DETERMINANTS OF PAYDAY LENDING LOCATIONS IN MISSISSIPPI

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Background on Payday Loans

- Unsecured, small dollar, high cost loan to borrowers that meet basic criteria
    - Employed or have form of regular income (e.g., Social Security, pension, disability benefit, etc.)
    - Have an active checking account
    - Have an established residency
    - Have acceptable form of identification
- Loans are very short-term (2-4 weeks), must be paid in full, and are often renewed/rolled over
- Part of non-traditional finance sector – check cashers, title loan companies, pawn shops
- Rapid growth since early 1990's with increased use of technology: $25-$30B in annual lending
- Online payday loans emerging as new growth sector
- Regulated at state level. Have been subject of active policy actions at state levels – not available in 18 states. Online lending difficult to regulate / monitor.
- Consumer Financial Protection Bureau issuing comments/draft regulations soon

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Example of Payday Loan

Amount Borrowed	$300
Fee per 28 days	$65.85 ($21.95 per $100 borrowed)
Fees for 4 renewals	$263.40
Total Fees paid	$329.25
Time Funds Borrowed	20 weeks / 140 days (initial 4-week term + 4 renewals)
Annualized Interest Rate	285%

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Borrower Characteristics

- NOT unemployed / unbanked
- Typically working class, senior citizen or military – lower income households
- Little, if any, savings BUT does not replace credit card availability
- More common among minority households
    - Easier to access – hours and locations
    - Negative history of banking in minority communities

Arguments FOR Payday Loans

- Lack of short-term loans associated with increased financial hardship of households
- Maybe less expensive than the anticipated penalties - utility cut-off, car repair needed for work, etc.
- Availability of cash during times of upheaval such as natural disasters
- Short-term needs of small/micro businesses

AGAINST Payday Loans

- Use of payday loans does not result in reduced financial hardship
- Increased financial hardship is realized after accessing product
- Structured to increase cost through use of renewals / multiple loans
- Positive correlation with bankruptcy but no consensus on causality
- Some correlation with increased levels of domestic and community crime

Prior Research

2014 Spring/Summer PPAD Project

- Alan Branson, Latonya Curley, Jennifer Hicks-McGowan, Chris Roby
- Location analysis of payday lenders in Jackson Metro area
- Survey of 44 payday loan borrowers in Jackson Metro area

Location Analysis

- No obvious patterns of targeting noted in sample
- Sample size too small for quantitative analysis

Survey Results

- Respondents with more education reported a better understanding of loan terms/conditions and fewer simultaneous loans.
- Less than 10% had favorable opinion of payday loan product (i.e., "mostly helped them").
- More than 60% thought the product had mostly hurt them.

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Current Research Questions

1. Are payday lenders more likely to be located in communities that:

   - Have lower household incomes

   - Have higher proportion of non-white households

   - Have lower education attainment levels

2. Are bank branches more likely to be located in communities that:

   - Have higher household incomes

   - Have lower proportion of non-white households

   - Have higher education attainment levels

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Research Methodology

- Extend/Update spatial analysis research on payday lenders – Wheatley (2010); Gallmeyer (2011); etc.
- Logit Regression Analysis
- Data used
    - Payday Lender locations as of 8/19/2013 (source – MSDBCF)
    - Bank branch locations as of 6/30/2014 (source – FDIC)
    - Census data 2006-2010 variables:
        - Population – total and by race
        - Household values and incomes
        - Poverty rates
        - Rental housing rates
        - Education attainment levels
        - 11 census tracts eliminated (i.e., missing data, etc.)
- Limitations
    - Mobility of borrowers across geographic units
    - Online payday loans
    - Other alternative financial services (e.g., cash for title, pawn shops, etc.)
    - Missing variables (e.g., retail locations, zoning, casino locations, etc.)

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Dependent Variables

PAYDAYDUM	(1,0) where: 1= a check cashing location was present as of 8/19/13 0 = otherwise
BNKBRNCHDUM	(1,0) where: 1= a bank branch was present as of 6/30/14 0 = otherwise

Independent Variables

CHCKCSHNUM	The number of check cashing locations present as of 8/19/13
BNKBRNCHNUM	The number of bank branch locations present as of 6/30/14
MDHHY1A	Median household income in past 12 months ($)
POVRAT1A	Proportion of total persons below the poverty level in past 12 months
MDVALHS1ALOG	Median value of owner-occupied housing units (natural log)
TRCTPOP1ALOG	Total Population (natural log)
SHRWHT1A	Proportion of population that is White alone population
SHRBLK1A	Proportion of population that is African American
SHRHSP1A	Proportion Hispanic/Latino population
SHRNAMI1A	Proportion American Indian/Alaska native alone population
SHRRNTOCC1A	Proportion of occupied housing units occupied by renters
SHREDUC81A	Proportion of persons 25+ years old who have completed 0-8 years of school
SHREDUC111A	Proportion of persons 25+ years old who have completed 9-12 years of school
SHREDUC121A	Proportion of persons 25+ years old who have completed high school but no college
SHREDUC151A	Proportion of persons 25+ years old who have completed some college but no degree
SHREDUCA1A	Proportion of persons 25+ years old who have an associate degree but no bachelors degree
SHREDUC161A	Proportion of persons 25+ years old who have a bachelors or graduate/professional degree

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Descriptive Statistics – Dependent Variables

STATISTICS

		PAYDAYNUM	BNKBRNCHNUM	BOTHNUM
Mean		1.53	1.84	3.37
Median		.00	1.00	2.00
Std. Deviation		2.443	2.460	4.368
Skewness		2.342	2.122	1.929
Range		14	16	27
Minimum		0	0	0
Maximum		14	16	27
Percentiles	25	.00	.00	.00
	50	.00	1.00	2.00
	75	2.00	3.00	5.00
N	Valid	653	653	653
	Missing	0	0	0

Descriptive Statistics – Dependent Variables

CHCKCSHDUM

		Frequency	Percent
Valid	None	327	50.1
	Payday Lender Branch	326	49.9
	Total	653	100.0

BNKBRNCHDUM

		Frequency	Percent
Valid	None	253	38.7
	Bank Branch	400	61.3
	Total	653	100.0

BOTHDUM

		Frequency	Percent
Valid	None	195	29.9
	Either Payday Lender or Bank Branch	190	29.1
	Both Payday Lender and Bank Branch	268	41.0
	Total	653	100.0

Descriptive Statistics – Independent Variables

Descriptive Statistics

	Range	Minimum	Maximum	Mean	Skewness
	Statistic	Statistic	Statistic	Statistic	Statistic
MDHHY1A	120967	12922	133889	38191.10	1.591
POVRAT1A	.640	.000	.640	.22964	.699
MDVALHS1A	450100	28200	478300	99442.73	2.050
MDVALHS1ALOG	2.83092	10.24708	13.07799	11.4046553	.433
TRCTPOP1A	11740	255	11995	4536.48	.569
TRCTPOP1ALOG	3.85098	5.54126	9.39225	8.3220816	-.847
SHRWHT1A	.9970	.0000	.9970	.564844	-.474
SHRBLK1A	1.0000	.0000	1.0000	.404205	.529
SHRHSP1A	.2560	.0000	.2560	.023613	2.963
SHRMINAMI1A	.6808	.0000	.6808	.004470	19.285
SHRRNTOCC1A	.9766	.0000	.9766	.311779	.818
SHREDUC81A	.2520	.0000	.2520	.076273	.734
SHREDUC111A	.3615	.0000	.3615	.138230	.339
SHREDUC121A	.5246	.0417	.5663	.307454	-.428
SHREDUC151A	.3945	.0605	.4550	.214738	.334
SHREDUCA1A	.1839	.0000	.1839	.073165	.583
SHRED161A	.7622	.0183	.7805	.190141	1.841
Valid N (listwise)	653				

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Results

Dependent = Payday Lending Location	B	Sig.
Constant	-7.855	.245
BNKBRNCHDUM	1.931	.000*
MDHHY1A	.000	.648
POVRAT1A	.600	.693
MDVALHS1ALOG	-.167	.696
TRCTPOP1ALOG	.328	.135
SHRWHT1A	5.460	.129
SHRBLK1A	5.870	.099**
SHRHSP1A	9.831	.005*
SHRMINAMI1A	8.175	.119
SHRRNTOCC1A	3.388	.000*
SHREDUC81A	-1.329	.650
SHREDUC111A	-6.162	.006*
SHREDUC121A	-.251	.871
SHREDUC151A	2.311	.259
SHREDUCA1A	-4.763	.160
Percent Correct	74.3	

Dependent = Bank Branch	B	Sig.
Constant	-5.334	.428
CHCKCSHDUM	1.910	.000*
MDHHY1A	.000	.190
POVRAT1A	.471	.755
MDVALHS1ALOG	.459	.288
TRCTPOP1ALOG	.431	.051**
SHRWHT1A	-.274	.936
SHRBLK1A	-1.740	.605
SHRHSP1A	-5.747	.066**
SHRMINAMI1A	4.055	.594
SHRRNTOCC1A	1.057	.231
SHREDUC81A	.172	.954
SHREDUC111A	-.949	.674
SHREDUC121A	-4.437	.006*
SHREDUC151A	-4.321	.040*
SHREDUCA1A	-2.899	.395
Percent Correct	70.8	

Summary of Findings

- The specified models were correct for 74.3% (Payday Lenders) and 70.8% (Bank Branches) of the dependent variable observations.

- The presence of payday lending locations and bank branches were strongest indicators of the presence of the other. Implies that:
  - Location decision variables might be similar.
  - Payday lenders and banks may not be substitutes for each other

- Payday lender location model
  - Share of rental housing units was highly significant.
  - Surprises – The variables representing lower levels of educational attainment had coefficients with negative coefficients.

- Bank branch location model
  - Population size variable was significant at .01 level – almost at .05 level. Share of population that identified as Hispanic had a negative coefficient.
  - Surprises - Variables representing higher levels of educational attainment had negative coefficients and were significant.

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Possible Next Steps for Research

- Address Limitations
    - Mobility of borrowers – use different units of analysis – census tract, zip code, county
    - Online payday loans – but unsure of how to find data
    - Include locations of other alternative financial services providers
    - Continue to find/add variables (e.g., retail locations, zoning, etc.)
- Possible extensions
    - Examine different relationships based on geography
        - Crime
        - Financial Hardships (e.g., bankruptcies, foreclosures, etc.)
    - Time study analysis of locations and demographics
    - Look for differences between payday lenders (change unit of analysis)
    - Account level analysis for individuals

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