Does a Weak Social Fabric Fuel the Predatory Lending Industry? The Link Between Payday Lending Activity and Community Trust

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Does a weak social fabric fuel the predatory lending industry? 
The link between payday lending activity and community trust

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I. Introduction

In the midst of the current recession the short-term loan sector of the consumer credit industry has grown rapidly, or namely, payday lenders. Payday lender operations and other short-term loan outlets in the United States have nearly tripled in number in the last decade or so and growing evidence has shown that they are causing their borrowers more harm than good through their predatory practices. Access to affordable credit is a major issue in community and economic development and is in need of close scholarly attention in this time of recession. It has been shown that payday lending is the fastest growing segment of the consumer credit industry. It has become commonplace in the United States since bank deregulation took place in the 1980’s and as traditional banking institutions have become less common. This trend seems to be more concentrated in inner city areas where there are a higher proportion of credit-constrained borrowers (Graves 2003). Since the 1990’s 22,000 payday loan operations have been established which collectively generate $27 billion annually in loans (Parrish and King 2009).

The purpose of this paper is to address a gap in theory pertaining to the relation between payday lending activity in each state and the level of trust and social capital in that state. Most of the studies done thus far regarding payday lending focus on the negative effects of the loans on borrowers’ financial situations, lenders’ predatory practices, and the economic impact of these components. Many also perform location analyses of payday lenders, looking at the types of borrowers targeted, the types of communities targeted, and their characteristics. Studies have also looked at borrower knowledge and perceptions of payday lenders and the alternative options available. No study has explicitly looked at the association between predatory lending and the overall level of trust and social capital in a community. Multiple years of data is employed in
this study to examine both the concentration of payday lenders in each state in relation to trust and the volume of payday activity in relation to trust.

The findings of this study may be useful as supportive research in guiding advocacy efforts regarding the predatory lending industry, as well as economic and community development efforts aimed at building community trust and reducing harmful community behaviors. Policy implications for the findings of this study include formulating policy that aims to increase levels of social capital and trust in communities. As there are many benefits to increasing the level of social capital and trust in communities, reducing payday lending activity and predatory lending more generally is but one of these possible benefits. The findings of this study will shed light on an unexamined aspect of community life that contributes to predatory lending and will aid in efforts to curb this lending locally by providing valuable insight into its causes.

The literature available on payday lending tends to confirm a few conclusions. The location analysis papers seem to agree that payday lenders cluster in regions with higher percentages of ethnic populations, higher poverty rates, and in lower income areas. Payday lenders tend to have some positive effect for those who use them for emergencies, but most borrowers use them for recurring expenses and in this case they have a negative impact. Consistent with Adair Morse’s prediction, Nathalie Martin finds that borrowers do not tend to understand the workings of the loan, the total cost, or know about other options, and tend to be worse off after their use. Turning to the trust literature, the trust level in a community can partly determine the resources available for the less fortunate, such as volunteer time, supportive policies, and overall economic equality. Others look at the relationship between social capital and development which tends to be positive (Baliamoune-Lutz 2011). These studies agree that communities with less social
capital are more economically depressed, and location studies complete the picture by showing that predatory lenders are more likely to locate in these communities.

The following section summarizes the pertinent literature and research findings pertaining to the relationship between trust measures per state and their payday lending activity. The next sections outline the theoretical model and hypothesis used in this analysis, the corresponding empirical model used, the data used and some descriptive statistics, the results of the regression analyses, and closing discussion and conclusions.

II. Literature Review

Background and Theoretical Developments

According to some scholars the payday loan industry has grown from the salary-buying business of the early twentieth century wherein salary buyers advanced cash with a wage assignment as collateral. The salary buyer could threaten to show the wage assignment to the borrower’s employer if the loan was not paid or renewed in time, and the employer might then have terminated the employee. Another view is that payday lending grew out of the prominent check-cashing business in the 1990’s when the business started to cash post-dated checks for an additional charge. Either way, the first payday lending operation emerged in the South in the 1980’s after bank deregulation (Graves 2003).

The major difference between these loan outlets and others in the financial sector is that they are designed to make loan products available that borrowers cannot afford to pay off. Traditional lenders will go through a specific assessment process to make sure that the prospective borrower has the ability to repay the loan. Payday lenders do not make this assessment as making loans that borrowers cannot afford to pay back in full are specifically written into their business model. Customers therefore will make repeated payments on the same
small principal that was originally borrowed because they cannot repay the loan in full and want to avoid consequences. It is important to note that these are interest-only loans, and the borrower cannot pay down the principal unless it is paid all at once. These lenders impose short term due dates which oftentimes force borrowers to take out a new loan just to pay off the original (CRL 2011).

Payday lending operations claim that their purpose is to serve communities neglected by traditional banking facilities by providing them with quick cash in the case of emergencies. Payday lending activity, however, seems to disproportionately affect poor and minority neighborhoods. These loans are designed specifically to pull borrowers into a debt trap that exploits them for their limited financial resources. The borrower ends up in an endless trap of paying fees every two weeks to float, or rollover, the original interest-only loan because they cannot make ends meet if they pay the entire loan, and thus end the trap. The borrowers feel forced to pay the fees due to the threat of building up bounced check fees from the check cashed by the lender and other aggressive collection practices, such as the threat of criminal charges for bouncing a check (CRL 2011).

In this situation, the borrowers have little choice but to pay the fees every two weeks while keeping their original debt outstanding, and in most cases they end up paying 10 times the amount of the principal in fees. Making these loans due in full on payday virtually guarantees that low-income customers will need to take out another loan or float the current loan by paying fees before they receive their next paycheck. This loan churning “accounts for 76% of total loan volume, and for $20 billion of the industry’s $27 billion in annual loan originations.” Loan turnover, or repeat borrowing, costs households $3.5 billion extra in fees per year (Parrish and King 2009). Needless to say, payday lending is an extremely profitable industry. Repeat
customers are essential to the success of a payday loan operation, and many lenders will institute reward programs and offers to turn their borrowers into long term customers.  

A 2006 report done by the Center for Responsible Lending finds that 90% of the payday lending industry revenue comes from borrowers who are not able to pay off their loans when they are due, turning them into repeat borrowers. Paying fees at higher than 400% annual percentage rate multiple times to flip the same loan until they can pay off the entire loan traps these consumers in a hard-to-escape and costly cycle of debt. The study reports that payday lending costs American households $4.2 billion per year in excessive fees, which on average amounts to $793 in fees for a typical $325 loan (King et. al 2006).  

There has been a plethora of research done to study the payday loan industry. John P. Caskey prepared a report in 2002 on the economics of payday lending for the Center for Credit Union Research. Survey results suggest that payday loan customers tend to be from lower-middle income households and they also tend to be younger than the general adult population and have children. More than half of customers are female and are less likely to have a college degree. Most customers do not use payday loans on an emergency basis and the short-term loan tends to evolve into long-term debt. Regarding the regulatory environment, some states institute caps on interest rates, and many lenders avoid them by making agreements with banks in states without these limits and act as agents for the banks.  

A year later in 2003, John Lawford conducted a follow-up report on the alternative financial sector that provides numerous policy suggestions to regulate the payday loan industry. These include but are not limited to lender licensing, a consumer complaints mechanism, a cost-of-credit disclosure, an APR statement in contracts and advertising, transaction data collection,
borrowing and rollover limits, and education and awareness campaigns for consumers (Lawford 2003).

Aside from reports describing the typical borrower and regulatory options, many studies have examined the location choices of stores and aim to describe the demographics of communities with a high concentration of payday loan operations. Alice Gallmeyer and Wade Roberts performed a spatial analysis of the predatory lending industry in Colorado and their study produced a number of findings. They maintain that the recent spread of economic insecurity and distress plus neglect by traditional financial institutions make a hospitable environment for predatory industries to grow. This economic distress has been caused by the segmentation of the labor market, a decline in unionization, the erosion of minimum wage by inflation and overall higher levels of unemployment. Also contributing to this insecurity is growing income inequality, stagnant wages, as well as income volatility.

Gallmeyer and Roberts discovered disproportionate concentrations of payday lenders in poor, minority and military neighborhoods with discrimination by traditional lending institutions. They found this trend as well in immigrant communities and those with higher percentages of young and elderly populations. In general, neighborhoods occupied by payday lenders are characterized by lower median household income and higher poverty rates, ethnic and racial minorities, immigrants, young adults, elderly, and active-duty military.

A paper done earlier in 2003 by Steven Graves examines essentially the same question in metro Louisiana and Cook County, Illinois. Also using comparison of means tests and GIS mapping, Graves finds that disenfranchised neighborhoods, those which higher numbers of poor and minority residents, are simultaneously targeted by payday lenders and neglected by traditional banks. In addition, a study of payday lender entry decisions in Oregon confirms that
minority populations provide fertile ground for their operations (Damar 2009). As for their purpose, high-interest loans such as these have been found to only minimally mitigate individual financial distress caused by natural disasters and emergencies. However, it is difficult to know if these fringe lending institutions cause financial constraint or if the circumstance of financial constraint attracts these institutions (Morse 2011). It is also essential to look into the literature on trust and social capital.

Reviewing the literature on the subject of trust, Uslaner finds that moralistic trust binds us to others, and that the main determining factors in generalized trust are a person’s level of optimism and perceived control. Fukayama claims that moralistic trust “…arises when a community shares a set of moral values in such a way as to create regular expectations of regular and honest behavior” and that allows the community members to face fewer risks when seeking agreement on collective problems. Further, Yamigishi asserts that moralistic trust is based upon “…belief in the goodwill of the other.” Generalized trust refers to attitudes towards “most people” and does not mention context, such as whether most people can be trusted to repay a specified loan. This type of context “appears to be implicit in moralistic trust.” Some distrust others due to a lifetime history of disappointments and in this type of environment, people are protecting themselves from the “threat of calamity” (2001).

The purpose of this paper is to address a gap in theory pertaining to the relation between payday lending activity and presence and the level of trust and social capital in a community. Most of the studies done thus far on predatory lending emphasize the negative effects of these loans on the borrowers’ financial situation, predatory practices, and the economic impact of payday lenders. Many also perform location analyses of payday lenders, looking at the types of borrowers targeted, the types of communities targeted, and their characteristics. Studies have
also looked at borrower knowledge and perceptions of payday lenders and the available alternative options. No study has explicitly looked at the association between predatory lending and social capital or overall trust measures of a community. Panel data is employed to identify the trend over time, and to examine both the concentration of payday lenders in each state in relation to trust and the volume of payday activity in relation to trust. Other pertinent variables are included, such as mean income to isolate the effect of overall trust levels on the use of payday lenders.

III. Theoretical Analysis

Regarding the theory behind trust and its association with predatory lending, it has been asserted that those countries with more trusting people have less economic inequality. They are more likely to have better government, more redistributive policies for the poor, more open markets, and less corruption (Uslaner 2001). Another argument found in the literature claims that community economic constraints, which breed general and moralistic distrust, lead to higher payday lender concentration as well as a higher volume of loans taken out by the community (Morse 2011). Distrust of others can result from a lifetime of disappointments and broken promises. A history of poverty can lead people to see “all who stand outside the immediate family as potential enemies, battling for the meager bounty that nature has provided” (Uslaner 2001).

It has also been cited by Hanieh et. al. in 2011 that trust, governance, and freedom all have a significant positive effect on social capital, though governance has the greatest effect. Trust is important in improving social capital, and in turn social capital, defined as connections within and between social networks, plays a role in improving economic performance (2011). Further, optimism affects the level of trust; lower optimism is characteristic of economically depressed
communities which influences their level of trust (Uslaner 2011). In an earlier paper, Uslaner declares that “trust in other people has different roots than confidence in any institution – and does not change much in the short run” (2009). Uslaner goes on to assert that generalized trust has been in decline since the 1970’s which is more attributable to long-term trends such as rising income inequality rather than short-term economic trends (2009). Due to the fact that trust measures change relatively little in the short-run, the trust measures collected for 2008 per state is also used in place of 2009 and 2010 data, which was not available.

In light of these relationships, it can be posited that low levels of trust can generate and perpetuate a poor or distressed economic environment, which would in turn cause community members to take advantage of payday loans more often. This sets up the theoretical background for the empirical analysis done in this paper. It provides the framework for the following predictions and hypothesis: as the level of trust in a community – in this case in each state – increases, the level of payday lending activity will decrease, all other factors being held constant. The intuition behind this prediction follows from the literature review and theoretical background that has been provided. It can be argued that if the level of trust in a community falls over time, the social fabric of the community disintegrates and the social capital slowly breaks down. The level of trust could decrease for a number of reasons, some of which being overall economic distress of a community (which lends to a bidirectional effect of trust and payday lending activity which is not explored in this paper), the social and cultural climate of a community, and the political environment. Poorly constructed policies, war, political scandals, highly unequal power dynamics, social upheaval, unrest and social movements, and a difficult economic environment including worsening income inequality can contribute to a lowered level of community trust. A difficult economic environment could be caused by a number of factors
as well, such as a trough in the business cycle, the economic climate of neighboring communities, foreign policy, weather patterns, shifts in political power, and structural changes in the labor market. Going even further, structural changes in the labor market could be caused by technological advances, changes in the modes of production and globalization, among others. If any of these factors negatively affect the level of trust, the community’s social capital starts to diminish, and this negatively affects its economic performance. The economic performance of the area is measured by such factors as productivity and gross domestic product, growth, unemployment, as well as area credit ratings and rate of default on money borrowed.

In this environment public confidence is eroded, and this lends to the banking industry’s decision to tighten lending and enforce stricter requirements for extending credit. This demonstrates why traditional banking institutions have become less willing to lend to populations that are most in need of their assets and tend to neglect these areas, and hence why predatory lenders find these areas fertile ground on which to locate to take advantage of those most in need of credit.

The variables used in this study include payday lending activity as the dependent variables including number of payday lenders per state – normalized by dividing by population - and total dollar amount borrowed per state, also normalized by dividing by population. The independent variables of interest include various measures of trust and one of social capital. This data is taken from the trust question included in the DDB Lifestyle Survey, the trust question included in the American National Election Survey, and the social capital index created by *Bowling Alone* author Robert Putnam. Additional independent variables serving to control for other factors affecting payday lending activity include gross domestic product per state normalized by dividing by population, the unemployment rate per state, the poverty rate per
state, total educational enrollment per state normalized by population, minority populations per state as a percentage of total population, and lastly the young and elderly population (those between ages 18-29 and age 65 and up) combined as a percentage of the total population. Data for these variables were collected for 2005, 2008, 2009 and 2010. The variables are notated as follows: the normalized number of payday lenders per state is written as \( \text{lenders} \), and the normalized total dollar amount borrowed per state is referred to as \( \text{borrowed05} \) as there is only data available for this variable for 2005. Population is referred to as \( \text{pop} \), normalized gross domestic product is referred to as \( \text{gdp} \), unemployment is written as \( \text{un} \), poverty is written as \( \text{pov} \), normalized total educational enrollment is referred to as \( \text{educ} \), percentage minority is written as \( \text{min} \), and the percentage young and elderly is referred to as \( \text{age} \). The independent variables of interest are referred to as \( \text{ddb05} \) for the trust question in the DDB Lifestyle Survey conducted in 2005, \( \text{ddb08} \) for the trust question in the DDB Lifestyle Survey conducted in 2008, \( \text{anes08} \) for the trust question in the American National Election Survey conducted in 2008, and \( \text{basoccap} \) for Robert Putnam’s social capital index.

Various assumptions were made in performing this study. One assumption is that the number of payday lenders per state is a good proxy to measure the payday lending activity per state. The correlation between the total dollar amount borrowed and number of payday lenders per state in 2005, .963, is high enough to assume they are both useful proxies for payday lending activity. Another assumption made is that the control variables included were sufficient to account for all other factors affecting payday lending activity. Further, it is assumed that the DDB Lifestyle Survey and American National Election Survey question on trust are accurate enough to be aggregated and used for each state to reflect attitudes of trust. In addition, it is assumed that Ordinary Least Squares is the best method to carry out this analysis as Fixed
Effects could not be used since panel data for trust was not available. It is further assumed that the trust measures change relatively little over the time period used.

It is useful to include some examples of the theory in action. An example of a general situation exhibiting this theory might be a family that is not close with its extended relatives and harbors a feeling of distrust for them. In a time of economic hardship, such as when the main breadwinner of the family is laid off or if his or her hours are cut, the low levels of trust and weak connections between family members and relatives makes it more difficult for the family to make ends meet and to pay bills on time. With no close relatives available whom the family members feel comfortable asking for a loan to get through their economic struggles, the family is more likely to go to the nearest payday lender and pay for the convenience of taking out an easy and quick loan.

IV. **Empirical Model**

To restate, the predictions of the theory avow that low levels of trust can generate and perpetuate a poor or distressed economic environment, which would in turn cause community members to take advantage of payday loans more often. Mapping the theory to the empirical model used in this study, Ordinary Least Squares regression analysis was used to test the effect of an increase in the level of trust in each state, which serves as the independent variable of interest, on the level of payday lending activity in each state, which serves as the dependent variable. Also included as explanatory variables to control for other factors that may influence payday lending activity per state were gross domestic product per capita, the unemployment rate, the poverty rate, the total educational enrollment normalized by population, the minority rate including the percentage of the population that is African American and Latino, and the percentage of the population that is age 18-29, considered to be the young segment of the
population, added to the percentage that is 65 and older, considered to be the older segment of the population.

A total of six regressions were run with different combinations of proxies for both the trust measurement and the measure of payday lending activity. The first regression included the number of payday lenders per capita as the dependent variable for the years 2008, 2009 and 2010. The 2008 DDB Lifestyle Survey trust question: “How much do you trust: People you meet for the first time?” in which respondents chose from a scale of 1-6 in which 1 indicates “Do not trust at all” and 6 indicates “Trust completely” serves as the independent variable of interest, and is calculated as a percentage of respondents who answered 4, 5 or 6. The 2008 data for this variable was also used for 2009 and 2010. The other independent variables used include: gross domestic product per capita for each state, the unemployment rate per state, the poverty rate per state, the total educational enrollment per capita for each state, the minority percentage of the population per state as mentioned before, as well as the percentage of the population aged 18-29 and 65 and up, per state as mentioned before. These variables were all collected for the years 2008, 2009 and 2010.

The parameter of interest, that for the 2008 DDB Lifestyle Survey trust question, is expected to be negative, and between -1 and 0. The signs expected for the parameters of the other control variables are as follows: negative for GDP per capita, positive for the unemployment rate, positive for the poverty rate, negative for the total educational enrollment per capita, positive for the percentage minority, and positive for the percentage of the population 18-29 plus 65 and up. The Ordinary Least Squares (OLS) empirical method was used to estimate the simple model’s parameters and is appropriate due to the nature of the theory, which is testing a new relationship. The relationship between community trust levels and payday
lending activity has not been examined previously and thus OLS is a solid empirical method to
use to begin shedding light on this topic. Further, since panel data was not available for the trust
variable, the data was not suitable for use with a fixed-effects regression model, which would be
able to account for fixed effects affecting payday lending activity per state. To test the
hypothesis using OLS, the null hypothesis was such that the parameter on the trust variable
would be statistically equal to zero, and the alternative hypothesis was such that the parameter on
the trust variable would be statistically significant and less than zero.

The remaining five regressions were carried out in much the same way. The second
regression also included the number of payday lenders per capita for the years 2008, 2009 and
2010 for the dependent variable, but used the 2008 American National Election Survey’s
(ANES) trust question: “Generally speaking, would you say that most people CAN BE
TRUSTED, or that you CAN’T BE TOO CAREFUL in dealing with people?” in which
respondents answered either 1 for “Most people can be trusted” and 2 for “Can’t be too careful”
as the independent variable of interest, which is taken as the percentage of respondents that
answered 1. The same control variables are included in this regression and the remaining four
regressions as well, and the signs are expected to be the same. The parameter of interest, that for
the 2008 ANES trust question is also expected to be negative and between -1 and 0. The OLS
empirical method was also used for this regression as well as the remaining four regressions and
is appropriate for the same reasons. The hypothesis testing was carried out in a similar way.

The third regression uses the same model as the previous two regressions, but includes
the total dollar amount borrowed in payday loans per capita for each state for only the year 2005
as the dependent variable. Total dollar amount borrowed per state was only available for the
states included in this study for the year 2005, and therefore this regression was done using a
separate data set from the previous regressions using 2008, 2009 and 2010 data for the dependent variable and control variables. The independent variable of interest used in this regression was the 2005 DDB Lifestyle Survey trust question: “Most people are honest” in which respondents chose from a scale of 1-6 in which 1 indicates “Definitely Disagree” and 6 indicates “Definitely Agree.” This variable is also taken as a percentage of respondents who answered 4, 5 or 6. As mentioned previously, the same control variables are included in this regression only for the year 2005, and the signs are expected to be the same. The parameter of interest, that for the 2005 DDB Lifestyle Survey trust question is expected to be negative and between -1 and 0.

The fourth regression uses the same independent variable of interest as the third regression, the 2005 DDB Lifestyle Survey trust question data, but this regression examines its effect on the number of lenders per capita in each state in 2005 since this data was available. It is of interest to test the model both with the total dollar amount loaned per state as the dependent variable as well as the normalized number of payday lenders per state. The parameter of interest, as above, is expected to be negative and between -1 and 0. The same empirical method and control variables were used to test this model.

The fifth and six regressions are very similar to the third and fourth. They make use of the same dependent variable, the total dollar amount borrowed per capita per state in 2005 in the fifth, and the number of payday lenders per capita per state in 2005 in the sixth. However, the independent variable of interest in these two regressions is a new measure of trust, “Most people can be trusted” state-level social capital measure used in Robert Putnam’s book *Bowling Alone* and measured in 1999. The parameter of interest, the *Bowling Alone* trust measure is also expected to be negative and even smaller than in the previous regressions since the trust data was measured for 1999. The same empirical method and control variables were used.
**Data**

The data used includes that which was mentioned above: the number of payday lenders in each state for the years 2008, 2009 and 2010 which was obtained from the *Stephens, Inc. Industry Report* on the payday loan industry in the United States completed in June of 2011 by David Burtzlaff and Brittny Groce. Data for the payday loan volume per state and the number of payday lenders per state for the year 2005 was taken from the Center for Responsible Lending report done in 2006 entitled *Financial Quicksand: Payday lending sinks borrowers in debt with $4.2 billion in predatory fees every year* written by Uriah King, Leslie Parrish and Ozlem Tanik. These data were all normalized by dividing by the population per state in each data year. This gives the number of payday lenders and the total dollar amount borrowed per capita per state, which serves as the data for the dependent variable in this study. Further, the number of lenders per state was divided by 1,000 to give the number of lenders per 1,000 people to make the results easier to interpret.

It is worth noting that an attempt was made to collect data on the number of payday lenders per state for the years 2006 and 2007, as well as data on the total dollar amount borrowed per state for the years 2006-2010. This data was available in some states as some state banking and financial institution regulatory bodies collect this data, but many did not. The data was therefore spotty and inconsistent and could not be used in this study. This inconsistency is due to differing state regulations and subsequent reporting requirements, and a recommendation follows that all states begin comprehensive collection of predatory lending data to track industry activity.

As for the independent variables, the trust data per state was obtained from several sources so as to test and compare various measures of trust. For the year 2005, data from the DDB Lifestyle Survey conducted in 2005 was used. More specifically, data pertaining to the
trust question: “Most people are honest” was used wherein respondents chose from 1-6 in which 1 corresponds to “Definitely Disagree” and 6 corresponds to “Definitely Agree.” The raw data was aggregated for each state into the percentage of respondents who believe that most people are honest (and therefore are trusting) by dividing the number of respondents who chose 4, 5 or 6 over the total number of respondents. The same was done with the DDB Lifestyle Survey conducted in 2008, only with data from their updated trust question: “How much do you trust: People you meet for the first time?” for which the scale also included 1-6, wherein 1 corresponds to “Do not trust at all” and 6 corresponds to “Trust completely.” The raw data for 2008 was also aggregated for each state into the percentage of respondents who believe that you can trust people you meet for the first time (those who chose 4, 5 or 6) of the total number of respondents.

In order to make use of the payday lending data obtained for 2008, 2009 and 2010, the data from this 2008 survey was duplicated and used for the years 2009 and 2010 as data for the 2009 and 2010 DDB Lifestyle Surveys was not available. It is posited that trust measures do not change enough over two years to warrant any statistical changes in the data and therefore the data is relatively accurate.

Further, a second measure was used for the year 2008 to check the validity of different measures of trust that have been established by various country-wide surveys. Data from the American National Election Survey trust question: “Generally speaking, would you say that most people CAN BE TRUSTED, or that you CAN’T BE TOO CAREFUL in dealing with people?” in which respondents answered 1 for “Most people can be trusted” and 2 for “Can’t be too careful” was also tested against payday lending data. This data was aggregated for each state and calculated as a percentage of those who answered 1 out of the total respondents. The last measure of trust used in this study is the data from Robert Putnam’s book entitled *Bowling Alone*
in which he collected 14 measures of social capital indicators in 1999. The social capital indicator used in this paper is the one derived from a state level trust measure created from the statement: “Most people can be trusted.” The data included in the book was in the form of percentages for each state, and was used as such.

There were six other independent control variables used in the regressions as well. They include gross domestic product per capita for each state taken as is from the U.S. Bureau of Economic Analysis (2012), and the unemployment rate for each state taken as is from the Bureau of Labor Statistics (2012). They also include the poverty rate for each state taken as is from the U.S. Census Bureau (2008), and the total educational enrollment per capita for each state taken from the National Center for Education Statistics (2012). The educational enrollment data was normalized by dividing by population, taken from the Census Bureau, per state in each data year. The minority percentage of the population per state was taken from the U.S. Census Bureau (2011). For this variable, data was taken for both the black population and Hispanic population and added together to obtain the minority population, which was then divided by total population per state to get the percentage. Lastly, the percentage of the population aged 18-29 and 65+ per state was also taken from the U.S. Census Bureau (2012). Similarly, this variable was obtained by adding the data for the age range of 18-29 to the data for the age range of 65 and up then dividing by total population per state to get a percentage of age ranges evidenced to be more vulnerable to predatory lending. These variables were all collected for the years 2005, 2008, 2009 and 2010.

To provide a visual display of the models used in this study, the following equations represent the regressions that were performed:
Table 1. Empirical Models for the Regressions

<table>
<thead>
<tr>
<th>Regression</th>
<th>Empirical Equation</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>lenders = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(ddb08)$</td>
</tr>
<tr>
<td>#2</td>
<td>lenders = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(anes08)$</td>
</tr>
<tr>
<td>#3</td>
<td>amount = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(ddb05)$</td>
</tr>
<tr>
<td>#4</td>
<td>lenders = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(ddb05)$</td>
</tr>
<tr>
<td>#5</td>
<td>amount = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(basoccap)$</td>
</tr>
<tr>
<td>#6</td>
<td>lenders = $\beta_1(gdp)$ + $\beta_2(un)$ + $\beta_3(pov)$ + $\beta_4(educ)$ + $\beta_5(min)$ + $\beta_6(age)$ + $\beta_7(basoccap)$</td>
</tr>
</tbody>
</table>

It is essential to take a look at the summary statistics for the data used in this study.

There are two data sets for which to examine the summary statistics – one for 2005 data and one for 2008, 2009 and 2010 data. Starting with the 2008-2010 dataset, the following table gives the mean, standard deviation, minimum and maximum for all of the variables utilized in the first two regressions:

Table 2. Summary Statistics for 2008-2010 Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>lenders</td>
<td>.099 lenders per 1,000 people</td>
<td>.074 lenders per 1,000 people</td>
<td>0.000 lenders per 1,000 people</td>
<td>.357 lenders per 1,000 people</td>
</tr>
<tr>
<td>gdp</td>
<td>$40,610 per capita</td>
<td>$7,497 per capita</td>
<td>$28,596 per capita</td>
<td>$63,252 per capita</td>
</tr>
<tr>
<td>un</td>
<td>7.10%</td>
<td>2.22%</td>
<td>2.70%</td>
<td>14.70%</td>
</tr>
<tr>
<td>pov</td>
<td>14.02%</td>
<td>3.00%</td>
<td>7.50%</td>
<td>22.40%</td>
</tr>
<tr>
<td>educ</td>
<td>16.72%</td>
<td>5.73%</td>
<td>7.37%</td>
<td>73.99%</td>
</tr>
<tr>
<td>min</td>
<td>20.54%</td>
<td>12.70%</td>
<td>2.50%</td>
<td>51.39%</td>
</tr>
<tr>
<td>age</td>
<td>28.50%</td>
<td>2.26%</td>
<td>23.63%</td>
<td>34.93%</td>
</tr>
<tr>
<td>ddb08</td>
<td>29.84%</td>
<td>9.43%</td>
<td>0.00%</td>
<td>56.52%</td>
</tr>
<tr>
<td>anes08</td>
<td>33.52%</td>
<td>25.64%</td>
<td>0.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

As evident from the table, the lenders variable – number of lenders per state – exhibits considerable spread from the mean, shown by the standard deviation. The table also shows that the anes08 trust measure is characterized by a much larger deviation from the mean than the ddb08 trust measure, which may indicate that it is a less reliable measure.

The next table, representing the dataset for 2005, gives the mean, standard deviation, minimum and maximum for all of the variables utilized in the last four regressions:
Table 3. Summary Statistics for 2005 Data

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>lenders</td>
<td>.122 lenders per 1,000 people</td>
<td>.086 lenders per 1,000 people</td>
<td>0.000 lenders per 1,000 people</td>
<td>.389 lenders per 1,000 people</td>
</tr>
<tr>
<td>amount</td>
<td>$139.19 borrowed per capita</td>
<td>$135.30 borrowed per capita</td>
<td>$13.08 borrowed per capita</td>
<td>$782.94 borrowed per capita</td>
</tr>
<tr>
<td>gdp</td>
<td>$32,435</td>
<td>$3,618</td>
<td>$24,820</td>
<td>$38,408</td>
</tr>
<tr>
<td>un</td>
<td>4.93%</td>
<td>1.12%</td>
<td>2.80%</td>
<td>7.90%</td>
</tr>
<tr>
<td>pov</td>
<td>13.21%</td>
<td>2.99%</td>
<td>7.60%</td>
<td>21.00%</td>
</tr>
<tr>
<td>educ</td>
<td>16.39%</td>
<td>1.33%</td>
<td>14.12%</td>
<td>20.39%</td>
</tr>
<tr>
<td>min</td>
<td>19.26%</td>
<td>12.52%</td>
<td>1.90%</td>
<td>47.00%</td>
</tr>
<tr>
<td>age</td>
<td>26.77%</td>
<td>1.63%</td>
<td>20.50%</td>
<td>30.80%</td>
</tr>
<tr>
<td>ddb05</td>
<td>52.70%</td>
<td>10.47%</td>
<td>20.00%</td>
<td>72.72%</td>
</tr>
<tr>
<td>basoccap</td>
<td>44.45%</td>
<td>12.37%</td>
<td>17.00%</td>
<td>67.00%</td>
</tr>
</tbody>
</table>

It is evident from this table that both of the proxies for payday lending activity, *lenders* and *amount* are characterized by a relatively large deviation from their means. Further, it is notable that the *ddb05* trust measure has a higher mean than the *basoccap* social capital index.

The following tables display the lending and trust data graphically for each year:
It is worth noting that for the 2008, 2009 and 2010 data – for which the graphs look similar as the same trust data was used for all three years – there seem to be a few outliers only for the ANES 2008 data. The three outliers are Hawaii, Iowa and Utah. These three states received a response of 1, or “Most people can be trusted,” from all of the questionnaire respondents. However, this may most likely be due to the relatively few respondents that answered that question for those states. Also, in all of the graphs the state of California seems as though it may be an outlier due to the high number of payday lenders it had each year coupled with a relatively average trust measure – again this may only be due to the sheer size of the state and thus the number of payday lenders that operate within its borders.

V. Empirical Results

The analysis produced an interesting mix of results. Heteroskedasticity was taken into account while performing the regression analyses, as it is a possibility that there is some variance in the error term given the value of the trust measure. Overall the model is adequate: the $R^2$ is .327 for the first regression and the adjusted $R^2$ is .287, which is low. For the second regression the $R^2$ is .312 and the adjusted $R^2$ is .265 – similar to the first regression. As a reminder, the only difference in these two regressions is the trust measure used: the first using DDB Lifestyle in 2008 and the second using ANES in 2008. The $R^2$ and adjusted $R^2$ for the remainder of the regressions vary, and the adjusted $R^2$ are presented in Table 4 below. These low numbers indicate that the explanatory variables explain only a part of the variation in the dependent variable, or payday lending activity. This does not necessarily mean that the model is not a good fit, but that all of the factors that affect payday lending have not been accounted for in this analysis, or that the dataset is not large enough. Also the $R^2$ tends to be lower as more variables
are added. The following table summarizes the results of the six regression analyses, with heteroskedasticity-robust standard errors:

Table 4. OLS Regression Results

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>gdp</td>
<td>5.354E-10</td>
<td>2.936E-9**</td>
<td>-0.000640</td>
<td>-4.751E-9</td>
<td>-0.0163*</td>
<td>-1.466E-8</td>
</tr>
<tr>
<td></td>
<td>(1.097E-9)</td>
<td>(1.183E-9)</td>
<td>(0.0163)</td>
<td>(9.200E-9)</td>
<td>(0.00855)</td>
<td>(6.657E-9)</td>
</tr>
<tr>
<td>un</td>
<td>-0.00000792***</td>
<td>-0.00000704**</td>
<td>-7.098</td>
<td>-0.00000584</td>
<td>7.361</td>
<td>7.233E-8</td>
</tr>
<tr>
<td></td>
<td>(0.00000290)</td>
<td>(0.00000317)</td>
<td>(22.347)</td>
<td>(0.00000130)</td>
<td>(16.0986)</td>
<td>(0.0000135)</td>
</tr>
<tr>
<td>pov</td>
<td>0.00001556***</td>
<td>0.00000213***</td>
<td>17.192</td>
<td>0.00000940</td>
<td>-9.246</td>
<td>-7.312E-8</td>
</tr>
<tr>
<td></td>
<td>(0.00000385)</td>
<td>(0.00000407)</td>
<td>(25.766)</td>
<td>(0.0000130)</td>
<td>(8.626)</td>
<td>(0.00000772)</td>
</tr>
<tr>
<td>educ</td>
<td>-0.00000108**</td>
<td>-9.902E-7***</td>
<td>-10.553</td>
<td>-0.00000439</td>
<td>-9.109</td>
<td>-0.00000930</td>
</tr>
<tr>
<td></td>
<td>(4.373E-7)</td>
<td>(4.741E-7)</td>
<td>(16.723)</td>
<td>(0.00000121)</td>
<td>(12.206)</td>
<td>(0.00000897)</td>
</tr>
<tr>
<td>min</td>
<td>-1.138E-7</td>
<td>-8.474E-7</td>
<td>-1.331</td>
<td>-3.316E-8</td>
<td>0.737</td>
<td>4.285E-7</td>
</tr>
<tr>
<td></td>
<td>(4.839E-7)</td>
<td>(5.439E-7)</td>
<td>(3.191)</td>
<td>(0.00000161)</td>
<td>(1.541)</td>
<td>(0.00000116)</td>
</tr>
<tr>
<td>age</td>
<td>-0.000000872***</td>
<td>-0.0000112***</td>
<td>-0.775</td>
<td>-0.00000179</td>
<td>-15.116</td>
<td>-0.0000145</td>
</tr>
<tr>
<td></td>
<td>(0.00000265)</td>
<td>(0.00000302)</td>
<td>(20.187)</td>
<td>(0.0000113)</td>
<td>(11.328)</td>
<td>(0.00000864)</td>
</tr>
<tr>
<td>ddb08</td>
<td>-0.00000128**</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(5.945E-7)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>anes08</td>
<td>--</td>
<td>1.342E-7</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>2.293E-7</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>ddb05</td>
<td>--</td>
<td>--</td>
<td>1.969</td>
<td>0.00000104</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(1.930)</td>
<td>(0.00000104)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>basoccap</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-1.945</td>
<td>3.930E-7</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>(2.0400)</td>
<td>(0.00000145)</td>
</tr>
<tr>
<td>Adj-R²</td>
<td>0.287</td>
<td>0.265</td>
<td>-0.0849</td>
<td>0.0342</td>
<td>0.200</td>
<td>0.193</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>111</td>
<td>39</td>
<td>40</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p<.01

Looking more closely at the parameters of interest, which are in bold in the table, it is clear to see that the only trust measure that showed any statistical significance was the DDB Lifestyle Survey trust question in 2008 from the first regression. The interpretation of the parameter for the trust variable ddb08 is as follows: if the trust measure for a state increases by 1%, this indicates that the number of payday
lenders in that state per 1,000 people is 0.00000128 less, or .00128 less for every 1 million people, holding all other factors constant. This is the expected direction. Obviously, the level of trust in a community does not have a large impact on the level of payday lending activity, but there is a slight relationship. However, this relationship can only be detected using the DDB Lifestyle Survey data for 2008, and a similar relationship is not discovered between the payday lending activity data and the other measures of trust (ANES 2008, DDB Lifestyle 2005, and the *Bowling Alone* social capital index).

Looking at the other significant independent variables, only *un*, *pov*, *educ*, and *age* are significant in the first regression. The interpretation of these variables is as follows: if the unemployment rate increases by 1%, this indicates that the number of payday lenders in that state per 1,000 people is 0.00000792 less holding other factors constant, which is not the expected direction. However, this does make sense as those who are unemployed will not have proof of income which may be needed to take out a payday loan. Further, if the poverty rate increases by 1%, this indicates that the number of payday lenders in that state per 1,000 people is 0.0000156 higher holding other factors constant, which is the expected direction. If the total educational enrollment per capita increases by 1%, this indicates that the number of payday lenders in that state per 1,000 people is 0.00000108 less holding other factors constant, which is the expected direction. Lastly, if the percentage of the population aged 18-29 and 65+ increases by 1%, this indicates that the number of payday lenders in that state per 1,000 people is 0.00000872 less holding other factors constant, which is not the expected direction. The standard errors for these parameters are relatively large compared to the coefficients, which indicates that the variance of the estimated parameters is large and therefore not very efficient. Also, it can be seen that for the third regression, in which the total dollar amount borrowed per state was regressed on the DDB Lifestyle Survey trust question for 2005 there is a negative adjusted $R^2$ which indicates that this is not a good estimated model for the variables of interest.

As for the rest of the regression analyses, only number 2 displayed significant parameters, except for the parameter for *gdp* in regression 5, which uses the total dollar amount
borrowed per capita in 2005 as the dependent variable. The same independent variables are significant in regression 2 as in regression 1, except the parameter of interest – that for anes08 – is not significant this time, but the parameter for gdp is, and is interpreted as follows: if GDP per capita increases by $1, this indicates that the number of payday lenders in that state per 1,000 people is $2.936E-9 higher holding other factors constant, which is not the expected direction. These results indicate that the other trust measures, namely anes08, ddb05, and basoccap may be inferior to ddb08 and may imply that there are data quality issues with these three measures.

Sensitivity analyses were conducted for multicollinearity as well as for serial correlation of degree 1. Also, the regressions were re-run excluding the insignificant explanatory variables. As for multicollinearity, it can be argued that there is a high correlation between unemployment and GDP, and also between the age and education variables, and therefore the six regressions were run without the unemployment and age independent variables – and also taking heteroskedasticity into account. As for the rationale behind this, the rate of unemployment in a state in part determines the productivity of the local economy, which in turn can be translated into that state’s gross domestic product. Further, the percentage of a state’s population made up of those between the ages of 18 and 29 as well as 65+ could be related to the total educational enrollment rate of that state as states with more young people and fewer seniors are expected to have higher enrollment rates. The results of these regression analyses are as follows:
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>gdp</td>
<td>2.735E-7</td>
<td>0.00000255**</td>
<td>-0.000564</td>
<td>-0.00000429</td>
<td>-0.00987*</td>
<td>-0.00000857</td>
</tr>
<tr>
<td></td>
<td>(0.00000113)</td>
<td>(0.00000118)</td>
<td>(0.0111)</td>
<td>(0.00000666)</td>
<td>(0.00605)</td>
<td>(0.00000517)</td>
</tr>
<tr>
<td>pov</td>
<td>0.0112***</td>
<td>0.0162***</td>
<td>15.812</td>
<td>0.00858</td>
<td>-3.618</td>
<td>0.00391</td>
</tr>
<tr>
<td></td>
<td>(0.00397)</td>
<td>(0.00422)</td>
<td>(19.391)</td>
<td>(0.0102)</td>
<td>(8.263)</td>
<td>(0.00695)</td>
</tr>
<tr>
<td>educ</td>
<td>-0.000782**</td>
<td>-0.000910**</td>
<td>-10.035</td>
<td>-0.00351</td>
<td>-2.539</td>
<td>-0.00277</td>
</tr>
<tr>
<td></td>
<td>(0.000371)</td>
<td>(0.000441)</td>
<td>(13.162)</td>
<td>(0.0103)</td>
<td>(11.625)</td>
<td>(0.00928)</td>
</tr>
<tr>
<td>min</td>
<td>0.000190</td>
<td>-0.000454</td>
<td>-1.369</td>
<td>-0.0000560</td>
<td>0.410</td>
<td>0.0000523</td>
</tr>
<tr>
<td></td>
<td>(0.000488)</td>
<td>(0.000539)</td>
<td>(3.417)</td>
<td>(0.00166)</td>
<td>(1.793)</td>
<td>(0.00137)</td>
</tr>
<tr>
<td>ddb08</td>
<td>-0.00167***</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(5.945E-7)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>anes08</td>
<td>--</td>
<td>0.00000285</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.000244)</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>ddb05</td>
<td>--</td>
<td>--</td>
<td>2.036</td>
<td>0.00109</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(2.028)</td>
<td>(0.00107)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>basoccap</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>-2.645</td>
<td>-0.000266</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>(2.004)</td>
<td>(0.00146)</td>
</tr>
<tr>
<td>Adj-R²</td>
<td>0.232</td>
<td>0.191</td>
<td>-0.0212</td>
<td>0.0876</td>
<td>0.212</td>
<td>0.213</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>111</td>
<td>39</td>
<td>40</td>
<td>33</td>
<td>33</td>
</tr>
</tbody>
</table>

*p<.1, **p<.05, ***p<.01

As can be seen from Table 5, the results are similar to those in Table 4. The parameter of interest is significant in the first regression, and has a much larger coefficient. To interpret the parameter: if the trust measure for a state increases by 1%, this indicates that the number of payday lenders in that state per 1,000 people is 0.00167 less, or 1.67 less for every 1 million people holding other factors constant. The adjusted R² however is lower, but not by much. There is much less variance in the coefficient for ddb08, which may indicate evidence of multicollinearity in the original regressions, and thus this may be a better model. Further, the possibility of serial correlation of degree 1 was tested. Serial correlation may be a concern as data collection protocol and subsequently human error may cause the error term to depend on the year the data was collected.
for payday lending activity. However, the results indicate that serial correlation is not present in this analysis. Finally, looking at the results from running the regressions without the insignificant explanatory variables – *min* and *gdp* – the results are similar, yet the coefficients of the estimated parameters are much larger. The same variables are significant as in the first set of regressions, and in the same direction, yet the coefficient on *ddb08* is now -.00142, 1,000 times larger than that in the first regression. It is also significant at the .01% level, whereas previously it was only significant at the .05% level. However, the adjusted $R^2$ for this regression is .246, lower than previously. Aside from *ddb08*, the other trust measures do not show any statistical significance. Overall, this is evidence that dropping the insignificant variables makes a difference in the impact of the trust measure on payday lending activity, but it is not a better model.

In general these results are consistent with the theory’s predictions. Looking only at the first regression from Table 4 – noting that the parameter of interest was not significant in the remaining five regressions – there are five significant variables, three of which are in the direction and magnitude that is consistent with the theory. The three that are consistent with the theory are as follows: *pov* which has a positive coefficient, *educ* which has a negative coefficient, and *ddb08* which has a negative coefficient and is between 0 and -1. The two that are not are *un* which had a negative coefficient and *age* which also had a negative coefficient. This could be explained as follows: those who are unemployed would not have proof of income that may be needed for a payday loan and therefore would not be able to take out a loan. Also, it is possible that the age range that is most likely to take out payday loans on a national scale would fall in between the ages of 29 and 65. Looking only at the first regression from Table 5, which accounts for multicollinearity, there are three significant variables, and all three of those
are in the direction and magnitude consistent with the theory. The three variables are $pov$ which has a positive coefficient, $educ$ which has a negative coefficient, and $ddb08$ which has a negative coefficient and is between 0 and -1. Lastly, looking only at the first regression in which the insignificant variables were dropped, the results are also consistent with the theory’s predictions as the coefficient for $ddb08$ is negative and between 0 and -1.

Comparing these results with those of other researchers, the results are consistent with other studies in terms of the impact of poverty and education on payday lending activity. Previous papers as mentioned in the literature review, such as Gallmeyer and Roberts’ 2009 study, have found evidence that poverty can exacerbate the concentration of predatory lenders and that a more educated population can reduce the use of predatory lending. However, the results of this study do not provide evidence that agrees with previous studies in regard to minority populations and the young and elderly population in terms of the existence of predatory lenders in areas where those populations are more concentrated. This may be rectified by the fact that the unit of study in this analysis is the state and the unit of study in previous research is much smaller.

As mentioned in the introduction, the implications for the findings of this study include efforts to formulate policies that aim to increase levels of social capital and trust in communities. However, though there was some evidence that trust levels have a negative relationship with predatory lending activity, the coefficients were not large and may not warrant policy changes until further research areas are explored, as outlined in the conclusion. Nonetheless, there are many benefits to increasing the level of social capital and trust in communities as well as reducing payday lending activity and predatory lending more generally. The findings of this study shed some light on a new aspect of community life that relates to predatory lending and
will aid in efforts to curb this lending by providing valuable insight into its causes. More
directly, this study will serve as a segway to open up new avenues of research that will provide
valuable insight into the predatory lending industry. It is also recommended that this study serve
as a catalyst for more comprehensive and consistent data collection practices among state
regulatory offices.

VI. **Summary and Conclusions**

The purpose of this paper has been to address a gap in theory pertaining to the relation
between payday lending activity in each state and the level of trust and social capital in that state.
This research has been motivated by the fact that as of yet no study has explicitly looked at the
association between predatory lending and the overall level of trust and social capital in a
community. As mentioned previously, most of the studies done thus far regarding predatory
lending focus on the negative effects of these loans on the borrowers’ financial situation, the
predatory practices and economic impact of payday lenders, the location decisions of payday
lenders and the types of borrowers they target, industry regulation, as well as borrower
knowledge and perceptions of payday lenders and alternative options they have available.

The contributions of this study include evidence that there is a relationship between both
the concentration of payday lenders in each state and trust, as well as the volume of payday
activity and trust. The topic of trust and social capital has not been studied previously in relation
to the predatory lending industry and this serves as the catalyst for new directions of future
research. This is a national study that employs data from 40 U.S. states, all those for which
consistent data were available. Previous studies have only examined a region of the U.S.

As for policy implications, the findings of this study indicate that efforts to formulate
policy that aim to increase levels of social capital and trust in communities would be beneficial.
As there are many obvious benefits to increasing the level of social capital and trust in communities, reducing payday lending activity and predatory lending more generally is but one of these possible benefits. The findings of this study have shed light on how the social fabric of a community may fuel predatory lending and can aid in efforts to curb this lending locally by providing valuable insight into its causes. This research could support advocacy efforts to this end.

There are a few shortcomings to this research, including the relatively small dataset. It would be beneficial to have more years of data for both number of lenders and total dollar amount borrowed, however consistent data across states was not available. It would also be beneficial to have additional years of data for the trust measures. This eliminated the possibility to perform fixed-effect analysis which could account for fixed effects across states. There are also limitations to these findings in that quality issues may be present in regard to the trust measure data for the DDB Lifestyle Surveys and the ANES.

Out of these limitations come numerous directions for future research. Some of these include re-conducting this study in the future after more comprehensive data collection practices have been put into use by state regulatory offices. Bi-directionality could also be addressed in that there may be a relationship in which the instance of payday lenders affects the level of trust in a society. Instrumental variables could be used to this effect. Future research could also include studying this question at the county level at various locations around the U.S., which could help to standardize the different regional laws and regulations pertaining to predatory lending. More specifically, those states with no regulation could be studied separately from those outlawing predatory lending. Further, the impact and success of various regulatory strategies could be examined.
Further, there are many other related areas of predatory lending that exist in addition to payday lending that could be studied, including pawn shops, title loan companies, as well as the burgeoning online payday lending industry. It is also advisable to study traditional banking institutions and their use of payday loans, including the differences in interest rates charged. The avenues for future research and discovery, and consequently new regulations are practically endless. This study has provided another piece to the puzzle in the campaign to curb predatory lending practices in the United States.
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