LINCOLN INSTITUTE
OF LAND POLICY

Property Tax Delinquency in the United States

Working Paper WP20JD1

Jenna DeAngelo
Lincoln Institute of Land Policy

March 2020

Abstract

How does a municipality create a property tax enforcement system that is revenue maximizing (property tax collection is as close to 100 percent as possible) but also fair (homeowners are able to remain in their homes)? It is critical for a municipality to have a property tax enforcement system that is equitable, efficient, and effective, resulting in maximum tax revenue without unnecessary harm to a municipality's vulnerable residents. Municipalities must provide relief for homeowners who cannot pay but also enforce collection for those who can pay. It is difficult to strike this balance because municipalities usually cannot distinguish between property owners who cannot pay, those that do not want to pay, and those who may be impaired and do not know they need to pay. An effective property tax collection system employs enforcement measures that are tailored to these different types of property owners.

Keywords: property tax, municipal finance

About the Author

Jenna DeAngelo is an associate director for International and Institute-Wide Initiatives at the Lincoln Institute, where she leads the Institute's cross-disciplinary campaign on municipal fiscal health and supports the land value capture campaign. Jenna also helps shape and execute various aspects of the department's programs, research, and curriculum development. She earned a B.S. in economics and M.S. in urban and regional policy, both from Northeastern University, and is currently pursuing a Juris Doctor degree part-time at New England Law Boston. She recently completed an internship at the Massachusetts Land Court, working on cases involving easements and property tax liens.

Table of Contents

Property Tax Delinquency in the United States

Introduction: What is the Issue and Why is it Important?

The property tax is an important source of revenue for local governments in the United States. It is a stable and more reliable source of revenue than other taxes like the income tax and sales tax. While many U.S. municipalities boast of high tax collection rates, even a very small delinquency rate can equate to millions in uncollected, yet critical, revenue. In fiscal year 2018, New York City failed to collect approximately $341 million in property taxes and subsequently sold approximately $105.5 million in tax liens in an effort to recoup lost revenue from prior years. A 2012 report by the National Consumer Law Center estimated that delinquent taxes in the United States reached $15 billion in 2010. Additional estimates of the volume of current delinquent taxes nationwide are not available.

Nonpayment of property taxes (and other local fees such as water and sewer fees) means less money for city services and infrastructure, and a higher burden on other taxpayers. Further, the collection of delinquent property taxes is a time-consuming and expensive process for municipalities. While the costs are generally passed on to the taxpayer and offset by the interest collected on late payments, the true costs to the municipality may be greater due to staff time expended and the delayed collection of fees and interest, which sometimes take years to recoup.

Nonpayment of property taxes puts property owners at risk of losing their homes, which is often their only investment. A property tax foreclosure can devastate a family who may lose their home and thousands or hundreds of thousands of dollars of equity. For instance, more than 600 homeowners in Maricopa County, Arizona, have lost their homes to tax foreclosure since 2010 (*The Arizona Republic* 2017). Low-income, elderly, and disabled homeowners are especially disadvantaged by the complex foreclosure process. Homeowners who tend to struggle with tax delinquency are generally those who do not have a mortgage, because when a mortgage exists there is an escrow account to pay the taxes. However, homeowners with a mortgage must still be cognizant of how their taxes are paid, because a mistake by the mortgagee can lead to a tax delinquency that is ultimately the homeowner’s responsibility.

It is critical for a municipality to have a property tax enforcement system that is “equitable, efficient, and effective, resulting in maximum tax revenue without undue harm to a city’s most vulnerable residents” (Center for Community Progress 2016). Municipalities must provide relief for homeowners who cannot pay but also enforce collection for those who can pay. The goal of this paper is to identify laws and policies that encourage this balanced approach.

This research is limited to collection of currently due property taxes and the first part of the foreclosure process, when the property tax becomes delinquent or a tax lien is initiated. Addressing how current taxes due are collected and when the taxes first become delinquent is the highest point of leverage to reduce the rate of tax foreclosure.

Section 1: Overview of the Property Tax Delinquency and Foreclosure Processes

Each state's laws prescribe processes for the collection of delinquent property taxes and the foreclosure of properties. Depending on the state, municipalities are given some freedom to design their own property tax enforcement system. Because of the many different enforcement systems, it is difficult to summarize the property tax foreclosure process across the United States. However, enforcement systems generally take one of two forms, which are described below.

<u>In a place where the municipality can sell tax liens</u>:

1. The homeowner is notified that he is delinquent on payment(s) and a lien is placed on his property for the amount owed. This notice also signals the pending sale of the lien if the debt is not paid. Many places also publish notice of the pending sale in local newspapers.
2. If the homeowner does not pay what is owed or does not set up a payment plan with the municipality (if one is even offered by the municipality), the tax lien is sold. The lien does not equate to direct ownership of the property; rather, it is the right to repayment of the delinquent taxes plus interest (think of it like a loan), often at rates much higher than prevailing market rates.
3. Once the lien is sold, the lien holder must wait a minimum amount of time before he can initiate foreclosure proceedings to take ownership of the property. During this time period, the homeowner must be notified that the tax lien sale took place and that he still can pay his debt.
4. If the homeowner does not pay what is owed to the lienholder (plus any interest and fees), the lienholder can foreclose on the property. The title then passes to the lienholder. Generally, any equity the homeowner had in the property is lost, though exact rules depend on the state. In some instances, if a lienholder paid more for the tax lien than what is owed, after foreclosure, the original homeowner can receive the surplus minus interest and fees. But this return of funds is usually very low and amounts to nowhere close to the amount of equity lost.
5. Many states have a redemption period after the foreclosure, in which the homeowner has one more opportunity to pay his debts. The amount of time varies by state, but as an example, in Texas, a property owner has two years from the date of the foreclosure to redeem the property.

The loss of equity from a tax lien foreclosure is one of the major problems with this form of property tax enforcement. The purpose of a tax lien is for the municipality to recover the amount of property taxes owed and recoup the costs of collecting delinquent taxes; it is not meant to provide a substantial windfall to the municipality or investor. While tax lien foreclosures are problematic, they are not the focus of this research.

<u>In a place where the municipality can sell tax deeds</u>:

1. The homeowner is notified that he is delinquent on payment(s) and that he has a certain amount of time to pay what is owed or the property will be sold. The amount of time varies by state; in California, the homeowner has five years to pay the overdue taxes,

interest, and fees before the house is sold. Many places also publish notice of the pending sale in local newspapers.

2. If the homeowner does not pay what is owed or does not set up a payment plan with the municipality (if a payment plan is even offered by the municipality), the property is sold. If the property is sold for more than what is owed to the municipality, the original homeowner receives the surplus.
3. Depending on the jurisdiction, the purchaser either gets title to the property immediately or must wait a certain period of time during which the original homeowner has one last chance to pay what is owed (plus interest and fees). For states that have a redemption period after the tax deed is sold, the redemption period varies; in Oregon (where the county gets title to the property), this period is two years.

Some municipalities choose to not sell a tax lien or tax deed. A municipality may continue charging interest on delinquent taxes while also trying to pursue collection. Some places may sell or give the property to the state or local land bank. For example, in Genesee County, Michigan, the local land bank has the option to buy tax foreclosed properties before they go to public auction; any properties not sold at auction are deeded to the land bank.

It is important to note that interest and fees (which can include postage, court costs, newspaper listings, title search fees, and attorney's fees) accrue on unpaid property taxes as soon as a payment is late and continue through the foreclosure process. What may start out as a very small delinquent property tax bill can quickly balloon to an unmanageable amount because of interest and fees.

Another issue that arises during the foreclosure process is the general unknown around physical ownership of the property. Properties that are delinquent may be abandoned. Alternatively, the property owners may not live in the property or maintain the property. Tax delinquent properties can negatively affect the quality of life in a neighborhood and diminish the value of nearby properties. A 2013 study of Philadelphia estimated the median loss in a home's value associated with nearby delinquent properties to be $15,200 (Gillen 2013). A 2016 study of Milwaukee found that one additional tax delinquent property within 250 meters of a home sale is associated with a reduced sale of about $1,085 (Carroll and Goodman 2016). A 2013 study of Rochester, New York, found that tax delinquent properties have lower assessed values, are more likely to be vacant or have code violations, and are more likely to generate calls for services to the fire department and for nuisance related issues (Center for Community Progress 2013).

Some argue that selling tax liens to the private market is not the appropriate enforcement measure; investors may hold on to the lien, speculating on future payments of interest and fees (Center for Community Progress 2016). These investors may not take care of the property, thus potentially leaving the property vacant and unmaintained. But there are investors who do want to quickly foreclose on properties. If an investor acquires title to a property, he can sell it to make a profit.

However, the threat of a tax lien or deed sale can often be an effective means to reduce property tax delinquency because property owners will pay the delinquent amount to avoid the possibility of losing their home. A 2016 study of Ohio counties found that tax lien sales reduce uncollected property tax balances by 5.6 percent (Miller and Nikaj 2016). A recent follow up to a 2013 report about delinquency in Philadelphia indicated that increased enforcement of putting delinquent properties into the legal foreclosure process prompted almost two-thirds of the property owners who received tax foreclosure filings to pay their taxes, enter a payment plan agreement, or take some other action to prevent a foreclosure (Pew 2019).

Why Don't Property Owners Pay Their Property Tax Bills?

It is hard to distinguish between who cannot pay, who does not want to pay, and who is impaired and does not even know they need to pay. Property tax enforcement policies must be designed with this reality in mind.

Property owners often struggle to pay their property taxes for several reasons. The property owner may not realize he owes taxes. He may decide not to pay the taxes, either because he cannot afford to do so because of a recent shock to personal finances, he does not feel the services provided by the city or county warrant payment, he feels the taxes are too high and believes the burden is not equitably distributed, or he feels that enforcement is so limited that he can get away with not paying, at least for a while. The inability to pay is likely the most prevalent reason property owners become delinquent on their taxes—about half of American households are financially insecure and have practically no savings to cover an unexpected expense (Langley 2018).

Seniors and people with disabilities who do not retrieve their mail may not know that they owe property taxes. Some new homeowners do not properly anticipate their future property tax liability, or they do not receive their property tax bills because their bill gets lost in the mail or the wrong address was entered at closing. In 2018, over 15,000 property tax bills were returned to the Cook County, Illinois, treasurer due to incorrect addresses (Dardick 2018). For returned bills, Treasurer and Collector offices should take additional steps to update addresses and re-send bills to reduce the number of taxpayers who become delinquent because they did not receive their tax bill.

Property owners often cite not knowing they owed taxes or owed an outstanding amount as a reason for being delinquent. However, municipalities are required by state law to send a certain number of notices (usually via certified mail) before the municipality can initiate the foreclosure process. In order to improve property tax compliance, municipalities must make it a priority to ensure property owners receive their tax bills and that they fully understand the consequences of not paying the property tax. However, the property owner ultimately bears the responsibility of knowing that he must pay his property taxes. "I didn't get a bill in the mail" is not a valid excuse to not pay the property tax—all states with a property tax have a law that requires payment of taxes whether you received your bill or not.

Municipalities have historically issued one annual property tax bill that property owners must pay in one lump sum. However, owners who lack the foresight or ability to budget their expenses for the year do not always have enough funds at one point in time to pay a lump sum property tax bill. Sometimes the property tax is just not affordable, even for those who get billed quarterly or monthly. If a property loses value and the taxes are unaffordable, it may no longer be financially beneficial for an owner to stay and the owner may abandon it.

A 1988 study of Indiana counties found that an increase in the spread of the short-term interest rate over the delinquency penalty produced an increase in property tax delinquency (Deboer and Conrad 1988). When the interest rate rises above the penalty rate for delinquent property tax payments, taxpayers are incentivized to delay their payments–it is cheaper to accrue the penalty rate than borrow from a bank to pay the property tax bill. A 2014 study of Detroit found that factors such as low home value, a lack of tax enforcement when tax bills are below $1,000, long police response times, and high assessment ratios contribute to tax delinquency (Alm et al. 2014). There is mixed evidence as to whether higher effective tax rates lead to higher rates of tax delinquency (Miller and Nikaj 2016).

Section 2: Deep Dive into Tax Delinquency and Foreclosure Processes in Three States

A full overview of how each state and its municipalities enforce property tax payments would be a cumbersome and long process, especially since some states leave the enforcement system design up to their municipalities, thus resulting in very different enforcement systems in jurisdictions within the same state. This research highlights three states whose property tax enforcement laws are different so that the reader can get a glimpse into the variety of ways municipalities deal with property tax delinquency. The three states are home to many legacy cities—primarily midwestern and northeastern cities with 30,000 to 200,000 residents and traditional economies built around manufacturing—which is a focus of the Lincoln Institute's work.

An email survey was sent to a random sample of treasurers or collectors in the three states to learn more about how they handle delinquent property taxes. The survey questions did not have a list of defined answers. This resulted in a variety of response types and lengths. The results of the survey are outlined in each of the subsections below. In the recommendations section, they are labeled as results of the "delinquency survey."

Massachusetts

Cities and towns in Massachusetts are responsible for the collection and enforcement of current due and delinquent property taxes. A large portion of Massachusetts municipalities bill on a quarterly basis, while some bill semi-annually.

Per state law, delinquent taxes are charged a 14 percent interest rate per annum (M.G.L. Chapter 59, Section 57). The municipality sends a demand for payment to the property owner and posts notice of a potential taking in two or more public places. If payment is not received by the due date, the municipality "takes" the property, whereby a lien is placed on the property. As part of the taking process, the municipality's collector must certify the amount owed, including costs and interest, and deliver the paperwork to the treasurer. In most instances, the collector and treasurer sit in the same office (or the position of collector/treasurer is combined). However, in some municipalities, they maintain separate offices. In both instances, residents pay their current due property taxes to the collector's office, but once a tax taking has occurred, residents must work with the treasurer's office.

After the taking occurs, the interest rate is 16 percent per annum (M.G.L. Chapter 60, Section 62). This was designed to be punitive. All municipalities are authorized to sell tax liens, but not all do so (many hold onto the lien themselves). Municipalities also have the option to issue a collector's deed and sell the property at public auction, but this method is rarely utilized. Each method has its own notice requirements and complexities that are not discussed in detail here.

All property tax foreclosures are subject to the judicial process. The municipality or lien holder must file a petition with the Massachusetts Land Court after at least six months have passed since the tax taking or collector's deed sale. The foreclosure process in Massachusetts is long: a title examiner prepares a title report, all interested parties are notified via certified mail (and in certain circumstances publication must occur once in the local newspaper), the parties come to court to establish the total amount owed and a due date, and, if the payment is not made, the municipality or lienholder can schedule another court date at which the court enters a judgment for foreclosure. At that time, the title would then pass to the municipality or lienholder. If the judgment is entered, interested parties have one year to petition the court to vacate the judgment and reclaim the property.

Laws and Policies of Interest

In 2005, the state legislature amended the property tax emption statute to allow municipalities to set an eight percent or lower interest rate on deferred taxes for elderly owner-occupants (MGL 59, Section 5, Clause 41A). Several municipalities have adopted this as local law: Everett set the interest rate at eight percent, Kingston set the rate at six percent, and Wellesley recalculates the rate annually based on the two year constant maturity Treasury rate (for fiscal year 2019 the rate is 2.57 percent).

Survey Results

An email survey was sent to a random sample of treasurers or collectors of 87 cities and towns in Massachusetts to learn more about how they handle delinquent property taxes. Twenty-six municipalities responded to the email survey for a 29.9 percent response rate.

Per Massachusetts state law, municipalities are required to apply property tax payments to the oldest amount due first. If this procedure is not followed, older delinquent taxes rack up late interest charges. The survey recipients were asked how they would handle a partial payment if the property owner had an outstanding balance from the previous quarter or first half of the year. Most of the survey respondents indicated that they apply the partial payment to the oldest tax (and any interest) first. However, two respondents indicated they would not apply the payment to the oldest amount due if the taxpayer requested the payment be applied to the current amount owed or if the payment was mailed with the current quarter's pay stub.

Survey recipients were asked what kind of information about past due amounts and tax liens is included in the property tax bills they mail out (separate from any statutorily required letters for a lien or foreclosure sent separately from bills). Slightly more than half of the respondents reported that a delinquency message appears on the bill, but the actual delinquent amount does not appear on the bill. Nine respondents indicated there is no message about delinquency.

Survey Results	**Responses**	
Partial payment applied to oldest amount due first	88.5%	
Partial payment not applied to oldest amount due first	7.7%	
No answer	3.8%	
Delinquency message appears on tax bill	53.8%	
Delinquency message does not appear on tax bill	34.6%	
No message but delinquent amount shown on bill	7.7%	
No answer	3.9%	

Ohio

Counties in Ohio collect and enforce property taxes on behalf of all taxing jurisdictions in the counties. Counties bill on either an annual or semi-annual basis. Some counties allow property owners to enroll in a pre-payment plan to pay their taxes monthly. Not all counties sell tax liens. In some counties, the county prosecutor will file for foreclosure and put the property up for sale at auction where the minimum opening bid is the amount of taxes owed and associated costs at the time of sale.

Per state law, delinquent taxes are charged a 10 percent interest rate per annum (Ohio Revised Code 323.121). Once delinquency turns into a tax lien, the interest rate is 18 percent per annum (Ohio Revised Code 5721.06).

Laws and Policies of Interest

State law requires the county treasurer to give a homeowner the opportunity to enter into a delinquent property tax contract so the homeowner can pay what is owed over time, not to exceed a period of five years. Upon initiation of the contract, interest is not charged on the delinquent amount as long as the taxpayer does not miss a payment. The contract can only be entered for past due taxes; the homeowner must continue to pay current taxes (Ohio Revised Code 323.31).

Survey Results

An email survey was sent to a random sample of treasurers or collectors of 65 counties in Ohio to learn more about how they handle delinquent property taxes. Thirty-two counties responded to the email survey for a response rate of 49.2 percent. The survey recipients were asked how they would handle a partial payment if the property owner had an outstanding balance from the previous half of the year. Most survey respondents indicated that they apply the partial payment to the oldest tax (and any interest) first. However, seven respondents reported that they apply the payment to the oldest tax unless the property owner is on a payment plan (this is in line with state law that requires those on a delinquent property tax contract to pay their current property taxes first). Three respondents indicated they would not apply the payment to the oldest amount due unless otherwise instructed by the taxpayer.

Survey recipients were asked what kind of information about past due amounts and tax liens is included in the property tax bills they mail out (separate from any statutorily required letters about a lien or foreclosure sent separately from bills). Some respondents indicated that they include the past due amount or a message about the delinquency, but most indicated that there is no specific language on the bill if there is a delinquency.

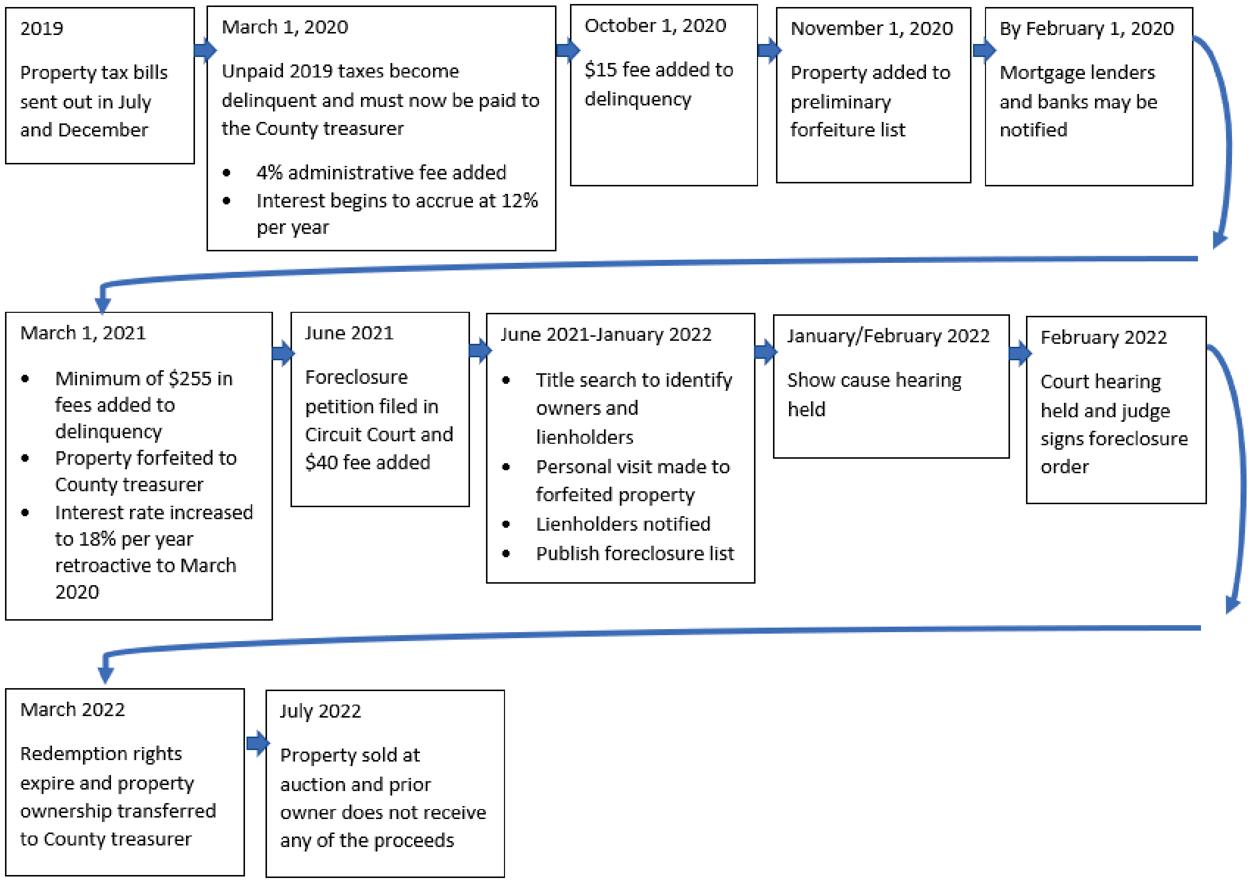
Survey Results	Responses
Partial payment applied to oldest amount due first	68.8%
If on a payment plan, partial payment applied to current amount due	21.9%
Partial payment not applied to oldest amount due first unless otherwise instructed by the taxpayer	9.3%
Delinquency message or past amount due appears on tax bill	37.5%
No message about delinquency but delinquent amount is shown on bill	62.5%

Michigan

Cities, townships, and villages in Michigan are responsible for the collection of current property taxes owed, but the counties are responsible for delinquent taxes. All Michigan cities, townships, and villages bill on a semi-annual basis. One-year-old delinquent taxes are sent to the county treasurer for collection and the counties pay the municipalities for the full amount levied, even if the municipalities were not able to collect the full levy. Therefore, there is little incentive for cities, townships, and villages to enforce property tax collection.

Per state law, delinquent taxes are charged a one percent monthly interest rate (MCL 211.78a). Once the one-year-old delinquent taxes are sent to the treasurer, the interest rate increases to 1.5 percent (MCL 211.78g). The below graphic depicts the process of one county in Michigan and is similar in nature to the overall process in other Michigan counties.

Figure 1: Washtenaw County, Michigan, Property Tax Collection Process



Source: Adapted from Washtenaw County, https://www.washtenaw.org/DocumentCenter/View/12467/2018-Delinquent-Tax-Timeline

Per state law, residents can defer their summer taxes without penalty if they meet certain criteria. After a county receives the delinquent taxes, the county must send someone to personally visit the property to determine if it is occupied and to deliver notice of possible foreclosure. If a person is present on the property, he must be verbally informed that the property will be foreclosed. If the person appears to lack the ability to understand this, the county must notify the department of human services or provide the person with the contact information of agencies he should contact for assistance (MCL 211.78i).

Laws and Policies of Interest

Step Forward Michigan provides interest free loans to assist with mortgage, property taxes, or condo association fees. Hardest Hit Funds (HHF) are provided by the U.S. Department of the Treasury through the Emergency Economic Stabilization Act of 2008 (EESA) or Troubled Asset Relief Program (TARP) to states that have been particularly hard hit by the economic and housing market downturn that began in 2007 (18 states and Washington DC). The HHF loan program was created in 2010 to assist states with their foreclosure prevention and neighborhood stabilization efforts. Each state recipient created its own programs to assist struggling homeowners. However, as of 2019, some states stopped accepting applications for assistance (HHF funds must be used by 2020).

Michigan has received hundreds of millions of dollars to operate its HHF programs. The Michigan State Housing Development Authority (MSHDA) created the Michigan Homeowner Assistance Nonprofit Housing Corporation (MHA) to design and oversee the distribution of the Hardest Hit Funds in Michigan. The MHA established the Step Forward Michigan Program that helps Michigan homeowners stay in their homes. The program provides up to a $30,000 interest free loan to assist with mortgage, property taxes, and/or condominium association fees. HHF loans are forgivable at 20 percent each year if the property remains the homeowner's primary residence. This means that if a homeowner remains in their home for five or more years after the loan is granted, he does not have to repay the loan. Step Forward Michigan works more closely with some counties than others to promote the program. Some counties include the Step Forward Michigan flyer in their delinquent property tax notices.

A county may create a delinquent property tax installment payment plan for eligible property (owned by a financially distressed person). If the property owner successfully completes a delinquent property tax installment payment plan, interest is waived (MCL 211.78q(1-3)). However, one county treasurer interviewed for this research indicated that just making that initial payment for the payment plan is a struggle for financially distressed property owners, and missing that initial payment means no waiver of interest.

In 2015, Michigan enacted a law (MCL 211.78q(5)) which permits the counties to offer an Interest Reduction Stipulated Payment Agreement (IRSPA) to owner-occupants. Under this agreement, homeowners have up to five years to pay off their back taxes, interest is reduced to six percent, and any imminent foreclosure is averted. This law was recently renewed and is set to expire in 2026.

Survey Results

An email survey was sent to a random sample of treasurers or collectors of 67 cities and townships in Michigan to learn more about how they handle delinquent property taxes. Nineteen municipalities responded to the email survey for a response rate of 28.3 percent. The survey recipients were asked how they would handle a partial payment if the property owner had an outstanding balance from the previous half of the year. Less than half of the respondents indicated they apply the payment to the oldest amount due, whereas most respondents indicated they apply the payment based on the taxpayer's preference or based on the payment stub that was mailed with the payment. One municipality stated that it does not accept partial payments and another municipality stated that it only accepts partial payments above a certain amount.

Survey recipients were asked what kind of information about past due amounts and tax liens is included in the property tax bills they mail out (separate from any statutorily required letters about a lien or foreclosure sent separately from bills). Most respondents reported that a message appears on the bill notifying the recipient of a delinquency and instructing the recipient to contact the county to resolve the issue.

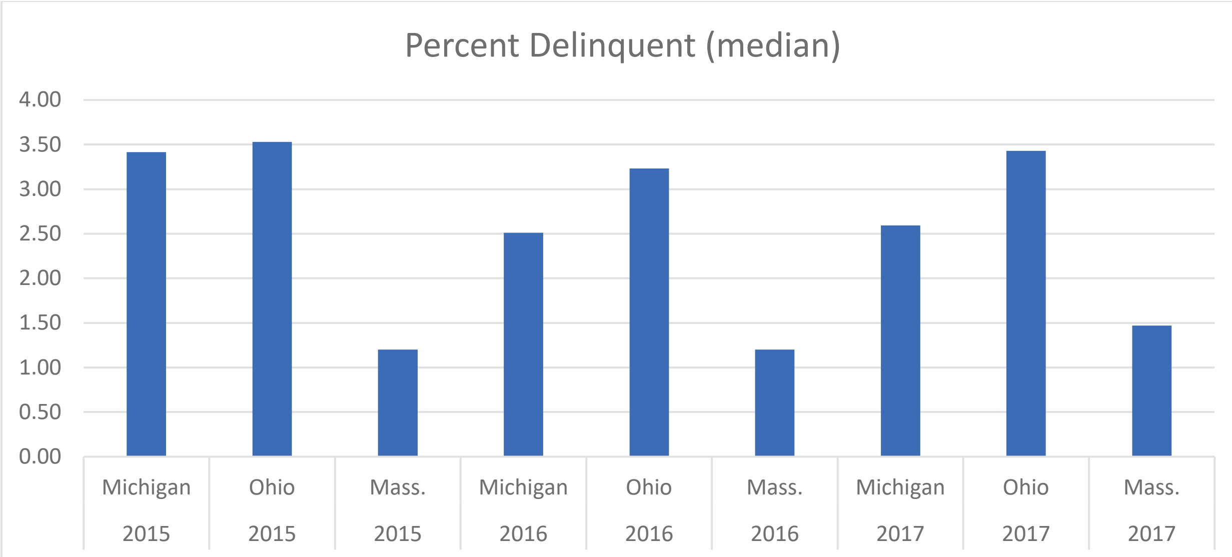
Survey Results	Responses
Partial payment applied based on property owner's request	52.6%
Partial payment not applied to oldest amount due first	31.6%
Partial payments not accepted or only accepted if above a certain amount	10.5%
No answer	5.3%
Delinquency message appears on tax bill	84.2%
Delinquency message does not appear on tax bill	15.8%

Delinquency in Massachusetts, Ohio, and Michigan

Property tax collection rates for a random sample of cities, towns, and counties within the three states were reviewed to compare the delinquency rates among the states and make some inferences about how the states' laws and policies effect the state's delinquency rate. Data collection in Michigan was limited to cities due to the lack of publicly available data for townships and villages. The below chart highlights the findings (see the Appendix for all data).

Massachusetts cities and towns have a much lower delinquency rate than cities in Michigan or counties in Ohio. This may be because many Massachusetts cities and towns collect property taxes on a quarterly basis, as opposed to once or twice a year, which is the practice in Michigan and Ohio. A 2017 study that looked at property tax collection rates for two of the largest cities from each state found cities that permit three or more installment payments have a slightly higher collection rate (Mikesell 2017). In a 2012 study of Wisconsin municipalities, researchers found that increasing the number of installment payments from two to three per year reduces the delinquency rate by nearly half (Waldhart and Reschovsky 2012). Some municipalities have begun allowing residents to pay their taxes monthly (Langley 2018).

Figure 2: Percent of Property Tax Unpaid in Year of Levy (median)



Source: Based on sample of Comprehensive Annual Financial Reports (CAFRs) and Disclosure Filings on EMMA from cities, towns, and counties from each state: 47 cities and towns in Massachusetts, 50 counties in Ohio, and 28 cities in Michigan.

If we compare the state laws and policies described in the prior sections with the delinquency rates for each state, we can hypothesize that there is a correlation between certain laws and policies and low delinquency rates. Massachusetts has the highest interest rate for initially delinquent taxes (16 percent per year) and also has the lowest delinquency rate. Perhaps the threat of a high interest rate deters property owners from missing payments. Michigan does have a higher interest rate once the delinquency is sent to the county, but the data collected here only represents the delinquency of current due taxes at the city level.

Section 3: International Comparison—England

The United States can learn from international experiences in property tax collection. However, it is important to understand that laws in others countries can differ greatly from the laws in the United States. If a U.S. municipality wanted to implement an approach utilized in another country, it may require a change in legislation at the state or federal level. This report does not advocate for the approach England takes in tax enforcement; rather, this section is meant to show the range of possibilities for enforcing collection.

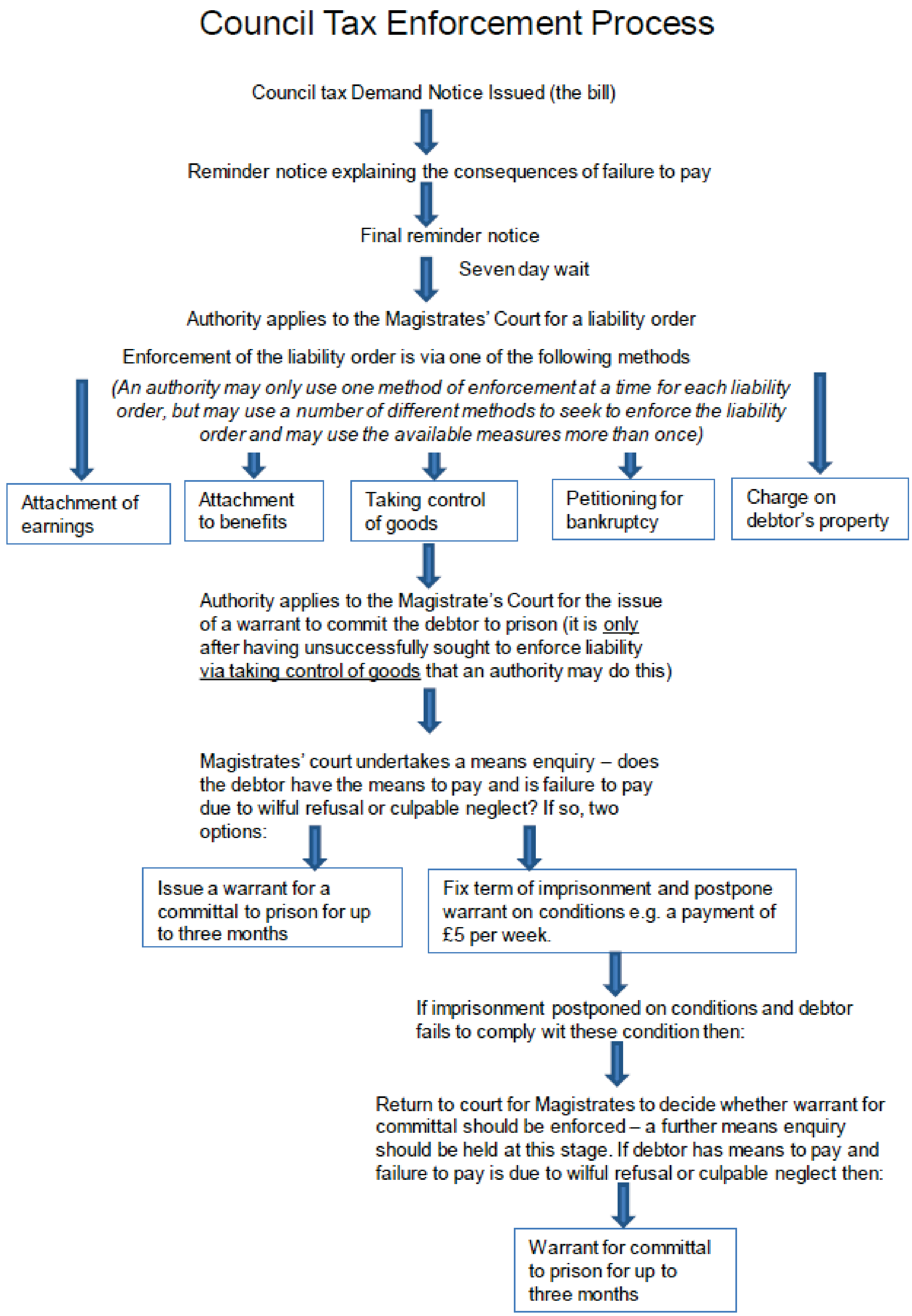
In England, the local council has several options to enforce collection of the council tax (what England calls its residential property tax). The council can get a liability order from the court to send a bailiff to the property (the bailiff can take personal belongings to cover the debt). The council can also instruct the individual's employer to deduct payments from earnings or the council can deduct from the individual's income support. The court can also issue a charging order so that when the property is sold, the proceeds first pay back arrears to the council. In rare instances the court can issue an order for sale so that the individual owner is required to sell his property to pay back the arrears. There is also the possibility that a property owner be sent to prison for up to three months if he does not have a good reason for not paying his taxes.

Recent efforts have called for the inclusion of liability orders on credit records (Hurlston 2017). The Nottingham Council sent a notice to residents that liability orders might be shared with credit reference agencies, and the notice produced a 10 percent uplift in council tax receipts.

The council tax collection rate for 2018–2019 for all London boroughs was 96.7 percent. The collection rate has hovered around that number for several years. England's overall council collection rate is slightly higher at 97 percent for 2018–2019.

In Wales, a 2017 study about council tax collection practices found that attachment of earnings and benefits was the most efficient post-liability order method of repayment, especially since repayments are set lower than what they would be paying to enforcement agents. The use of enforcement agents was practical when all other methods failed, specifically when the taxpayer would not communicate with the council. However, collection rates for enforcement agents were estimated at around 30 to 50 percent. In cases where an enforcement agent is not able to collect anything, the councils would apply for committal to prison. All councils interviewed stated that committal is an undesirable course of action but that it can serve as an effective last resort for those who will not pay, as opposed to those who cannot pay. The study concluded that there is no clear relationship between the number of summonses issued and the collection rate. But many councils report that it is the threat of prison time that gets the taxpayer to finally communicate. All councils, whether they resort to enforce committal to prison or not, value their ability to threaten prison time.

On average, Wales has steadily improved its collection rates. The average in 2010–2011 was 96.6 percent and the average in 2016–2017 was 97.4 percent.



Source: Greenall, Ceri, Nina Prosser, and Hannah Thomas. 2017. "Local Authorities' Approaches to Council Tax Debt Recovery in Wales," Welsh Government.

One other interesting feature about tax collection in England is the widespread use of automatic electronic funds transfer (EFT), or direct debit, that automatically transfers the council tax payment whenever it is due. Most municipalities in the United States accept credit and debit card payments, but the use of automatic EFT is not widespread. The transaction cost for automatic EFT is less than the cost for credit and debit cards. In addition, automatic EFT is a convenient option for property owners who do not want the hassle of having to remember to pay their property taxes.

Section 4: Recommendations

An email survey about strategies for improving property tax collection was sent to a random sample of treasurers or collectors of 231 cities, towns, and counties in Massachusetts, Ohio, and Michigan. The survey received 46 responses, for a 19.9 percent response rate. The survey results are highlighted in the below recommendations and labeled as results from the "collection survey." Some remarks from the "delinquency survey" discussed earlier in the paper are also highlighted in this section.

Local Government Laws, Policies, and Procedures

1. Provide easy to understand notice of the tax delinquency process and related consequences

Transparency and Messaging

Municipalities can be more transparent about the collection process and improve notice requirements to help increase property tax collection before it becomes delinquent or before the foreclosure process begins. Many municipalities print a small note on the current tax bill that states there is an overdue amount. Making this note more conspicuous and explicit by outlining the consequences of nonpayment will help get the attention of a homeowner. Municipalities should experiment with different messages as well. Seventy-six respondents of the collection survey reported that they include an insert or note on the property tax bill that outlines the consequences of not paying the property tax and/or an insert or note that provides information about property tax assistance such as deferrals and exemptions.

In a field experiment in Philadelphia, researchers tested seven alternative reminder strategies intended to increase property tax collection (Chirico et al. 2019). The options included a simple reminder letter; a letter that stressed a tax lien could be placed on the property; a letter that stressed the property could be sold at a sheriff's sale; and four letters that tested for tax morale motives for compliance – the appeal to neighborhood services, the appeal to citywide services, the appeal to peer behavior, and the appeal to civic duty. The reminder letters with warnings about a tax lien and sheriff's sale led to faster and higher levels of compliance than the simple reminder letter.

A similar experiment was conducted in Colorado but at the state level for income tax delinquency (Cranor et al. 2018). One of the letters outlined the consequences for failure to pay in great detail: the text was bolded and read "By law, if you do not pay within 30 days, the interest rate on your account will double from 3% to 6%." The researchers found that this more detailed and bolded statement about the full financial penalty for nonpayment can lead to a modest increase in the payment rate of delinquent taxpayers who have balances under $433.

Municipalities are required by law to send notice prior to the potential loss of property rights. The number of times notice must be sent varies but sending the same notice via the same method multiple times and getting no response is inefficient and ineffective. New York City must provide notice four times to the property owner before the tax lien is sold. Each notice must include an exemption eligibility checklist. If the owner responds, the department of finance must send the owner an application for any exemption, credit, or benefit (NYC Administrative Code 11-320). There is no evidence that sending notice four times induces the property owner to pay. In fact, requiring four instances of notice is time-consuming and expensive. What really matters is the delivery method of the notice and how it is written. Many municipalities require in-person delivery of notice, but this, too, is expensive. However, one in-person delivery may be more effective than four notices sent via mail because a municipality can ensure the property owner received the notice (this assumes the visitor physically connects with the homeowner when making the site visit). Almost 24 percent of the collection survey respondents indicated they send someone to the property owner's house to inform him about the delinquency. One Michigan county treasurer said this is an effective approach because it allows the treasurer to assess the needs of the taxpayer and figure out a better way to help the taxpayer.

Shaming

Municipalities usually list properties with delinquent taxes in the local newspaper as a form of notice. With newspaper readership dwindling, this may no longer be an effective means of notice; however, municipalities may now post notice on their own website. Sixty-five percent of the collection survey respondents reported that they advertise or threaten to advertise the property owner's name and address on their municipality's website or in the newspaper. Five respondents indicated this is an effective or very effective technique to get property owners to pay their taxes.

An experiment conducted by the University of Michigan sent two different letters to people who were delinquent on state taxes to assess the effectiveness of shaming taxpayers into paying their delinquent taxes. Both letters included a short list of delinquent taxpayers in the recipient's neighborhood as well as an explanation that all this information is already available on the internet through the state's website. The first letter stated, "Your household was the only household randomly chosen from your area to receive a letter of this type" and the second letter stated, "Your household and other households in your area were randomly chosen to receive a letter of this type." This second letter employs more shaming tactics; the taxpayer can see that other people in his neighborhood also got this letter and saw his name on it. For taxpayers with a delinquent amount ranging from \$250–\$2,273, receiving this letter increased the probability of repayment ten weeks after delivery by 2.1 percent (Perez-Truglia and Troiano 2015).

In Thane, India (just outside Mumbai), the government began publicly embarrassing delinquent taxpayers by sending drummers to the property owners' homes after finding that posting delinquent taxpayers on the town's website was not effective. Just knowing that drummers could show up at their property caused some delinquent taxpayers to immediately pay their back taxes. Just months after implementing the tactic in 2016, the municipality saw property tax revenue increase by 20 percent.

Timing

Municipalities should consider beginning the foreclosure process in April when people generally receive their income tax refunds. Approximately 24 percent of the collection survey respondents indicated they use this method. One town in Massachusetts reported having a significantly decreased number of tax liens by following this schedule as opposed to initiating tax takings in the fall.

2. Increase the payment frequency for current taxes due and allow repayment plans for delinquent property owners

Municipalities should implement a process for homeowners to pay their property taxes in three or more installments. A *monthly* auto-debit would be ideal. Spreading out payments over time as opposed to requiring one lump sum payment or two very large payments makes budgeting for the property tax and compliance with paying it on time much easier. Almost 37 percent of the collection survey respondents reported that they offer the ability to pay the tax in more than the traditional one or two installments. Only about 22 percent of the collection survey respondents offer the option for taxpayers to auto-debit the payment on a monthly, quarterly, or biannual basis. A few additional respondents indicated they hope to implement this option soon.

Municipalities should also consider the use of repayment plans for delinquent taxpayers as opposed to demanding the full amount owed. Sixty-seven percent of the collection survey respondents indicated they allow payment or repayment plans or accept partial payments. Some municipalities refuse to enter into repayment plans or accept partial payments, which may signal to homeowners that the municipality only cares about collecting money and has little empathy for its residents. Some municipalities that allow repayment plans also require that the property owner does not fall behind on current-year taxes, as is the case in Ohio. This may be an unrealistic expectation, especially for low-income and elderly property owners.

However, allowing repayment plans will not solve the delinquency problem; there is likely to still be property owners who do not want to pay and property owners who cannot afford a repayment plan. A 2013 report found that an estimated 30 to 40 percent of installment plan payers in Philadelphia defaulted on their repayment agreements (Pew 2013). Detroit and Cleveland had an estimated 45 percent default rate, and New York City an estimated 22 percent default rate. Municipalities can address this by limiting the number of times a taxpayer can enter into a repayment plan and coupling the ability to enter the repayment plan with other forms of assistance that target vulnerable homeowners (see part 4 below). Limiting the number of times a taxpayer can enter into a repayment plan will likely address the issue of property owners who can make the payments but are trying to take advantage of the system.

3. Increase enforcement

When cities are not aggressive about delinquent tax collection, people are inclined to think they can get away with not paying. Several of the municipal officials surveyed in the delinquency survey stated that there is a perverse incentive to not enforce payment immediately because of the high interest rate that accrues on delinquent properties. This also holds true for investors who buy tax liens. However, this lax approach to enforcement is counterproductive to ensuring residents stay in their homes. While municipalities cannot force tax lien holders to aggressively collect payment, the municipalities themselves can increase their own enforcement of properties that are still within their purview.

Municipalities should establish a Delinquent Tax Department within the Treasurer/Collectors office or designate just one staff member whose main responsibility is to assist taxpayers with delinquent tax problems. The staff member(s) can actively pursue delinquent tax accounts to assist taxpayers and help avoid costly and unnecessary foreclosures. While postage is inexpensive, putting in the extra effort to call a property owner or make an in-person visit to notify him about the tax delinquency can be effective. Only about 17 percent of the collection survey respondents indicated they call the property owner about delinquent taxes.

However, one problem with this approach is that the collector's or treasurer's office does not have or cannot access the phone numbers of property owners. A few respondents to the collection survey reported that it is difficult to find phone numbers. One Michigan county treasurer explained that many phone numbers are not even found in expensive public record search services provided by companies like LexisNexis. To improve access to phone numbers, municipalities can ask for phone numbers in their annual census or require phone numbers be entered when a deed is recorded.

Municipalities should implement overall stricter timetables for enforcement measures and be more willing to take properties away from owners who do not pay their taxes (after attempts have been made to ensure the property owner has considered all the options available to him). A 2013 study about Philadelphia's property tax delinquency found that many of the other cities that had lower delinquency rates than Philadelphia adhered to stricter timetables for imposing enforcement measures and were more willing to take properties away from owners who do not pay their taxes (Pew Charitable Trusts 2013). A follow up to that report indicated that increased enforcement of the legal foreclosure process prompted almost two-thirds of the property owners who received tax foreclosure filings to pay their taxes, enter a payment plan agreement, or take some other action to prevent a foreclosure (Pew Charitable Trusts 2019).

Philadelphia's city revenue commissioner, Frank Breslin, stated: "We create payment plans that will work, and then use the foreclosure process to drive payers into them." This tactic is not the only thing that improved Philadelphia's property tax collection rate; many other improvements were made to the enforcement system since 2013, such as increased outreach to low-income homeowners and improvement of the delinquent tax payment programs. Philadelphia's non-collection rate is now 3.9 percent, down from 6.5 percent in 2013, and its goal is to reach a 2 percent delinquency rate. Philadelphia's story offers important lessons. Changing just one thing about the enforcement system will not produce significant results; it takes multiple changes, even experimentation with new processes, to achieve a higher collection rate.

4. Target vulnerable property owners with a range of assistance

Making it easier for residents to pay their taxes by allowing monthly payments, auto-debit payments, etc. will still not help the people who cannot afford to pay their taxes. To prevent or reduce delinquency, laws and policies aimed at reducing the tax burden for vulnerable property owners need to be established.

Municipalities should explore ways to increase exemption and credit utilization by eligible households. A 2018 report that explored property tax exemption utilization in Detroit found that several factors such as lack of awareness and a complex application process hindered use of the state's Poverty Tax Exemption (called the Homeowners Property Tax Assistance Program in Detroit). Of the estimated 39,220 homeowners eligible for the exemption (partial or full), only 11.9 percent applied for the exemption in 2016, which is an unusually low participation rate.

Other municipalities can learn from Detroit's example and aim to make the application process less burdensome and the exemption and credit programs more transparent. Approximately 17 percent of the collection survey respondents reported they send the property owner's information to another local agency or state agency that has the capacity to do more targeted outreach to the owner. One town in Massachusetts indicated it works extensively with the local senior center to educate taxpayers about the exemptions that are available.

5. Other Creative Approaches

- Arlington County, Virginia, created the Taxpayer Assistance Program in partnership with a regional bank to provide short-term loans to struggling taxpayers. No credit check is required because the county guarantees the loans. The property owner pays a 10 percent origination fee (which is what the county would charge anyway for a late payment), but no other interest is charged on the loan.
- Two respondents of the collection survey (both counties in Michigan) reported that they provide some form of financial education to taxpayers on topics such as budgeting and credit report management. Both respondents indicated this is an effective practice. One of the respondents indicated he partners with a local credit union to give home equity lines of credit to people who complete the financial education.
- Empowering and Strengthening Ohio's People (ESOP), a nonprofit, offers the Senior Property Tax Loan program to owner-occupiers age 55 and older in Cuyahoga County. To be eligible, the borrower must participate in financial counseling with ESOP and enroll in the Cuyahoga County Easy Pay program to stay up-to-date on their taxes.
- Municipalities can hold an amnesty program in which property owners pay back the principal amount due on their back taxes, but do not have to pay the normal penalties. New Castle County, Delaware, held an amnesty program in 2015, collecting $135,316 in property taxes and $559,174 in school taxes. Municipalities are not advised to hold an amnesty program often, as doing so would send the wrong message to taxpayers (that they can fall behind on their bills and not face any consequences). In announcing an amnesty program, a municipality should indicate that they are undertaking a new approach after this amnesty–one of strict enforcement. This signals to the taxpayer that now is the time to pay his delinquent property taxes before the municipality takes more serious actions such as initiating foreclosures.
- There were zero homeowner tax foreclosures in the city of Kalamazoo in 2019 because of a partnership between the county treasurer, the Local Initiative Support Corporation (LISC), and the city. The program used the Kalamazoo County's existing hardship criteria and one-on-one financial counselling to target homeowners who have not only the greatest need for assistance but also the highest likelihood of exiting arrears permanently.
- Many places have taken a proactive approach to dealing with tax delinquency and vacancy issues by transferring such properties to their local land banks. This is an

approach worth considering, but it is not an intervention aimed at collecting property taxes while keeping people in their homes.

State Laws

1. Require more effective notice requirements or allow the use of several different notice options as opposed to prescribing one method

The state should require notices be easily understandable and require the inclusion of information about resources available to homeowners such as potential eligibility for exemptions and the existence of any local, county, or state programs that can assist homeowners struggling to pay their taxes. For example, while Delaware requires a sheriff to post notice of a tax deed sale on the property, the notice uses esoteric legal jargon and makes it very difficult for the average resident to understand its content (Delaware code Title 9 Chapter 87). Pennsylvania requires notice of a tax deed sale be in at least 10-point font, all capitals, in a box, and conspicuous (see 72 P.S. Sec. 5860.602), whereas Texas requires notice of delinquency be in 14-point bolded or uppercase font (see Tex. Tax Code § 33.04).

2. Implement measures that protect the most vulnerable from losing their homes

Many states dictate a threshold at which municipalities can sell a tax lien or move forward with the foreclosure process. Setting the threshold too low means a homeowner could potentially lose his home over a few hundred dollars in delinquent taxes. In Maryland, the threshold to sell a tax lien is $250. This was changed specifically for Baltimore City to a threshold of $750, and most recently in 2019 the state approved the threshold (for Baltimore City only) for unpaid water and sewer bills at $750 due to the overwhelming amount of tax liens that were being sold for small amounts of unpaid water bills. (See Md. TAX-PROPERTY Code Ann. § 14-811).

Property tax relief for homeowners with excessive property tax burdens can take the form of a circuit breaker. Circuit breakers, which are usually state-funded, are available in many states. Generally, circuit breakers function by reducing the property tax payment for low-income homeowners based on a formula which varies by state (Bowman et al. 2008). The state has to appropriate funds every year for circuit breakers. The administration of circuit breakers can take multiple forms: paying the tax relief directly to the homeowner with a rebate check; linking the circuit breaker to the state income tax through an income tax credit; or treating the circuit breaker as an exemption to reduce the property's assessed value or by using a credit to reduce the tax bill based on full assessed value (the lost revenue to the local government via this last method is reimbursed by the state).

Deferral programs allow a homeowner to delay payment of property taxes until his house is sold or he dies, at which point the full amount of deferred taxes is due, plus interest. The interest rate is usually a lower rate than otherwise required. For instance, in Massachusetts, municipalities can choose to set an eight percent or lower interest rate on deferred taxes for elderly owner-occupants. Many states offer this type of program and some states even help offset the lost revenue to local governments by sending money to the local government from general appropriations (Munnell et al. 2017). Deferral programs are usually restricted to low-income senior citizens, but the case can be made to broaden eligibility based on income and the amount of equity the owner has in the house; age is not necessarily a good proxy for whether a household needs property tax relief.

California recently passed legislation that seeks to improve property tax deferrals for senior citizens. Deferrals allow seniors to defer paying property taxes they cannot afford until they sell their house. Beginning in 2020, senior citizens with annual incomes less than $45,000 (up from $35,500) are eligible to apply for property tax postponement and the interest rate for the back taxes is lowered from seven to five percent (see CA Assembly Bill 133). While this increase is an improvement, some may argue that elderly homeowners with annual incomes over $45,000 can still face difficulty paying their property taxes.

3. Consider the use of other collection methods such as wage garnishment or distraint

Delaware allows taxing authorities to deduct delinquent property taxes from the property owner's wages, which is similar to how wage garnishment for child support payments work (see Delaware code Title 9 Chapter 87 Section 8711). Sussex County uses this approach; however, they say it is not their most effective tool because the county does not collect employment information when a deed is transferred. For wage attachment to work, there must be a way for municipalities to legally obtain social security numbers and/or employment information for its property owners.

While this may be an inventive approach to ensure collection, it may not be a socially acceptable option, especially because many people live paycheck to paycheck and have to make critical choices every day about whether their income will be spent on essentials like food, clothing, or utility bills. Wage attachment should only be used in instances where the property owner has more than enough wages to cover the deduction and the municipality has no other way of collecting the delinquent taxes. Indiana law allows for wage garnishment when there are delinquent personal property taxes (see Ind. Code Ann. § 6-1.1-23-10). This approach could potentially be extended to real property taxes but would likely require state legislative action.

Distraint is the seizure of personal property to satisfy a debt. Distraint is usually allowed only to collect delinquent personal property taxes, but there are some states, such as Vermont, that allow it for delinquent real property taxes (see 32 V.S.A. Section 5191). Using this method poses several problems and added administrative burdens for the municipality. But this may be an effective tool when a property owner has valuable personal belongings such as jewelry or electronics that can be seized and sold to satisfy the debt. Seizing personal belongings without an owner's consent may not be a socially acceptable method of collection, especially if sale of the belongings may not generate much revenue. Further, if a property owner wanted to sell his belongings to pay his back taxes, he could do so on his own. Nevertheless, a better outcome for the homeowner would likely be the forced the sale of personal property rather than the loss of his house.

4. Require notice of a pending tax lien or deed sale be sent to the appropriate state agency for further intervention

Rhode Island requires notice of a tax sale also be sent to the state's Housing and Mortgage Finance Corporation (Rhode Island Housing). Rhode Island Housing reaches out to owner-occupants of residential properties containing three or fewer units. They also have the right of first refusal to purchase the tax lien for these properties. If the property owner has applied for or been granted a property tax abatement based on age, then notice must also be sent to the state's Division of Elderly Affairs (see Rhode Island Chapter 44-9). Maryland has a similar law, but for owner-occupiers who have lived in their home for 25 years or more. In Maryland, the collector must give notice to the area's department of aging. The department of aging then reaches out to the resident to offer assistance.

Property Owners

Even if a property owner's tax payments get paid through a mortgage servicer (escrow account), property owners would be remiss to not review the property tax bills and escrow account often. The property owner must make sure the servicer is accurately paying the property tax that is due.

For example, Massachusetts residents Paul and Michele Meaney almost lost their income property because they thought their loan servicer would pay their water and sewer bills if the Meaneys fell behind on making the payments themselves. They believed this because on a few past occasions their escrow account was adjusted to pay delinquent water and sewer bills that had been added to their tax title account. The Meaneys wrongly assumed that this would always happen if they ever failed to pay the water and sewer bills. During a difficult time in their lives when they were struggling with health issues, the Meaneys did not pay their water and sewer bills and the servicer did not adjust their account to pay it either. The city sent bills and notices about the amount due to the Meaneys, but when no payments were received, the city sold the tax lien to a private company and that company eventually foreclosed on the property. A sympathetic court reversed the foreclosure and allowed the Meaneys to pay back the amounts owed and take back their property (see Tallage LLC v. Meaney, 11 TL 143094, 2015).

Even if a property owner does not receive a tax bill (due to lost mail or delivery to the wrong address), the property owner is still responsible for paying the taxes. Not receiving a bill is not an excuse to not pay. However, municipalities should take every reasonable precaution to ensure property owners receive their tax bills and are aware of the consequences for failing to pay.

Section 5: Conclusion

The property tax is an important source of local revenue that helps pay for needed infrastructure and services. Nonpayment of property taxes means less money for city services and infrastructure and a higher burden on other taxpayers, but nonpayment also means property owners are at risk of losing their homes.

While it is always the property owner's duty to know that he must pay his property taxes, it is no easy task for a municipality to find the right balance between offering relief for property owners who genuinely cannot pay their property taxes and collection enforcement that does not send the wrong signal to property owners that they can ignore their property taxes. It is difficult to strike this balance because municipalities usually cannot distinguish between property owners who cannot pay, those that do not want to pay, and those who may be impaired and do not know they need to pay. An effective property tax collection system takes this reality into account by employing enforcement measures that are tailored to these different types of property owners.

References

Alm, James, Timothy Hodge, Gary Sands, and Mark Skidmore. 2014. "Detroit Property Tax Delinquency: Social Contract in Crisis." Lincoln Institute of Land Policy Working Paper WP14JA3.

Anderson, Nathan B., and Joshua J. Miller. 2015. "Property Tax Delinquency: Fees and Foreclosure in the United States." *State Tax Notes*. June 22.

Bowman, John H., Daphne A. Kenyon, Adam Langley, and Bethany P. Paquin. 2008. "Property Tax Circuit Breakers: Fair and Cost-effective Relief for Taxpayers." Lincoln Institute of Land Policy.

Burrell, Chris. 2018. "Tax Lien Law Haunts Massachusetts Property Owners." *WGBH*. January 21.

Carroll, Deborah A., and Christopher B. Goodman. 2016. "Assessing the Influence of Property Tax Delinquency and Foreclosures on Residential Property Sales." *Urban Affairs Review*.

Center for Community Progress. 2013. "Analysis of Bulk Tax Lien Sale: City of Rochester." February 20.

Center for Community Progress. 2016. "Assessment of Baltimore City's Tax Sale System: Impacts on City Finances, Vacant Properties, and Vulnerable Owner Occupants." October.

Charles, J. Brian. 2018. "To Fight Blight, One City Turned to Courts." *Governing*. December 21.

Chirico et al. 2019. "Deterring Property Tax Delinquency in Philadelphia: An Experimental Evaluation of Nudge Strategies." *National Tax Journal*, 72 (3).

City of Kalamazoo. 2019. "Zero Homeowner Tax Foreclosures in the City of Kalamazoo in 2019," https://www.kalamazoocity.org/news/437-zero-homeowner-tax-foreclosures-in-the-city-of-kalamazoo-in-2019

Cranor, Taylor, Jacob Goldin, Tatiana Homonoff, and Lindsay Moore. 2018. "Communicating Tax Penalties to Delinquent Taxpayers: Evidence from a Field Experient." *NYU Wagner*.

Dardick, Hal. 2018. "Cook County property owners with past due tax bills could face steeper payments after Friday." *Chicago Tribune*. April 30. https://www.chicagotribune.com/politics/ct-met-maria-pappas-unpaid-tax-sale-20180430-story.html

Deboer, Larry, and James Conrad. 1988. "Do High Interest Rates Encourage Property Tax Delinquency?" *National Tax Journal*, Vol. 41, No. 4.

Eisenberg, Alexa, Roshanak Mehdipanah, Ted Phillips, and Michele Oberholtzer. 2018. "Preventing Owner-Occupied Property Tax Foreclosures in Detroit: Improving Access to the

Poverty Tax Exemption." *University of Michigan*. https://poverty.umich.edu/files/2018/12/PovertySolutions-PoveryTaxExemption-PolicyReport-r2.pdf

Gillen, Kevin. 2013. "Estimating the Economic Value and Neighborhood Impact of Tax-Delinquent Properties in Philadelphia." *Fels Institute of Government, University of Pennsylvania*. http://planphilly.com/uploads/media_items/gillen-property-value-impact-analysis.original.pdf

Greenall, Ceri, Nina Prosser, and Hannah Thomas. 2017. "Local Authorities' Approaches to Council Tax Debt Recovery in Wales." *Welsh Government*.

Hurlston, Malcolm. 2017. "Council tax: how to tell the 'can't pays' from the 'won't pays.'" *Public Finance*. https://www.publicfinance.co.uk/opinion/2017/11/council-tax-how-tell-cant-pays-wont-pays

Jacobson, Joan. 2014. "The Steep Price of Paying to Stay: Baltimore Cities' Tax Sale, the Risks to Vulnerable Homeowners, and Strategies to Improve the Process." *Abell Foundation*.

Langley, Adam. 2018. "Improving the Property Tax by Expanding Options for Monthly Payments." Lincoln Institute of Land Policy Working Paper WP18AL1.

Larson, M. Corinne, and Olga Spaic. 1995. "Collecting Delinquent Revenues." *Government Finance Officers Association*. https://www.gfoa.org/sites/default/files/CollectingDelinquentRevenues.pdf

Mikesell, John L. 2017. "Extending a Property Tax Systems Model: Tax Collecting in Large U.S. Cities." Lincoln Institute of Land Policy reference number TJM062415.

———. 2019. "Collecting Unpaid Property Tax: A Public/Private Combination." *State Tax Notes*. May 27.

Miller, Joshua, and Silda Nikaj. 2016. "The Response of Delinquent Taxpayers to More Aggressive Collection." *National Tax Journal*, Vol. 69.

Munnell, Alicia, Anek Belbase, Wenliang Hou, and Abigail Walters. 2017. Property Tax Deferral: A Proposal to Help Massachusetts' Seniors." *Center for Retirement Research at Boston College*.

National Consumer Law Center. 2012. "The Other Foreclosure Crisis: Property Tax Lien Sales." July.

New Castle County Auditor's Office. 2017. "Audit Report – Collection of Delinquent Property Taxes and Sewer Service Fees." July 31.

New York City Office of the Comptroller. 2018. "Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018." https://comptroller.nyc.gov/wp-content/uploads/documents/CAFR2018.pdf

Parussini, Gabriele. 2016. "If you don't pay these taxes, expect a troupe of drummers at your door." The Wall Street Journal, April 18.

Perez-Truglia, Ricardo, and Ugo Troiano. 2015. "Shaming Delinquents." National Bureau of Economic Research, NBER Working Paper Series.

Pew Charitable Trusts. 2013. "Delinquent Property Tax in Philadelphia: Stark Challenges and Realistic Goals." June 27.

———. 2019. "Philadelphia Makes Progress on Collecting Delinquent Property Taxes." February 4.

Phone conversation with Genevieve Turcotte from Step Forward Michigan, May 21, 2019.

Quicken Loans Community Fund. 2019. "Neighbor to Neighbor: The First Detroit Property Tax Foreclosure Census."

Stern, Eric, and Jessica Yager. 2016. "Selling the Debt: Properties Affected by the Sale of New York City Tax Liens." *NYU Furman Center*.

The Arizona Republic. 2017. "How a home can be lost over $50 in back taxes." https://www.azcentral.com/story/money/real-estate/2017/06/12/tax-lien-foreclosures-arizona-maricopa-county/366328001/

United Kingdom Department for Communities and Local Government. 2019. "Collection rate and receipts of council tax and non-domestic rates in England." https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/811755/Collection_Rate_Statistics_Release_June_2019.pdf

Appendix: Delinquency Data

Michigan

Percent Delinquent			
City	**FY2015**	**FY2016**	**FY2017**
Adrian, MI	6.15	5.49	6.30
Battle Creek, MI	0.07	0.17	0.18
Birmingham, MI	0.05	0.42	0.06
Cadillac, MI	3.75	3.58	3.31
Clawson, MI	3.61	2.40	6.04
Dearborn, MI	0.13	0.20	0.17
Eastpointe, MI	10.01	10.05	9.30
Flat Rock, MI	2.29	2.54	2.65
Frankenmuth, MI	1.90	1.33	1.19
Gibraltar, MI	18.74	4.14	-
Grandville, MI	0.97	0.80	0.79
Grosse Pointe Farms, MI	1.70	1.90	1.30
Howell, MI	4.07	3.34	3.04
Huntington Woods, MI	0.09	0.08	0.10
Inkster, MI	27.61	25.12	24.28
Linden, MI	4.52	1.68	11.43
Lowell, MI	2.98	3.20	2.54
Marquette, MI	3.83	2.22	5.38
Milan, MI	3.40	2.60	2.92
New Buffalo, MI	3.80	3.50	3.90
Plymouth, MI	2.36	2.29	1.75
Portland, MI	2.78	2.65	2.93
Riverview, MI	3.43	3.02	2.23
South Haven, MI	0.13	0.24	0.22
Southfield, MI	5.49	4.96	4.67
St. Johns, MI	3.63	2.48	2.48
Warren, MI	4.59	4.16	4.39
Wyoming, MI	0.09	0.03	0.03

Ohio

Percent Delinquent			
County	**FY2015**	**FY2016**	**FY2017**
Adams, OH	8.71	8.18	9.76
Allen, OH	7.60	7.29	6.39
Ashtabula, OH	5.55	5.31	5.90
Belmont, OH	4.00	1.15	2.30
Butler, OH	2.28	2.13	2.31
Clark, OH	11.72	11.73	9.51
Clermont, OH	2.13	2.10	2.18
Clinton, OH	0.00	0.00	15.05
Columbiana, OH	4.37	4.53	3.21
Crawford, OH	19.69	16.91	17.49
Defiance, OH	0.57	1.47	1.77
Delaware, OH	1.83	3.25	1.97
Erie, OH	2.99	3.18	3.22
Fairfield, OH	2.71	2.27	2.29
Franklin, OH	5.07	3.79	3.39
Geauga, OH	2.30	3.13	2.14
Greene, OH	6.90	4.35	6.68
Hamilton, OH	3.76	2.57	2.80
Hancock, OH	0.00	3.23	0.27
Holmes, OH	2.17	2.42	4.18
Huron, OH	3.12	3.41	2.87
Knox, OH	27.91	27.60	26.84
Lake, OH	3.40	2.94	2.55
Licking, OH	4.62	5.22	4.66
Logan, OH	0.54	0.29	0.60
Lorain, OH	3.64	3.40	3.53
Lucas, OH	1.70	0.50	1.52
Mahoning, OH	3.92	3.16	4.92
Marion, OH	3.03	4.61	3.66
Medina, OH	2.52	1.95	2.83
Mercer, OH	4.18	4.32	3.50
Miami, OH	2.40	2.28	1.74
Monroe, OH	3.61	9.96	7.77
Montgomery, OH	8.65	9.68	4.50
Morrow, OH	13.29	13.66	12.04
Muskingum, OH	1.22	0.00	4.93
Ottawa, OH	3.47	2.16	9.31
Paulding, OH	3.88	3.75	3.84
Portage, OH	2.74	2.47	2.10
Richland, OH	21.21	12.78	11.26
Ross, OH	5.76	3.61	1.97
Sandusky, OH	0.00	2.93	2.95
Scioto, OH	5.38	6.40	6.55
Stark, OH	2.69	2.20	2.21
Summit, OH	3.59	3.23	3.47
Trumball, OH	4.56	4.50	4.53
Union, OH	2.96	2.98	6.81
Warren, OH	2.31	1.91	1.92
Wayne, OH	4.96	4.68	2.50
Wood, OH	2.19	1.42	1.93

Massachusetts

Percent Delinquent			
City or town	**FY2015**	**FY2016**	**FY2017**
Arlington, MA	0.35	-	0.21
Barnstable, MA	2.82	2.75	2.78
Beverly, MA	0.85	2.00	0.93
Cambridge, MA	1.40	1.57	1.84
Clinton, MA	0.58	0.19	0.63
East Longmeadow, MA	0.50	1.60	1.50
Edgartown, MA	-	1.98	3.02
Fall River, MA	3.30	2.24	1.47
Falmouth, MA	2.64	1.67	1.21
Framingham, MA	1.09	-	-
Freetown, MA	-	-	-
Hadley, MA	0.40	0.49	0.57
Hampden, MA	1.48	0.15	0.00
Haverhill, MA	1.57	1.76	1.60
Hingham, MA	0.98	1.23	1.40
Ipswich, MA	1.20	1.00	1.10
Lancaster, MA	1.06	0.39	1.65
Lee, MA	1.95	3.52	8.46
Lynnfield, MA	-	-	-
Marion, MA	3.11	1.01	2.10
Marshfield, MA	3.62	2.20	2.96
Mashpee, MA	1.54	1.66	1.34
Medfield, MA	2.12	1.80	1.61
Medford, MA	1.67	1.14	0.95
Melrose, MA	1.10	0.90	1.50
Methuen, MA	2.01	1.92	1.77
Middleborough, MA	1.20	1.05	1.51
Millbury, MA	2.14	1.65	0.92
Newburyport, MA	4.84	0.23	-
North Adams, MA	3.86	3.94	4.10
Quincy, MA	1.07	0.69	0.98
Raynham, MA	-	0.38	2.16
Rockport, MA	1.20	1.70	1.50
Sharon, MA	0.90	1.28	0.50
Sherborn, MA	-	0.81	0.25
Southbridge, MA	5.61	3.51	5.49
Spencer, MA	0.04	0.02	1.13
Sunderland, MA	1.32	1.09	2.95
Topsfield, MA	0.28	0.37	0.06
Tyngsborough, MA	1.56	2.12	1.61
Upton, MA	2.16	1.84	1.00
West Bridgewater, MA	-	0.78	2.34
West Newbury, MA	-	-	-
West Springfield, MA	0.10	0.60	0.10
Westport, MA	1.09	2.67	2.61
Weymouth, MA	2.38	2.00	1.58
Winthrop, MA	0.40	1.20	2.50