

A Location Analysis of Payday Lenders in the Portland Metropolitan Area



*Andy Freed, John Hall, Chris Lambert and Jamie Ludwig

Overview of Payday lending

- Payday lending is a relatively new practice in the financial world.
- Payday lenders offer short-term cash loans in exchange for postdated checks for the amount borrowed plus a processing “fee”.
- Dramatic increase in payday lenders in the past 15 years.
- Very few in the early 90’s now over 14,000 locations nationwide.
- Many states are now considering regulations on lending practices.

Payday Lending in Oregon

- Oregon is one of many states that does not regulate payday lending.
- November 2005 Oregon Student Public Interest Research Group (OSPIRG) released study which examined lending practices and rates set by lenders in Portland area.
- The OSPIRG study concluded that the average fee charged on a \$300 loan for a 2-week period was equivalent to a 521% rate.
- Recent activity in Portland has started the process of regulating lending practices from groups such as SEIU, Our Oregon, OSPIRG, and the Oregon Food Bank who want an interest cap of 36%.

Predatory Lending

- "Those terms are outrageous. The only people who can't seem to see that are members of the Legislature and the desperate souls drawn to the neon PAYDAY LOAN!!!! signs lining Portland's 82nd Avenue and other down-on-your-luck streets in this state." *Oregonian 2/22/06*
- There is a general consensus that these businesses target poor and minority groups across the nation. Unless you ask a shop owner.

Research Question

Is there a statistically significant difference between the income and the demographic makeup of census tracts with payday lenders and that of the Metro Region as a whole?



Methods

- Followed the framework of Steven Graves Study:
 - Landscapes of Predation, Landscapes of Neglect: A location Analysis of Payday Lenders and Banks.
- Attempted to mimic Graves study and apply his methods to the Portland Metro Region.
- Purpose: To find out if there is any validity to the claim that payday lenders target neighborhoods with a high percentage of working poor and racial minorities.

Collected GIS Data

- Metro's RLIS:
 - streets/arterials river, highways, Metro region boundary and the street address directory of address geocoding.
- US Census data
 - Census Tract data on income, demographics and renting
- Federal Deposit Insurance Corporation (FDIC)
 - Bank branch locations for Metro region
- Oregon Department of Business and Consumer Services
 - Consumer finance lender data
- Oregon Geospatial Clearinghouse
 - Census tract dataset

Methods...

- Mapping unit used: US Census Tract (per recommendation from Tom Harvey).
- This unit was chosen based on its manageability and seemed informative at the Metro scale.
- Payday lenders were geocoded using the RLIS streets database.
- We were able to geocode 99% of the locations with a matched score of 80 or greater.
- This process yielded 248 payday lender locations (from this set we restricted our analysis to short-term licenses).
- Since payday lender advocates argue that they are providing a service to people that traditional banks fail to serve (Graves, 2003). This project will also examine the locations of traditional banks.
 - We geocoded bank locations with 99% accuracy with a matched score of 80 or greater, yielding 261 branches (with lending capabilities).

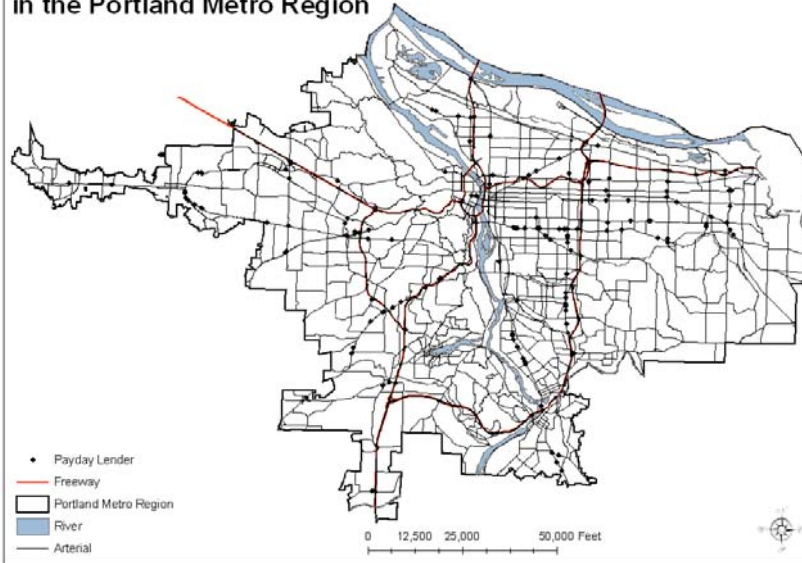
Methods...

- Data from the US Census was joined to the census tract dataset downloaded from the Oregon Geospatial Clearinghouse.
- Tracts were selected based on an intersection with the RLIS Metro boundary.
- 287 census tracts in the Portland Metro Area.
- Once payday lenders were geocoded, we selected all census tracts within a quarter mile of a payday lender location in order to compare them with the census tracts for the entire region.
- The same selection was done with traditional banking branches.
- Used ArcMap's "Near" analysis to see how far payday lenders were from traditional banks. This takes a closer look at the argument that payday lenders are serving areas that are underserved by banks.
- "Nearest Neighbor" analysis was used to determine if the payday lenders and banks exhibited some degree of clustering.

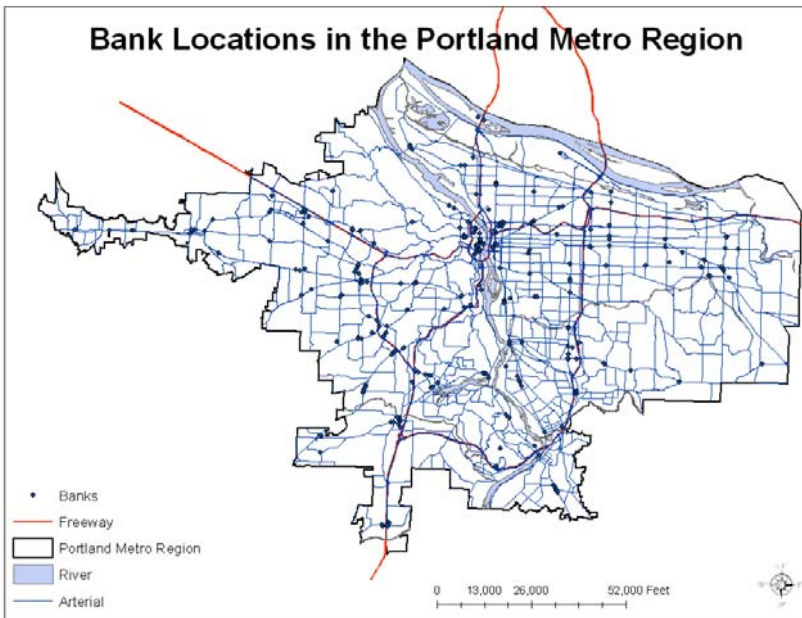
Mapping the data

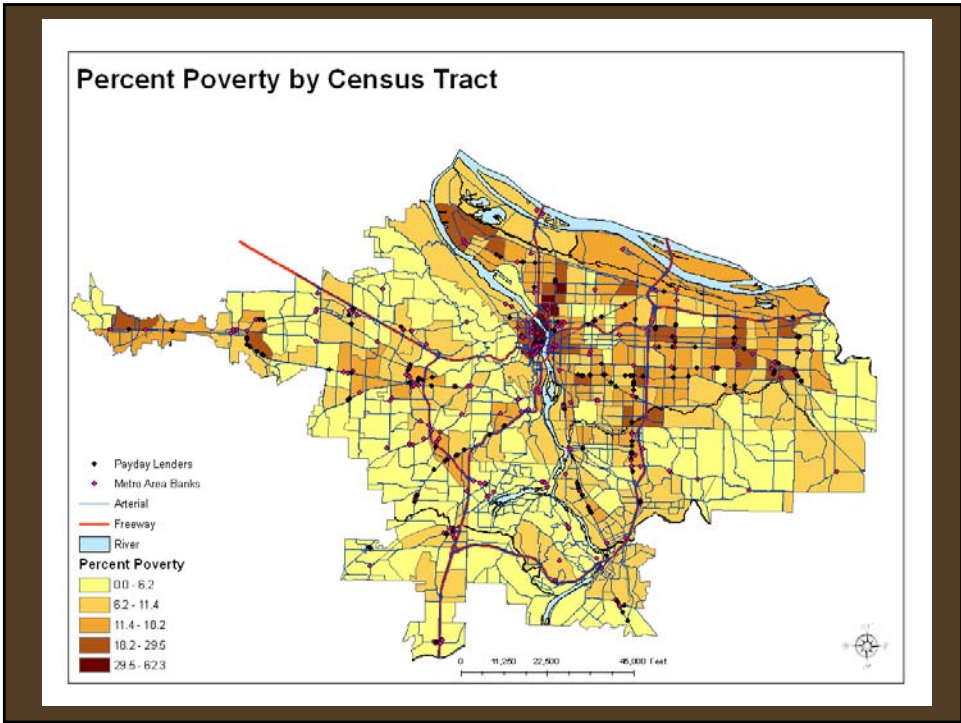
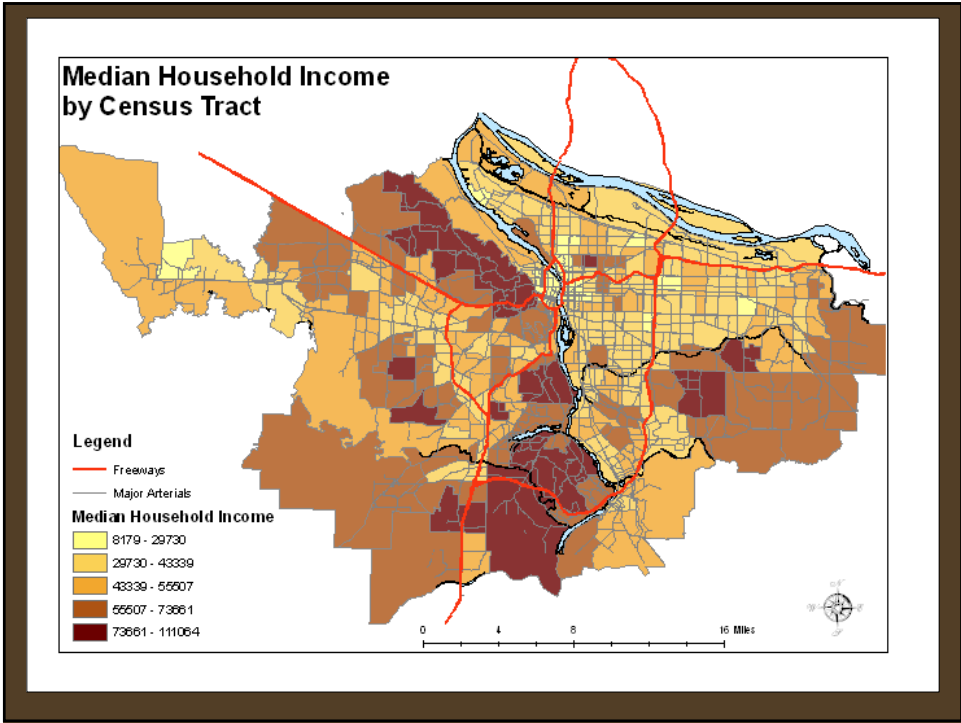
- Payday Locations and Banks
- Demographic breakdown-Black, Asian, Hispanic, and White
- Economic breakdown-Median household income, Percent poverty, and Percent renter occupied

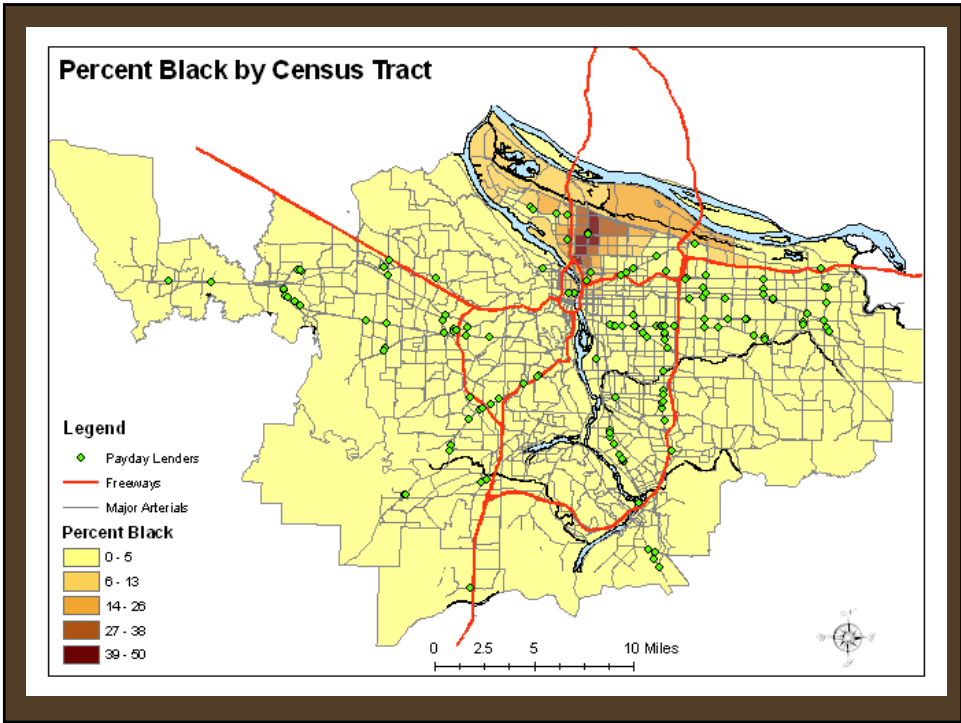
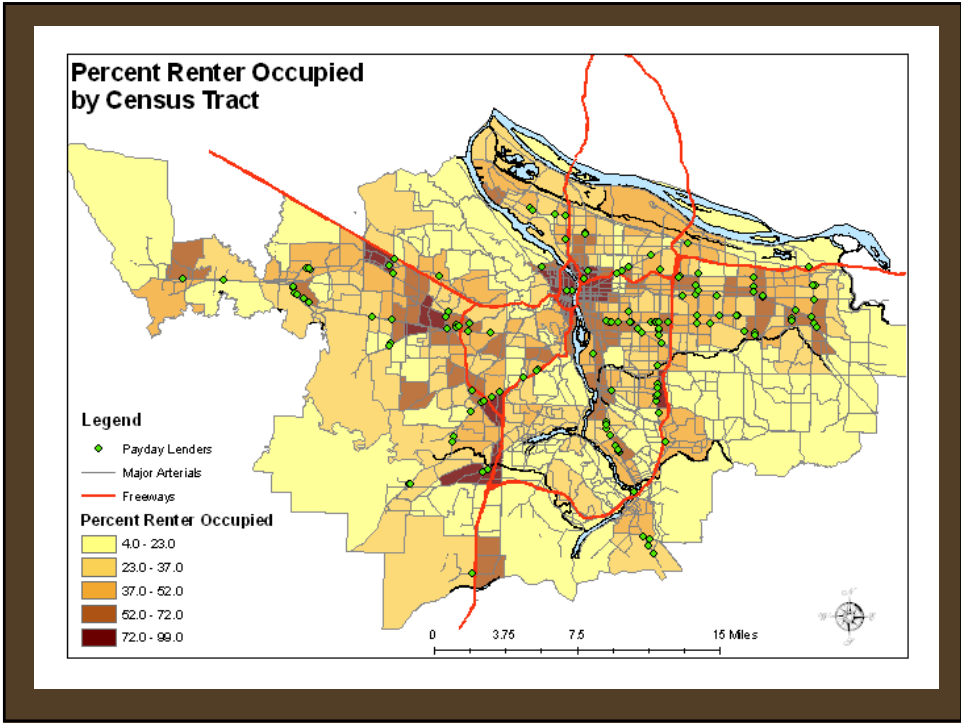
Payday Lender Locations in the Portland Metro Region

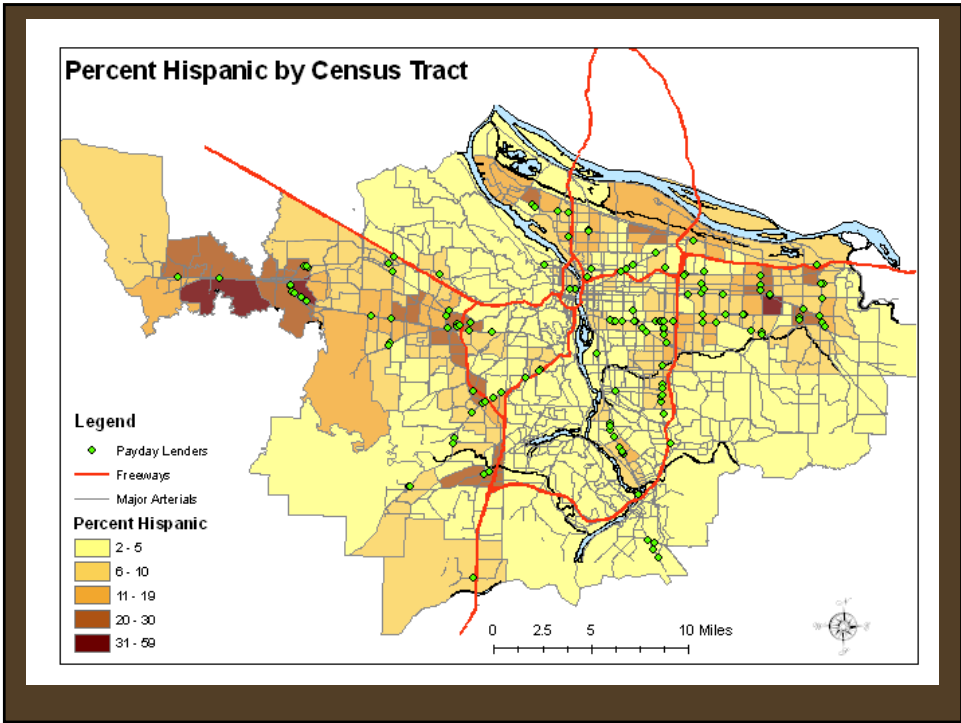
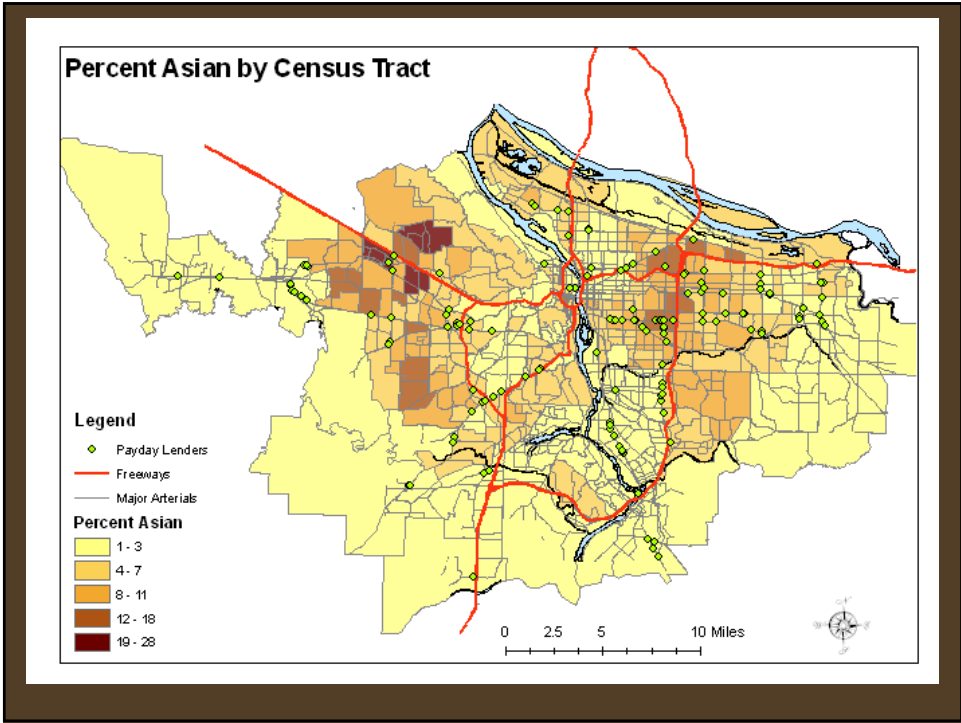


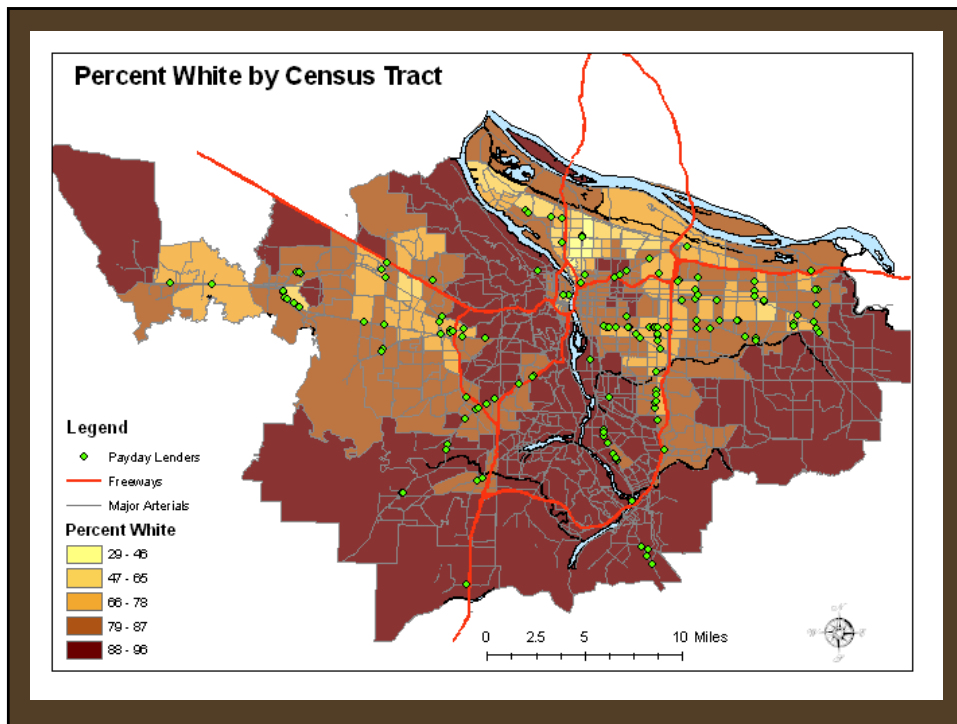
Bank Locations in the Portland Metro Region











Analysis

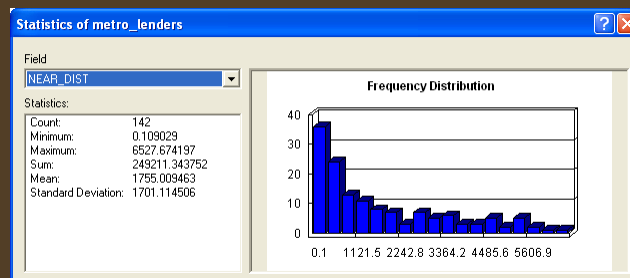
- Used “Nearest Neighbor” analysis to determine if there was spatial autocorrelation of payday lender and bank locations.
- Used “Near” analysis to find distance between payday lenders and banks.
- Used t-test to determine if there was a significant difference between the income and demographic makeup of census tracts with payday lenders and the Metro region as a whole.

Analysis

- Tested difference between Banks and Metro area as a whole.
- Tested difference between Banks and Payday Lenders
- SPSS was used to compare the means using the one sample t-test function.

Results

- Nearest neighbor analysis revealed a high degree of clustering for both banks and payday lenders. (*z-score* > -20, -13.5)
- Near analysis shows average distance from payday lender to bank is 0.33 mile. Maximum distance 1.2 miles



Sample t-score for median household income in payday census tracts

Median Household Income

N	Mean	Std. Deviation	Std. Error Mean
75	\$41288.13	11167.48724	1289.510353

Test Value = \$48031.02

t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
-5.229028718	74	0.00000152	-6742.886667	-9312.29213	-4173.48

T-Test Scores

t-scores	Median Household Income	Percent Poverty	Percent Renter-Occupied	Percent White	Percent Black	Percent Asian	Percent Hispanic
Metro vs. Payday	-5.229	2.636	2.585	-1.815	-1.162	0.376	2.887
t-scores	Median Household Income	Percent Poverty	Percent Renter-Occupied	Percent White	Percent Black	Percent Asian	Percent Hispanic
Metro vs. Banks	-2.020	1.351	3.614	0.415	-1.614	0.464	1.267
t-scores	Median Household Income	Percent Poverty	Percent Renter-Occupied	Percent White	Percent Black	Percent Asian	Percent Hispanic
Payday vs. Banks	-2.942	1.566	-0.613	-2.182	0.344	-0.036	1.961

*Yellow denotes significance at the 95% confidence interval
Aka – the likelihood of this being random is near zilch.*

Results – Payday Lenders

- Payday lenders located in poorer census tracts, and some indication that they locate in tracts with higher minority populations
 - Significant results for Median Income, Percent Poverty, and Percent Renter Occupied
 - Significant results for Percent Hispanic
- Negative though not significant trend for tracts with higher percentage of black residents
 - Contrary to Graves' findings Cook County and Orleans Parish

Results - Banks

- Banks also locate in poorer census tracts than Metro average

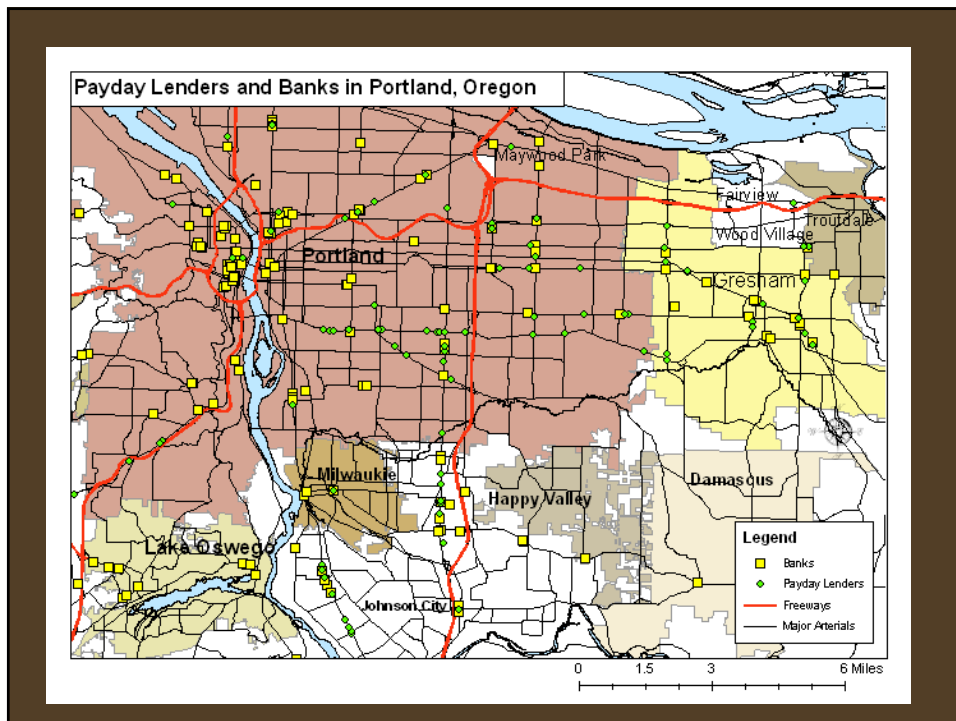
No significant differences from Metro area for any demographic group

Results – Banks vs. Payday Lenders

- Payday lenders locate in poorer tracts than banks
- Payday lenders locate in tracts with lower percentage of white residents than banks.

Discussion

- This is a simplistic analysis, but...
- There is enough of a relationship to warrant further study
- Future research could include regression analysis to examine multiple factors that may influence location of lenders.
- The average distance from lenders to bank is 1/3 of a mile, so there isn't a very strong argument for banks under-serving.
- Graves suggested banks were targeting wealthier, whiter neighborhoods. Our results suggest that banks target more neighborhoods in general.



Sources



Data

- [Metro-Region RLIS dataset](#)
- [Oregon Consumer Finance Companies](#)
- [FDIC Institution Directory](#)
- [Oregon Geospatial Data Clearinghouse](#)

Literature

- Burkey, M. and Simkins, S. Factors Affecting the Location of Payday Lending and Traditional Banking Services in North Carolina. Paper presented at The Southern Regional Sciences Association 43rd Annual Meeting, March 11-13, 2004, New Orleans, Louisiana.
- Downey, L. 1998. Environmental Injustice: Is Race or Income a Better Predictor? *Social Science Quarterly*. 79(4): 766-778.
- Graves, S. 2003. Landscapes of Predation, Landscapes of Neglect: A Location Analysis of Payday Lenders and Banks. *The Professional Geographer*. 55(3): 303-317.
- OSPiRG. 2005. Preying on Portlanders: Payday Lending in the City of Portland. <http://www.ospirg.org/reports/preyingonportlanders.pdf> (last accessed 12, February 2006)
- Stegman, M. and R Faris. 2003. Payday Lending: A Business Model that Encourages Chronic Borrowing. *Economic Development Quarterly* 17 (1):8-32
- Oregonian. 2005. Survey scores payday loan operations. 17 November.
- Oregonian. 2006. In My Opinion: Level the playing field around payday loans. 22 February.
- Oregonian. 2006. No more blank checks for Portland's payday lenders. 23 February.
- Oregonian. 2006. Saltzman gets behind cause with high return. 2 March