What the Great Recession Revealed About Taxation by Citation and What Can Be Done About It

Dick M. Carpenter II
*University of Colorado, Colorado Springs, Institute for Justice*

Chelsea Lawson
*University of Colorado, Colorado Springs*

Courtney Deuser
*University of Colorado, Colorado Springs*

Follow this and additional works at: [https://repository.law.umich.edu/mjlr](https://repository.law.umich.edu/mjlr)

Part of the Criminal Law Commons, Law and Economics Commons, and the Law and Society Commons

**Recommended Citation**
Available at: [https://repository.law.umich.edu/mjlr/vol54/iss4/6](https://repository.law.umich.edu/mjlr/vol54/iss4/6)

[https://doi.org/10.36646/mjlr.54.4.great](https://doi.org/10.36646/mjlr.54.4.great)

This Article is brought to you for free and open access by the University of Michigan Journal of Law Reform at University of Michigan Law School Scholarship Repository. It has been accepted for inclusion in University of Michigan Journal of Law Reform by an authorized editor of University of Michigan Law School Scholarship Repository. For more information, please contact mlaw.repository@umich.edu.
WHAT THE GREAT RECESSION REVEALED ABOUT TAXATION BY CITATION AND WHAT CAN BE DONE ABOUT IT

Dick M. Carpenter II, Chelsea Lawson & Courtney Deuser*

ABSTRACT

In recent years, the issue of “taxation by citation” has grown in national prominence. It is generally defined as municipal revenue generation through fines and fees that transcends a clear relationship to public health and safety and serves more as a revenue generating device. According to critics, taxation by citation creates conflicts of interest, violates the rights of those with low income, and distorts law enforcement priorities. Municipal leaders reject such criticisms by denying taxation by citation even exists. To date, research findings have been mixed on whether cities practice taxation by citation. This Article examines whether there is a relationship between fines and fees revenue generation and broader economic trends. If there is a relationship, that would suggest cities do, indeed, use municipal ordinance enforcement and the resulting fines and fees as a means of revenue generation beyond public health and safety. We use a panel of 1,471 cities from the Census of Governments spanning 2005 through 2017, which captures the Great Recession of 2008. Fixed-effects regression analyses indicate a significant relationship between the fines and fees revenue trend and the Great Recession. We conclude by recommending legal reforms to eliminate the financial incentives to engage in taxation by citation. These include eliminating municipal courts, capping the revenue cities may retain from ordinance enforcement, and ensuring judicial independence from municipal executive and legislative branches.

TABLE OF CONTENTS

INTRODUCTION..................................................................................................894
I. PRIOR RESEARCH FINDINGS......................................................................897
II. METHODS........................................................................................................900
   A. Data, Sample & Variables ........................................................................900
   B. Analysis .....................................................................................................903
III. RESULTS.......................................................................................................904
IV. DISCUSSION & CONCLUSION.................................................................910

* Dr. Dick M. Carpenter II, Professor, University of Colorado Colorado Springs, Senior Director of Strategic Research, Institute for Justice; Chelsea Lawson, PhD candidate, University of Colorado Colorado Springs; Courtney Deuser, PhD candidate, University of Colorado Colorado Springs.
INTRODUCTION

This Article examines fines and fees revenue generation by cities and proposes legal reforms based on those findings. Specifically, we study whether there is a relationship between fines and fees revenue generation and broader economic trends as represented by the recession of 2008. Upon finding a significant relationship, we discuss how reforming certain state laws may help curb municipal ordinance enforcement expressly for budget-balancing purposes.

Generating revenue through traffic tickets and municipal code enforcement has a long history, but recently the practice has come under increased scrutiny due to concerns that it may be transcending public health and safety goals and instead serving primarily as a revenue-generating device. Some scholars call this phenomenon “taxation by citation.”

When a city generates a large percentage of revenue from fines and fees, that may signal taxation by citation. There is not yet an agreed-upon definition of “excessive” in the generation of fines and fees revenue, but one observer has suggested that a threshold of 10% of a city’s revenue from fines and fees may be cause for concern. Indeed, Governing magazine set 10% as its threshold when studying cities engaged in taxation by citation.

For critics, there are legal and social problems associated with taxation by citation including: (1) conflicts of interest; (2) violation of the rights of people with low income; and (3) distortions in law enforcement priorities. First, because municipal courts are often funded by the fines, and particularly fees, generated by citations issued in their cities, this

may create conflicts of interest. This seems counter to U.S. Supreme Court decisions that judges ought not preside over cases in which convictions can produce financial benefits either for the judge directly or for the city.\(^3\) The same expectation applies to prosecutors.\(^6\)

Second, civil rights violations can occur by penalizing poverty. Justice Sandra Day O’Connor described the incarceration of poor people for nonpayment of fines and fees as “fundamentally unfair” absent the exploration of community service, installment payments, or other alternative sentences.\(^7\) Incarcerating people for the inability to pay fines and fees has been declared unconstitutional by the U.S. Supreme Court since the 1970s.\(^8\) Yet, the practice continues.\(^9\)

Third, distortion of law enforcement priorities can occur when raising revenue is municipalities’ primary motivation for creating or enforcing ordinances.\(^10\) This, too, has generated court opinions. Paying enforcement expenses and deterring violations through monetary sanctions are legitimate,\(^11\) but revenue production is not.\(^15\) As one court cautioned, “it must be remembered that courts generally, and traffic courts in particular, are not collection agencies and should not be made such.”\(^13\)

Despite these legal opinions, recent evidence suggests that municipalities continue to view citations primarily as a source of revenue.\(^14\) The most prominent example is Ferguson, Missouri. After the 2014

---

13. Id. at 784.
shooting of Michael Brown and the protests that ensued, a U.S. Department of Justice (DOJ) investigation found that the city’s aggressive revenue-generating activities through code enforcement contributed significantly to the social tensions present in the city before Brown’s death. 15 During the four years leading up to Brown’s shooting, despite being a city with a population of about 21,000 people, Ferguson issued 90,000 citations, typically for nonserious16 offenses.17

Ferguson, however, is by no means an isolated case. In a ranking of cities across the country in terms of their fines and fees revenue generation, Ferguson came in at only number eighteen.18 It ranked below cities distributed throughout the country, including in Georgia, Illinois, Maryland, Missouri, New York, Utah, and Tennessee.19 Moreover, results from empirical analyses strongly suggest that the revenue generation of many cities exceeds levels that would be expected if codes were enforced primarily for the purpose of public safety.20 Although illustrative, such examples are just that: examples. Systematic, empirical scholarship on taxation by citation is nascent. Advocacy organizations are producing research on the topic, but they tend to be legal studies,21 fiscal administration analyses,22 policy reports,23 or case studies.24 Empirical research relevant to the topic of this article is limited.


16. See id. at 3–7 (providing examples of “serious offenses” like assault, driving while intoxicated, and stealing; listing traffic violations as an example of a nonserious offense).

17. Id. at 7–8.


I. PRIOR RESEARCH FINDINGS

In examining the extent to which economic conditions may be related to municipal collection of fines and fees, at least one author has found no relationship between fiscal conditions, such as municipal tax revenue, and fines and fees generation. Singla et al. used a sample of ninety-three California cities spanning from 2010 to 2014 to examine if racial/ethnic composition, fiscal condition, and public safety were predictors of taxation by citation. Results indicated no significant relationship between fines and fees revenue and fiscal conditions or public safety metrics. Strikingly, however, a greater number of empirical findings suggest a revenue motivation behind municipal fines and fees behavior in the form of significant relationships between fiscal circumstances and fines and fees revenue. In some states, policy changes at the state level have appeared to compel municipalities to seek revenue through fines and fees. For example, Massachusetts instituted policies in 1980 that required property taxes to remain low, although residents in cities could vote to override the state policies and enact higher taxes in their own municipalities. Makowsky and Stratmann examined the extent to which municipalities responded to fiscal stress by pursuing revenue through traffic citations. Results indicated that drivers had a 26 percentage point “higher probability of being fined when stopped in municipalities where voters rejected an override referendum.”

26. Id. at 1146–49.
27. Singla et al., supra note 25.
29. Id. at 517.
and Stratmann concluded, “[t]his finding is consistent with the political economy model’s prediction that fiscal distress leads to higher speeding fines.” In a subsequent analysis, the authors further found that passage of an override referendum led to a drop in the number of traffic citations written overall by 14.3 tickets.  

Like Massachusetts, California voters in 1978 adopted Proposition 13 to restrict property tax rates. Dr. Sanghee Park gathered finance data from fifty-seven California counties spanning from 2000 to 2010 to determine the extent to which governments turned to fines and fees during periods of fiscal stress. Results indicated that for every 1% increase in the county unemployment rate, there was a 0.32% increase in the overall non-tax revenue, and for every one-dollar decrease in average housing price, the overall non-tax revenue increased by 0.015%. Public finance expert Dr. Min Su performed a similar analysis on fifty-seven California counties between 2004 and 2015, and found that a 10 percentage point tax revenue loss in the previous year was associated with a forty to forty-two cent increase in per capita traffic fines in the current year. As Su described the effect: “Considering that the average per capita traffic fine for all counties is $4.16, this increase is approximately 10 percent of counties’ average per capita traffic fines.”

Other authors have found similar effects in states without property tax reforms. Data from ninety-six North Carolina counties from 1990 to 2003 indicated that for every 1% increase in the unemployment rate, there was a .08% increase in traffic tickets. Traffic tickets increased even more when municipalities reported negative revenue growth in the previous year. A 10% revenue growth decrease brought an increase in traffic tickets of 6.4%. Finally, Hummel’s nationwide study found a significant relationship between state credit ratings and traffic ticket queries on Google (a proxy for traffic tickets), although he found no relationship between unemployment and traffic ticket queries.

30. Id.
34. Id. at 657.
35. Su, supra note 1.
36. Id. at 42.
38. Id. at 87.
Public officials routinely deny any revenue motivation, instead pointing to the public safety rationale. Yet, Singla et al. found no relationships between public safety metrics and fines and fees generation. Other research, however, suggests there may in fact be such a relationship. An analysis of data collected from the Massachusetts Highway Department and Highway Safety Division from April 2001 through January 2003 found 100 extra tickets per month per community led to 14.3 fewer car crashes. A study of nationwide data spanning 2008 to 2010 found states that issued more tickets per capita saw fewer fatal car accidents. And in a study of Massachusetts traffic ticket data from November and December 2002, Luca found that a 1% increase in tickets issued led to a 0.28% decline in motor vehicle accidents.

Thus, a lively and important debate continues about the extent to which public officials pursue fines and fees primarily as a revenue device. Although the studies cited above provide valuable findings, fines and fees are an important policy topic that would benefit from additional scrutiny. We do so with several unique contributions.

First, we use a nationwide panel of municipalities drawn from the Census of Governments. As Hummel noted, much of the prior literature focuses on case studies, such as certain localities or cities, and “[i]t would be much more generalizable to expand those analyses to include multiple communities across the United States covering the 50 states.” The sample is large—with almost 1,500 cities and towns—and it is diverse, ranging from small communities of approximately 100 residents to the nation’s largest cities. We also use a long panel, spanning 2005 to 2017. This is particularly relevant to our examination of the relationship between economic conditions and fines and fees revenue generation, given the years of the Great Recession fall in the middle of the panel.

41. Singla et al., supra note 25.
42. Makowsky & Stratmann, supra note 31, at 879.
43. Hummel, supra note 20, at 319.
45. Hummel, supra note 20, at 314.
II. METHODS

Similar to Singla et al., our study is guided by the primary research question: is there a significant relationship between fines and fees revenue and the Great Recession?

A. Data, Sample & Variables

Like Sances and You’s cross-sectional study, our data came from the Census of Governments (CoG) maintained by the U.S. Census Bureau and the American Community Survey (ACS). The CoG is an annual collection of descriptive, employment, and finance data from states, counties, municipalities, and special districts, such as school districts and water districts. In years ending in 2 and 7, the data represent a census; all other years represent a sample. We use community characteristics from the ACS as control variables in our analyses.

The CoG is not available as a panel, so we constructed one by pooling data from all years spanning 2005 through 2017. Most years collect data from a sample rather than a census of municipalities. To create a balanced panel where all cities appear in all years, we retained in our sample only those municipalities that appeared in all thirteen years of data, which resulted in a sample of 1,471 cities. We further limited the

46. Singla et al., supra note 25.
49. Methodology, U.S. CENSUS BUREAU, https://www.census.gov/programs-surveys/gov-finances/technical-documentation/methodology.html [https://perma.cc/MV85-AzAM] (last visited Apr. 16, 2021). We dropped 10,314 municipalities to create the balanced panel. Excluded cities had smaller percentages of persons of color (20% versus 29% in sample cities), slightly higher mean incomes ($51,517 versus $50,156), and were smaller (mean population 8,383 versus 80,047). This means the panel dataset we created is biased toward larger municipalities. In creating the sample in non-census years, certain municipalities always receive an invitation to submit data (participation is voluntary, but annual response rates are approximately 90%). These include, among others, larger cities (e.g., populations greater than 75,000) and municipalities with revenues above a certain threshold. Moreover, the Census of Government’s use of a cut-off sampling methodology reduces the number of small municipalities in the sample. This is intended to reduce respondent burden and processing costs for small municipalities with limited human and fiscal resources. Finally, each year the Census of Governments uses imputation to fill in missing or spurious data. In the 2016 data, for example, 18.7% of the data points we used in this study were imputed. Missingness occurs primarily due to nonresponse. Spurious data are identified by comparing responses within an annual dataset or between years. Inconsistencies in responses that exceed certain
sample to only cities and towns, thereby excluding counties and special districts, and only to those municipalities that reported judicial expenditures. The latter criterion was designed to ensure that the sample included only cities and towns that have or had access to the means to generate revenue via citations. Including municipalities without such means would artificially depress measures of fines and fees activity by spuriously conflating municipalities that have the means for processing and collecting fines and fees and municipalities that lack the means altogether. The former theoretically face incentives to pursue fines and fees revenue and have the means to respond to such incentives whereas the latter do not. Including cities without such resources would confound our ability to measure municipal responses to incentives.

Consistent with prior empirical work, we chose commonly used measures of community characteristics and finances for our analyses. In all analyses, fines and fees revenue—drawn from the CoG—was the dependent variable (DV). This was represented as a percentage of general revenue. The primary independent variables (IV) were years and years squared, which capture the fines and fees trend before, during, and after the Great Recession. The years variable is a simple integer count, beginning with zero, of the number of years in the panel. The year 2005 is coded as zero, 2006 is coded as one, 2007 is coded as two, and so forth. Years squared is then the created by mathematically squaring the year variable.

Taken together, these two variables enable us to measure whether there is a curvilinear trend in fines and fees revenue that comports with the Great Recession. By itself, time is a linear variable that enables us to measure whether there is a linear trend in the fines and fees data across the years measured, and if so, whether that trend is increasing or decreasing. Time squared measures whether there is a curve in the trend, and if so, the direction of the curve. Interpreted together, the variables can indicate the magnitude of the trend and the point in time at which a trend changes, if, in fact, it does change.

An alternate approach is to replace the trend variables with indicator variables representing each year in the panel. Among other advantages, this method—unlike the use of trend variables—provides precise estimates of the outcome variable for each year as compared to the first year in the panel (assuming that the first year is used as the

thresholds are flagged as spurious and replaced/imputed. Imputations are made by consulting alternative data sources or estimating a data point by inferring from another year and adjusting for growth or inferring from a similar municipality.

50. See Hummel, supra note 20; Makowsky & Stratmann, supra note 20; see also Singla et al., supra note 25; Su, supra note 1; Sances & You, supra note 47.
comparison). In combination, the coefficients can also be used to discern a trend in the outcome variable, similar to the trend variables described above. As for those variables, the trend in fines and fees generation across the years studied proved to be rather smooth (as illustrated below), rather than a series of peaks and valleys. This made it fitting to use time trend variables. Both approaches come with advantages, so we present both below.

Control variables in the analyses were community characteristics drawn from the ACS and the CoG: percent minority, median household income, population size, and police expenditures. These variables have proven important to control for in the studies discussed above, and so we did likewise.

As Table 1 indicates, the sample cities varied significantly on every variable in the analysis. The variable of particular interest is the percentage of revenue cities generated through fines and fees. On average, cities generated only approximately 1% of revenue from this source, but the percentage differed substantially throughout the sample. As for community characteristics, the sample included very small municipalities to the nation’s largest cities. On average, almost 30% of the residents in the sample cities were people of color, and the mean household income was just over $50,000.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>DESCRIPTIVE STATISTICS FOR THE SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
</tr>
<tr>
<td>Population (number of people)</td>
<td>92.00</td>
</tr>
<tr>
<td>Percent minority (percentage)</td>
<td>0.00</td>
</tr>
<tr>
<td>Household income (dollars)</td>
<td>13,521.00</td>
</tr>
<tr>
<td>Percent revenue from fines/fees (percent)</td>
<td>0.00</td>
</tr>
<tr>
<td>Police expenditures (thousands of dollars)</td>
<td>0.00</td>
</tr>
</tbody>
</table>

The use of the time trend variable is a more parsimonious regression model, which is generally a desirable feature.
B. Analysis

The analyses used Ordinary Least Squares (OLS) regression with random effects, which enabled us to examine the relationship between the recession—as captured in the time variables—and fines and fees revenue after controlling all other variables in the equation. The formal regression model using time trend variables took the form:

$$\%F/F \text{ Revenue}_{i,t+1} = \beta_0 + \beta_1(\text{population}_{i,t}) + \beta_2(\text{median income}_{i,t}) + \beta_3(\%\text{minority}_{i,t}) + \beta_4(\text{law enforcement spending}_{i,t}) + \beta_5(\text{time}_t^2) + e_{it}$$

The terms for years and years squared measure the relationship between the Great Recession and fines and fees revenue. If there is a relationship between fines and fees and the recession, we should expect to see a convex parabola with the peak at the time of the recession. This would be captured in a positive and significant coefficient for year and a negative and significant coefficient for year squared.

The formal model using year indicator variables took the form:

$$\%F/F \text{ Revenue}_{i,t+1} = \beta_0 + \beta_1(\text{population}_{i,t}) + \beta_2(\text{median income}_{i,t}) + \beta_3(\%\text{minority}_{i,t}) + \beta_4(\text{law enforcement spending}_{i,t}) + \beta_5(2006) +$$

---

52. We also replicated the models using fixed-effects, an approach frequently used in research on this topic at the municipal, county, or judicial district level. See, e.g., Makowsky & Stratmann, supra note 31; Park, supra note 30; Siân Mughan, Fine and Fee Revenues, Local Courts and Judicial Elections: The Role of Financial and Political Institutions in Extractive Revenue Practices in U.S. Cities 15 (May 22, 2019) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3393412 [https://perma.cc/T49Y-NLBC]. This analysis exploits the panel nature of the data and controls for time-invariant variables not included in the regression equation. All non- or quasi-experimental research suffers from omitted variable bias, wherein some variable not present in the equation may be significantly related to the outcome variable and confound the relationship between the IV and the DV. See Kevin A. Clarke, The Phantom Menace: Omitted Variable Bias in Econometric Research, 22 CONFLICT MGMT. & PEACE SCI. 341 (2005). Fixed-effects control for time-invariant variables not present in the analysis, but they do not control omitted time-varying variables. Thus, compared to a traditional OLS regression, fixed-effects greatly improve the estimate of the relationship between the IV and DV by establishing a more isolated correlation between the two. Josef Bruderel & Volker Ludwig, Fixed-Effects Panel Regression, in THE SAGE HANDBOOK OF REGRESSION ANALYSIS AND CAUSAL INFERENCE 327, 331 (Henry Best & Christof Wolf eds., 2015). Fixed-effects regression “discards the between variation and infers the causal effect from within the variation only,” but it is still not technically causal. Id. at 331. The disadvantage to fixed-effects analysis is its restriction on the effects of a variable—time, in this case—to vary by sampled unit—municipality, in this case. Random effects models, conversely, allow for this. Breusch-Pagan Lagrange testing indicated a random effects model was more appropriate under the circumstances (χ² = 33,906.37, p = .000), so we report those results below. However, we also report fixed-effects results in footnotes 54 and 55, infra.
The variables of interest in this analysis are the time variables, 2006 through 2016. Each is compared to the year 2005, which is omitted to facilitate the comparison. If there is a relationship between fines and fees and the recession, we should expect to see the largest coefficients during the recession, followed by coefficients decreasing in magnitude in subsequent years.  

III. RESULTS

In examining whether there is a relationship between fines and fees activity and the Great Recession, Figure 1 provides perhaps the clearest illustration of the relationship. From 2005 to 2017, the peak of fines and fees revenue collection occurred during the years 2009 and 2010, which corresponds to the Great Recession. According to Rich, the recession began in December 2007 and ended in June 2009, but the effects continued to be felt for years after. Indeed, Piskorski and Seru estimate that regions “that recovered to pre-crisis levels took on average four to
five years from the depths of the Great Recession.” This estimate corresponds to the trend in Figure 1. The peak of fiscal stress is the peak of fines and fees revenue generation, and as the economy—particularly property values (and corresponding property tax revenue)—recovered, fines and fees revenue declined.

Figure 1
Average Fines and Fees Revenue by Year

Of course, the difference between the lowest point and the peak is only 0.17 percentage points, but the regression results from Model 1 in Table 2 indicate that the trend is statistically significant. The variables of interest are time and time squared, which must be interpreted in tandem to understand the results. The coefficient for time is positive, indicating that the initial slope of fines and fees revenue is positive. The coefficient for time squared, however, is negative, indicating that at some point the trend curves downward. The graph indicates that the inflection occurred in 2009/2010. This is confirmed empirically by the equation \(-\beta_1/2\beta_2\), where \(\beta_1\) equals the coefficient for time and \(\beta_2\) equals the coefficient for time squared. This equation empirically indicates the inflection point in curvilinear trends. In our analysis, the conditional product of the equation—that is, the product after controlling for other variables in the equation—is 4.2, which essentially corresponds to calendar year (CY) 2009 (in the analysis, time is scaled so that 2005 equals 0, 2006 equals 1, and so forth). Recall, however, that in the regression analysis the fines and fees revenues are shifted ahead one year.

year (e.g., CY 2006 corresponds to revenue year (RY) 2007, CY 2007 corresponds to RY 2008, and so forth). This means the peak of the time trend corresponds to CY 2009 and RY 2010.57

This is also illustrated with Model 2 in Table 2. As hypothesized above, coefficients beginning with 2006 increase in magnitude until reaching the largest numbers in CYs 2008 and 2009 (RYs 2009 and 2010) and then generally decreasing again, albeit irregularly, to CY 2016 (RY 2017).58 Thus, the results from Models 1 and 2 confirm the trend present in Figure 1: fines and fees revenue peaked at the height of the Great Recession and receded as the recession also receded. In plain terms, this means that when municipal fiscal stress was at its greatest point, cities took in the greatest share of fines and fees revenue, and as the fiscal stress waned, the percentage of fines and fees revenue decreased.

57. In the fixed-effects analysis, the results are almost identical: time coefficient = .027, p = 0.010; time² coefficient = -.003, p = .001.

58. In the fixed-effects analysis, the results are almost identical. 2008 coefficient = .089, p = 0.003. 2009 coefficient = -.084, p = .011. For years before and after 2008–09, the coefficients are gradually smaller.
TABLE 2
REGRESSION RESULTS FOR THE RELATIONSHIP BETWEEN FINES AND FEES REVENUE AND THE GREAT RECESSION

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>SE</td>
<td>p</td>
<td>Coef.</td>
<td>SE</td>
<td>p</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.399</td>
<td>0.082</td>
<td>0.000</td>
<td>1.297</td>
<td>0.081</td>
<td>0.000</td>
</tr>
<tr>
<td>Population</td>
<td>0.000</td>
<td>0.000</td>
<td>0.141</td>
<td>0.000</td>
<td>0.000</td>
<td>0.106</td>
</tr>
<tr>
<td>Percent minority</td>
<td>-0.037</td>
<td>0.039</td>
<td>0.344</td>
<td>0.237</td>
<td>0.152</td>
<td>0.119</td>
</tr>
<tr>
<td>Income</td>
<td>0.000</td>
<td>0.000</td>
<td>0.557</td>
<td>0.000</td>
<td>0.000</td>
<td>0.772</td>
</tr>
<tr>
<td>Police expenditures</td>
<td>0.000</td>
<td>0.000</td>
<td>0.215</td>
<td>0.000</td>
<td>0.000</td>
<td>0.192</td>
</tr>
<tr>
<td>Time</td>
<td>0.025</td>
<td>0.010</td>
<td>0.011</td>
<td>0.000</td>
<td>0.000</td>
<td>0.192</td>
</tr>
<tr>
<td>Time²</td>
<td>-0.003</td>
<td>0.001</td>
<td>0.001</td>
<td>0.000</td>
<td>0.000</td>
<td>0.192</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td>0.017</td>
<td>0.022</td>
<td>0.445</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td>0.068</td>
<td>0.030</td>
<td>0.024</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td>0.090</td>
<td>0.030</td>
<td>0.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>0.089</td>
<td>0.033</td>
<td>0.007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td>0.079</td>
<td>0.033</td>
<td>0.018</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td>0.064</td>
<td>0.035</td>
<td>0.067</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td>0.022</td>
<td>0.035</td>
<td>0.533</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td>-0.210</td>
<td>0.107</td>
<td>0.049</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td>0.020</td>
<td>0.074</td>
<td>0.791</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td>-0.059</td>
<td>0.038</td>
<td>0.117</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>-0.045</td>
<td>0.053</td>
<td>0.398</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Standard errors are clustered by city.

Decreasing fines and fees percentages could, of course, be a more mathematical phenomenon than a decision by city officials to engage in less municipal ordinance enforcement as the economy improved. For example, fines and fees revenue—the numerator in the fines and fees percentage above—could have remained somewhat constant over time while general revenue—the denominator—could have decreased due to the recession and then gradually increased during the recovery.

We tested for that possibility by examining trends in the dollar amounts collected through fines and fees. We used the same basic random effects models described above, using fines and fees dollar amounts as the outcome variable and controlling only for population,
since this is a descriptive exercise. This analysis also does not shift the fines and fees revenue ahead by year. As Table 3 illustrates, the results in both models show a curvilinear trend to the amount of money raised through fines and fees (the coefficients here are interpreted just as in Table 2). This suggests that the results reported in Table 2 are not primarily a mathematical phenomenon.
Regression Results Examining Fines and Fees
Dollar Amounts Over Time

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>SE</td>
<td>p</td>
<td>Coef.</td>
<td>SE</td>
<td>p</td>
</tr>
<tr>
<td>Intercept</td>
<td>-3917.741</td>
<td>1719.248</td>
<td>0.023</td>
<td>-3930.870</td>
<td>1736.857</td>
<td>0.024</td>
</tr>
<tr>
<td>Population</td>
<td>0.078</td>
<td>0.024</td>
<td>0.001</td>
<td>0.078</td>
<td>0.024</td>
<td>0.001</td>
</tr>
<tr>
<td>Time</td>
<td>97.246</td>
<td>24.712</td>
<td>0.000</td>
<td>Time²</td>
<td>-7.280</td>
<td>1.710</td>
</tr>
<tr>
<td>2006</td>
<td>61.818</td>
<td>33.280</td>
<td>0.063</td>
<td>2007</td>
<td>137.255</td>
<td>44.986</td>
</tr>
<tr>
<td>2008</td>
<td>246.369</td>
<td>56.563</td>
<td>0.000</td>
<td>2009</td>
<td>346.663</td>
<td>71.884</td>
</tr>
<tr>
<td>2010</td>
<td>400.657</td>
<td>71.439</td>
<td>0.000</td>
<td>2011</td>
<td>372.213</td>
<td>84.572</td>
</tr>
<tr>
<td>2012</td>
<td>362.450</td>
<td>132.202</td>
<td>0.006</td>
<td>2013</td>
<td>224.845</td>
<td>148.567</td>
</tr>
<tr>
<td>2014</td>
<td>158.727</td>
<td>138.611</td>
<td>0.252</td>
<td>2015</td>
<td>146.474</td>
<td>141.392</td>
</tr>
<tr>
<td>2016</td>
<td>254.276</td>
<td>163.787</td>
<td>0.121</td>
<td>2017</td>
<td>212.574</td>
<td>130.873</td>
</tr>
</tbody>
</table>

A final note about the results in Table 2: although the community characteristics of percent minority and household income were not of primary interest here, it is nonetheless interesting that neither proved to be significantly related to fines and fees revenue. This is contrary to a number of articles finding that communities with greater percentages of minorities or persons with low income took in more revenue through fines and fees. It remains an open question whether the generation of fines and fees shows racial bias, as Shoub et al. suggest, or, as Sances and You conclude, “[o]ne interpretation of our results is that cash-

59. Mughan, supra note 52, at 19; Noli Brazil, The Unequal Spatial Distribution of City Government Fines: The Case of Parking Tickets in Los Angeles, 56 URB. AFFS. REV. 823 (2018); see also Brandi Blesset & Richard C. Box, Sharecropper Finance: Using the Justice System as a Public Revenue Source, 18 PUB. INTEGRITY 113 (2016); Sances & You, supra note 47; Singla et al., supra note 25; Su, supra note 1.
strapped cities target poor and minority voters simply because they are less likely to complain and not due to any inherent bias. 65

IV. DISCUSSION & CONCLUSION

Although the percent minority and income results in Table 2 were inconsistent with many prior studies, our primary findings are consistent with earlier research discerning a relationship between fiscal stress and fines and fees revenue. 62 Our findings are distinctive because of the large, national sample, long time span, and the occurrence of a significant recession in the middle of the study period. The recession proved particularly revealing because of the economic recovery that followed the recession. It enabled us to allow for two possibilities. In the first, if municipal ordinance enforcement is primarily driven by a public health and safety motivation, there is little reason to expect to see the trend in decreasing fines and fees revenue in the post-recessionary period. 63 In contrast, the second possibility contemplates municipal code enforcement motivated primarily by revenue generation, which would be manifest in a fines and fees revenue trend tied to the economic trend of the recession. That is indeed what we found.

Of course, city leaders and municipal judges routinely deny revenue motivations. 64 For example, when municipal courts in Georgia began intercepting state income tax refunds of people who failed to pay traffic tickets or other court fines, Atlanta municipal court judge Gary E. Jackson defended the scheme as a means to protect public safety. “We’re not here to raise money,” he said. “Our job is public safety.” 65

In rare moments of candor, however, some public officials acknowledge revenue motivations. Warwick, Georgia, for example, boasts a new police headquarters and a renovated community center

61. Sances & You, supra note 47, at 1093.
62. Makowsky & Stratmann, supra note 20; Makowsky & Stratmann, supra note 31; Park, supra note 33; Su, supra note 1.
63. See Hummel, supra note 20 (suggesting public safety concerns have a significant and larger positive effect on the issuance of traffic tickets than budget concerns).
64. See, e.g., Maciag, supra note 3. In Seat Pleasant, Maryland, population 4,800, Police Chief Devan Martin defended his almost $4 million in fines revenue—much of it from speed and red-light cameras—by insisting: “The purpose of the program is not for the potential financial revenue that’s generated from it . . . . Our only purpose is to curb behavior to improve traffic safety and public safety.” Maciag, supra note 3.
65. Teegardin, supra note 40.
that also functions as a municipal court.66 It is a small town with less than 500 residents and a small business tax base.67 The town’s upgrades were paid for by fines and fees: “We had the opportunity to generate revenue on Highway 300,’ explained City Councilman Ronnie Fennell. ‘And that’s what we did.’ . . . The city generated $3,113 for every [person] living in its borders . . . ‘I knew what revenue was being generated,’ Councilman Fennell said. ‘And let me tell you something. I liked it.’”68

In another example, when Jonesboro, Georgia, topped the list of traffic ticket revenue generators in an analysis by the Atlanta Journal-Constitution, a “city councilman said he fear[ed] the priority [was] making money, not serving the community.”69 “I don’t know if it’s to ‘protect and serve’ or to ‘collect and serve,’” said city Councilman Robby L. Wiggins. “A lot of times, that’s what it seems like to me.”70

James Tignanelli, president of the Police Officers Association of Michigan union, similarly noted, “When elected officials say, ‘We need more money,’ they can’t look to the department of public works to raise revenues, so where do they find it? Police departments.”71 Police Chief Michael Reaves of Utica, Michigan, likewise observed, “When I first started in this job 30 years ago, police work was never about revenue enhancement, but if you’re a chief now, you have to look at whether your department produces revenues.”72

As Ginkowski described, revenue-raising motivations distort law enforcement priorities away from protecting public health and safety.73 These motivations also run counter to court decisions about the revenue motivation in code enforcement.74 Yet, courts have found that monetary sanctions may “at least pay the cost of enforcement of ordinances and regulations” and “be imposed to effect compliance and deter viola-

67. Id.
68. Id.
69. Traffic Tickets, supra note 42.
70. Traffic Tickets, supra note 42.
72. Id.
73. See Ginkowski, supra note 10.
74. Vill. of Sister Bay v. Hockers, 317 N.W.2d 505, 508 (Wis. Ct. App. 1982) (indicating that “[t]he primary purpose of an ordinance cannot be the raising of revenue in lieu of taxation. . . .”); State ex rel. Pedersen v. Blessinger, 201 N.W.2d 778, 781 n.1 (Wis. 1972) (indicating that “[r]evenue production is not a legitimate basis for imposing a fine.”).
tions.” 75 Thus, legal reform may be complicated, but it is possible. The framework provided by Carpenter et al. proves particularly helpful to this end. 76 Their framework describes state-level reforms that may assist in removing the financial incentives that can compel municipal taxation by citation. Such an approach would be a more systematic method of reform rather than advocating for change at the city level.

Likely one of the most significant reforms would be to eliminate municipal courts, which, unlike state courts, may have financial interests in the outcomes of the cases they hear. The structure of municipal courts requires self-financing through either fees attached to the cases they hear or budget allocations from municipalities. Both financing methods leave municipal courts open to pressure from municipal leaders to generate fines revenue through more convictions. State courts lack this structure, and as a result generally have greater financial independence.

State-level reforms can also (a) reduce municipalities’ need for fines and fees revenue, (b) limit municipalities’ control over revenue collected by municipal courts, and (c) safeguard those courts’ independence. Taking each in turn, states can reduce municipalities’ demand for fines and fees revenue by capping fines and fees as a percentage of a municipality’s budget and giving municipalities greater flexibility in raising revenue. The first of those is arguably the most important. If municipalities cannot keep fines and fees revenue above a certain cap or must allocate revenue raised by their courts to school or hospital funds, this limits their financial incentive to pursue such revenue streams.

As for flexibility in raising revenue, greater diversity of municipal revenue sources reduces the need to rely on a particular source, especially during times of fiscal stress. Indeed, Deller and Watson’s analysis found that cities with greater economic diversity saw greater economic stability during the Great Recession. 77 To support their activities, municipal governments generally rely on a variety of income sources. Their main source is taxes, primarily property taxes. “Excise taxes targeting specific transactions (e.g., tobacco and alcohol)” or groups (tourists’ meals, hotels, and rental cars) are popular as well. 78 Municipal sales taxes generate small proportions of municipal revenue. 79 Revenue also comes from fees (such as those associated with business licenses), ser-

75. Hackers, 317 N.W.2d at 508.
76. See Carpenter et al., supra note 21.
77. Steven Deller & Philip Watson, Did Regional Economic Diversity Influence the Effects of the Great Recession?, 54 ECON. INQUIRY 1824, 1832 (2016).
79. Id. at 930, 940–945.
vice charges (the costs governments charge for providing services like waste collection), and grants or other transfers of money from other governments. Some municipalities generate revenue through public enterprises, such as utilities. Cities with such enterprises often have lower property tax rates because utility revenue acts as a substitute for other types of revenue generation. During the 2009 recession, for example, increasing fees on water, sewer, and waste collection was the most frequently used method of generating revenue in Illinois cities that provided such services.

Specific to the primary source of municipal funding—property taxes—limitations on this form of “revenue generation may be externally imposed . . . through constitutional or statutory requirements intended to provide taxpayer relief—a relatively recent but widespread practice.” Lacking diverse revenue sources, localities experiencing fiscal stress who are unwilling to cut services or reduce spending may opt to “increase reliance on fees and fines generated through the exercise of the police power to fill the revenue gap.”

To limit municipalities’ control over revenue collected by municipal courts, state reform could include prohibiting municipalities from budgeting for court revenue to discourage dependence on it. Budgeting for court revenue is widely practiced by cities and has now become a prominent part of an ongoing case in Doraville, Georgia. The Atlanta suburb of a little more than 10,000 citizens became notorious for its revenue-generating speed traps and housing code enforcement cases. Each year, the suburb budgeted “between 17 and 30[%] of its overall ex-

80. Id. at 929.
83. Stumm & Khan, supra note 82, at 104.
85. Wigfall Robinson, supra note 78, at 929.
86. Id. at 931.
88. Simmons, supra note 2; Christine Fonville, Fines And Fees: Is Doraville Ticketing For Revenue? A Lawsuit That May Move Forward States The City Is In Serious Violation, DEKALB NEIGHBOR (July 23, 2019), https://www.mdjonline.com/neighbor_newspapers/dekalb-is-doraville-ticketing-for-revenue-a-lawsuit-that-may-move-forward-states-the-city-is/article_1bfc5a8e-a96d-11e9-b891-cf20af94d8f.html [https://perma.cc/5PMC-XYKF].
pected revenue [to] come from fines and fees issued by its police officers and code inspectors.”99 A 2015 Doraville newsletter bragged that “averaging nearly 15,000 cases and bringing in over $3 million annually,” Doraville’s court system “contributes heavily to the city’s bottom line.”90 Combined with other reforms we discuss here, prohibiting cities from such budgeting could significantly reduce revenue-generating incentives in fines and fees.

Turning to safeguarding courts’ independence, states can guarantee courts funding in their laws so that courts do not have to depend on municipalities for support. States can also require municipal courts to function separately from the political—that is, legislative and executive—branches of municipal government. Among other practices, this may entail preventing city councils and mayors from appointing or removing judges; barring mayors or their designees from sitting as judges; organizing prosecutors and other law enforcement officers in separate offices from court personnel; and physically removing courts from police departments.

Likely the best-known example of a need for separation comes from Ferguson, Missouri, where city leaders urged the appointed police chief and municipal court judge to make maximizing revenue their priority and worked in league with them to meet significant budget increases in revenue from citations.91 The quintessential need for separation, however, is in Ohio and Louisiana’s mayors’ court systems. “Mayor’s courts are local courts that hear traffic and local ordinance violations.”92 Unlike traditional municipal courts presided over by a judge, cases in mayor’s courts are decided by the mayor or their designee—the same person responsible for overseeing the city’s finances. As the ACLU of Ohio concludes, such courts “operate with perverse incentives to prioritize revenue generation over delivery of justice.”93 Since approximately 300 and 250 such courts operate in Ohio94 and Louisiana respectively,95 the need

89. Fonville, supra note 88.
94. Id.
for separation between judicial and executive/legislative functions is not trivial.

Although awareness of the issue of revenue generation through fines and fees was once confined to periodic complaints about speed traps and traffic tickets,\(^9\) it has grown to much greater prominence in recent years. Of particular concern are questions about the extent to which cities’ use of municipal ordinance enforcement transcends public health and safety into taxation by citation. Our empirical results suggest that there is a reason for such concern. This problem is not, however, an intractable one. The reforms we outline above—along with others proposed by Carpenter et al.,\(^{97}\) the Fines and Fees Justice Center,\(^{98}\) and others\(^{99}\)—can go a long way to ameliorating a legal problem that is ultimately of our own making.

\(^9\) See Simmons, supra note 2.