Petty Debt

A Comprehensive Examination of Michigan's Deferred Presentment Industry and Its Growth between 2000-2018.

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Abstract

The payday lending industry in Michigan grew rapidly in the first decade of the 2000s, providing high-cost loans to borrowers with a damaged credit history and few other financial options. The typical clientele of payday lenders represents a specific socioeconomic demographic, wherein they are most often the 'working poor'. Certain demographic variables may influence the likelihood that a person will use a payday lender during their life. This study examines the growth pattern of payday lender locations in Michigan between 2000 through 2018, revealing that the growth of payday lender locations closely followed economic stress in the state. Furthermore, a demographic examination produces correlations that link payday lender locations to urban areas and perhaps certain racial demographics, though hesitates to make any pronouncements on the latter. The study encourages future research into understanding the link between the growth of fringe banking services and economic instability, as well as demographic studies.

Keywords: payday lending, payday lender, deferred presentment, Michigan, economic history, Detroit, recession, fringe banking, overdraft, poverty penalty, working poor, urban, financial services, inequality

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1. Introduction

Over the course of the first decade of the 2000s, the United States experienced a rapid growth in the number of locations offering payday lending, a form of short-term, small-amount lending that frequently charges very high interest rates on principal loan balances. Various factors contributed to the rise and intensification of this new industry, among them regulatory weaknesses and technological change. However, the rise of payday lenders in the United States happened at a time of growing inequality and amidst a faltering economy. Michigan was hit especially hard during the 2007-2008 recession, as the state had already begun to lose jobs in its largest industrial sector, automobile manufacturing, by the time the crisis was in full swing. A slow, strained recovery followed the state's period of decline. This study focuses on payday lending in Michigan as the industry developed and intensified over the course of the 2000s, through the recession, and beyond recovery.

1.1 Problematisation

A contentious debate over the role of payday lending has been woven into public discourse, with the Consumer Financial Protection Bureau even once citing its practices to be "unfair" and "abusive", (CFPB 2019). Such a determination occurred for various reasons. First, the rates which such lenders charge are often several hundred percent while the loans most often last between a fortnight and one month. In many cases, borrowers are unable to fully repay their loans once the maturity date has arrived, resulting in a renewal of their existing loan or taking a new one. Some studies have hinted that payday lenders may target vulnerable population demographics. Others have identified that payday lenders can create a downward spiral of debt, one of which cites an increase in the likelihood that their customers will file for bankruptcy because of their debt burden.

Meanwhile, Michigan is a state that experienced a sharp economic downturn during the 2000s. Some researchers have identified the hollowing out of the automobile manufacturing sector as a major pain point for the state during this period. Furthermore, the recession hit Michigan's economy hard, sending its unemployment rate soaring in the aftermath of the crisis. This happened at the same time as payday lending branches entered the Michigan market and grew at a stunning rate, especially in the Detroit metropolitan area.

The existence of payday lending speaks to the existence of a class divide in the country, where the members of the richer classes can access services on better terms than the poorer classes. Indeed, members of society with capital can access financial services at better rates by patronising a bank, while

those with little or no capital are effectively penalised by being shut out of the traditional banking sphere where loan rates are lower, instead using fringe banking services such as pawnshops or payday lenders to satisfy their financial needs.

1.2 Aims

This study intends to examine the payday lending industry in Michigan within its unique economic context since the beginning of the millennium. A comprehensive understanding of the economic situation at the time and how it evolved over the period shall be an important facet. Also, demographics shall play an important role. Finally, the study intends to examine the institutional framework within which payday lenders and consumers alike operate. During the studied period, an important regulation was implemented in the State of Michigan that modified what constitutes acceptable business conduct for payday lenders when lending to their clients. Also, it is important to understand how this industry operates in context of the broader financial system, and which alternatives consumers have.

Specifically, the attention of this study shall be drawn to answering the two research questions below:

1) To what extent did the payday lending industry grow in the State of Michigan between 2000 and 2018?

2) Which demographic characteristics may have become factors in determining which locations payday lenders chose to open operations in Michigan in the first decade of the 2000s?

This study intends to contribute the experience of Michigan to the discourse on payday lending, as well as inequality in the financial systems of the United States. Understanding the extent of growth and who was targeted in the context of Michigan's time of economic hardship could help in understanding how fringe banking services develop and perpetuate, and such could perhaps be used as a barometer in detecting and understanding impending economic crises.

1.3 Outline of the study

The following sections will provide a discussion about the payday lending sector within its economic, geographic, and demographic context. Section 2 defines payday lenders and discusses background information about the industry, as well as the formal and informal structure of the American financial

system within which payday lenders operate and the laws that regulate them. Section 3 delves into studies that have been previously conducted on the topic and provides insight into the profile of the typical borrower. Section 4 discusses the 'poverty penalty', a concept that peers into the plight of the poor, working or otherwise. Section 5 outlines the methods by which data was acquired, as well as how it was analysed. Section 6 details the results of the study, peppered with discussions about how the results fit into the context of Michigan's economic and demographic situation at the time. Finally, Section 7 concludes, with some prescriptions for areas of future research.

2. Background Information

Payday loans are considered part of the 'fringe-banking' industry, along with pawnbroking, vehicle title loans, and microfinance, among others. Payday loans generally consist of small amounts of money that are lent for a short period of time – often no more than a couple of weeks – and feature exceptionally high annual percentage rates (APR) when compared with loans offered at traditional banks and credit unions. The APR for a payday loan often exceeds several hundred percent, especially in cases where the loan term is shortened or paid back early, as payday lenders often charge the same fee for their service despite an early repayment. Furthermore, a study by the Consumer Financial Protection Bureau (CFPB) found that over 80% of these loans were "rolled over or followed by another loan within 14 days," (Burke et. al. 2014). Because of such traits, these loans are often considered to be ostensibly abusive in practice.

Payday lenders rely on various idiosyncratic structures and processes within the American banking and financial system to lend and collect on debts. Especially important to the process is the draft payment system under which consumers with a chequing account authorise payments by physically writing cheques or electronically authorising withdrawal through automatic clearing house (ACH) transactions. Many storefront lenders use the former method, while internet lenders almost exclusively use the latter, (Findlay et. al. 2010). Most commonly, consumers who visit a storefront location present a post-dated cheque to the lender in exchange for loaned funds. The cheque is written to the benefit of the lender in the amount of the loan, plus the agreed-upon service fee. The lender agrees not to deposit the cheque until the maturity date of the loan, often between two weeks and one month from the date of the transaction. Ideally, once the maturity date has arrived, the lender deposits the cheque into their own bank account and is repaid for the loan (if the cheque clears), completing the transaction. Alternatively, the same exchange can occur via an internet lender, by which the transaction is completed using electronic funds transfers through ACH transactions. In these loan transactions, the lender electronically

deposits the proceeds from the loan directly to the consumer's chequing account and submits a withdrawal request upon maturity.

Some problems can arise systematically with transactions such as these. For instance, if the consumer does not have enough money available in their chequing account when the withdrawal request arrives, they will often be charged an overdraft fee *or* a non-sufficient funds (NSF) fee, depending upon whether their banking institution pays the overdraft or not, (Office of the Comptroller of the Currency 2010). In either case, the overdraft fee can resemble the service charge paid to the payday lender. Even if the cheque or ACH withdrawal request is rejected and unpaid by the banking institution, the consumer will still be charged an overdraft fee in addition to remaining liable for the debt to the lender. Rejected cheques or ACH withdrawal requests can be re-submitted multiple times by the lender despite a lack of funds in a consumer's account, with each payment presentment causing a new overdraft fee. These overdraft fees can pile up and cause a significant burden on the consumer, in addition to their still owing the lender. Currently, there is no law that prevents a lender from presenting the cheque an unlimited amount of times; however, this is expected to change when a new law goes into effect in August 2019 that limits presentations to two (granted that the compliance date is not delayed, as other parts of this law have been delayed or rescinded by the current head of the CFPB appointed by the Trump administration), (Bureau of Consumer Financial Protection 2019).

2.1 History

Payday loans, while not a novel concept, had a period of extensive growth in the 2000s throughout the United States, (Faris & Stegman 2003; Prager 2009). Researchers have attributed this growth to three key factors. First, technological advancement in the banking system caused cheque-cashing outlets to seek new avenues for creating revenue. The dramatic shift away from physical paycheques to electronic direct deposit by many employers and government agencies during this period caused a loss in traffic at cheque-cashing outlets. A typical cheque-casher charges a fee equal to a percentage of the face value of the cheque for the service they provide. With less cheques to cash, many of these outlets began to offer payday loans as a source of revenue, (Faris & Stegman 2003). Second, loose federal and state regulations allowed payday lenders to charge fees and interest rates much higher than those allowed by traditional financial institutions because payday lenders often evade the regulatory restrictions reserved for such traditional institutions, allowing their business to be profitable, (ibid). For instance, payday lenders are not regulated under the Dodd-Frank Act in the same way that traditional financial institutions are, (Dodd-Frank Wall Street Reform and Consumer Protection Act 2009). Third, consumers with no, low, or impaired

credit created a demand for these types of loans because they were effectively shut out of the traditional banking sphere, (Faris & Stegman 2003). At its highest point in 2007, it is estimated that there were over twenty-four thousand storefront payday lending locations in operation throughout the United States, (Bureau of Consumer Financial Protection 2019, p 12).

Only five states and the District of Columbia fully prohibit the service of payday lending (National Conference of State Legislatures 2018), while the CFPB cited that a total of seventeen states plus the District of Columbia either "prohibit … or impose interest rate caps that payday lenders find too low to enable them to make such loans profitably," (Bureau of Consumer Financial Protection 2019, p 8). Most of the remaining states regulate payday loans in some capacity by capping interest rates and fees, restricting the length of time that a payday loan may last, limiting the amount that may be loaned, or limiting the number of payday loans that a consumer may have at any given time – or a combination of the former.

This study focuses exclusively on the history of Michigan's payday lending sector. In Michigan, legal references to payday lending in state legislation are described by the term 'deferred presentment services,' wherein it is assumed that a written cheque is a 'presentment' and 'deferred' refers to writing a future-dated cheque, disallowing it from being cashed by the lender before the written date. In Michigan, payday lending became a regulated practise effective in 2006 via Act 244 of 2005 by the Legislative Council of the State of Michigan, also called the 'Deferred Presentment Service Transactions Act', (*Act 244 of 2005*). This Act regulates deferred presentment transactions in seven key ways that impact consumers. First, the Act caps how much a payday lender may lend with a single loan at no more than six-hundred dollars. Then, arguably most importantly, the Act limits the service fees that a payday lender may charge to the consumer. The limitation is carved into a descending-tiered structure, where the consumer can be charged no more than fifteen percent on the first one-hundred-dollar increment, no more than fourteen percent on the second one-hundred-dollar increment, and continuously in this pattern until the maximum loan amount of six hundred dollars, on which they may charge no more than ten percent on the sixth hundred-dollar increment. Thus, seventy-five dollars is the maximum service fee that payday lenders may collect on a single loan (if that loan reaches the maximum of six-hundred dollars). Third, the Act designates a maximum maturity period for each loan at 31 days. If a borrower utilises the maximum loan term, the resulting APR is 147.18%. Unfortunately, this is the best-case scenario regarding the APR for fees charged because lenders may charge the service fee in full regardless of how long the

actual loan term may be. If a borrower chose to pay back the loan after only 14 days, the resulting APR would be 325.89%; if after only 7 days, the resulting APR is 651.79%.

The remaining four major components of the law handle recordkeeping and a lender's inherent duties. As the fourth component, the Act designates the creation of a common database within which all deferred presentment transactions are recorded. Whenever a new loan is given, it must be recorded; when the loan is repaid, that also must be recorded. Details about every loan are coupled with a consumer's identifying information for each payday lender within this database, and payday lenders are heavily fined if they operate outside the database. This becomes important for the fifth component because the Act further designates that a consumer may have no more than two payday loans outstanding at any given time. Thus, payday lenders are obligated to verify that a potential borrower does not exceed this requirement before underwriting a loan. Furthermore, a single payday lender may not underwrite more than one loan to a single borrower at any given time. The sixth and seventh key components handle payment restructuring. Lenders are prohibited from rolling over or renewing payday loans if they intend to charge the consumer a new service fee. Thus, consumers are required to pay their loan in full before accessing a new one with the same lender. Hypothetically, there is nothing that would prevent a consumer from taking a loan with '*Lender A*' and paying it off with proceeds from a loan underwritten by '*Lender B*' to circumvent the renewal prohibition, or paying off to re-borrow – making it an arguably weak regulation. Finally, a consumer who has received eight payday loans within any twelve-month period, collectively, from any lender, may apply for a restructured repayment plan. Payday lenders are required by the Act to furnish this information to the consumer upon taking their eighth payday loan. The Act designates that upon receiving the eighth payday loan, the consumer may repay their payday loans by paying equal thirds of the outstanding balance from each of their next three paycheques (but does not designate a strict maturity). This part of the Act ostensibly benefits retirees or welfare recipients who are paid monthly but would least likely benefit the wage employees who are paid on a weekly basis.

2.2 Significance of time and place

This study stretches back to the turn of the millennium for a few key reasons. For instance, it was the mid-2000s that witnessed a boom in the payday lending sector. Although the service existed before this time, it was not widespread or necessarily readily available. Additionally, Michigan did not begin to regulate deferred presentments until 2006, though a major boom in new locations had occurred in the couple years prior to its enforcement. Barring these incidental events, it is perhaps most arousing to

consider the situation in Michigan between 2000 to 2018 in the context of much larger national and global economic events and how the payday lending industry in Michigan could fit into them.

Up until the mid-2000s, Michigan consistently ranked among the top half of states when measured by income per capita (see Table 1 in Section 6 on page 23), (State of Michigan 2019). Prior to 2001, Michigan's per capita income remained around par with the nation's average. However, around 2001, Michigan's per capita income growth slowed considerably, causing it to eventually reach its comparatively lowest level in 2009 as the country's fortieth highest, out of fifty. In fact, per capita income had shrunk by nearly five percent between 2008 and 2009. This coincides neatly with the Great Recession that shocked the nation and its global trade partners, (Roubini & Mihm 2011). The unemployment rate in Michigan in 2008 was 8%; the next year, it dramatically increased to 13.7%, (Statista 2019). It did not recover fully until 2014 when it reached 7.2%, reaching roughly pre-recession levels.

Within this time, Michigan's biggest industry experienced a severe decline. Of 'The Big Three' automobile manufacturers – Ford, General Motors, and Chrysler – the latter two companies filed for bankruptcy and became the recipients of a federal bailout, while Ford weathered its major losses without federal intervention, (Amadeo 2019). Between 2000 and 2009, hundreds of thousands of jobs within the automotive industry in Michigan had been lost, which could at least partially explain the state's backward slide in income. Researchers at the Upjohn Institute for Employment Research estimated that "by August 2009, Michigan retained only 27 percent of the [automotive] jobs it started with in 2000," which had been estimated at three-hundred thirty-three thousand jobs in June 2000, (Eberts & Erickcek 2009). Many of the automotive plants that shed these jobs were in and around the city of Detroit, specifically within three counties – Wayne, Oakland, and Macomb. Moreover, the City of Detroit filed for bankruptcy in 2013, several years past the initial shock from the recession, making it the largest American city to file for bankruptcy in its time, (Plumer 2013).

3. Previous studies

A variety of studies have been conducted throughout the United States and the United Kingdom that illuminate the intricacies of the payday lending industry. These studies concern mostly who service providers have historically targeted for their services, but also include analysis of how borrowers use the funds secured by a payday loan and what effects these loans can have upon the borrowers' economic well-being. These topics shall be discussed herein.

3.1 Borrower profile

The profile of a potential borrower can range dramatically depending on geographical area and socioeconomic indicators, but there are a few notable common themes that have emerged among various studies. Recently, a large study conducted by The Pew Charitable Trusts in 2012 found that "most payday loan borrowers are white, female, and are 25 to 44 years old," but continued to detail that "there are five groups that have higher odds of having used a payday loan: those without a four-year college degree; home renters; African Americans; those earning below $40,000 annually; and those who are separated or divorced," (Pew Charitable Trusts 2012). Similarly, a study of North Carolina's payday lending industry revealed that payday lenders typically located their storefronts in areas with less educated, low-income, and minority populations – or often a blend of the three, (Burkey & Simkins 2004). Then, an investigation by the Federal Reserve found similar results about the target market, (Prager 2009). Further studies revealed a tendency for payday lenders to locate around military bases, (Burkey & Simkins 2004; Graves & Peterson 2005). Indeed, there was overwhelming evidence of this locational tendency; the authors cited socioeconomic status as a likely factor that drives lenders' strategic location because of the likelihood that recruits share one of the three previously mentioned socioeconomic qualifiers, (Graves & Peterson 2005). Additionally, current and former welfare recipients were also found to be much more likely to have used a payday lending service in the past, (Faris & Stegman 2003). Notwithstanding, payday lenders were less likely to open a storefront location in the poorest neighbourhoods and tended to gravitate more toward areas populated mostly by the working poor, (ibid).

Meanwhile, another study examined microeconomic factors that influenced the likelihood of a person to borrow from a payday lender. It was revealed that the typical borrower has a chequing account, bad credit, *reliable* employment, and an annual household income less than the national median, (Faris & Stegman 2003). It also found a strong tendency of these borrowers to have a strong debt burden from other sources of consumer credit. Then, a recent British study found a notable increase in credit-seeking behaviour in both applying for new credit and carrying heavier balances on existing credit by the recipients of payday loans within six to twelve months after using such a loan in the United Kingdom, (Gathergood et. al. 2018). These factors paint a vibrant picture of who seeks out these kinds of loans.

Some of these studies identified the main purpose behind why borrowers took these loans. Around two-thirds of loans were spent on recurring, expected expenses "such as utilities, credit card bills, rent or mortgage payments, or food," while a much smaller share was spent in covering unexpected or emergency expenses, (Pew Charitable Trusts 2012). The CFPB released an alarming statistic that over

eighty percent of payday loans are renewed within a fortnight, while fifteen percent of new loans are renewed sequentially *ten or more times*, (Burke et. al. 2014). It is plain to understand that these are signs of economic struggle if most borrowers were unable to meet *regular* economic obligations and relied on continuously renewing their payday loans to stay ahead of regular expenses.

3.2 Effects on borrowers

It has been suggested that payday lenders follow a business model that encourages continuous borrowing that traps the consumer in a vicious, perpetual cycle of debt, (Faris & Stegman 2003). Consider the typical payday loan seeker, as described in the preceding section. The typical borrower has a stable source of income, a lack of options, and regular expenses that are at risk of going unpaid. If this borrower already cannot meet her obligations, how then could she be expected to tack on an additional payday loan service fee within only weeks of the original struggle event? Thus, many borrowers are unable to cope with the shock and inevitably renew their payday loan.

Unfortunately – and commonly – borrowing from a payday lender can do more harm than good, though it is tough to discern at what point payday loans stop being helpful and start becoming abusive, (Findlay et. al. 2010). For many borrowers, payday loans become a necessary evil to avoid even harsher consequences. Credit-constrained borrowers who are unable to turn to their family or community for financial support and have few other options must choose between taking a payday loan or accumulating overdraft fees. A single overdraft fee can often cost a similar amount as a payday lender's service fee. However, American banks generally charge a fee for *each* transaction that causes an overdraft, potentially resulting in a heap of debt larger than if the consumer had opted for a payday loan, (Faris & Stegman 2003). While there is plenty of support for this view, there are other studies that contradict this stance. Gathergood et. al. (2018) found no evidence that British consumers turned to overdraft lines as a substitute for short-term borrowing.

Meanwhile, another study concluded that the use of payday loans "substantially increase[s] personal bankruptcy rates," when comparing applicants who were barely-approved against those who were barely-denied but were able to secure financial resources from another source, (Skiba & Tobacman 2015). Such a result could term excessive payday loan use as abusive rather than helpful. Indeed, the study cites the burden on cash flow caused by payday loan service fees as a major strain leading to bankruptcy. A similar finding was echoed in the British study. The study revealed that the usage of payday loans caused an adverse repayment history with existing consumer loans, leading to default. Again, a lack of cash flow

due to the cost of servicing the debt incurred by payday loans became a major contributing factor, (Gathergood et. al. 2018).

3.3 Institutions

Institutional theory becomes rather important in understanding the function and growth of payday lenders during this period. Douglas North, a leading scholar of institutional theory, defined institutions as "the humanly devised constraints that structure human interaction … [which] are made up of formal constraints (e.g., rules, laws, constitutions), informal constraints (e.g., norms of behavior, conventions, self-imposed codes of conduct), and their enforcement characteristics," (North 1994, p 360). Act 244 of 2005 is one such institution that heavily impacts the actions of the actors in this study. The institutional structure of the Act governs what is considered acceptable behaviour by both payday lender and consumer; unacceptable behavioiur is punished by assessing fees, or at worst, shutting down a payday lender's operations.

Actors affected by Act 244 of 2005 must work within the lawful framework or else risk repercussions. In this case, regulation allowed the industry to persist while setting a code of conduct that poised to limit abusive lending (though it cannot be independently confirmed that the latter aim was effective in its scope). Meanwhile, actors affected by the Act must also reconcile their actions with the institutional framework of the financial system as it exists in Michigan and the broader United States. Institutions, then, effectively dictate the economic actions of all those involved in a payday lending service transaction. However, this study does not intend to comment on the effectiveness and quality of these institutions but only address their role in impacting the results of this study.

4. Conceptual Framework

A key concept that aids in understanding the economic situation within which consumers of payday lending services find themselves and why they use these services derives from the 'poverty penalty' (or 'poverty premium'). The 'poverty penalty' conceptualises the real-world situation under which the lowest economic classes in society often pay more than the middling and richer classes for the same goods and services, whether through formal or informal institutional or economic structures, (Caplovitz 1965). Indeed, various inequalities between these classes regarding geography, education and access to information, and access to capital contribute to these dynamics in a way that either benefits or penalises them according to their place in society. For example, members of the middle- or upper-class might be able to access discounts for the same goods because of their ability to afford bulk purchases that reduce

price per quantity, effectively grasping the benefit of a volume discount, (Mendoza 2011). Or, geographical factors can sometimes play a role by which the location of a neighbourhood on the fringe of a city may affect the cost of travel to access discounts, (ibid). Instead, consumers living in such a neighbourhood may access goods at conveniently located markets that have higher price tags but are nearer to their residence. Yet another manifestation occurs when members of the poorer societal classes turn to material consumption in the absence of permanent means by which to escape their economic situation or lack of amenities, like running water. In some cases, material consumption manifests as a (potentially temporary) comfort, while in other cases it can become a social status symbol adhering to socially constructed norms of what status is or should be, (Caplovitz 1965; Prahalad & Hammond 2002).

The 'poverty penalty' is at work within payday lending. Consumers who use a payday lender's service generally do so as a last resort because they are unable to acquire the funds they need through other means. Section 3 discussed how the typical payday lending consumer has poor credit. Such an attribute often disqualifies an applicant from securing funds from a traditional lending institution. However, there is a tremendous divide between the APR that a consumer might expect to pay at a bank or a credit union versus that charged by a payday lender. Figure 1 illustrates the historical interest rates charged to consumers on credit cards throughout the studied period, (Federal Reserve Bank of St. Louis 2019). Credit cards represent the most common form of unsecured credit offered through traditional banking institutions. Note that the average interest rate remained below 17% APR for the entire period. Compare that with a payday loan in Michigan – the lowest APR that a consumer who borrows the maximum six-hundred dollars could expect to pay is 147.18% (granted that the service provider charged service fees in line with the maximum allowed by the Act). Thus, a consumer that uses a payday lender essentially becomes punished for their perceived 'un-creditworthiness'. Remember that money is not a market product whose relative quality varies based on ingredients used, manufacturing processes, etc.; instead, the product only changes based on who provides the service and which strings are attached.

Poverty can extend to more than an individual's economic circumstance. Indeed, informational poverty can impact the decisions of consumers who are ignorant in finding and accessing a better deal. In his research, Caplovitz (1965) uncovered abusive techniques employed by some predatory door-to-door merchant peddlers who sold (sometimes low-quality) goods at higher rates than could be found elsewhere on the market – often adding high-interest financing. Consumers who were unable to pay, chose not to pay because of a dispute about the low-quality of the goods, or who attempted to return the items were often served a lawsuit to recover the money owed. In these cases, poorer consumers were

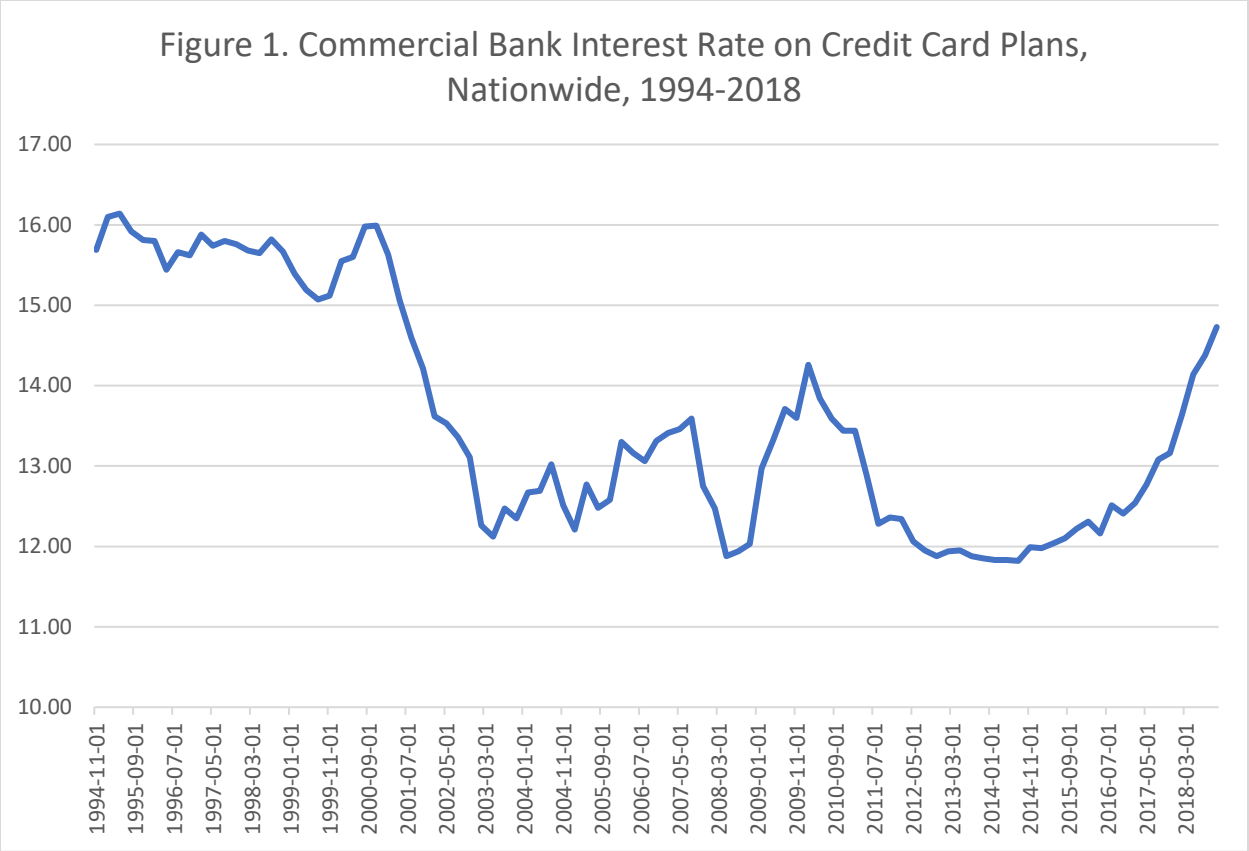

Figure 1 data source: Federal Reserve Bank of St. Louis, 2019a.

often vulnerable because they lacked information about the market, their consumer rights, the function of the legal system, and were often located in inconvenient areas that hindered their ability to access goods and services without the convenient medium of a peddler.

In an illustration of the 'poverty penalty' at work, the study by Burkey & Simkins (2004) noted a disparity in the concentration of banks and payday lenders in certain areas. They discovered that areas with a "higher percentage of minorities, lower education levels, a higher percentage of people in the military, more people receiving public assistance, a younger population, and more recent immigrants and others who are less likely to speak English" had "the highest density of payday lenders … [and] fewer banks per capita," (Burkey & Simkins 2004). It should come as no surprise that each of these types of for-profit businesses would strategise their location to maximise their profits while minimising risks. As a result, it seems these natural market forces could be pushing economically vulnerable populations to pay higher interest rates on borrowed money simply because they are not as affluent. In absolute terms, the cost may not be high. However, the structure of payday loans and the common need to renew them can

punish the borrower in a way that might not be experienced had a traditional lending institution offered similar loans.

And, why is it that traditional lending institutions have not yet created financial products that would compete with payday lenders? Quite the contrary, it seems that banks have retreated from these markets, in defiance of the Community Reinvestment Act of 1977 signed by President Carter, (Board of Governors of the Federal Reserve System 2018). The Act aimed to oblige financial institutions to develop products that fit the needs of low- and moderate-income (LMI) families in the localities where they provide services. If the Act had been successful, would we have seen the meteoric rise of payday lending during this period? Burkey & Simkins (2004) concluded that the Act essentially failed in its scope. Meanwhile, Faris & Stegman (2003) noted a few credit unions that had developed low-cost products that were suited to compete with payday loans; however, the limited reach of community credit unions would not have made such products a widely available service without a push for other credit unions to provide something similar – which did not occur.

Meanwhile, many banks and credit unions offer 'overdraft protection' to their customers or members for drafts and debit card purchases (pursuant to Regulation E) that attempt to clear their account when they do not have enough funds to cover the withdrawal, (Consumer Reports 2013; Office of the Comptroller of the Currency 2010). Every bank structures their overdraft tolerance amount differently, but it should be interesting to understand why a bank would offer 'overdraft protection' to the same customers who they would deny for a small loan in line with what they offer to cover as overdraft – or is offered by a payday lender. It should also give pause to consider that payday loan users have chequing accounts with a bank or credit union, and yet they are unable to secure financial resources from their patronised institution. Essentially, they become penalised by a system that favours those with capital and ignores those with little to none, a global theme that unites the world's poor irrespective of nationality.

5. Research Methods

This section is dedicated to discussing the methods that were employed in collecting and analysing data as they related to each of the research questions present in this study. All data gathered for this study is quantitative data. In this case, quantitative data bestows the ability to analyse statistical trends from which to glean insight about the change of the industry and its consumer base over the studied period. Both research questions employ statistics acquired from the State of Michigan, while the second research

question gathers additional demographic information from various sources, especially the United States Census Bureau. Each research question's analysis method(s) shall be discussed separately.

5.1 Methods for data collection and data analysis for the first research question

The first research question concerns the growth of deferred presentment locations in Michigan between the years 2000 and 2018. A basic comparative analysis was performed to highlight trends within the growth of the sector. Naturally, analysing trends in growth should require the acquisition of location information for all service providers within the state. Act 244 of 2005, or the Deferred Presentment Service Transactions Act, established a licensing requirement for all service provider locations and outlined the creation of a database to house all information about deferred presentment transactions. A database of all active deferred presentment service locations exists on the State of Michigan's Department of Insurance and Financial Services (DIFS) website, known as the Deferred Presentment Locator, (Department of Insurance and Financial Services 2019). This is one of the main data sources for this study. Information contained within this database includes the company name of every active deferred presentment service provider and its branch location address, its headquarters or mailing address, the effective date of the license, and the location's license number.

One of the drawbacks of the raw data obtained from this source is the statutory effective date for licenses granted within 2006. The Act required compliance for all existing payday lenders already in operation to apply for a license within a short span of the effective date of its enforcement. Therefore, the license date for any locations in business prior to 2006 are not accurately represented within the data and instead show 1 June 2006 as their effective date. This impacts more than half of the locations within the dataset. However, steps were undertaken to mitigate the effect of this flaw.

The State of Michigan requires limited liability companies (LLCs) and corporate entities to be licensed with the state. Such business entities are required to pay a twenty-five-dollar fee annually to legally operate within the state's boundaries. Information about these companies is made publicly available via another database hosted by the Michigan Department of Licensing and Regulatory Affairs (LARA), (Department of Licensing and Regulatory Affairs 2019). Searching for the exact company name as listed on the Deferred Presentment Locator yielded results in the LARA database in every case for licenses issued in 2006. Therefore, to get a more accurate picture of the growth trends prior to 2006, a proxy effective date has been used for all the affected locations. The proxy date is not perfect – the date used in our data derives from the date that the business was registered with the state when it filed its Articles of

Incorporation or an Application for Certificate of Authority. But, this does not necessarily accurately reflect the date that a particular service location began to functionally operate. Many companies operating within Michigan have multiple service locations. Any locations that became licensed as a deferred presentment service provider in 2006 thus use the date the company became established in Michigan and not necessarily the date the location began to operate in the study's data. Hopefully the impact from this flaw is minimal, especially because many of these companies were established in Michigan only in 2005, though some others were established before.

After refining the data for date accuracy, each location was categorised based on its location's effective date and the county within which it is located. This allowed the creation of location maps that visualise the concentration of service provider locations for each year within the studied period. Year-on-year growth was calculated by subtracting the previous year's number of deferred presentment locations from the current year's deferred presentment locations and dividing the result by the number of locations in the previous year and multiplying this result by one hundred to represent a percentage. This has been done cumulatively for the state, as well as for a few select counties – particularly those with a higher prevalence of deferred presentment service provider locations. State results are depicted visually in line graphs (see Figure 3 and Figure 4 on page 24).

5.1.1 Limitations of the data in the first research question

There is a flaw in the data acquired by the Deferred Presentment Locator available on the DIFS website that the study is unable to overcome. The service provider locations that are represented in the dataset only include those locations that are actively in business as of the date that the data was acquired in April 2019. The data do not represent locations that were closed prior to this time, if any should exist. Personally contacting the DIFS yielded no ground in uncovering information about any inactive licenses or closed locations, and there are no archived databases available on the DIFS website.

Essentially, what the study can analyse are those locations that have survived beyond the recession in the late 2000s. This limitation has pros, cons, and considerations. Most importantly, this limitation biases the growth trend so that it should always appear as if growth were positive when this is not necessarily the case. The validity of this study's trend in growth then becomes shaky without understanding which locations may have closed, when, and where they were located. However, the growth trend of surviving locations may still represent a reasonably accurate picture of the growth trend despite lacking this data. The likelihood that many locations were opening while many others simultaneously closed in a virtually

chaotic period does not seem high, *a priori*. Thus, we may be able to inference that during periods of decelerating growth, closures or turnover were present, while periods of accelerating growth had few. However, we would lack depth of information in knowing certainly the size and scope of such periods of negative growth. Even so, it is possible to glean insight into the phases of the development of the industry. The trends in the survivors' growth may indicate the typical components of market hype, saturation, pruning, and long-term survivorship, even if they should be obscured by imperfect data.

In fact, a recent statement from the CFPB about the payday lending industry can aid the study in identifying such periods. The statement cited an analyst who described "an estimated 14,348 storefronts in 2017, down from the industry's peak of over 24,000 stores ten years earlier," in 2007, (Bureau of Consumer Financial Protection 2019, p 12). While this is a national statistic, it places emphasis on 2007 as the industry's highest point – hauntingly coinciding with the year prior to the breaking point of the recession. Also, this number may represent states that enforced harsher legislation on payday lending activities after 2007, causing a wave of closures. Analysis of the national trend is without the scope of this study; we cannot be sure if Michigan experienced such a drastic decline as the one experienced in the count of service providers nationwide.

5.2 Methods for data collection and data analysis for the second research question

The second research question of this study concerns identification of the target market for payday lenders in Michigan. This part of the study requires other sources of data besides that which was derived from the Deferred Presentment Locator. Indeed, identifying a target market requires demographic information about the locations where payday lenders are present. Much of the study focuses on the county-level to capture trends within metropolitan areas that would not necessarily be present in city-level studies. Indicators such as county population count, number of deferred presentment service providers present in each county, racial statistics, median household income levels, and percentage of residents living below the poverty level have been gathered to assist in identifying trends, (Census Viewer 2019; U.S. Census Bureau 2012; United States Census Bureau 2019; Index Mundi 2019). The ratio of payday lenders to population for each county shall also be noted.

The indicators were chosen on a comparative basis with other similar studies. As discussed in Section 3, previous studies have identified that race, income level, and education level are factors that are positively correlated with the likelihood of an individual to use payday lending services. In this study, race and income level become two key indicators, while education level is left out because of the absence of

participant data. Population count and poverty levels have been added to the study to further the discussion about urbanisation and the poverty penalty. Gender has also been omitted from the study because of a lack of participant data.

Answering this research question is undertaken with the use of a cross-sectional analysis of data from 2010. A cross-sectional approach analyses multiple points of data, referred to herein as indicators, from a single point in time to highlight relationships that may be present among its indicators. There are various reasons for this. First, the most reliable data regarding population statistics comes from the U.S. Census Bureau, (2019). The U.S. Census Bureau conducts a census survey every ten years, coinciding with the change of the decade. Thus, the most recently available data comes from 2010. The indicators for this study have consequently been sourced from the 2010 U.S. Census Survey, (Census Viewer 2019; U.S. Census Bureau 2012; United States Census Bureau 2019; Index Mundi 2019). Population projections for a more contemporary time period are available, but it was decided to use concrete data to avoid ambiguity. Furthermore, reviewing population trends regarding ethnicity in the 2000 census compared with the 2010 census did not reveal radical change in the ethnic makeup of Michigan's counties. A comparison between 2000 and 2010 was not undertaken because there were too few payday lenders active in 2000 according to the (revised) data from the DIFS. Moreover, 2010 is much closer to the period during which Michigan experienced an economic recession and is only three years from the time period that the CFPB identified as the highest point for the payday lending industry. Finally, a cross-sectional analysis allows the study to identify factors that correlate to a higher presence of payday lenders during this historically relevant time.

It should be noted that respondents to the Census Survey self-identify their ethnic background. Respondents are invited to identify their background as monoracial or multiracial, and then specify. Respondents to the 2010 U.S. Census Survey in Michigan identified overwhelmingly as monoracial. The choices present within this category are White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, and Some Other Race. Respondents who identified as multiracial are asked to quantify the number of races with which they identify but are not required to specify which races those are. Separately, respondents are welcome to identify as Hispanic in addition to the above classification. These respondents are unique in this context because they can select any other racial category in addition to their Hispanic heritage. In this study, the largest samples of the population will stand alone, while the smallest will be grouped together. Thus, this study shall categorise race as White, Black or African American, American Indian and Alaska Native, Asian, Hispanic, and 'Other'.

'Other' shall include those who identified as Native Hawaiian or Other Pacific Islander and Some Other Race, as well as those who identified as multiracial.

Each of the indicators were tested in a bivariate correlation analysis against the gross number of payday lender locations present in 2010 in each county. Additionally, other indicators were tested against each other outside the scope of merely payday lender locations. For instance, a correlation analysis of the relationship between household income and population count was performed. Scatter plot diagrams were also generated to visualise the findings from each of the bivariate analyses. These results and findings will be discussed in detail in Section 6.

5.2.1 Limitations of the data in the second research question

There are some notable biases in the data that were selected for this study. Because this study utilises statistics based on the county level, it may not capture more localised trends based on the demographics of a specific city or neighbourhood. Some major cities are discussed but are absent from the corollary analysis. It is highly possible that some payday lender branch locations were chosen to locate in specific local markets for reasons that correlate to one of our indicators; however, this study will be unable to identify any specific cases as such. Furthermore, previous studies have discussed the tendency of payday lenders to locate around military bases. This was omitted from the study for the same reason that city and neighbourhood data was omitted. Additionally, many of Michigan's military bases lie in counties that are highly populated. Therefore, a corollary relationship, if found, could be spurious because of this bias.

6. Data Analysis

This section will discuss the results of trends that became apparent in the data. Each of the research questions shall be discussed separately. In the first subsection, discussion about the extent of growth of payday lending locations will be structured by first discussing growth trends on the state level, then in the five counties with the highest concentrations of payday lenders. A brief discussion that fits the results into the historical context follows. The second subsection is dedicated to discussion demographic trends and how they fit together with the presence of payday lenders.

6.1 The extent of growth

The data show that the surviving payday lender locations grew in a tumultuous fashion in the first decade of the 2000s with high peaks and low valleys, while the growth in the second decade generally plateaued and then steadily declined. These trends are illustrated by the following figures.

Figure 2 depicts growth in the absolute number of locations as they opened for operation in Michigan between 2000-2018. It is evident that there was a surge in the number of locations opened in 2005, with two-hundred twenty-two having opened over the course of that year. Because of the way the data was managed, it is possible that some of these locations opened in 2006 prior to the effective date of the Deferred Presentment Service Transactions Act on 1 June. Even so, this surge in the number of locations represents forty-four percent of the total number of locations that are in operation today. In the course of one (or, perhaps one and one-half) year, nearly half of the total locations sprang into business. How can this have happened?

There is a striking inequality in the market penetration for companies on the list. From a total of sixty-eight companies operating five-hundred two branches, two companies operate nearly half of the total branches. Asco of Michigan, Inc. operates one-hundred forty-three branches, while Great Lakes Specialty Finance, Inc. operates another one-hundred two. In fact, just eleven companies operate ten or more branches each, for a combined total of four-hundred sixteen branches – or, eighty-three percent of the total number of locations currently in operation. Both Asco of Michigan, Inc. and Great Lakes Specialty

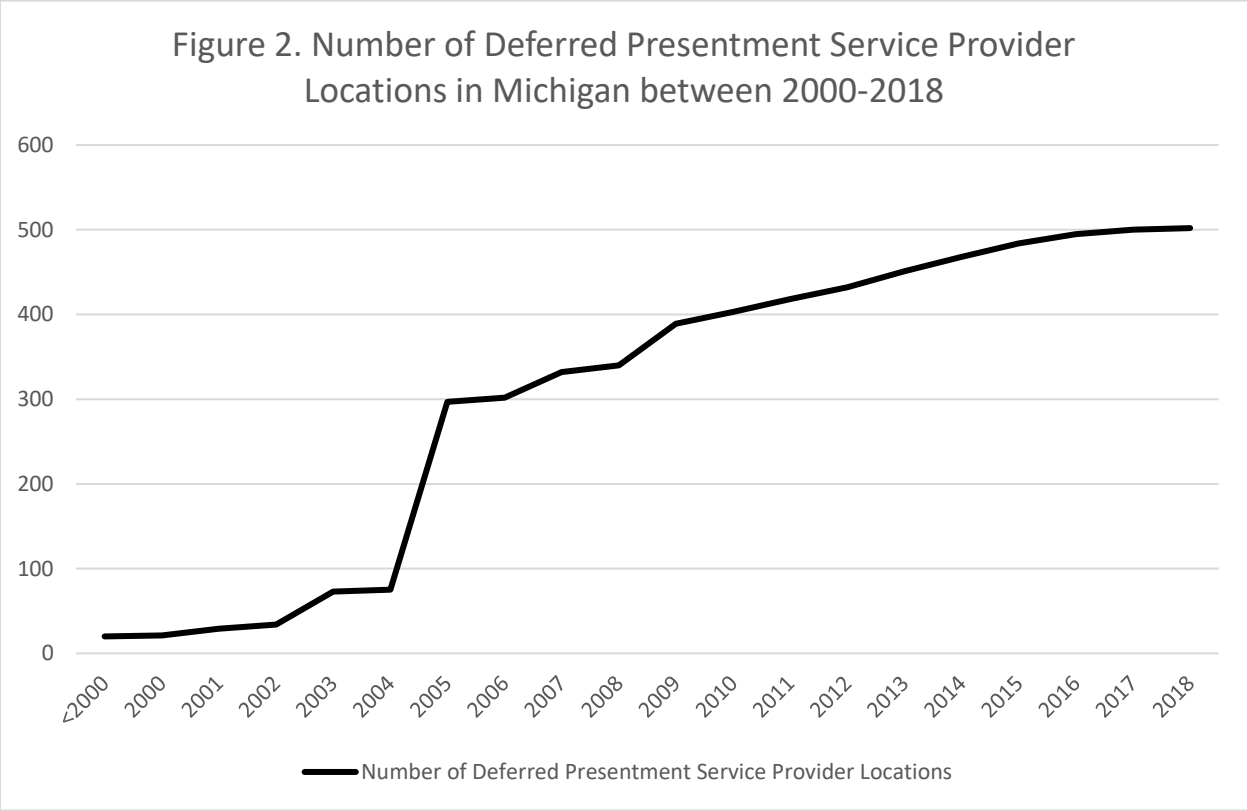

Figure 2 data source: Department of Insurance and Financial Service, 2019

Table 1. Michigan Income Rankings and Number of Deferred Presentment Locations

Year	Michigan per capita income	United States per capita income	Michigan Rank	Total Deferred Presentment Locations in Michigan	New Locations Opened Per Year
1990	18,949.00	19,591.00	20	N/A	N/A
1991	19,165.00	19,985.00	20	N/A	N/A
1992	20,167.00	21,060.00	20	N/A	N/A
1993	21,106.00	21,698.00	20	N/A	N/A
1994	22,559.00	22,538.00	18	N/A	N/A
1995	23,664.00	23,568.00	19	N/A	N/A
1996	24,696.00	24,728.00	18	N/A	N/A
1997	25,874.00	25,950.00	18	N/A	N/A
1998	27,322.00	27,557.00	18	N/A	N/A
1999	28,582.00	28,675.00	16	20	N/A
2000	30,310.00	30,657.00	18	21	1
2001	30,688.00	31,589.00	20	29	8
2002	30,590.00	31,832.00	24	34	5
2003	31,254.00	32,681.00	24	73	39
2004	32,076.00	34,251.00	25	75	2
2005	32,755.00	35,849.00	27	297	222
2006	33,624.00	38,114.00	36	302	5
2007	34,704.00	39,844.00	38	332	30
2008	35,595.00	40,904.00	36	340	8
2009	33,938.00	39,284.00	40	389	49
2010	35,302.00	40,545.00	39	403	14
2011	37,482.00	42,727.00	38	418	15
2012	38,983.00	44,582.00	38	432	14
2013	39,328.00	44,826.00	38	451	19
2014	41,116.00	47,025.00	36	468	1
2015	43,471.00	48,940.00	34	484	16
2016	44,751.00	49,831.00	31	495	11
2017	46,201.00	51,640.00	31	500	5

Table 1 data sources: State of Michigan, 2019; Department of Insurance and Financial Services, 2019.

Finance, Inc. entered the Michigan market in 2005, between them opening two-hundred eight branches in 2005 (and likely, 2006). The entrance of these two companies explains the surge in locations during this time.

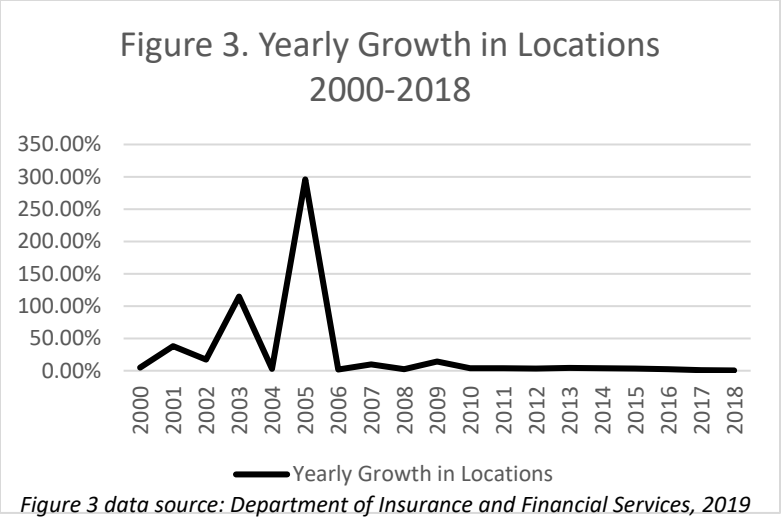

Figure 3 data source: Department of Insurance and Financial Services, 2019

Figure 3 and Figure 4 depict growth as a percentage year-over-year. The former represents the whole studied period and the latter represents growth after the surge in new locations in 2005 to enable a closer examination of the growth trend post-2005. Figure 3 reveals sharp peaks in 2001, 2003, and 2005, while the rest of the period trails off. However, Figure 3 may not be a reliable depiction of the trends in growth because it suffers several biases. Because the industry was still in its infancy prior to 2005, small numbers of new locations drastically impact growth statistics, making growth appear more extreme than it really was. Also, the period prior to 2005 suffers from data biases that are unable to be overcome – it is not possible to know definitively when each branch location began operating and thus all locations for companies that opened more than one branch prior to 2006 are assigned the company's original organisation date despite possibly having opened locations incrementally throughout this period. Finally, the growth spike in 2005 dwarfs the rest of the development so that it appears uninteresting.

Figure 4 covers the period following both the growth spike in 2005 and the implementation of the Deferred Presentments Service Transactions Act and is thus more reliable in its scope. There were a few notable developments during this period. Branch locations steadily opened throughout 2007 before a tremendous dip in growth occurred in 2008. Finally, the largest spike of the period occurred in 2009, after which growth slowly began to decline, save for a brief climb in 2013. These developments coincide with the events that were impacting the Michigan economy at the time.

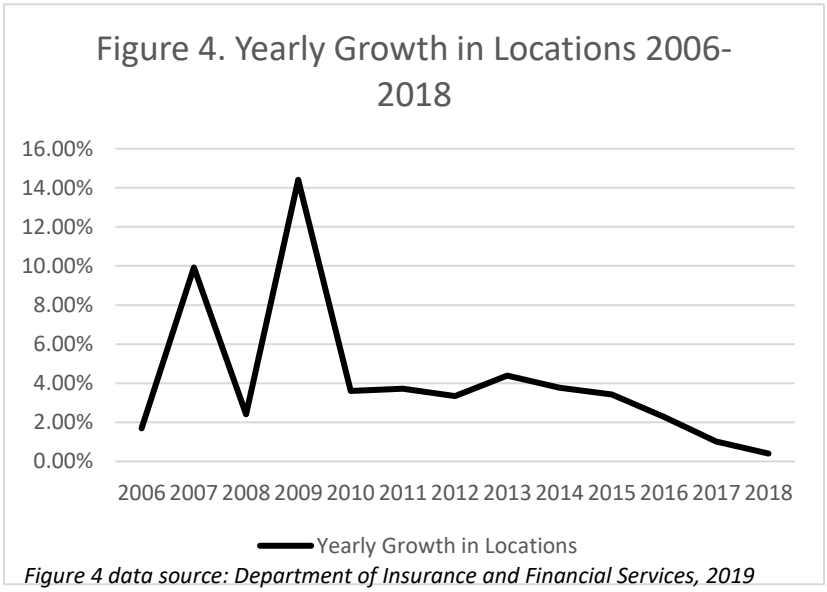

Figure 4 data source: Department of Insurance and Financial Services, 2019

It should also be noted that the Deferred Presentment Service Transactions Act took effect in 2006. After the feverous rise in opening branch locations in 2005-2006, growth as a percentage fell drastically for the rest of the period in comparison. There are a few factors that could be at work here. First, it is possible that the Act discouraged the feverish hype of new locations that had occurred in the years previous by setting caps on service fees and the amount allowed to be loaned at one time. Or, perhaps the companies that had moved into Michigan during 2005-2006 established before others could seize the opportunity to penetrate the market. Maybe the demand for the service decreased as a result of a recovering (albeit, slowly) economy. Finally, it is possible that the industry became saturated, offering little incentive for new businesses to enter. Of course, a blend of these factors could have also discouraged new locations from opening.

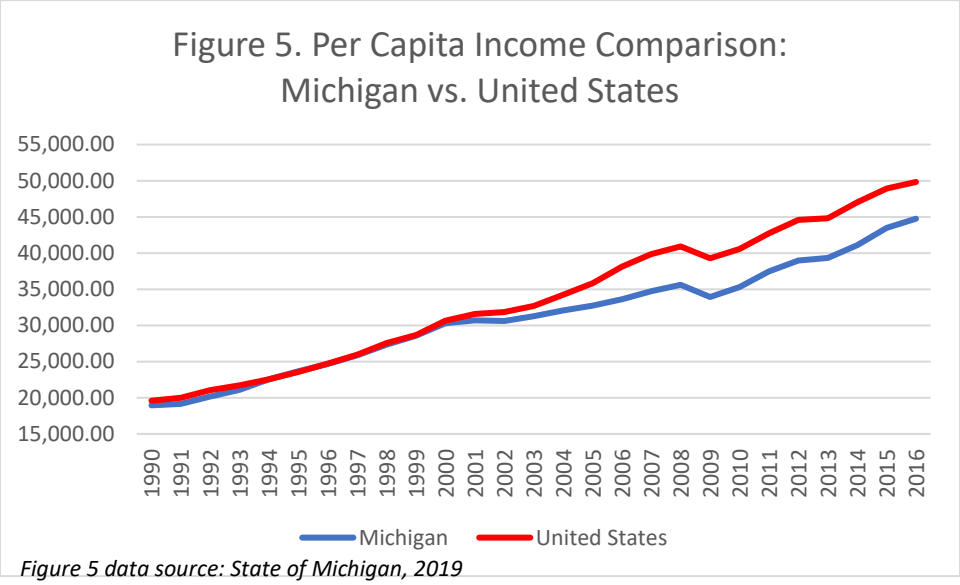

Figure 5 data source: State of Michigan, 2019

Per capita income in Michigan began to fall behind the national average at the turn of the millennium, after having stayed virtually on-par since 1990, (State of Michigan 2019). Figure 5 illustrates this trend. There are some notable developments that occurred along the trajectory of per capita income growth over the period. Michigan appeared to have suffered the same shocks to its per capita income as had been experienced on the national level. Michigan and the United States remained on a similar trajectory, both affected proportionally by the recession, then got on the road to recovery, before hitting turbulence again in 2013.

It has been noted that automobile manufacturing had been a major staple in the Michigan economy prior to the studied period. As previously noted, the 'Big Three' automobile companies shrunk their workforce to twenty-seven percent of what it was at the turn of the millennium by 2009, (Eberts & Erickcek 2009). It appears rather coincidental that these job cuts occurred simultaneously while Michigan's per capita income began to lag behind the national average. However, it is outside the scope of this study to debate the correlation between these two factors. What *is* interesting is that the rise in

growth of the payday lending sector in Michigan corresponds rather snugly to Michigan's recent economic history. As Michigan's per capita income fell behind the national average, payday lending branch locations began to pop up throughout the state. A tremendous surge in new locations sprang up within the few years prior to the greatest economic recession the United States had experienced since the Great Depression, (Roubini & Mihm 2011). It is widely accepted that the recession was caused primarily by loose regulations on mortgage lending and the failure of investments built upon those failing mortgages, which ultimately resulted in a wave of foreclosures and bank closures, (ibid). Meanwhile, a study cited that the primary reason borrowers used a payday lender was to pay recurring expenses *such as their mortgage payment*, (Pew Charitable Trusts 2012). Is it possible that a correlation exists among these factors? Is it possible that payday lenders successfully entered the Michigan market because of draining capital, net loss of manufacturing jobs, and the associated strain that these factors placed on homeowners during the first decade of the 2000s? Furthermore, is it possible that the sudden presence of these payday lenders exacerbated a bad situation by offering these high-interest loans? Further research is needed to understand the relation among these factors, if such a relation exists.

Figure 6. Deferred Presentment Locations per County in 2000, 2005, 2010, and 2015.

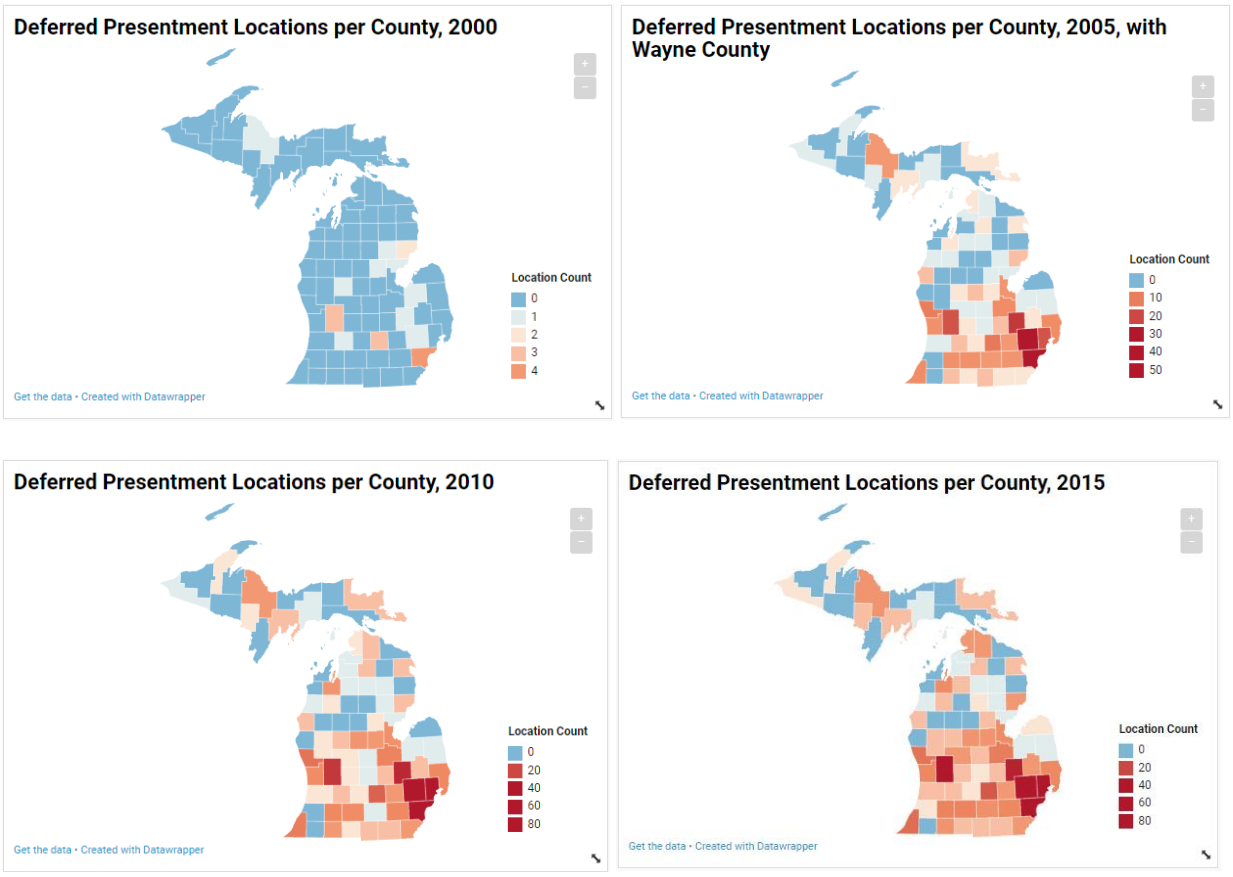

Figure 6 data source: Department of Insurance and Financial Services, 2019

A large portion of payday lending branch locations are found in the state's five most populous counties, as might be expected (see Figure 6). These counties are, in order of share of branches, Wayne, Oakland, Macomb, Kent, and Genesee. Wayne, Oakland, and Macomb counties make up the Detroit metropolitan area in the southeast part of the state. Kent county houses the biggest city on the west side of the state, Grand Rapids. Genesee county is a northwestern periphery of the Detroit metropolitan area, wherein lies the city of Flint. There are some notable trends in these counties' payday lending growth trajectory. Of course, each county saw a dramatic increase of new locations in 2005-2006. Then, each county experienced an uptick in the growth of payday lending branches in the aftermath of the recession in 2009 and another smaller one in 2013-2014. It should again be noted that the city of Detroit filed for bankruptcy in 2013, (Plumer 2013). Then, it appears that new location growth fell. Stunningly, the pattern of growth in locations in the Detroit metropolitan area seems to nearly match the history of unemployment levels in the area, (see Figure 7), (Statista 2019). It can also be noted that the unemployment level steadily increased between the years 2000 and 2008 before dramatically rising amid the recession. This trend seems related to the history of workforce reduction by the 'Big Three' automobile manufacturers, while it inversely relates to the fall in per capita income during this time.

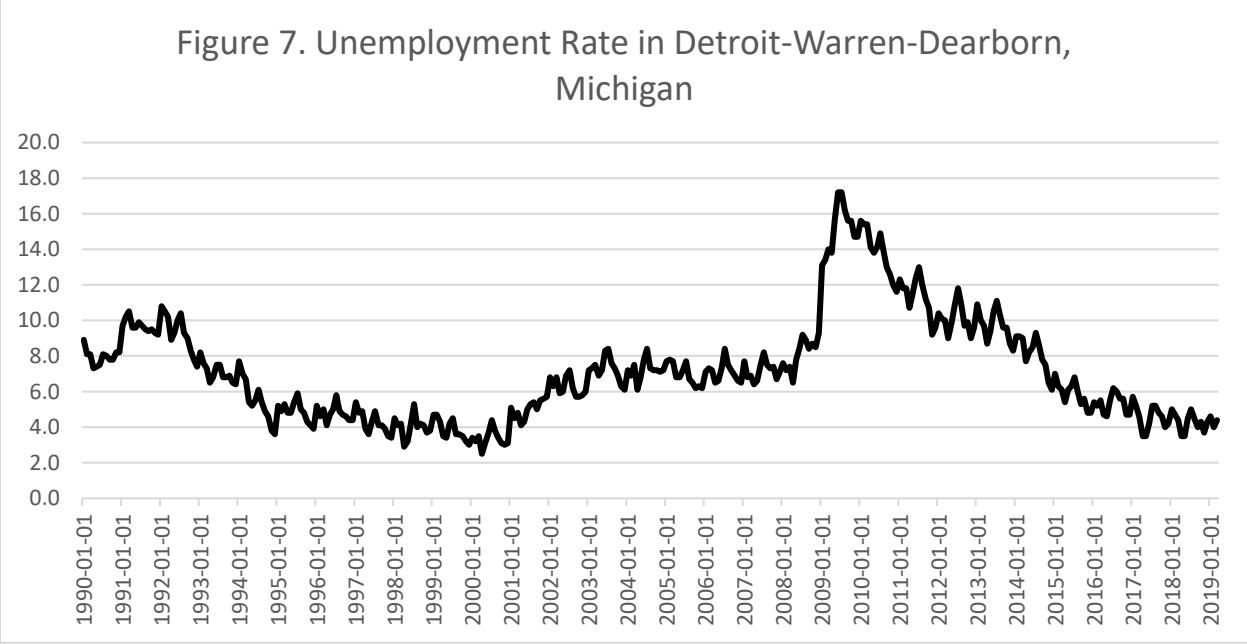

Figure 7 data source: Federal Reserve Bank of St. Louis, 2019b

6.2 Demographic characteristics of location concentrations

A variety of correlations were found between the presence of deferred presentment service provider locations and demographic characteristics of those locations. Some of the demographic characteristics matched the results of previous studies, while others' corollary relationship was more ambiguous than previously suggested. A cross-sectional analysis of the counties of Michigan during 2010 was performed. Five indicators served as dependent variables for the bivariate correlation analysis: gross number of payday lenders in a given county, the total population count of a county, median household income, percentage of poverty between 2009-2013, and payday lender locations per capita, (Census Viewer 2019; Department of Insurance and Financial Services 2019; Index Mundi 2019; U.S. Census Bureau 2019; United States Census Bureau 2019).

These variables were tested against the racial consistency of the counties. In all cases, each dependent variable became also an independent variable in other dependent variables' analysis to understand if they impact one another. Most strikingly, race did indeed become a significant factor, as had been evidenced in previous studies. However, this study is unable to state definitively that a specific racial demographic was targeted because of other intervening factors. This is especially true for Census respondents who identified as American Indian or Alaska Native, as no significant relationship between this population demographic and any dependent variables was found; thus, this subsection of the population will be omitted when discussing results. This section shall be structured to discuss each dependent variable and how they interact with each independent variable.

6.2.1 Number of Payday Lender Locations

The number of payday lending branch locations was most strongly impacted by the population number of the counties, where more populated counties saw a rise in the number of payday lenders. This should not be inherently surprising because it makes economic sense for service businesses to locate in urban population centres. Additionally, a weak positive correlation was found between the number of locations and a rising median household income. This could suggest that payday lenders do not prefer to locate in areas with the lowest income, as discussed in Section 2. However, the study finds no correlation between the number of locations and the poverty level within the counties.

When race becomes a factor, the study uncovers some stunning results. There is a strong positive relationship between the number of payday lending locations and counties with a higher Black representation within their population. A positive correlation was also found for Asian-Americans,

Hispanics, and 'Other' ethnicities. Meanwhile, there is a strong negative correlation between locations and heavily White populated counties. At first glance, this may appear more than a coincidence – and it may, in fact, be. However, another intervening variable could have influenced this outcome.

6.2.2 Population number

The intervening variable discussed above may be the demographic face of urbanisation. There is a very strong positive correlation between urban population centres and the presence of African Americans, while a positive correlation exists also for Asian-American, Hispanic, and 'Other' demographic categories. Like above, a strong negative correlation was found between higher population counties and the presence of Whites. Therefore, the results of this study do not suggest that payday lending companies target neighbourhoods based on racial demographics. Instead, it is possible that the racial demographics of Michigan's counties may perhaps be an idiosyncrasy inherent in urbanisation and globalisation trends. It should be noted that these variables are likely related.

Meanwhile, population number is positively correlated with a rising median household income. Thus, it should be expected that urbanised counties have a higher income level while rural counties earn less. It should be noted that household median income statistics were not adjusted for differences in living expenses. Again, no correlation was found between poverty levels and population count.

6.2.3 Median household income and poverty levels

The results concerning the relationship between demographic characteristics and rising household income do not contribute much to the topic. Weak positive correlations were found for Asian-Americans, Hispanics, and 'Others' while no correlation was found for Whites or Blacks. This could simply underscore the tendency that these demographic groups locate in more densely populated areas, wherein higher populations correlate with higher income. However, a strong negative correlation with poverty levels was discovered, insinuating that counties with higher income levels also have lower levels of poverty. This seems plausible but does add much to this discussion.

Meanwhile, the only statistically significant correlation discovered concerning how county poverty levels interact with demographic groups regards a positive correlation with Michigan's Black population. It is without this study's scope to investigate why this correlation may exist, though it is worth noting here because the implication potentially affects the income level of this demographic group and could impact their likelihood as a target for payday lending activity.

6.2.4 Payday lending locations per capita

This indicator was chosen as an avenue to attempt to offset the statistical bias wherein urban counties are favoured sites for payday lenders to locate. This indicator is represented as one payday lender for *x* population. Surprisingly, there was no statistically significant relationship between the concentration of payday lenders per person for any other ethnic variable except for Hispanics, with which a negative corollary relationship was found. However, this indicator did strongly reveal that payday lenders locate in areas with incomes on the lower end of the spectrum and avoid areas with higher incomes. There was also a positive relationship with counties that have higher rates of poverty, contradicting this study's findings earlier. Indeed, this correlation would suggest that payday lenders are more concentrated in areas with a higher prevalence of poverty.

6.2.5 Correlation results summary

In summary, it appears that payday lending locations in Michigan are found most often in ethnically diverse, urban counties with a higher population. They also tend to locate in counties that occupy the lower- and middle-income part of the income spectrum and avoid areas where household income is higher. There may be a tendency for payday lenders to locate in counties with a higher rate of poverty. Finally, this study's correlation results were inconclusive about whether payday lenders may target specific ethnic demographics because the relationship may be spurious.

7. Conclusion

This study has examined the experience of Michigan as regards the rise of its payday lending industry in the context of a troubling economic time for the state. Growth in the number of payday lender locations appears related to periods of economic downturn in Michigan, occurring most sharply before the 2007-2008 recession and during a time of economic stagnation in the state. Indeed, the study has revealed a tendency for payday lenders to concentrate in population centres of lower to middle income earners. The study declines to make a definitive statement regarding whether certain racial demographics were targeted by payday lenders, but equally declines to rule out the possibility in the face of some correlative evidence. It should be noted that, while some correlations corresponded to a perceivable demographic targeting by payday lender companies, these correlations are possibly incidental. It is plausible that urbanisation has instead impacted the location and concentration of payday lenders more than demographic characteristics. Future studies that more narrowly target neighbourhoods may unveil further information about how demographics may have affected location choice.

Interactions between the variables in this study and their correlations strongly suggest urbanisation as a culprit, but other interactions may imply some degree of demographic targeting, specifically, targeting African Americans. Counties with a large Black population correlated with a higher number of payday lending locations. Poverty levels positively correlated with a higher Black population in counties. Finally, payday lender locations per capita positively correlated with higher poverty levels, though the same variable showed statistical insignificance with higher population representations of Blacks. However, this study is unable to prove the connection among these correlations.

A curiosity that has been uncovered herein is the timing with which the industry rose. It is peculiar that the greatest rise in the number of new locations corresponds to the few years before the outbreak of the 2007-2008 recession. If a similar trend is found elsewhere, is it possible to predict an impending financial crisis by the appearance or deepening usage of fringe banking services, especially if that crisis occurs on main street rather than Wall Street as it did in the case of this recession? Further research is necessary before making any determination.

Finally, at the risk of relying on rhetoric, it may be prudent to ponder the implications of the presence of an industry such as payday lending. Naturally, moral and existential questions might crop up here. For instance, do payday lenders make it a habit to prey on the vulnerable segments of the population, or do they provide a valuable service to those who are shut out of the traditional banking sphere? Are they predatory businesses that profit from the misfortunes of others, or are they businesses that try to help consumers weather short-term financial straits? Is it the 'poverty penalty' or is it simply a business shaped by demand, working within a legal regulatory framework? Perhaps it is all these things all at once, and it is the consumer's choices that determine whether it's the medicine or the malady.

8. References

Act 244 of 2005, Michigan. Available online at: http://www.legislature.mi.gov/(S(bj353kx3zznbd2m2dx0l0dxh))/mileg.aspx?page=getobject&objectname=mcl-Act-244-of-2005&queryid=18894424. Accessed 9 March 2019.

Amadeo, K. (2019). "Auto Industry Bailout," The Balance. Available online at: https://www.thebalance.com/auto-industry-bailout-gm-ford-chrysler-3305670. Accessed 23 May 2019.

Board of Governors of the Federal Reserve System. (2018). "Community Reinvestment Act (CRA)." Available online at: https://www.federalreserve.gov/consumerscommunities/cra_about.htm. Accessed 23 May 2019.

Bureau of Consumer Financial Protection. (2019). "Payday, Vehicle Title and Certain High-Cost Installment Loans." Available online at: https://files.consumerfinance.gov/f/documents/cfpb_payday_nprm-2019-reconsideration.pdf. Accessed 23 May 2019.

Burke, K., Lanning, J., Leary, J., & Wang, J. (2014). "CFPB Data Point: Payday Lending," Consumer Financial Protection Bureau. Available online at: https://files.consumerfinance.gov/f/201403_cfpb_report_payday-lending.pdf. Accessed 28 May 2019.

Burkey, M. & Simkins, S. (2004). "Factors Affecting the Location of Payday Lending and Traditional Banking Services in North Carolina," The Review of Regional Studies, Vol. 34, No. 2, 2004, pp. 191-205.

Caplovitz, D. (1965). "The Other Side of the Poverty Problem." Challenge, Sept-Oct. 1965. M.E. Sharpe Inc.

Census Viewer. (2019). "Population of Michigan, Census 2010 and 2000 Interactive Map, Demographics, Statistics, Quick Facts." Available online at: http://censusviewer.com/state/MI. Accessed 21 May 2019.

Consumer Reports. (2013). "Debit card overdrafts can cost you big bucks." Available online at: https://www.consumerreports.org/cro/news/2013/06/debit-card-overdrafts-can-cost-you-big-bucks/index.htm. Accessed 23 May 2019.

Department of Insurance and Financial Services. (2019). "DIFS Insurance and Financial Services Search, Consumer Finance Licensees – Deferred Presentment," State of Michigan. Available online at: https://difs.state.mi.us/locators/Search/ConsumerFinanceList. Accessed 9 April 2019.

Department of Licensing and Regulatory Affairs. (2019). "Corporations Division, Search for a business entity," State of Michigan. Available online at: https://cofs.lara.state.mi.us/corpweb/CorpSearch/CorpSearch.aspx. Accessed 20 May 2019.

Dodd-Frank Wall Street Reform and Consumer Protection Act. (2009). Available online at: https://www.congress.gov/bill/111th-congress/house-bill/4173/text. Accessed 28 May 2019.

Eberts, R. & Erickcek, G. (2009). "Where Have All the Michigan Auto Jobs Gone?" W.E. Upjohn Instutute for Employment Research Newsletter, Vol. 6, No. 4. Available online at:

https://research.upjohn.org/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1003&context=empl_research. Accessed 23 May 2019.

Federal Reserve Bank of St. Louis. (2019a). "Commercial Bank Interest Rate on Credit Card Plans, All Accounts." Available online at: https://fred.stlouisfed.org/series/TERMCBCCALLNS. Accessed 23 May 2019.

Federal Reserve Bank of St. Louis. (2019b). "Unemployment Rate in Detroit-Warren-Dearborn, MI (MSA)." Available online at: https://fred.stlouisfed.org/series/DETR826URN. Accessed 23 May 2019.

Findlay, D., Meehen, J., Schurter, K., Wellford, C., Wilson, B. (2010). "An Experimental Analysis of the Demand for Payday Loans." Available online at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1083796. Accessed 23 May 2019.

Gathergood, J., Guttman-Kenney, B., & Hunt, S. (2018). "How Do Payday Loans Affect Borrowers? Evidence from the U.K. Market," Oxford University Press, The Review of Financial Studies, Vol. 32, No. 2, pp. 496-523.

Graves, S. & Peterson, C. (2005). "Predatory Lending and the Military: The Law and Geography of 'Payday' Loans in Military Towns," Ohio State Law Journal, Vol. 66, No. 4, 2005, pp. 653-832.

Index Mundi. (2019). "Michigan Poverty Rate by County," Index Mundi. Available online at: https://www.indexmundi.com/facts/united-states/quick-facts/michigan/percent-of-people-of-all-ages-in-poverty. Accessed 21 May 2019.

Mendoza, R. (2011). "Why do the poor pay more? Exploring the poverty penalty concept." Journal of International Development, 23, pp 1-28.

National Conference of State Legislatures. (2018). "Payday Lending State Statutes." Available online at: http://www.ncsl.org/research/financial-services-and-commerce/payday-lending-state-statutes.aspx#MI. Accessed 23 May 2019.

North, D. (1994). "Economic performance through time." American Economic Review 8.3, pp. 359–368.

Office of the Comptroller of the Currency. (2010). "OCC Bulletin 2010-15, Subject: Overdraft Protection, Description: Opt-In Requirement and Related Marketing Issues," Available online at: https://www.occ.treas.gov/news-issuances/bulletins/2010/bulletin-2010-15.html. Accessed 23 May 2019.

Pew Charitable Trusts. (2012). "Payday Lending in America: Who Borrows, Where They Borrow, and Why." Available online at: https://www.pewtrusts.org/en/research-and-analysis/reports/2012/07/19/who-borrows-where-they-borrow-and-why. Accessed 20 May 2019.

Plumer, B. (2013). "Detroit just filed for bankruptcy. Here's how it got there." Washington Post. Available online at: https://www.washingtonpost.com/news/wonk/wp/2013/07/18/detroit-just-filed-for-bankruptcy-heres-how-it-got-there/?utm_term=.c9ca0c06efac. Accessed 23 May 2019.

Prager, R. (2009). "Determinants of the Locations of Payday Lenders, Pawnshops and Check-Cashing Outlets," Board of Governors of the Federal Reserve, Finance and Economics Discussion Series, 2009-33, 2009.

Prahalad, C.K. & Hammond, A. (2002). “Serving the World’s Poor, Profitably.” Harvard Business Review, Sept. 2002.

Roubini, N. & Mihm, S. (2011) Crisis Economics: A Crash Course in the Future of Finance, 2nd ed. London: Penguin Books

Skiba, P. & Tobacman, J. (2015). “Do Payday Loans Cause Bankruptcy?” Available online at: https://www.haverford.edu/sites/default/files/Department/Economics/Tobacman.pdf. Accessed 23 May 2019.

State of Michigan. (2019). “Michigan Per Capita Personal Income.” Available online at: https://data.michigan.gov/Economy/Michigan-Per-Capita-Personal-Income/7frj-2rv6. Accessed 21 May 2019.

Statista. (2019). “Unemployment rate in Michigan from 1992 to 2018.” Available online: https://www.statista.com/statistics/189438/unemployment-rate-in-michigan-since-1992/. Accessed 21 May 2019.

Stegman, M. & Faris, R. (2008). “Payday Lending: A Business Model that Encourages Chronic Borrowing,” Economic Development Quarterly, Vol. 17, No. 1, February 2003, pp. 8-32.

U.S. Census Bureau. (2012). *Michigan: 2010, Population and Housing Unit Counts, 2010 Census of Population and Housing*. U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. Available online at: https://www.census.gov/prod/cen2010/cph-2-24.pdf. Accessed 21 May 2019.

United States Census Bureau. (2019). “American Fact Finder, Median Income in the Past 12 Months (In 2010 Inflation-Adjusted Dollars),” United States Census Bureau. Available online at: https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF. Accessed 21 May 2019.