each new licence results in a marked increase in the expected number of alcohol-related assaults.

The non-significance of the non-linear terms for on-premise outlet density is illustrated clearly in this plot, with the minimal differences between the linear relationship from model 1 and the non-linear relationship from model 2.

The relationship between packaged liquor outlets and alcohol-related assaults in model 1 is negative (but non-significant), while the borderline-significant non-linear relationship from model 3 shows a similar, if slightly steeper, decline until the number of outlets reaches 15, after which each extra outlet results in a sharp increase in the predicted number of assaults. It is not clear that this represents a genuine effect, as the coefficients are only marginally significant.

DISCUSSION

The results of this study provide further evidence of a cross-sectional link between alcohol outlet densities and violence. The study examined the relationship between the density of three types of outlets, general (hotels and taverns), on-premise (restaurants, bars and nightclubs) and packaged (retail outlets) and alcohol-related assault rates. The best model (model 2) included non-linear relationships between some outlet densities and assault, suggesting that the effect of outlet density on violence differs with outlet density. This model was a significant improvement on the basic linear model, and the implications of the non-linear outlet density effects for determining plausible outlet limits were examined for a hypothetical community.

The broadly positive relationship between density of general licence premises and assaults is not surprising. Previous studies have found that tavern densities are related to violence [14], and studies in settings where licences combine on- and off-premise consumption have also found significant links between outlet density and violence [23,34]. The non-linearity in the relationship between general licences and alcohol-related assaults in this study provides evidence that, while the overall relationship is positive, with alcohol-related assaults increasing with the number of outlets, there may be a point after which each additional outlet contributes increasing numbers of additional assaults. Given the nature of the licensing data used for this study it is impossible to determine fully whether the assaults associated with general licence density are related to on- or off-premise consumption. However, with the assault measure used in this study (assaults recorded by police between 8 p.m. and 6 a.m. on Friday and Saturday), it seems reasonable to assume that a substantial proportion of the assaults are related to on-premise consumption, as these times represent the peak times for customers frequenting on-premise drinking establishments.

Regarding on-premise licences, only the linear term was significant in the final model, suggesting a fairly simple relationship between on-premise outlet density and alcohol-related assault rates. This relationship is similar to many results found for density of bars in other settings [13,21]. In addition, the work undertaken by Smith *et al.* [22] combined restaurants and bars into a single index (providing a comparable metric to the on-premise licences as defined in Victoria) and found a significant positive relationship between this index and street robberies. Contrastingly, Zhu *et al.* [15] found a negative relationship between restaurant density and violence, while finding a positive link with bar density. The nature of liquor licensing in Victoria makes replication of their work impossible, with data for on-premise licences on the licensing database not disaggregated easily into restaurant and bar subcategories.

The differing relationships for general and on-premise licences require further examination. General licences are provided for hotels, while on-premise licences cover a wide array of other drinking establishments including restaurants, bars, cafes and nightclubs. In general, a hotel is a place that patrons visit for the specific purpose of drinking alcohol and previous Australian work has highlighted hotels as particularly problematic premises in

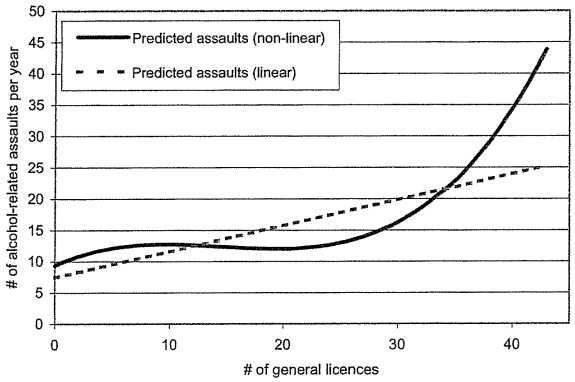

Figure 2 Linear and non-linear relationships between general licences and alcohol-related assaults in a hypothetical postcode

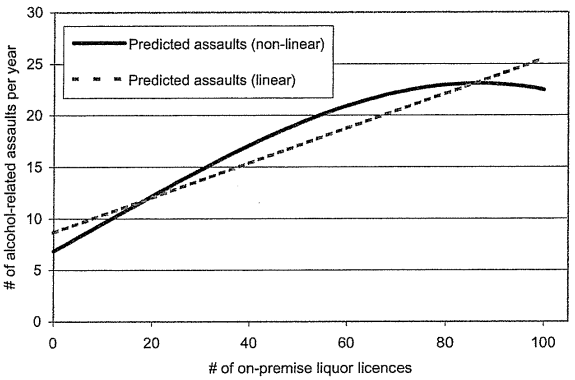

Figure 3 Linear and non-linear relationships between on-premise licences and alcohol-related assaults in a hypothetical postcode

terms of violence [35]. The on-premise licence category includes a wide array of premises, including places where drinking alcohol is not the primary focus of patrons (e.g. restaurants, cafes). It is conceivable that the relationship found between general licences and violence would be similar for the subset of premises within the on-premise licence category where drinking is the main activity (e.g. nightclubs); however, this cannot be tested with the current data.

Packaged outlet density has been linked repeatedly with violence in the US studies [11,12,36], and the lack of a clear positive relationship in this study was surprising. The non-linear relationship found in the final model suggests a possible positive relationship between packaged outlet density and violence when packaged outlet density is high (see Fig. 3), but the effect is only marginally statistically significant. It is difficult to compare the results of this study with previous work examining off-premise outlet density and violence. For example, it is conceivable that the definition of alcohol-related assaults used for this study focused the analysis on assaults more likely to be related to on-premise consumption. However, it is also worth noting the cultural differences between the use of packaged liquor outlets in Melbourne and those in some of the other study sites. Off-premise outlets have been suggested as hubs for a range of other violence-related activities. In particular, Alaniz *et al.* [36] discuss the relationship between drug use, gang activity and other risky behaviours and liquor outlets, while other authors [37] have pointed to the sale of drug paraphernalia by packaged outlets in California as an indication of their role as attractors of problem behaviours. These associations have not been examined in Australian studies, but these problems do not appear to be linked strongly with packaged liquor outlets in an Australian context.

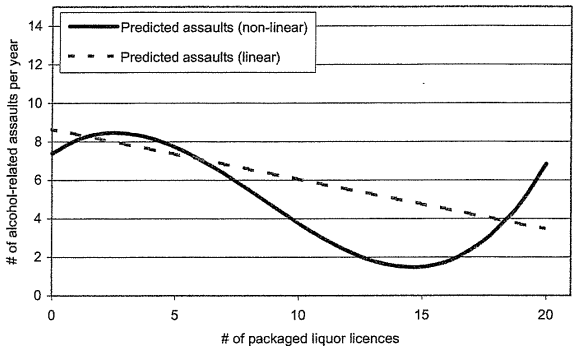

Figure 4 Linear and non-linear relationships between packaged licences and alcohol-related assaults in a hypothetical postcode

While this study provides good evidence of a spatial association between alcohol-related assaults and alcohol outlet density, it should be noted that its cross-sectional design prevents strong conclusions being drawn around causality. Furthermore, previous work [35] has highlighted that assaults on licensed premises disproportionately take place in a small number of establishments, highlighting the need to further examine the types of outlets that are related to assaults. Further data, such as alcohol sales, opening hours, capacity and venue style, could provide substantial insights into how different outlets contribute to the effect of outlet density on assault.

This study has shown a significant positive relationship between alcohol outlet density and assault rates. In particular, the examination of non-linear effects of outlet density demonstrated a critical threshold for general licence density, after which rates of violence increase sharply. This effect requires further examination, but suggests that alcohol-related problems do not necessarily increase consistently with outlet density and provides an avenue for the development of appropriate caps on liquor licences in local areas, an avenue that is being examined increasingly by local governments in Australia. The overall positive link between outlet density and violence found in this study provides more evidence that the ongoing liberalization of liquor licensing policy in Australia, driven in part by the National Competition Commission [38,39], has the potential to result in significant increases in public order and public health problems.

Acknowledgements

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August 22, 2012

APPLICANT'S CLOSING BRIEF

RE: Application for retail liquor store license by Junction Liquors, LLC, dba Fun Junction Liquors, 510 28 ¾ Road, Units 202-205

In accordance with the direction of the Hearing Officer at the conclusion of the hearing held on August 15, 2012, the Applicant hereby submits this Closing Brief.

This matter relates to the application for a liquor store license to be located at 510 28 3/4th Road, Units 202-205. The Applicant in this matter is Junction Liquors, LLC, a Colorado limited liability company.

STATUS OF APPLICATION

By memo dated July 13, 2012, Juanita Peterson, Deputy City Clerk of the City of Grand Junction, issued a Memo to the Local Licensing Authority which stated that "the Application and supplementary documents were reviewed, and found to be in order and accepted." The memo references that there is one similar-type outlet within the survey area, which was defined as the area bounded on the north by Orchard Avenue, the south by I-70 Business Loop, the east by 29 ½ Road, and the west by 28 ½ Road, and included both sides of the streets as the outer boundaries.

During the course of the hearing, it was determined that it is apparent that Enterprise Liquors, located at 2923 North Avenue, #7, although within the County, rather than the City limits, was also within the subject neighborhood.

Throughout the hearing, numerous references were also made to Eastgate Liquor, which had been located in the Eastgate Shopping Center, a commercial development immediately west of the 28 ½ Road western boundary of the subject neighborhood. The discussions regarding that store included references to the fact that it had closed in late 2011. The Applicant submits that the previous existence of that store, and its recent closing, are significant to the analysis of this application, as set forth below.

Based upon the Memo from the City Clerk, and the fact that the hearing did not contain challenges to the sufficiency or completeness of the application package, the Application is complete.

APPLICABLE LAW

The applicable statutory law relating to the consideration and determination of applications such as this one is primarily located within C.R.S. § 12-47-301. In subsection (2)(a) of that statute, the following is provided:

> Before granting any license, all licensing authorities shall consider, except where this Article and Article 46 of this Title specifically provide otherwise, the reasonable requirements of the neighborhood, the desires of the adult inhabitants as evidenced by petitions, remonstrances, or otherwise, and all other reasonable restrictions that are or may be placed upon the neighborhood by the local licensing authority.

Subsection (2)(b) provides as follows:

> A local licensing authority or the state on state-owned property may deny the issuance of any new tavern or retail liquor store license whenever such authority determines that the issuance of such license would result in or add to an undue concentration of the same class of license and, as a result, require the use of additional law enforcement resources.

Limited clarification of the analysis of applications under the above referenced statute is provided in Regulation 47-301 of the Colorado Liquor Rules. That Regulation provides as follow:

Regulation 47-301. Undue Concentration of Licenses.

A. For purposes of determining if the issuance of a new tavern or retail liquor store license would result in or add to an undue concentration of the same class of license and, as a result, require the use of additional law enforcement resources, the state or local licensing authority may consider factors, including, but not limited to:

   1. Whether the ratio of the number of tavern or retail liquor store licenses within the county/s of the neighborhood to be served where application has been made to the county/s population exceeds the ratio of the statewide number of licenses of the same class to the state population;

   2. Whether the ratio of the number of tavern or retail liquor store licenses within the census tract or census division in the neighborhood in which the applicant premises are located to the

population of the census tract or division exceeds the ratio of number of licenses of the same class in the county or municipality to the population of the county or municipality where application has been made;

3. The distance between the applicant premises and the premises of other holders of the same class of license;

4. Published data concerning the concentration of tavern or retail liquor store licenses and its effect on the need for law enforcement resources; and

5. Testimony concerning the use of law enforcement resources by law enforcement officials with the responsibility for enforcing state or local law in the area in which the applicant premises are located.

B. For purposes of this regulation:

1. The number of tavern and retail liquor store licenses within a given area shall be as published by the state licensing authority;

2. The population shall be the estimate published by the most recent United States decennial or special census (for state, census tract, and census division data) or the most recent estimates published by the Department of Local Affairs (for county and municipal data).

3. "Neighborhood" shall be that area as required pursuant to 12-47-312(2)(a) C.R.S.

The case law from the Colorado courts applying the above referenced statute and regulation is quite limited. With regard to the concept of undue concentration and its effect on the application of law enforcement resources, there is absolutely no case law from the Colorado courts analyzing or even referencing this concept.

With regard to the more generalized requirements of § 12-47-301(2)(a), some of the historic case law provides insight into the proper scope of the analysis under those sections. Those cases include the following:

1. Although expressions of opinion as to the requirements of the neighborhood and the needs of inhabitants thereof, contained in petitions and remonstrances, are entitled to consideration, they are not necessarily conclusive or controlling; that the issuance of licenses under the liquor code depends on the

final analysis on the judgment of the licensing authority and not upon that of citizens or the court. (MacArthur v. Sanzalone, 123 Colo. 166, 168 (Colo. 1950).)

2. The scope of the licensing authority's discretion in this regard can include consideration of the license locations on the periphery or fringe of the designated neighborhood. (See, Brentwood Liquors, Inc. v. Schooley, 147 Colo. 324 (Colo. 1961).) In that opinion, the Colorado Supreme Court considered a matter where the applicant's proposed location was approximately four to five blocks from a similarly licensed store. However, the opinion also references the existence of three county licensed liquor stores directly across Federal Boulevard in Denver. (Id., at page 325.) Although that opinion involved a discussion of the definition of the designated "neighborhood," the analysis implies that consideration of the circumstances regarding similarly licensed locations outside of the bright line boundary of the neighborhood is not arbitrary or capricious. (The Applicant notes that no determination has been made as to whether the recently closed Eastgate store was, by virtue of being on the west side of 28 ½ Road, within the subject neighborhood, but the reference to both sides of the boundary streets may well place it within the defined neighborhood.)

3. In the case of the Board of County Commissioners of the County of Adams v Thompson, 167 Colo. 402 (Colo. 1969), the Colorado Supreme Court considered a case where the fact pattern evidenced that there were three similarly licensed locations within the designated neighborhood. (It appears, in that there were references to two such stores being "a mile or a mile and a half away " that the prescribed neighborhood was larger than that employed in this hearing.) (Id, at page 404.) In addition, the Colorado Supreme Court referenced that there were six more retail liquor stores "just outside the prescribed area." (Id.) In that opinion, although the Colorado Supreme Court took issue with the decision of the licensing authority, its application of the abuse of discretion standard confirmed the appreciable amount of discretionary latitude provided to liquor licensing authorities in their analysis of applications.

4. In the case of Brass Monkey, Inc., v. Louisville City Council, 870 P.2d 636 (Colo. App. 1994), the Colorado Court of Appeals affirmed a trial court reversal of a denial of a liquor store application on bases including that (a) the only competent evidence in the record to rebut the issuance of the license was the existence of other liquor outlets in the community, and (b) the licensing authority's reliance upon twenty-six percent (26%) of the neighborhood's residents objecting to the opening of the store (evidenced by petitions submitted at the hearing) was arbitrary and capricious. (Id, at page 641.)

The net effect of the above referenced case law is that the liquor licensing authority has appreciable discretion in granting or denying licenses. The analysis to be applied can include analysis of the area surrounding the designated neighborhood, particularly in the context of the existence of previously licensed locations. Finally, the petitions and other documents submitted to support or oppose an application do not convert the analysis of an application to a popularity contest in the neighborhood, under which some trigger percentage of positive responses must be met in order to support the issuance of a license. Rather, the entirety of the circumstances of the neighborhood and its needs is to be considered.

HEARING EVIDENCE

At the outset of the hearing, nearly a month ago, the Applicant presented the following evidence in support of the application:

The application is for a location within the Plaza on North Avenue development, located at the corner of 28 ¾ Road and North Avenue.

The Applicant's representative, Cody Snider, testified as to the proposed business model for the new store, including:

a. It is intended to be a state of the art facility, with a greater product selection than any of the subject area;

b. Its design is intended to be more modern, with such amenities as drop down lighting and an improved camera security system.

c. It is to be located on North Avenue, also known as Highway 6, the primary commercial east/west corridor in the Grand Valley, which the City of Grand Junction is currently attempting to update and improve; and,

d. It is to be located in a new commercial center, and will consist of multiple units within that center.

Mr. Snider also estified that he is active in the private and City committees to improve the North Avenue corridor and submitted that a new retail store in this area, and in the subject development, would enhance the North Avenue corridor.

Bernie Van de Boogaard, a consultant for the Applicant, also testified. Mr. Van de Boogaard testified as follows:

a. He is a consultant relative to the development and business model for the Applicant's liquor store;

b. He has set up approximately twenty (20) stores, primarily on the eastern slope of Colorado;

c. In addition, Mr. Van de Boogaard provides training for employees to maintain legal compliance with applicable regulations;

d. He has been involved also in the design of the store and its merchandizing, which he referenced upscale and more modern than any of the stores in the area, including such amenities such as stained concrete floors, modern stylized lighting, etc.;

e. Mr. Van de Boogaard referenced the Fisher Liquor Barn as an example of the decor and ambiance of the proposed store, and distinguished it from other existing stores in the area.

The Applicant submitted petitions, with supporting documentation, evidencing the contact with 135 business and residential owners or occupants within the designated neighborhood. The results of that petition are shown in the City Clerk's Memo referenced above. They reflect 54 business responses on this commercial corridor in favor of the new store and 6 opposed. On the residential side, it reflected 52 in favor and 23 opposed.

Tom Logue testified as to the methodology used in maintaining the petition responses submitted by the Applicant. Mr. Logue confirmed the accuracy of the Clerk's summary of the results of his survey of the neighborhood. However, he also testified that some of those who would not fill out his petition referred to having already signed one "for that other liquor store." This information may explain the peculiar results the opponent, Crown Liquors, contends to have acquired from their counter-petition, below.

(The opponent submitted a counter-petition with results that are patently incredible. It is also notable that Mr. Comte testified that the topic of other stores in the neighborhood "always comes up." Further, apparently in light of his opposition to previous applications, he testified that several of the petition signers came to him and asked to sign his petition in opposition, some before he even had one.) In addition, Mr. Doug Ronan, an employee of Crown Liquors, testified that his standard presentation included a reference that he was taking the petition "in response to a business applying for a liquor license." This introduction sets the scene for the resident to understand that the person standing before them in responding to the Application, and it is likely they concluded he was opposed to the Application.

The opponents purport to have contacted 132 residences in the neighborhood and asked them to sign the petition. From that purportedly neutral posture, they submit that of 132 total residential responders, *130* of them opposed this Application. These results conflict not only with those obtained by the Applicant in the same residential neighborhood, they fly in the face of

everyone's life experience. The level of unanimity obtained by the opponents in their petition efforts, when considered in light of Mr. Logue's testimony that some of the residential residents contacted stated they had already signed one "from that other liquor store," suggests that the results of that survey are flawed and should be ignored. Regardless of the treatment of that petition, however, the results show a cognizable number of residents stating that the needs of the neighborhood are not presently being met, and favoring the issuance of the license, satisfying this requirement.)

Mr. Wilson, on behalf of Mr. Comte, objected to certain entries on the Applicant's business list of petition responders based upon the designated locations being owned by persons or entities affiliated with the developer of the subject commercial center. Although the Applicant submits that this line of argument, even if successful, does not change the results of the Applicant's petition significantly, the Applicant could find no legal basis upon which to discount neighborhood petition responses from owners thereof based upon an alleged affiliated ownership.

William Shuman testified that, as a representative of the developer of the center, he believes it is important to the improvement of North Avenue Business District to bring in new businesses. He referenced that the Plaza on North Avenue is a new development with adequate parking, lighting and a good location for additional business. He also testified that he understood the business model that the Applicant was going to employ in this location would provide a liquor store to this area of town that was unlike any of the liquor stores in the area.

At that point, the Applicant rested on the evidence submitted in support of the Application.

PUBLIC COMMENT

The Hearing Officer opened the hearing to public comment. The first speaker was a gentleman by the name of Raymond Rose. Mr. Rose said that he owned a retail jewelry store next door to Crown Liquor. He expressed his opinion that there was already a concentration of liquor stores in the neighborhood.

The next person to speak in the public comment section of the hearing was Annette Hawes. Ms. Hawes stated that it was her opinion that there were already plenty of liquor stores in the neighborhood. In addition she expressed a generalized concern about law enforcement in the area, referencing numerous traffic stops and an occasional DUI checkpoint on North Avenue.

The next person to speak was Steve Fitzgerald. Mr. Fitzgerald testified that he maintains the building in which Crown Liquor is located. He expressed his opposition to the opening of a new liquor store in the neighborhood. The Applicant notes that Mr. Fitzgerald also testified that

he was not asked to sign any of the petitions, because everyone involved would know that, based upon his relationship to Mr. Comte of Crown Liquors, he would oppose any new liquor store.

The next person to speak was Don Arellano. Mr. Arellano lives in the neighborhood behind Crown Liquors and is a customer there. He stated that there were no law enforcement issues related to the proximity of his residence to the Crown Liquor store. He further stated that Crown Liquors uses a sound operation to avoid liquor violations such as sales to minors.

The last person to speak in opposition to this Application was Don Comte, the owner of Crown Liquor. Mr. Comte's testimony consisted of the following:

1. In 19 years of operations at Crown Liquors, Crown has had only two (2) liquor control violations for selling to underage patrons. He also mentioned that his operation prevents such problems through training and the hiring of the proper employees.

2. Mr. Comte testified that Eastgate Liquors closed in late 2011.

3. Mr. Comte offered a series of exhibits in support of his testimony. Those exhibits included the following:

a. Exhibit 1 - His letter to the licensing authority opposing this application. (Enclosures mentioned in the letter were not submitted.) This letter states his opinion that he believes Crown Liquor will lose "50% of its business if the license is granted and it opens."

b. Exhibit 2 – A summary of the number of liquor licenses in Colorado, Mesa County, the City of Grand Junction, and the subject neighborhood, along with calculations he performed as to the number of such licenses per capita. (These calculations assume a population base in the defined neighborhood as 3,193, and references the two existing liquor stores in the area.)

c. Exhibit 3 which, along with the subsequently submitted Exhibit 20, constituted a map from the City of Grand Junction as to the total number of liquor licenses of all classes within the City of Grand Junction.

d. Exhibit 4, which was an expanded map from the City of Grand Junction reflecting the number of "liquor outlets" in the eastern section of Highway 6 (North Avenue).

e. Exhibits 5 and 6 (rejected by the Licensing Authority as an exhibit), were offered over objection by the Applicant's counsel, as published data concerning the concentration of tavern or retail liquor store licenses and its effect on the need for law

enforcement resources, as provided in Regulation 47-301.A.4. (These articles will be discussed in more detail in the Undue Concentration section, below.)

f. Exhibit 8 was a list Mr. Comte prepared of the most recent liquor store licensees in Grand Junction, and the current status of those stores, to his knowledge.

g. Exhibit 9 was a Memorandum from an unrelated Liquor License Application from twelve (12) years prior, which was rejected as an exhibit by the Licensing Authority.

h. Exhibit 10 was a tabular list of crime and traffic reports Mr. Comte represented he received from the Grand Junction Police Department. The significance of this exhibit was never provided, and the Applicant submits that a five year summary of reported crimes throughout the entire City of Grand Junction is without evidentiary value in this matter.

Mr. Comte's opposition theory was that there would, in the event of the issuance of the Applicant's retail liquor store license, be an undue concentration of the same class of license in this neighborhood, and, as a result, would require the use of additional law enforcement resources, as provided in C.R.S. § 12-47-301(2)(b) and Regulation 47-301A. In conjunction with his presentation of this position, Mr. Comte and his counsel initially contended that it was the burden of the Applicant to establish that no such undue concentration exists, and additional law enforcement resources would not be required.

The Applicant objected to this characterization of the burden, and the Licensing Authority agreed with the objection. As referenced above, this concept of undue concentration has not been addressed in the Colorado courts in any reported opinion. However, the language of the statute and the regulation makes clear that the authority *may* deny the license *if* it determines that the issuance of the license would result in or add to an undue concentration and, as a result, would require the use of additional law enforcement resources. Therefore, it is incumbent on someone other than the Applicant to prove the existence of those facts, and it is not the burden of the Applicant to prove their non-existence. As such, it is tantamount to an affirmative defense, obligating an opponent, or the authority if so inclined, to establish the basis for denial.

Upon this issue being raised in the hearing, and the schedule getting short in the initial hearing, the Licensing Authority continued the hearing to August 15th, in order to allow the Grand Junction Police Department (the "GJPD") to provide information as to the effect, if any, of an approval of this application on its law enforcement resources.

On August 15, 2012, the hearing was resumed.

The hearing was started with a presentation as to the information provided by the GJPD. The resulting reports consisted of the report of Joe Patrick, Liquor Enforcement Officer with the GJPD, dated August 6, 2012. The report submitted by Officer Patrick set out the historical data for the last three years regarding the "number of calls for service for every retail liquor license establishment within the City of Grand Junction Boundaries and those Mesa County retail liquor stores close to the City boundaries." (Although Christina Wilson from the Grand Junction Police Department also testified briefly regarding the logistics of the production of additional reports, Mr. Patrick's report was the only data submitted to the Hearing Officer.)

A review of the statistics submitted by Officer Patrick in that report reflects that the three licensed liquor stores with the closest proximity to the Applicant's location (Crown Liquors, All Pro Liquors, and Enterprise Liquors) had fewer calls than the vast majority of the others within the report. (The report did not include the recently closed Eastgate store.) The statistics submitted by Officer Patrick, the primary reason for the continuance of the hearing, not only fail to support a finding of a need for additional law enforcement resources, should this license issue, they affirmatively establish that this area has required less law enforcement resource needs than others.

Mr. Comte then called Brian Turner, a Colorado Liquor Control Officer. Mr. Turner described briefly the law enforcement role played by his department. He explained without limitation that his department's enforcement activities are not driven by the location of the licensee, but by the nature of its operation. The Applicant submits Mr. Turner's testimony does not support the undue concentration theory.

Without regard for this information specific to the GJPD experience in the subject neighborhood, and the testimony of Mr. Turner that location of a licensee is irrelevant to the operations of his department, Mr. Comte submitted the following exhibits in his further effort to establish his undue concentration theory:

i. Exhibit 12 is a map and related calculations performed by Mr. Comte. Mr. Comte represented that he obtained the map and statistical information from the United States Census Bureau website, and that he conducted the calculations handwritten thereon. This exhibit evidences a population of 4,803, which was represented to be from an area constituting only a portion of the defined neighborhood. (This population figure is 1,620 greater than the figure submitted with Exhibit 2, above.) The purpose for this information was to establish the level of the Hispanic population in the neighborhood, which Mr. Comte would later submit is important to an analysis of the undue concentration theory.

j. Exhibit 13 was a letter, again from Mr. Comte and to the Liquor Authority, which contained calculations conducted by Mr. Comte relative to what he represented as "Retail Liquor License Density Analysis by road mile for the City of Grand Junction." This exhibit will be discussed below.

l. Exhibit 14 was introduced by Mr. Comte as evidence that the median income for Hispanics is, on a national basis, lower than other races. He submitted that the subject neighborhood should be characterized as one of low socio-economic status. The Applicant objected to the admission of this entire line of evidence, as irrelevant in light of the information specific to Grand Junction and its existing liquor stores submitted by the GJPD. No evidence was submitted as to the income levels within this neighborhood, regardless of whether such a fact could be considered relevant.

k. Exhibits 15 through 22 were introduced by Mr. Comte as "published data concerning the concentration of tavern or retail liquor store licenses and it effect on the need for law enforcement resources" as contemplated in Regulation 47-301A.4. The Applicant objected to all of these exhibits as irrelevant in light of the information obtained by the GJPD specific to this location, this community, and the existing liquor stores. The exhibits were not accepted into evidence by the conclusion of the hearing, but are discussed below in the event the Hearing Officer accepts them for the limited purpose offered.

The offer of proof submitted by Mr. Comte in an attempt to support the admission of these articles included reference to the articles expressing the opinion that the socio-economic status of a neighborhood directs the impact of an additional liquor outlet on various crime statistics. Further, his argument was that the percentage of Hispanics in this neighborhood increases the likelihood that the neighborhood is categorized as low socio-economic, and that the ethnic makeup of the neighborhood also dictates the violent crime rate in the neighborhood.

As disturbing as the opponent's submittal was, generally, it is fatally flawed in several regards. As mentioned above, the actual experience within this neighborhood, and the City of Grand Junction, in total, was presented by the GJPD and it supports absolutely none of the theories espoused in the proposed exhibits. The GJPD took no position (1) on the issue of undue concentration, (2) on the need for additional law enforcement resources, or (3) in opposition to the Application, and its submitted statistics defeat Mr. Comte's position entirely.

None of the articles submitted refer to Grand Junction, or even Colorado, as even a minor portion of the sampling done for the purpose of the articles. Mr. Comte testified that his experience in his store fit with the Hispanic population percentage figures he presented, but his experience as to criminal activity contradicts his theory, and that of the articles he submitted. No evidence was submitted to align the contradictory evidence of the local experience with the results of the submitted articles.

Further examples of the problems with the submitted theory come from the articles, themselves. For instance, in Exhibit 15, should it be accepted into evidence for the purpose of this hearing, at page 1187, the average population of the areas studied is stated to be 23,344, and the average number of off-premise establishments was 24.7. These figures, which appear to

come from areas located in California, reflect a ratio of stores to population of more than 1 per 1,000. Exhibit 19, at pp. 52-53, in Tables 2, 3 and 4, states mean numbers of liquor stores in excess of 1 store per 1,000 residents, as well. Yet, the argument, reflected in Exhibit 2, is that a ratio of one store per 1,064 residents is evidence of undue concentration. (Note that this figure as to stores in this area actually drops to one store for every 1,600 residents if the Census Bureau figures submitted by Mr. Comte as Exhibit 12 is used.) Contrary to the position taken by Mr. Comte in support of this argument, it appears that after the issuance of this license, the subject neighborhood would have merely a representative ratio of stores to residents.

In Exhibit 13, Mr. Comte attempts to provide calculations as to road miles, in an apparent attempt to tie into the statistics of Exhibit 19. However, a review of the Exhibit 19 article reveals his information is erroneous. At the top of page 52, in describing Table 1 of Exhibit 19, the author reveals that the mean land area of the units (which are entire zip codes) is 40.1 square miles. In the next sentence, the mean roadway mileage for the same units is identified as 173.9 miles. In that a 40 square mile area is merely 6.32 miles squared, the roadway miles for purposes of the article clearly include *all* roads within the area. Accordingly, the figures contained in the tables are between 2.6 and 6.83 stores per 100 miles of road. The figures submitted by Mr. Comte, consisting of merely the miles of a particular street (i.e., North Avenue) divided by the number of stores in the vicinity of that street, are wholly without meaning or statistical support.

Further, the submitted road mile analysis includes no incorporation of the traffic counts on the identified streets. Finally, the report wholly ignores any reference to the subject neighborhood, instead attempting to refocus the analysis, contrary to statute and regulation, to single streets. No support was presented for this peculiar analysis.

UNDUE CONCENTRATION

The operative statute and regulation require "an undue concentration of the same class of license, and, as a result, require the use of additional law enforcement resources." In light of the previous issuance of a liquor store license to the Eastgate Liquor Store on the western boundary of the defined neighborhood, and that store's recent closing, the Applicant submits there is no concentration in the neighborhood, at all, either at present or upon the issuance of this license.

Next, it is not simply a matter of concentration, alone. That is, the concentration must be "undue." Undue is defined as "exceeding or violating propriety or fitness." (Merriam-Webster Dictionary, © 2012 Merriam-Webster, Inc.) The proposed level of concentration of liquor stores in this area, located on North Avenue/Highway 6, when viewed in light of the previous existence of the Eastgate store for the past 10 years, does not meet that definition, without the need for additional analysis.

The statute and regulation do not stop there, but further require that that undue concentration, if found, must require the use of additional law enforcement resources. As outlined in detail above, no evidence of a requirement for additional law enforcement was presented, and the evidence that was introduced by the GJPD conflicts directly with this necessary element.

On the issue of undue concentration, Mr. Comte and Mr. Patrick both testified, that Eastgate Liquors, located a mere 960 feet from the Crown Liquors location (also shown in Applicant's Exhibit "A"), closed in late 2011. Although the information in Mr. Patrick's report did not include Eastgate Liquors, the theory presented by Mr. Comte, if true, would have resulted in more criminal activity, and more law enforcement resources, within the area. Officer Patrick's information, as well as the testimony of Mr. Arellano and Mr. Comte, evidence just the opposite.

Mr. Comte also proposed the theory that the undue concentration analysis should include an inquiry as to all types of liquor licenses within the area. (See, Exhibits 3, 4 and 20.) However, that conflicts directly with the language of the statute and the regulation. The standard provided in the statute and regulation relates specifically to the *same class of license*, only. (The Applicant notes that many of the articles submitted as "data" in support of the opponent's position on the issue of undue concentration blur this line as to liquor outlets. In doing so, they aggregate liquor stores, taverns, restaurants, and other categories in reaching their statistics, rendering the results inapplicable to the analysis here.)

Without competent evidence to establish that (1) an undue concentration existed for the past ten (10) years during the tenure of Eastgate Liquors, and (2) additional law enforcement resources are required should this license issue, there is no basis on which this undue concentration logic can defeat this Application.

Mr. Comte desires, as he has in the context of other applications, that no additional liquor stores open within his perceived market area. To that end, Mr. Comte has opposed several other applications, include Eastgate Liquors and All Pro Liquor at Patterson and 29 Road, both of which applications were approved. Such objections are within his rights. However, in order to be effective, the objection must provide a basis, supported by applicable law and competent evidence, for the denial of an otherwise acceptable application. No such basis exists here. The liquor license application process is not intended to be a method to protect anyone's competitive market or market share. No one involved has the crystal ball to determine what the effect would be on existing liquor store business of the addition of another store. Fortunately, no such clairvoyance is required, as that concern is irrelevant to the Hearing Officer's decision.

CONCLUSION

The Applicant submits that the evidence from the hearing support the issuance of the license. That evidence included:

1. The application was complete and accepted by the Clerk's office;

2. The Applicant has submitted evidence that the needs of the neighborhood are not being met and that residents within the neighborhood approve the issuance of the license and the opening of the Applicant's store;

3. The location, along the North Avenue/Highway 6 corridor, supports the issuance of the license, in that the City wants to improve that corridor as the primary east/west commercial corridor of the City and the valley;

4. The intended physical design and business plan for the Applicant's store evidence it will differ from, and will provide enhanced selection relative to, the locations currently existing in the neighborhood;

5. The recent closure of Eastgate Liquor on the west side of the neighborhood's western boundary (a license issued in 2001 based upon the same analysis as to need in the neighborhood, undue concentration, etc.), and a mere 960 feet from the Crown Liquor location, further evidences a need for an another liquor store licensee in the neighborhood; and

6. No competent evidence was submitted as to undue concentration or the need for additional law enforcement resources, and the evidence submitted on that topic, in fact, establishes there is no need for such resources as a result of the issuance of another license in the area.

For the above reasons, the Applicant respectfully submits it has met the standards applicable for approval of the application, and that the license should issue.

Dated this 22 day of August, 2012.

SPIECKER, HANLON, GORMLEY & VOLKMANN, LLP

By _____
Thomas C. Volkmann #17659
Attorneys for Applicant

CERTIFICATE OF SERVICE

I hereby certify that on the 22nd day of August 2012, a true and correct copy of the foregoing CLOSING BRIEF OF JUNCTION LIQUORS, LLC DBA FUN JUNCTION LIQUORS was electronically delivered by e-mail, addressed to the following:

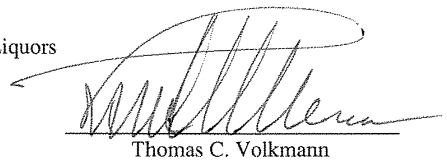
Sam Starritt, Hearing Officer
starritt@dwmk.com

John Shaver, City Attorney
johns@gjcity.org

Juanita Peterson, Deputy City Clerk
juanitap@gjcity.org

And, I further certify on this 22nd day of August, 2012, I agreed with counsel listed below that we would exchange our briefs by e-mail on August 23rd, 2012:

Dan E. Wilson, Esq.
Dan E. Wilson, Attorney At Law, LLC
607 25 Road, Suite 201
Grand Junction, CO 81505
Attorney for Mr. Comte and Crown Liquors



Thomas C. Volkmann

WRITTEN ARGUMENT

08-22-12P05:31 RCVD

Re: Fun Junction Liquor Application
To: Sam Starritt, Hearing Officer
C: John Shaver (via email), Tom Volkmann (U.S. Mail)
From: Dan Wilson/Don Comte

August 22, 2012

INTRODUCTION

The burden of proving a prima facie case is on the applicant--failure to make a prima facie case will result in denial of the license. *National Convenience Stores, Inc. v. City of Englewood*, 556 P.2d 476, 477 (Colo. 1976). Based on case law, C.R.S. 12-47-301 (2)(a) and the correlative Liquor regulations,a license cannot issue unless the applicant has met its burden to show : (a) that the issuance of the license is needed to meet the reasonable requirements of the neighborhood; and (b) that the new license is desired by the adult inhabitants of the neighborhood.

"The only factors to be considered ... "are 'the reasonable requirements of the neighborhood and the desires of the inhabitants ...'" *Rais v. City of Gunnison*, 539 P.2d 1328, 1330 (Colo.App. 1975).

The applicant also has the burden to show that the existing outlets in the survey area were inadequate to serve the reasonable requirements of the neighborhood. At page 314, the court in *Tavella v. Eppinger*, 383 P.2d 314, 315 (Colo. 1963) stated:

> In *Jennings v. Hoskinson,* 152 Colo. 276, 382 P.2d 807, it was declared that '[w]here there are a number of licensed outlets in an area, their inadequacy, if [152 Colo. 508] any, to serve the needs of the neighborhood should be shown by the applicant.'
>
> Did Tavella and Prettol establish, prima facie, that the four existing hotel and restaurant liquor outlets were inadequate to serve the reasonable requirements of the neighborhood? Our examination of the record persuades us that they did not, hence the action of the Board under the circumstances was justified.

There was simply no attempt by the applicant, and thus no evidence presented by the applicant, in this regard.

Once a prima facie case has been made, the burden of proof shifts to the opposition to show why the license should not be issued. *National Convenience Stores, supra.*

The applicant in this case has failed to meet either prong of its prima facie case. Furthermore, opposition has submitted evidence that shows that the inhabitants do not desire another outlet, that there is no need, and the corollary, that there is already undue concentration. Each requires that the application be denied.

FIRST PRONG: IS THE ESTABLISHMENT NEEDED TO SATISFY THE REASONABLE NEEDS OF THE RESIDENTS?

The applicant has not met his burden for a prima facie case because he has failed to present any evidence on whether the establishment is needed to meet the reasonable requirements of the adult inhabitants of the neighborhood. To satisfy this first 'prong' it is clear that the applicant must present evidence to prove that the existing establishments are inadequate to serve the ("thirst") needs of the designated neighborhood as a whole. See, *Board of County Comm'rs v. Evergreen Lanes,* 391 P.2d 372, 373 (Colo. 1964); *Jennings v. Hoskinson,* 382 P.2d 807, 809 (Colo. 1963). If the applicant doesnot do so, the application must be denied. *Board of County Comm'rs v. Bova,* 385 P.2d 590, 592 (Colo. 1963); *Tavella v. Eppinger,* 383 P.2d 314, 315 (Colo. 1963).

The record will reflect that the applicant did not even attempt to present evidence regarding the 'reasonable requirements,' or needs of the neighborhood. He presented no information regarding the current concentration (density) of established businesses that already sell liquor. He presented no evidence that his operation would be needed to satisfy an unmet need for the residents, such as being open later or earlier or that his location would be more convenient.

The only evidence that applicant even touched on was that applicant intended to sell some form of alcohol that Mr. Snider said that other outlets in the area did not. He didn't name these products nor present any residents' testimony showing a lack of appropriate product. Instead, applicant moved quickly on to describe how lovely the décor would be and how he had engaged an expert to help him set up the new store.

None of that information was relevant to prove applicant's case. *Bova* at 592 (the "reasonable requirements" at issue is the "thirst needs" of the neighborhood, that is, the neighborhood's need for further sale of alcohol beverages.)

Applicant presented nothing that could be used to determine that there was a neighborhood need that the new outlet would fulfill, with the possible exception of this language on the City's petition form: "... existing outlets do not adequately serve the reasonable requirements of the designated area." Note that applicant's evidence in this regard was from Mr. Logue, who said he did not read the critical language to the surveyees who may or may not have read or understood the significance of this language. Absent proof by the applicant that each person signing understood the import of the language, applicant cannot be deemed to have met his burden on the first 'prong.'

At best, the applicant's survey can be seen as some affirmation that there are some adults who work in the area or who own businesses in the area who desire another liquor store. If the survey is found valid at all, this information is only useful in demonstrating that the applicant meets the second requirement - the new license is desired by the adult inhabitants of the neighborhood.

It should be noted that, the results of the applicant's survey is brought into question given the starkly different results that were submitted by the applicant in contrast to that submitted by Mr. Comte. Mr. Comte's survey, using the same City form language, showed that 130 residents were in opposition, with only 2 in favor.[1] Applicant knew before the hearing began that Mr. Comte's survey shows that 98 % of the residents are opposed because "existing outlets adequately serve..." [The surveys are discussed in more detail below.] Adding Mr. Comte's numbers to the applicant's, 207 residents gave responses, with nearly 74 % being opposed.

Applicant could have, but chose not to, supplement his minimalistic survey by the time of the hearing. Applicant could have, but chose not to, obtain the testimony of the residents to testify at the hearing. The only conclusion to be reached, given that it is the applicant's burden, is that applicant could find no residents to testify in support.

The case law is replete with the types of evidence that the courts have accepted to show what the neighborhood needs. Here, as it was in *Big Top v Hoskinson*, 407 P2d 26, (Colo. 1965), there are existing nearby outlets to meet the needs of the neighborhood, thus requiring denial of the license.

Similarly, in *Potter v. McClearn*, 467 P2d 54 (Colo. 1970) and *Johnson v. Befort,* 486 P.2d 450, (Colo.App Div. 1 1977), there was no liquor store anywhere in the 'neighborhood.' *Potter and Beford* show that the needs of the neighborhood can be impliedly met by the applicant presenting evidence of the convenience of a new outlet or the lack of nearby stores.

Applicant could have, but chose not to, surveyed the products sold by Crown Liquors and Enterprise Liquors and could have presented testimony that applicant would fulfill a need not being addressed by Crown or Enterprise. Applicant could have, but chose not to, presented some data that would have indicated that the concentration (density) of similar liquor stores in the area was less than the State, County or City averages. Applicant did not present any evidence in these areas so the application must fail.

Instead, the opposition showed that there is an existing higher than normal concentration of liquor stores (relative to any other part of the City!), and that the existing ratios for the State, County and City showed an already much higher density of liquor outlets per inhabitant. See, for example, Mr. Comte's Exhibit 13.

[1] Actually, there were 131 in opposition: It appears that because one person signed both petitions, the City Clerk 'struck' that person entirely. Undersigned found no law that authorized the City Clerk to simply ignore this person's desires.

The density information is presented below under 'Undue Concentration,' but the title should not distract from the fact that that information is equally relevant to prove the higher than normal density of outlets, which is one way to show that the neighborhood needs no more outlets.

> "Where there are a number of licensed outlets in an area, their inadequacy, if any, to serve the neighborhood should be shown by the applicant. The record reveals a substantial number of outlets in the area, of which two are in close proximity to the premises in question; and absent a showing of need based on these outlets being inadequate to serve the neighborhood, the trial court properly sustained the Board's refusal to grant a license." *Jennings v. Hoskinson*, 382 P.2d 807 (Colo.1963), at page 809.

As in *Jennings* and *Big Top*, applicant did not meet its burden on the first prong either initially, or in response to the complete body of evidence before the Hearing Officer.

Even if the Hearing Officer allows the survey to serve as evidence of both (a) that the establishment is needed to meet the reasonable requirements of the neighborhood; and (b) that the new license is desired by the adult inhabitants of the neighborhood, the Hearing Officer should view that evidence in light of all the evidence submitted. If so, the Hearing Officer certainly must conclude that after Mr. Comte's survey results are included as well as the other evidence, the opposition carried its burden of proving that the neighborhood does not need another liquor outlet, at least in this location.

Thus, the application should be denied based solely on the first prong. The application fails either because applicant failed to present sufficient evidence regarding the needs of the neighborhood, and the inadequacy of the existing businesses to meet that need, or because of Mr. Comte's evidence and the testimony of the residents in opposition.

DENSITY AND UNDUE CONCENTRATION

While Regulation 47-301 does not specifically mention 'needs of the neighborhood,' given that there are but two elements/prongs to be considered, the issues surrounding density, or concentration, and undue concentration, are but another way of measuring the 'needs of the neighborhood.'

Concentration of existing businesses is the most accurate way to determine if the needs of the neighborhood are being met. Only if the Hearing Officer is presented with information about concentration of existing licensed businesses, can the Hearing Officer determine if the concentration is undue.

Thus, although the Hearing Officer indicated some indecision regarding whose burden it was regarding 'undue concentration,' knowing that the concentration of existing businesses is an important way to determine the 'needs of the neighborhood,' it should also be clear that, in the end, it is the applicant's burden to prove a lack of concentration or a lack of density.

The relevant Liquor Regulation is 47-301 which includes this non-exclusive list of factors, all of which matter only to determine the 'reasonable needs of the neighborhood':

> 1. Whether the ratio of the number of tavern or retail liquor store licenses within the county/s of the neighborhood to be served where application has been made to the county/s population exceeds the ratio of the statewide number of licenses of the same class to the state population;
>
> 2. Whether the ratio of the number of tavern or retail liquor store licenses within the census tract or census division in the neighborhood in which the applicant premises are located to the population of the census tract or division exceeds the ratio of number of licenses of the same class in the county or municipality to the population of the county or municipality where application has been made;
>
> 3. The distance between the applicant premises and the premises of other holders of the same class of license;
>
> 4. Published data concerning the concentration of tavern or retail liquor store licenses and its effect on the need for law enforcement resources; and
>
> 5. Testimony concerning the use of law enforcement resources by law enforcement officials with the responsibility for enforcing state or local law in the area in which the applicant premises are located.

These factors are there to glean additional information regarding the needs of the neighborhood. These factors do not constitute a 'third element/prong,' but illuminate the first prong. Diligent search of the case law should confirm that the Courts do not recognize a 'third prong,' based on Regulation 47-301. Instead, these are other ways of knowing if the new outlet will create too many liquor outlets, as indicated by the plain language of factors 1, 2 and 3.

In short, whether you apply the label "undue concentration" or simply 'density,', simple logic dictates that evidence of the density, the ratios, outlets per road mile, and the other evidence presented by the opposition are simply other ways to measure the neighborhood needs: if there are already too many, the neighborhood doesn't need yet another.

As such, questions such as 'affirmative defenses' are moot in this context. Similarly, the license may be denied if such 'undue concentration' ALSO results in additional law enforcement work, but the data that would support the denial under 12-47-301(2)(b), on which so much debate occurred during the hearing, is highly relevant to support the denial under the 'reasonable needs' standard.

If this were not so, the following cases would be of no guidance (there are other to like effect):

1. *Bova*, supra: 3 outlets in close proximity (page 591) with no mention of 'undue concentration' or law enforcement effects;
2. No outlets within a mile. *Befort, supra*, page 451;
3. Only similar outlet was one mile away. *Rais, supra*, at page 1330..

4. No outlet within the survey area. *Potter v. McClearn*, 467 P.2d 54 (Colo. 1970), at page 55.
5. One other outlet, 2/10th of a mile away. *Big Top, supra*, page 27.
6. No outlets at all within radii of several miles. *Larimer County v. Bickel,* 395 P.2d 208 (Colo. 1964), with several citations to similar situation, at page 208.

Thus, the location, proximity, or lack thereof, of similar outlets goes to the 'neighborhood needs,' not just undue concentration and law enforcement workload.

Looked at this way, once again, applicant failed to meet its prima facie burden regarding the first prong: Applicant presented no evidence at all on this point!

Applicant argues that it has no duty to dispel or explain away the fact of undue concentration, and/or that the Police Department and Brian Turner had no evidence that even if there is an undue concentration, there will not be any increased law enforcement efforts. Even if true, which is not conceded, applicant DID have a duty to address density, in order to prove the needs of the neighborhood. [2]

But consider Mr. Comte's 'density per mile' exhibit, and his demographic data showing the ratios of retail liquor licenses in the State, the County and the City, were unrebutted by the applicant. So, even if Mr. Comte had the burden shift to him (only if the applicant met the burden of proving the first two 'prongs') Mr. Comte carried his burden and raised the undue concentration issue, provided the facts to support it, and provided the publications that should convince any open-minded reader that one more outlet in this already unduly concentrated area will lead to more drinking/violence. Logic dictates that more law enforcement will be required as a consequence, even though Mr. Turner could not tie the two together, and Mr. Patrick, due to his reluctance/newness to the job, did not try: The undersigned recalls that the Hearing Officer requested Patrick's data, in light of the undue concentration-law enforcement workload issue that was raised, but it was not forthcoming.

Because the statute specifically gives notice to the applicant that undue concentration-law enforcement data is very relevant, especially once Mr. Comte raised the issue, applicant has a duty to address both, yet chose to do nothing.

But Mr. Patrick and the Crime Analyst did present some relevant evidence at the hearing which shows that some outlets have more police contact/work than others.

Concentration Analysis.

Again, without getting 'sidetracked' by the lack of City Police Department data that would have been relevant, Mr. Comte's evidence regarding ratios goes to the heart of the 'needs of the neighborhood.'

[2] Moreover, it is the duty of the Licensing Authority to consider "... the facts and evidence adduced as a result of its investigation ..." C.R.S. 12-47-312(2)(a). The failure of the Police Department to develop relevant statistics of the crime impacts of a new license cannot be held against the opponent where the opponent raises these very issues in a timely fashion.

Applicant presented no evidence regarding the ratios addressed in C.R.S. 12-47-313(2), and Regulation 47-301. Mr. Comte did. The State population average is 3110 per liquor store license. The County population average is 3412 per liquor store license. The City of Grand Junction population average is 2816 per liquor store license. The current survey area's population average is 1596 per liquor store average. The survey areas population, with the approval of Junction Liquors will be 1064 residents per liquor store license.

This surveyed area is at least already twice the density of the City, County or State. Is it any wonder why the vast majority of the responding residents indicate: No more outlets. And eight of them specifically said just that in their comments on the survey.

What is the purpose of the cited statute and the regulation, other than to allow the Hearing Officer to find that the density will be too high, either to show that the neighborhood needs are already being met, or to show that the density will create the increasing violence/crime and law enforcement work?

If this data is rejected, what data would ever be relied upon in deciding if the concentrations are 'undue,' or if there are too many outlets already for the neighborhood, or if the reasonable needs of the neighborhood are already met? And even if the data is rejected for purposes of 'undue concentration,' it is highly relevant regarding the needs of the neighborhood.

The undisputed data is that the survey area has twice the density in the rest of the City, and it will increase to three times if this license is issued.

If the evidence presented doesn't satisfy the standards for denial in Regulation 47-301, as a practical matter, no evidence in any case ever will, which was obviously not the intent of the Legislature or the Department of Revenue.

Further proof is in Exhibit 13 which shows concentration/density of licenses by road mile or average distance between liquor stores. This exhibit shows the density of retail liquor licenses on North Avenue is already 0.57 miles per outlet, over 100% greater than any other street in Grand Junction. It is up to 500% greater in density than some other streets in Grand Junction. The fact that some of these stores are accessed off a side street instead of being immediately accessed from North Avenue does not change the fact that these stores are still there, and must be considered.

Issuing this license would make the average density to ½ mile between outlets, proving that there: (a) there is no need for another outlet here, and proving, if it is a separate standard, undue concentration. The admitted studies supply the missing link of 'increased law enforcement work,' even where the two officers did not.

Liquor License Density, Crime, Violence and Police Workload.

Each of the admitted scientific publications shows a direct correlation between the density of liquor licenses and increased crime and violence due to the consumption of alcohol. It does not

take another study to conclude that with another outlet there will be more drinking, crime and violence, and that as a consequence, law enforcements work load will increase.

The applicant, despite being on notice since the first afternoon of the hearing, presented no contrary evidence, likely because there are none state that 'drinking does not cause crime or violence' or 'more liquor outlets in a specified area reduces crime and violence.'

Thus, even if Mr. Comte had a burden shift to him relative to undue concentration and police work load, he met it. It then became the applicant's burden to address the issue: Instead, applicant failed to offer any contrary evidence.

Mr. Comte hopes that the Hearing Officer will conclude: "Based on the evidence presented by Mr. Comte, and the lack of evidentiary response by the applicant, there is an undue concentration if the application is granted. Such an undue concentration will not satisfy the needs of the neighborhood because those needs are already being met. In addition, under 12-47-301 (2)(b), because the scientific studies show that there is a correlation between undue concentration of outlets and crime and violence, which leads to increased law enforcement activity, as a matter of protecting the neighborhood, and in light of the census and other demographic evidence presented by Mr. Comte, the public safety and interest requires that the distances between licenses cannot be allowed to be decreased in this particular area of the City. Granting this license will, conversely, reducing these distances, based on the evidence presented in this case, will increase crime, violence and police work load."

Regarding Eastgate Liquor, and the question presented to Mr. Turner, it is noted that Eastgate Liquor was there 10 years ago, proving only that it is not there now. Simple logic dictates that one reason Eastgate is not in business is because this defined neighborhood cannot support two stores in this area; said another way: There is no need in this neighborhood for another retail outlet, which perfectly matches the evidence, the science presented by the studies, and the other discussion herein.

Police Statistics.

City Data. In a high crime area, the City data shows that with effective management by the store, law enforcement work is manageable. Pete's House of Spirits (close to the College, per Brian Turner) generates 52 calls, but North Avenue Liquor is even closer and has zero contacts. Thus, what will occur with a very young, recent college graduate who has no experience in the field, and who is so near to Nisley, the ball fields, the Colorado West Mental Center across the street, and the Kinderhaus day care so close to the north? The testimony of Mssrs. Rose and Fitzgerald expressed concerns about this outlet being a risk to the children and youth in the area, a legitimate concern as identified in the quoted statute, above. Thus, there is yet another reason to deny, based on the data supplied by the City.

The offending stores target to a more youthful clientele, just as this applicant intends to do: modern lighting, and layout and offering (without giving any detail) more 'modern' product mix.

Liquor store owner operators who do a good job running their stores should not have their statistics used against them in a liquor hearing. It speaks volumes when a liquor store has few to no police calls to their store when it is located in a high crime area such as North Avenue or any area for that matter. To suggest that North Avenue is a low crime area because Crown Liquors has few police contacts, according to Officer Patrick's data, is laughable if used to conclude that another license will not create more law enforcement work.

The truth is that Crown Liquors has few police contacts because of its owner, and the same is true for the other retail outlets shown in Officer Patrick's report that have few police 'calls.' What Officer Patrick should have presented is the crime statistics for this neighborhood, and for North Avenue from 1st to 30 Road, and for the other areas identified by Mr. Comte in Exhibit 13.

What data was supplied simply does not help regarding the issues in this matter; it is that simple.

Nevertheless, there are police calls patrolling North Avenue more than most streets in town because of this crime rate. Looking at Officer Patrick's report submitted at the liquor hearing on 8/15/12 shows the proof of this: There were a total of 568 "calls" from 01/01/10 to 08/02/12 from liquor stores. The retail liquor stores on North Avenue account for 28.2% of all these calls for the ENTIRE City , which includes calls from Clifton and the Redlands. Obviously, this percentage would be even higher if only licensees inside the City's limits were considered.

Given this volume of police activity that already exists, why would anyone want to grant a new license to add to this work load? Brian Turner stated that, of course, adding more licenses of any type means more compliance checks, more license checks, and more complaint/violation calls, *etc.* But this reality ignores the 'rest of the story' because liquor stores are off- premises establishments. People don't drink in the store, and then commit crimes in the store that show up on the 'call' list. They leave, drink elsewhere and then commit crimes: Public intoxication, domestic violence, fighting, assault, urination in public, *etc.* Yet, the applicant presented no evidence in this regard, nor did the City Police Department, despite Mr. Comte's timely request

And this lack of evidence will now be used to issue the license? That cannot be true.

In the end, the conclusion to be gleaned from what little evidence the City Police Department did present, and from the published studies: The more outlets you have, the more alcohol problems and the greater the burden on the police and the neighborhood.

SECOND PRONG: LICENSE IS DESIRED BY THE ADULT INHABITANTS OF THE NEIGHBORHOOD.

The second prong of the applicant's prima facie case is to present evidence that the applicant's license is desired by the adult inhabitants of the neighborhood. *Rais, supra*, at page 1330.The applicant attempted a survey which showed business results of: Favor 54 Oppose 6

Of these "business" signatures, four people signed twice, and one person signed 3 times. Multiple signers of Mr. Schuman's survey are family members of the applicant or business partners/investors of Mr. Schuman's entities and must be ignored. See *Canjar v. Huerta*, 566 P.2d 1071, 1072 (Colo. 1977) (the desires of the applicant business itself are irrelevant). Because none reside in the defined neighborhood, all of the applicants "business" signatures must be ignored. For that matter, only the residents on either survey should be counted as 'evidence' of the 'desires of the inhabitants.' It is true that businesses are parties in interest [C.R.S. 12-47-311], but because they are not inhabitants, their 'desires' do not matter. And the desires of the applicant's business itself is irrelevant. *Canjar v. Huerta*, 566 P.2d 1071, 1072 (Colo. 1977).

Mr. Schumann's testimony on cross-examination that each of the 'partners' in the condo complex in which the premises are proposed signed, as though there were that many individuals being contacted, could be read as an attempt to give a false indication of 'business support.' Because Cody Snider made no objections to Mr. Schumann's 'survey' in this regard, the applicant must be seen as having endorsed Mr. Schumann's tactic. If credibility is an issue for the Hearing Officer, this fact should be considered.

Mr. Comte's survey focused on the desires of the adult inhabitants, by surveying between 6:00 p.m. and 8:00 p.m., when residents are likely to be home. The applicant started late because Mr. Logue was contacted by Mr. Schumann very near the filing deadline. -Note that the applicant did not contact or engage Mr. Logue Mr. Schuman did. Mr. Logue only went to homes from 9:00 a.m. to 2:00 p.m., during weekdays. Mr. Schumann asked Mr. Logue to begin the applicant's survey roughly one week before it was due, and then Mr. Logue only spent at total of 20 hours during the working day (five hours on June 28-30 and July 2) with only 52 in favor, 23 against.

Thus, out of roughly 3,000 residents in the defined neighborhood, applicant's survey says that, measured in percentages, less than 1 % were in favor, and 1 % were against. Not one of applicant's inhabitants made any comments, in stark contrast to Mr. Comte's survey where 8 residents made a specific comment that there were already enough/too many retail outlets.

Therefore, the surveys are compelling evidence that the needs of the community are already being met and certainly that the inhabitants desire that this license not issue.

In addition to the surveys, the applicant presented no evidence that any other resident wanted this license, or that a need would be met.

There were four letters of opposition to the granting of the new liquor license (from the neighborhood), and no letters in favor of granting the new liquor license. Four individuals spoke against the granting of the new liquor license at the hearing (from the neighborhood) with two of them being adult inhabitants.

Applicant failed to establish a prima facie case- if "prima facie" even applies. Even if it does, the overwhelming evidence requires denial because the applicant did not carry its burden on either of the two 'prongs.'

Moreover, applicant did not try very hard at all to actually determine what the neighborhood desired, given that the neighborhood, by whichever measure one uses, has over 1,000 household and more than three thousand residents. Mr. Schuman's survey was only directed to business owners, and Schuman's co-owners of the subdivision in which the applicant is renting; Schuman's survey must be ignored entirely because it shows nothing regarding what the residents desire.

Whose Burden? Does it shift to the opponents on some issues?

As noted, during the hearing the Hearing Officer mentioned that the issue of undue concentration could be in the nature of an 'affirmative defense,' a concept that arises where there are adversaries, and an impartial judge. Opponent argues that shifting the burden at any stage of the proceeding is contrary to good public policy, and contrary to the intent of the statutes and the regulations, despite *dicta* in *Southland, supra*.

The idea that an opponent has a burden of proof comes from *dicta* in *Southland Corp. v. Westminster City Council,* 746 P.2d 1353, 1355 (Colo.App. 1987). In that case, despite 53% of the surveyed residents being in favor of the license, and only 9 % opposed and of those willing to sign the survey, 82 % were in favor "a figure the pollster stated was 'very high'"(page 1354), the city council denied the license because there were five other outlets in the neighborhood and due to the testimony of school officials that was 'wholly speculative.' (Page 1356.) The court of appeals properly found that the evidence-as opposed to the speculative concerns of the school officials- "overwhelmingly established neighborhood support for the license," at page 1356, because the licensee was more conveniently located and had later hours of operation.

If one looks closely, the court of appeals could simply have deleted the reference to a 'prima facie' case, as is done in the below quote with the brackets, the decision rested on what evidence was presented-no matter the mention of the 'shifting burden' language.

> [At page 1355] [Here, a prima facie case for issuance of the license was established.] This included a showing that applicant was of good moral character, that neighborhood needs were not being met, and that the neighborhood inhabitants desired the license. See *Board of County Commissioners v. Salardino,*136 Colo. 421, 318 P.2d 596 (1957). [Once a prima facie case has been made, the obligation is on the protestants to present evidence sufficient to justify denial.] Absent such evidence, [of the needs of the neighborhood and the desires of the inhabitants] , a denial of the license becomes arbitrary and capricious and cannot stand.

The *Southland* court cited the Supreme Court case of *Board of County Commissioners v. Skaff,* 139 Colo. 452, 340 P.2d 866 (Colo. 1959) as authority, but the *Skaff* case has no mention of any shifting of the burden of proof, nor of a prima facie showing. The same is true for the other cited case supporting the quote by the Court of Appeals, *Buddy & Lloyd's Store No. 1, Inc. v. City Council*, 139 Colo. 152, 337 P.2d 389 (Colo. 1959). Both cases were decided on the classic

factors: desires and needs. There was no need to even discuss prima facie cases or anything relating to shifting of burdens of proof.

From this writer's research, it appears that this unneeded dicta was again mentioned in *Brass Monkey v. Louisville City Council*, 870 P2.d 636 (Colo. App. 1994), where again, reference to 'rebutting applicant's prima facie case' was *dicta*, and simply not needed to reach the result which was also actually based on evidence relating to the desires of the inhabitants. The sentence in question is at page 638: "[The trial court] determined that the only competent evidence [to rebut the applicant's prima facie case] for issuance of the license was the existence of other liquor outlets in the community." By deleting the bracketed phrase, it is readily seen that, like the other cases, the court simply evaluated the evidence in light of the statutory factors:

In this light, the existence of other outlets in the area is relevant, and applicant had and has a duty to overcome the density evidence, in order to prove the 'needs' of the neighborhood. The question of additional law enforcement is not even reached.

Another reference to the applicant's duty regarding a 'prima facie' case is in *Salardino*, *supra*. In *Salardino,* however, the court doesn't even mention any transfer of a burden to the opposition. Instead, the court simply notes the well established proposition that the applicant has the burden of proof, period. At page 598, the court states: "It is the duty of the Applicant to make out a prima facie case before the licensing authority; having made out a prima facie case, then those opposing the granting of the license should have an opportunity to show cause why the license should not be issued." "Opportunity" to present their concerns is not the same as 'shifting of a burden of proof."

As with this case, the opposition presented much more substantial evidence than the applicant-assuming the Hearing Officer finds that the applicant presented some-that the license should not be issued, but that reality does not involve any shifting of burdens or burden of any opponent.

Other cases repeat that the burden of the applicant is to establish a prima facie case, but that is likely only because the reviewing courts are used to reviewing disputes between a plaintiff and a defendant, unlike here, where the dispute, as it were, is between the applicant and the liquor authority that must make a decision. In each case, if one looks at the evidence that was available, there was no need to add the 'shifting' analysis: the evidence alone was enough to either deny or grant the license based just on the 'two prongs.'

The opponents are not 'parties' like plaintiffs and defendants in civil litigation where burden shifting makes good public policy.

Instead, the opponents are only witnesses, like any other: "A hearing of this nature [liquor licensing] is not an adversary proceeding. Lassak, although opposing the license, was not a party but merely a witness, along with other witnesses." *Lassak v. City Council of Arvada*, 423 P.2d 574 (Colo. 1967).

When the designated neighborhood contains existing liquor licenses of the same or similar class, the applicant must show that the existing licenses in the designated neighborhood are not adequate to meet the needs and desires of the designated neighborhood.
C.R.S. § 12-47-312(2)(a). **Results of investigation - decision of authorities:**

> Before entering any decision approving or denying the application, the local licensing authority shall consider, except where this article specifically provides otherwise, the facts and evidence adduced as a result of its investigation, as well as any other facts, the reasonable requirements of the neighborhood for the type of license for which application has been made, the desires of the adult inhabitants, the number, type, and availability of alcohol beverage outlets located in or near the neighborhood under consideration [the underlined language is just another way of gathering evidence to decide of new outlets are needed], and any other pertinent matters affecting the qualifications of the applicant for the conduct of the type of business proposed; except that the reasonable requirements of the neighborhood shall not be considered in the issuance of a club liquor license. The reasonable requirements of the neighborhood may, but are not required to, be considered in the conversion or transfer of a liquor-licensed drugstore license to a retail liquor store license

Other Evidence.

There were four letters in opposition; none in favor. Two inhabitants testified against the application. No inhabitants testified in favor. And, two business owners testified against (Rose and Fitzgerald), giving evidence that a new license in that location, expressing concern about access to liquor by the children in the area, due to Nisley Elementary, the ball fields (288 feet from the premises to the ball fields) and the day care.

The health of the Grand Junction social fabric is essentially what the regulations attempt to control. Hence the factors to be considered in the quoted statute all dictate that this application must be denied, and the stated reason is that the applicant failed to carry its burden of proof.

Site Location.

Junction Liquors is to be located at 510 28 ¾ Road, only 3/10 of a mile from Crown Liquors at 2851 ½ North Avenue. It will be located 288 feet from the Grand Mesa Little League baseball complex. Central High School girls and boy's softball and baseball teams use this complex for their practices, games and tournaments with other schools regularly as part of Central High Schools normal functions. Central High School has had long standing agreements or leases with Grand Mesa Little League to use these abutting ball fields, due to lack of other facilities. Nisley Elementary school is just north on 28 ¾ Road from the proposed premises.

Even though the applicant technically meets the '500 foot' rule, granting this license with so many young people and children in the area, poses liability and responsibility issues.

Other issues, requested to be included by Mr. Comte.

1. Cody Snider is listed on the license application as having 100% ownership of Junction Liquor. He stated that he gave a promissory note to his parents, Rodney and Karen Snider, for an amount not disclosed to the opposition. There is no listing of their or William Schuman's interest in Fun Junction Liquors. Yet, while William Schuman's name is not listed anywhere on the license application, and while Mr. Volkmann indicated that he represented Cody Snider in the hearing as the owner, during the hearing William Schuman consistently (and publicly) was the person directing Mr. Volkmann instead of owner Cody Snider. In every instance where Mr. Volkmann consulted, he did so only with William Schuman, instead of Cody Snider. Moreover, William Schuman made statements in the hearing about the store size, sales floor layouts, and inside store design plans, *etc.* that only a store owner would know or care about. It was Mr. Schuman who hired Tom Logue, and directed Tom Logue's surveying efforts.

Who is the functional owner of Fun Junction Liquors? It appears that William Schuman is controlling-indirectly-the applicant's presentation if not more. Does this constitute an undisclosed indirect interest? While it may not meet the legal standards of an indirect interest, it is a reality worth noting.

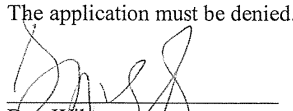
2. The proposed owner of Junction Liquors, Cody Snider, is a very young man who would have 100% ownership. He has no liquor experience, nor any retail experience. He also has no management or financial experience listed on his application. Shouldn't' this be considered in the decision process? He has strong financial backing, it appears. Hopefully it takes more than that for a new liquor licensee to not create problems for the neighborhood. Has the City ever operated a liquor license to someone this young?

3. Mr. Volkmann argued that Don Comte was biased against new licenses being granted. For the record, the records of the Licensing Authority will show that Mr. Comte has not attended a new liquor license hearing for more than 10 years prior to this and many licenses have been granted in that time.

CONCLUSION

In conclusion, the needs of the neighborhood are already being met, and over 70 % of the residents do not want this intrusion into their neighborhood.

The application must be denied.



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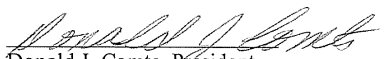

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