

**CITY OF TEMPE
DEVELOPMENT REVIEW COMMISSION**

Meeting Date: 04/12/2016
Agenda Item: 6

q.j.

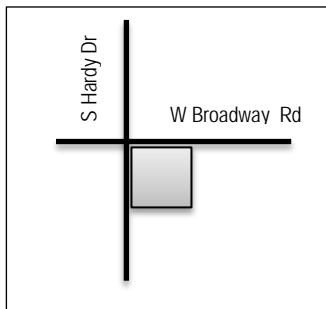
ACTION: Hold a public hearing for an appeal of the decision by the Hearing Officer to approve a use permit to allow a pawn shop and a use permit to allow firearms sales for **ROUTE 66 PAWN & GUNS (PL150506)** located at 833 West Broadway Road. The appellant is Alexander Otto.

FISCAL IMPACT: There is no fiscal impact on City funds.

RECOMMENDATION: Not applicable.

BACKGROUND INFORMATION: **ROUTE 66 PAWN & GUNS (PL150506)** located at 833 West Broadway Road in the GID, General Industrial District. On March 1, 2016, the Hearing Officer heard and approved a Use Permit to allow resale retail and a Use Permit to allow the sale of firearms. On March 10, 2016, an appeal to the Hearing Officer’s decision was submitted by the appellant, Alexander Otto. *NOTE: THIS ITEM IS A QUASI-JUDICIAL MATTER. PRE-MEETING CONTACT WITH THE COMMISSION ON QUASI-JUDICIAL MATTERS IS PROHIBITED. ANY MATERIALS OR CONVERSATION CONCERNING THE ITEM SHALL ONLY BE PRESENTED TO THE COMMISSION AT THE SCHEDULED PUBLIC HEARING. The request includes the following:

1. Appeal of the Hearing Officer’s decision to approve a use permit to allow a pawn shop and a use permit to allow firearms sales.



Appellant	Alexander Otto
Property Owner	Farhad Navabi
Applicant	Wayne Wynn, Wayne Wynn Enterprises
Zoning District	GID
Gross / Net site area	0.51 acres (22,303 sf)
Building Area	3,230 sf
Vehicle Parking	15 spaces (11 min. required)
Bicycle Parking	0 spaces (4 min. required)
Hours of Operation	M-F, 8am-4:30pm; Sa 8am-3pm; Su - closed
Building code Occupancy	Business (B)

ATTACHMENTS: Development Project File

STAFF CONTACT(S): Lee Jimenez, Senior Planner (480) 350-8486

Department Director: Dave Nakagawara, Community Development Director
 Legal review by: N/A
 Prepared by: Lee Jimenez, Senior Planner

COMMENTS

To affect an appeal of the March 1, 2016 Hearing Officer Approval for **ROUTE 66 PAWN & GUNS (PL150506)**, petitioners must have filed an appeal petition with the Community Development Department no later than 5pm on March 15, 2016. On March 10, 2016, an appeal petition was submitted by the appellant, Alexander Otto on behalf of himself, concerned residents of the Holdeman, Clark Park, Marilyn Ann neighborhoods, and concerned parties throughout the City of Tempe. The submittal consisted of a letter outlining the specific grounds for the appeal along with referenced case studies regarding effects of land use on surrounding property values and markets for stolen property, linking pawnshops and crime. Also included in the submittal was a set of emails in opposition of the March 1, 2016 Hearing Officer approval and a petition consisting of signatures from neighborhood residents, property owners, and business owners.

PUBLIC INPUT

- After the staff report was posted and prior to the March 1, 2016 hearing, an email and several phone calls was received in opposition of staff's recommendation. After the hearing, several inquiries about the appeal process were received by phone and email from neighborhood property owners and residents.
- On March 14, 2016 a public comment was received by phone from a neighborhood business owner who had a neutral position on the appeal.
- In summary, with exception to the number of petitioned signatures, a total of 10 public comments were received by phone and email (1 neutral, 1 opposed, and 8 in support of the appeal).

POLICE INPUT

A security plan will be required as a condition of this use permit.

USE PERMIT

The proposed uses require a Use Permit to allow retail resale within the GID zoning district; and a Use Permit to allow firearms sales.

Section 6-308 E Approval criteria for Use Permit (*in italics*):

1. *Any significant increase in vehicular or pedestrian traffic.*
The applicant has indicated that the store typically has between five and ten customers at a time and would not cause any traffic problems. The Planning Z&D Code requires a minimum of eleven (11) off-street parking spaces for this particular use and floor area size; fifteen (15) are provided.
2. *Nuisance arising from the emission of odor, dust, gas, noise, vibration, smoke, heat or glare at a level exceeding that of ambient conditions.*
The applicant has indicated that there is no proposal for any type of work or activity on the exterior of the building that would cause a nuisance to the neighborhood.
3. *Contribution to the deterioration of the neighborhood or to the downgrading of property values, the proposed use is not in conflict with the goals objectives or policies for rehabilitation, redevelopment or conservation as set forth in the city's adopted plans or General Plan.*
The applicant has indicated that they are a company with integrity and are above board in their dealings. They provide a clean store and have employees that care about the company, people and the community.
4. *Compatibility with existing surrounding structures and uses.*
The applicant has indicated that they are not in close proximity of a school or any other use that would prohibit a pawnshop from operating in the proposed space.
5. *Adequate control of disruptive behavior both inside and outside the premises which may create a nuisance to the surrounding area or general public.*
The applicant has indicated that all firearms will be put in the existing secure vault and guns would be locked in cabinet units and be available for showing at customers' request. In their opinion, the security that the guns will be kept is unmatched by any pawn and gun store in the City of Tempe.

CONCLUSION

Not applicable.

SHOULD AN AFFIRMATIVE ACTION BE TAKEN ON THIS REQUEST, THE FOLLOWING NUMBERED CONDITIONS OF APPROVAL SHALL APPLY, BUT MAY BE AMENDED BY THE DECISION-MAKING BODY.

CONDITION(S) OF APPROVAL:

1. This Use Permit is valid only after a Building Permit has been obtained and the required inspections have been completed and a Final Inspection has been passed. As part of the Building Permit process, on-site storm water retention may be required to be verified or accomplished on this Site.
2. The Use Permit is valid for the plans as submitted within this application. Any additions or modifications may be submitted for review during building plan check process.
3. If there are any complaints arising from the Use Permits that are verified by a consensus of the complaining party and the City Attorney's office, the Use Permits will be reviewed by City staff to determine the need for a public hearing to re-evaluate the appropriateness of the Use Permits, which may result in termination of the Use Permits.
4. Return to the Hearing Officer for review of compliance with conditions of approval within six (6) months. The timing for the six month review period to commence begins when the business is in full operation. Advise Community Development staff when in full business operation. If the full business activity is not initiated within one year the use permit will lapse.
5. The applicant shall contact the City of Tempe Crime Prevention Unit for a security plan within 30 days of this approval. Contact the City's Security Plan Specialist, Nathan Ryberg, at (480) 858-6409 or Nathan_Ryberg@tempe.gov. Failure to complete security plan within 90 days of approval of use permit will result in initiation of proceeding by the Code Compliance Section to suspend the use permit.
6. All nonconforming building lighting shall be removed and replaced with compliant light fixtures. Details can be resolved during Building Safety Plan Review.
7. Replace all dead or missing trees along the north landscape area and in the north landscape islands; along with any other missing landscape material.
8. All rear exit doors require a lexan vision panel. Details to be approved through Building Safety Plan Review.
9. Add or replace bicycle parking racks per City of Tempe Public Works Department bicycle rack detail T-578 standard. A minimum of 4 bicycle parking spaces is required at this site per the Planning Zoning & Development Code.
10. No outdoor storage of merchandise or supplies allowed. Outdoor retail display of merchandise requires a separate use permit.
11. Auto title loans or check cashing services are not permitted as part of this application.

CODE/ORDINANCE REQUIREMENTS:

THE BULLETED ITEMS REFER TO EXISTING CODE OR ORDINANCES THAT PLANNING STAFF OBSERVES ARE PERTINENT TO THIS CASE. THE BULLET ITEMS ARE INCLUDED TO ALERT THE DESIGN TEAM AND ASSIST IN OBTAINING A BUILDING PERMIT AND ARE NOT AN EXHAUSTIVE LIST.

- The Use Permit is valid for ROUTE 66 PAWN & GUNS and may be transferable to successors in interest through an administrative review with the Community Development Director, or designee.
- Specific requirements of the **Zoning and Development Code (ZDC)** are not listed as a condition of approval, but will apply to any application. To avoid unnecessary review time and reduce the potential for multiple plan check submittals, become familiar with the ZDC. Access the ZDC through www.tempe.gov/planning/documents.htm or purchase from Development Services.
- All business signs shall receive a Sign Permit. Contact sign staff at (480) 350-8435.
- Any intensification or expansion of use, including shall require a new Use Permit.
- All required permits and clearances shall be obtained from the Audit and Licensing Division of the City of Tempe prior to the Use Permit becoming effective.

HISTORY & FACTS:

March 1, 2016 Hearing Officer approved a Use Permit (PL150506) to allow a pawn shop and a use permit to allow firearms sales.

March 10, 2016 Appeal petition to the Hearing Officer's decision on March 1, 2016 was submitted by Alexander Otto on behalf of himself, concerned residents of the Holdeman, Clark Park, Marilyn Ann neighborhoods, and concerned parties throughout the City of Tempe.

ZONING AND DEVELOPMENT CODE REFERENCE:

Section 3-302 Permitted Uses in Office/Industrial Districts
Section 6-308 Use Permit
Section 6-803 Appeal Criteria



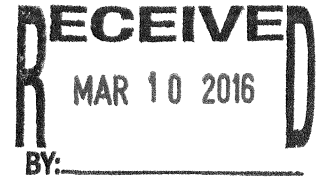
DEVELOPMENT PROJECT FILE
for
ROUTE 66 PAWN & GUNS APPEAL
(PL150506)

ATTACHMENTS:

1. Letter of Appeal
2. Case Studies
3. Emails in support of the appeal
4. Petition to the City of Tempe
5. Email in opposition of the appeal
6. Staff Report for Route 66 Pawn & Guns, Hearing Officer Meeting, March 1, 2016
7. Location Map
8. Aerial
9. Letter of Explanation
10. Site Plan
11. Building Elevations
12. Floor Plan
13. Hearing Officer Minutes of March 1, 2016

March 9, 2016

Development Review Commission
Development Services Department
31 East 5th Street
Tempe, AZ 85281



Dear Development Review Commission,

My name is Alexander Otto and I reside in the Holdeman neighborhood. I am filing this appeal on behalf of myself and concerned residents of the Holdeman, Clark Park, Marilyn Ann neighborhoods and concerned parties throughout the City of Tempe. We are contesting the two conditional Use Permits issued to Route 66 Pawn & Guns (PL 150506).

This business will have adverse effects on the surrounding neighborhoods. This area already suffers from an increased crime rate, to which the pawn shop can only contribute. Moreover, per the City of Tempe 2013 Community Attitude Survey, the neighborhood service that residents cited the most important for the city to emphasize was “the feeling of safety”. Although a pawn shop can claim to run a reputable business, whose best interest is not to deal in stolen property they don’t act as a deterrent to theft. Increases in the number of pawnshops are shown to raise the rate of those crimes in which pawn able property is stolen and to have no impact on the rates of those crimes in which non pawn able property is taken (Miles). Best case scenario, burglaries go up but car theft remains stable. That is not an acceptable alternative to leaving the building vacant. Several business located along Broadway Road have expressed deep concerns about the potential increase in crime another outlet for stolen goods presents.

Of universal concern to the neighborhood is the sensibility of locating a firearms dealer directly across the street (within 100 feet) from the Little Footprints Preschool and Daycare Center. Additionally, there are three other schools located within one half mile of the proposed site: Noor Academy of Arizona, approximately 1600 feet (.3 miles) away, Holdeman Elementary School, approximately 2,200 feet (.42 miles) away, and Tempe High School, approximately 2.600 feet (.49 miles) away. Although the City of Tempe does not directly mandate distance requirements like Phoenix and Mesa, the code appears flexible to allow interpretation regarding compatibility with existing structures and uses.

Residents of the adjacent neighborhoods have been working diligently to enhance their homes and neighborhood. The area has been enjoying revitalization with help from the city. The neighbors are donating time and resources to projects like the community garden and Farmers Market at Clark Park. Many of us lost significant value in our homes during the recent financial crisis and stayed in the neighborhood because we saw the long term value in remaining loyal to Tempe and our neighbors who made the same commitment. We are finally seeing our values return. The idea that this business, through nothing other than its presence, will enhance the neighborhood because it occupies a previously vacant building is baseless. I suspect the preschool and day care center located directly across the street to have strong feelings about what a gun and pawn shop will do to their business.

For many of us in this neighborhood our homes represent our only major asset of value. Pawn shops are perceived to erode property values. In a survey of real estate appraisers conducted in Texas, 87.5% of respondents felt that pawn shops located within 500 feet of a single family home would likely affect the home's appraised value. Furthermore, the same survey determined that three negative uses, grouped together, was considered by most appraisers to be the level at which the impact was greater (Duncan Associates). This area meets that criteria as it is near a liquor store, three convenience stores with permits to sell alcohol, two bars, and the AZ Marijuana Doctor. The overwhelming perception of professionals charged with determining the appraised value of a home is that these businesses are detrimental. The applicant has simply failed to adequately demonstrate that his operation will not adversely affect property values of the adjacent residential neighborhoods.

The following addresses the criteria presented to the hearing officer and the city's planning representatives, and provides ample evidence to warrant this appeal.

The neighborhood takes no issue with and concedes the following points of Section 6-308 E of the approval criteria for the Use Permit. Point (a) which states:

Any significant increase in vehicular or pedestrian traffic.

and point (b) which reads:

Nuisance arising from the emission of odor, dust, gas, noise, vibration, smoke, heat or glare at a level exceeding that of ambient conditions.

We believe the following points to be adequate grounds for an appeal hearing.

Section 6-308 E 2 point (d) states:

Compatibility with existing surrounding structures and uses.

This point is open to interpretation by the Development Review Commission. The board has the autonomy to determine appropriate uses of the area in question irrespective of any stated or otherwise implied distance requirements set forth in the city's code.

The hearing report states "The applicant has indicated that they are not in close proximity of a school or any other use that would prohibit a pawnshop from operating in the proposed space" (Hearing Officer).

The applicant is implying that there is a reasonable expectation that their type of business should not be located near a school or similar type of location. The neighborhood could not agree more.

It is that assertion that makes this an unsuitable location as The Little Footprints Daycare Center is located directly across the street at 820 W. Broadway Road. The business functions also as a preschool.

The second Use Permit as part of this application allows for the sale of firearms. The pawn shop would be of little concern to the preschool if it weren't for the primary activity of this

business which claims to be “AZ’s Fastest Growing Gun Dealer” (Gun). Even a cursory glance at the Route 66 Pawn & Guns website would give anyone the impression that they are primarily concerned with the sale of firearms. Furthermore, they claim to build, modify, test and fabricate parts for AR-15 rifles and 1911 semi-automatic handguns. This is not mentioned in the applicant’s documentation, nor is the location for this activity depicted in the applicant provided site plan.

The applicants own statements imply that they are not an appropriate business for that location. Perhaps they did not realize a preschool and daycare center was located across the street, and that there are three other schools within one half mile of this location? This seems to be sufficient grounds for suggesting the use permit be revoked and the applicant locate elsewhere. Certainly, the City of Tempe doesn’t want the distinction of being the first city to allow a firearms dealer to locate across the street from a daycare center and preschool.

Furthermore, an appeal is warranted because the conditions set forth in Use Permit 608-3 Section F have not been adequately met.

Section F states:

The burden of proof for satisfying the aforementioned requirements shall rest with the applicant. A refusal of a use permit shall not be interpreted as the denial of a right, conditional or otherwise.

Let me remind the review board that the applicant provided a single letter to address the concerns of the use permit. Of specific concern is Section 6-308 E 2 point (c), which reads:

Contribution to the deterioration of the neighborhood or to the downgrading of property value, the proposed use is not in conflict with the goals, objectives or policies for rehabilitation, redevelopment or conservation as set forth in the city’s adopted plans or General Plan.

It has already been demonstrated that businesses such as pawn shops, have a detrimental impact on property values. By some estimations they are second only to sex oriented businesses and homeless shelters (Duncan Associates). A home’s worth is not simply measured by what it cost to build. A home’s appraised value is heavily influenced by the perceived quality of the neighborhood, its schools, and residents.

The applicant provided the following statement to the city to address the conditions of point (c):

We are accompany (sic) with integrity and are above board in our dealings. We have a clean store. Our employees care about our company, people and the community.

This is glaringly insufficient to refute the overwhelming negative effect of pawn shops on property values. The negative image of pawn shops is not the fault of this neighborhood, it is the fault of the pawn industry itself. The long-time residents of this neighborhood who have continued to support this community and contribute to the welfare of the city should not be subjected to the detrimental impact of this business. The city has set forth a plan for rehabilitation of this area as evidenced by the recent streetscape projects on Broadway between

Mill Avenue and Rural Road, as well as on University Drive and Hardy drive. How is it that a business that has been shown to have a negative impact on property values be considered consistent with the city's goals for rehabilitation?

As per Use Permit 6-308 section F it is not the burden of the city, nor the residents of this neighborhood to demonstrate that this business will not have a negative impact on property values. The burden of proof lies with the applicant. The neighborhood has supplied sufficient evidence to demonstrate that this project is inconsistent with preserving property values and the ongoing rehabilitation of the neighborhood. The applicant's submission does not provide ample evidence to the contrary, in fact it hardly addresses the issue.

Although the applicant meets the criteria for the innocuous points required for approval, the major issues affecting the surrounding neighborhood have not been adequately addressed. Quite frankly, based on the location, it is unlikely that a compelling argument can be made for allowing the business to move forward. A shopping plaza like that at the Southwest corner of Elliot and Priest seems like a more suitable location. It offers easy freeway access and abuts the car dealerships and industrial area. There are no schools nearby.

We have furnished complete copies of the texts that have been referenced in this letter for your convenience. Copies of some of the letters submitted to the city council in opposition to the pawn shop and signatures collected via a petition have been included as well. The neighborhood looks forward to an opportunity to work with the Development Review Commission to address our concerns.

Sincerely

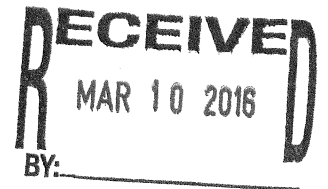


Alexander Otto

Alexander Otto
1728 S. Hardy Drive
Tempe, AZ 85281

References

- Duncan Associates. "Survey of Appraisers Fort Worth & Dallas Effects of Land Use on Surrounding Property Values." Sept. 2004. Web. 7 Mar. 2016.
- "Gun Store, Mesa AZ Gun Store, Route 66 Pawn and Gun, Mesa AZ,(480) 464-4444." *Gun Store, Mesa AZ Gun Store, Route 66 Pawn and Gun, Mesa AZ,(480) 464-4444*. Web. 10 Mar. 2016.
- "Hearing Officer." *City of Tempe, AZ* :. Web. 10 Mar. 2016.
- Miles, Thomas J. "Markets for stolen property: Pawnshops and crime." *Unpublished PhD Dissertation Chapter, University of Chicago Law School* (2007).



Report and
Analysis

**SURVEY OF APPRAISERS
FORT WORTH & DALLAS
EFFECTS OF LAND USES ON
SURROUNDING PROPERTY VALUES**

Submitted to

CITY OF FORT WORTH, TEXAS

Submitted by

duncan | associates

13276 Research Boulevard, Suite 208

Austin, Texas 78750

Telephone: 765/289-5380

Contact Persons: Eric Damian Kelly, FAICP

Connie B. Cooper, FAICP

September 2004

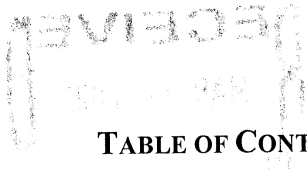


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Introduction

CONSULTANT TEAM

The City of Fort Worth retained Duncan Associates, in association with Cooper Consulting Company, Inc., to undertake a study of certain effects of sexually oriented businesses. Specifically, a survey of Fort Worth and Dallas appraisers was undertaken to determine the potential impacts sexually oriented uses, as well as other land use types, may have on residential and businesses property values. Project manager for the study is Eric Damian Kelly, Ph.D., FAICP, vice-president with Duncan Associates. Teamed with Eric, is Connie B. Cooper, FAICP, co-author, with Kelly, of the American Planning Association's Planning Advisory Service Report *Everything You Always Wanted to Know About Regulating Sex Businesses*. We were assisted in the survey design and the analysis of results by David C. Keuhl, Ph.D., an Assistant Professor of Urban Planning at Ball State University. The work was performed under the supervision of the Office of the City Attorney, providing background for the City Council in its consideration of amendments to the zoning regulations for sexually oriented businesses.

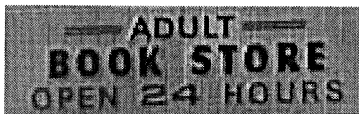


REGULATING SEXUALLY ORIENTED BUSINESSES

Regulation of sexually oriented businesses has become one of the more challenging tasks facing communities today. Regulations must balance legitimate community concerns about the businesses with the First Amendment rights of the business owners and customers.

Courts increasingly demand that local governments base their zoning regulations of sexually oriented businesses on documented land-use effects of those businesses. Recent court decisions indicate that a local government representing a jurisdiction of significant size is in a better position legally if it conducts its own study of those impacts, rather than relying on published studies or studies conducted in other communities.

Most regulations of sexually oriented businesses are directed at nude or topless bars, XXX video stores and other establishments devoted almost entirely to sexually oriented activities. However, many well-regarded merchants include in their stock a measurable proportion of arguably sexually oriented material; such businesses include the video rental stores with "adults only" backrooms, news dealers with isolated racks of adult magazines and a variety of specialty stores that may include certain sexually oriented items.



Although those who take the most negative view of sexually oriented activities and materials would lump all such businesses together, this creates an impossible situation, legally and politically. First, any broad limitation on any business with any "sexually oriented" materials or activities would ultimately apply to every bookstore, every movie rental store, every news dealer and, arguably, a variety of other merchants, such as Victoria's Secret, which trades on the fringes of this market in some of the nation's most upscale malls. Although those who would like to see such materials and activities eliminated completely from a community, the fact remains that there are technically x-rated scenes in major works of literature, brief nudity and sexual activity in Academy award-winning motion pictures.

Regulation of sex businesses is one of the most litigated areas of land-use law today. Communities that have tried to bar most or all sex businesses have generally lost court challenges to their regulatory schemes. In that context, a community must make reasonable provision for the existence of some sexually oriented businesses; on the other hand, it is also clear that a community need not necessarily allow every such establishment to offer the full range of sexually oriented products or activities that its proprietors might like to offer. Courts have also recognized that a sexually oriented business (such as a book store) is different from other businesses offering similar products that are not sexually oriented. Detroit can adopt and implement different zoning regulations for such businesses, provided that the effect is not a complete ban on all such businesses.

Regulations that attempt to censor specific messages or that otherwise target the message itself are subject to “strict scrutiny” in the courts, a standard which places a heavy burden on a government to show a “compelling state interest” that justifies the regulations. See, for example, *Boos v. Barry*, 85 U.S. 312, 108 S. Ct. 1157, 99 L. Ed. 2d 333 (1988). But where the regulations are aimed at the secondary effects of sexually oriented businesses, they will be treated as “content neutral” and subject only to “intermediate scrutiny,” a far less burdensome standard for local governments to meet. See *City of Los Angeles v. Alameda Books, Inc.*, 152 L. Ed. 2d 670, 122 S. Ct. 1728 (U.S. 2002).

In response to concerns of residents about the secondary effects of certain sexually oriented businesses, particularly in parts of the community where there were multiple such businesses, the City of Fort Worth began to consider amendments to its zoning regulations affecting sexually oriented businesses and sought our advice on the extent of those secondary effects. The focus of this study has been on the secondary effects of those businesses on property values.

SCOPE AND DESIGN OF STUDY

This study consisted of a survey of MAI and SRA real estate appraisers in Fort Worth and Dallas. There have been earlier surveys of real estate appraisers and professionals regarding this subject, including those incorporated in studies for Indianapolis, Indiana, Austin, Texas, Garden Grove, California, and Rochester, New York.¹

The most commonly cited secondary effects of sexually oriented businesses on communities relate to incidence of crime and effects on surrounding property values. The incidence of crime was well documented in the Garden Grove study,² a study that would be difficult and expensive to replicate. Efforts to model the effects of particular uses on property values have proven to be very difficult to carry out effectively. The typical method, followed in sections of both the Indianapolis and Austin reports, is to compare trends in property values in an area with a sexually oriented business to trends in property values over the same period of time in a similar area without a sexually oriented business. There are multiple levels of comparison in such a study. One major challenge is trying to find “similar” areas. There will always be differences other than the sexually oriented business, and, without a large enough sample size that allows testing for other variables, it is difficult to determine how those other variables may be increasing or offsetting the apparent secondary effects of sexually oriented businesses. One area may have a park, while the other does not. One may have three small religious institutions while another has only two such institutions, but one of them turns out to be very large, with activities several days a week. The area with the sexually oriented business may also have a

pawn shop or a salvage yard or another use that may also have a negative effect on property values.

Even if researchers are able to identify truly comparable areas for the study, there is a further problem in tracking trends in property values. A study may use values assessed for tax purposes, a methodology that is itself fraught with problems and that often includes a number of factors other than market value. Tracking the values of properties that actually sell may make sense, but there is no guarantee that similar properties will sell in the two similar areas over any reasonable study period. The sale of one deteriorated home in one area or of a couple of upscale homes in another can distort study results. Understanding those problems is not particularly difficult. Solving them in the context of a specific study in a specific community is very difficult indeed.

Given the above, we believe that the opinions of appraisers provide an excellent and reliable measure of the effects of any kind of use or activity on property values. First, certified appraisers are experts in their fields, people who follow professional standards in making judgments about property values. Second, appraisers familiar with a local market look at the values of many properties every year and thus have a substantial data set not only in their files but also in their heads. Third, and perhaps most important, the opinions of appraisers are essentially self-fulfilling prophecies. The vast majority of real estate transactions that take place in this country involve mortgage loans. The amount available for a mortgage loan on a particular property depends on the value of the property, as determined by an appraiser. The mortgage value of a property is typically closely correlated with the market value of the property, because few buyers are willing to pay more for a property than mortgage lenders believe that it is worth. Thus, to take an overly simple example, if most appraisers in a community believe that pink and green houses are worth, in general, 10 percent less than similar houses painted beige, the practical effect of that opinion will be to reduce the market value of pink and green houses.

We elected to survey only appraisers who have met the professional standards of the Appraisal Institute³ as Members (holding the MAI designation) or as Senior Residential Appraisers (SRA designation). The Institute is considered by many to be the leading organization setting the standards for appraisers in the United States.

Previous surveys of appraisers have been criticized because the purpose of the survey was made obvious, either in a cover letter or in the narrow focus of the instrument itself. We thus designed a survey that asked the opinions of the appraisers about both positive and negative effects of a variety of land uses on surrounding properties – uses including religious institutions, parks, libraries and shopping centers, as well as uses often carrying a negative connotation, such as sexually oriented businesses, pawn shops and homeless shelters.

We mailed the surveys to all appraisers meeting the above qualifications. We used follow-up letters and e-mails to ask survey recipients to respond. A discussion of the response rates follows at the end of this report.

In our report below, we include summaries of responses to the questions in which we were most interested. The survey instrument and responses to all questions are included at the end of the report. Although we have grouped sexually oriented businesses together in reporting the responses, the survey instrument mixed various land uses in the questions.

Findings

Question 3: How would the listed land uses located within **500 feet** of a **Single- Family Home** likely affect the home's appraised value?

Land Uses	Affect on Single Family Home's Appraised Value (%)			
	Decrease	No impact	Increase	No Opinion
Adult Arcade/Peep Booths	97.5	0.0	0.0	2.5
Adult Novelty/Media Store (Retail only)	97.5	0.0	0.0	2.5
Gentleman's Club/Cabaret	95.0	2.5	0.0	2.5
Homeless Shelter	95.0	2.5	0.0	2.5
Bar/Lounge	87.5	7.5	0.0	5.0
Pawn Shop	87.5	10.0	0.0	2.5
Convenience Store (beer/wine license)	80.0	12.5	2.5	5.0
Gas Station	60.0	32.5	2.5	5.0
Office Building	52.5	40.0	0.0	7.5
Grocery Store	47.5	25.0	25.0	2.5
Fire station	27.5	50.0	20.0	2.5
Bookstore	23.1	59.0	15.4	2.6
Religious Institution	15.4	61.5	17.9	5.1
Public Library	15.0	45.0	32.5	7.5
Neighborhood Park	5.0	15.0	77.5	2.5

Appraisers were nearly unanimous in responding that adult-oriented businesses of any kind (arcades, stores, or cabarets) would decrease single-family home property values. Other uses deemed similarly detrimental to property values included homeless shelters, bars, and pawnshops. Interestingly, a convenience store with a beer and wine license was viewed as decreasing values by 60% of the respondents.

Question 4: If you selected “Decrease Value” or “Increase Value” for any of the land uses in Question 3, at what distance would the land use likely have **No Impact** on the appraised value of the **Single-Family Home**?

Land Uses	Distance Before There Is No Impact on Single Family Home's Appraised Value (%)						Average Feet
	Over 500 ft.	Over 1000 ft.	Over 1500 ft.	Over 2000 ft.	Over 2500 ft.	Over 3000 ft.	
Homeless Shelter	0.0	0.0	5.7	5.7	2.9	85.7	2800
Adult Arcade/Peep Booths	0.0	0.0	5.7	5.7	5.7	82.9	2800
Gentleman's Club/Cabaret	0.0	2.8	8.3	2.8	2.8	83.3	2700
Adult Novelty/Media Store (Retail only)	0.0	2.7	2.7	5.4	10.8	78.4	2700
Pawn Shop	0.0	3.0	9.1	15.2	9.1	63.6	2600
Bar/Lounge	0.0	9.1	12.1	9.1	12.1	57.6	2400
Gas Station	3.4	6.9	13.8	13.8	17.2	44.8	2300
Convenience Store (beer/wine license)	3.2	12.9	25.8	0.0	16.1	41.9	2100
Office Building	3.6	7.1	21.4	21.4	14.3	32.1	2100
Fire station	5.6	11.1	22.2	11.1	11.1	38.9	2100
Public Library	13.0	4.3	21.7	4.3	26.1	30.4	2000
Grocery Store	7.4	11.1	25.9	18.5	3.7	33.3	2000
Neighborhood Park	12.9	16.1	19.4	25.8	0.0	25.8	1800
Bookstore	11.8	17.6	23.5	17.6	5.9	23.5	1700
Religious Institution	13.3	20.0	26.7	13.3	6.7	20.0	1700

More than 78% of the appraisers judged the negative influence of adult-oriented businesses on property values to extend beyond 3000 feet (or approximately 6 blocks). While a few suggested the influence was not felt quite so far, even the lowest estimates put the distance at 1000 feet. The average distance was between 2700 and 2800 feet. Other than sexually oriented uses, only homeless shelters were considered to influence property values that far away. Pawnshops, bars, and gas stations were next (2600 to 2400 feet).

Question 5: How would the listed land uses located within **500 feet** of a **Community Shopping Center** likely affect the community shopping center's appraised value?

Land Use	Affect on Community Shopping Center's Appraised Value (%)			
	Decrease	No impact	Increase	No Opinion
Adult Arcade/Peep Booths	92.3	2.6	2.6	2.6
Gentleman's Club/Cabaret	89.7	2.6	5.1	2.6
Adult Novelty/Media Store (Retail only)	82.1	12.8	0.0	5.1
Homeless Shelter	82.1	12.8	2.6	2.6
Pawn Shop	53.8	35.9	5.1	5.1
Bar/Lounge	35.9	46.2	12.8	5.1
Convenience Store (beer/wine license)	7.7	59.0	25.6	7.7
Grocery Store	7.7	53.8	35.9	2.6
Bookstore	2.7	62.2	32.4	2.7
Fire station	2.6	76.3	18.4	2.6
Neighborhood Park	2.6	82.1	10.3	5.1
Religious Institution	2.6	82.1	10.3	5.1
Office Building	2.6	64.1	30.8	2.6
Gas Station	2.6	64.1	30.8	2.6
Public Library	0.0	89.7	7.7	2.6

The appraisers considered the property values of community shopping centers to be equally detrimentally affected by the proximity of adult-oriented businesses. More than 82% considered adult-oriented uses to decrease commercial property values. The only use considered to be comparable in its decreasing of property values was homeless shelters. Pawnshops and bars were next but only 54% and 36%, respectively, of the appraisers thought they would decrease property values.

Question 6: If you selected “Increase Value” or “Decrease Value” for any of the land uses in Question 5, at what distance would the land use likely have **No Impact** on the appraised value of the **Community Shopping Center**?

Land Uses	Distance Before There Is No Impact on Community Shopping Center's Appraised Value (%)						
	Over 500 ft.	Over 1000 ft.	Over 1500 ft.	Over 2000 ft.	Over 2500 ft.	Over 3000 ft.	Average Feet
Homeless Shelter	0.0	3.6	10.7	17.9	3.6	64.3	2500
Adult Novelty/Media Store (Retail only)	0.0	14.3	10.7	10.7	3.6	60.7	2400
Adult Arcade/Peep Booths	2.9	8.8	11.8	11.8	5.9	58.8	2400
Gentleman's Club/Cabaret	0.0	14.7	14.7	5.9	5.9	58.8	2300
Pawn Shop	9.5	9.5	19.0	4.8	14.3	42.9	2100
Bar/Lounge	5.0	10.0	35.0	20.0	0.0	30.0	1900
Grocery Store	23.8	4.8	28.6	14.3	4.8	23.8	1700
Office Building	11.1	11.1	33.3	22.2	0.0	22.2	1700
Fire station	18.2	9.1	27.3	18.2	0.0	27.3	1700
Gas Station	31.3	6.3	25.0	0.0	0.0	37.5	1700
Bookstore	17.6	17.6	29.4	5.9	5.9	23.5	1600
Religious Institution	18.2	27.3	27.3	9.1	0.0	18.2	1500
Convenience Store (beer/wine license)	25.0	18.8	31.3	6.3	0.0	18.8	1400
Public Library	20.0	30.0	30.0	10.0	0.0	10.0	1300
Neighborhood Park	22.2	44.4	22.2	0.0	0.0	11.1	1200

Approximately 60% of the appraisers felt adult-oriented businesses have an impact on the value of shopping centers' values beyond 3000 feet. As compared to single-family homes, the distance at which appraised values would no longer be affected by an adult use was somewhat less. Respondents felt that it took from 2300 to 2400 feet before an adult use had no impact on the appraised value of a shopping center. Only homeless shelters were suggested to have a further reach (2500 feet). Again, pawnshops and bars were next with an influence on property values 2100 and 1900 feet, respectively.

Question 7: Is there a greater negative impact on property values if there is a **concentration of land uses that have a negative impact** on appraised values?

Does a Concentration of Negative Uses Create a Greater Impact?					
Yes	82.9%	No	9.8%	No opinion	7.3%

The vast majority of appraisers agreed that a concentration or cluster of detrimental uses had a greater negative impact on property values than isolated uses.

Question 8: If you answered “YES” to Question 7, which of the following **factors are important in determining whether there is a "concentration"** of uses with a possible negative impact?

Factors Determining a Concentration	
Number of uses within a specified area?	3 + (uses)
Distance between uses measured in feet?	430 feet (average)
At what separation distance would the impact of the concentration cease to be a consideration?	3,340 feet (average)

A concentration of three or more negative uses was considered by most appraisers to be the level at which the impact is greater. The grouping was considered to occur if uses were within approximately 400 feet of each other. Respondents felt concentration ceased to have an impact at an average distance of 3,340 feet (as compared to approximately 2300 to 2800 feet for single uses listed earlier.)

Question 9: General comments on other issues related to Question 8.

- Survey did not consider condition or level of public use for several items.
- Variable that affects survey is the price range of house and size of community. In Dallas, \$300,000+ houses like to be secluded. In small towns people are happy to have a choice in uses, have growth and acceptance of it.
- Concentration depends on size of the defined area.
- Grouping of uses may be beneficial such as West End, Deep Ellum, or Sundance Square; however, DFW does not group their sexually oriented businesses into a single "red-light" district so it is difficult to measure. Although all of the clubs near Buchman Lake had a negative effect on the area; so it may be un-wise to cluster such uses near a residential area.
- Adult sexually oriented businesses need to be concentrated and located low-end industrial areas, otherwise they will gradually drive down the population and desirability of the area.
- Shopping centers benefit from defined agglomerations of retail if they have high architectural and signage standards; residential amenities within walking distance (5 - 6 blocks) are positive.

- Uses such as pawnshops, peep booths, etc, obviously effect single-family value. It is an open question as to effect on commercial properties; but as always, the developer must exhibit some common sense as to locations, area, etc., in both residential and commercial.
- The adverse land uses should be located outside the defined neighborhood in order for an adverse use to have little or no impact.
- Certain uses tend to increase crime rates and probably push values downward.
- Concentrating SOBs in industrial areas is reasonable as I support the business owners' rights to do business. Homeless shelters strike me as a big problem due to the number of panhandlers, bums, psychotics, etc. that leave the shelter each day. These need to be close to police stations and city services.
- It depends – Type of uses. Type of high-rise. Type of low rise. Ugly stuff in air. Blah Blah Blah.
- It depends on various factors primary are owner's expectations for the environment they are purchasing close to their house. Urban area negative use not a factor; suburban - everything can be an issue. Could get more usefulness by designing a questionnaire from an appraiser's perspective. I really think you can't understand factors without a socio-economic context.
- All of the above factors are relevant in that the noise level and traffic need to be minimal, although services need to be still relatively close by.
- Obviously some uses detract from value but number of uses is subjective.
- Marketing time (for property) would need to be extended.
- There would be other factors to be considered such as a major street or intersection as a screening characteristic, a larger building that blocks, a green belt or distances between uses, etc.
- Typically, no single adverse use causes a negative impact but a negative impact use causes other negative impact uses to move into certain areas and the combination of all negative uses creates negative property values.
- Single-family uses should be "family" oriented - not pornographic oriented. Lower demand would result in lower prices. Community shopping tends to be "A, B, or C" tenants etc. Generally pawnshops and adult entertainment are the lower rents, thus in lower value areas.
- SOBs generally have a negative affect on single family uses; lesser impact on retail.

Question 10: Do you believe that your personal, moral, or ethical beliefs about certain land uses have affected your responses to any of the questions in this survey?

Do Personal Beliefs Affect Response?	
Yes	19.5%
No	80.5%

Slightly less than 20% of appraisers felt that the answers they gave to the previous questions might be influenced by their “personal, moral, or ethical beliefs.” The most commonly mentioned uses where this occurred were in the case of adult-oriented businesses. This means the findings may be slightly skewed negatively towards adult-oriented businesses.

Analysis of Response Rate

We mailed 186 surveys to appraisers holding the SRA or MAI designation in the cities of Fort Worth and Dallas. After follow-ups by mail and e-mail, we received 41 completed forms. Another 34 persons responded by indicating that they did not wish to complete the survey. Conservatively, that gave us a response rate of 22 percent, which is a margin of error of 13.7 percent. In some surveys – such as those of voters for President of the United States, where margins are typically narrow – that margin of error would substantially impair if not eliminate any validity of the survey.

In this case, however, the major findings were supported by 82 to 97 percent of the respondents. Even if the entire margin of error were applied negatively and the resulting responses were thus directly reduced (which is a worst-case example of possible error, not a statistically valid technique), the results would drop to 68 to 83 percent of the respective respondents, still a very strong and firm finding on all of the issues on which we have reported.

An argument can certainly be made that the response rate was greater than that in a typical survey in which a response rate of 22 percent is reported; in such a survey, typically only 22 percent of the people respond in any way. In this case, 40 percent actually responded in some way, although 18 percent were simply responding to say that they did not wish to participate.

It is also useful to compare the response rate in this study to response rates in other surveys of appraisers. A search of the literature on appraiser's response rates to surveys revealed a range as follows:

Author	Year	Response Rate
Chan ⁴	2000	21.0%
Claurette, Bible, et al. ⁵	1989	23.9%
Diskin, Lahev, et al. ⁶	1988	30.0%
Dotterweich and Myers ⁷	1995	41.5%
Fisher, Lentz, et al. ⁸	1993	33.0%
Kinnard and Worzala ⁹	1999	43.0%
Lahey, Ott, et al. ¹⁰	1993	40.4%
Smolen and Hambleton ¹¹	1997	36.5%
Waller ¹²	2000	50.0%
Wolverton and Epley ¹³	2000	25.7%
Wolverton and Gallimore ¹⁴	1999	31.7%
Wolverton and Gallimore ¹⁵	1999a	31.8%

Although at the low end of response rates among surveys of appraisers on a variety of subjects, the results in this survey were of the same order of magnitude. Further, most of the other

surveys asked appraisers questions about their profession or practices, not hypothetical questions about property values. As experts and consultants, we certainly understand the reluctance of experts to respond to hypothetical questions in their area of expertise for a non-client, without compensation and with no firm understanding of how the material will be used. When all of those factors are considered, we believe that the response rate is understandable. Further, as noted above, the findings are so clear that the relatively high margin of error resulting from the lower response rate has no effect on the substantive findings of the study.

Summary

- Appraisers were nearly unanimous in responding that adult-oriented businesses of any kind (stores, arcades, or cabarets) would decrease single-family home property values. Other uses deemed similarly detrimental to property values included homeless shelters, bars, and pawnshops.
- More than 70% of the appraisers judged the influence of adult-oriented businesses on property values to extend beyond 3000 feet (or approximately 6 blocks). While a few suggested the influence was not felt quite so far, even the lowest estimates put the distance at 1000 feet. The average distance was between 2700 and 2800 feet. Only homeless shelters were considered to influence property values that far away. Pawnshops, bars, and gas stations were next (2300 to 2500 feet).
- The appraisers considered the property values of community shopping centers to be equally detrimentally affected by the proximity of adult-oriented businesses. More than 75% considered adult uses to decrease commercial property values. The only use considered to be comparable in its decreasing of property values was homeless shelters. Pawnshops and bars were next in their impact on lowering appraised values for community shopping centers but to a much lower degree (53% and 32%, respectively).
- Approximately 50% of the appraisers felt adult-oriented businesses impact shopping centers' appraised values beyond 3000 feet. As compared to single-family homes, the distance at which appraised values would no longer be affected by an adult use was somewhat less. Respondents felt that it took from 2200 to 2300 feet before an adult use had no impact on the appraised value of a shopping center. Only homeless shelters were suggested to have a further reach (2400 feet). Again, pawnshops and bars were next in their influence on property values within 2000 and 1900 feet, respectively.
- The vast majority of appraisers agreed that a concentration or cluster of detrimental uses had a greater negative impact than isolated uses.
- Three negative uses grouped together was considered by most appraisers to be the level at which the impact was greater. The grouping was considered to occur if uses were within approximately 1000 feet of each other. They felt the concentration ceased to have an impact at an average distance of 3800 feet (as compared to approximately 2300 to 2800 feet single uses).
- Slightly more than 20% of appraisers felt that the answers to the survey questions might be influenced by their "personal, moral, or ethical beliefs." This means the findings may be slightly skewed negatively towards adult-oriented businesses.

Survey Instrument



c/o ION DESIGN GROUP
2800 NORTH HENDERSON AVENUE,
SUITE 100
DALLAS, TX 75206
PH: 214-228-0211 FAX: 214-370-3083

August 15, 2004

Dear MAI and SRA Designated Appraisers,

We are writing to request your assistance. Duncan Associates is conducting a **survey on whether property values are affected by certain types of nearby land uses**. We are sending this **10-question survey** to MAI and SRA designated appraisers in Dallas and Fort Worth to gain additional insight into better ways to regulate land uses and protect neighborhood amenities.

Please be assured that your response to this survey in no way implies that you are undertaking an appraisal of a property. It is simply to ascertain your views on the potential impact on property values created by certain types of land uses. **Your responses are completely confidential**. We use a mailing code to follow up on surveys that have not been returned. This is on the envelope and is discarded upon tabulation of the returned survey.

Enclosed with the survey is a stamped, self-addressed return envelope. Please use it to return the survey. We ask that you return the survey by **Monday, August 30**. If you would like to receive a copy of the tabulated survey results, please provide your name and address in the informational block found at the end of the survey.

We thank you in advance for your participation. If you have any questions, comments, or concerns please contact me at the number above or my associate, Connie B. Cooper, FAICP, via phone at 214-228-0211, or via e-mail at ccconniecooper@cs.com.

Sincerely,

Eric Damian Kelly, FAICP

SURVEY OF MAI AND SRA DESIGNATED APPRAISERS

DEADLINE: MONDAY, AUGUST 30, 2004

Purpose of the Survey: This survey asks Dallas and Fort Worth MAI and SRA designated appraisers your views of the impact certain land uses have on the appraised value of single-family homes and commercial businesses. Again, your response to this survey in no way implies that you are undertaking an appraisal of a property. It is simply to ascertain your views on the potential impact on property values created by the presence of certain types of land uses. We recognize that it may be difficult to respond to the questions related to specific distances; your best effort is appreciated. Thank You!

1. Rate the following amenities as to their potential influence on a Single-Family Home's appraised value. (circle response)

Amenities	1 = No Influence 5 = Very Positive Influence					No Opinion
Low Traffic Volumes	1	2	3	4	5	N/O
Tree-Lined Street	1	2	3	4	5	N/O
Nearby Elementary School	1	2	3	4	5	N/O
Close to Local Shopping	1	2	3	4	5	N/O
Sidewalks	1	2	3	4	5	N/O
Near Neighborhood Park	1	2	3	4	5	N/O
Underground Power Lines	1	2	3	4	5	N/O
Street Lights	1	2	3	4	5	N/O
On-street Parking	1	2	3	4	5	N/O
Curb and Gutter	1	2	3	4	5	N/O

2. Rate the following amenities as to their potential influence on a Community Shopping Center's appraised value. (circle response)

Amenities	1 = No Influence 5 = Very Positive Influence					No Opinion
Low Traffic Volumes	1	2	3	4	5	N/O
Tree-Lined Street	1	2	3	4	5	N/O
Nearby Elementary School	1	2	3	4	5	N/O
Close to Local Shopping	1	2	3	4	5	N/O
Sidewalks	1	2	3	4	5	N/O
Near Neighborhood Park	1	2	3	4	5	N/O
Underground Power Lines	1	2	3	4	5	N/O
Street Lights	1	2	3	4	5	N/O
On-street Parking	1	2	3	4	5	N/O
Curb and Gutter	1	2	3	4	5	N/O

3. How would the listed land uses located within **500 feet** of a **Single-Family Home** likely affect the home's appraised value? (Check only ONE box for each land use)

Land Use	Impact on Single-Family Home's appraised value due to the listed land uses located within 500 feet			
	Decrease Value	No Impact	Increase Value	No Opinion
Neighborhood Park				
Religious Institution				
Convenience Store (beer/wine license)				
Public Library				
Bar/Lounge				
Gentleman's Club/Cabaret				
Grocery Store				
Bookstore				
Adult Novelty/Media Store (Retail only)				
Office Building				
Homeless Shelter				
Fire station				
Pawn Shop				
Adult Arcade/Peep Booths				
Gas Station				

4. If you selected "**Decrease Value**" or "**Increase Value**" for any of the land uses in Question 3, at what distance would the land use likely have NO IMPACT on the appraised value of the **Single-Family Home**? (Check only ONE box for each land use).

Land Use	Distance at which land use would have NO IMPACT on Single-Family Home's appraised value					
	Over 500 ft.	Over 1000 ft.	Over 1500 ft.	Over 2000 ft.	Over 2500 ft.	Over 3000 ft.
Neighborhood Park						
Religious Institution						
Convenience Store (beer/wine license)						
Public Library						
Bar/Lounge						
Gentleman's Club/Cabaret						
Grocery Store						
Bookstore						
Adult Novelty/Media Store (Retail only)						
Office Building						
Homeless Shelter						
Fire station						
Pawn Shop						
Adult Arcade/Peep Booths						
Gas Station						

5. How would the listed land uses located within **500 feet** of a **Community Shopping Center** likely affect the community shopping center's appraised value? (Check only ONE box for each land use)

Land Use	Impact on Community Shopping Center's appraised value due to the listed land uses located within 500 feet			No Opinion
	Increase Value	No Impact	Decrease Value	
Neighborhood Park				
Religious Institution				
Convenience Store (beer/wine license)				
Public Library				
Bar/Lounge				
Gentleman's Club/Cabaret				
Grocery Store				
Bookstore				
Adult Novelty/Media Store (Retail only)				
Office Building				
Homeless Shelter				
Fire station				
Pawn Shop				
Adult Arcade/Peep Booths				
Gas Station				

6. If you selected "**Increase Value**" or "**Decrease Value**" for any of the land uses in Question 5, at what distance would the land use likely have NO IMPACT on the appraised value of the **Community Shopping Center**? (Check only ONE box for each land use).

Land Use	Distance at which land use would have NO IMPACT on Community Shopping Center's appraised value					
	Over 500 ft.	Over 1000 ft.	Over 1500 ft.	Over 2000 ft.	Over 2500 ft.	Over 3000 ft.
Neighborhood Park						
Religious Institution						
Convenience Store (beer/wine license)						
Public Library						
Bar/Lounge						
Gentleman's Club/Cabaret						
Grocery Store						
Bookstore						
Adult Novelty/Media Store (Retail only)						
Office Building						
Homeless Shelter						
Fire station						
Pawn Shop						
Adult Arcade/Peep Booths						
Gas Station						

7. Is there a greater negative impact on property values if there is a concentration of land uses that have a negative impact on appraised values?

Yes: ____ No: ____ No Opinion: ____

Note: If you answered "No" or "No Opinion" skip to Question #9

8. If you answered "YES" to Question 7, which of the following factors are important in determining whether there is a "concentration" of uses with a possible negative impact?

Factors Determining a Concentration	✓	How Much or How Many?
Number of uses within a specified area?		
Distance between uses measured in feet?		
Distance between uses measured in driving time?		
At what separation distance, minutes or feet (indicate) would the impact of the concentration cease to be a consideration?		
No Opinion		

9. Provide any other comments regarding the potential impact the surveyed land uses might have on the appraised value of a single-family home or community shopping center.

10. Some of the types of land uses listed in this survey elicit strong responses from some persons, both positively and negatively. Although we believe that professionals are less likely than others to respond to these questions from emotional or moral positions, previous surveys of this type have sometimes been criticized because they did not include a question about the extent to which ethical, religious or other personal beliefs might have affected responses. In that context, we would appreciate your response to this final, two-part question.

	YES	NO
Do you believe that your personal, moral or ethical beliefs about certain land uses have affected your responses to any of the questions in this survey?		
If yes, which types of land uses?		

Please provide your name and mailing address if you would like a copy of the survey results:

Thank You for taking the time out of your business day to respond to our questionnaire. Again, if you have any questions or wish to provide comments, please include them with your questionnaire or give us a call / email at the numbers listed on the cover letter.

Eric Damian Kelly, FAICP
 Connie B. Cooper, FAICP

¹ Austin, Texas: "Report on Adult Oriented Businesses in Austin," prepared by Office of Land Development Services, May 19, 1986.

Garden Grove, California: "Final Report to the City of Garden Grove: the Relationship between Crime and Adult Business Operations on Garden Grove Boulevard," Richard W. McCleary, Ph.D., James W. Meeker, J.D., Ph.D., October 23, 1991.

Indianapolis: "Adult Entertainment Businesses in Indianapolis. An Analysis," 1984.

Rochester, New York: "Survey of Appraisers in Monroe County, New York," Summer 2000, results published in Kelly and Cooper, *Everything You Always Wanted to Know about Regulating Sex Businesses*, Planning Advisory Service Report No. 495-96. Chicago: American Planning Association, 2000; pages 51-57.

² McCleary and Meeker, op. cit.

³ <http://www.appraisalinstitute.org>

⁴ Chan, N. (2000). "How Australian appraisers assess contaminated land." The Appraisal Journal 68(4): 432-439.

⁵ Claurette, T. M., D. S. Bible, et al. (1989). "Appraisal Regulation And Certification: Appraisers' Views." The Appraisal Journal 57(3): 317-326.

⁶ Diskin, B. A., V. M. Lahey, et al. (1988). "Appraisers' Utilization Of Computer Technology." The Appraisal Journal 56(2): 179-189.

⁷ Dotterweich, D. and G. Myers (1995). "Appraiser Attitudes toward Industry Changes." The Appraisal Journal 63(3): 291-297.

⁸ Fisher, J. D., G. H. Lentz, et al. (1993). "Effects of Asbestos on Commercial Real Estate: A Survey of MAI Appraisers." The Appraisal Journal 61(4): 587-599.

⁹ Kinnard, W. N. and E. M. Worzala (1999). "How North American Appraisers Value Contaminated Property and Associated Stigma." The Appraisal Journal 67(3): 269-279.

¹⁰ Lahey, K. E., D. M. Ott, et al. (1993). "Survey of the effects of state certification on appraisers." The Appraisal Journal 61(3): 405-413.

¹¹ Smolen, G. E. and D. C. Hambleton (1997). "Is the Real Estate Appraiser's Role Too Much To Expect?" The Appraisal Journal 65(1): 9-17.

¹² Waller, B. D. (2000). "A Survey of the Technology Astuteness of the Appraisal Industry." The Appraisal Journal 68(4): 469-473.

¹³ Wolverton, M. L. and D. Epley (2000). "National Survey of Residential Appraisers Shows SRAs Have More Earning Power." The Appraisal Journal 68(4): 395-405.

¹⁴ Wolverton, M. L. and P. Gallimore (1999). "Client feedback and the role of the appraiser." The Journal of Real Estate Research 18(3): 415-431.

¹⁵ Wolverton, M. L. and P. Gallimore (1999). "A cross-cultural comparison of the appraisal profession." The Appraisal Journal 67(1): 47-56.

**THE UNIVERSITY OF MICHIGAN
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**MARKETS FOR STOLEN PROPERTY:
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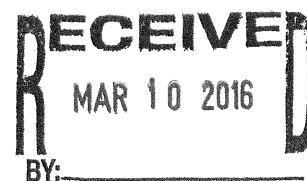
Thomas J. Miles, Chicago

THURSDAY, January 24, 2008

3:40-5:30

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Markets for Stolen Property: Pawnshops and Crime

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Abstract

Pawnshops serve the credit needs of low-income individuals and consequently locate in higher crime communities. However, pawnshops are often suspected of being outlets for stolen property and if so, they may stimulate criminal activity. To break this simultaneity, this paper uses usury laws as instrumental variables to identify the causal effect of pawnshops on crime. States with more generous limits on the interest and fees that pawnbrokers may charge have a greater incidence of pawnshops. Increases in the number of pawnshops are shown to raise the rate of those crimes in which pawnable property is stolen and to have no impact on the rates of those crimes in which such property is not taken. The results support the hypothesis that pawnshops trade in ill-gotten merchandise. While a ban on these shops does not appear warranted, a closer police monitoring of these shops is likely efficient.

“Nothing therefore can be more just than the old observation, ‘*that if there were no Receivers there would be no thieves.*’ — Deprive a thief of a safe and ready market for his goods, and he is undone.”

— Patrick Colquhoun, *A Treatise on the Police of the Metropolis* (1796) [italics in the original]

Thieves rarely retain for themselves the items that they steal. Instead, they typically trade their booty for cash in markets for stolen goods. Evidence suggests that these markets are extensive. According to the Federal Bureau of Investigation (FBI), the value of all goods stolen during the commission of robberies, burglaries, and larcenies in 1996 exceeded \$6 billion. This supply of stolen goods appears to be matched with a substantial demand. Studies by Wright and Decker (1994) and Sutton (1998) suggest that those who readily pay cash for ill-gotten goods include not only the professional fence, but also relatives, friends, acquaintances, even strangers.² In spite of the size and pervasive nature of these markets, economists have not thoroughly studied them.

Since the seminal contribution of Becker (1968), the economic study of criminal behavior has largely focused on the deterrent effect of sanctions. A large theoretical and empirical literature has found that increasing penalties and the probability of apprehension reduces crime.³ In contrast, few researchers have examined the responsiveness of criminal behavior to the marginal benefits of crime. This paper attempts to do so by focusing on one institution that has long been associated with the receipt of stolen goods, namely the pawnshop.

² These authors also found that some burglars bartered with drug dealers in order to acquire illegal drugs directly without having to convert their stolen goods into cash first.

³ For theoretical analysis of the effect of sanctions on criminal behavior, see Stigler (1970), Ehrlich (1973), and Andreoni (1991), among others. For empirical analysis of the effect of police on crime, see Levitt (1997), Marvel and Moody (1996), and the survey in Cameron (1988). For empirical analysis of the effect of prisons on crime, see Levitt (1996).

Popular culture has long perceived the pawnshops as an outlet for stolen goods. This conventional wisdom has persisted for centuries,⁴ and some modern-day law enforcement officers share this perception.⁵ Even pawnbrokers readily admit that their industry suffers from this negative association.⁶ Extensive anecdotal evidence supports the conclusion that pawnshops deal in ill-gotten goods. A casual review of newspapers yields numerous instances of stolen property having been pawned (see, for example, Perez, 1996). A more thorough analysis was conducted by a Ft. Lauderdale newspaper whose reporters gathered all the pawn slips in that city for the year 1996. These slips are records of pawn transactions, copies of which pawnbrokers in some jurisdictions are required to forward to police authorities. The reporters ranked the pawnors by the number of trips to pawnshops. Thirty-nine of the top 50 pawnors had criminal arrest records, nineteen of which were for burglary, theft, or related offenses. A follow-up to that study by Wallace (1997) highlighted cases that suggest that pawnshops may enable a few highly motivated criminals to commit many offenses. For example, an unemployed man visited a single pawnshop 38 times in less than two months and pawned, among other items, thirteen women's

⁴ One social commentator in 18th century London expressed this belief in unequivocal terms: "This Class of Swindling Pawnbrokers are uniformly receivers of stolen goods; and under cover of their license do much mischief to the public . . ." (Colquhoun, 1796, p. 156). An observer in 19th century Scotland declared, "The tendency of this [pawn] traffic to engender and encourage thievish propensities cannot be disputed . . . It tempts the multitudes to steal, by offering every facility for the disposal of stolen goods. It also encourages a sense of security in the thief. Brokers have been known to give direct encouragement to theft . . ." (Macrae, 1861).

⁵ According to one Florida detective, "Pawnshops are the easiest place to go with stolen property. Unwittingly or not, I believe pawnshops regularly deal in stolen property" (quoted in Glover and Larrubia, 1996d).

⁶ One California pawnbroker said, "Some people think they're for crooks and run by crooks" (quoted in *San Luis Obispo*, 1996). Another lamented how "we continue to be stereotyped as seedy, back-alley greedy business people who fence stolen goods" (Smith, 1998).

rings, ten men's rings, eleven necklaces, nine cameras, six watches, three VCRs, and two televisions. The day after his last visit to the pawnshop, the man was arrested for burglary, and he was later sentenced to two years in prison.

This paper conducts the first systematic analysis of pawnshops and crime. The results show that pawnshops correlate strongly with the seven types of Index I crimes, even when controls for income levels, labor market conditions, and demographics are present.⁷ However, this correlation does not necessarily imply that pawnshops cause crime. Because pawnshops serve the credit needs of persons with low income and limited access to mainstream financial markets, pawnshops may choose to locate close to their customers. Because low-income counties are also places with high crime rates, a positive correlation between pawnshops and crime rates may result, even in the absence of a causal relationship. In this scenario, pawnshops would correlate with, but would not necessarily participate in, the trade of stolen goods. An alternative possibility is that pawnshops do engage in such illicit trade and that by providing a ready market for stolen goods, pawnshops furnish an incentive for greater criminal activity. That is, pawnshops may cause crime.⁸

The present paper tests this causal relationship by breaking the simultaneity of pawnshops and crime. Identification of the effect of pawnshops on crime requires a variable that affects the

⁷ Appendix A lists the Federal Bureau of Investigation's definitions of these crimes.

⁸ A third possibility, which is not mutually exclusive from the second, reverses the direction of this causation. It begins with the observation that much of a pawnshop's revenue comes from retail sales of its unredeemed pawns. If thieves have lower reservation prices for their swag than do pawnors of legitimately obtained goods, pawnbrokers could obtain lower-cost inputs from criminals. More advantageous factor prices would provide an incentive for pawnshops to locate near criminal activity. In this scenario, higher crime rates would cause a greater presence of pawnshops. This paper leaves this possibility unexplored.

number of pawnshops but is otherwise unrelated to crime rates. Caskey (1991, 1994) reported that state usury laws that limit the interest that pawnbrokers can charge on their loans have a strong and significant effect on the geographic distribution of pawnshops. Therefore, this paper employs usury laws in general and those specific to pawnshops as instrumental variables.

Since pawnshops' primary businesses is making loans based on the collateral of tangible personal property, limits on the interest and fees that can be charged have a direct effect on the profitability of pawnbroking. As a consequence, these limits are a key factor in determining the number of shops in operation. In addition, after controlling for other factors, it is unlikely that usury laws have a direct effect on crime rates. Instead, pawnbroking appears to be the most plausible channel through which usury laws may affect crime rates. For these reasons, they are employed to identify the effect of pawnshops on crime rates.

Specifically, pawnshops are predicted to increase crimes in which offenders obtain types of property that may be converted into cash at pawnshops. The seven FBI Index I crimes are assembled into two groups in order to test this prediction. First, robbery, burglary, and larceny are crimes in which pawnable property is generally taken. Hence, under the hypothesis that pawnshops trade in stolen goods, an increase in the number of pawnshops should raise the incidence of these types of crimes. In contrast, pawnable property is generally not taken during the commission of murder, rape, aggravated assault, and motor vehicle theft. Hence, the presence of pawnshops should not causally affect the frequency of this second group of crimes.

These predictions are tested on a cross-section of counties with populations of at least 50,000 persons, as well as on less populous counties. OLS results show that the incidence of pawnshops correlates with both groups of crimes in all counties. However, evidence confirming

the prediction that pawnshops have a causal effect on certain crimes is found only in the sample of more populous counties. These estimates indicate that a 10% increase in the rate of pawnshops raises the rate of robberies, burglaries, and larcenies in urban counties by between 0.8 and 1.1 percentage points. In contrast, the estimated impact on the remaining crime types is smaller and not statistically different from zero.

The paper proceeds as follows. Section II details the mechanics of pawning and illustrates how these transactions may be used to fence stolen goods. Section III describes the data used. Section IV shows how usury laws affect the geographic distribution of pawnshops and discusses the exogeneity of such laws to crime rates. Section V presents estimates of the effect of pawnshops on crime, and Section VI evaluates the implications for public policy. Section VII concludes.

II. How Pawnshops Encourage Crime.

A pawn is simply a small collateralized loan. A pawnor gives the broker a piece of tangible personal property, against the value of which the broker extends a loan. The broker takes possession of the item and retains it in his shop as collateral. A pawn slip or ticket records the name of the pawnor, a description of the item pawned, the amount advanced, the maturity date, and other terms of the loan. The pawnor departs with the slip and the cash. Should the pawnor not return to reclaim the pledged item when the loan is due and after a brief grace period, it becomes the property of the broker. The broker is then free to sell the item for whatever price

it can fetch and to pocket the proceeds.⁹ If the pawnor does return to redeem the item, she must repay the loan with interest. In addition, the terms of the loan may require her to pay fees for handling, storage, insurance, and other charges that together may exceed the interest cost.

From interviews with St. Louis-area burglars, Wright and Decker (1994) identified how a pawnshop transaction may be used to convert stolen goods into cash. First, a criminal may simply pawn the items. To do so, however, the pawnor must provide his name, address, and a form of identification. Some state and municipal regulations may also require the pawnor to furnish a home telephone number, a identification with photograph, and to have his fingerprint and/or photograph taken. If police properly utilized this information, these requirements would clearly increase the risk that the pawnor would be linked to the crime. In practice, however, few jurisdictions make full use of this information. Moreover, these requirements are easily skirted. The offender qua pawnor may provide false information (see Glover and Larrubia, 1996a) or use false identification. Alternatively, some burglars reported persuading friends or acquaintances to pawn the items for them, thereby distancing themselves from the items and further reducing their odds of apprehension (Wright and Decker, 1994). Once they have obtained cash for the pawned item, thieves may never return to redeem the item.¹⁰

⁹ Some states have laws requiring the broker to sell the item at public auction and to refund to the pawnor any surplus in excess of the loan amount and the broker's processing costs. Anecdotal evidence suggests that the public is largely unaware of such "surplus laws" and that they are rarely enforced.

¹⁰ Another means by which thieves may obtain cash for their stolen goods at pawnshops is to sell, rather than pawn, their items. Wright and Decker (1994) reported that some burglars obtained slightly higher prices for engaging in sales rather than pawns. However, the ability of thieves to sell rather than pawn depended upon several factors such as the quality of the items and the extent of trust between the pawnbroker and pawnor.

Central to the controversy over whether pawnbrokers receive stolen goods is the extent to which they expend efforts to determine the origin of incoming goods.¹¹ According to the National Pawnbrokers Association (NPA), “Thieves and robbers are a pawnbroker’s worst enemy . . . Pawnbrokers are trained to look for signs of stolen property and to avoid these costly mistakes” (NPA, 1998, p.2). The NPA explains that pawnbrokers attempt to screen out stolen goods, as the broker will lose both the collateral and the amount loaned if police seize the item. However, only Delaware, Virginia, and the District of Columbia explicitly permit police to search for and to seize without a warrant items which they believe are stolen. In contrast, some state laws make the recovery of stolen property from pawnshops difficult for crime victims. Until it was recently repealed, a Florida law stipulated that police could not return such property to its original owners. Unless a judge ordered its return, the items remained the property of the pawnbroker. Laws in seven other states similarly require victims to seek legal adjudication to secure the return of their property from pawnshops.¹² Because obtaining a judicial order is costly, few victims are likely to seek return of their articles. In such instances, the expected cost of unwittingly receiving stolen property is not high, and a pawnbroker’s incentive to discern the origin of offered items is reduced. Furthermore, pawnbrokers do not internalize the full social benefits of any reductions in crime that might accrue from the more intense scrutiny of incoming

¹¹ Sir John Fielding admonished London pawnbrokers on this subject: “I am sure that it would be unnecessary to tell them, that when a shoe-black brings a diamond ring to pawn, there is great reason to suspect he did not come by it honestly” (Fielding, 1755, p.15)

¹² These states are Alabama, California, Kansas, Louisiana, Mississippi, Ohio, and Tennessee.

merchandise.¹³ In addition, the competitive nature of pawn markets imposes a potentially large opportunity cost on the refusal of items.¹⁴ Thus, while the effort level allocated to distinguishing between properly and improperly obtained goods is likely privately optimal for brokers, it may be below the social optimum.

As suggested by the quotation at the opening of this paper, the ultimate goal of most theft is to obtain cash for the ill-gotten property. Once a criminal has successfully expropriated property from his victim, the task of converting it into currency is not trivial. Apprehension by the authorities while the goods are in one's possession greatly increases the odds of conviction. If a pawnshop deals in stolen goods, that risk is reduced for criminals operating in its vicinity, and the consequent increase in expected rewards should encourage criminal activity in locations with pawnshops.

This incentive may be most powerful in densely populated environments. The closer proximity of the pawnshop to targets of theft together with the anonymity of the city may conspire to make the pawnshop a convenient destination for the urban criminal's stolen goods. In rural areas, the pawnshop may be remote from the crime scene, criminal activity is generally less frequent, and residents are more apt to know and to know more about the members of their communities. These factors increase the odds that pawning stolen goods in rural areas will result

¹³ In the words of one broker, "If he's coming in my store with a VCR, I'm not asking him where he got it. It's the police's job to find out if it's stolen, not mine" (quoted in Glover and Larrubia, 1996a).

¹⁴ This same broker continues: "You don't ask where things come from. If you don't take those [items], the guy down the street will" (quoted in Glover and Larrubia, 1996a).

in apprehension. Thus, only pawnshops in urban environments ought to have a causal effect on rates of robbery, burglary, and larceny.

Importantly, these enhanced incentives bear only on particular types of crime. Pawnshops should affect only those categories of criminal activity in which offenders obtain pawnable merchandise. Robbery, burglary, and larceny are such categories. Frequently stolen during these three types of crime are items such as jewelry, watches, consumer electronics, and handguns. Such goods also constitute a large portion of the typical pawnshop's inventory.

The presence of pawnshops does not affect the reward structure of the remaining crime categories. While personal property may be taken during murders and rapes, the Federal Bureau of Investigation reports that the average value of goods taken during the commission of such crimes in 1996 was \$125 and \$25, respectively.¹⁵ In contrast, the average value taken during the commission of robberies, burglaries, and larcenies was \$929, \$1,332, and \$532, respectively (FBI, 1996). Moreover, no property is taken during an assault, by definition. Lastly, motor vehicle theft should not be affected by the presence of pawnshops, because these shops do not deal in automobiles or their parts.¹⁶ In sum, the main empirical implication is that the greater

¹⁵ According to the "hierarchy rule" of crime reporting, a crime consisting of more than one type of felony is recorded as a single instance of the most serious offense involved. For example, a robbery in which the victim is killed is counted solely as a murder. Consequently, the "non-pawn" crime group used in this paper may actually contain offenses in which pawnable property was taken. However, these results are unlikely to be seriously affected by this data limitation. In 1996, only 10% of murders occurred in the circumstance of a robbery, burglary, or larceny (FBI, 1997, p. 19).

¹⁶ Pawnbrokers in some states now extend credit against the value of an automobile. In these transactions, the borrower retains physical possession of the vehicle, while the broker holds the certificate of title as collateral. If the loan falls into delinquency, the broker uses the title to repossess the vehicle (Cahill, 1999). Because proof of ownership in the form of the certificate of title is essential to these eponymous "title loans," stolen cars cannot be converted into cash via

presence of pawnshops increases solely those categories of crime directed related to the pinching of pawnable goods.

III. Data.

The data analyzed are a cross-section of U.S. counties in 1996. To obtain the number and location of pawnshops and check-cashing outlets nationwide, the author searched the American Business Disc (ABD). This CD-RoM, which is produced by the American Business Information, Inc. (ABII), provides the name, address, and phone number for every “yellow page” entry in telephone directories across the country. The ABII combines this information with additional market data such as credit ratings, estimated sales volume, number of employees, years in business, and the standard industrial classification (SIC) codes for up to six lines of business. The SIC codes for pawnshops and check-cashing outlets are 5932-29 and 6099-03, respectively. Since the sale of marketing data is their primary business, the ABII has an incentive to ensure its accuracy. Moreover, the data performed well in a comparison by the author to entries in several cities’ 1996 phone books.¹⁷

The discussion of Section II suggests that counts of pawnshops may not be the ideal unit of measurement. If thieves are interested only in obtaining cash for their stolen goods, they will be more likely to sell, rather than pawn, the items, as well as less likely to redeem them, in the

these transactions. Therefore, a market in such loans is not apt to stimulate auto theft.

¹⁷ An alternative source of counts of pawnshops is state licensing bureaus. However, not all states provide this information. Moreover, Caskey (1991, 1994) compared the ABD’s 1990 counts of pawnshops to those of state agencies, for those states which release such data, and found that they were close.

event that they do pawn. Thus, higher rates of customers selling items to the broker and lower rates of pawnors redeeming their goods would be consistent with greater trade in stolen goods. Unfortunately, such detailed data are not available. No state regulator provides information on what share of pawnshops' inventory is from purchases versus pawns, and the few that have data on redemption rates release only state-level aggregates. While a systematic analysis of redemption rates is precluded, a casual examination reveals patterns consistent with the hypothesis that pawnshops do trade in stolen goods. In private correspondence with the author, a regulator in one state, Oklahoma, made available redemption rates at the state level for ten years (Bartlett and Hardin, 1999). Over that period, the rates of pawn redemption – whether based on the number of pawns or their dollar value – climbed while the rates of robbery, burglary, and larceny declined.

In lieu of systematic purchase and redemption rates, county-level counts of pawnshops are used as the unit of measurement and are expressed as rates per 100,000 population, as crime rates traditionally are. Because they exhibit little heterogeneity in size, simple counts of pawnshops are a reasonable unit of measurement. According to the ABD data, more than 92% of pawnshops have annual sales under \$500,000 and more than 98% have them under \$1 million. Similarly, almost 84% of pawnshops have four or fewer employees and more than 97% have nine or fewer.

The remaining data are from the traditional sources. Crime rates are taken from the Uniform Crime Reports of the FBI (1996). Unemployment rates and per capita personal income are from the U.S. Bureau of Labor Statistics (1998) and the U.S. Bureau of Economic Analysis (1998), respectively. County-level data on the age and racial distribution of the population are

from the U.S. Census Bureau (1998), and the remaining demographic data are from the decennial census (U.S. Census Bureau, 1990). Information on states' regulations of handguns was taken from National Rifle Association (1997).

The author gathered data on pawnshops' interest and fee limits from state statute books. A precise list of citations for these pawnshop regulations is available from the author upon request. Information on the remaining usury laws are drawn from the Commerce Clearing House (1994). In addition to the interest on the loan, pawnshops may also charge fees for handling, loan origination, storage, insurance, and other items. Since these fees effectively raise the cost of borrowed money, they are similar to interest and are regulated with interest in most states.¹⁸ In some states the maximum fee is a fixed percentage of the principal, while in others it is a dollar amount independent of the value of the loan. Still other states have fee schedules in which the maximum charge, either a dollar amount or a percentage of the principal, varies along with the value of the pawn transaction.

In order to facilitate comparisons across states, the author calculated the maximum charge, including interest and fees, on a two-month \$100 pawn and expressed it as a percentage of the principal. The two-month maturity was selected because Caskey (1989), who conducts a similar comparison, reported that it was the norm. The \$100 amount was chosen to approximate the value of the typical pawn. While the NPA (1998) states that the average pawn is between \$70 and \$100, anecdotal evidence suggests that the distribution of pawn transactions is positively

¹⁸ Four states, Delaware, Minnesota, Missouri, and Virginia, regulate the interest, but not the fees, that a pawnbroker may charge. Because the estimated APR for these states does not include fees, it may seriously understate the price ceiling on a pawn loan. Rather than assign an arbitrary fee amount, a separate dummy variable was included in the regression analysis for the states that regulate only interest.

skewed.¹⁹ The use of other loan sizes and maturities resulted in estimates similar to those reported here. Pawn limits are usually denominated in terms of months, but general usury maxima are set in terms of years. Therefore, the estimated (interest and fee inclusive) cost of a pawn loan was multiplied by six to obtain an estimated annual percentage rate (APR).

Table 1 presents summary statistics on two samples. The first contains all counties for which data were available,²⁰ and the second consists of those counties with populations of at least 50,000 persons. The primary difference between the two samples is that the second is more urban, and consequently, variables typically associated with urbanization have higher means in the second sample. Crime rates for all categories are higher in the second sample, as are the incidence of rental housing and the sworn police officers. The demographic variables, such as percent of the population black and the percent of household female-headed, are less affected by this restriction. Their means rise slightly in the second sample, and their standard deviations decline.

IV. Usury Laws and Pawnshop Locations.

IV.A. Usury Laws.

Since the primary business of a pawnshop is to make loans, a connection between the number of pawnshops and usury laws is not surprising. States that cap the interest and fees that

¹⁹ In the words of one broker: "I've got people coming in here pawning things for 10 bucks to buy Pampers. It's pathetic" (quoted in Glover and Larrubia, 1996d).

²⁰ The full sample does not include every county in the country. County-level crime data are not available in 1996 for Montana and parts of Florida, Illinois, Kentucky, Mississippi, Missouri, South Dakota, and Tennessee. Data were unavailable for these locations because they are in the process of converting from the Uniform Crime Reporting System to the National Incident-Based Reporting System.

pawnbrokers can charge should have fewer pawnshops because these limits restrict the profitability of pawnbroking. By acting as a price ceiling, they constrain the amount of revenue generated on each repaid loan. Therefore, states with such limits should have fewer pawnshops than those without. Given that a state does have such a limit, the lower its value, the fewer should be the number of shops.

Among the states that do regulate pawn charges, those that fail to limit pawn fees explicitly allow pawnbrokers to raise the price of a pawn transaction. By re-labeling interest as fee, a pawnbroker in these states can raise the revenue earned on each repaid pawn. Therefore, states without limits on both fees and interest should have more pawnshops than states with them.

That pawnbrokers expend considerable resources to increase, or at least prevent reductions in, these limits is evidence that they form binding constraints. Each issue of the NPA's trade magazine contains a contact list of state chapter heads and updates on regulatory changes in each state. One such update describes how a proposal to reduce by half the maximum rate in Kansas "would have made it impossible for the industry to exist in that state." It describes how pawnbrokers avoided imposition of the lower limit by arranging a hearing with state legislators and concludes with the warning to fellow brokers, "NEVER become complacent" (George, 1998, capitals in the original). That pawnbrokers expend resources in an attempt to influence these regulations suggests that they do affect profitability. Whether such efforts are systematically effective is considered in the next section.

Pawnbrokers are but one part of the larger credit market in which they compete with other lenders, and consequently, they may be affected by other laws that govern this broader market.

One such law is the limit on the amount of interest chargeable in a written contract. Because this “contract limit” applies to lenders who are not pawnbrokers, it may affect the substitution of borrowers between pawnbrokers and other lenders. Pawnshop customers are traditionally portrayed as would-be borrowers who are excluded from mainstream credit markets because of their dubious creditworthiness. A non-pawnbroking lender in this market would demand a high interest rate in order to bear the risk of loaning to such persons. Limits on the interest that these lenders can charge should restrict the amount of credit they extend, and encourage substitution to pawnbroker’s services. Thus, states with such limits should have more pawnshops than those without. Given that a state does have such a limit, the lower its value, the greater should be the number of pawnshops.

A final type of usury law is the “legal limit.” Every state has such a limit, and it is the maximum amount that can be charged in the absence of a written contract. Since a pawn slip represents a contract, unwritten loans are unlikely substitutes for pawn transactions. Rather, given the questionable credit profile of the traditional pawnshop customer, unwritten contracts are likely complements to pawnshops. Thus, more pawnshops ought to be found where the legal limit is more generous.

To summarize, this paper uses six variables as instruments. The first is an indicator for the presence of a limit on pawn charges in that state. The second takes on the value of that limit for a two-month \$100 loan when such a limit exists and is zero otherwise. The third is an indicator for whether the limit on pawn charges covers only interest, not fees. The fourth and fifth variables mirror the first two except that they cover the contract, rather than pawn loan, limit. The final variable is the value of the legal limit.

Appendix B displays the values of these maxima. Several features of these data deserve comment. Where they exist, the value of the contract limit generally exceeds the legal limit. Similarly, the estimated pawn limits are typically greater than the contract ones. The values of the pawnshop limits exhibit wide variation, and the magnitudes of these limits in some states are so large that they perhaps are equivalent to having no limit at all.

VI.B. Exogeneity of Usury Laws.

For usury laws to be valid instruments, they must be uncorrelated with crime except through the variables included in the crime equation. Usury limits might be systematically related to crime in two ways. First, usury laws might reduce crime directly. Glaeser and Scheinkman (1998) argue that usury laws are a form of social insurance. If states with these laws enjoy greater risk-sharing, residents who experience negative income shocks may be less likely to resort to crime in order to smooth their consumption. In order for this linkage to cast doubt on the validity of the instruments, usury laws must be effective at mitigating the incentive to commit crime. Given that empirical estimates of the crime-reducing impact of direct social interventions are generally small (e.g., Donohue and Seigelman, 1998), the idea that usury laws would have a significant effect seems less plausible. Glaeser and Scheinkman themselves observe that usury laws are a “primitive” form of social insurance.

Secondly, if pawnshop regulation correlates with crime-fighting and social-welfare programs, then a failure to include measures of these efforts in the crime equation threatens the validity of the instruments. For that reason, the number of sworn police officers per capita in the state, the percent of persons in the county receiving public assistance, and the amount of that

assistance per recipient are included as control variables. However, usury laws are unlikely to correlate with crime-control and social-welfare measures. Jurisdictions in which pawnshops are perceived as part of crime-ridden “urban blight” have typically utilized regulations other than usury limits to restrict the number of pawnshops. These regulations include limits on the type of merchandise in which they may deal,²¹ types of persons with whom they may deal,²² their hours of operation and their location.²³ Local municipalities more often than states have promulgated these types of rules. In fact, such rules are so idiosyncratic at the state-level that the author’s attempts to code them into binary variables proved fruitless. As a consequence, state-level usury laws likely do not correlate with other crime-control endeavors.

A final pawnshop regulation of interest is whether the state requires pawnbrokers to forward copies of pawn slips to law enforcement authorities. If pawnshops clearly increased crime rates, police agencies would observe this pattern and respond. In particular, police would use the information given in pawn slips to investigate suspicious pawnors, and pawnshops in these jurisdictions would be more reluctant to trade in stolen goods. However, in practice, the

²¹ Texas law (section 371.179) bars pawnshops from displaying dirks, daggers, blackjacks, hand chains, sword canes, switch blades, and brass knuckles, while Delaware law (section 24.2309) forbids pawnbrokers from accepting prosthetic limbs and workman’s tools.

²² According to Michigan law, pawnbrokers may not conduct business with a person who “is of unsound mind, or neglects all lawful business, or that he habitually spends his time frequenting houses of ill-fame, gambling houses or tippling houses, or that from drinking, gaming, idleness or debauchery of any kind he is squandering his earnings or wasting his estate, or that he is likely to bring himself or his family to want, or to render himself or his family a public charge, or that he is suspected of thievery” (section 446.214).

²³ Minnesota law prohibits the location of a pawnshop within 10 miles of a casino (section 325J.10).

ability of police agencies to trace stolen goods using pawn slips remains limited.²⁴ Few agencies have computerized reporting of pawn transactions, and many complain of facing a backlog of unprocessed slips (Rehyansky, 1997). The failure of rightful owners of items such as electronics and handguns often do not record the serial numbers to record serial numbers exacerbates the difficulties of tracking stolen property with pawn slips. Another hindrance to the unambiguous identification of articles is that some kinds of property are easily rendered indistinguishable. Jewelry, which is popular with both thieves and pawnbrokers, is such a good. Precious stones may be removed and reset, and valuable metals may be melted down.²⁵ Nevertheless, a dummy variable for whether or not the state requires pawnshops to forward copies of these slips to law enforcement authorities on a daily or weekly basis is included as a covariate. After controlling for this pawnshop regulation, as well as other crime-control and social welfare programs, state-level usury laws are plausibly exogenous to crime rates.

Whenever variation in legal regimes is used to identify behavioral effects, the endogenous determination of legal rules is a concern. In particular, pawnbrokers in states with a more active industry lobby may be more effective at raising limits on pawn charges or at eliminating them altogether. Using state-level counts of membership in the NPA taken from that organization's

²⁴ This lack of enforcement was underscored by a sensational crime in 1997, when serial killer Andrew Cunanan pawned several gold coins that he had taken from his Chicago victim. Despite being on the FBI's "Ten Most Wanted" List at the time, Cunanan provided his name, thumbprint, and a local address as part of the pawn transaction at a Miami Beach pawnshop. The slip was forwarded to local police, but it went unprocessed. Eight days later, Cunanan murdered fashion designer Gianni Versace (Freedberg, 1997).

²⁵ Cash America International, Inc. is one of the nation's largest producers of gold bullion, but it owns no gold mines. It operates the nation's largest chain of pawnshops (Glover and Larrubia, 1996c).

website, an attempt was made to test for such political influence. Appendix C shows the results of probits for the presence of a limit on pawn charges and tobits on the value of that limit. Other than the measures of the pawn lobby, region dummies are the only other right-hand side variables. Whether measured as a rate in the population or as a percent of the total number of shops, membership levels have no significant relationship to pawn charge regulation. Moreover, with means of 1.7 and 31.2 for the membership rate and percentage, respectively, the estimated impacts are small. These results are consistent with the fact that while some states have changed their pawn laws recently, many are decades old. Results for the still older contract and legal usury laws, which are not reported here to conserve space, are similar. Thus, limits on pawn charges are a plausibly exogenous source of variation in the number of pawnshops.

IV.C. The Effect of Usury Laws on Pawnshop Locations.

Table 2 presents summary statistics on the relationship between pawnshops and legal variables. The first row of Panel A compares the average number of pawnshops in states with limits on pawn charges to that in states without such limits. States with such limits have essentially the same rate of pawnshops as states without this regulation, in contradiction to the prediction. However, as observed in Appendix Table B, the pawn charge maxima in some states are set so high that they perhaps are equivalent to no limit at all. For that reason, the second row of Panel A restricts the sample to counties in states with limits set below 300%. This row shows that counties without such limits have more than two additional pawnshops per 100,000 persons on average than those with them. The third row of Panel A shows that counties with limits only on pawn interest, not their fees, also have at least two more pawnshops per 100,000 on average

than those with limits on both types of charges. The fourth row of Panel A reveals that counties in states with contract limits have a higher average number of pawnshops than those without, which supports the notion that substitution may occur between pawns and other loan contracts.

Panel B of Table 2 reports simple correlations between pawnshops and the interest rate limits, over the samples in which such maxima exist. Significant positive correlations exist between pawnshops and the maximum pawn loan rate and the legal rate. Although a negative correlation was expected, a slightly positive one is found between the maximum contract rate and the number of pawnshops. However, it is not statistically significant.

Because simple means cannot account for the numerous factors determining the number of pawnshops, more formal analysis is necessary. The pawnshop rate is estimated using a regression equation of the form

$$P_{jk} = Z_k\gamma + X_{jk}\alpha + v_{jk} \quad (1)$$

where P_{jk} is the number of pawnshops per 100,000 persons in county j and state k . Matrix X_{jk} contains controls for demographics, labor market conditions, income levels, policing levels, and indicators for region. Matrix Z_k holds the state-level usury law variables.²⁶

Table 3 presents regressions of pawnshops on various usury laws. Column (1) shows the predicted signs of the instruments, while columns (2), (3), and (4) report estimates of equations using only pawn-specific, all, and only the general usury laws, respectively. In all three

²⁶ Using a state-level variable (usury laws) to explain a county-level observations (pawnshops) implies a particular grouping of the data. Specifically, observations may be independent across states but not within them. The standard errors in the reported OLS and 2SLS regression results are corrected for this form of heteroskedasticity.

equations, all of the instruments bear the predicted signs. The presence of a limit on pawn charges appears to exert a negative effect on the number of shops, but given that this limit exists, the higher its value, the greater the number of shops. If this limit does not include fees, the number of shops is greater. Similarly, the variables for the contract limit bear signs consistent with the idea that written contracts substitute for pawns. The legal limit appears to complement the incidence of pawnshops. Usury limits specific to pawnshops are statistically significant in both equations that include them. The legal limit is significant at the 10% level in both of its equations, but the correlations between the incidence of pawnshops and the contract limits are still weaker. When all of the usury laws are included or when only the pawn-specific ones are, as in columns (2) and (4), the pawn-specific variables are jointly and individually significant. However, the general limits alone, as indicated in column (3), are not jointly above conventional significance levels. Therefore, the general limits alone cannot be used to estimate the impact of pawnshops on crime. Instead, those causal effects are estimated using the pawn-specific ones, as well as the full set of usury laws.

While the other right-hand side variables are discussed in Section V, two merit mentioning here. First, pawnshops have a positive and significant correlation with the extent of check-cashing outlets (CCOs), perhaps because they both serve the credit needs of low income individuals. Pawnbroking and check-cashing outlets (CCOs) constitute what has been termed the “alternative financial sector,” “fringe banking,” and (perhaps pejoratively) the “poverty industry” (Caskey (1991), Swagler et. al. (1995), Hudson (1993), and Marino (1997)). The positive estimate on CCOs supports the notion that these industries operate in the same markets. Secondly, pawnshops frequently deal in firearms, and regulations that restrict the availability of

handguns are seen to reduce the incidence of pawnshops. Counties in which the purchase of a handgun requires a waiting period or a license have significantly fewer pawnshops. Despite recent claims that “shall issue” laws encourage citizens to arms themselves and thereby deter crime, these laws are not significantly related to the rate of pawnshops.²⁷

V. Estimating the Effect of Pawnshops on Crime.

V.A. Initial Estimates.

Two stage least squares is used to estimate the effect of pawnshops on crime. Pawnshops are modeled as endogenous and the other covariates are treated as exogenous. The second stage equation is of the form

$$C_{ijk} = \beta_i P_{jk} + X_{jk} \delta + \varepsilon_{ijk}, \quad (2)$$

where C_{ijk} is the rate of crime type i in county j and state k . P_{jk} is again the rate of pawnshops in county j and state k and X_{jk} is the same matrix of covariates included in the right-hand side of equation (1).

As mentioned in Section III, the relationship of pawnshops to crime is tested by using two aggregated crime categories as dependent variables. The first crime measure is rate of robberies, burglaries, and larcenies, and this crime group is predicted to increase in the presence of pawnshops. The second crime measure is the rate of murder, rapes, aggravated assaults, and motor vehicle thefts, and this crime group is predicted to be not causally affected by the incidence of pawnshops.

²⁷ Lott and Mustard (1997) present evidence that “shall issue” laws reduce crime rates, while Black and Nagin (1998) offer a critique.

Tables 4 and 5 report estimates of the impact of pawnshops on rates of these crimes that are predicted to increase and to be unaffected, respectively, by the presence of such shops. Columns (1) through (3) present OLS estimates, and subsequent columns contain results from instrumenting. In column (1) of Table 4, the summed rates of robbery, burglary, and larceny are regressed against only the pawnshop rate and an intercept term. Pawnshops are shown to be positively and significantly related to the incidence of these crimes. The regression in column (2) adds indicator variables for the four Census regions. While their coefficients are not reported here to conserve space, these indicator variables were jointly significant in all equations in which they were included. Their inclusion reduced the magnitude of the pawnshop coefficient by roughly 20%, but it remains statistically significant.

Column (3) adds several other right-hand side variables. Among these are CCOs which appear positively related to the rates of these crimes, but insignificantly so.²⁸ The estimates on the other covariates are consistent with the findings of previous researchers. For example, crime is greater in cities (Glaeser and Sacerdote, 1996), and African-Americans are more likely to be both offenders and victims of crime. Communities with more renters, who tend to be more

²⁸ The author originally hoped that CCOs would provide an opportunity to verify the substance of the results in Tables 4 and 5. While their name suggests that they are a source of liquidity, CCOs also provide credit. CCOs offer “payday loans” in which a borrower provides proof of income (usually recent pay stubs) and a post-dated check in exchange for immediate cash. Because they lend against the promise of future (legitimate-sector) labor earnings, not against tangible personal property, CCOs provide credit without magnifying the incentive to commit crime. Thus, like pawnshops, CCOs ought to correlate with crime, but unlike pawnshops, they should not increase crime. Attempts were made to use limits on state-level check-cashing fees as instruments for the number of CCOs. However, only fourteen states have such limits (Saunders, 1997), and in a regression of CCOs, coefficients on variables for the presence and value of these limits were individually and jointly insignificant. For that reason, CCOs are treated as exogenous.

transient than homeowners, have higher crime rates, as do those with a greater share of vacant housing. The rates of these crimes are positively related to unemployment rates, perhaps because the opportunity cost of crime is reduced when labor demand in the legitimate sector is lower. A greater share of female-headed households associates with more of these crimes, as is the presence of a law requiring pawnshops to give copies of their transactions to police. The negative estimate on the percent of persons receiving public assistance is consistent with the hypothesis that social welfare programs may ameliorate the incentive to commit crime.

Column (4) reports the 2SLS estimates of the effect of pawnshops on these crimes using the pawn-specific usury laws as instruments. Instrumenting reduces the value of the estimate by about 10% to 52.47, and statistical significance is retained. This estimate is approximately 35% lower than the original result of Column (1), and it indicates that pawnshops have small effects on the rate of robbery, burglary, and larceny. At the sample mean, a 10% increase in the pawnshop rate increases the rates of these crimes by almost 1%. Column (5) presents the results of 2SLS when the full set of usury laws are used as instruments. The statistically significant point estimate of 53.41 is remarkably close to the first one.

When instruments correlate weakly with the endogenous regressor, 2SLS estimates are likely biased toward OLS (Staiger and Stock, 1997). This bias is of particular concern here, as the purpose of instrumenting is to discern how much of the causal impact of pawnshops on crime accounts for the observed correlation between pawnshops and crime. For that reason, results from limited information maximum likelihood (LIML) are reported in columns (6) and (7). Both LIML estimates are only about 1% lower than their 2SLS counterparts. These results

suggest that the weakness of the correlation of the instruments with the incidence of pawnshops does not seriously bias the second-stage estimates.

Table 5 contains results of similar regressions in which the summed rate of murder, rape, robbery, aggravated assault, and motor vehicle theft is the dependent variable. The OLS estimates of columns (1), (2), and (3) show a strong, positive correlation between pawnshops and these crimes. In fact, the magnitude of the relationship is almost as large as it was for the previous set of crimes. According to the estimates of Column (3), a 10% increase in the mean pawnshop rate increases the mean rate of murder, rape, assault, and motor vehicle theft by roughly a half of one percentage point.

When pawnshops are treated as endogenous, however, their estimated relationship to the rates of these crimes is not different from zero. In column (4), the application of only the pawn-specific instruments reduces the point estimate by about 15% of that of OLS, and the standard error more than doubles. Column (5) shows that the use of all the instruments reduces the point estimate by two-thirds to 3.98. The LIML results reported in columns (6) and (7) mirror the 2SLS ones. Employing the pawn-specific usury laws as instruments only slightly reduces the coefficient on pawnshops but increases its standard error such that the estimate is no longer statistically significant. In contrast, the use of the full set of instruments dramatically cuts the size of the point estimate. The LIML estimate in column (7) is less than a fourth of its OLS companion. In sum, the results in Tables 4 and 5 support for the hypothesis that pawnshops increase crimes in which pawnable goods are taken and that they have minimal effect on other types of criminal activity.

V.B. Individual Crime Rates and Urban versus Rural.

Table 6 reports results for the individual crime categories, and only coefficients on the pawnshop variable are reported in order to conserve space. The same patterns that were evident in the aggregated data emerge here. Murders, rapes, aggravated assaults, and motor vehicle thefts do not have statistically significant relationships to pawnshops after instrumenting. Moreover, almost all of these four crime types have 2SLS estimates that are smaller than their OLS counterparts. Only the estimate for aggravated assault, when the pawn-specific instruments alone are used, is larger than its OLS result, but when all the usury laws are used, its instrumented result about half that of OLS. In contrast, the size of the instrumented results for robbery, burglary, and larceny are only slightly below their OLS estimates. The larceny ones enjoy statistical significance in all specifications, while those for burglary remain marginally significant after instrumenting. Robbery is insignificant even in OLS, but instrumenting does not much affect its point estimate. That much of the causal impact of pawnshops on crime occurs through larceny is consistent with anecdotes of persons shoplifting with the intent of offering the swag to pawnbrokers (Larson, 1999).

As described in Section II, pawnshops' impact on crime rates may only be felt in urban areas where the lower costs of transporting goods and greater anonymity make such shops convenient destinations for stolen goods.²⁹ This hypothesis is tested by contrasting the results

²⁹ Early work on distance and crime identified both anonymity and the effort of moving loot to be important considerations. Turner (1969) found that the location of delinquents' offending peaked beyond the blocks immediately next to their residences where the risk of recognition might be greatest. Hakim and Weinblatt (1984) theorized that offenders would choose to steal bulkier items closer to home. Interestingly, the NPA (1997) notes that most pawnshop customers reside within two miles of the shop that they patronize.

presented thus far, which again used a sample of counties with populations of at least 50,000, with results from samples of less populous counties. Table 7 repeats the baseline results and presents estimates on samples of counties with fewer than 50,000 persons and fewer than 25,000. As one might expect, more rural samples have both fewer pawnshops and less crime. In counties with fewer than 50,000, the mean rate of robbery, burglary, and larceny is 2359.38, the mean rate of murder, rape, assault, and auto theft is 390.77, and the mean rate of pawnshops is 5.88. In counties with fewer than 25,000, these figures are 2050.11, 350.57, and 5.02, respectively.

The OLS estimates in columns (3) and (5) imply impacts of pawnshops on crime no larger than the instrumented results in the more urban sample did. A 10% increase in the mean pawnshop rate in counties with fewer than 50,000 persons would raise the mean rate of robbery, burglary, and larceny by 0.8 and the mean rate of murder, rape, assault, and auto theft by 0.6 of a percentage point. For counties with fewer than 25,000, these responses are 0.6 and 0.4, respectively.

The 2SLS results furnish an even sharper contrast of the behavioral impact of urban and rural pawnshops. In the sample of counties with less than 50,000 persons, instrumenting reduces the positive and significant estimate of the sum of murder, rape, assault, and auto theft to an insignificant negative. Moreover, the only crime category that is significantly affected by pawnshops after instrumenting is larceny and only at the 10% level. In the sample of counties with fewer than 25,000, the results are even more striking with four of the seven individual crime types bearing negative coefficients. In this column, pawnshops do not have a significant causal

effect on any of the crime categories. Thus, only pawnshops in more populous counties appear to stimulate criminal activity.³⁰

V.C. Robustness.

To assess the sensitivity of the estimates, Table 8 presents the results of various alternative specifications. Row (A) repeats the baseline estimates from earlier tables, while row (B) reports results excluding the dummy variables for handgun regulations. If guns correlate with both pawnshops and crime, the exclusion of gun measures from the right-hand side may upwardly bias the estimated effect of pawnshops on crime. Excluding the gun variables does appear to inflict such a bias, as the instrumented estimates for robbery, burglary, and larceny are slightly larger than the OLS results. The effect of the removal of other covariates such as policing variables, public assistance variables, and CCOs, are given in rows (C), (D), and (E), respectively. Overall, the results are fairly robust to these changes. The instrumented results for robbery, burglary, and larceny are all statistically significant, and their magnitudes are within 10% of the baseline estimate. In addition, the instrumented results for the remaining crime categories are statistically insignificant and well below the OLS magnitudes.

³⁰ A possible objection to these results is that the pawnbroking industry has been expanding in recent years (see Caskey, 1994), while crime rates have fallen. However, this growth has been led by four publicly-traded companies that operate chains of pawnshops and that have sought to improve the public image of pawnbroking. (These companies are Cash America International, EZCORP, First Cash, and Pawnmart). With their professional management techniques and the greater costs that negative publicity could impose on their reputations, their shops may be less likely to accept stolen property. Because these firms' shops are located primarily in Florida, Georgia, Louisiana, and Texas, the instruments lacked sufficient variation to identify the impact of these publicly-traded shops on crime. However, excluding them and conducting the analysis solely on privately-owned shops did not materially affect the results.

According to the author's counts of pawnshops, Georgia is the state with the greatest number of pawnshops per capita (over ten per 100,000 versus 5.08 in the rest of the country). Such a dense concentration of pawnshops might raise the concern that the results are driven by the potentially anomalous behavior of this particular state. To test this possibility, row (F) reports the results of regressions when observations for Georgia are excluded. Doing so reduces the sample size by 33 observations. However, the results are not severely altered by this change. Instrumented estimates for robbery, burglary, and larceny remain statistically significant and imply a 10% change in the mean pawnshop rate will increase the rate of these crimes by 0.77 of a percentage point. Moreover, when pawnshops are modeled as endogenous, the estimates for murder, rape, assault, and auto theft are insignificant and are at most a third of their size when pawnshops are treated as exogenous.

A further assessment of the sensitivity of the results is to express all of the level variables in natural logarithms. Doing so places less weight on observations with outlying values and allows the coefficients to be interpreted as elasticities. A cost of this specification is that observations with zero values are excluded, and consequently, the sample is reduced to 427 observations. Much of this reduction is due to the fact that CCOs are found only in the most urban areas. Row (G) presents the results of using this logarithmic specification, and they display a pattern similar to that of earlier estimates. A correlation between pawnshops and the summed rate of murder, rape, assault, and auto theft loses significance and becomes smaller in magnitude upon instrumenting. Meanwhile, the relationship between pawnshops and the summed rate of robbery, burglary, and larceny does not weaken.

A final test of robustness is given in row (H) of Table 10. Rather than examining the number of crimes, these regressions consider the value of goods stolen. Estimates of the average amount taken during the commission of particular types of crimes are available only at the national, not county, level. Therefore, the dependent variables in row (H) are the number of crimes multiplied by the national average of the value taken. The results from using these dependent variables are similar to those of earlier estimates. Instrumenting does not much reduce the coefficient in the robbery, burglary, and larceny equation and does not eliminate its statistical significance. Weighting the crimes in this fashion generates estimated impacts remarkably close to those arising from simple counts of crimes. For example, a 10% increase in the pawnshop rate would raise the mean property loss rate by 0.9 of a percentage point. In contrast, the pawn coefficient in the equation for the other crimes does lose statistical significance, and the point estimates are extremely close to zero.

VI. Public Policy.

Does the finding that pawnbroking imposes the negative externality of an increased incidence of certain crimes, imply a role exist for further regulation of the industry? To address this public policy question, Table 9 provides a rough calculation of the social costs and benefits of pawnshops. Column (1) presents the increased number of robberies, burglaries, and larcenies estimated to ensue from the introduction of one additional pawnshop at the margin for a county at the sample mean. The estimates are based on the individual crime category estimates reported in column (3) of Table 6, and they represent the number of additional crimes reported to police as the result of the presence of an additional pawnshop. Column (2) uses reporting rates from the

National Crime Victimization Survey (Bureau of Justice Statistics, 1997) to adjust for unreported crimes, and doing so increases the estimated number of crimes engendered by one more pawnshop from 60 to nearly 200.

The social costs of these crimes include both the property lost and the pain and suffering of victims. Column (3) shows the average value of property lost for each of these crime categories. These values are taken from the FBI (1997) and consequently are based upon reported crimes. Since crimes in which property losses are low are perhaps those less likely to be reported, the use of these values may overstate the total value of lost property. However, other costs such as the time lost from work, medical expenses, and precautions taken by potential victims, are not included in this table's calculation, and their exclusion may imply an understatement of the social cost of these crimes.

Column (4) gives the per-crime pain and suffering costs that are taken from Cohen's (1988) estimates and that have been adjusted to 1996 dollars. While trivial for larceny, much pain and suffering accompanies violent crimes like robbery. In column (5), the estimates of the additional crimes are multiplied by the property loss values to obtain a total dollar value of the property stolen as a result of an additional pawnshop. According to this calculation, the presence of one more pawnshop will stimulate almost \$131,000 in thefts. An additional \$54,000 of personal harms will attend these crimes, as shown in column (6).

These estimated losses can be placed in two contexts. First, only \$45,000 of the estimated \$131,000 in additional theft caused by the marginal pawnshop will be reported to police. If this \$45,000 marginal increase is also representative of the average pawnshop, it suggests that the approximately 12,000 pawnshops nationwide are responsible for over half a

billion dollars of the reported property thefts annually. Put differently, about 8% of the \$6 billion reported to police as stolen during the commission of robberies, burglaries, and larcenies may be due to the presence of pawnshops.

A second context into which the costs of the marginal pawnshop can be placed is to weigh them against the benefits of the additional pawnshop.³¹ Since a pawnshop's primary service is lending, the social benefits of pawnbroking can be approximated by the profits earned on its lending activities. Because pawnors of stolen goods are unlikely to return to reclaim the items and because fees are collected only upon redemption of the pawn, the fees paid should measure solely the benefits accruing to legitimate customers. In addition, those pawns that go unredeemed, even if they are ill-obtained, are not forever lost. They are eventually purchased by customers who patronize pawnshops for their offerings of used merchandise. The social gains from such trade may be approximated by the profits from a pawnshop's retail trade. Therefore, revenues from loan fees and retail sales are an estimate of a pawnshop's social value.

Since most pawnshops are proprietorships, information on their revenues are not publicly available.³² However, the SEC-filings of the publicly-traded pawnshop chains provide a source for these data, and because these chains have been leading the expansion in the number of shops, they are arguably representative of the marginal pawnshop. Data from EZCorp is used, as it

³¹ Pawnshops may also provide benefits of crime-reduction by giving law enforcement access to transactions on the edge of the illegal sector. For example, pawnbrokers have sometimes provided clues to the whereabouts of wanted fugitives (Walsh, 1999, pp. 47-48), and via Brady Law background checks, some pawnshops have aided in confiscating guns from convicted felons (NPA, 1999). In the absence of systematic data on the extent of these phenomenon, such potential benefits are excluded from these calculations.

³² Internal Revenue Service's data on income from sole proprietorships aggregates pawnshops with other sellers of used and antique goods and hence cannot be used here.

alone among the public pawn companies enumerates revenue from pawn loans separately from that of retail sales. In the fiscal year ended September 30, 1996, it received on a per-shop basis over \$282,000 in revenue from pawn loans. This firm also had total assets of almost \$566,000 per shop³³ that when valued at the prime interest rate of 8.25% in 1996, suggests a per-shop opportunity cost of capital of just over \$46,000. Thus, the profit from pawn lending is roughly \$236,000, which exceeds the social losses of additional crimes by over \$50,000. Thus, the social benefits of pawn lending alone outstrip the social costs of higher crime, and the estimates do not support banning or restricting entry into the pawn industry. Also, this firm had on a per-shop basis over \$417,000 in revenue from retail sales, while the cost of goods sold was only \$359,000. The resulting \$58,000 profit on retail sales further offsets the social losses of additional crime.

However, a role for regulation, short of outright prohibition, may still exist. Recent developments in computer technology allow for more efficient processing of pawn slips by law enforcement agencies. For example, this year the Nashville Metro Police Department developed software that allows pawnbrokers to file their slips electronically and Internet users to search the database of slips for stolen items.³⁴ If effective at increasing the amount of stolen property recovered from pawnshops, this software should deter the pawning of ill-gotten goods in two ways. First, it should magnify the thief-turned-pawnor's odds of apprehension. Secondly, as police confiscation of stolen merchandise becomes more likely, pawnbrokers should be less willing to accept questionable items.

While it is too early to estimate the deterrent impact of this program, its economic worth may still be evaluated by asking what fraction of the \$131,000 in stolen goods would need to be

³³ Author's calculations from EZCorp (1996).

³⁴ See www.police.nashville.org/pawn.html.

recovered to justify its use? Because the Nashville Metro Police is donating it to any law enforcement agency that requests it, the marginal cost of the software is zero (Pence, 1999). One officer is required to maintain the associated website, and the mean salary of an experienced officer is roughly \$40,000 (Sourcebook, 1999, table 1.47). Since Nashville has almost 100 pawnshops, only a hundredth of the officer's time would be allocated to monitoring the marginal pawnshop for a cost of \$400. In addition, if each of the victims of the almost 200 additional criminal incidents caused by the marginal pawnshop spent an hour searching the website, the cost of their time, when valued at the \$5.15 minimum wage, would be \$1030. Thus, the total cost of property recovery would be \$1,430. Hence, for the use of this software to be socially efficient, the recovery of 1.1% of these goods would be required. Since this rate is not much higher than the pawn industry's own estimate of the current recovery rate of about 0.5%,³⁵ only a small increase would be needed to justify the use of this technology.

VII. Conclusion.

This paper explores the responsiveness of criminal behavior to the benefits of crime by examining the case of pawnshops. It finds that pawnshops increase the rates of robbery, burglary, and larceny, but have no effect on the incidence of murders, rapes, aggravated assaults,

³⁵ No reliable estimates of what fraction of pawnshop merchandise is stolen exist. Similarly, estimates of the total value of goods pawned annually are unavailable. The National Pawnbrokers Association claims that about one half of one percent of a typical pawnshop's inventory is shown to be stolen, but it does not provide a source for this estimate (NPA, 1998). In contrast, one police officer believes this fraction is much higher: "With some of these places, if you were to walk in there with something that could somehow suck up everything that's stolen, the shelves would be empty" (quoted in Glover and Larrubia, 1996a). Still, an estimate can be made from EZCORP (1996), whose average shop made \$610,000 in pawn loans that year. Relative to the estimated value of additional crimes in column (5) of Table 9, it indicates that in terms of dollar value over 20% of the goods incoming to the marginal pawnshop are stolen.

or motor vehicle thefts. The estimates indicate that a 10% increase in the number of pawnshops will raise mean rates of robbery, burglary, and larceny by roughly 1%. The mechanism by which pawnshops increase the rate of these offenses is presumably through the receipt of stolen property. While the marginal pawnshop is estimated to be a conduit for over \$131,000 worth of stolen goods, the benefits enjoyed by the shop's legitimate customers exceed this value. Still, new technologies to track pawn slips hold promise for reducing thieves' incentive to use pawnshops as outlets for their takings.

Appendix A.
Definitions of Index I Crime Categories.

Violent Crimes:

1. Homicide: the killing of one human being by another either through an act of willful (non-negligence) or through gross negligence.
2. Rape: the carnal knowledge of a female forcibly or against her will.
3. Robbery: the taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or the threat of force or violence with or without putting the victim into fear.
4. Aggravated Assault: unlawful attack of one person upon another for the purpose of inflicting some severe or aggravated bodily injury. This type of assault is usually accompanied by the use of a weapon or by means likely to produce death or great bodily harm.

Property Crimes:

5. Burglary or "Breaking and Entering": the unlawful entry of a structure to commit a theft.
6. Larceny: the unlawful taking, carrying, leading, or riding away of property from the possession of another.
7. Motor Vehicle Theft: the theft or attempted theft of a motor vehicle.

Source: FBI (1984)

References.

- Andreoni, James. 1991. "Reasonable Doubt and the Optimal Magnitude of Fines: Should the Punishment Fit the Crime?" *RAND Journal of Economics*, Autumn, vol. 22, no. 3, pp. 385-395.
- Auster, Bruce B. 1997. "The Pawn of a New Era Is Upon Us." *U.S. News and World Report*. December 8.
- Bartlett, Cindy D. and Donald K. Hardin, 1999. Personal Correspondence, State of Oklahoma, Department of Consumer Credit.
- Becker, Gary S. 1968. "Crime and Punishment: An Economic Approach," *Journal of Political Economy*, 76, no. 2, March/April, pp. 169-217.
- Bennett, Jane. 1997. "Profile of Pawnshop Customers Changing." *Jacksonville Business Journal*. March 10.
- Bureau of Justice Statistics. 1997. *Criminal Victimization in the United States, 1994*. U.S. Department of Justice: Washington, DC, Table 91, p.84.
- Cahill, Joseph B. 1999. "Title Loan Firms Offer Car Owners a Solution That Often Backfires." *Wall Street Journal*. March 3, pp. A1, A13.
- Cameron, Samuel. 1988. "The Economics of Crime Deterrence: A Survey of Theory and Evidence." *Kyklos*, May, vol. 41, no. 2, pp. 301-323.
- Caskey, John. 1991. "Pawnbroking in America: The Economics of a Forgotten Credit Market." *Journal of Money, Credit, and Banking*. Vol. 23, no. 1, February, pp. 85-99.
- , 1994. *Fringe Banking*. New York: Russell Sage Foundation.
- Caskey, John and Brian Zikmund. 1990. "Pawnshops: The Consumer's Lender of last Resort." Federal Reserve Bank of Kansas City *Economic Review*. March/April, pp. 5-17.
- Colquhoun, Patrick. 1796. *A Treatise on the Police of the Metropolis*. Second Edition. H. Fry: London. Goldsmith's-Kress Library of Economic Literature. Microfilm number 16795.
- Commerce Clearing House, Inc. 1994 and continuous updates. "Interest - Usury," *Consumer Credit Guide*. Section 510. Chicago: CCH, Inc.
- Donohue, John J. III and Peter Siegelman. 1998. "Prisons and Social Programs in the Battle Against Crime." *Journal of Legal Studies*. Vol. XXVII(1), January, p. 1-44.
- Ehrlich, Isaac. 1973. "Participation in Illegitimate Activities: A Theoretical and Empirical Investigation." *Journal of Political Economy*. Vol. 81, no. 3, May/June, pp. 521-565.

EZCorp, Inc. 1996. SEC filing, Form 10-K, December 24.

Federal Bureau of Investigation. "Uniform Crime Reporting Program Data: County-Level Detailed Arrest and Offense Data, 1996." Inter-University Consortium for Political and Social Research Study Number 2389.

------. 1997. *Crime in the United States, 1996*. Washington, DC: Government Printing Office.

------. 1984. *Uniform Crime Reporting Handbook*. Washington, DC: Government Printing Office.

Fielding, Sir John. 1755. "A Plan for Preventing Robberies within Twenty Miles of London." *The 18th Century*. Microfilm. Reel # 7129.

Freedberg, Stanley. 1997. "Why Wasn't the Killer Caught?" *Miami Herald*. July 27.

Glaeser, Edward L. and Bruce Sacerdote. 1996. "Why Is Crime So High in Cities?" *NBER Working Paper*. January, # 5430.

Glaeser, Edward L. and Jose Scheinkman. 1998. "Niether a Borrower Nor a Lender Be: An Economic Analysis of Interest Restrictions and Usury Laws." *Journal of Legal Studies*, April, pp. 1-36.

Glover, Scott and Evelyn Larrubia. 1996a. "Quick Cash with Few Questions." *South Florida Sun-Sentinel*. November 24.

------. 1996b. "Pawn Law Tips Scales Against Crime Victims." *South Florida Sun-Sentinel*. November 25.

------. 1996c. "Want a Piece of Shops? Try Wall Street." *South Florida Sun-Sentinel*. November 25.

------. 1996d. "Small Loans Mean Big Bucks for Brokers." *South Florida Sun-Sentinel*. November 25.

------. 1996e. "Cops Connect Theft Rate to Pawn Trade." *South Florida Sun-Sentinel*. November 26.

------. 1996f. "Senator, Lobbyist Involved in Relationship." *South Florida Sun-Sentinel*. December 12.

Hudson, Mike. 1993. "The Poverty Industry." *Southern Exposure*, vol. 21, no. 3, Fall, pp. 16-21.

- Larson, John. 1999. "Pawnshops: Hidden Camera Investigation." *Dateline NBC*, May 11.
- Levitt, Steven D. 1996. "The Effect of Prison Population Size on Crime Rates: Evidence from Prison Overcrowding Litigation." *Quarterly Journal of Economics*, vol. 111, pp. 319-351.
- , 1997. "Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime." *American Economic Review*. June, pp. 270-290.
- Macrae, David. 1861. *The Social Hydra; Or The Influences of the Traffic of Pawnbrokers and Brokers on the Religious, Moral, and Social Condition of the Working Classes and the Poor*. Glasgow: George Gallie.
- Marino, Jacqueline. 1997. "Easy Money in Hard Times." *Memphis Flyer*. August 18.
- Marvel, Thomas and Carlisle Moody. 1996. "Police Levels, Crime Rates, and Specification Problems." *Criminology*, November, vol. 34, no. 4, pp. 609-646.
- National Pawnbrokers Association. 1998. "Basic Information on the Pawnbroking Industry." Mimeo and available at <http://www.npa.polygon.net>.
- Pence, Ken. 1999. Captain, Nashville Metropolitan Police Department. Telephone interview, August 20.
- Rehyansky, Mary. 1997. "Police Awash in Pawnshop Paperwork." *Chattanooga Times*. September 17.
- San Luis Obispo County Telegram-Tribune*. 1996. "New Tenant Won't Be Pawnshop." November 20.
- Saunders, Margot. 1997. "Testimony before the Committee on Banking and Financial Services." Mimeo, National Consumer Law Center, September 25.
- Smith, Scott. 1998. "It's Not Easy Being a Pawnbroker." *National Pawnbroker*, Spring, p. 44.
- Staiger, Douglas and James H. Stock. 1997. "Instrumental Variables Regression with Weak Instruments." *Econometrica*, May, vol. 65, no. 3, pp. 557-586.
- Stigler, George J. 1970. "The Optimum Enforcement of Laws." *Journal of Political Economy*, May-June, vol. 78, no. 3, pp. 526-536.
- Sutton, Mike. 1998. *Handling Stolen Goods and Theft: A Market Reduction Approach*. Home Office Research Study # 178. London: Home Office Research and Statistics Directorate.
- Swagler, Roger, John Burton, and Joan Koonce Lewis. 1995. "The Alternative Financial Sector: An Overview." *Advancing the Consumer Interest*. Vol. 7, no. 2, pp. 7-12.

U.S. Bureau of the Census. 1998. "Estimates of the Population of Counties by Age, Sex, Race, and Hispanic Origin, 1990-1996." Inter-University Consortium for Political and Social Research Study Number 2372.

-----, 1990. "Census of Population and Housing." Summary Tape File (STF) 3A.

U.S. Bureau of Economic Analysis. 1998. Webpage <http://www.bea.doc.gov.html>.

U.S. Bureau of Labor Statistics. 1998. Webpage <http://www.stats.bls.gov.:80/datahome.htm>.

Wallace, Mike. 1997. "Quick Cash." *60 Minutes*. December 21. Transcript produced by Burrelle's Information Services, Vol. XXX, no. 14.

Walsh, Marilyn E. 1977. *The Fence: A New Look at the World of Property Theft*. Westport, CT: Greenwood Press, Inc.

White, H. 1980. "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity." *Econometrica*. Vol. 98, pp. 817-838.

Wright, Richard T. and Scott H. Decker. 1994. *Burglars on the Job: Streetlife and Residential Break-ins*. Boston: Northeastern University Press.

Table 1.
Summary Statistics: Means

Variable	Full sample	Counties with populations greater than 50,000
Pawnshop Rate	6.05 (9.62)	6.46 (9.06)
Summed Rate of Burglary, Robbery, and Larceny	2,905.16 (1,909.50)	4,093.31 (1,1816.49)
Robbery Rate	56.26 (107.41)	124.42 (161.28)
Burglary Rate	735.29 (491.84)	930.70 (486.36)
Larceny Rate	2,113.61 (1,473.14)	3,038.19 (1,335.02)
Summed Rate of Murder, Rape, Assault, and Auto Theft	498.82 (455.95)	734.03 (555.84)
Murder Rate	5.17 (10.34)	5.59 (6.75)
Rape Rate	26.70 (26.84)	35.76 (21.44)
Assault Rate	260.31 (277.67)	336.71 (280.03)
Auto Theft Rate	206.64 (234.31)	355.97 (323.05)
Check-Cashing Outlet Rate	0.69 (2.26)	1.52 (2.91)
% African-American	9.82 (15.43)	10.37 (12.42)
% Urban and in Core	37.91 (29.51)	63.91 (24.49)
% Urban and outside Core	30.17 (30.15)	44.77 (38.31)
% Renters	25.79 (7.63)	28.61 (8.63)
% Housing Vacant	15.17 (10.95)	9.90 (6.66)

Table 1 (continued).
Summary Statistics: Means

Variable	Full sample	Counties with populations greater than 50,000
State Unemployment Rate	4.95 (1.12)	5.26 (1.03)
Per Capita Income	19,350.41 (4,559.81)	22,345.60 (5,200.57)
% Receiving Public Assistance	9.27 (4.93)	8.15 (3.80)
Public Assistance Amount per Recipient	1,219.64 (283.45)	1,262.95 (247.30)
% Households Female-Headed	9.51 (3.95)	10.49 (2.98)
Sworn Officers Per Capita	13.63 (3.70)	14.87 (5.23)
Pawnslips Forwarded to Police Daily or Weekly (Dummy)	0.40 (0.49)	0.48 (0.50)
Waiting Period to Purchase Handgun (Dummy)	0.17 (0.38)	0.19 (0.39)
“Shall Issue” Law (Dummy)	0.65 (0.48)	0.59 (0.49)
N	2,567	808

Note: Standard deviations are in parentheses.

Appendix B.
State Usury Limits

State	Estimated Maximum A.P.R. on Two Month \$100 Pawn	Pawn Limit Includes Only Interest, not Fees?	Contract Rate Maximum	Legal Rate Maximum
AK			10	10.5
AL	300		8	6
AR			10	6
AZ	162			10
CA	135		10	7
CO	120			8
CT	24		12	8
DC	24		24	6
DE	36	Yes	10	10
FL	300		18	10
GA	300		16	7
HI	240		13	10
IA			8	5
ID				12
IL	108		9	5
IN	276			8
KS	120		15	10
KY	264		9	8
LA	180		12	12
MA				6
MD			8	6
ME	300			6
MI	42		7	5
MN	36	Yes	8	6
MO	24	Yes	10	9
MS	300		10	8
MT			15	10
NC	264		16	8
ND			11	6
NE			16	6
NH				10
NJ	36		16	6
NM	84			15
NV	126			10
NY	54		16	16

Table 2 (continued).
State Usury Limits

State	Estimated Maximum A.P.R. on Two Month \$100 Pawn	Pawn Limit Includes Only Interest, not Fees?	Contract Rate Maximum	Legal Rate Maximum
OH	84		8	10
OK	240			6
OR	108			9
PA	36		9	6
RI	60		21	12
SC	240			6
SD				15
TN	144		12	10
TX	180		24	6
UT				10
VA	60	Yes	12	8
VT	36		12	12
WA	108		12	12
WI	36			5
WV			8	6
WY	240			7

Note: Blank entries indicate the absence of that regulation in the state.

Appendix C.
Panel A.
Impact of Pawnbroker's Lobby on State Pawn Charges:
Presence of a Limit on Pawn Charges

Variable	OLS		Probit	
	(1)	(2)	(3)	(4)
No. of Pawnshops in NPA per 100,000 Population	0.0058 (0.0451)		0.0268 (0.1471) [0.0085]	
% of Pawnshops Members of NPA		0.0064 (0.0043)		0.0222 (0.01490) [0.0069]
N	51	51	51	51

Notes: Standard errors are in parentheses. Marginal effects are in brackets. Coefficients denoted by * are statistically significant at the 5% level.

Panel B.
Impact of Pawnbroker's Lobby on State Pawn Charges:
Value of a Limit on Pawn Charges

Variable	OLS		Tobit	
	(1)	(2)	(3)	(4)
No. of Pawnshops in NPA per 100,000 Population	6.8268 (9.8681)		7.1710 (12.0395) [1.8279]	
% of Pawnshops Members of NPA		1.1241 (0.9454)		1.7338 (1.1719) [0.4420]
N	51	51	51	51

Notes: Standard errors are in parentheses. Marginal effects are in brackets. Coefficients denoted by * are statistically significant at the 5% level.

Table 2.A.
Impact of Usury Laws on Geographic Distribution of Pawnshops:
Average Number of Pawnshops per 100,000

Type of Usury Limit	Predicted Effect on Pawnshop Rate	States with Regulation	States without Regulation	Difference
Limit on Pawn Charges	Fewer	6.411 (0.349)	6.456 (0.671)	-0.046 (0.756)
Limit on Pawn Charges, Observations with APR < 300%	Fewer	4.158 (0.219)	6.456 (0.671)	-2.298* (0.706)
Limit Only on Interest, not Fees, Among Those with Limit on Charges	Greater	6.588 (0.374)	4.194 (0.483)	2.394* (0.611)
Contract Limit	Greater	6.791 (0.391)	5.077 (0.420)	1.714* (0.573)

Notes: Standard errors are in parentheses. Differences denoted by * are statistically significant at the 0.05% level.

Table 2.B.
Impact of Usury Laws on Geographic Distribution of Pawnshops:
Correlations between Value of Limits and Pawnshops per 100,000

Type of Usury Limit	Predicted Sign	Correlation
Maximum Pawn APR	Positive	0.554 (0.0001)
Maximum Legal Rate	Positive	0.1954 (0.0001)
Maximum Contract Rate	Negative	0.0133 (0.7055)

Note: Probability of a greater rho is given in parentheses.

Table 3.
Usury Laws and Interest Rate Limits as Predictors of Pawnshops

Variable	Predicted	Dependent Variable: Pawnshop Rate			
	Sign	(1)	(2)	(3)	(4)
Limit on Pawnshop Charges (Dummy)	Negative		-12.277* (3.616)	-11.738 (3.290)	
Maximum Effective Pawnshop APR * Pawn Limit Dummy	Positive		0.057* (0.017)	0.055* (0.014)	
Only Pawn Interest, Not Fees, Limited (Dummy)	Positive		9.791* (3.937)	8.134* (3.021)	
Maximum Legal Rate	Positive			0.377** (0.218)	0.588** (0.327)
Limit on Contract Interest Rate (Dummy)	Positive			3.813** (2.171)	3.278 (3.155)
Maximum Contract Interest Rate * Contract Limit Dummy	Positive			-0.124 (0.081)	-0.216 (0.251)
Check-Cashing Outlet Rate			1.262* (0.186)	1.236* (0.177)	1.222* (0.205)
% African American			0.047 (0.086)	0.043 (0.090)	0.063 (0.100)
% Urban and in Urban Core			0.030 (0.026)	0.043* (0.022)	0.064* (0.031)
% Urban and outside Urban Core			-0.017 (0.012)	-0.022** (0.011)	-0.023* (0.011)
% Renters			-0.132* (0.059)	-0.136 (0.070)	-0.138 (0.081)
% Housing Vacant			0.086 (0.072)	0.111* (0.060)	0.188* (0.092)
State Unemployment Rate			0.534 (0.637)	-0.237 (0.679)	-1.345** (0.716)
Per Capita Income			-0.00011* (0.00005)	-0.00009 (0.00006)	-0.00008** (.00005)
% Receiving Public Assistance			0.160 (0.274)	0.139 (0.270)	0.110 (0.281)

Table 3 (continued).
Usury Laws and Interest Rate Limits as Predictors of Pawnshops

Variable	Predicted	Dependent Variable: Pawnshop Rate			
	Sign	(1)	(2)	(3)	(4)
Public Assistance Amount per Recipient			0.006 (0.004)	0.005 (0.004)	0.007 (0.006)
% Household Female-Headed			-0.339 (0.624)	-0.132 (0.605)	-0.280 (0.641)
Sworn Officers per Capita			0.216 (0.153)	0.154 (0.133)	0.063 (0.131)
Pawnslips Forwarded to Police Daily or Weekly (Dummy)			2.219 (2.004)	1.663 (1.874)	-1.902 (1.843)
Waiting Period to Purchase Handgun (Dummy)			-5.378* (2.233)	-5.021* (1.786)	-3.121* (1.194)
License Required to Purchase Handgun			-3.875* (1.167)	-4.410* (1.245)	-4.078* (1.683)
“Shall Issue” Law (Dummy)			-1.149 (2.288)	-1.655 (2.023)	-0.679 (2.330)
N			808	808	808
R ²			.5498	.5682	.4893
Census Region Dummies?			Yes	Yes	Yes
F-statistic on Joint Significance of Usury Laws and Interest Rate Limits			3.90	4.76	1.63
P-value on Joint Significance of Usury Laws and Interest Rate Limits			0.0142	0.0007	0.1943

Notes: Standard errors are in parentheses. All equations also include an intercept term. Coefficients denoted by * are statistically significant at the 5% level, and those by ** are at the 10% level.

Table 4.
Estimates of the Impact of Pawnshops on Rates Robbery, Burglary, and Larceny

Variable	OLS (1)	OLS (2)	OLS (3)	2SLS (4)	2SLS (5)	LIML (6)	LIML (7)
Pawnshop Rate	81.650* (9.741)	62.798* (6.724)	60.977* (6.295)	52.466* (21.874)	53.405* (20.114)	52.420* (15.830)	52.797* (14.841)
Check-Cashing Outlet Rate			23.545 (31.330)	13.076 (31.125)	14.231 (30.035)	13.020 (25.701)	13.483 (24.791)
% African American			12.856 (12.827)	13.464 (12.965)	13.397 (12.942)	13.468** (8.099)	13.441** (8.089)
% Urban and in Urban Core			20.700* (4.652)	21.170* (4.962)	21.118* (4.979)	21.173* (4.345)	21.152* (4.334)
% Urban and outside Urban Core			0.746 (2.6090)	0.533 (2.737)	0.574 (2.718)	0.552 (2.542)	0.560 (2.539)
% Renters			32.070* (10.737)	30.832* (10.295)	30.969* (10.301)	30.826* (7.611)	30.881* (7.568)
% Housing Vacant			53.931* (8.893)	55.440* (9.525)	55.274* (9.419)	55.448* (7.664)	55.381* (7.601)
State Unemployment Rate			117.338 (81.935)	111.092 (84.580)	111.781 (84.049)	111.058** (59.059)	111.335** (58.915)
Per Capita Income			-0.0025 (0.0175)	-0.0036 (0.0175)	-0.0035 (0.0177)	-0.0036 (0.0123)	-0.0036 (0.00123)
% Receiving Public Assistance			-90.069* (41.369)	-89.638* (41.301)	-89.685* (41.346)	-89.635* (26.677)	-89.654* (26.673)
Public Assistance Amount per Recipient			0.094 (0.270)	0.158 (0.264)	0.151 (0.254)	0.158 (0.306)	0.155 (0.303)

Table 4 (continued).
 Estimates of the Impact of Pawnshops on Rates Robbery, Burglary, and Larceny

Variable	OLS (1)	OLS (2)	OLS (3)	2SLS (4)	2SLS (5)	LIML (6)	LIML (7)
% Household Female-Headed			219.485* (70.184)	217.595* (71.432)	217.804* (71.531)	217.585* (47.039)	217.669* (47.019)
Sworn Officers per Capita			12.660 (18.840)	13.830 (18.814)	13.701 (18.964)	13.836 (14.315)	13.784 (14.293)
Pawnshops Forwarded to Police Daily or Weekly (Dummy)			196.940 (151.475)	187.278 (159.755)	188.345 (156.741)	187.226** (110.955)	187.654** (110.768)
Waiting Period to Purchase Handgun (Dummy)			-132.105 (153.478)	-156.790 (141.613)	-154.065 (139.564)	-156.922 (136.816)	-155.830 (135.869)
License Required to Purchase Handgun			262.272 (197.065)	235.017 (198.702)	238.026 (192.180)	234.871** (137.831)	236.077** (136.687)
“Shall Issue” Law (Dummy)			601.046* (276.807)	604.159* (285.479)	603.815* (285.166)	604.176* (184.693)	604.038* (184.665)
N	808	808	808	808	808	808	808
R ²	0.1658	0.2334	0.5644				
Census Region Dummies?	No	Yes	Yes	Yes	Yes	Yes	Yes
Instruments Used	None	None	None	Pawn- specific only	All	Pawn- specific only	All

Notes: Standard errors are in parentheses. All equations also include an intercept term. Coefficients denoted by * are statistically significant at the 5% level, and those by ** are at the 10% level.

Table 5.
Estimates of the Impact of Pawnshops on Rates of Murder, Rape, Assault, and Auto Theft

Variable	OLS (1)	OLS (2)	OLS (3)	2SLS (4)	2SLS (5)	LIML (6)	LIML (7)
Pawnshop Rate	17.500* (3.399)	12.859* (4.052)	12.348* (3.754)	10.254 (9.551)	3.983 (10.912)	10.105 (8.435)	2.553 (6.634)
Check-Cashing Outlet Rate			84.09 (13.053)	10.985 (13.469)	18.698 (14.309)	11.169 (7.763)	20.457* (7.627)
% African American			5.987 (4.139)	6.137 (4.224)	6.585 (4.120)	6.148* (2.410)	6.687* (2.445)
% Urban and in Urban Core			0.513 (1.353)	0.629 (1.413)	0.975 (1.470)	0.637 (1.294)	1.054 (1.311)
% Urban and outside Urban Core			2.584* (0.614)	2.807* (0.673)	2.664* (0.702)	2.803* (0.756)	2.632* (0.767)
% Renters			7.774 (2.740)	7.469* (2.929)	6.558* (2.842)	7.448* (2.269)	6.350* (2.293)
% Housing Vacant			11.313* (2.639)	11.684* (2.709)	12.795* (3.007)	11.710* (2.288)	13.049* (2.306)
State Unemployment Rate			64.971* (30.157)	63.434* (31.097)	58.832** (32.247)	63.325* (17.584)	57.783* (17.819)
Per Capita Income			0.0072 (0.0062)	0.0070 (0.0060)	0.0062 (0.0060)	0.0070** (0.0037)	00.060** (0.0037)
% Receiving Public Assistance			-10.043 (13.604)	-9.937 (13.581)	-9.620 (13.463)	-9.930 (7.934)	-9.547 (8.058)
Public Assistance Amount per Recipient			0.253* (0.114)	0.269 (0.115)	0.316 (0.130)	0.270* (0.091)	0.327 (0.092)

Table 5 (continued).
Estimates of Pawnshops on Rates of Murder, Rape, Assault, and Auto Theft

Variable	OLS (1)	OLS (2)	OLS (3)	2SLS (4)	2SLS (5)	LIML (6)	LIML (7)
% Household Female-Headed			81.145* (19.605)	80.680* (19.919)	79.287* (20.191)	80.646* (13.993)	78.970* (14.207)
Sworn Officers per Capita			8.013 (6.624)	8.301 (6.526)	9.163 (6.237)	8.322** (4.260)	9.359* (4.321)
Pawnshops Forwarded to Police Daily or Weekly (Dummy)			115.446** (63.892)	113.068** (68.941)	105.951 (75.956)	112.899* (33.024)	104.328* (33.491)
Waiting Period to Purchase Handgun (Dummy)			171.909* (38.285)	165.835* (43.535)	147.650* (47.861)	165.402* (40.817)	143.503* (41.187)
License Required to Purchase Handgun			0.276 (75.769)	-6.431 (80.401)	-26.510 (80.603)	-6.909 (41.145)	-31.088 (41.464)
“Shall Issue” Law (Dummy)			144.755** (80.453)	145.521** (82.299)	147.814** (90.026)	165.402* (40.817)	148.337* (55.791)
N	808	808	808	808	808	808	808
R ²	0.0911	0.3584	0.5883				
Census Region Dummies?	No	Yes	Yes	Yes	Yes	Yes	Yes
Instruments Used	None	None	None	Pawn- specific only	All	Pawn- specific only	All

Notes: Standard errors are in parentheses. All equations also include an intercept term. Coefficients denoted by * are statistically significant at the 5% level, and those by ** are at the 10% level.

Table 6.
Estimates of the Impact of Pawnshops on Individual Crime Categories

Dependent Variable	OLS (1)	2SLS (2)	2SLS (3)	LIML (4)	LIML (5)
Summed Rate of Robbery, Burglary, and Robbery	60.977* (6.295)	52.466* (21.874)	53.405* (20.114)	52.420* (15.830)	52.797* (14.841)
Robbery Rate	1.337 (0.916)	1.132 (2.4874)	1.207 (2.190)	1.125 (1.249)	1.201 (1.242)
Burglary Rate	15.394* (3.554)	13.692** (8.144)	13.431** (7.420)	13.196** (6.984)	12.627* (5.696)
Larceny Rate	44.247* (4.344)	37.642* (13.731)	38.767* (13.059)	37.533* (12.381)	28.355* (11.530)
Summed Rate of Murder, Rape, Assault, and Auto Theft	12.348* (3.754)	10.254 (9.551)	3.983 (10.912)	10.015 (8.835)	2.553 (6.634)
Murder Rate	-0.026 (0.044)	0.0068 (0.088)	-0.008 (0.086)	-0.074 (0.065)	-0.097 (0.060)
Rape Rate	0.427* (0.127)	-0.303 (0.618)	-0.224 (0.584)	-0.320 (0.424)	-0.310 (0.230)
Assault Rate	8.890* (2.744)	9.138 (7.506)	4.242 (7.556)	9.165 (6.953)	1.833 (4.062)
Auto Theft Rate	2.968* (1.264)	1.486 (3.727)	0.053 (3.890)	1.470 (3.828)	-0.032 (2.603)
Instruments Used	None	Pawn-specific only	All	Pawn-specific only	All

Notes: Equations above contain the same covariates as the regression reported in columns (3) through (7) of Tables 4 and 5. Coefficients denoted by * are statistically significant at the 5% level and those by ** are at the 10% level.

Table 7.
Estimates of the Impact of Pawnshops on Individual Crime Categories by County Population Size

Dependent Variable	Counties with Pop. >50,000		Counties with Pop. <50,000		Counties with Pop. <25,000	
	(1)	(2)	(3)	(4)	(5)	(6)
Summed Rate of Robbery, Burglary, and Robbery	60.977* (6.295)	53.405* (20.114)	37.228* (9.916)	18.834 (17.044)	23.072* (4.753)	5.343 (18.005)
Robbery Rate	1.337 (0.916)	1.207 (2.190)	0.633* (0.141)	0.128 (0.603)	0.410* (0.118)	-0.118 (0.577)
Burglary Rate	15.394* (3.554)	13.431** (7.420)	6.431* (2.046)	-2.647 (5.671)	3.987* (1.551)	-3.534 (6.408)
Larceny Rate	44.247* (4.344)	38.767* (13.059)	30.164* (8.118)	21.352** (12.567)	18.675* (3.740)	8.995 (12.747)
Summed Rate of Murder, Rape, Assault, and Auto Theft	12.348* (3.754)	3.983 (10.912)	3.697* (0.832)	-2.172 (7.656)	3.107* (0.883)	0.780 (6.622)
Murder Rate	-0.026 (0.044)	-0.008 (0.086)	-0.033 (0.031)	-0.155 (0.170)	-0.062 (0.041)	-0.207 (0.092)
Rape Rate	0.427* (0.127)	-0.224 (0.584)	0.158* (0.081)	-0.844 (0.483)	0.178* (0.102)	-0.953 (0.633)
Assault Rate	8.890* (2.744)	4.242 (7.556)	2.076* (0.589)	-1.641 (6.103)	1.916* (0.540)	1.389 (4.989)
Auto Theft Rate	2.968* (1.264)	0.053 (3.890)	1.496* (0.386)	0.441 (2.247)	1.075 (0.402)	0.551 (2.374)
Instruments Used	None	All	None	All	None	All
N	808	808	1,759	1,759	1,231	1,231
F-statistic on Joint Sig. of IVs		4.760		6.840		8.850
P-value of Joint Significance of IVs		0.0007		<0.00001		<0.00001

Notes: Equations above contain the same covariates as the regression reported in columns (3) through (7) of Tables 4 and 5. Coefficients denoted by * are statistically significant at the 5% level and those by ** are at the 10% level.

Table 8.
Sensitivity of Estimated Impacts of Pawnshops on Crime Categories

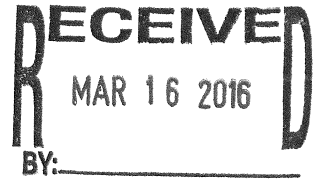
Specification	Dependent Variable: Rate of Burglary, Robbery, and Larceny			Dependent Variable: Rate of Murder, Rape, Assault, and Auto Theft		
	OLS	2SLS	LIML	OLS	2SLS	LIML
	(1)	(2)	(3)	(4)	(5)	(6)
(A) Baseline Estimates (Repeated from Earlier Tables)	60.977* (6.295)	53.405* (20.114)	52.797* (14.841)	12.348* (3.754)	3.983 (10.912)	2.553 (6.634)
(B) Excluding Dummies for Gun Licensing, Waiting, "Shall Issue"	62.260* (7.294)	64.328* (20.556)	64.615* (16.394)	11.733* (4.081)	9.856 (11.277)	9.403 (6.095)
(C) Excluding Sworn Officers and Pawnshops to Police Dummy	60.549* (6.746)	48.944* (22.351)	64.615* (16.394)	12.115* (4.265)	-0.419 (11.075)	-2.234 (6.723)
(D) Excluding Public Assistance Variables	59.940* (5.808)	51.135* (21.205)	47.970* (14.298)	13.260* (3.950)	5.567 (11.486)	4.492 (6.387)
(E) Excluding Check-cashing Outlets	57.498* (6.635)	56.343* (19.514)	50.317* (14.352)	13.591* (3.593)	3.493 (12.022)	1.502 (6.373)
(F) Excluding Observations in GA	65.185* (5.341)	52.119* (22.526)	56.233* (14.852)	14.242* (3.331)	4.388 (11.707)	3.153 (6.753)
(G) Logarithmic Specification	0.1122* (0.0197)	0.1124* (0.0435)	50.334* (15.187)	0.1143* (0.0408)	0.0817 (0.0976)	0.0581 (0.0756)
(H) Crimes Weighted by Average Value of Property Taken	45,285.9* (6,028.4)	39,635.7* (16,724.6)	0.1124* (0.0414)	16,079.9* (6,849.4)	270.4 (21,084.4)	-191.3 (14,101.0)
Instruments Used	None	All	None	All	None	All

Notes: Equations above contain the same covariates as the regression reported in columns (3) through (7) of Tables 4 and 5. Coefficients denoted by * are statistically significant at the 5% level and those by ** are at the 10% level. Standard errors are in parentheses.

Table 9.
Estimated Costs of Additional Crimes Due to the Opening of One More Pawnshop

Type of Crime	Increase in Reported Crimes (1)	Increase in Total Crimes (2)	Average Property Loss per Crime (3)	Pain & Suffering per Crime (4)	Total Property Loss (5)	Total Social Costs (6)
Robbery	1.34	2.41	\$929.00	\$15,225.80	\$2,241.67	\$38,981.47
Burglary	15.39	30.48	\$1,332.00	\$574.28	\$40,603.32	\$58,109.08
Larceny	44.25	165.10	\$532.00	\$2.65	\$87,833.20	\$88,270.72
Total	60.98	198.00			\$130,678.19	\$185,361.27

Notes: Estimates of the increase in individual offenses are based upon individual crime elasticities of crime with respect of pawnshops given in Table 4 and evaluated at the sample mean. Reporting rates are from the Bureau of Justice Statistics (1997), per-crime property losses are from FBI (1997), and per-crime pain and suffering estimates are from Cohen (1988).



The Effect of Stolen Goods Markets on Crime:
Evidence from a Quasi-Natural Experiment

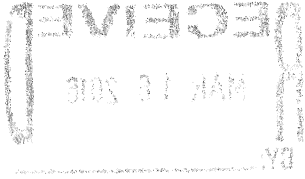
By ROCCO D'ESTE*

(AUGUST 29, 2014)

I investigate the effects of stolen goods markets on crime by focusing on pawnshops, a legal business often associated with illicit trade. In a fixed effects framework, the analysis of 2,176 US counties from 1997 to 2010 reveals an elasticity of pawnshops to theft crimes of 0.8 to 1.5. I then show that the predetermined concentration of pawnshops in a county strengthens the expected benefits deriving from illegal activity, amplifying the effect that the rise in gold prices has on the proliferation of burglaries. Reassuringly, no effect is ever detected on motor-vehicle thefts and on violent crimes.

Keywords: stolen goods markets, pawnshops, gold prices, crime's benefits

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I. Introduction

Theft crimes represent a substantial social cost to society. In 2010, the United States experienced one theft every 40.5 seconds, with a total of 9.5 million crimes and an estimated economic loss for victims of almost \$16 billions (FBI, 2010). Personal items were stolen in 85% of cases, strongly suggesting that burglars need a market in which to convert these goods into cash. In particular, the local availability of stolen goods markets may affect criminal behaviour by reducing theft-related transaction costs, lowering burglars' probability of arrest, and by raising the expected benefits deriving from illegal activity (Sutton, 2010).

Despite the critical importance of this phenomenon, there has been no systematic empirical investigation of the effect of stolen goods markets on crime. Two main obstacles hinder such an analysis. First, markets for stolen properties are hard to identify. Secondly, these markets are not randomly assigned to geographic locations.

This paper contributes to the existing literature on the determinants of crime by analysing this issue through the lens of *pawnshops*, a widespread legal business often associated with illicit trade.

I build a comprehensive panel dataset for the analysis: 2,176 US counties in 50 states, from 1997 to 2010, including in the analysis a rich set of county, time-varying, socio-economic controls.¹ I focus on the effects of the number of pawnshops on eight different FBI reported crimes. I address the endogeneity of pawnshops to crime in multiple ways. First, exploiting a fixed effects framework, then, using the rise in gold prices as a quasi-natural experiment, where the intensity of the treatment is given by the initial concentration of pawnshops in the county, fixed to the first year of the sample.

¹ Please refer to the Data section for a detailed description of all controls used in the analysis.

The structure of the panel allows for the inclusion of county fixed effects, which control for unobserved time-invariant heterogeneity across counties. Year fixed effects and states linear trends capture nationwide and state specific confounding shocks. I rely on within-county variation in the number of pawnshops to explain within-county variation in the number of reported crimes.

Ordinary least squares estimates show a strong effect of pawnshops only on two specific theft-related crimes: larceny and burglary. I detect an elasticity of 1.5 and 0.8, respectively. These findings are robust to extensive checks, the clustering of standard errors at different levels, the sensitivity to outliers, weighting the regression by a measure of the quality of the information on reported crimes, using different functional forms and excluding from the sample counties highly populated.

Falsification tests strengthen the hypothesis of the paper. In particular, motor-vehicle thefts are insensitive to the variation of pawnshops in the county, plausibly because pawnshops do not accept this type of items. Moreover, no effect is ever detected on any other violent crime.

Several burglars' interviews indicate that, while criminals typically prefer to commit thefts at a maximum distance of half an hour by car from the predetermined resale point, (because the probability of arrest increases while stolen property is in possession), sometimes they might be willing to travel far from the crime scene, plausibly to avoid suspects about the origin of the item (Sutton, 2010). I hence extend the analysis in the attempt of detecting geographical spill over effects on crime. I construct two measures of pawnshops' concentration: in bordering counties and in the state. Results partially validate burglars' interviews: within-county changes in larcenies and burglaries are significantly affected by the variation in the number of pawnshops in the same county and in the same state, but not by relative changes in bordering counties.

The lack of random assignment of pawnshops to counties poses two different threats to the identification of a causal parameter. First, results might be driven by the omission of time-variant confounding unobservables. Nevertheless, the Altonjii ratio exceeds 16 for theft crimes, suggesting that there is little concern that selection on unobservables is the main driver of the results.²

A second econometric concern is instead related to the bias arising due to reverse causality. Despite the interesting implications related to the positive sorting of pawnshops in counties with high levels of larcenies and burglaries, I exclude this channel in the last section of the paper, by introducing gold prices and the quasi-natural experiment.

Gold is the major determinant of pawnbrokers' profits, roughly representing 80 per cent of the value of all pledges (Bos et al, 2012). The demand for gold materializes through the request of jewelry, which is usually melted down by pawnbrokers through the "refinement" process. During this process, professional outfits remove impurities from metal until they get something close to pure gold. Stolen jewelry might hence disappear forever from pawnshops' counter, after being transformed into a bar of precious metal.

Underlying hypothesis is that shifts in the resale value of gold, exogenously determined by changes in the macroeconomic conditions, while potentially increasing burglars' expected benefits deriving from criminal activity in all counties, might cause relatively more theft crimes in counties with a higher predetermined concentration of markets potentially interested in buying gold products.

Results strongly support this hypothesis. A one standard deviation increase in the initial concentration of pawnshops in a county increases the effect of gold prices on burglaries by 0.05 to 0.10 standard deviations. As in the earlier analysis,

² A detailed description of the Altonjii Ratio can be found in the "Selection on Unobservables" subsection.

no effect is detected on motor-vehicle thefts and on all other crimes. As a further falsification test, I repeat the same exercise including the interaction between the initial concentration of pawnshops and copper prices. Reassuringly, I do not detect any positive effect on burglaries, plausibly because pawnshops typically do not accept objects containing copper, even if criminals heavily target this particular metal.

These findings have the power to inform policy. Despite the difficulty to implement an accurate welfare analysis on the possible social effects of the opening of a new shop, (due to the lack of data on the financial services provided by these business), a closer monitoring from local authorities seems to be warranted. This monitoring, by reducing the latent demand for stolen properties, should reduce the consequent supply of crime in pawnshops' proximity. On this note, numerous municipalities in the Unites States have started to implement stricter rules, tightening pawnshops' opening times and increasing the penalties in case of poor documentation of all transactions made.³ In particular, new policies have been implemented.⁴ These require pawnbrokers to share their records with authorities daily, using a free online reporting system, including those selling jewelry and used electronic goods that can be tracked by serial numbers. This improved monitoring, by increasing the likelihood of apprehension and the possibility of retrieve-stolen items, aims to reduce both burglars' propensity to use theses businesses as a resale market and pawnbrokers' willingness to accept items of uncertain origins.

³ See the next section for more background information on pawnshops' regulation.

⁴ See for example http://www.statesman.com/news/news/local/plan-would-require-some-secondhand-stores-to-share-records-daily?_federated=1 or <http://thetimes-tribune.com/news/scranton-to-require-stricter-rules-for-pawn-shops-1.1658773>

Related Literature

This paper adds to the existing literature on crime in two ways.

First, despite the increasing amount of research with an exclusive focus on the determinants of crime, this is one of the first papers offering a systematic empirical investigation on the effects of stolen goods markets on criminal activity.⁵

Various investigative reporters have focused on the criminal histories of the most frequent pawnshops' clients. Glover and Larrubia (1996), after gathering all 70,000 pawn slips in Ft. Lauderdale, ranked pawnshops clients by the number of transactions made in that year. Thirty-nine of the top fifty clients had criminal arrest records, often related to burglary, theft, or related offenses.⁶ Fass and Francis (2005) used a similar approach to analyse a database of all pawn transactions recorded by the Dallas Police Department (DPD) during the six-year period from January 1, 1991, through December 31, 1996.⁷ The 14,500 people pawning 30 times or more during the period "*were two to three times more likely to have been convicted for theft, larceny, burglary, or robbery than those who*

⁵ Different studies have analysed a wide set of crime's potential determinants. Among these: the effect of police and incarceration (Levitt 1997, Di Tella and Schargrotsky 2004, Klick and Tabarrok 2005, Levitt 1996, Levitt 1998, Helland and Tabarrok 2007, Drago, Galbiati and Vertova 2009, Lee and McCrary 2009, Draca, Machin and Witt 2011), conditions in prisons (Katz, Levitt and Shustorovich 2003), parole and bail institutions (Kuziemko 2007), education (Western, Kling and Weiman 2001, Lochner and Moretti 2004), social interactions and peer effects (Case and Katz 1991, Glaeser, Sacerdote and Scheinkman 1996, Gaviria and Raphael 2001, Kling, Ludwig and Katz 2005, Jacob and Lefgren 2003, Bayer, Hjalmarsson and Pozen 2009), family circumstances (Glaeser and Sacerdote 1999, Donohue and Levitt 2001). Economists have also focused on the effect of criminal histories on labour market outcomes (Grogger 1995, Kling 2006), the impact of unemployment and wages on crime (Grogger 1998, Raphael and Winter-Ebmer 2001), the strategic interplay between violent and property crime (Silverman 2004), the optimal law enforcement (Polinsky and Shavell 2000, Eeckhout, Persico and Todd 2009), the immigration status (Bianchi, Buonanno and Pinotti 2012), the impact of violent movies and pornography on violent crimes (Dahl and Della Vigna 2009 and Bhuller, Havnes, Leuven and Mogstad 2011).

⁶ In a subsequent study Wallace (1997) describes how pawnshops may enable few highly motivated criminals to commit many offenses. For example, an unemployed man visited a single pawnshop 38 times in less than two months and pawned, among other items, thirteen women's rings, ten men's rings, eleven necklaces, nine cameras, six watches, three VCRs, and two televisions. The day after his last visit to the pawnshop, the man was arrested for burglary. Another police survey of frequent pawners produced like findings in Portland, Oregon. 90 per cent of these pawners were chronic drug users with long criminal records (Hammond 1997).

⁷ Each transaction shows a pawn ticket number, a client's identification number, shop's identification number, transaction date, and classification code for items pawned.

pawned once or twice.”⁸ This paper is closely related to an unpublished PhD dissertation chapter by Thomas J. Miles, who finds a positive effect of pawnshops on crime on a cross section of US counties, in the year 1996. He addresses endogeneity issues using state level variation in the maximum interest rate allowed to pawnbrokers, an interesting approach nevertheless characterized by different econometrics shortcomings.⁹

Second, this is also one of the first papers analysing the effects of a change in *crime’s expected benefits*, exploiting the rise in gold prices as a quasi-natural experiment.

Starting from Becker’s seminal work (1968), economists have analysed the determinants of crime using of a cost-benefit analysis, with an almost unique focus on the cost side of crime’s production function, giving particular emphasis to the deterrence effect of police or to other related aspects.¹⁰ This paper instead, by looking at crime’s expected benefits is closely related to the work of Draca et al. (2014). Their findings support the hypothesis that crimes are highly responsive to consumer and scrap metal prices, suggesting that, as potential takings from crime rise with prices, criminals switch into crimes that yield a higher return.

This paper unfolds as follows. Section II provides some institutional background on pawnshops. Section III presents the data and lays out the initial econometric framework, it reports the findings for that framework and provides various robustness checks and heterogeneity in the results. Section IV introduces

⁸ Within the sample of the top 100 pawnshops’ clients, 83 individuals had arrest records. “Of these, 58 had accumulated 300 convictions for property as well as other offenses, or an average of 5.2 arrests per individual. Most property crime arrests, 74 per cent, were for theft, 11 per cent for burglary of vehicles, 7 per cent for burglary of homes or businesses, 5 per cent for robbery, and the rest for forgery and car theft. Other infractions mainly involved drug possession (23 per cent) or driving without a license (23 per cent).” A similar analysis, conducted by Comeau and Klofas (2012) for the city of Rochester, NY shows equivalent evidence.

⁹ The first limit relates to the analysis of only one year of data (1996). The lack of a long time dimension, along side the use of a state-level instrument, does not allow for the inclusion of any fixed effects. In practice, any time invariant unobservable related to the number of pawnshops, the presence of crime in a county and the state’s decision of setting a particular interest rate might be a confounding factor.

¹⁰ See Chalfin and McCrary (2013) for a detailed literature review.

the role of gold in the quasi-natural experiment, outlines the research design and presents the results. Section V concludes.

II. Institutional Background

Pawnshops, payday loans and check-cashing outlets are all businesses that provide credit to “unbanked” clients at very high interest rates.¹¹ Among these businesses, pawnbrokers offer a unique service: the supply of instant cash to their clients, only through the exchange of personal property’s items. The standard procedure begins with an assessment of the monetary value of the client’s item. If the client accepts the offer, she can either directly sell the item to the pawnbroker or she can ask for a loan, using the pledge as a collateral. Usually, the offer ranges from 30 to 75 per cent of the market value of the pledge, with the average loan value being \$100. The pawnbroker holds the personal item in custody until the maturity date of the loan, typically two months later. If the client does not return to reclaim the pledged item, this becomes pawnbroker’s property.¹²

Given that pawnbrokers assume the risk that an item might have been stolen, laws in many jurisdictions protect the brokers from unknowingly handling stolen goods.¹³ These laws usually require, for each transaction, a photo identification of the client (such as a driver’s license or government-issued identity document), as well as a “holding” period on the item purchased by the pawnbroker, to allow

¹¹ U.S. households purchased more than \$40 billion in high-cost short-term loans using the “fringe banking sector” in 2007, Fellowes and Mabanta (2008). Even if there is no official and reliable estimate of the total number of clients, industry reports suggest that 34 million adults demanded the services of these companies. The sector consists of several types of high-cost lenders, but two comprise the dominant portion: payday lenders and pawnshops. In 2007 pawnshops made 42 million transactions for an overall value of 2.5 billion dollars. The maximum interest rate set by pawnbrokers and payday lenders is generally regulated at the state level. For a complete review of pawnshops’ operating system see Shackman and Tenney (2006).

¹² Alternatively, the pawnbroker becomes the owner of the item as soon as the sale process ends. About 80 per cent of pawn loans are repaid and repeat customers account for much of the loan volume. Moreover, it is common for a customer to use the same pledge as collateral to obtain sequential loans (Avery, 2011).

¹³ Data on state level laws from 1997 to 2010 are unavailable.

local law enforcement authorities to track stolen items. Pawnshops must also regularly send to police a list of all newly pawned items and, if possible, any associated serial number. Nevertheless, to be found guilty of criminal possession, the pawnbroker must know that the item he is accepting is actually stolen, a fact that is often difficult to prove. Hence, the pawnbroker only loses the collateral and the amount loaned, if the police seize the item.

Different dynamics can turn a pawnshop into a market for stolen goods (Sutton, 2010). First, thieves, exploiting the increase in personal properties' trade in the community, can circumvent the security measures of an honest pawnbroker, "disguising" stolen property in the regular flow of allowed items. Moreover, competition for profits may undermine pawnbrokers' security policy, leading them to accept some items of uncertain origin. From the words of a pawnbroker: *"If he's coming in my store with a VCR, I'm not asking him where he got it. It's the police's job to find out if it's stolen, not mine. You don't ask where things come from. If you don't take those, the guy down the street will."* (Glover and Larubbia, 1996) Finally, in a worst scenario, the pawnbroker could explicitly facilitate the sale of stolen goods in his shop (fencing),¹⁴ exploiting the lack of strict law enforcement from local authorities or, for example, the fact that most of stolen goods lack of a unique identifier and are hardly recognizable by police or by victims.¹⁵

¹⁴ Police efforts have indicated that some pawnbrokers are involved in fencing. For example, in the US, the Sarasota Police Department, Venice Police Department and North Port Police Department assisted with the undercover operation to sell gold jewelry to each business. Many were found to be in compliance. However, a number of businesses operated under a 'no questions asked' policy, making no attempt to properly document the seller information, record the items being purchased or obtain the seller's fingerprint (Bill, 2011).

¹⁵ Wright and Decker (1994) interviewing burglars in the St. Louis area, describe different mechanisms through which pawnshops may be used to quickly convert stolen goods into cash. First, even if a burglar must provide his name, address, and a form of identification, jurisdictions rarely make full use of this information. Moreover, these requirements can be easily deceived. The burglar may provide false information (Glover and Larubbia, 1996) or use false identification when needed. Alternatively, some burglars reported persuading friends to pawn the items for them, reducing the likelihood that a pawnbroker would not accept the item from a suspicious client (Wright and Decker, 1994). Finally, jewelry such as rings, bracelets and necklaces can easily be melted down, transforming forever stolen items into unrecognizable bars of precious metal (Sutton, 2010).

III. Data and Empirical Analysis

Data

This paper focuses on a balanced panel of 2,176 US Counties, (70% of all the counties in the United States), in 50 States from 1997 to 2010. The final dataset is obtained merging information from several sources. Data on crime is accessed through the National Archive of Criminal Justice Data.¹⁶ Eight different types of crimes are reported: larceny, burglary, robbery, motor-vehicle theft, murder, aggravated assault, rape and arson.¹⁷ Infogroup Academic, a US private company, provided data on the total number of pawnshops by county per year.¹⁸

Table 1 reports crime-related summary statistics, expressed by county and normalized per 100,000 people. The average number of pawnshops is 5.88, with a standard deviation of 6.32. Larceny is the most common theft crime, followed by burglary and motor vehicles theft.¹⁹ Violent crimes and arson are less frequent, with the lowest reported crime being murder, with an average of 3.89 and a standard deviation of 5.43.

¹⁶ Data are downloadable at: http://www.icpsr.umich.edu/icpsrweb/content/NACJD/guides/ucr.html#desc_cl.

¹⁷ County-level files are created by NACJD based on agency records in a file obtained from the FBI that also provides aggregated county totals. NACJD imputes missing data and then aggregates the data to the county-level. The FBI definition of the eight types of crime, as well as the explanation of the hierarchy rule, can be found in the data appendix.

¹⁸ More information is available at <http://lp.infogroup.com/academic>. Infogroup provided the overall number of pawnshops by county, per year. The data gathering process follows a six-steps procedure. In the compilation phase, data is taken directly from sources such as: Government, public company filings, Utility Information, NCOA, Tourism Directories, web compilation and RSS Feeds. The second step in the process is the address standardization process followed by a phone verification phase with 40 millions call made per year. The last three phases include a standardization of elements and a duplicate removal, an enhanced content and a final quality check. Figure 1 in the appendix shows the geographic distribution of the number of pawnshops in 1997, the first year in our analysis. The sample has an average of 9800 pawnshops per year. These numbers are confirmed by other studies. See - for example - Fellowees and Mabanta (2008), Shackman and Tenney (2006).

¹⁹ In the FBI's Uniform Crime Reporting (UCR) Program, property crime includes the offenses of burglary, larceny-theft, motor vehicle theft, and arson. The property crime category includes arson because the offense involves the destruction of property; however, arson victims may be subjected to force. Because of limited participation and varying collection procedures by local law enforcement agencies, only limited data are available for arson. In the FBI's Uniform Crime Reporting (UCR) Program, violent crime is composed of four offenses: murder and non-negligent manslaughter, forcible rape, robbery, and aggravated assault. Violent crimes are defined in the UCR Program as those offenses that involve force or threat of force.

[Table 1]

I add a wide set of county time-varying socio-economic controls, obtained from the US Census Bureau.²⁰ Data on labour market is obtained from the Bureau of Labour Statistics-Current Population Survey while Data on the number of sworn police officers and civilian employees comes from the Department of Justice-Federal Bureau of Investigation.²¹

Empirical Analysis

I begin by estimating the following OLS equation:

$$y_{i,s,t} = \alpha_i + \gamma_t + \mu_{s,t} + X'_{i,s,t}\beta_0 + \#pawns_hops_{i,s,t}\beta_1 + \epsilon_{i,s,t}$$

where i indicates the county, s the state and t the year. The outcome of interest is the number of reported crimes. The analysis focuses on β_1 , the effect of pawnshops on crime. Both measures are expressed in per capita terms. Standard errors are clustered at the county level.

The inclusion of county fixed effects α_i control for time-invariant unobserved characteristics both related to the changes in pawnshops and crime. Year fixed effects γ_t and state linear trends $\mu_{s,t}$ are also included.

I finally add a vector of county time-varying socioeconomic controls $X'_{i,s,t}$. I include income per capita, percentage of people below the poverty line, percentage of unemployment, the number of social security recipients and the average monthly payment per subsidy. Given the type of credit service provided by pawnshops, I add the number of commercial banks and saving institutions in

²⁰ I use <http://censtats.census.gov/usa/usa.shtml>.

²¹ Sworn police officers are law enforcement employees with arrest powers. Civilian employees include personnel employed by each local agency who do not have arrest powers and include job classifications such as clerks, radio dispatchers, meter maids, stenographers and accountants. Descriptive statistics of all the controls included in the analysis are shown in Table 1 of the Appendix.

the county. These controls, together with the number of banking and saving deposits, aim to capture time varying confounding unobservables, both related to the financial penetration in the county and the relative presence of crime. I also add the number of sworn police officers and civilian employees,²² the population density and the racial/ethnic composition in the county, which implicitly controls for the presence of possible confounding migration patterns.²³ Finally, to control for variation in drug penetration and risky behaviour, I add data on arrests for sale and possession of drugs (opium/cocaine, marijuana, synthetic drugs and other dangerous non narcotics) and gambling (bookmaking horse and sports, numbers and lotteries and all other illegal gambling).

Results

Table 2 shows the evolution of β_1 both for the pooled measure of theft-related crimes (obtained by summing up larceny, burglary, robbery and motor-vehicle theft) and for the other crimes (murder, aggravated assault, rape, arson). The general decreasing pattern of the coefficient of interest indicates the importance of adding fixed effects and the described socio-economic controls. Results from the two most complete specifications are presented in column 5 and 10, where I include all fixed effects and all county-varying observables.²⁴ For theft-related crimes, I observe a positive coefficient of 6.07, significant at the 1% level, while no significant effects of pawnshops on other crimes is detected. To put results into perspective, the coefficient indicates that an increase of one unit of the

²² I include sworn police officers and civilian employees at the state level in the year (t-1), due to concerns related to the possibility of controlling for potential outcomes.

²³ The racial origin is defined according to four categories: White, Black, Asian and Indian American. Moreover each race is divided into Hispanic or Not Hispanic ethnic origin.

²⁴ Results are totally unchanged if I include state FE * year FE instead of state linear trends.

number of pawnshops in a county leads to an increase by an average of 6 theft-related crimes, (both variables are expressed per 100,000 people).

[Table 2]

Table 3 presents the analogous analysis for each type of crime. I detect a positive and significant effect only on larcenies and burglaries. The coefficient of pawnshops on larcenies is 4.57, which is significant at the 1% level. The coefficient on burglaries is 1.52 and it is significant at the 5% level. No effect is detected on robberies, motor-vehicle thefts or on all other crimes.²⁵

[Table 3]

These findings strengthen the hypothesis that pawnshops influence crime through their potential demand for stolen goods. Larceny is the most generic (and most frequent) type of theft. It includes shoplifting, pocket picking, purse snatching, theft of objects from motor vehicles, theft of bicycles and theft of items from buildings in which the offender has legal access. Burglaries instead, are larcenies aggravated by the unlawful entry in a private property.

In this setup, the most meaningful falsification test is on motors-vehicles thefts given that pawnshops do not typically accept these items. Reassuringly, I do not detect any effect on this crime and on all the other violent crimes.

Selection on Unobservables

Given the lack of random assignment, I cannot exclude the possibility that the omission of some time-variant unobservables might be driving the results on

²⁵ Results do not depend on the functional form used. In fact, a one per cent increase in the number of pawnshops per capita is related to a 1.5 and 0.8 percentage increase in the number for larcenies and burglaries, respectively. Results are shown in table 2 of the Appendix.

larcenies and burglaries. For this reason I use the Altonji et al. (2005) method of assessing selection on unobservables using selection on observables. The intuition behind the test is to measure how strong the selection on unobservables must be relative to the selection on observables in order to explain away the effects. This strategy relies on a comparison between a regression run with potentially confounding factors controlled for, and one without.²⁶ A rule of thumb is that any ratio above 1 is acceptable, as it indicates that selection on unobservables must be larger than selection on observables in order to invalidate the results (Nunn and Wantchekon, 2012). In my specification, the Altonjii ratio exceeds 16 for the measure of pooled theft-related crimes.

Reverse Causality

The pawnbroker's choice of locating or opening the business in a particular county might depend on the previous level of burglaries and larcenies in the areas. Despite the interesting implications of this phenomenon, I exclude this channel in the last section of the paper, interacting gold prices with the initial allocation of pawnshops fixed at the first year of the sample.²⁷

Robustness Checks

Table 4 presents robustness checks for larceny (Panel A) and burglary (Panel B).

²⁶ Let c denote the estimate with controls, and nc denote the estimate without controls. The Altonjii ratio is $\left| \frac{\beta_c}{\beta_c - \beta_{nc}} \right|$

²⁷ In one extreme case, pawnbrokers might decide to avoid locating their shops in counties with low levels of theft crimes. If that were the case, our β_1 coefficient would suffer, if anything, from a downward bias. In the opposite case, pawnshops could positively select in counties with high levels of larcenies and burglaries. This phenomenon, while potentially inflating the effects of pawnshops on crime and hence undermining the precision of our estimate, would not make the analysis less interesting. Table 3 and 4 of the Appendix further investigate this aspects focusing on the lagged effect of pawnshops' concentration on larcenies and on burglaries and analysing the concentration of pawnshops as a function of contemporaneous and past levels of theft crimes.

[Table 4]

Column 1 reports the coefficient when I cluster standard errors at the state level; column 2 shows the results with double clustering at county-year level, taking into account both autocorrelation of the error structure within county over time and the spatial correlation in each year across counties. In column 3 I weight the regression by the coverage indicator reported by the agency, a measure of the reliability of the information on crime available to the researcher.²⁸ Finally, I perform two tests to check the sensitivity to outliers. Column 4 reveals estimates for the sample that drops counties in the top 1% of the pawnshops per capita distribution. Column 5 presents estimates for the sample that does not include the counties in the top 1% of the population distribution.²⁹ The stability of the coefficient is shown across all different specifications.

Heterogeneity in the Results

Population Density

The anonymity of a big city might amplify the likelihood of the pawnshop being a convenient destination for stolen goods. In rural and less densely populated areas, pawnshops might be far from the crime scene. Moreover, in these areas criminal activity is generally less frequent, and residents are more willing to defend the interests of the members of their communities. Such considerations could undermine burglars' incentives to try to use a local pawnshop to sell stolen goods (and hence to commit a burglary in its proximity). For this reason, I investigate for the possible presence of heterogeneous effects,

²⁸ The Coverage Indicator variable represents the proportion of county data that is not imputed for a given year. The indicator ranges from 100, indicating that all ORIs in the county reported for 12 months in the year, to 0, indicating that all data in the county are based on estimates, not reported data. I exclude observations for which the coverage indicator equals 0.

²⁹ I also eliminate from the sample the top 10%, 20% and 30% of the most populous counties to check whether the result is driven by big cities. Results are stable across specifications and are available upon request.

splitting the sample into “low” and “high” population density counties. The two categories are computed with respect to the median density in the sample.

[Table 5]

Table 5 shows results in line with the hypothesis that population density can amplify the effects of pawnshops. For the case of larceny, the coefficient is 10.4 and is significant at the 1% level in high densely populated counties, while it is 3.36 significant at the 10% in low-density counties. The same pattern is found for burglaries.

Geographical Spillovers

My initial empirical analysis focused on understanding the effects of within-county changes in the number of pawnshops on the changes of theft crimes *in the same county*. I now extend the analysis by focusing on the presence of geographical spillover effects on crime.

I construct a measure of the number of pawnshops in bordering counties and in the state. To avoid collinearity issues and difficulty of interpretation, these two variables do not include the number of pawnshops in county *i* (the county where crime is measured). Table 6 shows the results of this specification.

[Table 6]

The inclusion of these two new variables does not change the effect or the significance of the number of pawnshops in county *i* on larcenies and burglaries (first row of table 6). Interestingly, no effect of pawnshops in the neighboring counties is detected. However, I find a large and significant coefficient of the number of pawnshops at the state level for larceny (21.61 significant at the 10 % level) for burglaries (15.2 significant at the 1% level) and for robberies (0.94 significant at 10%).

These results partly corroborate burglars' interviews describing how the presence of stolen goods markets affects their choice of whether and where committing a theft. Knowing that the probability of being caught increases while stolen property is still in possession, burglars prefer to commit a theft at a maximum distance of half an hour by car from the resale point, (Sutton, 2010). Nevertheless, results seems also capture strong geographical spillover effects, suggesting that burglars might take the risk of traveling far from the crime scene, plausibly to avoid suspicions about the origin of the item or to outdistance the good from the place where it was stolen.

IV. Responses to Gold Prices

In this section I further address the endogeneity of pawnshops to crime, exploiting the exogenous rise in gold prices as a quasi-natural experiment. Before explaining the research design, I describe the various mechanisms behind the importance of gold. Then, I define the identification strategy and present the results.

Demand side

Gold has always been the primary determinant of pawnbrokers' profits.³⁰ Bos et al. (2012) describe that in the US 34% of men and 63% of women used jewelry as pledge in pawn transactions, with gold representing roughly 80 percent of the value of all pledges.³¹ Table 7, borrowed from Carter and Skiba (2012), reports

³⁰ The importance of gold in pawnbrokers' activities is reflected in its symbol: three spheres suspended from a bar. The three-sphere symbol is attributed to the Medici family of Florence, Italy, owing to its symbolic meaning of Lombard. This refers to the Italian province of Lombardy, where pawnshop banking originated under the name of Lombard banking. The three golden spheres were originally a symbol medieval Lombard merchants hung in front of their houses, and not the arms of the Medici family. It has been conjectured that the golden spheres were originally three flat yellow effigies of byzants, or gold coins, laid heraldically upon a sable field, but that they were converted into spheres to better attract attention.

³¹ Similar evidence is found in Comeau et al. (2011).

the number of loans for each collateral category, the percentage of observations, and the average amount and standard deviation of the items pawned for each category. The sample of observations originates from a pawnshop lender in Texas between 1997 and 2002.

[Table 7]

Forty-nine percent of pawnshops loans in the dataset are collateralized with jewelry, with over half of jewelry consisting of rings, including both men's and women's class and wedding rings. The next most popular category of pledges is televisions and electronics, including satellite dishes, stereos, and CD players. Individuals also commonly pawn tools, household items such as small appliances, sporting equipment, guns, musical instruments, and camera equipment. The average loan amount for loans collateralized by jewels is \$96, a value only lower than guns and musical instruments.

What makes jewelry and, in particular, gold so important for pawnbrokers? Besides the fact that gold is a precious metal, the bulk of pawnbrokers' profits originate from melting down the gold received by their clients through the "refinement" process. In fact, pawnbrokers sell 90% of their jewelry to refiners. A refiner takes the rings, necklaces, bracelets and other items and melts them. Truly professional outfits remove impurities from the metals until they get something close to pure gold.³² Hence, stolen items, easily transformed into an unrecognizable bar of precious metal, can disappear forever from the second-hand market (Sutton, 2010), ending in the Bullion Market or in similar places.³³ This

³² Refiners typically have minimum quantities of metals that they accept and work with. They normally work with several pounds of material, so direct link between clients and refiners can rarely happen. Information can be found online, see: <http://www.pawnerd.com/where-do-pawn-shops-sell-their-gold-and-silver/or> <http://www.economist.com/news/finance-and-economics/21591230-falling-price-gold-hurting-pawnbroking-business-hock-and-sinker>.

³³ The Bullion Market is a forum through which buyers and sellers trade pure gold and silver. The bullion market is open 24 hours a day and is primarily an over-the-counter market, with most trading based in London. The bullion market

dynamic can facilitate the burglars', (or pawnbrokers'), attempt of safely getting rid of the stolen goods.

Supply Side

Even if most thieves have an ever-changing hierarchy of items that they prefer to steal (Sutton, 2010), crime statistics and victim surveys describe how the most commonly stolen items during burglaries are cash, jewelry and consumer electrical equipment.³⁴ Table 8 shows the percentage of stolen items during burglaries. Police recorded crime data are from the Sandwell Metropolitan Borough Council area of the West Midlands (Burrell and Wellsmith, 2010).³⁵

[Table 8]

Research Design and Identification Strategy

I ask the following question: does an increase in the expected benefits of crime, related to the exogenous rise in gold prices, cause relatively more theft crimes in counties with an higher predetermined concentration of pawnshops?

The underlying hypothesis is that shifts in the resale value of gold, exogenously determined by changes in the macroeconomic conditions, while potentially increasing burglars' expected value of committing a theft uniformly in all counties, might cause relatively more theft crimes in counties with an higher

has a high turnover rate and most transactions are conducted electronically or by phone. Gold and silver derive their value from their industrial and commercial uses; they can also act as a hedge against inflation.

³⁴ Similar evidence is found in Fitzgerald and Poynton (2010), Sorensen (2011) and Walters et al. (2013).

³⁵ Table 5 in the Appendix reports the percentage of stolen items during burglaries, by type of item in 1994, 2001 and 2011 in the United States. The relevant category "personal portable objects" includes clothing, furs, luggage, briefcases, jewelry, watches, keys and other. Source: Bureau of Justice Statistics, National Crime Victimization Survey, (1993 – 2011).

predetermined concentration of markets potentially interested in buying gold products.

These premises lead to estimate the following OLS equation:

$$y_{i,s,t} = \alpha_i + \gamma_t + X'_{i,s,t}\beta_0 + [\#pawn_{i,t=1997} * gold_prices_t]\beta_2 + \epsilon_{i,s,t}$$

where i indicates the county, s the state and t the year. The coefficient of interest is β_2 , the effect on crime of the interaction between the initial concentration of the number of pawnshops per capita in a county, fixed to the first year of our sample (1997) and the gold price at time t . Standard errors are clustered at the county level.³⁶

A key role is played by the inclusion of year fixed effects, that partial out from the estimate the direct and uniform effect that the rise in gold price might have on the growth of theft crimes in all counties. I include all controls previously employed and also the contemporaneous number of pawnshops. To control for the presence of other possible time-varying confounding factors, I also add the interaction between each control fixed in year 1997 and gold prices.

This specification, not only provides a different angle from which to assess the role of pawnshops on crime, but it also unambiguously addresses the reverse causality concerns discussed earlier.

Gold Prices

My study focuses on the 14 years period from 1997 to 2010. During this period gold prices fluctuated significantly, rising in value by about 37% from 1997 to 2005. From 2006 to 2010, gold prices displayed an impressive increase of almost 200%.³⁷

³⁶ In this specification I omit state trends due to the presence of collinearity with gold prices.

³⁷ I use as unit of measurement the price of gold in US dollars (averaged over the entire year) per troy ounce. Data are freely downloadable from the following website: <http://www.gold.org>.

[Figure 1]

This huge final spike poses some empirical issues, both related to the functional form of gold prices and to the possibility that this final spike might have pushed other types of businesses, such as jewelries and online refineries, to increase (or to start) their demand for gold products. I hence start to address these issues by dividing the following analysis into two periods: 1997-2005 and 2006-2010.

Results

Tables 9 and 10 report the results for both theft-related crimes and other crimes.

[Table 9-10]

The first row shows the effect of the contemporaneous number of pawnshops, while the second row reports the results of the interaction term of interest.

The main effect of pawnshops on crime is strong and highly significant for larceny and burglary in the first 9 years of the sample, while it loses its power in the last five years. In the second part of the panel these coefficients are not precisely estimated. Furthermore, I detect a positive effect of the interaction term only for burglaries for both periods of the sample, of 1.14 and 0.30 both significant at the 10% level. A one standard deviation increase in the initial concentration of pawnshops generates a 0.05 to 0.10 standard deviation increase in the effect of gold price on burglaries. The effect of the interaction term on

larceny is not precisely estimated, especially in the second part of the sample. As in the earlier analysis, I do not detect any effect on all other crimes.³⁸

Copper Thefts and the “Red Gold” Rush

The demand for copper from developing nations has generated an intense international copper trade. According to the FBI, copper thieves exploit this demand and the related spike in international prices by stealing and selling the metal to recyclers across the United States. Copper thieves target electrical substations, cellular towers, telephone landlines, railroads, water wells, construction sites, and vacant homes for lucrative profits.

The concluding analysis performs a further falsification test, exploiting the fact that typically pawnshops do not accept objects made by copper, even if criminals heavily target these. Table 11 shows the results when I include in the specification the interaction between the price of copper and the initial concentration of pawnshops in the county.³⁹

[Table 11]

Adding this further control plausibly generates collinearity between the two interaction terms.⁴⁰ This is likely to reduce the significance of the interaction between gold prices and pawnshops. As expected, I do not detect any positive effect of the initial concentration of pawnshops on the effect of copper prices on burglaries. Interestingly, I instead detect a negative coefficient of 1.8 significant at

³⁸ Table 6 in the Appendix displays the results for burglaries and larcenies of a log-log specification. Results are qualitatively similar to table 14. This time, the interaction term is 2.8 significant at the 10% level for larcenies between 2006-2010. For burglaries the coefficient of interest is 1.90, (with a p-value of 10.7), and 2.13, significant at the 10% level. Robustness checks for this specification are shown in table 7 of the Appendix.

³⁹ Data on historical copper price is obtained from the U.S. geological survey at: <http://www.usgs.gov/>

⁴⁰ The correlation between the price of gold and copper is 0.84.

the 1% level in the second part of the sample. While I do not want to overemphasize this result, I consider the substitutability across markets for stolen goods, due to oscillation in world prices, as an interesting venue for future research.

V. Concluding Remarks

This paper offers one of the first systematic empirical investigations of the effect of stolen goods markets on criminal behavior. Motivated by the richness of anecdotal evidence, I look at this issue through the lens of pawnshops, a business that has long been suspected of being involved in illicit trade. I address the endogeneity of pawnshops to crime in multiple ways.

I first exploit the panel properties of the unique dataset constructed for the analysis. Results confirm that the number of pawnshops in a county is a strong and significant predictor of larcenies and burglaries. The findings are robust to extensive robustness and falsification checks. I also detect the presence of geographical spillover effects on crime and heterogeneity of the effects related to the population density.

I then exploit an exogenous shift in crimes' expected benefits using the rise in gold prices as a quasi-natural experiment, where the intensity of the treatment is given by the initial concentration of pawnshops in the county. Results still confirm the hypothesis presented in the paper.

This paper suggests new directions for future research. A direct spin off of this work would be the analysis of other markets for stolen goods, such as flea markets, junkyards or online web sites such as EBay or Craigslist. Moreover, entering the "black box" of the mechanism that links demand and supply of crime is critical for the understanding of criminal behavior. Two mechanisms might in fact play an important role in this context. On the one hand, the increase in the

size of stolen goods' markets might increase crime by reducing the criminal expected probability of being arrested (negative deterrence effect). On the other hand, the increase in the level of competition in the resale market might push up prices, raising the expected resale value of the stolen item (price effect). Disentangling these two channels might help to shape specific policy interventions that seek to reduce the impact that the proliferation of stolen goods markets can have on criminal behavior. This and other interesting aspects are left for future research.

REFERENCES

1. Altonji, Joseph G., Todd E. Elder, and Christopher R. Taber. "Selection on Observed and Unobserved Variables: Assessing the Effectiveness of Catholic Schools." *Journal of Political Economy* 113.1 (2005): 151.
2. Avery, Robert B., and Katherine A. Samolyk. "Payday loans versus pawnshops: The effects of loan fee limits on household use." *Federal Reserve System Research Conference, Arlington, Virginia*. 2011.
3. Bayer, Patrick, Randi Hjalmarsson, and David Pozen. "Building Criminal Capital Behind Bars: Peer Effects in in Juvenile Corrections." *Quarterly Journal of Economics*, February 2009, 124 (1).
4. Becker, Gary S. "Crime and Punishment: An Economic Approach." *Journal of Political Economy*, March/April 1968, 76 (2), 169/217.
5. Bianchi, Milo, Paolo Buonanno, and Paolo Pinotti. "Do immigrants cause crime?." *Journal of the European Economic Association* 10.6 (2012): 1318-1347.
6. Bhuller, Manudeep, Havnes, Tarjei , Leuven, Tarjei and Mogstad, Magne. "Broadband Internet: An Information Superhighway to Sex Crime?." *Review of Economic Studies*, 80, 1237-1266, 2013.

7. Case, Anne C. and Lawrence F. Katz. "The Company You Keep: The Effects of Family and Neighborhood on Disadvantaged Youths" NBER Working Paper #3705, 1991.
8. Caskey, John P. "Fringe banking and the rise of payday lending." *Credit markets for the poor*, 17 (2005): 18-19.
9. Chalfin, Aaron, and Justin McCrary. *The effect of police on crime: New evidence from US cities, 1960-2010*. No. w18815. National Bureau of Economic Research, 2013.
10. Comeau, Michelle, Klofas, John. "Analysis of 2011 Rochester City Pawn Shop Transactions: The Year in Review." Center for Public Safety Initiatives, Working Paper, 2012.
11. Dahl, Gordon, and Stefano DellaVigna. "Does movie violence increase violent crime?." *The Quarterly Journal of Economics* 124.2 (2009): 677-734.
12. Di Tella, Rafael and Ernesto Schargrotsky. "Do Police Reduce Crime? Estimates Using the Allocation of Police Forces After a Terrorist Attack." *American Economic Review*, March 2004, 94 (1), 115-133.
13. Donohue, John J., III and Steven J. Levitt. "The Impact of Legalized Abortion on Crime." *Quarterly Journal of Economics*, May 2001, 116 (2), 379-420.
14. Draca, Mirko, Stephen Machin, and Robert Witt. "Panic on the streets of London: Police, crime, and the July 2005 terror attacks." *The American Economic Review* 101.5 (2011): 2157-2181.
15. Draca, Mirko, Stephen Machin, and Theodore Koutmeridis "The Changing Returns to Crime: Do Criminals Respond to Changes in Consumer and Commodity Prices?." working paper, 2014.

16. Drago, Francesco, Roberto Galbiati, and Pietro Vertova. "The Deterrent Effects of Prison: Evidence from a Natural Experiment." *Journal of Political Economy*, 2009, 117 (2), 257-280.
17. Eeckhout, Jan, Nicola Persico, and Petra E. Todd. "A theory of optimal random crackdowns." *The American Economic Review* 100.3 (2010): 1104-1135.
18. Fass, Simon M., and Janice Francis. "Where have all the hot goods gone? The role of pawnshops." *Journal of Research in Crime and Delinquency* 41.2 (2004): 156-179.
19. Fellowes, Matthew, and Mia Mabanta. *Banking on wealth: America's new retail banking infrastructure and its wealth-building potential*. Brookings Institution, 2008.
20. Fitzgerald, Jacqueline, and Suzanne Poynton. "The changing nature of objects stolen in household burglaries." *Crime and Justice Statistics: Bureau Brief* 62 (2011): 1-12.
21. Florida Committee on Criminal Justice. 2000. "A Review of Florida's Pawn broking Law." The Florida Senate, Committee on Criminal Justice (Interim Project Report 2000-26). Washington DC: Government Printing Office.
22. Gaviria, Alejandro and Steven Raphael. "School-Based Peer Effects and Juvenile Behavior." *Review of Economics and Statistics*, May 2001, 83 (2), 257-268
23. Glaeser, Edward L. and Bruce Sacerdote. "Why is There More Crime in Cities?." *Journal of Political Economy*, December 1999, 107 (2, Part 2), S225-S258
24. Glaeser, Edward, Bruce Sacerdote and Jose A. Scheinkman. "Crime and Social Interactions." *Quarterly Journal of Economics*, May 1996, 111 (2), 507-548.

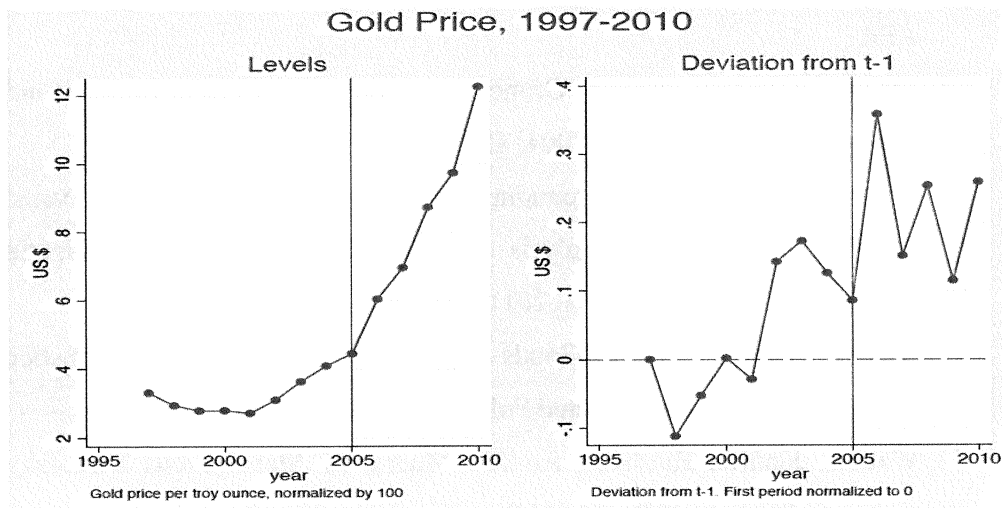
25. Glover, S. and E. Larrubia. 1996, November 24. "A System in Hock: Quick Cash with Few Questions." *South Florida Sun-Sentinel*, p. 22A.
26. Grogger, Jeff. "The Effect of Arrests on the Employment and Earnings of Young Men." *Quarterly Journal of Economics*, February 1995, 110 (1), 51-72.
27. Grogger, Jeff. "Market Wages and Youth Crime." *Journal of Labor Economics*, October 1998, 16 (4), 756-791.
28. Hammond, B. 1997, December 3. "Pawnshops Link Addicts and Crime." *The Oregonian*, p. 5A.
29. Helland, Eric and Alex Tabarrok. "Does Three Strikes Deter: A Non-Parametric Investigation." *Journal of Human Resources*, Spring 2007, 42 (2), 309-330.
30. Jacob, Brian A. and Lars Lefgren. "Are Idle Hands the Devil's Workshop? Incapacitation, Concentration and Juvenile Crime." *American Economic Review*, December 2003, 93 (5), 1560-1577.
31. Katz, Lawrence F., Steven D. Levitt, and Ellen Shustorovich. "Prison Conditions, Capital Punishment and Deterrence." *American Law and Economics Review*, Fall 2003, 5 (2), 318-343.
32. Klick, Jonathan and Alexander Tabarrok. "Using Terror Alert Levels to Estimate the Effect of Police on Crime." *Journal of Law and Economics*, April 2005, 48.
33. Kling, Jeffrey R. "Incarceration Length, Employment, and Earnings" *American Economic Review*, June 2006, 96 (3), 863-876.
34. Kling, Jeffrey, Jens Ludwig, and Lawrence F. Katz. "Neighborhood Effects on Crime for Female and Male Youth: Evidence from a Randomized Housing Voucher Experiment." *Quarterly Journal of Economics*, February 2005, 120 (1), 87-130.

35. Kuziemko, Ilyana. "Going off parole: How the elimination of discretionary prison release affects the social cost of crime." No. W13380. National Bureau of Economic Research, 2007.
36. Lee, David S. and Justin McCrary. "Crime, Punishment, and Myopia." NBER Working Paper # 11491, July 2005.
37. Levitt, Steven D. "The Effect of Prison Population Size on Crime Rates: Evidence from Prison Overcrowding Litigation." *Quarterly Journal of Economics*, May 1996, 111 (2), 319-351.
38. Levitt, Steven D. "Using Electoral Cycles in Police Hiring to Estimate the Effect of Police on Crime." *American Economic Review*, June 1997, 87 (3), 270-290.
39. Levitt, Steven D. "Juvenile Crime and Punishment." *Journal of Political Economy*, December 1998, 106 (6), 1156-1185.
40. Levitt, Steven D. "Understanding Why Crime Fell in the 1990s: Four Factors that Explain the Decline and Six that Do Not." *Journal of Economic Perspectives*, Winter 2004, 18 (1), 163-190.
41. Lochner, Lance and Enrico Moretti. "The Effect of Education on Crime: Evidence from Prison Inmates, Arrests, and Self-Reports." *American Economic Review*, March 2004, 94 (1), 155-189.
42. Miles, Thomas J. "Markets for Stolen Property: Pawnshops and Crime." (unpublished dissertation chapter), 2007.
43. Nunn, Nathan and Leonard Wantchekon. "The Slave Trade and the Origins of Mistrust in Africa." *American Economic Review*, 2012, 101 (7), 3221 - 52.
44. Paige, Skiba , Marieke Bos, and Susan Carter. "The Pawn Industry and Its Customers: The United States and Europe." *Vanderbilt Law and Economics Research Paper*, 12-26 (2012).

45. Polinsky, A. Mitchell and Steven Shavell. "The Economic Theory of Public Enforcement of Law." *Journal of Economic Literature*, March 2000, 38 (1), 45-76.
46. Raphael, Steven and Rudolf Winter-Ebmer. "Identifying the Effect of Unemployment on Crime." *Journal of Law and Economics*, April 2001, 44 (1), 259-284.
47. Scott, D. 1992, June 26. "Pawnshops Multiply Despite Seedy Image: Big Chains Gobble Mom and Pops, Spawn Industry Transformation." *Dallas Business Journal*, pp. 1, 54-55.
48. Shackman, Joshua D., and Glen Tenney. "The Effects of Government Regulations on the Supply of Pawn Loans: Evidence from 51 Jurisdictions in the US." *Journal of Financial Services Research* 30.1 (2006): 69-91.
APA
49. Silverman, Dan, "Street Crime and Street Culture." *International Economic Review*, August 2004, 45 (3), 761-786.
50. Sorensen, David WM. "Rounding up Suspects in the Rise of Danish Burglary: A Statistical Analysis of the 2008/09 Increase in Residential Break-ins." Justitsministeriet, 2011.
51. Sutton, Michael. "Stolen Goods Markets." US Department of Justice, Office of Community Oriented Policing Services, 2010.
52. Walters, Jennifer Hardison, Andrew Moore, M. Stat, Marcus Berzofsky, and Lynn Langton. "Household Burglary, 1994-2011."
53. Warner, Bill. "No Questions Asked: Sarasota Pawn Shop Businesses Charged in Sting Operation, Black-Market Fencing Easy Cash For Burglars & Armed Robbers." April 25, 2011.
54. Wellsmith, Melanie, and Amy Burrell. "The Influence of Purchase Price and Ownership Levels on Theft Targets The Example of Domestic Burglary." *British Journal of Criminology* 45.5 (2005): 741-764.

55. Western, Bruce, Jeffrey R. Kling, and David F. Weiman. "The labor market consequences of incarceration." *Crime & delinquency* 47.3 (2001): 410-427.
56. Wheat, W. J. 1998. "A Study on the Status of the Pawnbrokers Industry in the State of Oklahoma." *Consumer Finance Law Quarterly Report* 52:87-92.
57. Wright, Richard T. and Scott H. Decker. 1994. "Burglars on the Job: Street life and Residential Break-ins." Boston: Northeastern University Press.

FIGURE 1 – GOLD PRICES



Notes: Figure 1 shows the evolution of gold prices, from 1997 to 2010, both in levels (right hand side) and in percentage deviations from $t-1$. I use as unit of measurement the normalized price of gold in US dollars (averaged over the entire year) per troy ounce.

TABLE I - DESCRIPTIVE STATISTICS (PAWNSHOPS AND CRIMES)

	(1) <i>Observations</i>	(2) <i>Mean</i>	(3) <i>Standard Deviation</i>
<i>Pawnshops</i>	28,430	5.88	6.32
<i>Larcenies</i>	28,430	1.840	1.046
<i>Burglaries</i>	28,430	654.2	394.7
<i>Robberies</i>	28,430	52.74	73.96
<i>Motor/Vehicle Thefts</i>	28,430	190.4	180.0
<i>Murders</i>	28,430	3.86	5.43
<i>Rapes</i>	28,430	27.28	22.44
<i>Assaults</i>	28,430	237.2	203.2
<i>Arsons</i>	28,430	18.13	20.81

Notes: Variables standardized per 100,000 people.

TABLE 2 – THEFT-RELATED CRIMES (POOLED) VS OTHER CRIMES (POOLED)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
		Theft-Related Crimes (Pooled)					Other Crimes (Pooled)				
<i>Pawnshops</i>	18.28*** (5.540)	16.74*** (5.472)	26.85*** (6.776)	6.475*** (2.134)	6.070*** (2.167)	3.119*** (0.668)	3.002*** (0.663)	2.440*** (0.626)	0.00386 (0.493)	0.0562 (0.493)	
<i>Observations</i>	28,430	28,430	28,430	28,430	27,466	28,430	28,430	28,430	28,430	27,466	
<i>YEAR FE</i>	NO	YES	YES	YES	YES	NO	YES	YES	YES	YES	
<i>State TRENDS</i>	NO	NO	YES	YES	YES	NO	NO	YES	YES	YES	
<i>COUNTY FE</i>	NO	NO	NO	YES	YES	NO	NO	NO	YES	YES	
<i>County</i>	NONE	NONE	NONE	NONE	ALL	NONE	NONE	NONE	NONE	ALL	
<i>Observables</i>											

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. The number of pawnshops and reported crimes are expressed in per capita terms. The unit of analysis is the county. Theft Crimes include: larcenies, robberies, burglaries and motor-vehicle thefts. Other crimes include: murders, rapes, aggravated assaults and arsons. The table shows the evolution of the coefficients when fixed effects and controls are included. The most complete specification (with county FE, year FE, State linear trends and all county observables is shown in column 5 for all theft-related crimes and in column 10 for all the other crimes. County observables include percentages of: Whites Hispanics, Blacks not Hispanics, Whites not Hispanics, Blacks Hispanics, Asians Hispanics, Asians not Hispanics, American Indians Hispanics, American Indians not Hispanics. I also include income per capita, percentage of people below the poverty line, percentage of unemployment, the number of social security recipients, the average monthly payment per subsidy, the number of commercial banks and saving institutions, the number of banking and saving deposits, the number of sworn police officers and civilian employees, the population density. Finally, I add data on arrests for sale and possession of drugs (opium/cocaine, marijuana, synthetic drugs and other dangerous non narcotics) and gambling (bookmaking horse and sports, numbers and lotteries and all other illegal gambling).

TABLE 3 - BREAKDOWN BY TYPE OF CRIME

	Larcenies	Burglaries	Robberies	M-V Thefts	Murders	Rapes	Assaults	Arsons
Pawnshops per capita	4.572*** (1.675)	1.518** (0.652)	-0.0249 (0.0580)	0.00530 (0.172)	0.0160 (0.0196)	0.0251 (0.0523)	-0.0409 (0.469)	0.0560 (0.0413)
Observations	27,466	27,466	27,466	27,466	27,466	27,466	27,466	27,466
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
State Trends	YES	YES	YES	YES	YES	YES	YES	YES
County FE	YES	YES	YES	YES	YES	YES	YES	YES
County Observables	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. The table shows the results from 8 different regressions, one for each type of reported crime. All the specifications include county FE, year FE, state trends and all county observables. County observables include percentages of: Whites Hispanics, Whites not Hispanics, Blacks Hispanics, Blacks not Hispanics, Asians Hispanics, Asians not Hispanics, American Indians Hispanics, American Indians not Hispanics. I also include income per capita, percentage of people below the poverty line, percentage of unemployment, the number of social security recipients, the average monthly payment per subsidy, the number of commercial banks and saving institutions, the number of banking and saving deposits, the number of sworn police officers and civilian employees, the population density. Finally, I add data on arrests for sale and possession of drugs (opium/cocaine, marijuana, synthetic drugs and other dangerous non narcotics) and gambling (bookmaking horse and sports, numbers and lotteries and all other illegal gambling).

TABLE 4 - ROBUSTNESS CHECKS

	(1)	(2)	(3)	(4)	(5)
	Panel A - Larcenies				
Pawnshops per capita	4.57** (2.1)	4.57*** (1.59)	4.37*** (1.569)	4.94*** (1.761)	4.53*** (1.68)
	Panel B - Burglaries				
Pawnshops per capita	1.51** (0.65)	1.51** (0.73)	1.48** (0.62)	1.6** (0.68)	1.51** (0.65)

<i>Year FE</i>	YES	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES	YES
<i>County Observables</i>	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Panel A shows the robustness checks when the outcome variable is larceny, while panel B is related to burglary. Column 1 shows the results when I cluster at the state level, while in column 2 I cluster at the county/year level. In column 3 I perform a weighted regression using as weight the FBI coverage indicator. In column 4 I eliminate from the sample the counties in the top 1% of the pawnshops' per capita distribution. In column 5 I eliminate from the sample the counties in the top 1% of the population distribution.

TABLE 5 - HETEROGENEITY IN THE RESULTS: DENSITY

	(1) Larcenies		(2)		(3)		(4) Burglaries		(5)		(6) Robberies		(7) M/V Thefts		(8)		
	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low	High	
<i>Pawnshops per capita</i>	3.36*	10.4***	1.32*	2.77**	-0.05	0.11	0.09	-0.0657									
	(1.97)	(3.7)	(0.74)	(1.34)	(0.0597)	(0.163)	(0.198)	(0.467)									
<i>Observations</i>	13,788	13,678	13,788	13,678	13,788	13,678	13,788	13,678	13,788	13,788	13,788	13,678	13,788	13,678	13,788	13,678	13,678
<i>Year FE</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
<i>Controls</i>	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors clustered at the county level. Each column shows the results from a different regression where the outcome variable is the number of reported crimes (per capita) in the county (Larcenies, Burglaries, Robberies, Motor-Vehicle Thefts). The sample is divided in counties below the median density and above the median density. The density percentiles are computed with respect to the density of the county, averaged for each county in the 14 years of the sample (1997 - 2010). All the specifications include all the fixed effects used in the analysis and all the county observables.

Table 6 - GEOGRAPHICAL SPILLOVERS

	(1) Larcenies	(2) Burglaries	(3) Robberies	(4) M/V Thefts
Pawnshops (Same County)	4.53*** (1.66)	1.49** (0.65)	-0.026 (0.0588)	0.000 (0.17)
Pawnshops (Bordering Counties)	0.25 (2.3)	0.76 (0.99)	0.16 (0.11)	0.36 (0.33)
Pawnshops (State Level)	21.61* (12.01)	15.2*** (4.3)	0.94* (0.54)	2.39 (1.90)
Observations	27,450	27,450	27,450	27,450
Year FE	YES	YES	YES	YES
State Trends	YES	YES	YES	YES
County FE	YES	YES	YES	YES
Controls	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. Each column shows the results from a different regression where the outcome variable is the number of reported crimes (per capita) in the county. In each regression we include: the number of pawnshops in the county (first row), the number of pawnshops in the bordering counties (second row) and the number of pawnshops in the state (third row). The number of pawnshops in bordering counties and at the state level does not contain the number of pawnshops in the county where crime is measured.

TABLE 7 - COLLATERAL BY CATEGORY (CARTER AND SKIBA, 2012)

Category	Number of Observations	Percentage of Observations	Average Loan Amount	Standard Deviation
Jewelry	199,288	49.98%	\$96.28	105.02
TVs/Electronics	126,297	31.68%	\$58.80	62.34
Tools/Equipment	31,600	7.93%	\$50.18	60.67
Household Items	10532	2.65%	\$42.92	44.7
Missing	7,833	1.96%	\$63.75	72.54
Guns	7,734	1.94%	\$146.97	98.75
Instruments	7,700	1.93%	\$116.92	104.66
Camera/Equipment	4,052	1.02%	\$75.85	77.87
Miscellaneous	3,666	0.92%	\$51.50	62.46

Table 11 reports the number of loans for each collateral category, the percentage of observations, and the average amount and standard deviation of the items pawned for each category. All amounts are in 2002 dollars. The sample of observations is from a pawnshop lender in Texas between 1997 and 2002, (Carter and Skiba, 2012).

TABLE 8 - ITEMS STOLEN DURING BURGLARIES - (BURREL AND WELLSMITH, 2010)

<i>Cash</i>	40%	<i>Documents</i>	5%
<i>Jewelry</i>	31%	<i>Ornaments</i>	5%
<i>Audio</i>	25%	<i>Food</i>	5%
<i>VCR</i>	17%	<i>Tools</i>	5%
<i>TV</i>	17%	<i>Furniture</i>	3%
<i>Personal</i>	12%	<i>Cigarettes</i>	3%
<i>Telecom</i>	12%	<i>Vehicles</i>	2%
<i>Computer</i>	11%	<i>Cycle</i>	2%
<i>Photographic</i>	11%	<i>DVD</i>	2%
<i>Games</i>	10%	<i>Building</i>	1%
<i>Purse</i>	10%	<i>Garden</i>	1%
<i>Cards</i>	10%	<i>Digital</i>	0%
<i>Luggage</i>	9%	<i>Sports</i>	0%
<i>Clothing</i>	9%	<i>Antiques</i>	0%
<i>Domestic</i>	7%		
<i>Keys</i>	6%		

This table shows the percentage of the stolen items during burglaries. Police recorded crime data are from the Sanjdwel1 Metropolitan Borough Council area of the West Midlands. The period covered is from 1997 to 2003. Percentage do not sum to 100 due to the stealing of multiple categories.

TABLE 9 - RESPONSE TO GOLD PRICES (THEFT-RELATED CRIMES)

	(1) 1997-2005	(2) Larcenies 2006-2010	(3) Burglaries 1997-2005	(4) Burglaries 2006-2010	(5) Robberies 1997-2005	(6) Robberies 2006-2010	(7) M/V Theft 1997-2005	(8) M/V Theft 2006-2010
Pawnshops per capita	6.17*** (1.77)	1.64 (1.73)	2.13*** (0.80)	0.92 (0.88)	0.9 (0.7)	-0.01 (0.08)	0.30 (0.24)	0.30 (0.26)
Pawnshops (t)*Gold Price (t)	-0.40 (1.5)	0.50 (0.38)	1.10* (0.58)	0.30* (0.16)	0.7 (0.5)	-0.02 (0.02)	-0.03 (0.2)	-0.02 (0.05)
Observations	17,195	10,271	17,195	10,271	17,195	10,271	17,195	10,271
Year FE	YES	YES	YES	YES	YES	YES	YES	YES
County FE	YES	YES	YES	YES	YES	YES	YES	YES
Controls	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL
Controls*Gold Price	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. I split the sample in two periods: 1997-2005 and 2006-2010. This table shows the results related to the contemporaneous number of pawnshops in a county (first row) and the interaction between pawnshops in a county in the year 1997 and gold prices. I also include the interactions between all controls fixed in the year 1997 and the gold price at time t, all controls, county and year fe.

TABLE 10 - RESPONSE TO GOLD PRICE (OTHER CRIMES)

	(1) Murders		(3) Rape		(5) Arson		(7) Assaults		(8)
	1997-2005	2006-2010	1997-2005	2006-2010	1997-2005	2006-2010	1997-2005	2006-2010	
Pawnshops per capita	0.1 (0.2)	-0.00 (0.2)	0.05 (0.06)	-0.00 (0.9)	0.04 (0.05)	0.04 (0.08)	0.06 (0.53)	0.12 (0.55)	
Pawnshops (t)*Gold Price (t)	-0.01 (0.01)	0.50 (0.38)	0.02 (0.04)	0.01 (0.01)	0.7 (0.5)	0.01 (0.01)	0.10 (0.38)	0.05 (0.09)	
Observations	17,195	10,271	17,195	10,271	17,195	10,271	17,195	10,271	
Year FE	YES	YES	YES	YES	YES	YES	YES	YES	
County FE	YES	YES	YES	YES	YES	YES	YES	YES	
Controls	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	
Controls*Gold Price	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL	

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. I split the sample in two periods: 1997-2005 and 2006-2010. This table shows the results related to the contemporaneous number of pawnshops in a county (first row) and the interaction between pawnshops in a county in the year 1997 and gold prices. I also include the interactions between all controls fixed in the year 1997 and the gold price at time t, all controls, county and year fe.

TABLE 11 - FALSIFICATION TEST ON COPPER PRICES

	(1)	(2)
	1997-2005	2006-2010
	Banglades	
<i>Pawnshops (t0)*Gold Prices (t)</i>	1.26 (0.95)	0.20 (0.16)
<i>Pawnshops (t0)*Copper Prices (t)</i>	-0.19 (0.90)	-1.8*** (0.42)
<i>Observations</i>	17,195	10,271
<i>Year FE</i>	YES	YES
<i>County FE</i>	YES	YES
<i>Controls</i>	ALL	ALL
<i>Controls*Gold Price</i>	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. In this specification I include the interaction between gold prices and the number of pawnshops in 1997 (first row) and the interaction between copper prices and the number of pawnshops in 1997 (second row). I split the sample in two periods: 1997-2005 and 2006-2010. I also include the interactions between all controls fixed in the year 1997 and the gold price at time t, all controls, county and year fe.

Data Appendix – For Online Publication Only

Crimes Definition

1. Murder (criminal homicide): The willful (non negligent) killing of one human being by another.
2. Forcible rape: The carnal knowledge of a female forcibly and against her will.
3. Robbery: The taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and/or by putting the victim in fear.
4. Aggravated assault: An unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury. This type of assault usually is accompanied by the use of a weapon or by means likely to produce death or great bodily harm.
5. Burglary: The unlawful entry of a structure to commit a felony or a theft.
6. Larceny: The unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another. Common types of larcenies include shoplifting, pocket picking, purse snatching, theft of objects from motor vehicles, theft of bicycles and theft of items from buildings in which the offender has legal access.
7. Motor vehicle theft: The theft or attempted theft of a motor vehicle.
8. Arson: any willful or malicious burning or attempting to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, etc.

Hierarchy Rule

In some cases, a single incident may have consisted of two distinct offenses. For example, during the course of a robbery, a victim may have been fatally shot. In cases in which multiple offenses are committed by the same offender against the same victim during a given felonious act, the hierarchy rule is employed to determine how the crime is classified. A crime is classified according to the most serious offense committed. Importantly, the hierarchy rule does not apply to the offense of arson. In fact, when arson is involved in a multiple offense situation, the reporting agency must report two part I offenses, the arson as well as the additional part I offense. The preceding list is ranked according to the hierarchy rule.

Data Appendix – For Online Publication Only

Tables

TABLE 1 - DESCRIPTIVE STATISTICS COUNTY OBSERVABLES

	(1) Mean	(2) Standard Deviation
% White – Not Hispanic	0.79	0.18
% White – Hispanic	0.06	0.12
% Black – Hispanic	0.00	0.00
% Black – Not Hispanic	0.10	0.14
% Asian – Hispanic	0.01	0.02
% Asian – Not Hispanic	0.00	0.00
% American Indian – Hispanic	0.00	0.00
% American Indian – Not Hispanic	0.01	0.06
% Unemployment	6.0	2.7
Income per capita	27,365	7,852
People below the poverty line	16,278	53,982
<i>Arrests:</i>		
Sale of Cocaine	29.93	53.48
Sale of Marijuana	31.56	40.35
Sale of Synthetics	11.30	29.65
Sale of Others	17.31	41.73
Possession of Cocaine	60.31	82.60
Possession of Marijuana	227.7	206.0
Possession of Synthetics	24.90	47.00
Possession of Others	48.31	80.48
Bookmaking	0.169	3.6
Numbers	0.103	1.30
Other types of gambling	1.703	13.26
Number of banks and savings institutions	39.82	17.73
Poverty standardized	0.146	0.06
Social Security recipients	20,488	47,166
Total enforcement	94.98	52.53
Density	318.5	2,019

TABLE 2 - Crimes Breakdown - Log/Log Specification

	(1) <i>Larcenies</i>	(2) <i>Burglaries</i>	(3) <i>Robberies</i>	(4) <i>M-V Thefts</i>	(5) <i>Murders</i>	(6) <i>Rapes</i>	(7) <i>Assaults</i>	(8) <i>Arsons</i>
<i>Pawnshops per capita</i>	1.487** (0.714)	0.828** (0.400)	-0.0267 (0.0539)	0.00484 (0.138)	0.0152 (0.0193)	-0.0163 (0.330)	0.0288 (0.0490)	0.0528 (0.0399)
<i>Observations</i>	27,466	27,466	27,466	27,466	27,466	27,466	27,466	27,466
<i>Adjusted R-squared</i>	0.829	0.792	0.916	0.849	0.287	0.747	0.548	0.522
<i>Year FE</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES	YES	YES	YES
<i>Controls</i>	ALL	ALL	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. The table shows the results from 8 different regressions, one for each type of reported crime. All the specifications include county FE, year FE, state trends and all controls. Variables of interest are computed as ln(0.01 + x), where x is the percapita value of the variable.

TABLE 3 - Pawnshops' lagged structure

	(1)	(2) <i>Larcenies</i>	(3)	(1)	(2) <i>Burglaries</i>	(3)
<i>Pawnshops per capita</i>	4.57*** (1.67)	2.96** (1.38)	2.58* (1.330)	1.51** (0.65)	0.31 (0.55)	0.13 (0.520)
<i>Pawnshops per capita (T-1)</i>		1.38 (1.62)	0.044 (1.318)	1.24* (0.67)	0.46 (0.565)	

<i>Pawnshops per capita (T-2)</i>						
				2.07 (1.39)		0.87 (0.63)
<i>Year FE</i>	YES	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES	YES
<i>Controls</i>	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. All the standard errors are clustered at the county level. In both columns 1, both for larcenies and burglaries, we show the baseline specification with the contemporaneous number of pawnshops. In columns 2 we add the number of pawnshops per capita, at t-1. Finally, in columns 3 we include the number of pawnshops per capita at t-1.

TABLES 4 - Crimes' lagged structure (Pawnshops as A dependent variable)

	(1)	(2)	(3)	(4)	(5)	(6)
	<i>Larcenies</i>			<i>Burglaries</i>		
<i>Contemporaneous Crime</i>	0.25*** (0.9)	0.12 (0.08)	0.11 (1.330)	0.46** (0.20)	0.18 (0.17)	0.09 (0.18)
<i>Crime (T-1)</i>		0.17** (0.08)	0.10* (1.318)		0.29* (0.17)	0.21 (0.15)
<i>Crime (T-2)</i>			0.11 (1.39)			0.11 (0.17)
<i>Year FE</i>	YES	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES	YES
<i>Controls</i>	ALL	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. The outcome variable is the number of pawnshops per capita in the county at time t. In the first three columns the main regressor is the number of larcenies. In the last three columns the coefficient of interest is the number of burglaries.

Table 5 - Items taken during completed household burglaries, by type of item

	1994		2001		2011	
	Number	Per cent	Number	Per cent	Number	Per cent
<i>Total completed burglaries</i>	5,261,200		3,067,800		2,845,500	
<i>Cash/checks, credit/bank cards, purses/wallets</i>	786,600	15	553,200	18	482,200	16.9
<i>Motor vehicles</i>	33,400	0.6	33,400	1.1	38,600	1.4
<i>Motor vehicle parts/accessories, gasoline/oil</i>	217,300	4.1	130,800	4.3	128,500	4.5
<i>Bicycles or parts, toys, recreation/sport equipment</i>	698,600	13.3	382,700	12.5	246,500	8.7
<i>Household appliances/portable electronics</i>	1,433,900	27.3	844,400	27.5	978,700	34.4
<i>Household furnishings/collections</i>	359,000	6.8	225,300	7.3	179,100	6.3
<i>Personal portable objects</i>	1,482,600	28.2	905,400	29.5	885,200	31.1
<i>Firearms</i>	161,000	3.1	116,500	3.8	81,900	2.9
<i>Tools/miscellaneous equipment</i>	776,500	14.8	448,200	14.6	462,100	16.2
<i>Farm/garden produce, food/liquor</i>	272,900	5.2	169,700	5.5	129,200	4.5
<i>Animals</i>	21,700	0.4	2,800	0.1	3,500	0.1
<i>Other</i>	322,300	6.1	173,500	5.7	86,000	3
<i>Unknown</i>	11,000	0.2	7,400	0.2	7,300	0.3

Notes: This table shows the percentage of the stolen items during burglaries, by type of item in 1994, 2001 and 2011. Personal portable objects include clothing, furs, luggage, briefcases, jewelry, watches, keys and other. Source: Bureau of Justice Statistics, National Crime Victimization Survey, 1993 – 2011.

Table 6 – Responses to Gold Prices – Logarithmic specification

	(1)	(2)	(3)	(4)
<i>Pawnshops per capita</i>				
	2.14*** (0.73)	0.55 (0.79)	1.11** (0.48)	0.57 (0.54)
<i>Pawnshops (t0)*Gold Price (t)</i>				
	-1.3 (2.02)	2.8* (1.55)	1.8 (1.17)	2.13** (0.91)
<i>Observations</i>	17,195	10,271	17,195	10,271
<i>Year FE</i>	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES
<i>Controls</i>	ALL	ALL	ALL	ALL
<i>Controls*Gold Price</i>	ALL	ALL	ALL	ALL

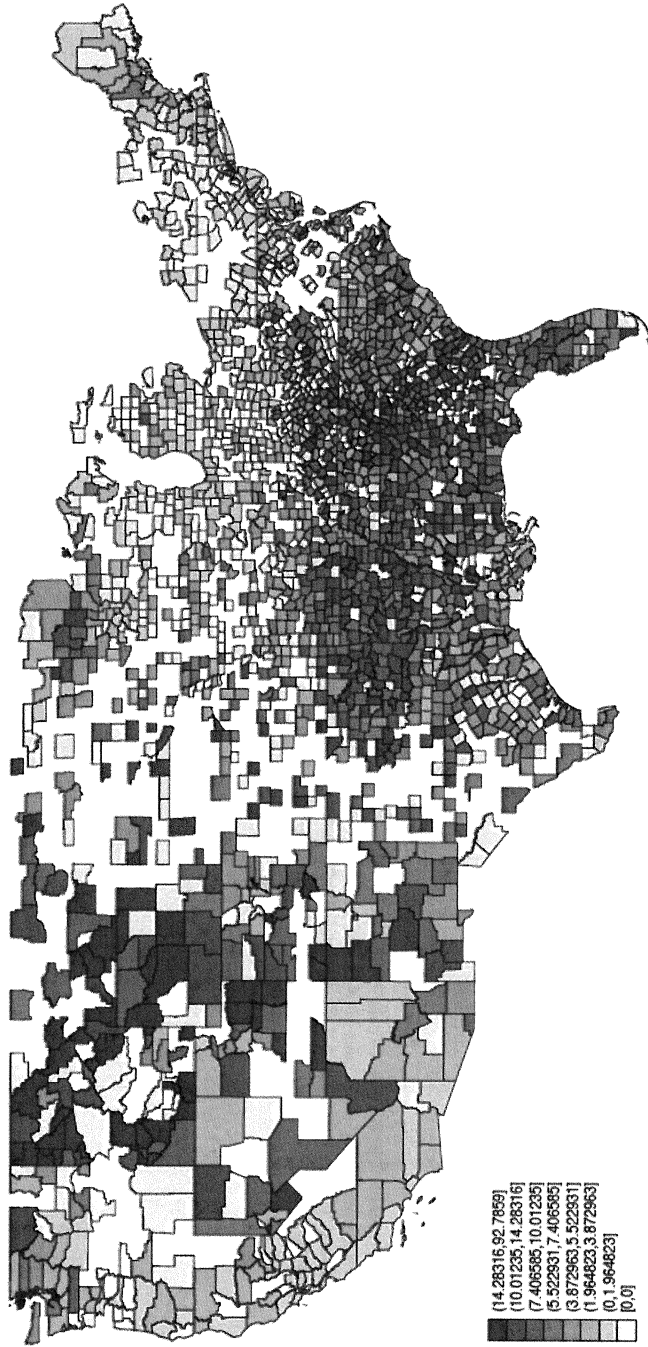
Notes: *** p<0.01, ** p<0.05, * p<0.1. Standard errors are clustered at the county level. This table shows the results of the log log specification. Larceny, burglary and pawnshops per capita are computed as $\ln(0.01 + x)$, where x is the percapita value of the variable. The interaction term is computed as $\ln(0.01 + \text{pawnshops}(t0)) * \ln(\text{gold Price})$. Results are qualitatively identical if we take the log of the interaction term

Table 7 - Robustness Checks

	(1)	(2)	(3)	(4)	(5)
		<i>Panel A - Burglaries (1997-2005)</i>			
<i>Pawnshops(t0)*Gold</i>	1.10 (0.65)	1.10 (0.70)	1.18** (0.58)	1.29** (0.65)	1.09* (0.58)
		<i>Panel B - Burglaries (2006-2010)</i>			
<i>Pawnshops(t0)*Gold</i>	0.30 (0.18)	0.30 (0.19)	0.28* (0.15)	0.27 (0.18)	0.29* (0.16)
<i>Year FE</i>	YES	YES	YES	YES	YES
<i>State Trends</i>	YES	YES	YES	YES	YES
<i>County FE</i>	YES	YES	YES	YES	YES
<i>County Observables</i>	ALL	ALL	ALL	ALL	ALL

Notes: *** p<0.01, ** p<0.05, * p<0.1. Panel A shows the results for burglaries, from 1997 – 2005. Panel B shows the results for burglaries from 2006-2010. Column 1 shows the results when we cluster at the state level, while in column 2 we cluster at the county/year level. In column 3 we perform a weighted regression using as weight the FBI coverage indicator. In column 4 we eliminate from the sample the counties in the top 1% of the pawnshops' per capita distribution. In column 5 we eliminate from the sample the counties in the top 1% of the population distribution

Number of Pawnshops United States of America, 1997



Number of pawnshops per 100,000 people. The state of Alaska and Hawaii - while being in the sample of analysis - are eliminated for illustrative purposes only.

From: Clark Park [REDACTED]
Subject: **No Guns and Pawn on Broadway**
Date: March 8, 2016 4:46:54 PM MST
To: councilcommunicator@tempe.gov
Bcc: alexotto [REDACTED]

Dear Mayor and Council:

Our adjacent neighborhoods have spent countless volunteer hours, personal resources and efforts to make a difference in this neighborhood. Over the past few years we have taken a problem known as Clark Park Pool and turned it into asset for the neighborhood and the City of Tempe. Our efforts are making an impact on the dynamics and use of the park, in general, and providing an amenity that will help our property values.

Approval of the Pawn and Gun store leading into our neighborhood is a slap in the face to our efforts, let alone the negative impact it will have on our property values. Personally, my home is finally worth what it was in 2005 and we are still swimming upstream in this particular part of Tempe as it relates to home ownership and pride of ownership.

Unfortunately, there do not seem to be any separation requirements for a gun store in Tempe, but one would hope directly across the street from a daycare facility would have some bearing.

Lastly, as we have spoken with Tempe PD in recent neighborhood meetings, along with data from RAIDS Online, there has been a recent influx in the amount of break-ins and attempted break-ins in the area. Regardless of the policies of the shop owner of not accepting stolen goods, the criminals don't know that before they steal. Having a perceived, convenient outlet for stolen goods will not help our neighborhood. We can send applicable links to studies supporting the negative effects of pawn shops and neighborhoods if that will be helpful.

We are now in the process of appealing the hearing officer's decision to approve a use permit for Rte. 66 Pawn and Gun. We strongly urge that the voice of the neighborhood has weight in your consideration, should this make it to City Council.

Sincerely,
Barbara Lloyd

[REDACTED]
Tempe, AZ 85281

From: Valerie Ramos [REDACTED]
Subject: **opposition to pawn/gun shop on Hardy & Broadway**
Date: March 9, 2016 10:05:42 PM MST
To: councilcommunicator@tempe.gov
Cc: Alexander Otto <[REDACTED]>, Barbara Lloyd <[REDACTED]>, Ken P <[REDACTED]>, Sarah Bennett <[REDACTED]>

Dear Mayor and Council members:

I'm writing today to express my strong opposition to the pawn/gun shop on Hardy and Broadway.

As the Marilyn Ann neighborhood co-chair for the last three years, I have been keenly aware of the challenges our neighborhood faces, and have had the opportunity to work firsthand with neighbors and the city to make our neighborhood a great place to live. Together we have revitalized a decommissioned pool and turned it into a thriving community hub. We have sought and been awarded funds to beautify our Clark Park, and we have worked with the police to develop a plan to reduce illicit activity in the park by adding the Clark Park Bark Park, slated to open in the next couple months. And this past October we opened the Clark Park Farmers Market, which now sees hundreds of Tempe residents each week. I am proud to have helped in the efforts to reduce crime and promote community--I truly love Tempe--and hope to continue to make strides.

The proposed pawn/gun shop would be a step in wrong direction and its effects are already being felt. Just last week, a good friend and neighborhood leader, Barbara Lloyd, who's volunteer leadership is critical to the success of the farmers market, began investigating the process for selling her home. The approval of the use permit "was the straw that broke the camel's back" as she put it. This is the kind of person who our neighborhood so desperately needs as we work to make it better. But this is also the kind of person who the pawn/gun shop will repel. I can say with certainty that I would not have bought my house had this store been open when I made the purchase. I'm expecting the arrival of my second child any day now and would hate to leave a neighborhood I love and raise my boys elsewhere, as a pawn/gun shop in the neighborhood will indeed deteriorate the neighborhood and reduce property value.

In the last week, since the use permit was approved, some 100 + neighbors have come together to discuss ways to work together to oppose the pawn/gun shop by signing the petition and joining our dialogue. We have met at the market and garden and are quickly becoming organized. I hope you take their concerns seriously and recognize that this was just within a week's time. We anticipate there are many more uninformed residents who will also oppose such an establishment and intend to voice our concerns if an appeal is granted. We are working with our neighbor Alex Otto to file an appeal this week.

Evidence shows that such a business will increase petty crime and reduce property value. It is antithetical for the city to approve such an establishment in this location while we work so diligently to improve our neighborhood.

Please do right by the residents who care so deeply about their neighborhood and do not allow the pawn/gun shop to open on Broadway and Hardy.

Most Sincerely,

Valerie Ramos
[REDACTED]
Tempe, AZ 85281

From: Harley Swartz [REDACTED]
Subject: Use permit to allow a pawn shop with firearms sales for ROUTE 66 PAWN & GUNS (PL150506) located at 833 West Broadway Road
Date: March 9, 2016 7:06:12 PM MST
To: mark_mitchell@tempe.gov, councilcommunicator@tempe.gov
Cc: Alex Otto <[REDACTED]>

My name is Harley Swartz and I'm a Tempe resident at [REDACTED] Palmdale Drive. I have lived here for roughly 10 years and have lived in Tempe for the last 20 years.

Please do not extend a use permit to ROUTE 66 PAWN & GUNS (PL150506) located at 833 West Broadway Road to allow them to A: operate a Pawn Shop and B. sell firearms

I believe this sort of establishment is clearly defined in the zoning regulations as requiring a special permit to operate in that area. This zoning code has already been thoughtfully created by the zoning board with careful consideration from the local citizenry. I submit that the burden of proof of the extraordinary benefit that this business will provide our neighborhood rests on the Pawn Shop's owner to provide.

Please use this letter as official notification that I do not wish for the City to extend the requested use permit.

Related points:

There is a pre-school operating within 100 yards, literally across the street, from this location. I don't know if Tempe expressly prohibits gun dealing pawn shops from operating within such close proximity to children but I am fairly certain that other municipalities do have such permit restrictions. Perhaps this might be something to think about for the future.

There are already several pawn shops and gun dealers in the Tempe area.
There are already several short short term loan establishments in the Tempe area.

Studies prove that pawn shops contribute to neighborhood deterioration and downgrade property values.

Tempe seems to have a homeless / street person/ petty crime issue at the moment. I won't make the argument that a pawn shop causes any of this but I will express that they don't help alleviate these issues.

I believe that it's good to promote business in Tempe, however, I, and I assume the framers of the Tempe zoning ordinances, believe that it's not helpful, (burden- of- proof- style), to have **that sort** of business in that particular location.

Thank you for your attention to this matter.
Respectfully, Harley Swartz.

From: celia beresford [REDACTED]
Subject: **Oppose Pawn/Gun Shop**
Date: March 8, 2016 10:14:27 AM MST
To: "councilcommunicator@tempe.gov" <councilcommunicator@tempe.gov>, "[REDACTED]" <[REDACTED]>

To Whom It May Concern;

I am writing to strongly oppose the opening of a pawn/gun shop on Broadway and Hardy in Tempe. These types of businesses are not compatible with what we want for our neighborhood. Not only does this type of business lower property values and deteriorate the fabric of our neighborhood, it is also not representative of the values community members embrace. In addition, a gun shop exists on University and Priest. If the pawn/gun shop were to open, there would be two businesses where people have access to firearms. Is this what you would want in your own neighborhood?

Sincerely,
Celia Beresford and Christopher Norby
Wilson Street
Tempe

From: "Lohan, Jennifer" [REDACTED]
Subject: **Pawn/Gun shop appeal**
Date: March 8, 2016 12:52:12 PM MST
To: "councilcommunicator@tempe.gov" <councilcommunicator@tempe.gov>
Cc: "alexotto001@gmail.com" <alexotto001@gmail.com>

Dear Councilmember,

The purpose of this email is to express my opposition to the proposed opening of a pawn and/ or gun shop at Broadway and Hardy in Tempe (85281). This business is not consistent with our neighborhood demographic and will in no way enhance, improve or contribute to our community.

I don't know if special permits are required to sell guns, but if so, I am asking that you do not issue said permitting for this business.

Sincerely,

Jennifer Lohan

NOTICE: This email and any attachments are for the exclusive and confidential use of the intended recipient(s). If you are not an intended recipient, please do not read, distribute, or take action in reliance upon this message. If you have received this in error, please notify me immediately by return email and promptly delete this message and its attachments from your computer.

From: Valerie Ramos [REDACTED]
Subject: **Fwd: Resident opposition of pawn/gun shop**
Date: March 9, 2016 9:03:43 PM MST
To: Alex Otto <alexotto001@gmail.com>

Sent from my iPhone

Begin forwarded message:

From: Sasha Escobedo [REDACTED]
Date: March 9, 2016 at 8:04:48 PM MST
To: "councilcommunicator@tempe.gov" <councilcommunicator@tempe.gov>
Cc: [REDACTED]
Subject: Resident opposition of pawn/gun shop

Hi my name is Sasha and I'm writing to oppose the pawn/gun shop opening on Broadway and Hardy. As a resident of the Marilyn Ann neighborhood, I am concerned that such a business will deteriorate my neighborhood, which has fought so hard to improve in the last couple years. A pawn/gun shop is known to increase petty theft and will diminish all of the strides we have made to make the neighborhood safe for us and our neighbors.

If you have any questions you can contact me at [REDACTED].
Sasha Escobedo
[REDACTED] 7th Pl.
Tempe, AZ 85281

From: Valerie Ramos [REDACTED]
Subject: **Fwd: Pawn/gun shop**
Date: March 9, 2016 9:03:23 PM MST
To: Alex Otto <alexotto001@gmail.com>

Sent from my iPhone

Begin forwarded message:

From: [REDACTED]
Date: March 9, 2016 at 8:49:37 PM MST
To: "councilcommunicator@tempe.gov" <councilcommunicator@tempe.gov>
Cc: Valerie Ramos [REDACTED]
Subject: Pawn/gun shop

I'm writing to oppose the pawn/gun shop opening on Broadway and Hardy. As a resident of the Marilyn Ann neighborhood, I am concerned that such a business will deteriorate my neighborhood, which has fought so hard to improve in the last couple years. A pawn/gun shop is known to increase petty theft and will diminish all of the strides we have made to make the neighborhood safe for us and our neighbors.

Sarah Klepac
[REDACTED] 16th St.
Tempe, AZ 85281

Sent from my iPhone

Jimenez, Lee

From: Reid Johnson [REDACTED]
Sent: Friday, April 01, 2016 12:02 PM
To: Jimenez, Lee
Subject: Tuesday, April 12, 2016 Public Hearing for ROUTE 66 PAWN & GUNS

Hi Lee:

I received a notice for case number PL160083 ROUTE 66 PAWNS & GUNS.

I am a homeowner very close to the proposed location for this business. I would like to be at this meeting, but don't get off work until after the meeting time. Would it be possible to submit my comments in written form as I won't be able to be there in person?

Here are my comments:

I am concerned about the ROUTE 66 PAWN & GUNS request for a use permit for the corner of Hardy & Broadway. Here are my concerns:

1. Suicide among ASU students. I have worked at ASU on a suicide project and seen very closely at-risk students at ASU. Having this type of business this close to ASU would exacerbate the suicide problem twofold. First, it would provide a quick way for students to get their hands on guns. Second, it provides a negative loop of pawnshop loans and fees for students with financial problems (financial stress being a high contributor to suicide).
2. Traffic. I have been witness to serious accidents at Hardy & Broadway. It is a very busy intersection with cars, bikes, pedestrians, high school students, bus routes and big-rig trucks from the industrial areas. It is a very dangerous intersection and the curb cuts for this location are very close to the intersection. It would be a better location for a lower-traffic business.
3. Crime and transient population. Living in this area we constantly deal with a transient population, con artists, car burglaries, etc. (I can tell many scary personal stories - it's not fun) Having a pawn shop so close would only exacerbate these issues.
4. Property Values. Living on the edge of Broadway is tough. The line is very thin between homes, businesses and industrial uses. My street has struggled with drug distribution homes etc. It would be better to revitalize the area than to let it keep declining (more like what Tempe has done with University Dr or Farmer Ave to the north). Adding a Pan & Gun shop would take the area in the opposite direction as far as revitalization and property values.

Best,
Reid Johnson

Jimenez, Lee

From: Larry Djinis <[REDACTED]>
Sent: Tuesday, April 05, 2016 2:16 PM
To: CM - Council Communicator
Cc: Jimenez, Lee
Subject: Neighborhood Concerns about Route 66 Pawn & Guns Store
Attachments: Petition to the City of Tempe - Stop Route 66 Pawn & Guns .pdf; ATT00001.htm

Members of the City Council,

On behalf of the Holdeman and Gilliland neighborhoods, I am writing to share our troubles and concerns in regards to the plans for the *Route 66 Pawn & Gun* store that have been approved for the location at 833 W Broadway Road.

What concerns us the most is the nature of the business of *Route 66 Pawn & Guns*, which sells potentially dangerous firearms, and has an on-site gunsmith “Specializing in AR15’s and 1911’s,” which is prominently displayed on their website. (<http://www.mesapawn.net/gunsmith-phoenix-mesa%20pawn.html>)

Just as importantly, we are deeply concerned about this particular location: being directly across the street, in clear sight, of a pre-school/day care center, *Little Footprints Daycare*. It is also within blocks of a private K-8 school, *The Noor Academy of Arizona*, and less than a mile from *Holdeman Elementary* and *Tempe High School*.

In light of tragic events in recent years that have occurred at schools such as Sandy Hook Elementary, it seems unconscionable to locate a gun shop anywhere in the vicinity of schools, both private and public, with young children in close proximity. The fear of armed intruders in schools is increasingly prevalent in our society, and having a shop that specializes in the selling of semi-automatic weapons within immediate distance of schools sends a confusing signal to students and could certainly spark fears of access to them and their families.

Furthermore, the opening of this shop could have detrimental effects on both nearby businesses and our local neighborhoods. Small businesses rely on customers living in the neighborhoods to frequent their establishment and we believe certain businesses located near this store will be negatively impacted. Moreover, property values in our neighborhoods would likely be negatively impacted due to the image this store would portray for the area. As a local Realtor, I can already attest that several concerned neighbors have contacted me expressing the desire to sell their home and relocate to another part of town in the event this gun store were to open. Conversely, many prospective buyers may refrain from buying a home in this area due to the uncertainty of living so close to a fireman retail store.

In conclusion, we respectfully urge the leaders of our City to exercise concern for the community, and most particularly its youngest and most vulnerable residents, and cease any action that would allow *Route 66 Pawn & Guns* to occupy this space. Please find attached below our petition signed by over fifty residents within the Holdeman and Gililand neighborhoods.

Thank you for your time and attention to this matter. Please don't hesitate to contact me should you have any questions.

Sincerely,

Larry Djinis, Chair
Holdeman & Gililand Neighborhood Association



| "like" us on Facebook:



Petition to City of Tempe

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 MAR 10 2016
 BY: _____



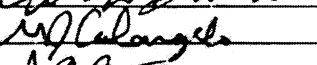
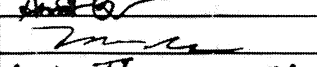
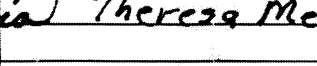

Petition summary and background	We, the undersigned, believe a pawn/gun shop at the corner of Broadway and Hardy in Tempe would add to the deterioration of the neighborhood and the downgrading of property values.
Action petitioned for	We, the undersigned, are concerned citizens who urge our leaders to act now to prevent Route 66 Pawn and Guns from opening a pawn/gun shop at 833 W Broadway Road, Tempe, AZ.

Printed Name	Signature	Address	Date
Larry Djinis	<i>Larry Djinis</i>	938 W. 14th St, Tempe AZ 85281	3/9/16
Karen Stone	<i>Karen Stone</i>	1722 S. Parkside Dr. Tempe AZ 85281	3/9/16
John Stone	<i>John Stone</i>	1722 S Parkside Dr Tempe AZ 85281	3/9/16
Gail Burstein	<i>Gail Burstein</i>	1320 E. Krista Way Tempe AZ 85284	3/9/16
David Whisler	<i>David Whisler</i>	1714 S. Parkside Dr.	3-9-16
Brad Pacheco	<i>Brad Pacheco</i>	170 S. Parkside Dr Tempe AZ 85281	3-9-16
JUDY L. MAHR	<i>Judy L. Mahr</i>	1706 S PARKSIDE DR TEMPE AZ 85281	3-9-16
Robert E. Mahr	<i>Robert E. Mahr</i>	1766 S. Parkside Dr. Tempe AZ 85281	3-9-16
Dillon Smith	<i>Dillon Smith</i>	1705 S. PARKSIDE DR. TEMPE AZ	3-9-16
MARY J. AGEE	<i>Mary J. Agee</i>	1719 S. PARKSIDE DR. 85281	3-9-16
Ethan Fisher	<i>Ethan Fisher</i>	1725 S. Parkside Dr. 85281	3-9-16
Janelle Ramirez	<i>Janelle Ramirez</i>	1727 S Parkside Dr. 85281	3-9-16
Robert W. Huff	<i>Robert W. Huff</i>	915 W 17th St	3-9-16
Jon Williams	<i>Jon Williams</i>	1776 S Hardy Dr 85281	3/9/16
Shawn Root	<i>Shawn Root</i>	1800 S. Hardy Drive 85281	3/9/16
Noshua Mared	<i>Noshua Mared</i>	1806 S Hardy Dr 85281	3/9/16
Michelle Daniels	<i>Michelle Daniels</i>	1812 S. Hardy Dr 85281	3/9/16
Ryan Richard	<i>Ryan Richard</i>	1812 S Hardy Dr, 85281	3/9/16
Ulises Hernandez	<i>Ulises Hernandez</i>	901 W. 19th St Tempe AZ 85281	3/9/16
Yarel Sanchez	<i>Yarel Sanchez</i>	901 W. 19th St 85281	3/9/16
Cafael Sanchez	<i>Cafael Sanchez</i>	1750 S. Price Rd Tempe, AZ 85281	3/9/16
Adriana Delgado	<i>Adriana Delgado</i>	1750 S Price Rd Tempe, AZ 85281	3/9/16
Mar Elena Olvera	<i>Mar Elena Olvera</i>	901 West 19th St Tempe, AZ 85281	3/9/16
ROSEAL MONTEZ	<i>MIRANDA</i>	901. W 19th St TEMPE AZ 85281	030916

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Petition to City of Tempe

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Action petitioned for	We, the undersigned, are concerned citizens who urge our leaders to act now to prevent Route 66 Pawn and Guns from opening a pawn/gun shop at 833 W Broadway Road, Tempe, AZ.

Printed Name	Signature	Address	Date
TEMPLE STARK		1806 S Parkside Drive	3/9/16
P. LARRY STARK		1806 S Parkside Dr	3/9/16
STEVEN JEFFRIES		921 W. 19th St	3/9/16
MICHAEL COLANGELO		929 W 19th St	3/9/16
ANAT BENDIC		929 W 19th St	3/9/16
TOM MCGUIRE		929 W 19th St	3/9/16
Theresa Mejia	Theresa Mejia	1001 W 19th St. Tempe Az 85281	3/9/16

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Printed Name	Signature	Address	Date
Laura Matera	<i>L. Matera</i>	718 W. Brown St Apt B Tempe 85281	3/5/16
Tommy Verdecine	<i>Tommy Verdecine</i>	1462 S Jenkilly Ln Apt 103	3/5/16
Shannon Jenkins	<i>Shannon Jenkins</i>	543 W. 16th St. Tempe 85281	3/05/16
MARIA GIVENS	<i>Maria Givens</i>	809 W 18th St	
Tessa Tally	<i>Tessa Tally</i>	2417 S. PALM DR 85282	✓
JOE DARBY	<i>Joe Darby</i>	2417 S. PALM DR 85282	
Nari Miller	<i>Nari Miller</i>	1222 W Baseline Rd #158, Tempe 85283	3/5/16
Yessica Rodriguez	<i>Yessica Rodriguez</i>	9017 W. Campbell Ave	3/9/16
Dave Tally	<i>Dave Tally</i>	724 E Granada Drive 85281	3/9/16
Nancy Kendall	<i>Nancy Kendall</i>	720 W. 19th St. Tempe 85281	3-9-16
James A. Kendall	<i>James A. Kendall</i>	720 W 19th St Tempe 85281	3/9/2016
Janell Batt	<i>Janell Batt</i>	1421 S. Grandview Dr. Tempe 85281	3/9/2016
ALEX STEINER	<i>Alex Steiner</i>	1200 WEST CALICO ST	3/9/16
Andrew Chaloner	<i>Andrew Chaloner</i>	819 W. Parkway Blvd. Tempe 85281	3/9/16
Maria Mahar	<i>Maria Mahar</i>	1614 S. Hardy Dr. Tempe 85281	3/9/16
RUDY FRANK	<i>Rudy Frank</i>	1732 Simckeney St. Tempe AZ 85281	3/9/16
Christina Reategi	<i>Christina Reategi</i>	802 W 18th St Tempe AZ 85281	3/9/16
Thomas Smith	<i>Thomas Smith</i>	1614 S. Hardy Dr. Tempe AZ 85281	3/9/16
Teresa Robnick	Teresa Robnick	1102 W. 19th St. Tempe AZ 85281	3/9/16
Joe Robnick	<i>Joe Robnick</i>	1102 West 19th St Tempe AZ 85281	3/9/16

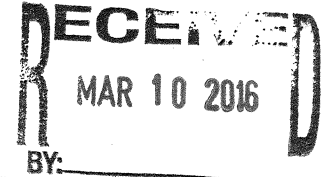
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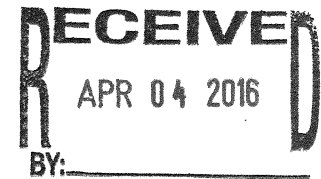
Printed Name	Signature	Address	Date
ERNIE POMEROY	<i>Ernie Pomroy</i>	709 W. 16th STREET, TEMPE, AZ	3/9/2016
DENISE CASSADEI	<i>Denise Cassadei</i>	709 W 16th STREET TEMPE AZ	3/9/2016
LEW HIDINGER	<i>Lew Hidinger</i>	803 W 16th St Tempe AZ 85281	3/9/16
Sarah Klepau	<i>Sarah Klepau</i>	705 W 16th, Tempe AZ 85281	3/9/16
Judith Bennett	<i>Judith Bennett</i>	702 W 16th St. Tempe AZ 85281	3/9/16
GARY BENNETT	<i>Gary Bennett</i>	702 W 16th TEMPE AZ 85281	3/9/16
Greg Lund	<i>Greg Lund</i>	701 W 16th St Tempe, AZ 85281	3/9/16
Julie Bartoni	<i>Julie Bartoni</i>	614 W. 16th St. Tempe, AZ 85281	3/9/16
MICHAEL VALIUM	<i>Michael Valium</i>	614 W 16th St Tempe AZ 85281	3/9/16
Heather Roof	<i>Heather Roof</i>	708 W. 16th St. Tempe, AZ 85281	3.9.16
Scott Roof	<i>Scott Roof</i>	708 W. 16th St. Tempe, AZ 85281	3.9.16
Glenda Shafar	<i>Glenda Shafar</i>	645 W 16th St, Tempe AZ, 85281	3-10-16
Kerry Wheeler	<i>Kerry Wheeler</i>	632 W. 16th St Tempe AZ 85281	3-10-16
Michelle Garner	<i>Michelle Garner</i>	615 W. 16th St Tempe, AZ 85281	3-10-16
Scott Breen	<i>Scott Breen</i>	1604 S. Roosevelt St. Tempe AZ 85281	3/10/16
Leigha Williams	<i>Leigha Williams</i>	1604 S. ROOSEVELT ST. TEMPE AZ 85281	3/10/16
Judith ASARO	<i>Judith Asaro</i>	618 W 15th St Tempe AZ 85281	3/10/16
JOC MEDIGUARI	<i>Joc Mediguari</i>	715 W 16th St. Tempe AZ 85281	3-10-16

Petition to City of Tempe



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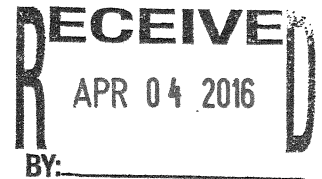
Printed Name	Signature	Address	Date
Valerie Ramos		822 W 18th St, Tempe AZ 85281	3/5/16
David Felix		8249 E. Hobbit Scottsdale AZ 85257	3/5/16
Suz Parker		PO. BOX 2054 TEMPE	3/5/16
Katrina E. Kinast		1112 E. Laguna Dr., Tempe, AZ 85282	3-5-16
Aaron Bortcher		729 W 17th A Tempe 85281	3-5-16
ERIN DAVIS		729 W 17th St Tempe 85281	3/5/16
Margaret Cordalis		942 S. Ash Ave #111 Tempe 85281	3/5/16
Juanita Castillo		1009 W 19th St. TEMPE AZ 85281	3-5-16
Mick Eastwood		1009 W 19th St. Tempe AZ 85281	3/5/16
Kathy Lemery		803 W. 18th St. Tempe AZ 85281	3/5/16
BONNIE GRIFFIN		612 W 15	3/5/16
Mary Bertrand		1753 E. Broadway #101-137 Tempe 85282	3/5/16.
Sherren Lerner		5931 S. Newberry Rd Tempe AZ 85283	3/5/16
Kyle Burtis		1013 W 16th St., Tempe AZ 85281	3/5/16
James Sena		1807 S. Farmer Ave., Tempe AZ 85281	3-5-16
Meagan Sena		1809 S FARMER AVE TEMPE AZ 85281	3/5/16
Brett Boyer		7219 E Portland St. Tempe AZ 85281	3/5/16
Michael Jennings		2020 S La Corta Dr Tempe AZ 85282	
Kelly WOODEN		1727 S DARKSIDE DR 85281	3/5/16
Esther Conrath		2110 E. Ellis Drive Tempe, AZ 85282	3/5/16
Ryan Mores		430 W 18th St. Tempe AZ 85281	
Jon Dehalig		817 W 17th Place Tempe AZ 85281	3/5/16
Miriam Kellum		39 E. 14th St, Tempe	2/5/16
Michael Malin		722 W. 18th St, Tempe, AZ 85281	3/5/16



Petition to City of Tempe

Petition summary and background	We, the undersigned, believe a pawn/gun shop at the corner of Broadway and Hardy in Tempe would add to the deterioration of the neighborhood and the downgrading of property values.
Action petitioned for	We, the undersigned, are concerned citizens who urge our leaders to act now to prevent Route 66 Pawn and Guns from opening a pawn/gun shop at 833 W Broadway Road, Tempe, AZ.

Printed Name	Signature	Address	Date
Richard Anthony George	<i>[Signature]</i>	731 W Parkway Tempe 85281	3/11/16
Alexander Otto	<i>[Signature]</i>	1728 S Herds Tempe AZ 85281	3/4/16
AMU OF ID	<i>[Signature]</i>	1728 S. Hardy Dr Tempe AZ 85281	3/11/16
Sari Phillips	<i>[Signature]</i>	36 E Bishop Dr Tempe 85282	3/12/16
Catherine Bowman	<i>[Signature]</i>	111 E Loma Vista Dr Tempe 85282	3/12/16
Judd Bowman	<i>[Signature]</i>	111 E Loma Vista Dr, Tempe 85282	3/12/2016
Mollie Heiden	<i>[Signature]</i>	113 W. 11th St, Tempe 85281	3/12/16
John Doherty	<i>[Signature]</i>	725 W Parkway Tempe 85281	3/12/16
Sharon Dorner	<i>[Signature]</i>	725 W Parkway Tempe 85281	3/12/16
Dirk Phillips	<i>[Signature]</i>	36 E. Bishop Dr Tempe 85281	3/12/16
Janet McNaughton	<i>[Signature]</i>	2524 S. Forest Ave Tempe 85282	3/12/16
Zack Wilkins	<i>[Signature]</i>	2016 S. Granada Dr Unit B Tempe, AZ 85282	3/12/16
Nichole Perez	<i>[Signature]</i>	2016 S. Granada Dr Unit B Tempe	3-12-16
Blake Buchler	<i>[Signature]</i>	828 W. 18th St Tempe AZ 85281	3/12/16
Melissa Buchler	<i>[Signature]</i>	828 W. 18th St Tempe AZ 85281	3/12/16
Jeremy Lathan	<i>[Signature]</i>	1045 W. 19th St Tempe 85281	3/12/16
CAROL MESBERGER	<i>[Signature]</i>	713 W. Parkway Blvd. Tempe. AZ 85281	3-12-16
Alliegra Hudson	<i>[Signature]</i>	600 W. Grove PKWY Tempe AZ 85284	3-12-16
Bryan Toerne	<i>[Signature]</i>	1710 S. Marilyn Ann Dr Tempe AZ 85281	3-12-16
Jorge L. Garcia	<i>[Signature]</i>	818 W. Parkway Blvd, Tempe AZ 85281	3-12-16
Emma Garcia	<i>[Signature]</i>	818 W. Parkway Blvd Tempe, AZ 85281	3-12-16
Cecilia Lawson	<i>[Signature]</i>	730 W. Parkway Blvd, Tempe 85281	3-12-16
Yingying Lin	<i>[Signature]</i>	1316 W. 10th Place Tempe, AZ 85281	3-12-16
Khounsavath Keoviangxay	<i>[Signature]</i>	1365 W. 10th Plau Tempe AZ 85281	3/12/16



Petition to City of Tempe

Petition summary and background	We, the undersigned, believe a pawn/gun shop at the corner of Broadway and Hardy in Tempe would add to the deterioration of the neighborhood and the downgrading of property values.
Action petitioned for	We, the undersigned, are concerned citizens who urge our leaders to act now to prevent Route 66 Pawn and Guns from opening a pawn/gun shop at 833 W Broadway Road, Tempe, AZ.

Printed Name	Signature	Address	Date
Rachel Rosen	<i>[Signature]</i>	308 E. Loma Vista Dr. Tempe, AZ 85282	3/12/16
Barbie Marinello	<i>[Signature]</i>	1034 W. 19th St. Tempe AZ 85281	3/12/16
Ashley Hines	<i>[Signature]</i>	1327 S. Judd St. Tempe 85281	3/12/16
DAVID HINES	<i>[Signature]</i>	1327 S. JUDD ST. TEMPE AZ 85281	3/12/16
Barbara Quijada	<i>[Signature]</i>	1707 S. Maricopa Ave Dr Tempe, AZ 85281	3/12/16
Jaquie Eaton	<i>[Signature]</i>	6085 W 17th Pl Tempe AZ 85281	3/19/16
Narnie Bauer	<i>[Signature]</i>	1500 W. Rio Salado Pkwy #102 Mesa, AZ 85201	3/19/16
Alex Reyes	<i>[Signature]</i>	1337 W. 5th St Apt #2	3/19/16
Gage Babak	<i>[Signature]</i>	3409 S Rural Rd Tempe, AZ Apt 115	3/19/16
Rebecca Hendricks	<i>[Signature]</i>	623 S Roosevelt St Tempe AZ 85281	3/19/16
MICHAEL WILSON	<i>[Signature]</i>	1420 N. Dodge, TUCSON AZ 85711	3/19/16
Benjamin L. Reynolds	<i>[Signature]</i>	1209 S Ash Ave #3	3/19/16
Ashley Reynolds	<i>[Signature]</i>	same	
April Jeffries	<i>[Signature]</i>	1201 S McClintock dr, 85281	3/19/16
Joe Kafas	<i>[Signature]</i>	60 W 13th St Tempe AZ 85281	3/19/16
MARGARET MARLINOWSKI	<i>[Signature]</i>	921 W. 16th St. 85281	3/19/16
CAROL ANN RAJO	<i>[Signature]</i>	7524 E. Palm Lane Scottsdale 85257	3/19/16
Jean K. Dixon	<i>[Signature]</i>	625 N Hamilton St, Unit 9, Chandler AZ 85225	3/19/16
Melanie Helm	<i>[Signature]</i>	1320 S. Judd St. Tempe, AZ 85281	3/19/16
Danielle Muñoz	<i>[Signature]</i>	849 W Eling Rae St Tempe, AZ 85281	3/19/16
Liam Kubmoff	<i>[Signature]</i>	702 W. 12th Place Tempe, AZ 85281	3/19/16
Wendy Allen	<i>[Signature]</i>	4057 S Purkyde Dr. Tempe, AZ 85281	3/26/16
Marcus Snell	<i>[Signature]</i>	1163 S. Fermis Ave #7, Tempe AZ 85281	3/26/16
DIAN WILSON	<i>[Signature]</i>	508 E. Encanto, Tempe, 85281	3/26/16

Petition to City of Tempe

RECEIVED
 APR 04 2016
 BY: _____

Petition summary and background	We, the undersigned, believe a pawn/gun shop at the corner of Broadway and Hardy in Tempe would add to the deterioration of the neighborhood and the downgrading of property values.
Action petitioned for	We, the undersigned, are concerned citizens who urge our leaders to act now to prevent Route 66 Pawn and Guns from opening a pawn/gun shop at 833 W Broadway Road, Tempe, AZ.

Printed Name	Signature	Address	Date
CATHERINE L. MAY	<i>Catherine L. May</i>	508 E ENCANTO DR. Tempe AZ 85288	3/26/16
Amy Bird	<i>Amy Bird</i>	712 W. HAWK Tempe AZ 85281	3/26/16
Doug Bland	<i>Doug Bland</i>	712 W Hawk Tempe AZ 85281	3/26/16
Patrick Schrod	<i>Patrick Schrod</i>	1150 W University Dr #204 Tempe AZ 85281	3-26-16
WILLIAM SCHRODE	<i>William Schrod</i>	1984 E LOMA VISTA DR TEMPE AZ 85282	3-26-16
Hannie Neal	<i>Hannie Neal</i>	218 E HERMOSA DR. Tempe AZ 85282	4-2-16
Emily M. Hill	<i>Emily M. Hill</i>	2522 S Southern Tempe AZ 85282	4-2-16
Julianne Vitello	<i>Julianne Vitello</i>	314 E El Parque Dr 85282	4-2-16

Jimenez, Lee

From: [REDACTED]
Sent: Thursday, March 17, 2016 4:47 PM
To: Jimenez, Lee
Subject: Revised: Appeal of permit for Pawn and Gun store, 833 W. Broadway
Attachments: RAIDS Pawnshop mill and southern.PNG

To whom this may concern,

I am a resident of Tempe and I am writing in support of the proposed pawn and gun store.

This proposed business will go into a structure that has been available since at least August of 2015, something close to seven months. I think everyone can agree an empty or abandoned building leads to blight and reduced property values and reduced tax revenue for the city. For purposes of disclosure I want to make note that I am NOT affiliated with the business. I am a resident of Tempe that has noticed on social media a vocal minority filing an appeal based on personal political ideologies against one of the products the store will sell, firearms. I am sure no matter our personal views on firearms that we all need to logically evaluate the benefit to the city by allowing this business. The individual who wished to lead an appeal drive against this store has publically talked about the city waiving the appeal fee in attempt to show the city is favorable towards their view and not remaining unbiased in its evaluation. I hope the waiver of the fee was simply out of courtesy towards a resident of the city as opposed to an endorsement of a specific viewpoint.

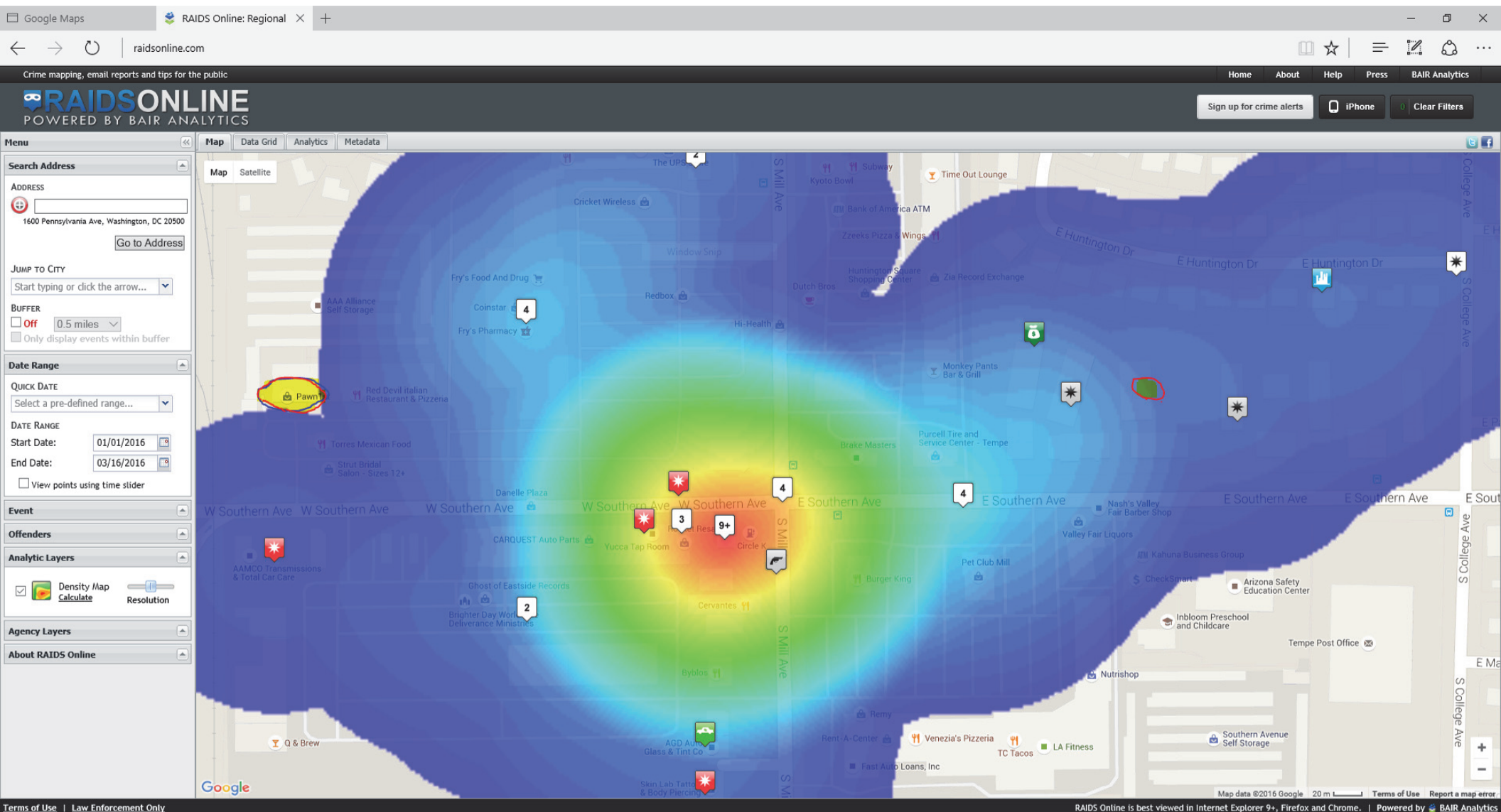
- 1: At a Federal, State, and local level both Pawn Stores and licensed firearm dealers (FFL's) are highly regulated businesses, with substantial oversight. Very few business are as regulated and this ensures a high level of compliance with laws and low criminal activity.
- 2: Stores of this nature are generally low traffic and would not significantly impact local traffic patterns.
- 3: This business is consistent with the city's general plan and occupies a structure which has been empty for some time. Having a successful business in this area will raise property values at best, or remain consistent at worst. Pawn shops and gun stores in other areas of Tempe have not created additional crime nor have decreased property values. I have a pawn store/gun shop in my neighborhood, approximately 1700 feet away, located in a shopping complex on the opposite side of Mill Ave from where I live. I consider it to be "just across the street". The Circle K in the neighborhood has created far more problems than that store ever has. Data provided to RAIDS Online by Tempe PD confirms this. See attached image for image of local area from RAIDS with all crimes listed and date range of 01/01/2016 thru 03/16/2016.
- 4: So long as the business follows their plans for securing their product, especially firearms after hours, there will be no concerns over disruptive behavior. Tempe has a low crime rate and with its growing economic status is likely to see a continued decrease in crime. Studies on the effects of firearms are inconclusive towards their impact on crime, up in some cases, down in others. Economics is always a major factor. Crime is higher where abandoned or long empty buildings exist and once a trend is started in an area being "abandoned" it is difficult to attract new business. This area of Tempe lacks of the focus of the Tempe Town Lake area, and would benefit from the addition of small business in the area.
- 5: The business in question has been in operation in Mesa for five years without incident or issues. Tempe has a business friendly reputation and giving a business a fair shot to operate here will only work to the benefit of the city.

Based on the above, so long as the business in question satisfies the compliance requirements outlined in the staff review and approval document, then I support the approval of the permit and the denial of the appeal.

Sean Casey



Tempe, AZ 85282



**CITY OF TEMPE
HEARING OFFICER**
**Meeting Date: 03/01/2016
Agenda Item: 5**

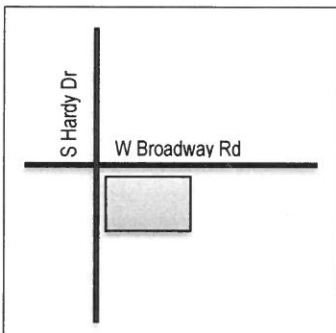
ACTION: Request approval for a use permit to allow a pawn shop and a use permit to allow firearms sales for ROUTE 66 PAWN & GUNS (PL150506) located at 833 West Broadway Road. The applicant is Wayne Wynn of Wayne Wynn Enterprises.

FISCAL IMPACT: N/A

RECOMMENDATION: Staff – Approval, subject to conditions

BACKGROUND INFORMATION: ROUTE 66 PAWN & GUNS (PL150506) located at 833 West Broadway Road in the GID, General Industrial District. The proposed store will be located at the southeast corner of West Broadway Road and South Hardy Drive in a building originally constructed for a banking services. ROUTE 66 PAWN & GUNS will be the sole tenant of the building. The applicant is requesting approval of two (2) use permits. The request includes the following:

1. Use Permit to allow resale retail (pawn establishment) in the GID zoning district.
2. Use permit to allow the sale of firearms in the GID zoning district.



Property Owner	Farhad Navabi
Applicant	Wayne Wynn, Wayne Wynn Enterprises
Zoning District	GID, General Industrial District
Site Area	22,303 sf
Building Area	3,230 sf
Vehicle Parking	15 spaces (11 min. required)
Bicycle Parking	0 spaces (4 min. required)
Hours of Operation	M-F, 8am-4:30pm & Sa 8am-3pm
Building Code Occupancy	Business (B)

ATTACHMENTS: Development Project File

STAFF CONTACT(S): Lee Jimenez, Senior Planner (480) 350-8486

Department Director: Dave Nakagawara, Community Development Director

Legal review by: N/A

Prepared by: Lee Jimenez, Senior Planner

Reviewed by: Steve Abrahamson, Planning & Zoning Coordinator *SEA*

COMMENTS

The property is surrounded by GID zoned properties to the west, east and south; and is across the street from Commercial Shopping and Services (CSS) zoned properties and R1-6 Single-Family Residences. The available parking spaces on the site shall adequately accommodate this use. A pawn shop and firearms sales use requires the same off-street parking ratio requirements as general retail (1:300). However, adequate bicycle commute area parking (4 min.) will be required and conditioned as part of this approval.

PUBLIC INPUT

As of the date of this report, no public input has been received.

POLICE INPUT

A security plan will be required as a condition of this use permit.

USE PERMIT

The proposed uses require a Use Permit to allow retail resale within the GID zoning district; and a Use Permit to allow firearms sales.

Section 6-308 E Approval criteria for Use Permit (*in italics*):

1. *Any significant increase in vehicular or pedestrian traffic.*
The applicant has indicated that the store typically has between five and ten customers at a time and would not cause any traffic problems. The Planning Z&D Code requires a minimum of eleven (11) off-street parking spaces for this particular use and floor area size; fifteen (15) are provided.
2. *Nuisance arising from the emission of odor, dust, gas, noise, vibration, smoke, heat or glare at a level exceeding that of ambient conditions.*
The applicant has indicated that there is no proposal for any type of work or activity on the exterior of the building that would cause a nuisance to the neighborhood.
3. *Contribution to the deterioration of the neighborhood or to the downgrading of property values, the proposed use is not in conflict with the goals objectives or policies for rehabilitation, redevelopment or conservation as set forth in the city's adopted plans or General Plan.*
The applicant has indicated that they are a company with integrity and are above board in their dealings. They provide a clean store and have employees that care about the company, people and the community.
4. *Compatibility with existing surrounding structures and uses.*
The applicant has indicated that they are not in close proximity of a school or any other use that would prohibit a pawnshop from operating in the proposed space.
5. *Adequate control of disruptive behavior both inside and outside the premises which may create a nuisance to the surrounding area or general public.*
The applicant has indicated that all firearms will be put in the existing secure vault and guns would be locked in cabinet units and be available for showing at customers' request. In their opinion, the security that the guns will be kept is unmatched by any pawn and gun store in the City of Tempe.

CONCLUSION

Based on the information provided by the applicant, the public input received and the above analysis staff recommends approval of the requested Use Permits. This request meets the required criteria and will conform to the conditions.

SHOULD AN AFFIRMATIVE ACTION BE TAKEN ON THIS REQUEST, THE FOLLOWING NUMBERED CONDITIONS OF APPROVAL SHALL APPLY, BUT MAY BE AMENDED BY THE DECISION-MAKING BODY.

CONDITION(S) OF APPROVAL:

1. This Use Permit is valid only after a Building Permit has been obtained and the required inspections have been completed and a Final Inspection has been passed. As part of the Building Permit process, on-site storm water retention may be required to be verified or accomplished on this Site.
2. The Use Permit is valid for the plans as submitted within this application. Any additions or modifications may be submitted for review during building plan check process.
3. If there are any complaints arising from the Use Permits that are verified by a consensus of the complaining party and the City Attorney's office, the Use Permits will be reviewed by City staff to determine the need for a public hearing to re-evaluate the appropriateness of the Use Permits, which may result in termination of the Use Permits.
4. Return to the Hearing Officer for review of compliance with conditions of approval within six (6) months. The timing for the six month review period to commence begins when the business is in full operation. Advise Community Development staff when in full business operation. If the full business activity is not initiated within one year the use permit will lapse.
5. The applicant shall contact the City of Tempe Crime Prevention Unit for a security plan within 30 days of this approval. Contact the City's Security Plan Specialist, Nathan Ryberg, at (480) 858-6409 or Nathan_Ryberg@tempe.gov. Failure to complete security plan within 90 days of approval of use permit will result in initiation of proceeding by the Code Compliance Section to suspend the use permit.
6. All nonconforming building lighting shall be removed and replaced with compliant light fixtures. Details can be resolved during Building Safety Plan Review.
7. Replace all dead or missing trees along the north landscape area and in the north landscape islands; along with any other missing landscape material.
8. All rear exit doors require a lexan vision panel. Details to be approved through Building Safety Plan Review.
9. Add or replace bicycle parking racks per City of Tempe Public Works Department bicycle rack detail T-578 standard. A minimum of 4 bicycle parking spaces is required at this site per the Planning Zoning & Development Code.
10. No outdoor storage of merchandise or supplies allowed. Outdoor retail display of merchandise requires a separate use permit.
11. Auto title loans or check cashing services are not permitted as part of this application.

CODE/ORDINANCE REQUIREMENTS:

THE BULLETED ITEMS REFER TO EXISTING CODE OR ORDINANCES THAT PLANNING STAFF OBSERVES ARE PERTINENT TO THIS CASE. THE BULLET ITEMS ARE INCLUDED TO ALERT THE DESIGN TEAM AND ASSIST IN OBTAINING A BUILDING PERMIT AND ARE NOT AN EXHAUSTIVE LIST.

- The Use Permit is valid for ROUTE 66 PAWN & GUNS and may be transferable to successors in interest through an administrative review with the Community Development Director, or designee.
- Specific requirements of the **Zoning and Development Code (ZDC)** are not listed as a condition of approval, but will apply to any application. To avoid unnecessary review time and reduce the potential for multiple plan check submittals, become familiar with the ZDC. Access the ZDC through www.tempe.gov/planning/documents.htm or purchase from Development Services.
- All business signs shall receive a Sign Permit. Contact sign staff at (480) 350-8435.
- Any intensification or expansion of use, including shall require a new Use Permit.
- All required permits and clearances shall be obtained from the Audit and Licensing Division of the City of Tempe prior to the Use Permit becoming effective.

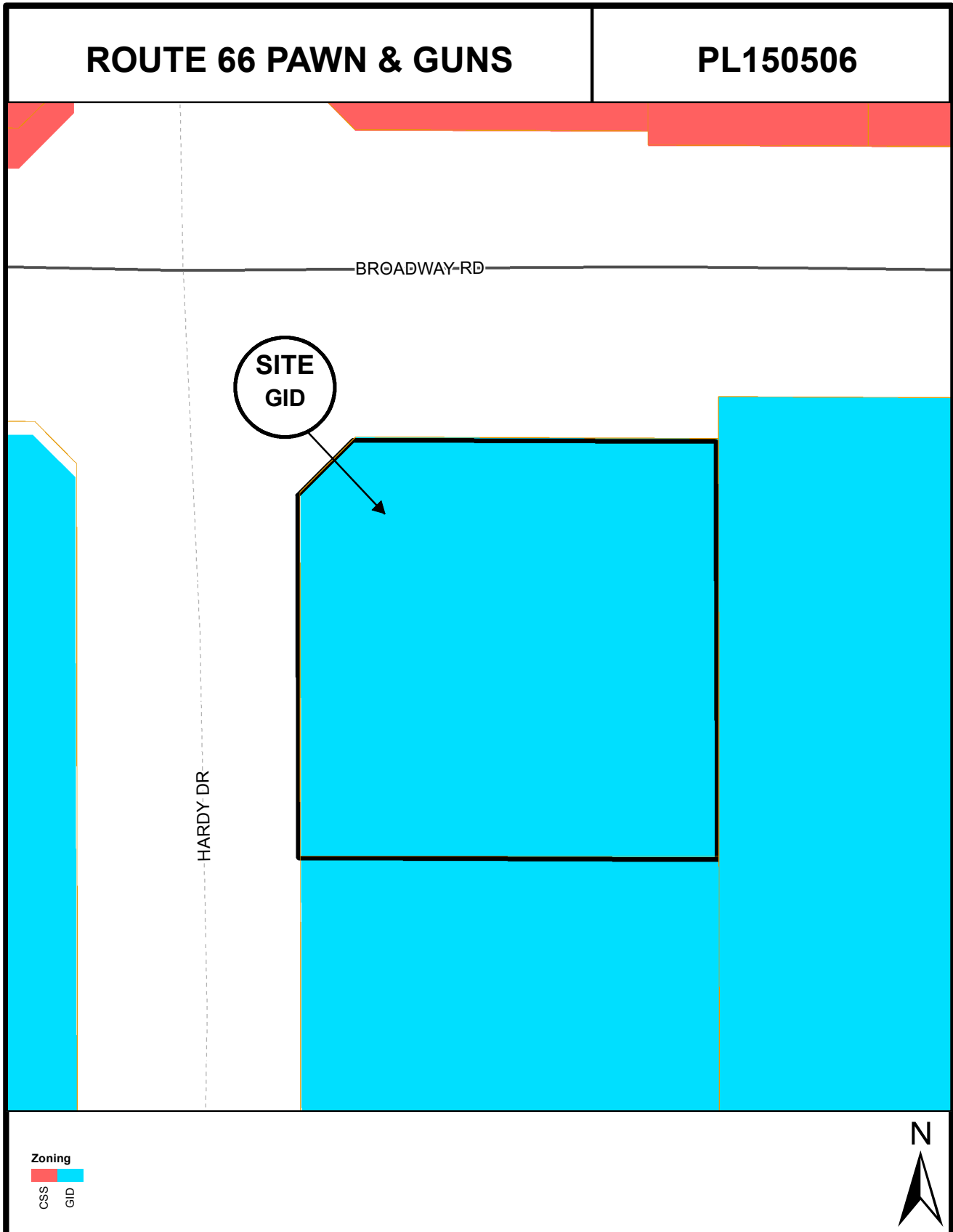
HISTORY & FACTS:

There is no history and/or facts that are pertinent to this case.

ZONING AND DEVELOPMENT CODE REFERENCE:

Section 3-302 Permitted Uses in Office/Industrial Districts

Section 6-308 Use Permit



Location Map

ROUTE 66 PAWN & GUNS	PL150506
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Aerial Map



Pawn & Guns

Friday, February 05, 2016

APPLICATION @ 833 W BROADWAY
Atten Lee Jimenez
Planning Division
Community development Department
City of Tempe
31 E Fifth Street
Tempe, Az. 85281

I hope this will answer all your question about our move to Tempe.

We have a pawnshop in Mesa , and because of it being on Main Street and the light rail coming down our way we have lost over 70% of our business.

We have been at 1734 E. Main Street for 5 years under our ownership.

We are wanting to move to a new location, and since this was a bank and its security that is in place, we would like to move our retail and pawn business to Tempe.

With your approval we would like to move into this location ASAP.

We have a great reputation with the city of Mesa and our customers.

Our hours of operations is Monday thru Friday 8 am to 4:30 Saturday 8 am to 3 pm with Sundays closed,

I am excited for the opportunity to have our business move to Tempe.

We are a small family run Pawn shop who has been open for five years.

We have 5 to a maximum of ten customer in our shop at a time and would not cause traffic problems. As for parking there is would be more than enough that is provided in the building we would want. Because the park is more than we have in our old building we would never cause parking problems.

We would use the sign space that is already been approved from the last business. We would not have anything outside that would cause a nuisance for our neighbors. We have a strong relationship with everyone we come in contact and would be a strong addition to Tempe.

We are accompany with integrity and are above board in our dealings.

We have a clean store.

Our employees care about our company, people and the community,

All firearms would be put in secure vault and guns would be locked in cabinet's unit customers would want to see them

1734 E Main Street Suite 7 Mesa, Arizona 85203

Phone (480) 464-4444 Fax (480) 464-4449

RECEIVED FEB 05 2016



Pawn & Guns

We would love to move to Tempe and would not have anything that is not already been approved on the outside.

We pay our bill and take pride in what we do , I am sure would make a great addition to Tempe.

We are not near a school or any other thing that would prohibit a pawnshop from goin into this space, and the security that the guns would have would be unmatched by any gun store or Pawnshop we have seen in Tempe

Sincerely,

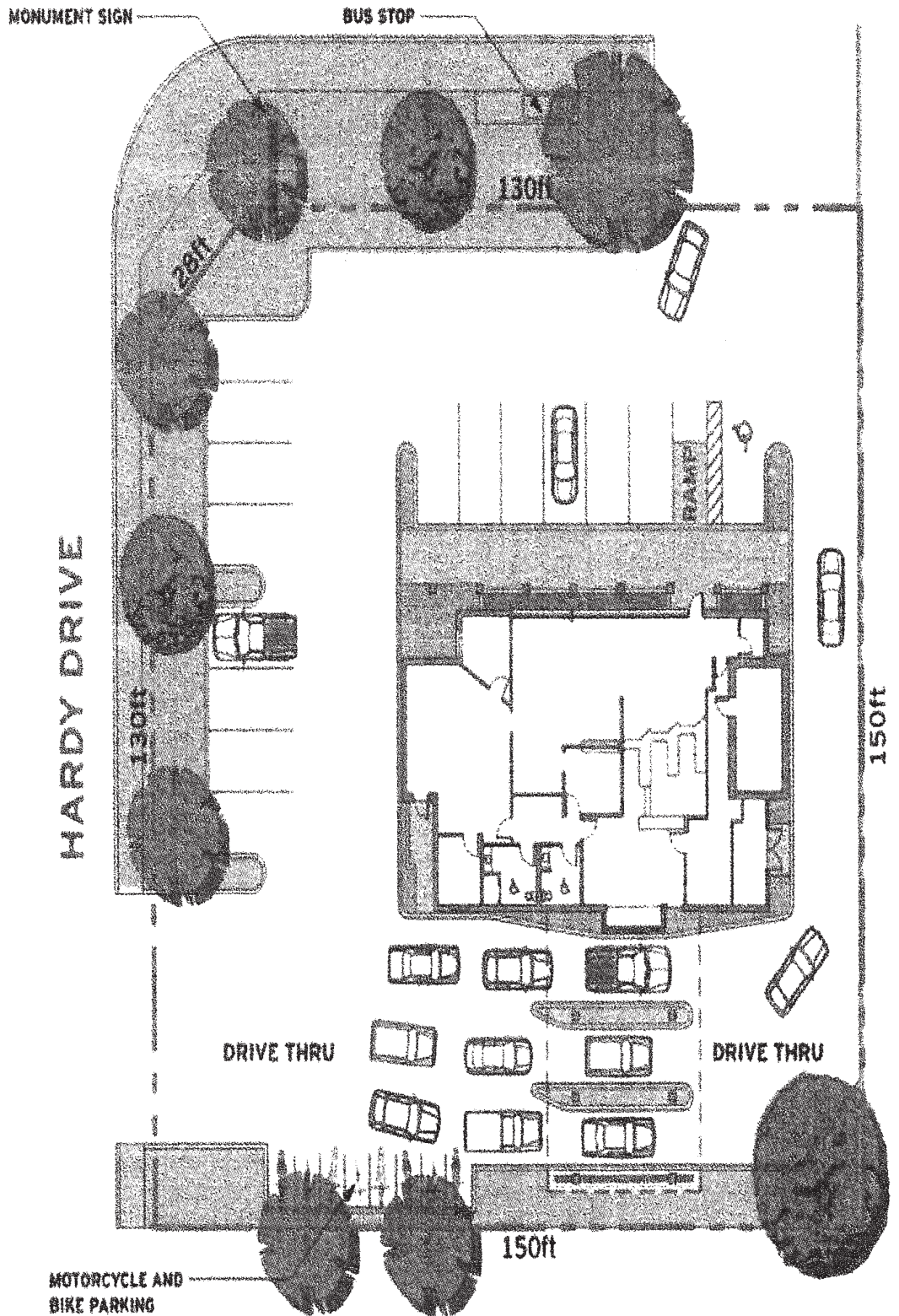
A handwritten signature in blue ink, appearing to read "Wayne Wynn", with a long horizontal line extending to the right.

Wayne Wynn
President of Wayne Wynn Enterprises LLC dba
Route 66 Pawn & Guns

1734 E Main Street Suite 7 Mesa, Arizona 85203
Phone (480) 464-4444 Fax (480) 464-4449

RECEIVED FEB 05 2016

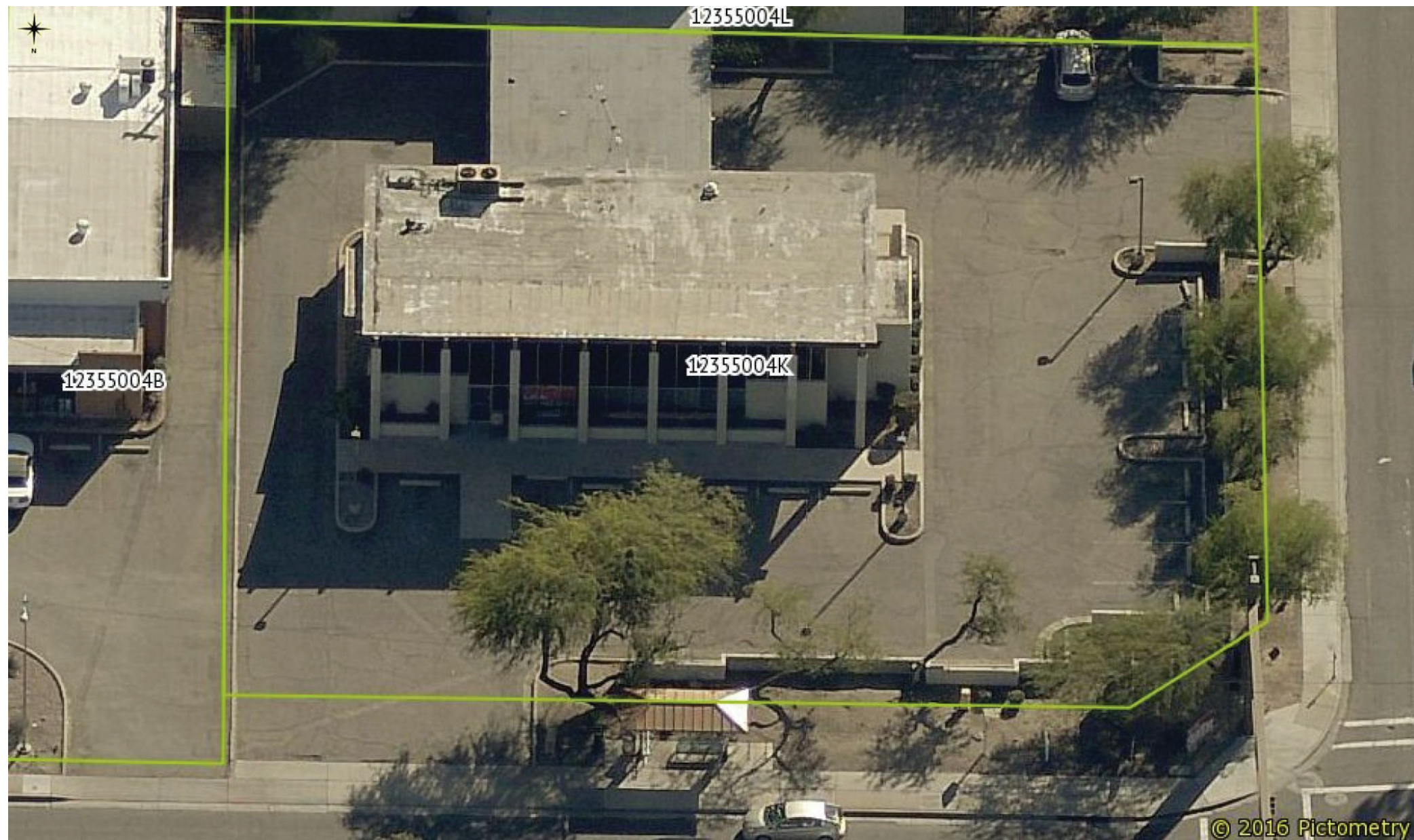
BROADWAY ROAD



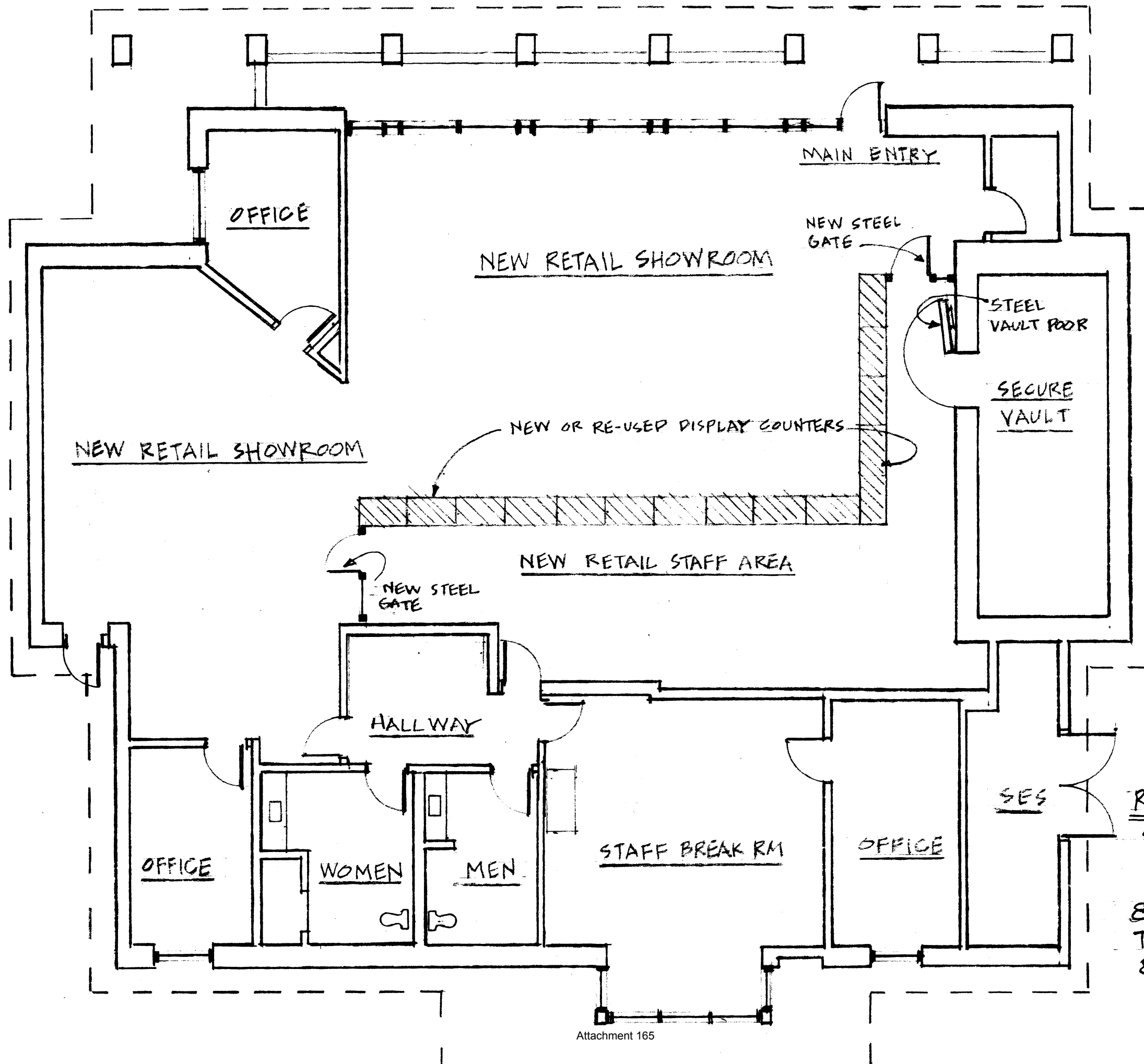
833 BROADWAY ROAD
TEMPE, ARIZONA 85282



833 W Broadway Rd



01/20/2016



RETAIL STORE PLAN

SCALE: 1/8" = 1'-0"



833 BROADWAY RR.
 TEMPE, ARIZONA
 85282

**MINUTES
HEARING OFFICER
MARCH 1, 2016**

Minutes of the regular public hearing of the Hearing Officer, of the City of Tempe, which was held at the Council Chambers, 31 East Fifth Street, Tempe, Arizona.

STUDY SESSION 4:30 PM

Present:

Vanessa MacDonald, Hearing Officer
Steve Abrahamson, Principal Planner
Karen Stovall, Senior Planner
Lee Jimenez, Senior Planner
Diane McGuire, Administrative Assistant II

There were 8 interested citizens present at the study session.

- Staff and the Hearing Officer discussed overview and updates to the scheduled cases for this hearing.

REGULAR SESSION 5:00 PM

Present:

Vanessa MacDonald, Hearing Officer
Steve Abrahamson, Principal Planner
Karen Stovall, Senior Planner
Lee Jimenez, Senior Planner
Diane McGuire, Administrative Assistant II

There were 34 interested citizens present at the regular session.

Meeting convened at 5:00 PM and was called to order by Ms. MacDonald. She noted that anyone wishing to appeal a decision made by the Hearing Officer would need to file a written appeal to that decision within fourteen (14) days, by March 15, 2016 at 3:00 PM, to the Community Development Department.

1. Ms. MacDonald noted the following:

- **February 16, 2016 Hearing Officer Minutes**

Ms. MacDonald stated that the February 16, 2016 Hearing Officer Minutes had been reviewed and were approved.

2. Review of compliance with assigned Conditions of Approval for the use permit, approved on November 18, 2014, to allow the use of trucks in excess of five (5) ton capacity before 6:00 a.m. and after 10:00 p.m. for **DISCOVERY BUSINESS CAMPUS – DEVELOPMENT SITE 6/SHUTTERFLY (PL140127)** located at 7195 South Shutterfly Way. The applicant is Gammage & Burnham.

Karen Stovall, Senior Planner, gave an overview of this case. She noted that the Hearing Officer had approved two (2) use permits on November 18, 2014 as follows:

1. ZUP14118 to exceed the parking maximum (125%).
2. ZUP14119 to allow the use of trucks in excess of five (5) ton capacity before 6:00 a.m. and after 10:00 p.m.

The approval of ZUP14119 included a condition to return during the month of February 2016 for a review of compliance with the Condition(s) of Approval.

On January 13, 2015 the Development Review Commission denied an appeal and upheld the Hearing Officer's decision to approve ZUP14119.

Staff has received one (1) email on February 9, 2015 that expressed opposition to the project; as well as a phone call from a resident who lives directly west of Shutterfly Way. The resident said that he had not noticed many delivery trucks on Shutterfly Way, but there have been a few caused by what he assumed were new drivers who did not know to use the other entrance off of Elliot Road. Overall, that resident stated that he does not have any concerns with the use continuing as long as there is no increase in truck traffic.

From February 10, 2015 to February 10, 2016, the City of Tempe Police reported no calls concerning truck parking on Shutterfly Way, and there are no open cases related to the operations of the Shutterfly business by Code Compliance.

The applicant has provided a letter that explains how they believe all 8 conditions of approval for ZUP14119 have been satisfied.

Ms. Manjula Vaz, of Gammage & Burnham, was present to represent this case. She acknowledged the eight (8) assigned Conditions of Approval for ZUP14119 and presented a power point presentation with an analysis of compliance with the Conditions of Approval.

Ms. Vaz stated that the Shutterfly facility has been permitted, constructed, inspected and occupied, and that the use of delivery trucks on the Shutterfly site, as allowed by the use permit, has neither intensified nor expanded. There have not been any complaints, and the use of trucks in excess of five (5) ton capacity between 10 PM and 6 AM on the Shutterfly site has been restricted to the months of September thru December and has been limited to no more than eight (8) truck trips per day during the noted time period since the completion and occupation of the Shutterfly building this past year. A 16 ft. masonry wall has been installed on the north side of the Shutterfly building's truck court and no delivery access signs have been installed along Shutterfly Way.

Ms. Vaz explained to those present that there have been several additional measures taken to further discourage delivery trucks from using Shutterfly Way, including signage, notifying security staff and posting a contact phone number at the site.

Ms. MacDonald noted that you almost have to make the turn onto Shutterfly to see the posted directional and informational signage.

Ms. MacDonald noted that she had speaker cards from those individuals in the audience who wished to address this case, and called the following to the podium:

- Phillip Carter, Tempe resident, asked how it was determined that Shutterfly was in compliance with Condition #4, that the use of trucks in excess of five (5) ton capacity before 6 AM and after 10 PM shall only occur from the months of September to December, and shall be limited to 8 truck trips per day. He asked how that Condition is enforced and stated that Shutterfly should be required to produce data from their receiving/shipping department to show that they are actually in compliance. He said that Shutterfly should have 24 hrs. a day enforcement at the site. He asked if trucks can use Shutterfly Way during the hours of 6 AM to 10 PM as the language of the condition is ambiguous.
- Lisa Zyrek, Tempe resident, stated that she had issues with Shutterfly's compliance with the assigned Conditions of Approval. She explained that trucks are using Shutterfly day and night, and oftentimes are present with their engines idling on Shutterfly day and night. She wanted to know why Shutterfly does not find ways to enforce the activity limits in that location. She suggested that the security gates on Shutterfly be closed from the hours of 10 PM to 6 AM as a means of limiting the activity. She asked that the applicant be required to return to the Hearing Officer in March 2017 so that their compliance with the Conditions of Approval could again be reviewed.

Ms. Vaz returned to the podium and noted that there is a learning curve involved for drivers to learn what is allowed and during what time periods. She referred to nearby construction and noted that over the years other buildings would be built in that area.

Ms. MacDonald noted that the parcel to the south is under construction, and that it is a huge parcel of land. Some of the traffic involving the Shutterfly Way may be related to areas other than the Shutterfly Project.

Ms. MacDonald stated that she appreciated the concerns of the neighbors, but that it needed to be taken into account that this is a public street that will be used by businesses other than Shutterfly.

Ms. MacDonald explained that tonight's hearing did not require her to take action but that it was a review of the assigned Conditions of Approval for the purpose of determining compliance by the applicant. It was agreed that Condition of Approval No. 8 would be modified to indicate that the applicant would return to the Hearing Officer in March 2017 for another review of compliance with the Conditions of Approval.

DECISION:

Ms. MacDonald stated that the applicant was in compliance with the Conditions of Approval as noted below:

1. This Use Permit is valid only after a Building Permit has been obtained, the required inspections have been completed, and a Final Inspection has been passed. **Final inspection passed.**
2. Any intensification or expansion of use shall require a new Use Permit. Public notice for an application to intensify or expand the use shall, in addition to the public notices required by the Zoning and Development Code, include a notice to all property owners who signed petitions or submitted written correspondence to the city, where addresses were provided and are legible. **No intensification or expansion of use was requested.**
3. If there are any complaints arising from the Use Permit that are verified by a consensus of the complaining party and the City Attorney's office, the Use Permit will be reviewed by City staff to determine the need for a public hearing to re-evaluate the appropriateness of the Use Permit, which may result in termination of the Use Permit. **No complaints from this use.**
4. The use of trucks in excess of five (5) ton capacity before 6:00 a.m. and after 10:00 p.m. shall only occur

from the months of September to December and shall be limited to eight truck trips per day. **No complaints from this use.**

5. Prior to commencement of the use, the developer shall install a 16-foot high masonry wall on the north side of the truck court. The location of this wall is noted as site plan key note 32. This wall shall be maintained until such time a building is constructed in phase two that will serve as a buffer in place of the wall. **Completed.**
6. All trucks accessing the truck court before 6:00 a.m. and after 10:00 p.m. shall be directed to do so via Elliot Road and the internal loop road. Shutterfly Way shall not be used for delivery trucks. **No complaints from this use.**
7. No Delivery Access" signs shall be installed along Shutterfly Way. Specific sign language and locations shall be submitted and approved prior to installation and before Certificate of Occupancy. **Completed.**
8. The applicant shall return to the Hearing Officer for review of compliance with the conditions of approval by ~~June 30, 2016~~ **MARCH 2017. MODIFIED BY HEARING OFFICER ON 3/1/16.**

3. Request approval of a use permit to allow a wall or fence over four (4) feet in height within the required front yard building setback for **CHURCH IN PHOENIX (PL150487)** located at 1619 South Hardy Drive. The applicant is Estrada's Ornamental Iron Inc.

Karen Stovall, Senior Planner, gave an overview of this case, and, using a site plan, showed where the proposed fence installation would occur. She noted that the Church in Phoenix has been operating on the property since 2013. Since that time, the church has experienced burglary, vandalism, trespassing, dumping and unauthorized parking of vehicles. The church also has concerns with the safety and liability of use of the children's playground and volleyball court south of the building. The church would like to install a 6 ft. high fence and combination wall around the perimeter of the property. It would be adding onto the existing iron view fence that runs along the south half of the property, adjacent to Hardy Drive. Where a 3 ft. high black wall exists along the north property line, the church proposes to add 3 ft. of iron view fencing on top of the block wall.

Ms. Stovall stated that staff had received two (2) phone calls regarding this request, and that one phone call concerned how the property had not been kept up. The other caller wanted to know the proposed design of the wall along Hardy Drive as she had concerns with the sound reflection that could be caused by a solid block wall. That caller had no concerns with the proposed wrought iron fence.

Ms. MacDonald stated that, for the benefit of the audience, the applicant's request involved a 2 ft. increase in fence height. She asked Ms. Stovall where the boundaries of the proposed installation would occur.

Ms. Stovall indicated those boundaries on a copy of the site plan, and noted that the applicant would be going thru the Development Plan Review process prior to installation.

Ms. MacDonald acknowledged speaker cards from members of the audience who wished to speak on this case as follows:

- Kelly Woodson, Tempe resident, spoke in opposition to this request. He stated that a 6 ft. fence creates a perception of a compound and that a residential neighborhood should not have 6 ft. high fences. He questioned the purpose of this establishment (i.e. church) and whether it was a profit or non-profit entity. He indicated that this church used to be occupied by the Salvation Army but that the building has looked completely empty and abandoned for 2 or 3 years. Mr. Woodson indicated that it is important to consider the perception of this location and how it fits into the surrounding community. He noted that he is concerned that the gates will be closed the majority of the time making it appear as if there are security issues. He questioned the issue of vehicle parking on the site. This type of situation does not speak to the Hardy Drive improvements.

Ms. MacDonald responded that the issue of whether this church is a profit or nonprofit is not the issue for tonight's public hearing and it is not appropriate to address that subject at tonight hearing.

- Mr. Min-Yi Hsu noted his presence at tonight's hearing and that that he was affiliated with the church.
- Natalie Joshi, Tempe resident, stated that she supports this request and feels that it will improve the appearance of the property.
- Tom Cooney, Tempe resident, stated that he is in support of this request. He explained that the church has installed lights in the parking lot which shined light into his home. He noted that he had addressed the issue with church personnel, had a good conversation with them and that they adjusted the lights.
- Ken Casebolt, spoke on behalf of the church. Ms. Stovall gave him a copy of the Staff Summary Report including the assigned Conditions of Approval which were read to him for his information. He stated that he understood the conditions and had no issues with their compliance. He addressed the comment(s) regarding the property not being kept up by explaining that the property was labor intensive due to the size of the parcel, and that weeds and landscape issues had been actively pursued for resolution. He stated that the objective of the fence was to provide public safety as well as restricting unauthorized access to the grounds by extending the existing fence around the perimeter and including lockable gates.

Mr. Casebolt stated that the church's mission was to represent approximately 104 countries and to assist with whatever they need. They hold prayer meetings on Tuesday evenings and act as an outreach to ASU students. He noted that they do not intend to be poor neighbors and will be updating the landscaping design and maintaining the property.

Ms. MacDonald stated that tonight's hearing is not about the landscaping and that it sounded like the applicant is actively working to resolve any property related issues.

Ms. MacDonald noted that this request meets the criteria for a use permit:

1. There will be no significant increase in vehicular or pedestrian traffic.
2. The proposed fence in the front yard will not create a nuisance.
3. The use will not contribute to the deterioration of the neighborhood or downgrading of property values. The addition of the fence and gates will assist the owner in upkeep and security of the site.
4. The use is compatible with the existing surrounding structures and uses.
5. The proposed fence will not generate disruptive behavior and may, instead, deter it.

DECISION:

Ms. MacDonald approved the use permit for PL150387 subject to the following Conditions of Approval:

1. The use permit is valid for the plans as submitted within the application, dated September 14, 2015 and received January 25, 2016.
2. Any intensification or expansion of use shall require a new use permit.

4. Request approval of a use permit to allow an employment agency for **STAFFCHEX INC. (PL160022)** located at 3209 South Mill Avenue, Suite B-18. The applicant is Patrick Allen.

Lee Jimenez, Senior Planner, gave an overview of this case, noting that the location is within the Huntington Square Shopping Center on the northeast corner of South Mill Avenue and East Southern Avenue in the PCC-1, Planned Commercial Center Neighborhood District. The proposed business will occupy 1,350 s.f. of tenant space and will operate Monday thru Friday from 8 AM to 5 PM. To date, staff has received one (1) public comment by phone and e-mail. The neighborhood resident expressed concern about the potential amount of loitering typically caused by high volumes of walk-ins versus appointments. This will be their second valley location. Staff has received one public comment by a combination of phone and e-mail.

Mr. Patrick Allen was present to represent this case. He acknowledged receipt of the Staff Summary Report and his understanding of the assigned Conditions of Approval.

Ms. MacDonald referred to Condition of Approval No. 4, which requires the applicant to return to the Hearing Officer within 6 months of the date of operation to review compliance with the Conditions of Approval. Mr. Allen acknowledged this condition.

Ms. MacDonald noted that this request meets the criteria for a use permit:

1. There will be no significant increase in vehicular or pedestrian traffic as this location is within a shopping center.
2. There would be no nuisance arising from the operation of this business.
3. The business would not contribute to the deterioration of the neighborhood or to the downgrading of property values.
4. The use is compatible with the existing surrounding structures and uses.
5. There will be adequate control of disruptive behavior both inside and outside the premises. Staffchex has indicated that it places clients thru a comprehensive hiring process, including behavioral surveying, one-on-one interviews as well as a safety program. The increase in traffic will benefit the surrounding businesses by drawing in more prospective customers.

DECISION:

Ms. MacDonald approved the use permit request for PL160022 subject to the following Conditions of Approval:

1. The use permit is valid only after a Building Permit has been obtained and the required inspections have been completed and a final inspection has been passed. As part of the building permit process, on-site storm water retention may be required to be verified or accomplished on this site.
2. The use permit is valid for the plans as submitted within this application. Any additions or modifications may be submitted for review during building plan check process.
3. If there are any complaints arising from the use permit that are verified by a consensus of the complaining party and the City Attorney's office, the use permit will be reviewed by City staff to determine the need for a public hearing to re-evaluate the appropriateness of the use permit, which may result in termination of the use permit.
4. Return to the Hearing Officer for review of compliance with conditions of approval within six (6) months. The time for the six month review period to commence begins when the business is in full operation. Advise Community Development staff when in full business operation. If the full business activity is not initiated within one year, the use permit will lapse.
5. All rear exit doors require a lexan vision panel. Details to be approved through Building Safety Plan Review.
6. As a condition of approval for the Professional Shared Parking Analysis dated November 26, 2007, the property owner shall provide a new professional shared parking analysis as a result of modifications to the tenant mix and intensification of uses that has since increased the demand for parking. Submit analysis for review and approval (including applicable fees) to Community Development Planning Division within 90 days or by May 24, 2016.

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5. Request approval of a use permit to allow a pawn shop and a use permit to allow firearms sales for **ROUTE 66 PAWN & GUNS (PL150506)** located at 833 West Broadway Road. The applicant is Wayne Wynn of Wayne Wynn Enterprises.

Lee Jimenez, Senior Planner, gave an overview of this case, noting that the proposed store will be located at the southeast corner of West Broadway Road and South Hardy Drive in a building originally constructed for banking services. This business will be the sole tenant of the building. The property is surrounded by GID, General Industrial zoned properties to the west, east and south; and is across the street from CSS, Commercial Shopping and Services District property and R1-6, Single Family Residential District properties. The available parking spaces on the site adequately accommodate this use. Staff has received two (2) public comments in opposition of this request. One was initially received in the form of an e-mail and then later provided in the form of a letter from a property owner in the neighborhood; and another was received by phone.

Mr. Wayne Wynn was present to represent this case. Mr. Jimenez gave Mr. Wynn a copy of the Staff Summary Report and reviewed the assigned Conditions of Approval. Mr. Wynn acknowledged his understanding of those conditions.

Mr. Wynn noted that he had been in this type of business for a number of years and meets the City's criteria for the use permits.

Ms. MacDonald asked Mr. Jimenez if he had checked with the Police Department as part of the review for this request. Mr. Jimenez confirmed that he had contacted the City of Mesa, where they are currently located, and that their city license is currently in good standing. Wayne Wynn Enterprises is in good standing with the AZ Corporation Commission, and a public name search on Wayne Wynn yielded no derogatory information.

Ms. MacDonald noted that she had several speaker request cards from members of the audience who wished to address this request. They were called to the podium as follows:

- Larry Djinis, Tempe resident, had submitted a speaker's card in opposition to this request. Ms. MacDonald noted that Mr. Djinis had to leave, however she read his comments into the public record as follows: He noted that he was a real estate professional and that he was concerned about the impact this business would have on nearby home values. He believes that this business could potentially lower home values and would make the area less attractive.
- Valerie Rames, Tempe resident, and wife of Mr. Michael Molin had submitted a speakers card in opposition to this request, however Mr. Molin spoke on behalf of them both.
- Michael Molin, Tempe resident, spoke in opposition to this request. He stated that he felt that such a business enterprise would be detrimental to the neighborhood and did not feel that the location was conducive to the neighborhood character. While it is on the edge of the GID, General Industrial District, it is too close to family homes with children. He quoted from the Michigan law Review that indicates this type of business increases the risk factor(s). Stolen items can be converted to cash thru the use of pawn shops. It is the burden of the applicant to prove they will not be a deterrent to the surrounding area, which includes homes to the north of the site, and that it will lower home values.

- Linda O'Connor, Tempe resident, spoke in opposition to this request. She noted its close proximity to a preschool across the street and feels that not only would this business increase the crime in the area, but it would also lower the property values of the nearby residents. She noted that there are 6 pawn shops in the Tempe area already.
- Holly Lawson, Tempe resident, spoke in opposition to this request. She stated that she had moved to Tempe from Phoenix. This is a vibrant location she noted, and a pawn shop will be detrimental to the residential area.
- Ms. MacDonald noted for the public record that Mr. Ken Perron had submitted a speakers request card and was in opposition to this request, however he declined to speak.
- Teresa Robinette, Tempe resident, submitted a speakers card in opposition to this request, but declined to speak.
- Freda Rotherme, Tempe resident, spoke in opposition to this request. She stated that this location is too close to schools and residential neighborhood. Presently there is already too much active crime, and there must be a better location for this business she noted.
- Barbara Lloyd, Tempe resident, spoke in opposition to this request. She explained that she is the Chair of the Neighborhood Association, and that there is no guarantee that the pawn shop will not cause a nuisance. She noted that this location is across the street from the Little footprints Learning Center. She referred to the separation requirements required for pawn shops and noted that it is 2600 ft. from Tempe High School and 750 ft. from Clark Park. Ms. Lloyd voiced her concern that this business would have a detrimental impact on the area and explained that residents have spent several years trying to improve this neighborhood by promoting activities such as the Little League, Clark Park and a community garden.
- Natalie Joshi, Tempe resident, spoke in opposition to this request. She noted that she and her husband own three (3) rental homes in close proximity to the proposed location of the pawn and gun shop. Two of those houses are within a few hundred feet of the proposed location. Since they rent to families and college students, this proposed business endeavor will significantly reduce the number of potential quality tenants.

Mr. Wynn returned to the podium and responded to the public comments by stating that the public perception of pawn shops is often negative. He is required to report to the police department everything that is bought and has no intention of purchasing stolen goods. This building has been vacation for seven (7) years and his pawn shop will be well kept and maintained. When an item is pawned, they are required to hold on to the item for 20 days. Over the years he has had one or two mishaps where he unknowingly purchased stolen goods and he has no desire to repeat those experiences as all items, if found to be stolen, are returned to the owner and he would be out the purchase price.. His pawn shop is the last place a thief would want to sell to.

Ms. MacDonald noted that this business has limited hours of operation, Monday thru Friday from 8 AM to 4:30 PM, and on Saturdays from 8 AM to 3 PM. There is no retail display of merchandise.

Ms. MacDonald noted that this request meets the criteria for a use permit:

1. There will be no significant increase in vehicular or pedestrian traffic.
2. There will be no work or activity that would cause a nuisance to the neighborhood.
3. There will be no contribution to the deterioration of the neighborhood or to the downgrading of property values. Ms. MacDonald noted that this is a subjective item as a thriving business deters crime, and, in this instance, Broadway Road provides a buffer between the business and residential area.
4. It is compatible with the existing surrounding structures and uses, and is not in close proximity of a school or any other use that would prohibit a pawnshop from operating in the proposed space.

5. There will be adequate control and all firearms will be put in the existing secure vault and guns would be locked in cabinet units and available for showing at customers' request. Ms. MacDonald noted that the City requires a high level of zoning for this type of request.

DECISION:

Ms. MacDonald approved the request for two (2) use permits for PL150506 subject to the following Conditions of Approval:

1. This Use Permit is valid only after a Building Permit has been obtained and the required inspections have been completed and a Final Inspection has been passed. As part of the Building Permit process, on-site storm water retention may be required to be verified or accomplished on this Site.
2. The Use Permit is valid for the plans as submitted within this application. Any additions or modifications may be submitted for review during building plan check process.
3. If there are any complaints arising from the Use Permits that are verified by a consensus of the complaining party and the City Attorney's office, the Use Permits will be reviewed by City staff to determine the need for a public hearing to re-evaluate the appropriateness of the Use Permits, which may result in termination of the Use Permits.
4. Return to the Hearing Officer for review of compliance with conditions of approval within six (6) months. The timing for the six month review period to commence begins when the business is in full operation. Advise Community Development staff when in full business operation. If the full business activity is not initiated within one year the use permit will lapse.
5. The applicant shall contact the City of Tempe Crime Prevention Unit for a security plan within 30 days of this approval. Contact the City's Security Plan Specialist, Nathan Ryberg, at (480) 858-6409 or Nathan_Ryberg@tempe.gov. Failure to complete security plan within 90 days of approval of use permit will result in initiation of proceeding by the Code Compliance Section to suspend the use permit.
6. All nonconforming building lighting shall be removed and replaced with compliant light fixtures. Details can be resolved during Building Safety Plan Review.
7. Replace all dead or missing trees along the north landscape area and in the north landscape islands; along with any other missing landscape material.
8. All rear exit doors require a lexan vision panel. Details to be approved through Building Safety Plan Review.
9. Add or replace bicycle parking racks per City of Tempe Public Works Department bicycle rack detail T-578 standard. A minimum of 4 bicycle parking spaces is required at this site per the Planning Zoning & Development Code.
10. No outdoor storage of merchandise or supplies allowed. Outdoor retail display of merchandise requires a separate use permit.
11. Auto title loans or check cashing services are not permitted as part of this application.

Ms. MacDonald noted that anyone wishing to appeal her decision on the approval of the use permit(s) can do so by appealing her decision to the Development Review Commission which is a seven (7) member governing body.

ANNOUNCEMENTS

- The next Hearing Officer public hearing is scheduled for Tuesday, March 15, 2016 at 5:00 PM with a study session scheduled for 4:30 PM.

With no further business, the public hearing adjourned at 6:30 PM.

Prepared by: Diane McGuire, Administrative Assistant II

Reviewed by:

A handwritten signature in blue ink that reads "Steve A. Abrahamson". The signature is written in a cursive style and is contained within a light blue rectangular box.

Steve Abrahamson, Principal Planner
for Vanessa MacDonald, Hearing Officer
SA:dm