

April 11, 2017

Dear Colleagues,

Attached is my paper for next week's workshop. I've spent most of the past year working on my book that just came out, so this is a very early draft of my next project. I usually find that workshops are more interesting and more productive the less finalized the paper is, so rather than present something based on the finished work that went into the book, I wanted to use this. As you will see, it is still very much a work in progress, and I am excited to hear your comments on it.

Thanks!

All the best,

John

Truth in Sentencing Laws and the Limited Role of the Federal Government in Criminal Justice: Evidence From the 1994 Crime Control Act, And What it Means for Today

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In these days of sharply divided, highly partisan politics, one issue that has received persistent bipartisan attention is criminal justice reform, prison reform in particular. Since 2008, Red states like South Carolina and blue ones like California have passed comprehensive sentencing reform bills, and it's not uncommon to see frequent adversaries like the ACLU and the Charles Koch Foundation working closely together to try to improve how our criminal justice system functions.

Many reformers feared that the surprise election of Donald Trump on November 8, 2016, posed an existential threat to nascent reform efforts. Trump had launched his campaign with tough-on-crime style fear-mongering, invoking the specter of waves of Mexican murderers and rapists crossing our southern border. He frequently over-stated the extent to which crime rates had ticked up during 2015 and 2016,¹ and he refused to apologize for his previous demands that the now-exonerated Central Park Five be executed. The pattern continued after his inauguration speech—which replaced Ronald Reagan's "Morning in America" with "American carnage"—when he appointed Senator Jeff Sessions, a staunch opponent of criminal justice reform, to be Attorney General. Sessions, in turn, appointed a hard-line assistant US Attorney, Steve Cook, as his deputy in charge of leading the DOJ's efforts to reduce violent crime.

Yet while on the surface none of this bodes well for reform, I remain cautiously optimistic. Prison reform is a state and local issue. Mass incarceration has been driven by the decisions of locally-elected prosecutors far more than by state or (especially) federal officials,² and prison reform began at the state and local levels, long before President Barack Obama turned to the issue in the waning days of his presidency. Furthermore, the federal government cannot compel state and local governments to change their criminal justice laws or instruct them on how to manage the criminal justice system. Federalism may thus shield reform efforts from the harsh, punitive rhetoric coming from the nation's capital.

When it wants to shape local criminal justice outcomes, the primary tools at the federal government's disposal are financial incentives that bribe states (via new grants) or that coerce them (by threatening to cut off ongoing funding). Under the Obama administration some reformers hoped the federal government could use carrots to get state to wisely decarcerate.³ Under Trump,

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¹ Perhaps the most notorious claim he made was that murders rose in 2015 to their highest rate in four decades. In reality, murders experienced the largest *percent increase* in forty years—because the murder rate was so much *lower* than it had been in decades. This misstatement was particularly troubling because it was so close to the truth, yet it managed to completely flip that truth on its head.

² See, e.g., Pfaff, *Locked In*.

³ Brennan, *Reduce Mass Incarceration Act proposal*.

many fear that sticks (and perhaps some carrots) could be used to make states act more harshly.⁴ Using one of the major provisions of the 1994 Violent Crime Control and Law Enforcement Act as an example, I want to suggest that federal efforts to bribe states will likely be unsuccessful, at least when it comes to incarceration.⁵

The Crime Act was a sprawling anti-crime bill that Bill Clinton signed into law, after much wrangling with the Republicans on the right and the Congressional Black Caucus (among others) on the left, on September 13, 1994. One part of the bill, the Violent Offender Incarceration and Truth in Sentencing incentives program (VOI/TIS) authorized the Department of Justice to allocate up to nearly \$10 billion between 1996 and 2001 to states that expanded their efforts to incarcerate people convicted of violence and to ensure that these offenders either spent more time in prison, or at least a greater fraction of the sentence imposed.

Although the grant program has been defunct now for almost twenty years, it suddenly found itself back in the national spotlight in 2016, when liberal critics of Hillary Clinton argued that the Crime Act, primarily through VOI/TIS, had played a major role in driving up incarceration rates in the US.⁶ At the time, I argued that there was no qualitative evidence that the Crime Act in general, and VOI/TIS in particular, had driven incarceration, and in fact that the rate of prison growth steadily *slowed* over the entire Clinton presidency.⁷ Here I take a more rigorous look at the impact of TIS laws, and thus the VOI/TIS program, on state prison populations, and I find that my earlier qualitative impressions were more or less correct.

1. A Brief History of VOI/TIS

The Crime Act was less a single law and more a holding company containing a wide array of laws aimed at federal and state practices. It was the home of the federal three-strikes law, the federal ban on assault weapons, the Violence Against Women Act (VAWA), the law creating the Office of Community Oriented Policing Services (COPS), as well as the VOI/TIS incentives program and other laws. Many of the laws were specific to the federal criminal justice system; those aimed at the states, like VAWA and COPS, often set aside billions of dollars for grants to influence state policy.⁸

⁴ Attorney General Sessions, for example, is already threatening to withhold up to \$4.1 billion in federal grants from cities that refuse to renounce their “sanctuary city” status.

⁵ For policing, the story is a bit more complicated. There is less consensus at the local level about what reforms—or even if any reforms at all—are needed, so the White House’s bully pulpit and ability to craft a powerful narrative have been far more important in that area.

⁶ <https://www.thenation.com/article/hillary-clinton-does-not-deserve-black-peoples-votes/>, <https://newrepublic.com/article/129433/clintons-war-drugs-black-lives-didnt-matter>.

⁷ <https://www.nytimes.com/2016/04/12/magazine/bill-clinton-is-wrong-about-his-crime-bill-so-are-the-protesters-he-lectured.html>, http://www.slate.com/articles/news_and_politics/crime/2016/02/michelle_alexander_blames_hillary_clinton_for_mass_incarceration_she_shouldn.html. As a general matter, I strongly dislike classifying trends in prison growth by Presidential administrations, since the impact of the President appears to be so slight. But when talking about the Crime Act and VOI/TIS, it makes some sense.

⁸ VAWA, for example, provided about \$2 billion to incentivize more aggressive policing and prosecution of domestic violence cases, while COPS was authorized to provide local governments with over \$9 billion in

Here I want to focus on the VOI/TIS program. Although VOI/TIS earned the ire of protesters during the 2016 campaign, it had actually returned to national attention the year before, when a major reform group held it up as an example that the Obama Administration could follow to help advance *decarceration*. The Brennan Center for Justice, housed at NYU, argued that the VOI/TIS program had been effective at increasing incarceration rates, so a similar funding program could be used today to incentivize states to incarcerate *fewer* people.⁹ VOI/TIS thus provides a useful lens to examine how effectively the federal government can shape local criminal justice outcomes.

The VOI/TIS program consisted of two separate but related grant regimes. The VOI program offered money to states that demonstrated they were admitting to prison more people convicted of index violent crimes (murder/manslaughter, rape, aggravated assault, and armed robbery) and were ensuring that these prisoners either served more time or at least a greater fraction of any sentence imposed; the conditions were relaxed a bit in 1996 in an effort to encourage more states to participate.¹⁰ The TIS grants were available to states that imposed tougher requirements still, specifically that those convicted of index violent crimes had to serve at least 85% of the imposed sentence before being eligible for parole. All 50 states qualified for at least some VOI funding (the program provided three tiers of funding based on how aggressive states were towards those convicted of serious violent crimes), but only 27 states qualified for TIS funding.¹¹

Right off the bat, however, there are reasons to be skeptical that VOI/TIS had much of an impact, even though over half the states in the country adopted a TIS law. First, the General Accounting Office interviewed state officials in those states that qualified for TIS funding to see how important the funding was to the decision to enact a TIS law; after all, states had already started experimenting with TIS laws before the Crime Act was written.¹² Of the 27 that adopted TIS laws, 12 said that VOI/TIS had no impact at all (since many of those 12 adopted their TIS laws prior to the Crime Act), 11 said that VOI/TIS had a partial impact, and only 4 said that it strongly shaped their decision. And at least some of the partial impacts were slight: Kansas, for example, already

grants between 1994 and 2000 in order to boost the number of police by 100,000. Conversely, the Wetterling Act, another part of the Crime Bill, threatened to take away 10% of federal funding from states that did not adopt sex offender registries that met federal guidelines. The impact of all these laws appears to be slight. See, e.g., <http://www.politifact.com/truth-o-meter/statements/2008/aug/24/barack-obama/bidens-crime-bill-helped-some/>, <http://nation.time.com/2013/02/27/whats-wrong-with-the-violence-against-women-act/>. With regards to the Wetterling Act (later replaced by the Sex Offender Registration and Notification Act (SORNA)), as of 2016 two-thirds of all states (33) are not in compliance with SORNA, demonstrating that most would rather take the funding hit than comply. <https://ojp.gov/smart/sorna-map.htm>.

⁹ <https://www.brennancenter.org/publication/reverse-mass-incarceration-act>. In short, where VOI/TIS set aside money to reward states that expanded prison populations, the RMIA would have awarded money to those states that cut their prison populations.

¹⁰ <https://www.bja.gov/Publications/VOITIS-Final-Report.pdf>; Urban Institute report.

¹¹ <http://www.gao.gov/assets/230/225212.pdf>.

¹² This is a common trend, with federal laws reflecting rather than advancing state ideas. This is readily apparent in the Sentencing Reform Act (SRA), currently tied up in Congress, which contains a slew of thoughtful ideas about how to improve criminal justice outcomes at the state and federal level—every single one of which originated in state governments before Congress even began drafting the SRA.

had an 80% TIS law prior to the Crime Act, which they then raised to an 85% standard to qualify for federal funds.¹³

Second, there's an issue of insufficient funding. If nothing else, while Congress authorized almost \$10 billion for the program, states only claimed about \$2.7 billion, leaving nearly three-fourths of the money on the table.¹⁴ The demand simply wasn't there. Furthermore, in the grand scheme of things, \$2.7 billion over six years, or about \$450 million per year, is not that much when put in perspective of state governments, which were spending approximately \$32 billion on corrections alone, and about \$52 billion on criminal justice overall; the grants come to about 1.5% of correctional spending and slightly under 1% of all criminal justice spending.¹⁵ Table 1 breaks this out even more explicitly, comparing total state correctional expenditures between 1996 to 2001 to total VOI/TIS grants awarded over that time for the 16 states that said the VOI/TIS grants were either partially or strongly responsible for their decisions.¹⁶ Note that Table 1 *overstates* the impact of TIS grants, since it also include grants under the VOI program, which had lower standards than the TIS component.

¹³ Urban.

¹⁴ <https://www.bja.gov/Publications/VOITIS-Final-Report.pdf>.

¹⁵ I discuss the limited amount of funds the federal government can throw at the states for criminal justice issues in more depth in Pfaff, Hastings.

¹⁶ State budget data from the Census's Annual Survey of Government Finances, discussed in Pfaff, Hastings. VOI/TIS awards from <https://www.bja.gov/Publications/VOITIS-Final-Report.pdf>, Appendix A. The BJA report only provides information on combined VOI/TIS awards, without breaking the two programs out.

Table 1: VOI/TIS Grants as a Fraction of Total Correctional Expenditures, 1996-2001

State	Prison Spending	VOI/TIS Awards	Awards as %
Partially Influenced States			
Connecticut	\$3.12B	\$34.5M	1%
Florida	\$11.99B	\$237.0M	2%
Iowa	\$1.14B	\$22.9M	2%
Kansas	\$1.38B	\$27.2M	2%
Mississippi	\$1.34B	\$29.3M	2%
Missouri	\$2.72B	\$58.1M	2%
New Jersey	\$5.84B	\$70.9M	1%
North Dakota	\$0.17B	\$10.4M	6%
South Dakota	\$0.51B	\$14.0M	3%
Tennessee	\$2.18B	\$73.2M	3%
Virginia	\$4.58B	\$47.4M	1%
Strongly Influenced States			
Louisiana	\$2.22B	\$70.7M	3%
Maine	\$0.47B	\$11.8M	3%
New York	\$13.22B	\$217.5M	2%
Oklahoma	\$2.37B	\$26.9M	1%

In general, VOI/TIS grants were only a small fraction of state budgets. It’s hard to imagine that grants running to about 1% to 2% per year would have a major impact on operations or decisions. The empirical results in this paper appear to generally confirm this intuition. Let’s turn to that now.

2. Synthetic Control Methods

For the past few decades, the workhorse in macro-level empirical social sciences has been the panel regression model. Gather data on a number of observations (often, like here, states) over many years, and then run a regression to try to tease out some causal effects. For a study like this one, the panel regression effectively divided the data into two groups: the “treated” states that adopted a TIS law, and the “control” states that did not. Models of this sort face numerous methodological pitfalls, but one of the most important—and one that received far too little attention until the past ten years or so—was that these model relied on the assumption that the group of “control” states was fairly to that of “treated” states.

This assumption, however, is often unlikely to hold. States do not randomly adopt laws—unlike those in the treatment group in a randomized clinical trial, who *are* randomly assigned the treatment—and so those states that adopt a law may systematically differ from those that do not.

In recent years, there has been a push to tackle this issue head-on, to try to ensure that the treatment and control groups look as similar as possible.¹⁷ One popular approach has been matching.¹⁸ Matching takes each treated observation and looks through the control observations to find one that is “sufficiently” similar; if no such control observation exists, the model drops the treatment observation. The remaining dataset may be smaller, but it is better “balanced,” which makes it far more likely that any apparent causal effect is something real, not an artifact of how the statistical model handles treatment observations with no close control.¹⁹

The problem with matching is that it may require researchers to drop a lot of “treated” observations—a result that poses a serious problem when studying something like state policy, where there may only be 10 or 15 treatment observations. A newer technique, synthetic control methods (SCM), has been designed to confront this very problem.²⁰ Rather than looking for a single control observation that matches a treated one, SCM creates for each treatment observation a unique “synthetic” control observation out of the pool of all available control observations.

A simple example can illuminate how this works. Assume State A is the treatment state (the one experiencing the policy change), states B, C, D are the control states (those with no change), and we have data on three variables: per capita income, percent of the population that is black, and percent that votes Republican.²¹ Table 2 gives the values. Matching would try to pick which of B, C, or D is “closest” to A across all three variables, and it would throw out A if a close-enough match didn’t exist. SCM, on the other hand, calculates a set of weights that creates a close analog to A out of B, C, D.

Table 2: Example of a “Synthetic” Observation

	A	B	C	D	Synth “A”
Per Cap Inc	11,000	8,000	12,000	9,000	11,000
Unemployment	0.125	0.15	0.1	0.05	0.125
% GOP	0.5	0.45	0.55	0.65	0.5

In this example, the weights are 0.358, 0.786, and –0.143. Thus, for per capita income, $0.358 \times 8,000 + 0.786 \times 12,000 - 0.143 \times 9,000 = 11,000$ —a perfect match to A, created out of the

¹⁷ Imagine a medical test in which heart medication was given to a group of young white women while the placebo was given to older black men. It would be impossible to know if any observed effect of the medication was due to the medication or just differences in the groups.

¹⁸ See, e.g., Ho, Imai, King, and Stuart (2007).

¹⁹ In other words, a model trying to understand the impact of having a public defender on trial outcomes would include only those cases involving a public defender where there was a case involving a private lawyer that was otherwise similar (same/similar age, race, sex, crime, etc., of the defendants, and so on). If no close match exists, then the “treated” case is dropped rather than kept in the test.

²⁰ See, e.g., Abadie and Gardeazabal (2003); Abadie, Diamond, and Hainmueller (2010).

²¹ In the model below, I have observations across states and over time. The weights are fixed for both: State B would be assigned a single weight that would apply to all variables across all periods (so that single weight would apply to per capita income in 1990 and 1991, percent black in 1990 and 1991, and so on).

data for B, C, and D. Applying the same weights to unemployment and percent-GOP produce similar matches. Of course, in practice it is usually impossible to find such a perfect match, but SCM creates as close a match as it can.

SCM proceeds in two steps. First, it uses the explanatory variables—in this paper, those variables which we think explain incarceration rates, like crime rates and economic conditions—to calculate the weights. Second, it uses those weights to create a synthetic dependent variable, like incarceration rates or prison admission rates, to compare to the real dependent variable. Unlike conventional panel models, SCM does not look at all states at once, but rather is conducted state-by-state: each state has its own synthetic control, and each synthetic control/treatment comparison is conducted separately.²² If there really is a treatment effect—if, in this case, TIS laws really do lead to a change in incarceration—then the real and synthetic dependent variables should track each other closely in the pre-treatment period but diverge post-treatment.

In some cases, the real and synthetic variables will not be similar even in the pre-treatment period. This makes it hard to draw any sort of inference about the impact of the treatment in that state, but in a “productive” way. The inability to generate an appropriate control means that we simply lack data that can estimate the impact of the treatment in that observation. Knowing we cannot estimate that specific treatment effect is perhaps disappointing, but informative; we must be willing to acknowledge these “known unknowns” when they arise.

3. Data and Results

I have lamented before that there is no generally-accepted set of explanatory variables for state-level models of incarceration, so I will admit up front that my choice of variables here remains contestable.²³ One appeal of SCM, however, is that if the real and synthetic models track each other closely in the pre-treatment period, the exact choice of explanatory variables may not be that critical.

Here, I consider two dependent variables: the incarceration rate and the prison admission rate, both taken from the Bureau of Justice Statistics’ on-line tool.²⁴ The treatment variable is the state’s decision to adopt its TIS law. I use the adoption dates provided by the General Accounting Office’s report on the impact of VOI/TIS grants on state sentencing regimes.²⁵ For control variables,

²² Since each state is examined separately, traditional statistical significance tests don’t work. The solution proposed by Abadie et al. (2010) is to use placebo tests that apply SCM to the control observations as well. If the apparent treatment effect is spurious—if there is no real causal connection—then we should see similar patterns in at least some of the placebo tests as well (which involve states that, by definition, never adopted the law in the first place).

²³ Pfaff (2008). I have also argued that state-level models in general may be problematic, given how central county-level actors are to prison growth. Pfaff, Locked In. I’ll address this issue in Section ___.

²⁴ Website. [Note: In future versions, I also hope to look at the impact of TIS laws on arrest rates, to see how (or if) local police respond to changes in state-level sentencing laws as well. Unfortunately, it is not possible to look at the impact of VOI/TIS on prosecutorial behavior, since the data I have on felony filings in state court start in 1994, and other datasets on prosecutorial behavior are either too noisy to be useful (SCPS) or aggregate only to the national, not state, level (NJRP). See Pfaff, Locked In; Ga St L Rev; SSRN.]

²⁵ <http://www.gao.gov/assets/230/225212.pdf>.

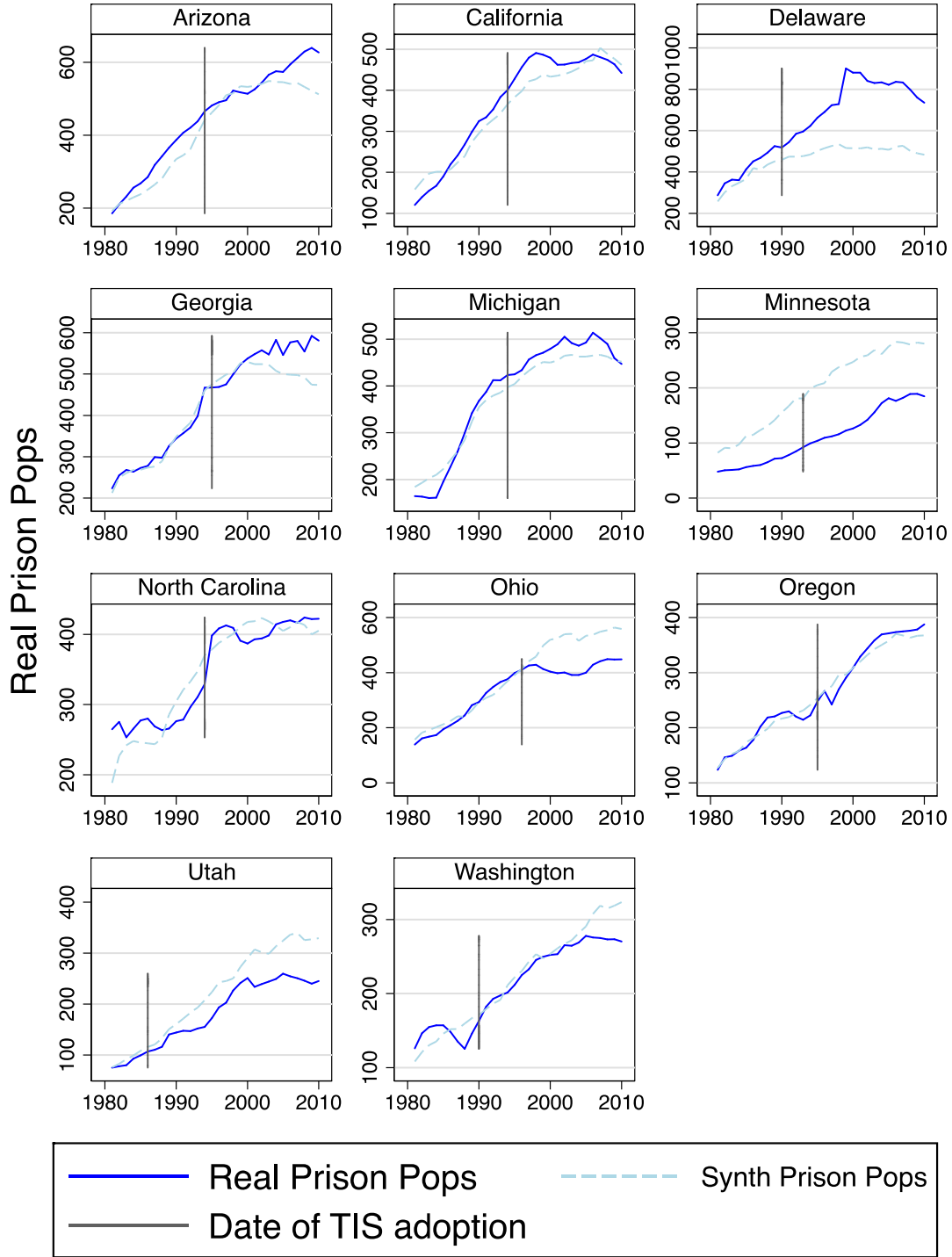
I used several demographic, economic, political, and crime-related variable. For demographics, I used percent of the population that was black; I also ran specifications using just the percent that was male aged 20-39, and found similar results. For the economic variables, I included the unemployment rate, per capita income, and the Gini coefficient to get at the role of inequality. For politics I used the percent of seats in the upper and lower legislative chambers held by Republicans. And for crime, I used the index violent crime rate (since TIS laws usually apply only to serious violent crimes) and the arrest rate for index violent crimes.²⁶ I had hoped to include other variables tracking sentencing behavior, such as indicators for the decision to abolish parole, to adopt sentencing guidelines, or to adopt three-strike laws, but unfortunately the SCM algorithm is unable to estimate the weights needed to create the synthetic control when the data includes these binary variables.

Figures 1 (which looks at the impact of TIS laws on total prison populations) and 2 (for admissions) provide the basic findings. Each figure separates the results out by the impact of VOI/TIS on state behavior, grouping states by those that adopted TIS laws regardless of VOI/TIS, those that were partially influenced, and those that were strongly influenced.

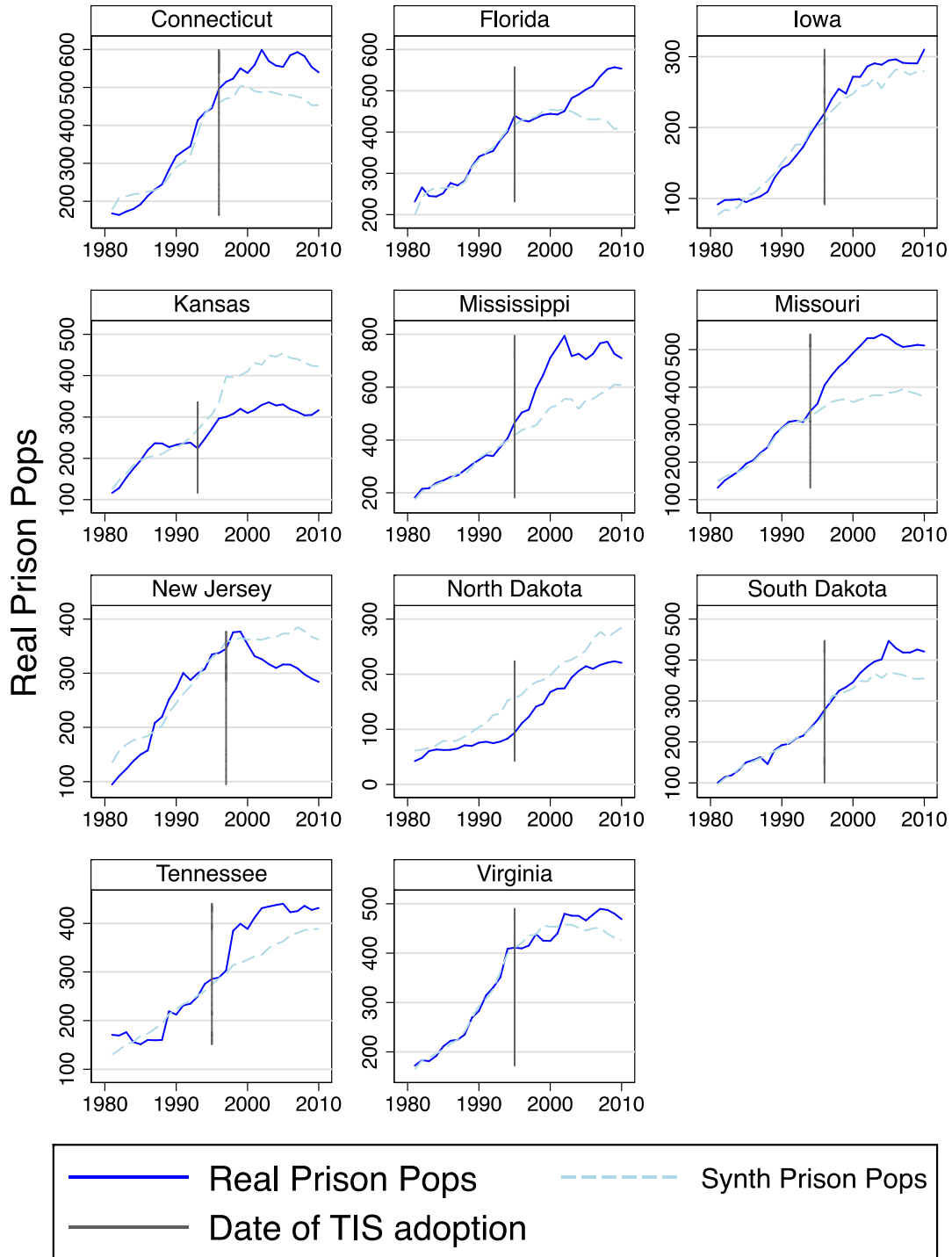
²⁶ Demographic data is from the Census. The data on unemployment and per capita income is from the Bureau of Labor Statistics, and the state-level Gini coefficients come from Frank-Sommeiller (http://www.shsu.edu/~eco_mwf/inequality.html). The political data comes from Carl Klarner (<https://dataverse.harvard.edu/dataset.xhtml?persistentId=hdl:1902.1/20403>). The crime data comes from the BJS, and the arrest data from UCR data provided to the author from the FBI (which looks only at those departments that provide the equivalent of twelve months of data).

Figure 1: State-Specific SCM Results for Impact of TIS on Prison Populations

A. States that Claim VOI/TIS Was Irrelevant



B. States that Claim VOI/TIS Mattered Somewhat



C. States that Claim VOI/TIS Matters Significantly

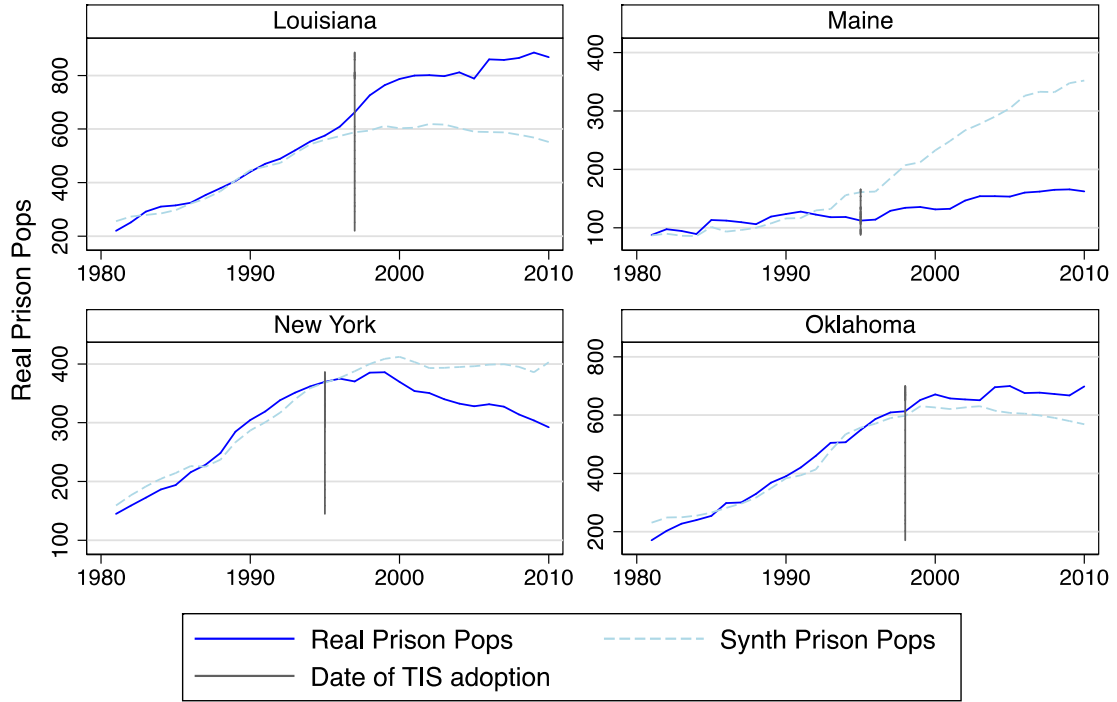
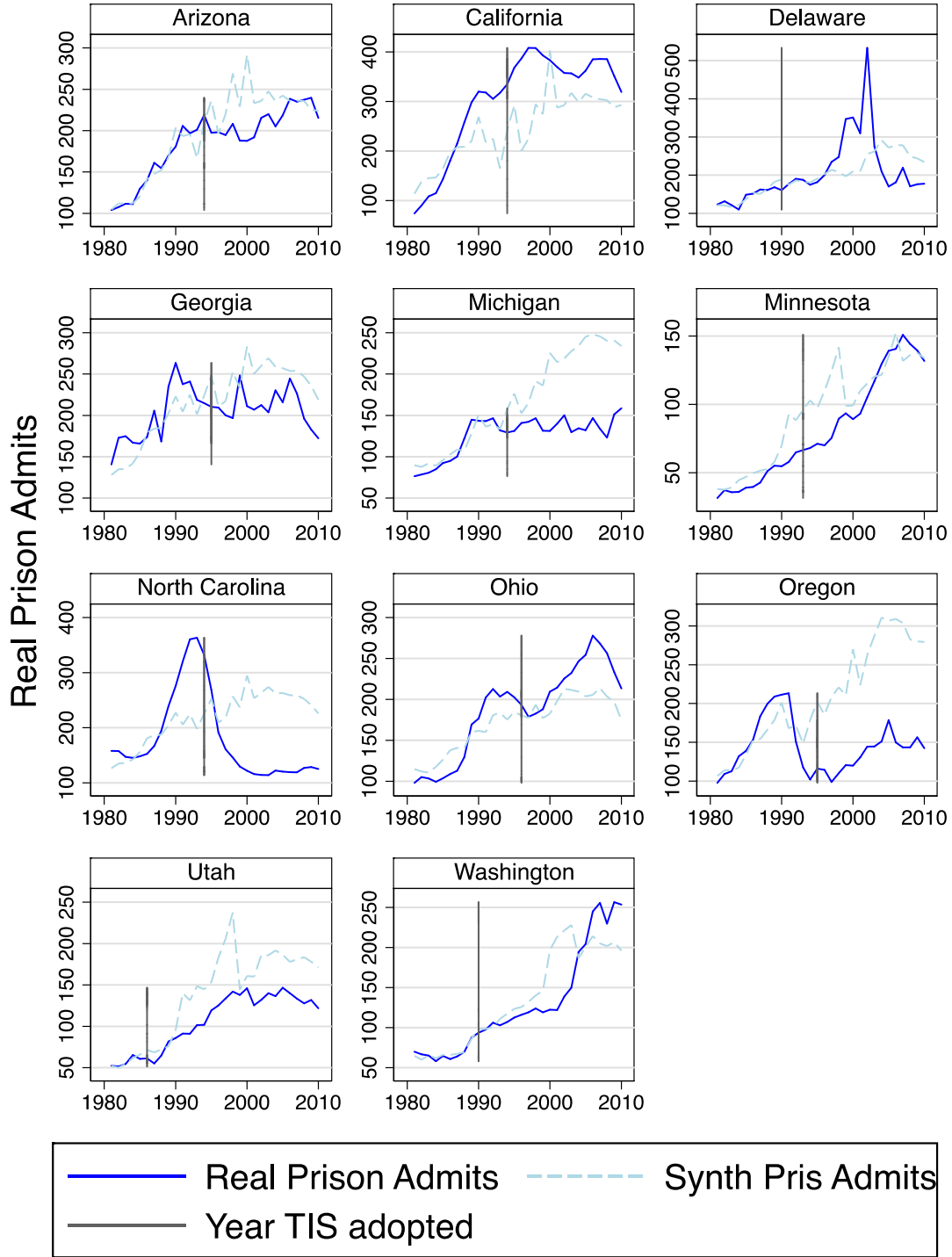
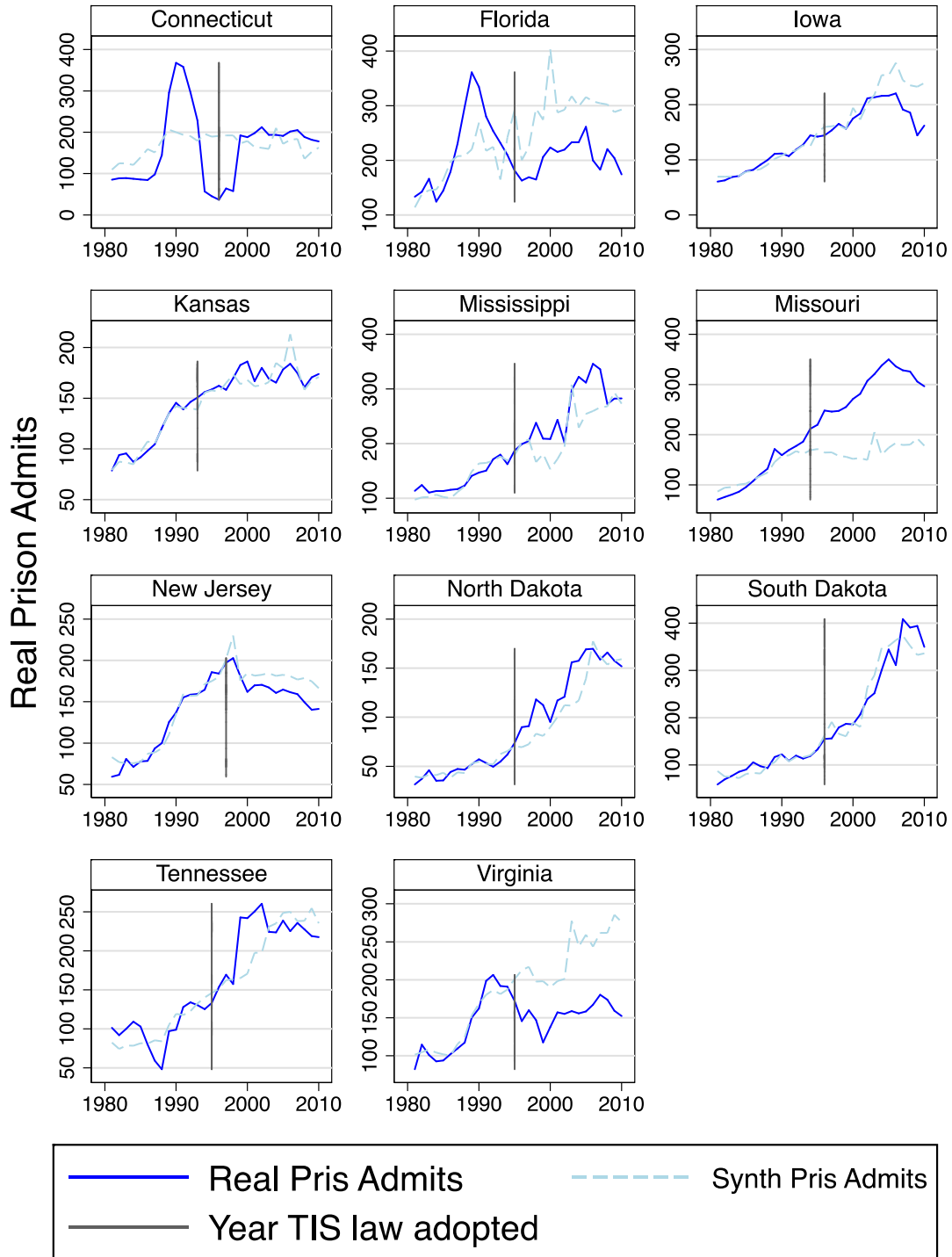


Figure 2: State-Specific SCM Results for Impact of TIS on Prison Admissions

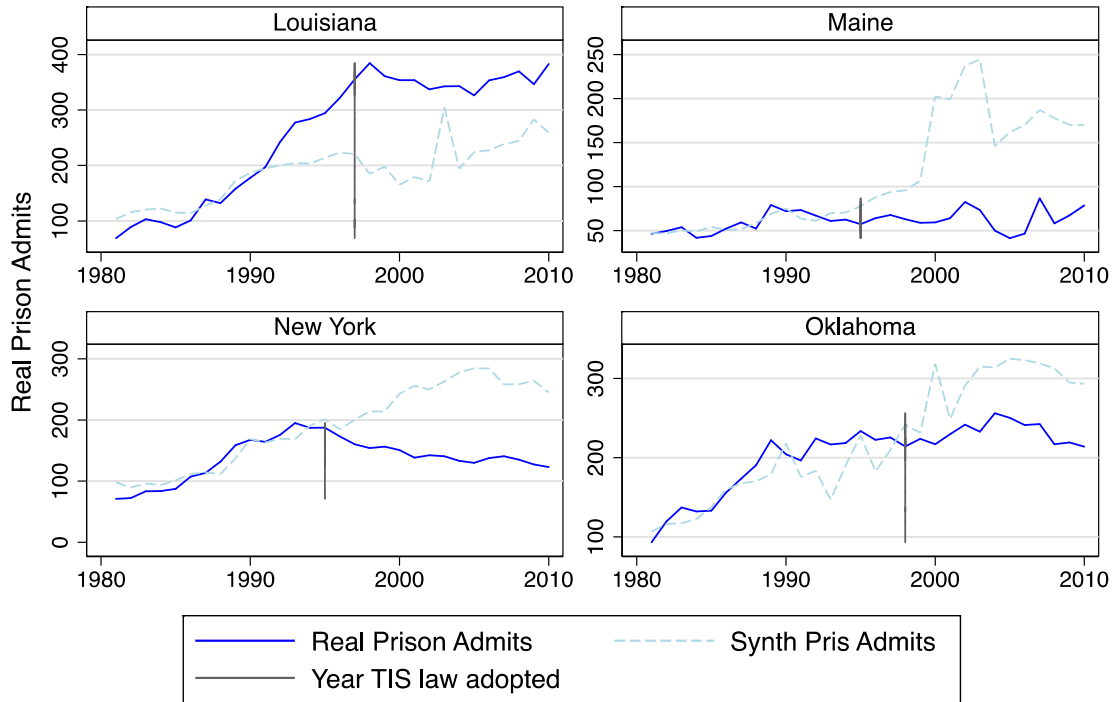
A. States that Claim VOI/TIS Was Irrelevant



B. States that Claim VOI/TIS Mattered Somewhat



C. States that Claim VOI/TIS Matters Significantly



Focusing first on total populations, the adoption of TIS laws, and thus VOI/TIS grants more generally, appears to have had an immediate, appreciable impact on about four states: Connecticut, Louisiana, Missouri, and Mississippi. South Dakota and Oklahoma may have seen some impact too. Missouri and Mississippi also see increases in admissions above what was expected, while in Louisiana the rise in admissions above the control occurs well before the adoption of the TIS law, and in fact actual growth in the admission rate halts more or less when the law goes into effect. There are a few other states that have suggestive results—perhaps Arizona and Georgia see a lagged rise in incarceration due to TIS, as may Tennessee²⁷—but by and large most states see little impact from the adoption of TIS.

Assuming that the divergences in Connecticut, Louisiana, Missouri, and Mississippi are causal and due entirely to the adoption of TIS laws, they imply that US prisons held about 29,000 more prisoners than they otherwise would have in 2010, which comes to an increase of about 2%, given that the actual state prison population in 2010 was about 1.36 million. The state-level impacts were greater—prison populations in 2010 were about 20% higher than the synthetic control in

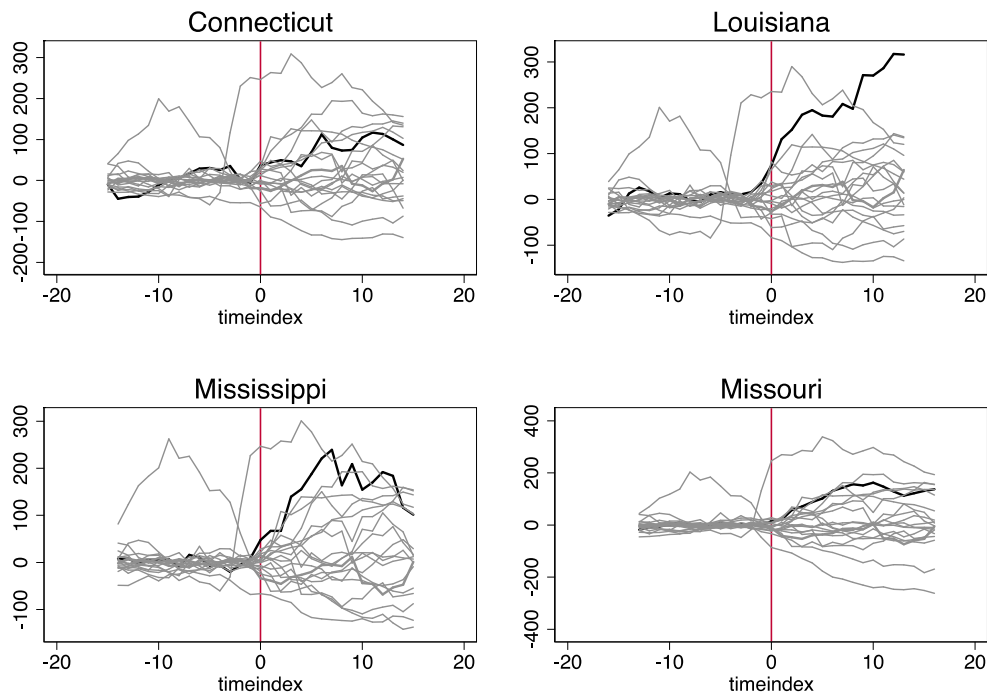
²⁷ A TIS law need not have an immediate impact. If all people convicted of index violent crimes were already serving, say, 50% of 10 year sentences, then no impact of a TIS law increasing parole eligibility to 85% would show up until six years after the law was adopted, assuming that it was not applied retroactively (so that those admitted prior to adoption were still paroled under the 50% rule, which need not be the case). Nonetheless, given how short so many prison sentences are, even for many violent crimes, the lag in change undermines the claim that the TIS law was responsible for much if any of the change.

Connecticut, 57% higher in Louisiana, 37% higher in Missouri, and 17% higher in Mississippi.²⁸ If we add in the entirety of the net increases in Arizona, Georgia, Oklahoma, South Dakota, and Tennessee as well, the total national impact is about 4%, which is still not an overwhelming shift.

Of course, it is worth asking if the effects identified for Connecticut, Louisiana, Missouri, and Mississippi are causal or random. Unlike the usual panel models, SCM cannot estimate conventional standard errors, since it examines each treated state separately. Instead, I run a series of “placebo” tests. Louisiana, for example, adopted its TIS law in 1997. To generate placebo tests for Louisiana, I take the 19 states in the control group and run an SCM model on each of them, using 1997 as the treatment year. Since these states didn’t adopt a TIS law, the relationship between the real and synthetic prison populations shouldn’t change in 1997, and any such change that does appear should, in theory, be spurious. Figure 3 provides the results, which are presented slightly differently than in Figures 1 and 2—rather than reporting the real and synthetic results together, I plot the difference between the two for a particular treatment state and its relevant placebos. For Louisiana, if the impact of the TIS law really is causal, we should expect to see Louisiana’s line hover around zero until 1997 (the “treatment” year) and then rise upwards as the real and synthetic measures diverge. If the effect is real, we should also expect the placebo tests to hover around zero both before and after 1997.

²⁸ All these “departures from the estimated counter-factual” measurements should be viewed as fairly noisy: by no means am I claiming that the synthetic controls are precise estimates of what prison populations would have been but for the TIS laws. But they provide a useful ballpark figure.

Figure 3: Placebo Results for Connecticut, Louisiana, Missouri, and Mississippi



Two features stand out in Figure 3. First, especially for Connecticut, it is hard to distinguish its effect from noise. In fact, the only state that seems to pull away strongly from the placebo tests is Louisiana. Second, it's immediately clear that the placebo effects tend to cluster around zero in the early years but then become much less stable in the 1990s. This could reflect two different issues, each interesting in their own right. First, it could mean that the variables I included are a close proxy of what was driving prison populations in the 1980s and early 1990s, but less so from the 1990s onward. This is a plausible concern, since it's not unreasonable to assume that what drove prison populations while crime was rising through the early 1990s need not be the same as what was driving it as crime steadily fell from the 1990s onward. The second possibility is simply that state prison populations became more idiosyncratic in the 1990s and 2000s. These are not unrelated ideas: without the common experience of rising crime during the 1990s, state incarceration rates may have turned more heavily on more-local factors. [Note to readers: I plan to dig deeper into these two theories as this paper progresses.]

Conveniently for me, the noisiness of the placebo results only further supports my hypothesis that the impact of TIS laws was slight. As Figure 3 shows, even states that did not adopt TIS laws generally (though not always) appear to see their real prison populations grow faster than their synthetic counterparts in the 1990s, suggesting (though by no means proving) that at least some of the impact we are seeing in Figure 1 is ephemeral.

Finally, note that both New Jersey and New York (a state where the VOI/TIS program played a significant role in driving adoption) see sharp *declines* in their incarceration rates right around

the time that TIS laws are adopted (and Ohio levels out more than the synthetic model would have expected). This should not be seen as a causal effect, that the adoption of the state's TIS law *led to* a decline in prison population, but they suggest a reason why many federal grant efforts will fail, especially when it comes to prisons: they target the wrong actor. I'll return to this in Part 4.

4. Discussion

At first blush, these results seem to tell a fairly simple story: the impact of TIS laws are slight, and they are concentrated in just a few states. These laws thus appear to have had little impact on state sentencing outcomes, and thus tell a cautionary tale about the federal government's ability to "bribe" states to act more punitively. As we dig a little deeper into the results, however, things become a bit more complicated. The "simple story" is likely by-and-large correct, but there are a few important nuances and complications that deserve a bit more attention.

To start, the most obvious rebuttal to my central argument here is that I haven't really shown "federal funding doesn't have a big impact," but rather simply that "the feds backed the wrong program in VOI/TIS." As someone who has argued for federal funding in other areas of criminal justice,²⁹ I'm not unsympathetic to this retort. However, my guess is that there is a more interesting issue lurking here.

Tellingly, it isn't just that the federal-influenced states saw little change, it's that even those that did not view the VOI/TIS program as having any impact saw little to no change.³⁰ This points to a broad idea that state-level reforms, adopted with or without federal incentivization, may often have surprisingly minor effects. As my work has shown, the main driver of prison growth over the 1990s and 2000s—when these TIS laws went into effect—was an increased willingness on the part of prosecutors to file more and more felony cases even as the pool of those arrested for crimes declined.³¹ And prosecutors appear to be relatively immune to pressures from outside the counties that elect them.

Here's a separate example that shows a similar local-indifference-to-state-law effect in another context, providing more evidence of prosecutorial independence. In 1973, New York State adopted the Rockefeller Drug Laws, at the time the harshest drug laws in the country. Figure 4 plots the number of people in New York State prisons convicted of drug crimes from 1965 to 2013. What is immediately striking is that the number of people in prison for drugs ultimately *fell* in the first decade after the Rockefeller Drugs Laws went into effect: a tougher sentencing law, just like

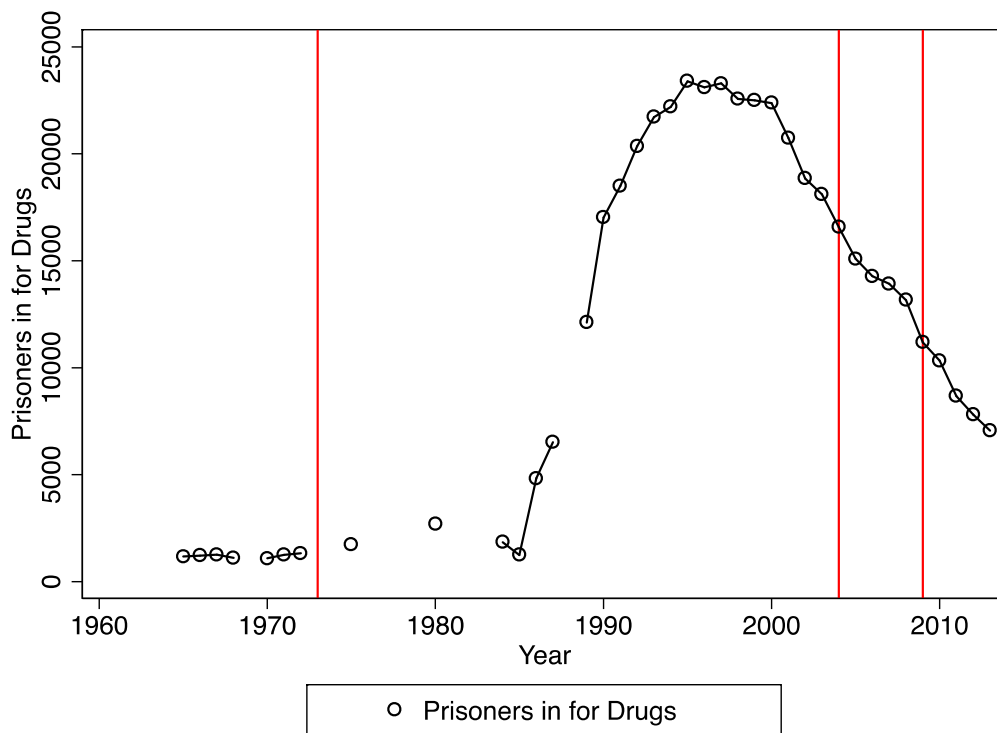
²⁹ I believe that the federal government should massively subsidize indigent defense. While state and local governments spend about \$200 billion on criminal justice overall, they allocate only about \$4.5 billion to indigent defense, even though about 80% of those facing prison or jail time qualify for a government-provided lawyer. A federal grant program of just \$5 billion per year would more than double the funding of public defenders, while having close to no impact at all on the overall federal budget. See <https://www.nytimes.com/2016/04/30/opinion/a-mockery-of-justice-for-the-poor.html>; Pfaff, Locked In.

³⁰ One might expect "true believer" states that adopted TIS laws even without federal prodding to see more of an effect than those that had to be encouraged, but no such effect appears.

³¹ Pfaff, Locked In; Ga St L Rev; SSRN.

TIS, that had no apparent effect on incarceration. When drug incarcerations rise in 1984, it was because crack was exploding across cities in New York and local prosecutors suddenly turned to the Drug Laws for local reasons. This idea of prosecutorial indifference to state-level laws is further reinforced by the fact that the number of people in state prison on drug charges started to decline in 1997, years before the first minor reforms to the Drug Laws in 2004 (the second vertical line) and the more substantial reforms in 2009 (the third vertical line). Note, too, that the decline doesn't seem to vary in the wake of either reform bill. Prosecutors drive incarceration, and broadly speaking prosecutors appear fairly non-responsive to many state-level reforms, whether encouraged by the feds or not.

Figure 4: The Rockefeller Drug Laws and New York Drug Inmates, 1965-2013



In fact, Louisiana presents an interesting case here. While its prison population does appear to grow more rapidly in response to the TIS law, its annual admissions to prison actually level off right after adoption. A significant part of prison growth thus seems to be driven by people admitted prior to 1997, under the pre-TIS regime, suddenly finding their parole options limited, a claim that has been made several times in recent debates over proposed reforms to Louisiana's sentencing laws.³² The exact mechanics of why prosecutors in Louisiana—generally viewed as being among the harshest and toughest-on-crime prosecutors in the country—would respond to the TIS

³² See, e.g., <http://www.vote-nola.org/vote-blog/louisianas-parole-reform-law-continues-a-positive-trend-in-criminal-justice-reform>.

law by appearing to slow down the rate of admissions is unclear, but the results in Louisiana certainly indicate that we need a better understanding of exactly how prosecutors respond to legislative changes beyond “tougher laws lead mechanistically to longer sentences”.³³

The feds could conceivably shift their attention away from state-level policy to target prosecutors more directly, but this may be unlikely. We *are* seeing federal efforts to shape police outcomes this way, by threatening to take away federal grants from cities that maintain “sanctuary city” policies, and there has been at least one policy reversal as a result.³⁴ But prison reform appears to remain focused on state policies for now. Moreover, since prosecutors are directly elected by the county, the budgetary politics of their offices are not immediately clear and have been poorly studied. It’s possible, however, that prosecutors would generally ignore the budget implications of their decisions, making it harder to “bribe” them.³⁵

New Jersey and New York, which both saw prison populations decline at the time that states adopted TIS laws, also raise some interesting conceptual issues that further highlight some of the challenges that state-level reforms face. That a state’s prison population would decline after adopting a tougher sentencing law seems counter-intuitive. For both states, part of it could just be crime trends: both saw sharp drops in violent crime rates during this time, so perhaps the drop in crime offset any rise in time served by those convicted of violence. In theory, however, the synthetic control, which includes measures of violent crime, should account for the impact of any crime decline.

Instead, the results in New Jersey and New York may point to a possible form of endogeneity. It may not be a coincidence that these two strongly-Democratic states adopted TIS laws when they had Republican governors (Christine Todd Whitman in New Jersey in 1997, and George Pataki in New York in 1995). These laws could have been attempts by more-conservative state officials

³³ Bill Stuntz, for example, has argued that prosecutors likely have their own sense of what the just sentence is for a case, and thus won’t seek any more time in a plea deal even if as the statutory maximum rises. In fact, he suggests that sometimes prosecutors may view additional time as a *negative*. Stuntz, *Plea Bargaining/Shadow*.

³⁴ Miami-Dade’s mayor agreed to end its sanctuary city policy to avoid losing over \$300 million in grants. <https://www.usatoday.com/story/news/nation/2017/02/17/miami-dade-county-grapples-sanctuary-city-president-trump-threat/98050976/>. Miami spends over \$3 billion on policing, and has a budget of over \$7 billion. That \$300 million hit is not irrelevant, but it also needn’t be dispositive. I would expect many cities will resist the threat to funding. This has happened before, such as the thirty-three states that have opted to take a 10% cut to federal criminal justice aid rather than adopting the sex offender registry system mandated by SORNA.

³⁵ This is not a fanciful claim. In one interview, a local district attorney in California talked about the costs to the county of death penalty cases: crumbling infrastructure, poor sewer systems, underfunded libraries. Yet he consistently talked about these cases in the passive voice—he expressed frustration at the fact that his county kept “catching” death penalty cases from nearby Sacramento—without taking any responsibility for the fact that it was his decision to file capital charges in the first place that created these harms. [Source.]

to address concerns they had about more-local officials acting less punitively than the state officials desired.³⁶ Thus perhaps the goal in New York was less “increase the prison population” and more “prevent the more-liberal cities from cutting incarceration too quickly.”

If this is right, and if this effect exists outside of just New Jersey and New York, it may mean that I am understating the impact of TIS laws—this story implies that they are more likely to be adopted when the state prison population is on the verge of trending downward. There are, however, three reasons not to be particularly alarmed in this context. First, if the synthetic control contains all the relevant variables, it should show that unrealized-because-of-the-TIS law decline: one appeal of SCM is that it should at least mitigate, though by no means cure, the challenges posed by endogeneity.³⁷ Second, the no-effect states need to confront Occam’s Razor: which is more likely, that TIS laws had no real effect, or that their effect perfectly offset whatever decline in severity was happening at more-local levels? And third, it’s not entirely clear that prosecutors became less severe over this time; as my work has shown, even as crime and arrests fell, over the entirety of the 1990s and 2000s prosecutors filed an increasing number of cases in felony court.³⁸

Finally, whenever I argue that the federal government’s impact on criminal justice outcomes is slight,³⁹ I often get asked “what makes criminal justice so different from transportation or education, where federal funding seems to play a much bigger role?” In transportation, for example, the threat to take away federal funds drove every state to adopt 55 MPH speed limits and raise the drinking age to 21.⁴⁰ And Race to the Top grants are thought to have shaped state education policy, regardless of those policies’ impact on educational outcomes.⁴¹ Two important differences, however, stand out.

First is just scale. Federal transportation grants make up 25% of state highway funding, and federal education grants are almost 10% of elementary and secondary school spending.⁴² Conversely, federal grants are only about 2% to 4% of state criminal justice spending; as we saw in Table 1, the annual impact of TIS grants was likely far too slight to have a big effect. This will likely be a persistent issue in criminal justice policy. The entire federal DOJ budget is about \$30 billion, while states spend \$50 billion just on prisons, and state and local governments spend nearly \$200 billion on criminal justice. The feds often simply can’t offer enough to sway states. This was what many states that did not adopt TIS laws said, that the total grant amount simply didn’t make sense

³⁶ This is more likely true in New York, where local prosecutors are independently elected at the county level, than in New Jersey, which is one of four states where the governor ultimately appoints the local district attorneys (through the office of the state attorney general, who the governor of New Jersey appoints as well).

³⁷ It will never cure this problem if only because the synthetic control will always be under-specified. But by trying to create as close to a “randomized” control as possible, it should at least weaken the effect. This has been shown to be the case with matching algorithms (see, e.g., Ho et al.), so it should hold for SCM as well.

³⁸ Pfaff, *Locked In*; *Ga St L Rev*; SSRN.

³⁹ See, e.g., Pfaff, *Hastings L J*.

⁴⁰ <https://www.theatlantic.com/politics/archive/2014/07/four-times-the-government-held-highway-funding-hostage/454167/>.

⁴¹ <http://educationnext.org/results-president-obama-race-to-the-top-reform/>.

⁴² <http://www.pewtrusts.org/en/research-and-analysis/analysis/2015/02/24/funding-challenges-in-highway-and-transit-a-federal-state-local-analysis>, <https://census.gov/content/dam/Census/library/publications/2016/econ/g14-aspef.pdf>.

from a cost-benefit perspective; states that have accepted a cut in federal aid for failing to comply with SORNA have said the same thing.

If the federal government decided to aim its funding at prosecutors, the math changes slightly. State and local governments spend about \$6 billion on prosecutors.⁴³ The impact of federal funding on this much smaller amount could be greater; we have seen at least a few successful efforts by the Trump administration to withhold relatively small (absolute) amounts from city governments over policing issues. But again: we have no good data on what drives prosecutorial policy or what incentives, budgetary or otherwise, have the biggest impact on their decisions. But we have

With education, where the share of federal spending is less impressive than in transportation and closer to what we see in criminal justice, I wonder if the story is slightly different. There is simply more consensus about the goals of education than of criminal justice. Even states that did not apply for Race to the Top funding said they felt compelled to keep up with states that did, since all states want to be seen as providing excellent education.⁴⁴ No such common goal exists in criminal justice, where there is substantial disagreement over how harsh we should be and even what the fundamental goals of the system are (deterrence? retribution? rehabilitation? something more restorative?). As a result, federal funding in criminal justice is less likely to be able to capitalize on pre-existing goals and interstate competitiveness in the way that education funding was.

5. Some Broader Lessons for State-Level Analysis of Prison Populations

[In this section, I want to look a bit more closely at the specific results from the SCM models to see what they mean for empirical work on state-level prison and criminal justice outcomes. A fairly quick look at the results suggests that while each “treated” state had a pool of 22 possible “control” states from which to create its synthetic counterpart, most synthetic controls included only a handful of the control states, setting the weights to zero for most states. This is perhaps not surprising, given the heterogeneity in state prison outcomes (some states saw prison populations rise steadily from 1980 to today, others leveled out in 2000, others rose until 2010 and then declined, and so on). Yet it means that most empirical estimates produced by more-conventional regression techniques are likely turning on a handful of comparisons and thus are less stable than they may initially appear.]

6. Conclusion

⁴³ <https://www.bjs.gov/content/pub/pdf/psc07st.pdf>. This report is from 2007—which is the last year for which the BJS has nationwide data on prosecutorial budgets. The list of state reports at the BJS grows every year, as on-going budget cuts make it hard for the institution, which does fantastic work, to keep up with all that it is supposed to produce. We are often flying blind when it comes to criminal justice data, and it is all entirely self-imposed.

⁴⁴ <http://educationnext.org/results-president-obama-race-to-the-top-reform/>.

At the very least, this paper has shown that TIS laws had a limited impact on total prison populations, and perhaps even a negative one on prison admissions. As long as federal funding is aimed at the state level, which seems likely when it comes to corrections, the impact of any bribe or threat will likely be slight.