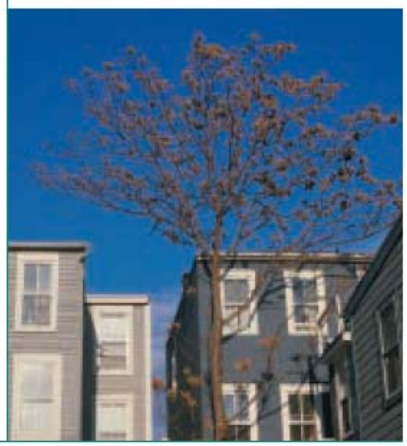

Race Matters:
The Concentration of Payday Lenders in African-American Neighborhoods in North Carolina

A research report by the Center for Responsible Lending

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CENTER FOR RESPONSIBLE LENDING

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Executive Summary

This report examines the neighborhood impact of payday lending in North Carolina. Previous research has shown that payday loans, though marketed as short-term emergency credit, in fact trap borrowers in high-cost, revolving debt. Although payday lending was banned by North Carolina in 2001, we have identified 385 payday loan stores that continue to operate openly across the state through affiliation with out-of-state banks in an arrangement known as the rent-a-bank model.

Through a series of empirical analyses, the Center for Responsible Lending finds that North Carolina payday lending storefronts are disproportionately located in African-American neighborhoods.

While the payday lending industry frequently describes its typical customer in detail, discussion of the role of race is noticeably absent. This report helps correct that omission. Our analysis of North Carolina neighborhoods reveals a powerful relationship between the proportion of African-Americans and the concentration of payday lending stores:

- African-American neighborhoods have three times as many stores per capita as white neighborhoods.[1] This disparity increases as the proportion of African-Americans in a neighborhood increases.

- This three-fold disparity remains unchanged even when we control for the neighborhood characteristics of income, homeownership, poverty, unemployment rate, urban location, age, education, share of households with children, and gender.

State and federal policymakers should take steps to end predatory payday lending, as it traps borrowers in a cycle of debt and has a disparate impact on neighborhoods historically disadvantaged by unfair lending practices.

[1] When we sort all NC census tracts by proportion of African-American residents, half of those tracts are at least 16% African-American, and half are less than 16% African-American. In the top half, there are 3 times as many payday stores per capita as in the bottom half.

Background: The High Stakes of Payday Lending

The Payday Loan Product and the Problem of Flipping

Payday loans are small, short-term loans extended at a very high interest rate for immediate cash, typically secured by a borrower's written check, or authorization for automatic withdrawal from the borrower's bank account.[2] They are called "payday loans" because they are marketed as a tool for cash-strapped borrowers to make it to the next paycheck.[3] Payday lending is a rapidly growing, $40 billion per year industry.[4]

To get a loan, a borrower gives a payday lender a postdated check or authorizes a future automatic debit from their bank account and receives cash, minus the lender's fees. On a $300 payday loan, a borrower typically incurs $45 in fees and receives $255 cash. The lender then holds the check until the borrower's next payday, which may be from less than a week to a month later. Annual percentage rates (APR) for payday loans generally start at 391 percent.[5]

Payday loans are typically originated without traditional underwriting and thus disregard debt-to-income standards.[6] While these loans are marketed as meeting emergency needs,[7] few borrowers actually use them in this manner. Our previous research shows that only one percent of payday loans go to one-time emergency users, while 91 percent of the loans go to borrowers who are caught in a cycle of debt (receive five or more loans per year).[8]

[2] Notably, access to traditional banking services, like checking, are essentially a prerequisite to receiving a payday loan. *See* Jean Ann Fox & Edmund Mierzwinski, *Rent-A-Bank Payday Lending: How Banks Help Payday Lenders Evade State Consumer Protections*, Consumer Federation of America (CFA) and U.S. Public Interest Research Group (U.S. PIRG), (November 2001) at http://uspirg.org/reports/rentabank/Paydayreportnov13.pdf.

[3] Other names for payday loans include deferred presentment, deferred deposit, cash advance and check loans. *See* Jean Ann Fox, *Safe Harbor for Usury: Recent Developments in Payday Lending*, Consumer Federation of America (CFA), (September 1999), at http://www.consumerfed.org/safeharbor.pdf.

[4] Dennis Telzrow & David Burtzlaff, *Industry Report: Payday Loan Industry*, 4 Stephens, Inc., (May 24, 2004).

[5] Jerry L. Robinson & John D. Wheeler, *Update on the Payday Loan Industry: Observations on Recent Industry Developments*, 4 Stephens, Inc., (Sept. 26, 2004). Placing the general cost of payday loans between a $15 and $17 fee per $100 loaned for a period of approximately 14 days amounts to annual percentage rates of 391% and 443% respectively.

[6] This practice, often called asset-based lending or lending without regard to the ability to repay, was cited as an example of a predatory lending practice by the OCC. *See Guidelines for National Banks to Guard Against Predatory and Abusive Lending Practices*, 2 OCC Advisory Letter 2003-2 (Feb. 21, 2003), at http://www.occ.treas.gov/ftp/advisory/2003-2.pdf.

[7] See e.g., Community Financial Services Association of America, Ltd. Memorandum of Law Amicus Curiae, *BankWest v. Baker*, 8 No. 1:04-CV-1028-MHS, (N.D. Ga. 2004).

[8] A recent Washington State Department of Financial Institutions publication that examined the four largest payday lending chains in Washington State found similar results, with only 2% of borrowers receiving one payday loan annually. Notably, this Washington State figure assumes that a payday borrower only goes to one company and does not use other companies' storefronts. See *Payday Lending Report: Statistics and Trends for 2003*, Washington State Department of Financial Institutions (2005), at http://www.dfi.wa.gov/news/DFI_PaydayReport.pdf *; see also* Keith Ernst, John Farris & Uriah King, *Quantifying the Economic Costs of Predatory Payday Lending*, Center for Responsible Lending (2003), at http://www.responsiblelending.org/pdfs/CRLPaydayLendingStudy121803.pdf.

Because this type of loan is due in full on payday, borrowers expect to have money in their account to cover the check. However, many borrowers find that paying back the entire loan on payday would leave them without funds necessary to meet basic living expenses until the next payday, such as electricity, rent and groceries. Borrowers who cannot solve their emergency in two weeks—the vast majority of payday borrowers—are flipped into the cycle of loan extensions in the form of renewals[9] or back-to-back transactions.[10] To avoid defaulting on the $300 loan, they must pay the $45 fee every two weeks.

In this way, what started as a one-time loan becomes revolving, extremely high-cost debt that traps borrowers, rather than being beneficial credit that helps borrowers resolve financial emergencies. We have previously estimated that this debt trap of repeated transactions costs five million U.S. borrowers over $3.4 billion each year.[11] Given the industry's rapid growth, the cost of predatory payday lending continues to increase.[12]

The Legal Framework of Payday Lending in North Carolina

Before 1997, payday lending was illegal in North Carolina under both North Carolina's Consumer Finance Act and criminal law.[13] In 1997, the NC General Assembly enacted legislation authorizing check-cashing firms to provide short-term cash advances to customers, as a four-year experiment with payday lending. This law expired in August 2001 and was not renewed, again making payday loans illegal. However, payday lending did not disappear, even though this was the intent of the General Assembly.

After the payday authorization expired, some smaller companies sold out to large chains, reverted to their original check-cashing business, or went out of business. Other small operators continue to provide loans in violation of state law, at times providing payday loans under a different guise.[14] For example, one store began offering a $300 rebate for Internet access,

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[9] With a renewal or rollover, the borrower who cannot repay the loan at the end of two weeks may pay a fee (typically equal to the original $15 per $100 fee) to extend the loan term (generally the renewal has the same term as the original loan). The borrower still owes the original amount advanced, however. Rollovers can continue for months and years, with the borrower paying fees without the payday lender advancing the borrower any additional cash. In a short period of time, a customer who rolls over a single loan repeatedly will pay the lender fees that total more than the amount the customer originally received, and will still owe the original amount borrowed.

[10] In a "back-to-back" transaction, the borrower ostensibly pays off the first loan, but must immediately borrow again to meet financial needs until his or her next payday. To repay the first loan, the borrower either lets the lender cash the original post-dated check or pays the lender cash in an amount equal to the original loan amount, in which case the lender does not cash the borrower's original check. The borrower then takes out another payday loan immediately thereafter for a fee equal to the fee charged for the original loan. The cost to the borrower is the same as the cost of a rollover.

[11] See Keith Ernst, John Farris & Uriah King, *Quantifying the Economic Costs of Predatory Payday Lending*, Center for Responsible Lending (2003), at http://www.responsiblelending.org/pdfs/CRLPaydayLendingStudy121803.pdf

[12] The market has grown 60% to $40 billion since the previous calculation. See *Telzrow*, footnote 4. Using the methodology of our earlier research, the total cost of predatory lending now exceeds $5 billion annually.

[13] *NC AG 1992 opinion*, 60 N.C.A.G. 86 (1992).

[14] Some institutions have sought to evade North Carolina's usury law by describing the transaction as something other than a loan, such as a catalog sale or rental of Internet access. This report does not include this type of subterfuge loan shop in any data analyzed. North Carolina has taken action against some of these subterfuge loan shops. See *AG Cooper Shuts Down Phony Rebate Payday Loan Scheme*, North Carolina Attorney General press release (June 8, 2004) at http://www.ncdoj.com/DocumentStreamerClient?directory=PressReleases/&file=American%20funding.pdf

charging $15 every two weeks for a service that was rarely used and offered simply to disguise the payday loan.[15]

In addition, large chains like Advance America, Check 'n Go, and Check Into Cash continue to make loans by affiliating with out-of-state banks, claiming they are therefore exempt from state law.[16] In reality, however, these arrangements are structured so that the bank has little meaningful participation in the loan-making process, and little economic interest in the payday loans themselves. These one-sided relationships are known as the agent-assisted model, or more commonly, the rent-a-bank model.

Currently, the FDIC is the only federal regulator that permits its member banks to engage in rent-a-bank partnerships with payday lenders. The Office of the Comptroller of the Currency, which regulates national banks, the Office of Thrift Supervision, which regulates federal thrifts, and the Federal Reserve Board, which regulates member state-chartered banks, have all disallowed the practice for the banks they supervise.

The legal issues surrounding the rent-a-bank practice are unresolved. In 2002, the North Carolina Attorney General and North Carolina Commissioner of Banks sued Ace Cash Express for continuing to make payday loans in violation of North Carolina law. Later that year, Ace agreed to stop its payday lending activities and pay civil penalties of $325,000.[17]

More recently, a group of borrowers has filed suit against national payday lending chains, asserting that they are violating North Carolina's usury statute.[18] In addition, a public investigation into the rent-a-bank arrangements of Advance America, the largest payday lender in the state, has been launched by the North Carolina Commissioner of Banks and the state's Attorney General.[19] The Office of the Commissioner of Banks recently announced that it will hold a public hearing on April 19, 2005, "to determine whether the company has violated North Carolina's consumer finance and check casher laws and, if so, to assess or seek appropriate remedies under such laws."[20]

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[15] Jean Ann Fox, *Unsafe and Unsound: Payday Lenders Hide Behind FDIC Bank Charters to Peddle Usury*, 7-10 Consumer Federation of America, (Mar. 30, 2004), at http://www.consumerfed.org/pdlrentabankreport.pdf

[16] Fourteen states have laws that effectively prohibit payday loans through means such as civil and criminal usury caps, and several other states have significant restrictions on payday lending. To circumvent these restrictions, non-bank payday lenders partner with out-of-state banks to "export" certain loan terms from the bank's home state that are otherwise prohibited by the laws of the state where the borrower lives and/or the payday lender is located.

[17] *Attorney General asks Judge to Stop Illegal Payday Lending Scheme*, North Carolina Attorney General press release (Jan. 14, 2002), at http://www.jus.state.nc.us/in/press/01142002.htm.

[18] *Hager v. Check into Cash of North Carolina, Inc.*, No. 04-CVS-2859 (Super. Ct. N.C. filed July 27, 2004), at http://www.tlpj.org/briefs/check%20into%20cash%20complaint.pdf; *Kucan v. Advance America*, No. 04-CVS-2860 (Super. Ct. N.C. filed July 27, 2004), at http://www.tlpj.org/briefs/advance%20america%20complaint.pdf; *McQuillan v. Check 'N Go of North Carolina, Inc.* No. 04-CVS-2858 (Super. Ct. N.C. filed July 27, 2004), available at http://www.tlpj.org/briefs/check%20no%20go%20complaint.pdf.

[19] *AG Cooper launches investigation of state's largest payday lender*, North Carolina Attorney General press release (Aug. 26, 2004), at www.ncdoj.com/DocumentStreamerClient?directory=PressReleases/&file=Advance%20America.pdf; *Statement of Joseph A. Smith, Commissioner of Banks, on Payday Lending Investigation*, North Carolina Department of Commerce press release (Aug. 24, 2004), at http://www.nccob.org/NR/rdonlyres/8363628A-13AD-45D4-BD8E-CF57BB30383F/0/pay_day_lending.pdf.

[20] *NC Commissioner of Banks to Hold Public Hearing*, North Carolina Banking Commission news release, (February 2, 2005) at http://www.nccob.org/NR/rdonlyres/9B792DB5-7474-4722-81DC-745579CA1A6F/0/OCOBpublicnotice.pdf

In addition, the FDIC has recently amended its payday loan guidelines in an effort to meaningfully address the problem of the debt trap.[21] The guidelines call on banks to develop procedures to ensure that they do not make payday loans to customers who have had payday loans outstanding from any lender for a total of more than three months in the previous twelve months. Assuming a typical payday loan of two weeks, the FDIC guidelines would permit six transactions.[22] Our previous research suggests that just 16% of payday loans are made to borrowers who had six or fewer loans outstanding in a twelve-month period.[23] Consequently, this guidance, if effectively enforced, should lead to a substantial reduction of rent-a-bank payday lending in North Carolina.

Recent Analyses of the Location of Fringe Banking Services

A number of recent studies have explored the concentration of payday storefronts and other fringe banking services in North Carolina. For example, Kolb observes that in the Charlotte market, even in areas where mainstream banks have not withdrawn, payday lenders and check cashers favored zip codes with certain income levels.[24] The study found five outlets per 10,000 households in neighborhoods in which the median income was between $20,000 and $40,000, as compared to 3.4 outlets per 10,000 households in zip codes with less than $20,000 median income. Kolb also directly links the business of check cashing to race and ethnicity, finding that there were at least four times as many check cashers in zip codes that were 70 percent or greater minority as in zip codes that were less than 10 percent minority.

These findings are generally in line with work performed by Graves, a professor at California State University, Northridge. He develops a model based on population within one-quarter mile of a store's location and finds that the "payday lending industry is targeting neighborhoods with a higher percentage of poor and minority residents."[25]

In addition, University of North Carolina researchers Stegman and Faris report on a survey that finds that lower-income African-Americans were more likely than lower-income whites to receive payday loans in North Carolina in 2001.[26]

In the most recent research, Burkey and Simkins, professors at North Carolina A&T State University, look directly at the link between payday lending location and race. Their study examines factors affecting the location of payday lending storefronts within North Carolina and concludes that, after controlling for a number of variables, race is a powerful predictor of the locations of payday lenders. Using a zip code-based model, they find that, all else being equal, "a

[21] *Guidelines for Payday Lending*, Federal Deposit Insurance Corporation (FDIC), (March 2, 2005), at http://www.fdic.gov/news/news/financial/2005/fil1405a.html
[22] *See* FDIC, *footnote 21*.
[23] *See* Ernst, *footnote 11*.
[24] Anthony Kolb, *Spatial Analysis of Bank and Check Cashing Locations in Charlotte, North Carolina*, unpublished draft, University of North Carolina (December 30, 1999) (on file with authors).
[25] Steven M. Graves, *Landscapes of Predation, Landscapes of Neglect: A Location Analysis of Payday Lenders and Banks*, The Professional Geographer 55(3) at p312 (2003).
[26] Michael Stegman and Robert Faris, *Payday Lending: A Business Model that Encourages Chronic Borrowing*, 8 Economic Development Quarterly, Vol. 17, No. 1 at 18 (February 2003).

one percentage point increase in the population that is black will… increase the number of payday lenders by one percent." [27]

[27] Mark L. Burkey & Scott P. Simkins, "Factors Affecting the Location of Payday Lending and Traditional Banking Services In North Carolina", ***Review of Regional Studies***, Fall 2004 Vol. 34 no. 2, pp. 191-205.

Discussion of Findings: The Impact of Payday Lending on North Carolina Neighborhoods

In this study, we sought to evaluate whether rent-a-bank payday lending had a disproportionate impact on minority families in North Carolina based on store location. We collected data identifying the locations of payday stores that are operating under the rent-a-bank model. Using this information, we calculated the concentration of payday lending stores statewide in tracts with varying racial and ethnic compositions. For more information on our data collection and the dataset itself, see sidebar and Appendix 1.

We took the analysis further through negative binomial bivariate and multivariate regression modeling. The multivariate models were particularly helpful since they allowed us to control for factors that might explain the location of payday lending storefronts on the basis of variables other than race or ethnicity.

About the Data

The last available official dataset of licensed payday lenders from the North Carolina Commissioner of Banks is based on year 2000 data. We collected our own data to get an understanding of the current distribution of payday lending storefronts.

Since payday lending is prohibited under state law, payday lenders use the rent-a-bank model in order to appear to be operating legally. Accordingly, we first assembled a list of payday lenders known to engage in such schemes. Next, we submitted these names to a phone database to obtain 2,982 telephone numbers and shop addresses in 15 states. Finally, we randomly selected 200 storefronts for follow-up calls to verify name, address, and payday loan product availability.

This approach ultimately yielded the addresses of 385 payday loan storefronts openly operating in North Carolina. This dataset necessarily omits payday lenders engaging in the disguised payday loan transactions described in the section, "The Legal Framework of Payday Lending in North Carolina."

While the list of 385 store locations may not be comprehensive, we have no reason to believe that our methods introduce distortions along racial or ethnic lines. Moreover, it is more than double the 170 stores reported by Stephens, Inc. to be operating in North Carolina. (See Telzrow, footnote 4 at 5.) Still, to the extent that our dataset is a sample as opposed to a complete census, our statistical methods allow us to extrapolate findings.

A Framework for Analysis

Because the relationship between minority composition and payday lending storefronts might not be linear (for example, increasing concentrations of minority residents might find exponentially greater—or fewer—numbers of payday lending stores per capita), we constructed a model that would allow us to make meaningful comparisons between areas with different proportions of minority residents.

We sorted all North Carolina census tracts by the racial or ethnic variable of interest and divided them into buckets. For example, the highest 20 percent of census tracts (top fifth) as sorted by African-American population were a minimum of 41.9% African-American, and the lowest 20 percent (bottom fifth) were no more than 3.9% African-American. The proportion of African-Americans in these buckets is shown in Table 1 below.

This relative measurement allows us to explore in-depth the association between minority population and payday lender concentration. Moreover, since the choice of location by a payday lender would presumably be based on relative options, a relative measurement of stores' locations better serves our purpose.

Unfortunately, with a median Hispanic census tract population of just 2.9% and a highly significant correlation between African-American and Hispanic populations in North Carolina census tracts,[28] we find it difficult to clearly interpret the meaning of the results of our analysis for Hispanic populations. For interested readers, however, the full results of our Hispanic models are included in Appendix 1.

Other studies have used a variety of geographic frames through which to evaluate the neighborhoods surrounding payday lenders, ranging from zip codes to collections of census block groups (see *Recent Analyses* section above). We chose census tracts as an appropriate scale since a recent Morgan Stanley report concluded that payday lending stores may serve up to 2,000 households—a figure that harmonizes well with the 2,455 households per census tract with a payday lending store in our dataset.[29]

Table 1: African-American (AA) Concentration in NC Census Tracts

Rank of Census Tracts by Proportion of African-Americans (AA)	Number of Census Tracts	AA Pop. / Total Pop.	Average AA Concentration	Average White Concentration
Highest 20% (top fifth)	311	Min 41.9%	64.7%	29.0%
Lowest 20% (bottom fifth)	311	Max 3.9%	1.5%	94.8%
Highest 30%	466	Min 30.0%	55.1%	38.0%
Lowest 30%	466	Max 6.7%	2.8%	93.1%
Highest 40%	622	Min 22.4%	47.8%	45.1%
Lowest 40%	622	Max 10.9%	4.3%	91.0%
Highest 50% (above median)	777	Min 16.0%	42.1%	50.8%
Lowest 50% (below median)	777	Max 15.9%	6.1%	88.8%

Descriptive Analysis

The calculations discussed in this section are based on the total number of payday lending stores statewide divided by the total population in tracts statewide; the next section discusses models set at the census tract level. When we compared census tracts by concentration of African-Americans, we found that the concentration of payday storefronts in North Carolina is substantially greater in neighborhoods with higher proportions of African-Americans.

Half of all North Carolina census tracts are at least 16% African-American, and half are less than 16% African-American. (See Table 1.) In the top half, we found a payday storefront density of 7.3 stores per 100,000 residents, while for the bottom half, we found a density of 2.5 stores per 100,000 residents. (See Figure 1.) This gives us a 3-to-1 ratio.

[28] The Pearson correlation coefficient between African-American and Hispanic concentration in a census tract is 0.33, and it is highly significant at a 99.9% confidence level, which suggests that Hispanics tend to live in the same areas as African-Americans. This proximity between African-Americans and Hispanics is most likely driving the patterns revealed by our Hispanic models.

[29] *Advance America: Initiating with an Underweight-V Rating*, Morgan Stanley Equity Research, 25 (January 25, 2005).

The disparity increases as the proportion of African-American residents in a neighborhood increases. For example, in the 20 percent of neighborhoods across the state with the highest African-American concentration, we found a payday storefront density of 7.5 stores per 100,000 residents, while for the lowest twenty percent of African-American neighborhoods, the density of storefronts was only 1.6 stores per 100,000 residents. This gives us the ratio of 5-to-1.

Bivariate Analysis

The descriptive measurements discussed above are based on the statewide sum total number of payday stores in census tracts meeting the specific description, divided by the total population of those same tracts. In a sense, those figures provide us with state averages. When we change the frame of measurement directly to the census tract level by performing a bivariate regression, the results of which can be thought of as census tract averages, a consistent pattern emerges. (See Table 2.)

Table 2: North Carolina: Payday and Race Bivariate (Uncontrolled) Results

Rank of Census Tracts by Proportion of African-Americans	Ratio of payday stores
Highest 20% vs. Lowest 20%	5.8 to 1
Highest 30% vs. Lowest 30%	3.8 to 1
Highest 40% vs. Lowest 40%	3.8 to 1
Highest 50% vs. Lowest 50%	3.2 to 1

The top-to-bottom 20% comparison yields 5.8 times as many stores per capita on average in heavily African-American census tracts as compared with census tracts with low concentrations of African-Americans. Comparing the top half of census tracts to the bottom half, we find an average disparity of 3.2 times as many payday lending storefronts per capita.

Concentration of payday storefronts, by concentration of African-Americans

See Appendix 1, Table A5 for complete data

All of the disparities in Table 2 are statistically significant at a 95% confidence level.

Multivariate Analysis

Payday lenders have asserted that the location of their stores is based on market needs. In industry publications, they have typically described their customer base as employed checking account holders with annual incomes between $25,000 and $50,000, relatively young (with perhaps two-thirds under the age of 45), having high-school diplomas or some college education, disproportionately women and renters, and more likely to have children in the home.[30]

[30] Gregory Elliehausen & Edward C. Lawrence, *Payday Advance Credit in America: An Analysis of Consumer Demand*, Monograph 35, Credit Research Center (April 2001); Jerry L. Robinson & John D. Wheeler, *Update on*

These factors each have some plausible but unproven basis for explaining the appeal of payday loans. Borrowers with extremely low incomes might be expected to have less capacity to deal with short-term fiscal needs, families with very high incomes likely have alternatives to expensive payday loans, and relatively young families may have less accumulated savings.

Educational achievement may serve either as a proxy for stable employment or to having a checking account, which is a precondition to receiving a payday loan. A household with children may be more likely to encounter unbudgeted fiscal needs than a similarly situated household comprised solely of adults. Renters may be thought to have less wealth to draw on when encountering a fiscal bump. And finally, women may be uniquely disadvantaged by divorce and other events that tend to give rise to short-term economic needs.

Since many of these descriptions might be correlated with race in ways that explain the disparities we observe in the descriptive and bivariate context, we designed multivariate regression models to evaluate whether race would continue to be a significant factor after controlling for these alternative explanatory variables.

Specifically, our multivariate regression models control for census tract median family income, portion of families in poverty, proportion of homeowners, unemployment rate, ratio of younger (aged 20-44) adults to older (aged 45+) adults, share of adults over 25 with a high school education, gender, proportion of households with children, and whether the neighborhood is in an urban or rural area. The last variable was included because one might expect the concentration of population in urban areas to be attractive to any retail operation, including payday lenders.

Data on creditworthiness is not available in the context of this analysis. Though inclusion of that variable would allow a more direct control measuring the availability of alternatives to payday loans for a particular neighborhood, our controlling for income and homeownership at a census tract level serves a similar purpose.

Similarly, while data on commercial zoning in census tracts across North Carolina are not readily available, we believe that by including income and our other control variables we have sufficiently controlled for the effects of this unobserved variable. After all, we find it unlikely that low-income African-Americans are significantly more likely to live in census tracts with a disproportionate share of commercial zoning than low-income whites, especially once our other variables that describe education, urban status, homeownership rates, etc. are controlled.

As described below, we find that the concentration of payday loan storefronts is significantly greater in African-American neighborhoods than in white neighborhoods, even when controlling for all of these other variables.

Multivariate Results for Race

As shown in Table 3, after controlling for the effects of income and eight other variables, we find that the highest 20% of African-American neighborhoods had 4.1 times as many storefronts per capita compared to the lowest 20%, and the highest-to-lowest 50% had a ratio of 2.9-to-1. Both

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the Payday Loan Industry: Observations on Recent Industry Developments, Industry Article, Stephens Inc. (Sep. 26, 2003).

findings are highly statistically significant at a 95% confidence level, as are the findings in our other two regression models used to compare top-to-bottom 30% and 40% buckets. For full results for all four regression models, see Appendix 1.

The pattern in the relationship between race and payday lending store concentrations is strong and consistent in our multivariate models. The concentration of payday lending stores increases uniformly as the concentration of African-Americans increases.

The inclusion of nine control variables that purportedly describe the payday lending customer base made surprisingly little difference in our model. Without the control variables, we observed from 3.2 to 5.8 times as many payday lending stores per capita in higher African-American areas compared to areas with lower concentrations of African-Americans. After we included these nine control variables, the range changed only marginally in our models (2.9 to 4.1).

These findings are in-line with the findings of the two other researchers who have examined the location of payday lending stores. Kolb finds four times as many check cashing stores in 70% minority neighborhoods as in 10% minority neighborhoods. Our most analogous comparison is between neighborhoods that are a minimum of 42% African-American and those that are a maximum of 4% African-American. In that case, our multivariate analysis yields a disparity of 4.1. Comparisons to Burkey and Simkins work is complicated by their choice to model race as a continuous independent variable. However, our general findings accord with their conclusion, shared by Graves, that payday lending storefronts are more prevalent in African-American neighborhoods.

Table 3: North Carolina: Payday and Race Multivariate (Controlled) Results

Rank of Census Tracts by Proportion of African-Americans	Ratio of payday stores
Highest 20% vs. Lowest 20%	4.1 to 1
Highest 30% vs. Lowest 30%	3.7 to 1
Highest 40% vs. Lowest 40%	3.2 to 1
Highest 50% vs. Lowest 50%	2.9 to 1

To further explore these findings, we developed maps of every North Carolina metropolitan statistical area (MSA). For a complete set of maps, see Appendix 2. Below are maps of Charlotte and Fayetteville, which are particularly illustrative of the findings.

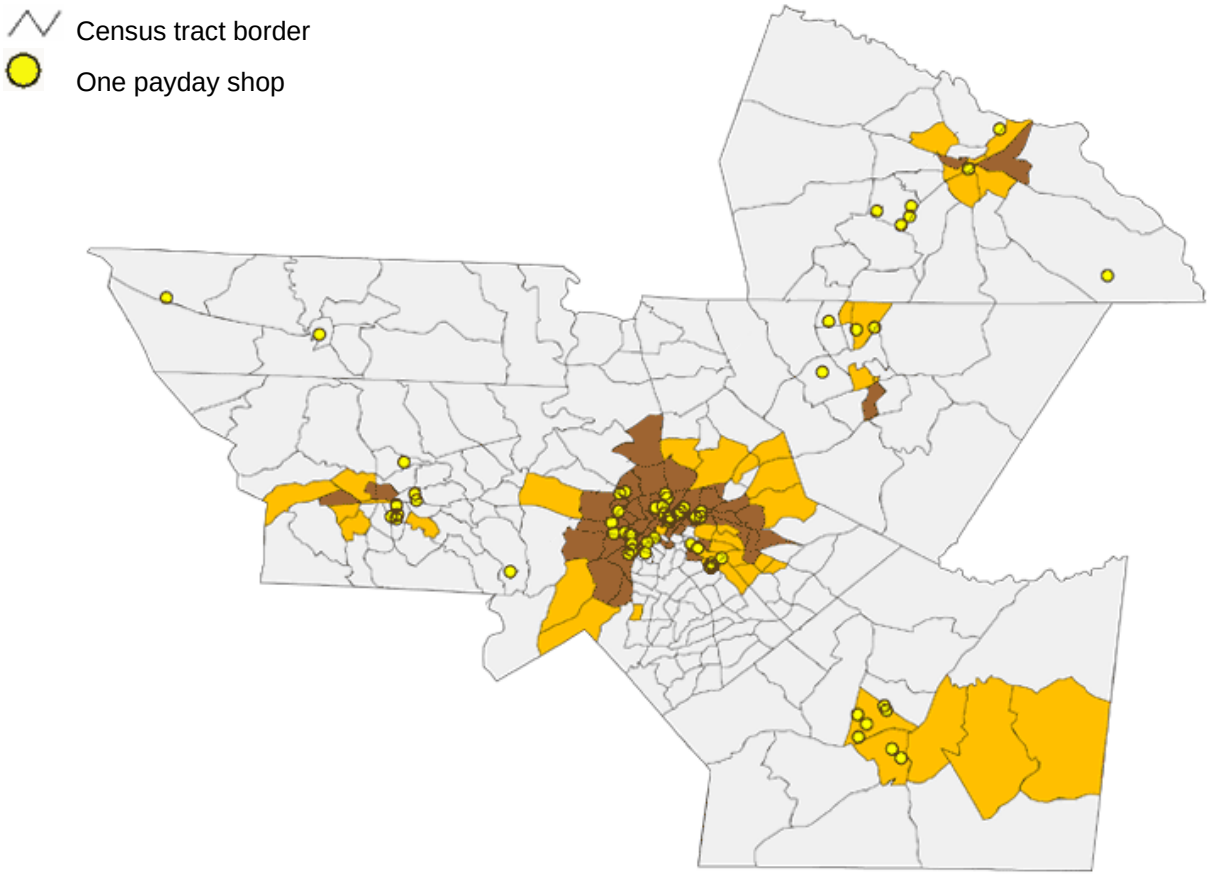
The Charlotte map (Figure 2) shows a striking grouping of rent-a-bank payday lending stores in African-American neighborhoods. The shaded areas represent tracts in the top 20% and the top 21-40% of African-American neighborhoods statewide (darker and lighter shading, respectively) and the dots represent payday lending stores. Of the payday lending stores in the MSA, 28 of 63 stores are located in the top 20% tracts.

Figure 2: Charlotte MSA, NC Payday Shop Concentrations

SOURCE: 2000 U.S. Census, 2004 Online address directories

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	63.6	9.5	13.2	28

Top 21-40% Tracts	28.4	9.8	6.3	15
Lowest 60% Tracts	8	3.4	2.3	20

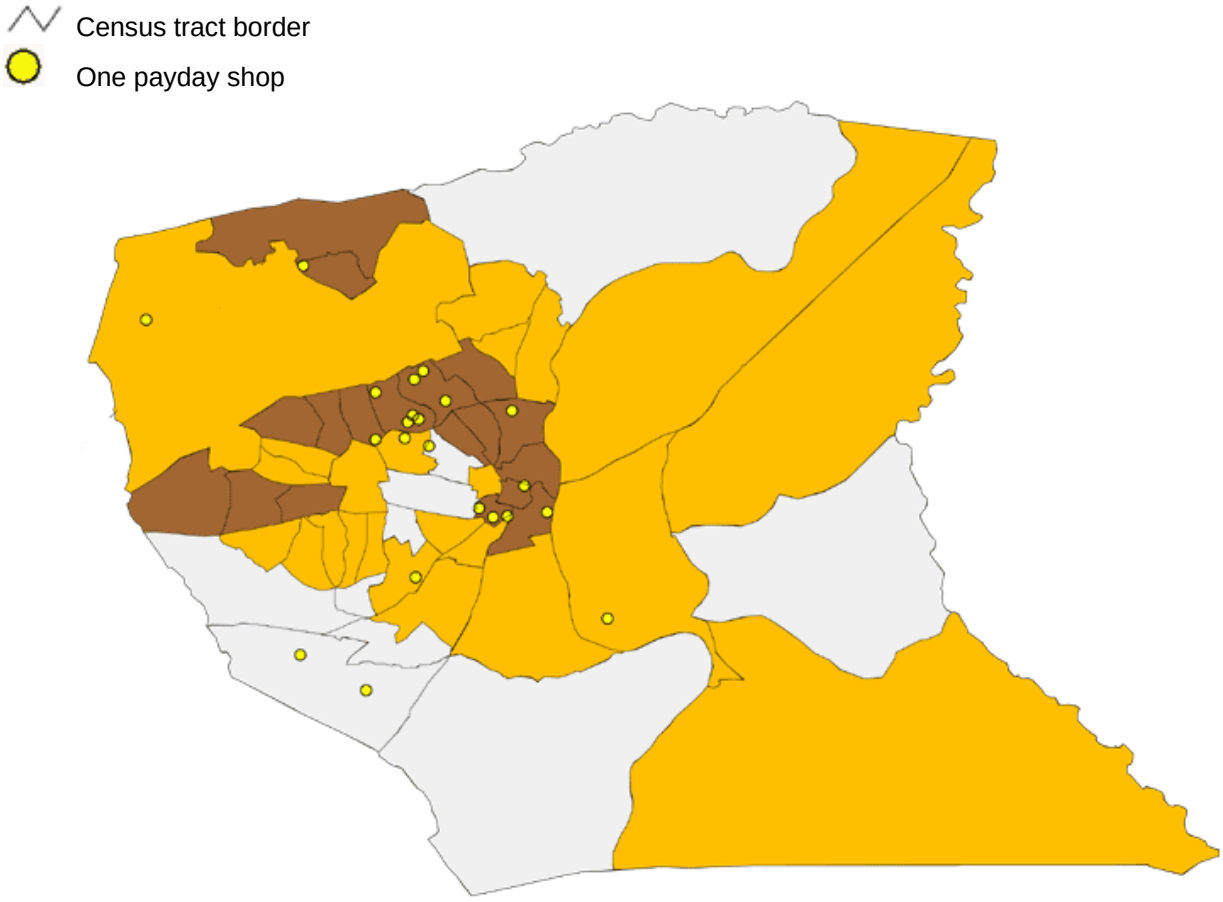


In Fayetteville (Figure 3), two-thirds of the rent-a-bank payday lending stores are located in the top 20% African-American tracts. In addition, a substantial number of stores are clustered in census tracts northwest of downtown, near the U.S. Army Base, Fort Bragg. This map may illustrate the larger trend toward disproportionate numbers of military personnel receiving payday loans, as recently reported by the New York Times.[31]

Figure 3: Fayetteville MSA, NC Payday Shop Concentrations

SOURCE: 2000 U.S. Census, 2004 Online address directories

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	56.1	7.0	16.9	15
Top 21-40% Tracts	29.0	7.8	2.7	4
Lowest 60% Tracts	17.3	4.3	4.7	3



Other Variables

[31] Diana Henriques, *Lenders at the Gate; Debtors in the Barracks*, New York Times (December 7, 2004). Given research by Graves and anecdotal information on the prevalence of subterfuge payday loan stores around military bases, we believe additional research is needed to examine the impact of payday lending on families living near military bases.

Of the control factors we analyzed, census tracts in urban settings have a higher concentration of payday storefronts than those in rural settings, with significant findings across all four regression models. A change from a rural to an urban setting in our top-to-bottom 50% model would roughly double the number of stores expected per capita (2.2 times).

Homeownership was significant or marginally significant in all four of our models, and inversely associated with payday lending store prevalence. For a sense of scale, our top-to-bottom 50% model suggests that a 20 percentage point decrease in homeownership would lead to almost twice as many (1.9 times) payday lending stores per capita. This is in line with industry descriptions of the market.

Income was significant or marginally significant in three of four models, with higher incomes associated with lower concentrations of payday lending stores. For example, for the top-to-bottom 50% comparison, the results suggest that a drop of $20,000 in census tract median income will result in a doubling (2.0 times) of the number of payday lending stores per capita, all else being equal. This suggests, at the least, that high-income neighborhoods should be expected to have relatively few stores. However, our models failed to produce significant findings for proportion of a tract below poverty, making it difficult to understand the lower bound for market incomes.

Finally, the proportion of households with children was significant in three of our four models; however, the result was the opposite of what might be expected. Our models suggest that tracts with higher proportions of households with children should be expected to have lower concentrations of payday lending stores. In fact, our top-to-bottom 50% model predicts that a ten percentage point increase in the proportion of households with children will cut the concentration of payday lending stores by two-thirds (0.68 times). The remaining factors (unemployment, poverty, age, education, and gender) were generally insignificant in our models.

Conclusion: Fair Lending Implications

The results of this CRL analysis clearly indicate that North Carolina rent-a-bank payday lenders are disproportionately located in African-American neighborhoods. The concentration of payday storefronts in North Carolina is three times greater in African-American neighborhoods than in white neighborhoods. This disparity increases as the proportion of African-Americans in a neighborhood increases.

The three-fold disparity remains when we control for income, homeownership, poverty, unemployment rate, urban location, age, education, share of households with children, and gender—variables that the payday lending industry asserts as key demographics of its customer base. Our findings show that race matters, even when we control for income and these other factors.

These findings raise troubling questions about whether these payday lenders are in compliance with federal and state fair lending laws. The Equal Credit Opportunity Act protects minority communities from discriminatory practices in the credit market. Predatory lending in protected communities may constitute discrimination—not because it excludes minorities, but because it targets and exploits them by offering loans with abusive terms and conditions.[32] Since North Carolina has prohibited payday loans, an implicit recognition that the product is abusive, our research suggests that some payday lenders operating in North Carolina may be violating anti-discrimination laws.

Further research is needed to determine whether the disparate impact found here in North Carolina also occurs in other states, especially those where payday lenders have partnered with banks in an attempt to evade the state's legal restrictions on payday lending.

[32]Recent court opinions have affirmed that specifically targeting and exploiting minority markets does constitute a violation of the Fair Housing Act. See *Hargraves, et al. v. Capital City Mortgage Corporation and Thomas K. Nash* [Civ. No. 98-1021 (JHG/AK) - United States District Court for the District of Columbia] and *Honorable, et al. v. Easy Life Real Estate System, et al.* [Civ. No. 97-C-6009: United States District Court for the Northern District of Illinois, Eastern Division].

Appendix 1: Methods and Supplementary Results

Methods

Data

To assemble a list of payday stores operating in association with banks, we first identified payday lending companies engaged in such schemes based on company websites, newspaper articles, company advertisements, and advocates' reports. Next, we submitted this consolidated roster of companies to an electronic directory maintained by the Internet company switchboard.com to obtain street addresses and telephone numbers. We then called a random sample of 200 of the stores to verify that our list was accurate. Finally, stores located outside North Carolina were deleted from the dataset. These efforts resulted in a dataset of 385 total payday storefronts in 185 of 1,554 North Carolina census tracts. Among these tracts, 96 census tracts have one store each, 30 have two stores each, 27 have three stores each, 19 have four each, and 13 have more than four stores each.

Other studies have used a variety of geographic frames through which to evaluate the neighborhoods surrounding payday lenders, ranging from zip codes to collections of census block groups (see *Recent Analyses* section above). We chose census tracts as an appropriate scale since a recent Morgan Stanley report concluded that payday lending stores may serve up to 2,000 households—a figure that harmonizes well with the 2,455 households per census tract with a payday lending store in our dataset.[33]

Information about the population, minority composition, family median income, portion of population below poverty, homeownership, location in an urban or rural area, portion of households with children, portion of adults (25 years old or older) having a high-school education, younger (20 to 44 years old) to older (>44 years old) adult ratio, and gender for each census tract was obtained from the Census 2000 SF3 database and merged into the dataset.

Race and ethnicity are defined in our methodology according to the definition used by the U.S. Census. The Census defines ethnicity as "Hispanic" or "Not Hispanic", and race as a subset of ethnicity. The total population would be the sum of the Hispanic and Not Hispanic ethnicities. Within either ethnicity category, a person may additionally identify themselves as one or more of the following races: White; Black or African-American; American Indian or Alaskan Native Asian; Native Hawaiian or Pacific Islander; Other; Two or more races.

Theoretically, one can be classified as both African-American *and* Hispanic, or Asian and Hispanic, etc. For the purposes of this study, any individual identified in the Hispanic ethnicity, regardless of race, was included in the Hispanic population count. Therefore African-Americans in the Hispanic ethnicity were counted as Hispanic, not African-American, in order to rule out

[33] *Advance America: Initiating with an Underweight-V Rating*, Morgan Stanley Equity Research, 25 (January 25, 2005).

counting the same residents more than once. All populations other than Hispanic were counted from the "Not Hispanic" ethnicity.

Variables

For census tract i, n_i is the total population, y_i is the number of payday storefronts, x_{1i} is the median income, x_{2i}, x_{3i}, x_{4i}, x_{5i}, x_{6i}, and x_{7i} are the portion of population below poverty line, unemployed, homeowners, African-Americans, Hispanics, and females, respectively, x_{8i} is the portion of adults having a high school diploma, x_{9i} is the portion of households with children, x_{10i} is the ratio of younger (20 to 44 years old) to older (>44 years old) resident, and x_{11i} is a dummy variable defined by

$$x_{11i} = \begin{cases} 1, \text{ if } i \text{ in a MSA} \\ 0, \text{else} \end{cases} \qquad (1)$$

Let M be the total number of census tracts in our dataset, among which, there are m census tracts whose African-American concentration is equal or less than Q_j, where Q_j is the j^{th} percentile for the African-American concentration for our dataset. For j=20, 30, 40 and 50,[34] we define $A_{i,j}$ as a dummy variable by

$$A_{i,j} = \begin{cases} 0, \text{ if } x_{5i} < Q_j \\ 1, \text{ if } x_{5i} > Q_k, \text{ where } k = 100\text{-}j \end{cases} \qquad (2)$$

For example, when j=20, $A_{i,20}=0$ if and only if the African-American concentration of the i^{th} census tract is less than the 20^{th} percentile of the dataset. $A_{i,20}=1$ if and only if the African-American concentration of the i^{th} census tract is greater than the 80^{th} percentile of the dataset.

Similarly, if P_j is the j^{th} percentile for the Hispanic concentration for our dataset, we define $H_{i,j}$ as a dummy variable by

$$H_{i,j} = \begin{cases} 0, \text{ if } x_{6i} < P_j \\ 1, \text{ if } x_{6i} > P_k, \text{ where } k = 100\text{-}j \end{cases} \qquad (3)$$

Concluding that the relationship between the concentration of payday storefronts and the concentration of minorities is likely nonlinear and difficult to model with a known function, we use dummy variables rather than directly using the continuous variable of minority concentrations. These dummy variables allow us to distinguish census tracts located at the two

[34] The rationale discussed by Tabachnik & Fidell (1996) underlies our decision to choose 20% as the starting cutting point for the buckets. Given the skewed distribution of the dependent variable and high correlation between independent variables, the small sample size (about 310 census tracts) for the lowest and highest 10% buckets is not large enough for a revealing multivariate negative binomial regression. On the other hand, the sample size (about 630 census tracts) for the 20% lowest and highest buckets is reasonably large enough for a revealing multivariate negative binomial regression in this context. Tabachnik, B. G., & Fidell, L. S. (1996). *Using Multivariate Statistics* (3^{rd} ed.). New York: HarperCollins College Publishers.

ends of a spectrum of the African-American or Hispanic concentrations. Consequently, this approach allows us to contrast the concentration of payday storefronts of census tracts in these two ends. Moreover, since the choice of location by a payday lender would presumably be based on relative options, a relative measurement of stores' locations better serves our purpose.

Descriptive Analysis

For African-Americans,

$$C^{\mathrm{AA}}_{\mathrm{lowest},j} = \frac{100{,}000 \times \sum_{i=1}^{M} (1 - A_{i,j}) \times y_i}{\sum_{i=1}^{M} (1 - A_{i,j}) \times n_i} \qquad (4)$$

$$C^{\mathrm{AA}}_{\mathrm{highest},j} = \frac{100{,}000 \times \sum_{i=1}^{M} A_{i,j} \times y_i}{\sum_{i=1}^{M} A_{i,j} \times n_i} \qquad (5)$$

For Hispanics,

$$C^{\mathrm{HA}}_{\mathrm{lowest},j} = \frac{100{,}000 \times \sum_{i=1}^{M} (1 - H_{i,j}) \times y_i}{\sum_{i=1}^{M} (1 - H_{i,j}) \times n_i} \qquad (6)$$

$$C^{\mathrm{HA}}_{\mathrm{highest},j} = \frac{100{,}000 \times \sum_{i=1}^{M} H_{i,j} \times y_i}{\sum_{i=1}^{M} H_{i,j} \times n_i} \qquad (7)$$

We use the above four parameters to describe the overall concentration of payday storefronts for census tracts less than the j^{th} percentile or greater than $(100\text{-}j)^{th}$ percentile for African-Americans or Hispanics for our dataset, respectively.

Negative Binomial Regression Models

To test the significance of the relationship between the concentration of payday storefronts in a census tract and the concentration of the minorities as described by the four parameters, we designed the following negative binomial regression models, which we call bivariate models. For African-Americans

(8)

For Hispanics,

(9)

where

(10)

is the expectation of the dependent variable conditional on $A_{i,j}$, and

(11)

is the expectation of the dependent variable conditional on $H_{i,j}$.

We see that

$$\frac{E(y_i|A_{i,j}=1)}{E(y_i|A_{i,j}=0)} = \exp(\beta_{AA,j}) \qquad (12)$$

which gives the ratio of payday storefronts in a tracts with relatively few African-Americans to those with high portions of African-Americans in a function of the regression coefficient. Similarly,

$$\frac{E(y_i|H_{i,j}=1)}{E(y_i|H_{i,j}=0)} = \exp(\beta_{HA,j}) \qquad (13)$$

gives the ratio of payday storefronts in tracts with relatively few Hispanics to those with high concentrations of Hispanics in a function of the regression coefficient. We can then easily test the significance of the ratios, by examining the significance of the coefficients yielded by equations (12 and 13).

Payday lenders may assert that the location of their stores is based on the market need of low- or middle-income families or other factors. In order to evaluate whether that assertion holds true (whether factors besides race and ethnicity account for the concentration of payday storefronts in minority census tracts in North Carolina), we added certain factors—median family income, portion of families in poverty, portion of homeowners, unemployment rate, whether the neighborhood is in an urban or rural area, portion of households with children, education, portion of younger adults, and portion of females—to the regression models as described by equation (8) and (9), which gives us a series of multivariate regression models:

$$\log(\lambda_{i,j}^{AA}) = \alpha + \beta_{\mathrm{AA},j} \times A_{i,j} + \mathbf{B}\mathbf{X}_i \qquad (14)$$

$$\log(\lambda_{i,j}^{HA}) = \alpha + \beta_{\mathrm{HA},j} \times H_{i,j} + \mathbf{B}\mathbf{X}_i \qquad (15)$$

where $\mathbf{B} = [\beta_1, \beta_2, \beta_3, \beta_4, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}]$, is the vector of coefficients corresponding to the control factors; and $\mathbf{X}_i = [x_{1i}, x_{2i}, x_{3i}, x_{4i}, x_{7i}, x_{8i}, x_{9i}, x_{10i}, x_{11i}]$, is the vector of control factors.

We see that

$$\frac{E(y_i \mid A_{i,j} = 1, \mathbf{X}_i = \mathbf{x}_i)}{E(y_i \mid A_{i,j} = 0, \mathbf{X}_i = \mathbf{x}_i)} = \exp(\beta_{AA,j}) \qquad (16)$$

which gives the ratio of payday storefronts in a tract with relatively few African- Americans to those tracts with higher portions of African-Americans in a function of the regression coefficient, by holding the control factors constant. Similarly,

$$\frac{E(y_i \mid H_{i,j} = 1, \mathbf{X}_i = \mathbf{x}_i)}{E(y_i \mid H_{i,j} = 0, \mathbf{X}_i = \mathbf{x}_i)} = \exp(\beta_{HA,j}) \qquad (17)$$

gives the ratio of payday storefronts in tracts with relatively few Hispanics compared to those in tracts with higher portions of Hispanics in a function of the regression coefficient, by holding the control factors constant.

We use the population of the census tract as an offset variable to control its effect on the dependent variables.

Supplementary results

Descriptive statistics for the independent variables

Table A4 provides some additional statistics to describe these census tracts. Compared to lower portion minority tracts, tracts with higher portions of minorities also had higher unemployment and poverty rates, higher portions of households with children, and younger residents; lower median income and homeownership rates, lower education levels; and little or inconsistent differences in total population, urban status and gender.

For example, in the 20% of tracts with the lowest African-American concentration, on average, the data shows: $44,800 for median family income, 5,000 for population, 31.2% are homeowners, 10% are below poverty, 1.8% are unemployed, and 19% are in an MSA, 29.8% households have children, 78.9% of adults have high school diploma, 0.9 to 1 for younger to older resident ratios, and 51% are females; in the highest 20% bucket, on average, the data shows: $27,400 for median family income, 4,000 for population, 20.3% are homeowners, 21.2% are below poverty, 3.9% are unemployed, 14% are in an MSA, 31.8% households have children, 67.2% of adults have high school diploma, 1.3 to 1 for younger to older resident ratios, and 52.2% are females.

In the 20% neighborhoods with the lowest Hispanic concentration, on average, the data shows $39,700 for median family income, 4,700 for population, 28.7% are homeowners, 13.6% are below poverty, 2.4% are unemployed, 14% are in an MSA, 29.9% households have children, 75.9% of adults have high school diploma, 0.9 to 1 for younger to older resident ratios, and 51.6% are females; in the highest 20% bucket, on average, the data shows $33,300 for median family income, 5,100 for population, 21.1% are homeowners, 15.9% are below poverty, 2.5% are unemployed, 21% are in an MSA, 33.5% households have children, 71.7% of adults have high school diploma, 8.2 to 1 for younger to older resident ratios, and 49.8% are females.

Results for Hispanics

The findings of our analysis for Hispanic tracts are similar to those for African- Americans, if less pronounced. However, a challenge in modeling the effects for Hispanic residents is the relatively low overall portion of Hispanic in the state. The 2000 Census found that the median census tract has just 2.9 percent Hispanic residents. At this low level, it seems that referring to a neighborhood as "Hispanic" is not appropriate. Moreover, the Pearson correlation coefficient between African-American and Hispanic concentration in a census tract is 0.33, and tests highly significant even at 0.1% level, which suggests that Hispanics tend to live together with African-Americans, and African-American residents living in the same neighborhood as Hispanics are most likely driving the results of our Hispanic models.

To further test whether the Hispanic model results were driven by African-American concentrations, we created buckets based on the combined concentration of African-American and Hispanics. Both the descriptive and regression-based results on these combined buckets show that the pattern of the disparate distribution of payday shops among the combined buckets closely resemble the pattern revealed in the buckets delineated by African-American

concentration alone. On the basis of these observations, we chose to omit the Hispanic results from our report, but present them here for the interested reader.

While the relatively low concentration of Hispanics in the state limits our ability to fully analyze this population's experience with payday lending, it is still interesting to note that our bivariate and multivariate regression models did yield statistically significant evidence of disproportionate payday lending storefront concentrations in more heavily Hispanic neighborhoods.

Table A5 provides summary statistics on the number of "Stores per 100,000 population." These measurements, taken at the state level, show that payday stores tend to be located in tracts with higher portions of Hispanic residents.

In the 20%, 30%, 40% and 50% of neighborhoods with the highest Hispanic concentration, we found a payday storefront density of 8.0, 7.0, 6.6 and 5.8 stores per 100,000 residents, respectively, while for the respective lowest buckets, the density of storefronts was only 4.0, 3.7, 3.6 and 3.7 stores per 100,000 residents, respectively.

The bivariate regressions for each pair of buckets summarized in **Table A6** show that, without controlling for the other factors, the ratio of storefront concentration in the highest 20% of Hispanic neighborhoods as compared to the lowest is 2.3-to-1. For the 30%, 40 and 50% buckets, the ratio of storefront concentration is 2.0, 2.0 and 1.6-to-1, respectively. All of these ratios are significantly different from one at a 95% confidence level.

Table A10 also shows that these results hold even after controlling for the other factors thought to likely influence the concentration of payday stores. More specifically, we found that the concentration of payday loan storefronts is significantly greater in tracts with higher portions of Hispanics, even when comparing neighborhoods with similar incomes, poverty level, unemployment rate, geographic location, education, gender, age structure, and the proportion of households with children.

Our multivariate analysis further shows, by holding the other factors constant, the highest 20% of Hispanic neighborhoods had storefront concentrations at a ratio of 2.0-to-1 as compared to the lowest 20%, the highest 30% had a ratio of 1.9-to-1, the highest 40% had a ratio of 1.8-to-1 and the highest 50% had a ratio of 1.5-to-1. The ratios are consistent for all 4 pairs of buckets. All of the ratios are significantly different from one at a 95% confidence level (**Table A6**).

Table A1

Description of African-American census tracts. Set of census tracts determined by African-American concentration used throughout this paper.

Set of census tracts by racial concentration	# of Census Tracts	African-Americans / Pop. (%)	Average Afr-Amer Concentration (%)	Std Dev of Afr-Amer Concentration (%)	Average White Concentration (%)	Std Dev of White Concentration (%)
Highest 20%	311	> 41.9	64.7	17.3	29.0	16.7
Lowest 20%	311	< 3.9	1.5	1.2	94.8	5.9
Highest 30%	466	> 30.0	55.1	19.7	38.0	19.2
Lowest 30%	466	< 6.7	2.8	2.1	93.1	6.9
Highest 40%	622	> 22.4	47.8	21.3	45.1	20.8
Lowest 40%	622	< 10.9	4.3	3.2	91.0	8.2
Highest 50%	777	> 15.9	42.1	22.3	50.8	22.2
Lowest 50%	777	≤ 15.9	6.1	4.7	88.8	9.2

Table A2

Description of Hispanic census tracts. Set of census tracts determined by Hispanic concentration used throughout this paper.

Set of census tracts by ethnic concentration	# of Census Tracts	Hispanics / Pop. (%)	Average Hispanic Concentration (%)	Std Dev of Hispanic Concentration (%)	Average White Concentration (%)	Std Dev of White Concentration (%)
Highest 20%	311	> 7.0	12.9	5.8	56.1	23.0
Lowest 20%	311	< 1.0	0.5	0.3	73.5	28.7
Highest 30%	466	> 4.9	10.6	5.8	59.7	22.8
Lowest 30%	466	< 1.6	0.8	0.5	74.3	28.1
Highest 40%	622	> 3.7	9.0	5.7	62.3	23.4
Lowest 40%	622	< 2.2	1.0	0.6	74.7	27.3
Highest 50%	777	> 2.9	7.8	5.6	64.2	23.6
Lowest 50%	777	≤ 2.9	1.3	0.8	75.4	26.0

Table A3

Description of African-American + Hispanic census tracts. Set of census tracts determined by African-American + Hispanic (AA + H) concentration used throughout this paper.

Set of census tracts by racial + ethnic concentration	# of Census Tracts	AA+H Pop / Total Pop (%)	Average AA + H Concentration (%)	Std Dev of AA + H Concentration (%)	Average White Concentration (%)	Std Dev of White Concentration (%)
Highest 20%	311	> 49.2	71.2	16.5	28.8	16.4
Lowest 20%	311	< 6.4	3.2	1.8	94.7	7.6
Highest 30%	466	> 36.8	61.7	19.2	38.0	19.0
Lowest 30%	466	< 9.9	4.9	2.8	93.2	6.8
Highest 40%	622	> 27.8	54.2	21.1	45.0	20.7
Lowest 40%	622	< 15.0	6.7	4.1	91.2	7.7
Highest 50%	777	> 21.4	48.3	22.3	50.8	22.0
Lowest 50%	777	≤ 21.4	9.0	5.9	88.8	9.4

Table A4

Descriptive statistics of the control factors

		20%				30%				40%				50%			
		Afr-Am		Hispanic		AA		H		AA		H		AA		H	
Census Tract Characteristics		Lo	Hi	Lo	Hi	L	H	L	H	L	H	L	H	L	H	L	H
Income (K)	MEAN	44.8	27.4	39.7	33.3	46.8	29.4	40.7	34.7	46.3	31.1	40.8	35.9	45.4	33	41.4	37
	SD	19.4	8.8	17.4	8.9	19.5	9.1	17.9	10	18.1	9.5	17.6	11.5	17.2	10.3	17.6	12.7
Homeowners (%)	MEAN	31.2	20.3	28.7	21.1	30.7	21.7	28.7	22.5	30	22.5	28.6	23.3	29.3	23.4	28.6	24.1
	SD	5.8	8.9	7.6	8.6	5.6	8.6	7.3	8.3	6.2	8.3	7.3	8.2	6.5	8.2	7.1	8.2
Poverty (%)	MEAN	10	21.2	13.6	15.9	9.3	19.6	13.3	14.8	9.4	17.9	12.8	14.3	9.7	16.6	12.4	13.9
	SD	6.6	10.6	8.8	8.1	6.3	10	9.1	8.1	6.3	9.6	9	8.5	6.3	9.2	8.7	8.5
Unemployed (%)	MEAN	1.8	3.9	2.4	2.5	1.7	3.5	2.5	2.4	1.7	3.2	2.5	2.4	1.8	3	2.4	2.5
	SD	1.5	4.1	2	2	1.7	3.6	2.5	2.3	1.6	3.3	2.7	2.3	1.8	3.2	2.6	2.7
Population (K)	MEAN	5	4	4.7	5.1	5.2	4.4	4.9	5.2	5.3	4.7	4.9	5.2	5.4	5	5.1	5.3
	SD	2.4	1.9	2.4	2.9	2.4	2.2	2.4	2.8	2.5	2.5	2.4	2.7	2.6	2.6	2.5	2.6
Households w/ children (%)	MEAN	29.8	31.8	29.9	33.5	30.9	31.8	30.3	33	31	31.7	30.3	32.6	31.2	31.9	30.5	32.6
	SD	7.1	8	7.3	11	7.9	8.1	7.6	10.6	8.5	8.1	7.6	10	9.1	8.6	7.8	9.7
Adults w/ High School Diplomas (%)	MEAN	78.9	67.2	75.9	71.7	80.3	69.3	76.8	73.5	80.6	71.2	77.5	74.8	80.6	73	77.9	75.7
	SD	11	10	11	12	11.3	10.6	11.5	12.1	11.3	11	11.5	12.1	11.1	11.3	11.5	12.1
Ratio of younger to older adults	MEAN	0.9	1.3	0.9	8.2	0.9	1.3	0.9	6	1	1.5	1.1	4.8	2.9	2.4	1.2	4.1
	SD	0.5	1	0.4	72	0.5	0.8	0.5	58.8	0.6	2.8	4.7	50.9	38.5	24.8	4.2	45.6
Female (%)	MEAN	51	52.2	51.6	49.8	51	51.9	51.7	50.2	51	51.7	51.7	50.5	50.9	51.5	51.7	50.7
	SD	1.8	6	3.5	6	2	5.1	3.2	5.4	2.7	4.7	3.1	5	3.3	4.4	3	4.6
Tracts in MSA		60	45	45	65	90	62	73	91	117	93	102	113	151	112	125	138

Table A5

Concentration of payday storefronts, by Racial/Ethnic Concentration in Census Tracts

Set of census tracts by racial + ethnic concentration	African-American			Hispanic			African-American + Hispanic		
	# of Payday Stores	Total Pop	Stores/ 100k Pop	# of Payday Stores	Total Pop	Stores/ 100k Pop	# of Payday Stores	Total Pop	Stores/ 100k Pop
Highest 20%	95	1,258,610	7.5	127	1,596,459	8	92	1,289,516	7.1
Lowest 20%	25	1,540,486	1.6	58	1,448,190	4	22	1,563,564	1.4
Highest 30%	161	2,049,337	7.9	170	2,420,945	7	174	2,105,182	8.3
Lowest 30%	56	2,403,727	2.3	85	2,275,554	3.7	48	2,435,920	2
Highest 40%	232	2,925,657	7.9	212	3,211,663	6.6	230	2,951,666	7.8
Lowest 40%	72	3,287,238	2.2	112	3,070,079	3.6	71	3,301,774	2.2
Highest 50%	282	3,859,940	7.3	237	4,091,313	5.8	277	3,824,478	7.2
Lowest 50%	103	4,189,373	2.5	148	3,958,000	3.7	108	4,224,835	2.6

Table A6

Summary Results for Payday Storefront Concentration and Race/Ethnicity

Negative Binomial Regression	Set of census	African-American			Hispanic			Afr-Amer + Hispanic		
		Ratio of Shops (Highest/ Lowest)	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit	Ratio of Shops (Highest/ Lowest)	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit	Ratio of Shops (Highest/ Lowest)	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit
Bivariate[35]	20%	5.8	3.0	11.2	2.3	1.3	3.8	6.5	3.3	12.7
	30%	3.8	2.3	6.1	2.0	1.3	3.0	4.6	2.8	7.6
	40%	3.8	2.5	5.8	2.0	1.3	2.9	3.9	2.6	5.9
	50%	3.2	2.2	4.5	1.6	1.1	2.4	3.0	2.1	4.3
Multivariate[36]	20%	4.1	1.7	9.8	2.0	1.2	3.4	4.9	2.0	12.0
	30%	3.7	2.0	6.7	1.9	1.2	3.0	4.2	2.3	7.9
	40%	3.2	2.0	5.3	1.8	1.2	2.7	3.4	2.1	5.6
	50%	2.9	1.9	4.3	1.5	1.1	2.2	2.6	1.7	3.9

[35] Bivariate analysis: analyzing relationship between concentration of shops and race.
[36] Controls for income, homeownership, poverty, unemployment, education, gender, households with children, younger to older adults ratio, and MSA status.

Table A7

Payday Storefronts and Race. Bivariate negative binomial regression with payday storefront concentration as dependent variable and African-American indicator as independent variable.

Parameters	Estimate of Coefficient	95% Confidence Interval		Pr>χ2
		Lower limit	Upper limit	
Regression 1: (n=622 census tracts)				
Intercept	-1.8858	-2.4126	-1.3590	<.0001
Highest (20%) tracts	1.7560	1.0940	2.4181	<.0001
Regression 2: (n=932 census tracts)				
Intercept	-1.4838	-1.8572	-1.1104	<.0001
Highest (30%) tracts	1.3272	0.8429	1.8114	<.0001
Regression 3: (n=1244 census tracts)				
Intercept	-1.5309	-1.8563	-1.2055	<.0001
Highest (40%) tracts	1.3306	0.9126	1.7486	<.0001
Regression 4: (n=1554 census tracts)				
Intercept	-1.4251	-1.7039	-1.1462	<.0001
Highest (50%) tracts	1.1508	0.7879	1.5137	<.0001

Table A8

Payday Storefronts and Race. Multivariate negative binomial regression with payday storefront concentration as dependent variable, African-American indicator and other control factors as independent variables.

Parameters	Estimate of Coefficient	95% Confidence Interval		Pr>χ2
		Lower limit	Upper limit	
Regression 1: (n=622 census tracts)				
Intercept	3.3936	-1.6450	8.4321	0.1868
Highest (20%) tracts	1.4225	0.5595	2.2856	0.0012
Income (K)	-0.0260	-0.0736	0.0215	0.2837
Portion of homeowners	-5.9356	-12.5980	0.7269	0.0808
Portion below poverty line	-1.8643	-7.3135	3.5849	0.5025
100*Unemployed Portion	-0.0519	-0.1786	0.0748	0.4217
Rural	-0.8700	-1.6074	-0.1326	0.0207
Portion of households w/ children	-3.1225	-8.3754	2.1304	0.2440
Residents aged 20-44/Residents 45+	-0.5071	-1.2847	0.2704	0.2011
Portion of residents aged 25 or over with high school education	1.1836	-3.4466	5.8138	0.6164
Portion of females	-1.8979	-10.9165	7.1207	0.6800
Regression 2: (n=932 census tracts)				
Intercept	1.8645	-2.0254	5.7543	0.3475
Highest (20%) tracts	1.3071	0.7116	1.9026	<.0001
Income (K)	-0.0299	-0.0656	0.0058	0.1005
Portion of homeowners	-5.8377	-10.5985	-1.0769	0.0162
Portion below poverty line	-3.1715	-7.2385	0.8956	0.1264
100*Unemployed Portion	-0.0078	-0.1025	0.0870	0.8724
Rural	-1.1163	-1.6667	-0.5658	<.0001
Portion of households w/ children	-5.4883	-9.2065	-1.7700	0.0038
Residents aged 20-44/Residents 45+	-0.4608	-1.0421	0.1205	0.1203
Portion of residents aged 25 or over with high school education	2.4191	-1.1540	5.9922	0.1845
Portion of females	1.7250	-4.9326	8.3825	0.6116
Regression 3: (n=1244 census tracts)				
Intercept	-0.1806	-3.4804	3.1191	0.9146
Highest (20%) tracts	1.1730	0.6854	1.6605	<.0001
Income (K)	-0.0368	-0.0686	-0.0050	0.0232
Portion of homeowners	-3.6488	-7.4853	0.1876	0.0623
Portion below poverty line	-2.7746	-6.5349	0.9856	0.1481
100*Unemployed Portion	-0.0059	-0.0994	0.0875	0.9010
Rural	-0.8506	-1.3379	-0.3634	0.0006
Portion of households w/ children	-4.5251	-7.4706	-1.5796	0.0026
Residents aged 20-44/Residents 45+	-0.0160	-0.0916	0.0597	0.6791
Portion of residents aged 25 or over with high school education	2.0741	-0.7537	4.9019	0.1506
Portion of females	3.6432	-2.0795	9.3659	0.2121
Regression 4: (n=1554 census tracts)				
Intercept	0.6558	-2.3296	3.6413	0.6668
Highest (20%) tracts	1.0477	0.6399	1.4556	<.0001
Income (K)	-0.0349	-0.0630	-0.0067	0.0151
Portion of homeowners	-3.1891	-6.5116	0.1335	0.0599
Portion below poverty line	-3.0404	-6.4184	0.3375	0.0777
100*Unemployed Portion	-0.0046	-0.0904	0.0812	0.9159
Rural	-0.7979	-1.2314	-0.3645	0.0003
Portion of households w/ children	-3.9219	-6.4278	-1.4160	0.0022
Residents aged 20-44/Residents 45+	-0.0302	-0.0837	0.0233	0.2692
Portion of residents aged 25 or over with high school education	1.2146	-1.2313	3.6604	0.3304
Portion of females	2.7940	-2.3097	7.8976	0.2833

Table A9

Payday Storefronts and Ethnicity. Bivariate negative binomial regression with payday storefront concentration as dependent variable and Hispanic indicator as independent variable.

Parameters	Estimate of Coefficient	95% Confidence Interval		Pr>χ2
		Lower limit	Upper limit	
Regression 1: (n=622 census tracts)				
Intercept	-0.9623	-1.3565	-0.5682	<.0001
Highest (20%) tracts	0.8144	0.2965	1.3323	0.0021
Regression 2: (n=932 census tracts)				
Intercept	-0.9946	-1.3251	-0.6641	<.0001
Highest (30%) tracts	0.6688	0.2299	1.1076	0.0028
Regression 3: (n=1244 census tracts)				
Intercept	-1.0368	-1.3349	-0.7386	<.0001
Highest (40%) tracts	0.6666	0.2681	1.0651	0.0010
Regression 4: (n=1554 census tracts)				
Intercept	-0.9897	-1.2596	-0.7199	<.0001
Highest (50%) tracts	0.4958	0.1298	0.8617	0.0079

Table A10

Payday Storefronts and Ethnicity. Multivariate negative binomial regression with payday storefront concentration as dependent variable, Hispanic indicator and other control factors as independent variables.

Parameters	Estimate of Coefficient	95% Confidence Interval		Pr>χ2
		Lower limit	Upper limit	
Regression 1: (n=622 census tracts)				
Intercept	-0.7960	-4.4794	2.8873	0.6719
Highest (20%) tracts	0.6969	0.1618	1.2320	0.0107
Income (K)	-0.0392	-0.0794	0.0011	0.0564
Portion of homeowners	-2.6778	-7.4083	2.0528	0.2672
Portion below poverty line	0.4793	-4.5660	5.5246	0.8523
100*Unemployed Portion	0.0256	-0.1131	0.1642	0.7179
Rural	-0.6202	-1.2163	-0.0241	0.0414
Portion of households w/ children	-4.9789	-8.3339	-1.6239	0.0036
Residents aged 20-44/Residents 45+	-0.0053	-0.0438	0.0332	0.7880
Portion of residents aged 25 or over with high school education	2.1705	-1.2478	5.5888	0.2133
Portion of females	4.2512	-2.2462	10.7485	0.1997
Regression 2: (n=932 census tracts)				
Intercept	-1.4231	-4.8271	1.9808	0.4125
Highest (30%) tracts	0.6595	0.1977	1.1214	0.0051
Income (K)	-0.0485	-0.0830	-0.0140	0.0058
Portion of homeowners	-2.7930	-6.9220	1.3359	0.1849
Portion below poverty line	0.0573	-4.2711	4.3857	0.9793
100*Unemployed Portion	-0.0076	-0.1222	0.1070	0.8963
Rural	-0.6152	-1.1259	-0.1045	0.0182
Portion of households w/ children	-4.2784	-7.2955	-1.2612	0.0054
Residents aged 20-44/Residents 45+	-0.0106	-0.0693	0.0482	0.7247
Portion of residents aged 25 or over with high school education	2.7983	-0.1382	5.7349	0.0618
Portion of females	5.0379	-0.9863	11.0620	0.1012
Regression 3: (n=1244 census tracts)				
Intercept	-0.4494	-3.6163	2.7176	0.7809
Highest (40%) tracts	0.5713	0.1610	0.9815	0.0063
Income (K)	-0.0457	-0.0767	-0.0148	0.0038
Portion of homeowners	-2.6227	-6.3586	1.1131	0.1688
Portion below poverty line	-1.1701	-4.8792	2.5390	0.5364
100*Unemployed Portion	0.0204	-0.0874	0.1283	0.7104
Rural	-0.6876	-1.1548	-0.2203	0.0039
Portion of households w/ children	-3.1073	-5.8110	-0.4035	0.0243
Residents aged 20-44/Residents 45+	-0.0313	-0.0844	0.0218	0.2484
Portion of residents aged 25 or over with high school education	2.3349	-0.3805	5.0503	0.0919
Portion of females	3.1923	-2.1581	8.5428	0.2422
Regression 4: (n=1554 census tracts)				
Intercept	0.5175	-2.5110	3.5460	0.7377
Highest (50%) tracts	0.4166	0.0494	0.7839	0.0262
Income (K)	-0.0479	-0.0762	-0.0196	0.0009
Portion of homeowners	-3.6923	-7.0956	-0.2890	0.0335
Portion below poverty line	-2.5635	-6.0129	0.8859	0.1452
100*Unemployed Portion	0.0130	-0.0790	0.1050	0.7820
Rural	-0.5839	-1.0137	-0.1541	0.0077
Portion of households w/ children	-3.2103	-5.7344	-0.6863	0.0127
Residents aged 20-44/Residents 45+	-0.0319	-0.0846	0.0209	0.2364
Portion of residents aged 25 or over with high school education	1.3899	-1.1149	3.8946	0.2768
Portion of females	3.8130	-1.3219	8.9480	0.1456

Table A11

Model Fit Statistics for Regression Models Listed in Table A7

Criterion	DF	Value	Value/DF
Regression 1			
Deviance	620	181.6249	0.2929
Scaled Deviance	620	181.6249	0.2929
Pearson Chi-Square	620	553.6831	0.8930
Scaled Pearson X2	620	553.6831	0.8930
Log Likelihood		-215.7074	
Regression 2			
Deviance	930	313.6345	0.3372
Scaled Deviance	930	313.6345	0.3372
Pearson Chi-Square	930	1058.6809	1.1384
Scaled Pearson X2	930	1058.6809	1.1384
Log Likelihood		-359.0071	
Regression 3			
Deviance	1242	419.3188	0.3376
Scaled Deviance	1242	419.3188	0.3376
Pearson Chi-Square	1242	1421.0270	1.1441
Scaled Pearson X2	1242	1421.0270	1.1441
Log Likelihood		-465.5792	
Regression 4			
Deviance	1552	539.3240	0.3475
Scaled Deviance	1552	539.3240	0.3475
Pearson Chi-Square	1552	1642.8111	1.0585
Scaled Pearson X2	1552	1642.8111	1.0585
Log Likelihood		-606.5450	

Table A12

Model Fit Statistics for Regression Models Listed in Table A8

Criterion	DF	Value	Value/DF
Regression 1			
Deviance	611	186.8504	0.3058
Scaled Deviance	611	186.8504	0.3058
Pearson Chi-Square	611	593.4358	0.9713
Scaled Pearson X2	611	593.4358	0.9713
Log Likelihood		-205.9836	
Regression 2			
Deviance	920	319.6635	0.3475
Scaled Deviance	920	319.6635	0.3475
Pearson Chi-Square	920	932.8234	1.0139
Scaled Pearson X2	920	932.8234	1.0139
Log Likelihood		-332.3420	
Regression 3			
Deviance	1230	420.0275	0.3415
Scaled Deviance	1230	420.0275	0.3415
Pearson Chi-Square	1230	1172.3083	0.9531
Scaled Pearson X2	1230	1172.3083	0.9531
Log Likelihood		-440.0469	
Regression 4			
Deviance	1540	540.1420	0.3507
Scaled Deviance	1540	540.1420	0.3507
Pearson Chi-Square	1540	1448.6689	0.9407
Scaled Pearson X2	1540	1448.6689	0.9407
Log Likelihood		-578.3791	

Table A13

Model Fit Statistics for Regression Models Listed in Table A9

Criterion	DF	Value	Value/DF
Regression 1			
Deviance	620	257.0514	0.4146
Scaled Deviance	620	257.0514	0.4146
Pearson Chi-Square	620	751.6868	1.2124
Scaled Pearson X2	620	751.6868	1.2124
Log Likelihood		-280.2534	
Regression 2			
Deviance	930	358.7810	0.3858
Scaled Deviance	930	358.7810	0.3858
Pearson Chi-Square	930	1076.2213	1.1572
Scaled Pearson X2	930	1076.2213	1.1572
Log Likelihood		-398.3535	
Regression 3			
Deviance	1242	443.7377	0.3573
Scaled Deviance	1242	443.7377	0.3573
Pearson Chi-Square	1242	1324.1357	1.0661
Scaled Pearson X2	1242	1324.1357	1.0661
Log Likelihood		-504.7925	
Regression 4			
Deviance	1552	533.9418	0.3440
Scaled Deviance	1552	533.9418	0.3440
Pearson Chi-Square	1552	1592.9143	1.0264
Scaled Pearson X2	1552	1592.9143	1.0264
Log Likelihood		-621.7507	

Table A14

Model Fit Statistics for Regression Models Listed in Table A10

Criterion	DF	Value	Value/DF
Regression 1			
Deviance	610	251.4082	0.4121
Scaled Deviance	610	251.4082	0.4121
Pearson Chi-Square	610	486.3848	0.7974
Scaled Pearson X2	610	486.3848	0.7974
Log Likelihood		-262.9497	
Regression 2			
Deviance	919	353.9066	0.3851
Scaled Deviance	919	353.9066	0.3851
Pearson Chi-Square	919	781.6013	0.8505
Scaled Pearson X2	919	781.6013	0.8505
Log Likelihood		-374.2643	
Regression 3			
Deviance	1231	443.7167	0.3605
Scaled Deviance	1231	443.7167	0.3605
Pearson Chi-Square	1231	1171.8785	0.9520
Scaled Pearson X2	1231	1171.8785	0.9520
Log Likelihood		-480.0932	
Regression 4			
Deviance	1540	539.2787	0.3502
Scaled Deviance	1540	539.2787	0.3502
Pearson Chi-Square	1540	1440.2683	0.9352
Scaled Pearson X2	1540	1440.2683	0.9352
Log Likelihood		-588.5932	

Appendix 2: Maps of Payday Lending Storefront Locations for North Carolina Metropolitan Statistical Areas

The maps included in Appendix 2 are based on data from the 2000 U.S. Census specifying the racial demographics of each census tract in North Carolina. Out of the 1,554 tracts in the state, the 20% (311 tracts) with the highest percentages of African-American populations are shaded dark brown. A second category of tracts with the 21% to 40% highest African-American populations were shaded light brown. The remaining 932 tracts, representing the 60% with the lowest percentages of African-Americans, were shaded grey.

The maps are also based on payday shop data from the online directory Switchboard.com, giving us addresses to each payday shop in the state as of late 2004. Each dot represents one payday shop. However, the dots do not necessarily reflect the exact street level location within the census tract, due to limitations in mapping software. The maps do reflect the exact number of rent-a-bank payday shops in each census tract.

Asheville MSA, NC
Payday Shop Concentrations

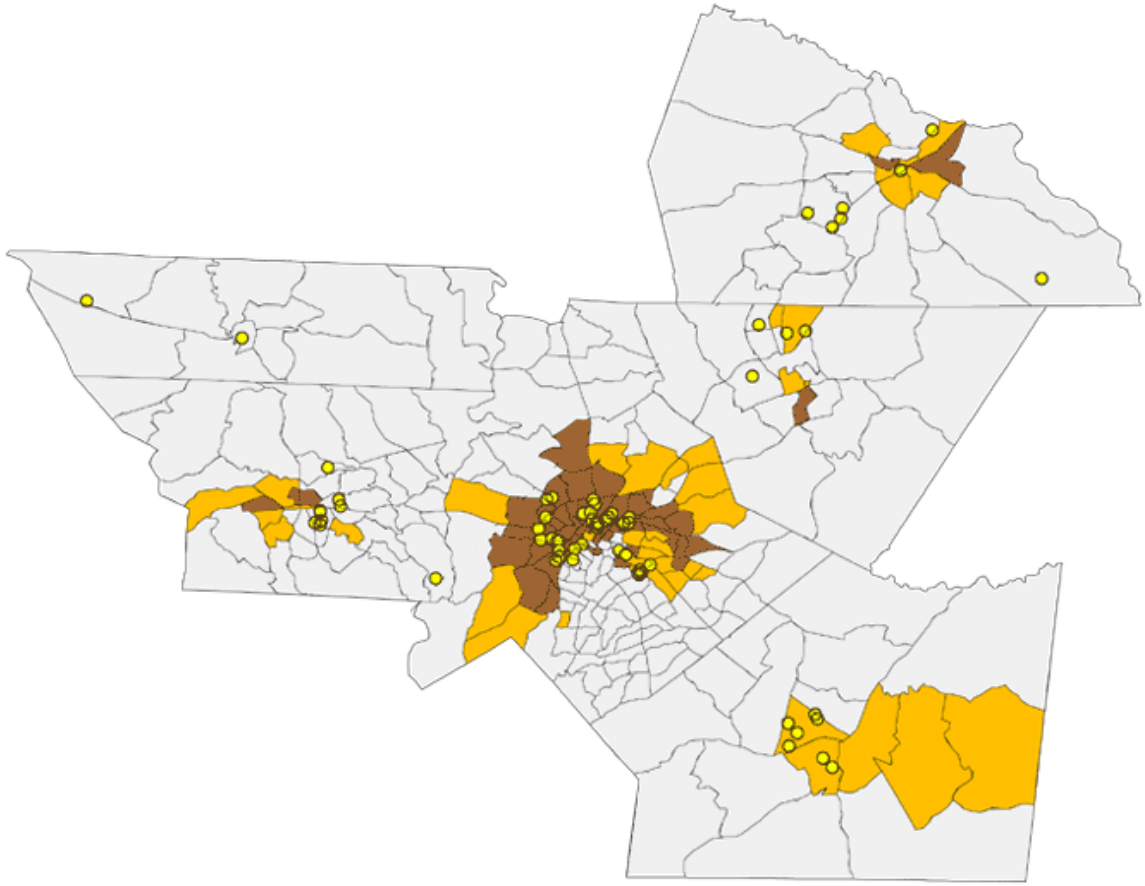
Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	66.9	3.2	0	0
Top 21-40% Tracts	28.4	3.0	0	0
Lowest 60% Tracts	3.8	2.5	2.0	4

Census tract border

One

Charlotte MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	63.6	9.5	13.2	28
Top 21-40% Tracts	28.4	9.8	6.3	15
Lowest 60% Tracts	8.0	3.4	2.3	20



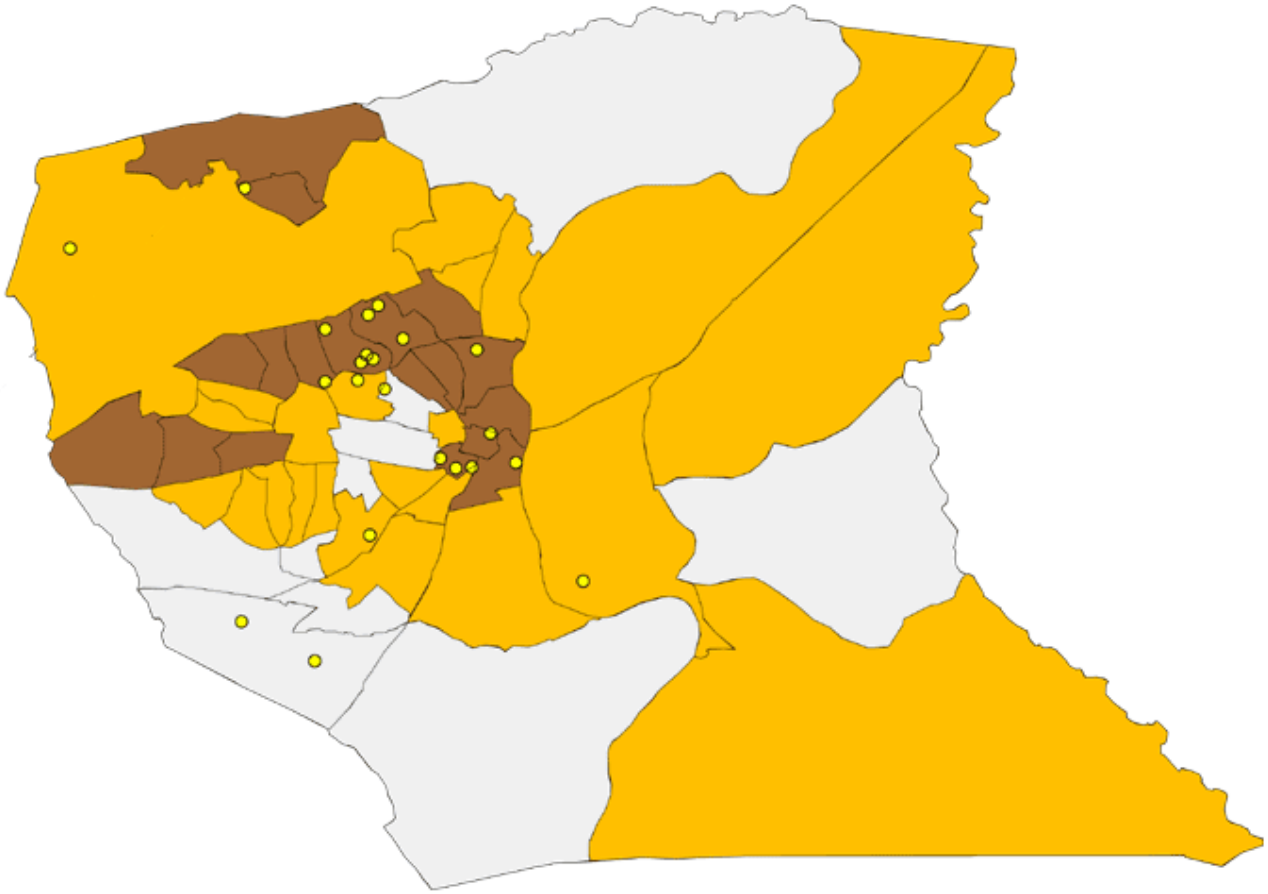
Fayetteville MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	56.1	7.0	16.9	15
Top 21-40% Tracts	29.0	7.8	2.7	4
Lowest 60% Tracts	17.3	4.3	4.7	3

Census tract border

One payday shop

SOURCES: 2000 U.S. Census, 2004 Online address directories



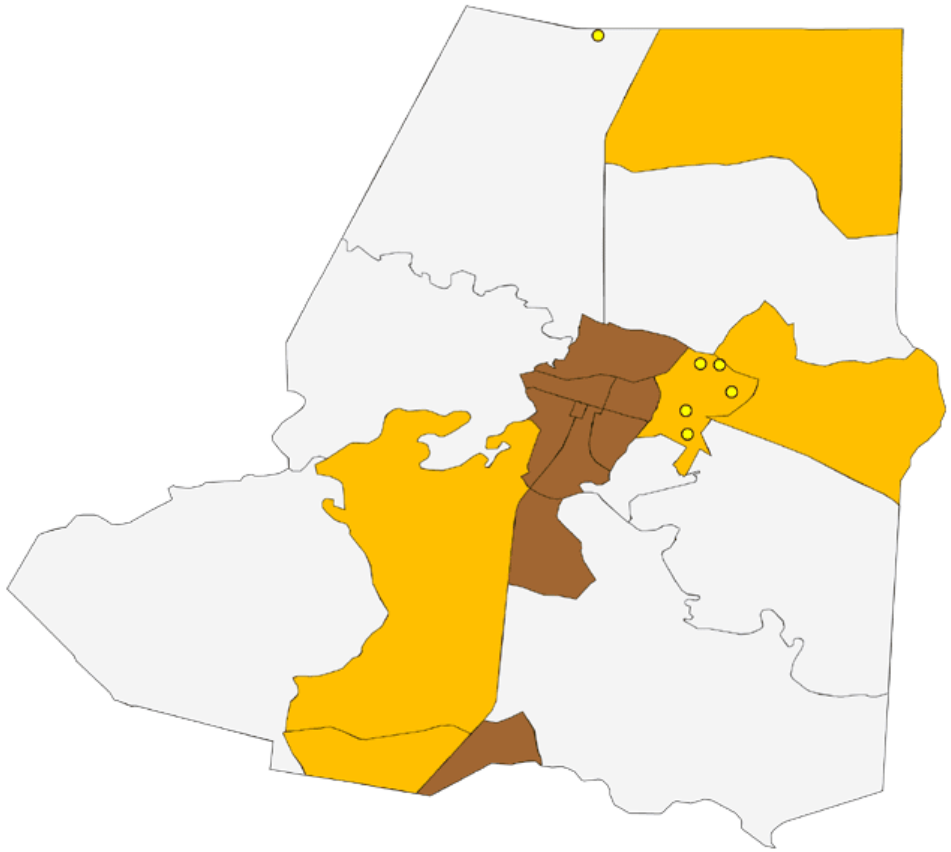
Goldsboro MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	66.1	2.1	0	0
Top 21-40% Tracts	29.7	4.0	16.9	5
Lowest 60% Tracts	1.6	6.5	1.9	1

Census tract border

One payday shop

SOURCES: 2000 U.S. Census, 2004 Online address directories



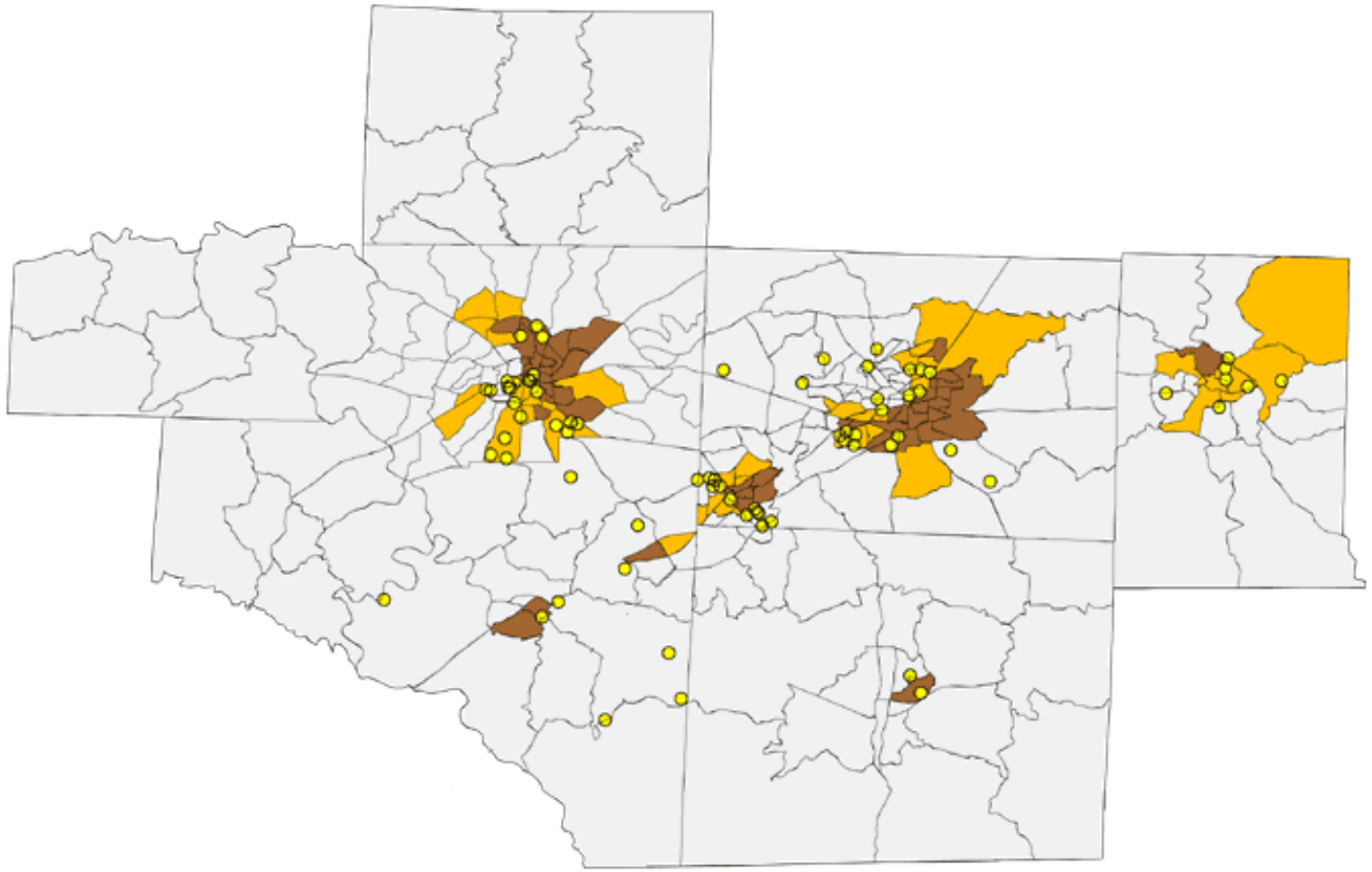
Greensboro, High Point, Winston-Salem (Triad) MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	68.6	7.9	6.1	11
Top 21-40% Tracts	30.6	9.1	14.0	27
Lowest 60% Tracts	7.5	3.5	4.0	35

Census tract border

One payday shop

SOURCES: 2000 U.S. Census, 2004 Online address directories



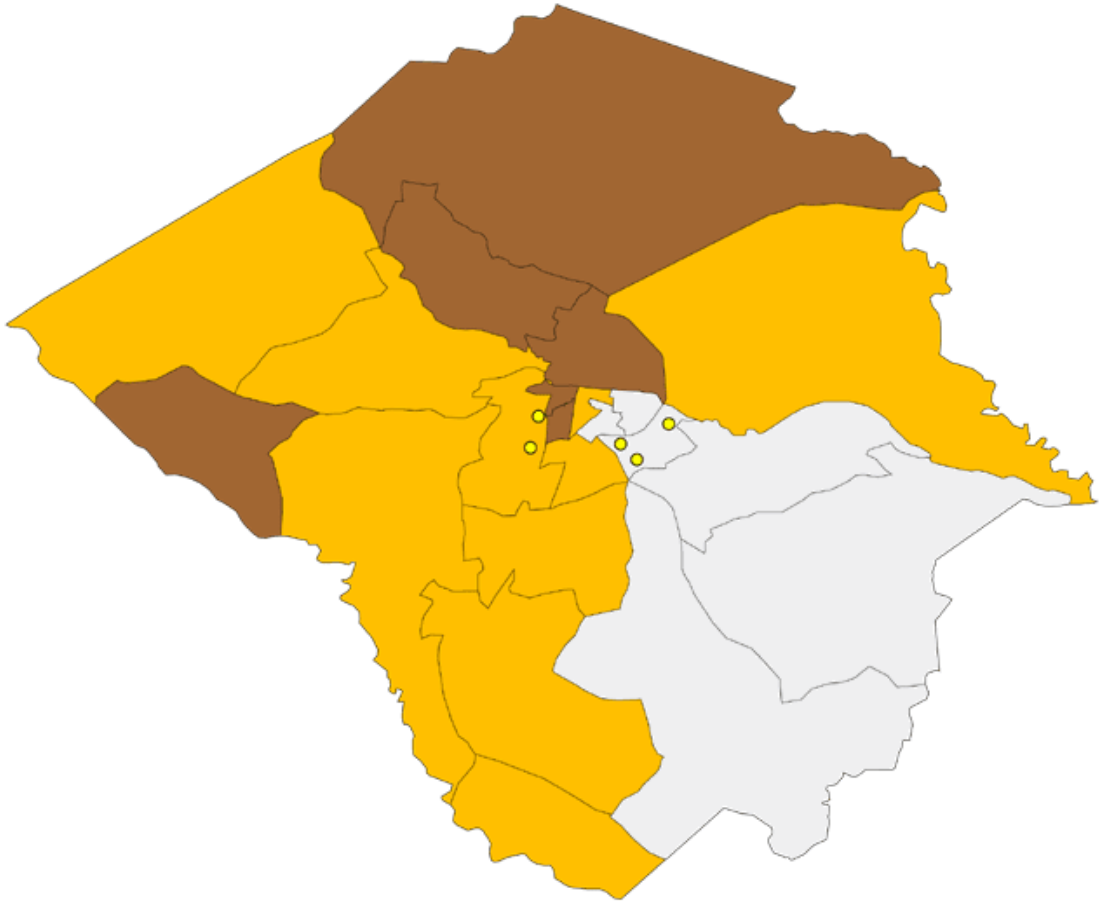
Greenville MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	63.2	5.0	0	0
Top 21-40% Tracts	31.7	2.2	3.1	2
Lowest 60% Tracts	16.3	3.0	7.2	3

Census tract border

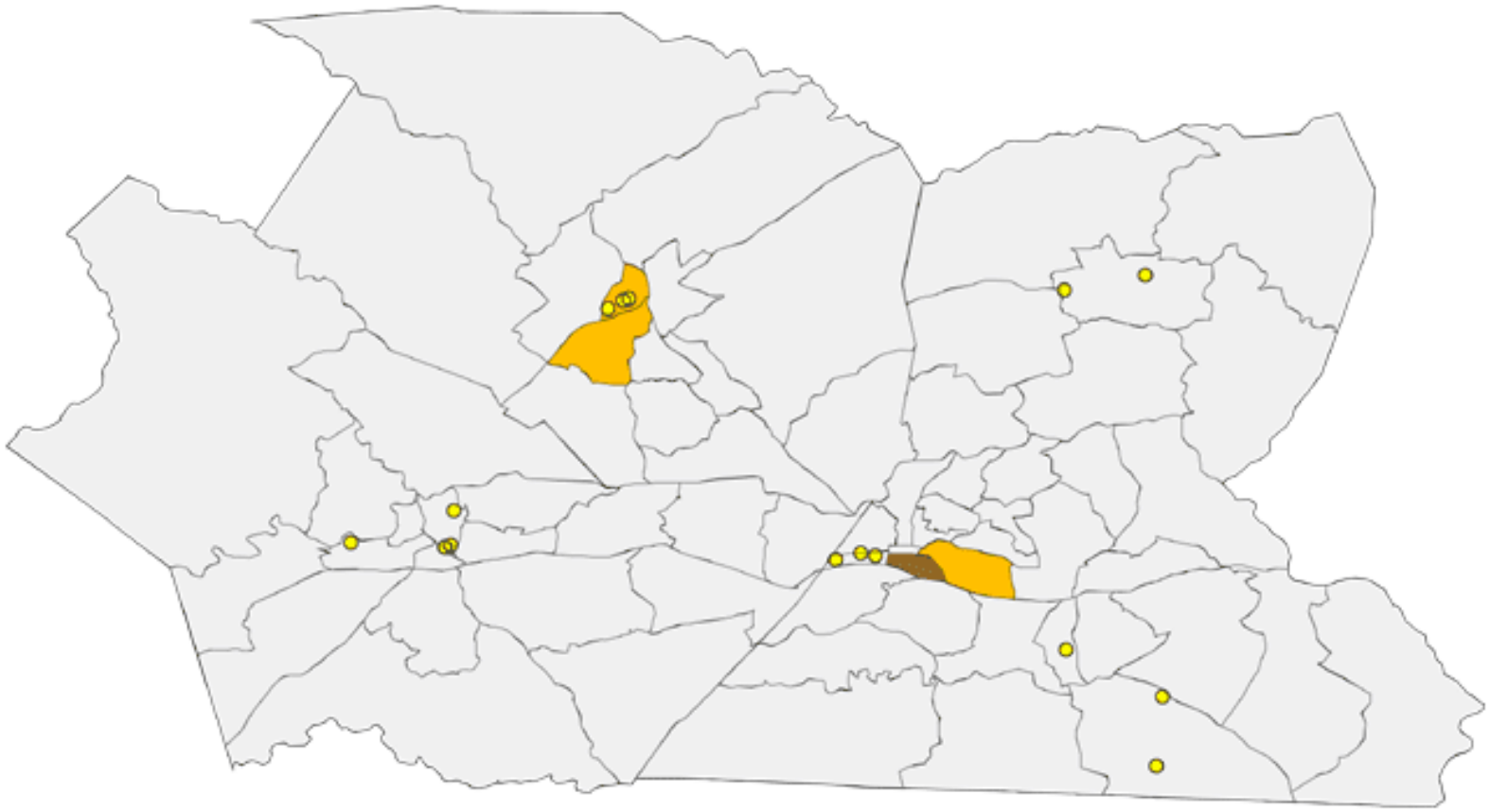
One payday shop

SOURCES: 2000 U.S. Census, 2004 Online address directories



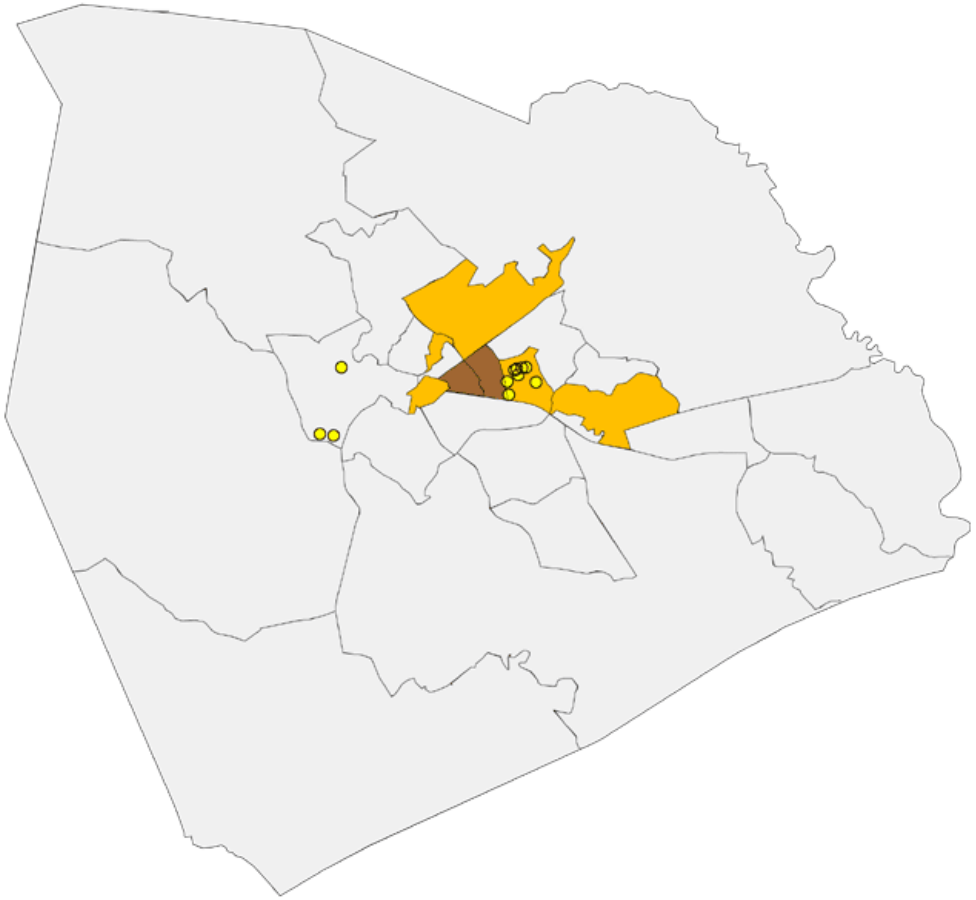
Hickory, Morganton, Lenoir MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	56.7	10.9	0	0
Top 21-40% Tracts	27.2	5.5	22.9	3
Lowest 60% Tracts	5.4	3.7	3.7	12



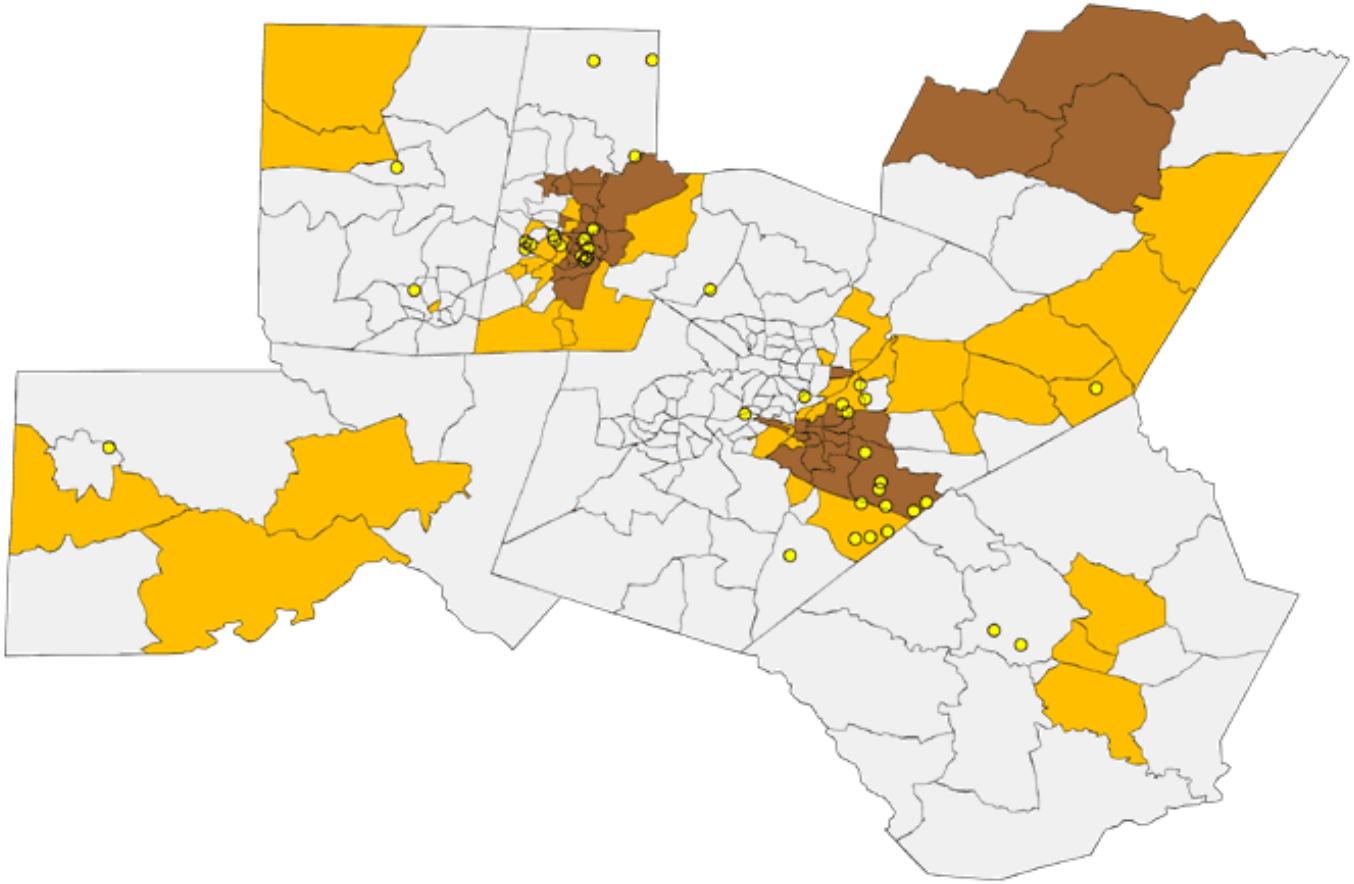
Jacksonville MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	65.0	9.0	0	0
Top 21-40% Tracts	27.0	7.4	26.0	7
Lowest 60% Tracts	14.1	7.0	2.5	3



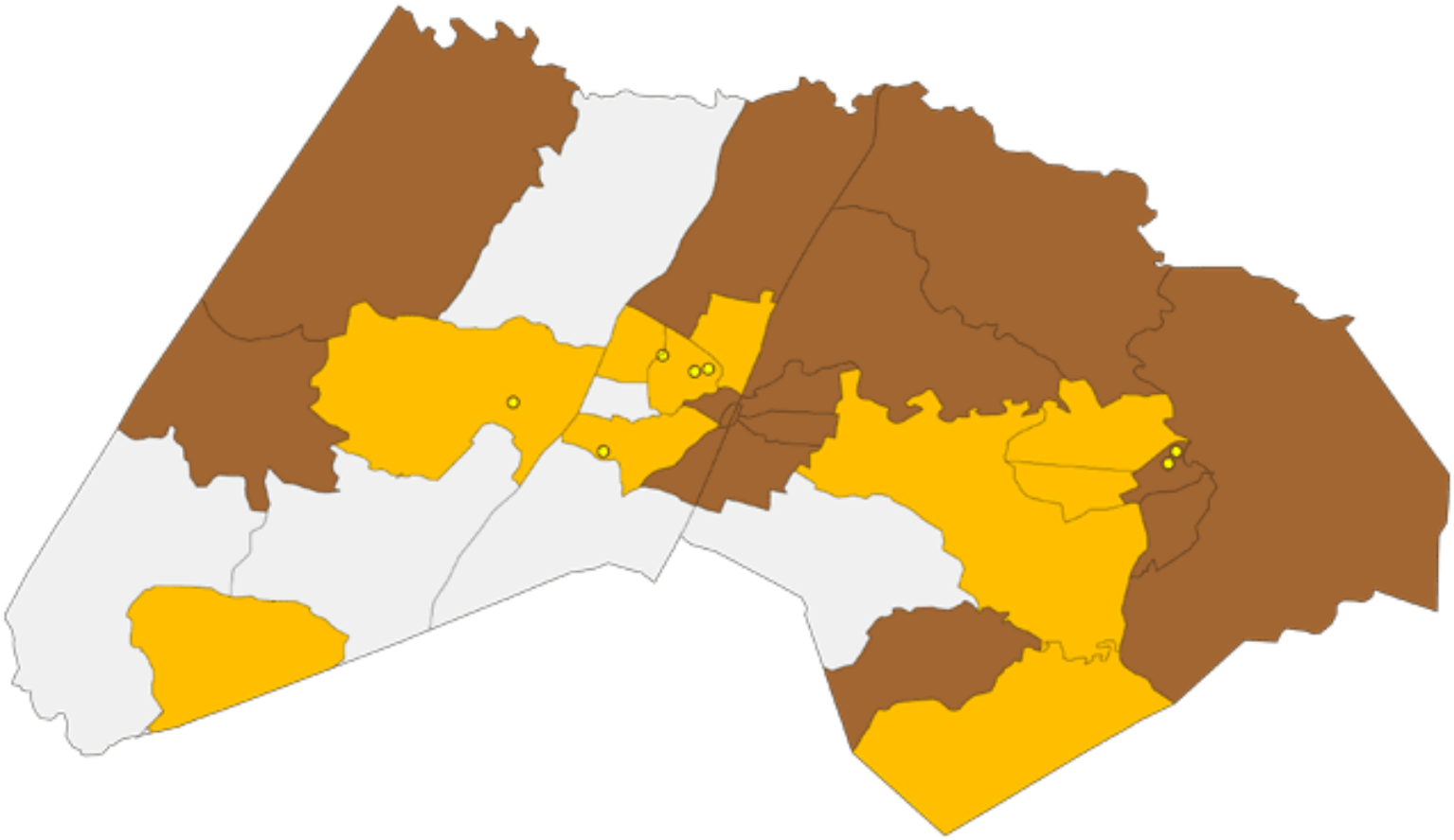
Raleigh, Durham, Chapel Hill (Triangle) MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	64.6	9.3	8.2	14
Top 21-40% Tracts	30.0	7.8	6.4	14
Lowest 60% Tracts	11.4	5.0	1.5	12



Rocky Mount MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	67.1	1.8	3.4	2
Top 21-40% Tracts	30.7	3.3	9.1	5
Lowest 60% Tracts	18.9	5.2	0	0



Wilmington MSA, NC
Payday Shop Concentrations

Proportion of African-American (AA) Residents	% AA	% Hispanic	Shops/ 100k Pop.	# Payday Shops
Top 20% Tracts	68.7	2.1	0	0
Top 21-40% Tracts	26.2	4.5	3.0	1
Lowest 60% Tracts	8.3	2.0	5.5	10

Census tract border

One payday shop

SOURCES: 2000 U.S. Census, 2004 Online address directories