

*The Use of Incarceration in Canada: A Test of Political and Social Threat Explanations on the Variation in Prison Admissions across Canadian Provinces, 2001–2010**

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Recent scholarship has indicated that political and ethnic threat theories—which maintain that the use of prison is not only determined by the extent of crime in society but also by various features related to power, ideology, and access to resources—provide powerful accounts as to why the use of punishment varies within and between societies. However, no study to date has tested these theories within Canada, a country in which such theories are quite plausible. This study begins to fill this void by assessing these theoretical claims using a pooled time series analysis of the variation in imprisonment rates across Canadian provinces from the years 2001 to 2010. After accounting for several measures including charge rates, the results show that Canadian incarceration rates are largely driven by ethnic threat. The size of the Aboriginal and visible minority populations across each province are the most significant determinants of the variation in punishment. Furthermore, we find a nonlinear relationship consistent with a political version of the threat hypothesis. Results, however, do not support political accounts which stress the power of right-wing parties or a conservative public.

Introduction

Incarceration is the most severe sanction imposed upon the citizens of the vast majority of Western nations. Yet, countries appear to vary greatly in their willingness to levy such sanctions. Data on incarceration evince substantial variation in its use across jurisdictions and over time. In 2009, for example, the United States had an imprisonment rate of 760 people per 100,000, while the comparable rate for Canada was just 116 (Lappi-Seppälä 2011). While these differences are sizable, within-country variations are even greater. Recent statistics from the United States, for instance, show that Louisiana had an imprisonment rate of 853, while Maine had a rate of just 151 per 100,000 residents (Sabol, West, and Cooper 2009). Similar figures in Canada show that prison admission rates vary substantially across provinces, although they are consistently much lower. For example, prison admission rates in the Prairie Provinces (Saskatchewan, Manitoba, and Alberta) are typically between two and three times higher than comparable rates in Ontario and Quebec (about 30 per 100,000 versus, 10, respectively), and most provinces have seen a rise in their

admission rates over the last decade. What factors can help us understand why such variation in imprisonment occurs over time? Undoubtedly, we will need to go beyond simple legalistic accounts to explain these shifts in imprisonment across Canada given that *crime rates have consistently fallen in all provinces since 2001*.

Surprisingly, we know very little about why such variation exists. Conventional understandings of these shifts suggest that differences across space and time in the use of punishment are largely a function of fluctuations in crime; however, a number of studies suggest that other factors play an important role. In particular, these studies have focused on the influence that political ideology and ethnic divisions have on the use of incarceration. Surprisingly, though, few studies have attempted to test these assumptions outside the U.S. context and no study has closely examined the use of incarceration across Canada. This study aims to fill that void in the literature by examining the variation in incarceration within Canadian provinces between 2001 and 2010.

A number of alternative theoretical accounts have been advanced to explain variation in the use of punishment, narrowly, and the maintenance of social order in modern society, more broadly, that may help us better understand the use of imprisonment in Canada. Scholars concerned with the maintenance of social order have long argued that the threat of sanctions is a necessary component to maintain social stability even in modern, progressive societies (Lenski 1966; Tilly 1992). More recently, however, scholars have moved away from such instrumental explanations and have instead stressed the role of power and politics in determining the nature of punishment in society (e.g., Beckett 1997; Chambliss 1994; Fording, Soss, and Schram 2011; Garland 1990; Jacobs and Carmichael 2001; Savelsberg 1994; Sutton 2000). Politicians in both the United States and Canada have been able to substantially influence public concern about the crime problem by magnifying public anxieties about the issue. Beyond partisan rhetoric, studies on the variation of punishment across U.S. states have provided concrete evidence that political ideology is an important driver of variations in the use of prison (Jacobs and Carmichael 2001; Jacobs and Helms 1996; Jacobs, Malone, and Iles 2012; Smith 2004). It is unclear whether similar partisan attempts to influence punitive responses to crime have been successful in Canada. We will consider this possibility here.

A separate yet connected theoretical stream extends this political account by arguing that variations in punishment are due to the presence of a sizable ethnic minority population. Scholars advancing this claim suggest that majority group members are threatened by a large subordinate group and will use their political and economic power to ensure that their claim to a disproportionate share of societal resources remains intact (Blauner 1972). Arguably, one mechanism used to ensure such an advantage is a strong criminal justice system,

which disproportionately processes members of the minority population (Walker, Spohn, and Delone 2002).

A number of empirical studies have supported such claims. Specifically, scholars in the United States have identified significant associations between the size of the minority population and police expenditures (Jackson 1989; Nalla, Lynch, and Leiber 1997), the size of municipal police departments (Carmichael and Kent 2014; Holmes et al. 2008; Jacobs 1979; Kent and Carmichael 2014; Kent and Jacobs 2005; Liska, Lawrence, and Benson 1981; McCarty, Ren, and Zhao 2012; Sever 2001; Sharp 2006; Zhao, Ren, and Lovrich 2012), the jail population (Carmichael 2005), incarceration rates (Jacobs and Helms 1996), the harsh sanctioning of juvenile offenders (Carmichael 2010; Carmichael and Burgos 2012), and the application of the death penalty (Jacobs and Carmichael 2004). Unfortunately, we must rely heavily on research addressing the connection between minority group size and punitiveness in the United States because few studies examine this connection in the Canadian context. The limited evidence that does exist suggests that the two factors are linked in Canada as well.

Canadian criminal justice scholarship has repeatedly shown that certain minority groups, especially Blacks and Aboriginals, are overrepresented in the criminal justice system (Wortley 2003). The disproportionate involvement of Aboriginals in the Canadian justice system has been particularly troubling: Even though they make up just 4.3 percent of Canada's population, they have accounted for roughly 18 percent of federal and 25 percent of provincial prison admissions for the past decade (Statistics Canada 2010, 2012, 2013). This level of minority group overrepresentation among the incarcerated population is even greater than that experienced by blacks in America (Bureau of Justice Statistics 2011; United States Census Bureau 2011). But clearly, disproportionate involvement of minorities in the Canadian criminal justice system does not *necessarily* equate to discrimination, rather, higher rates of police contact or incarceration could signal higher rates of criminal involvement on the part of minorities.

The empirical evidence, however, does not support such a view. Research examining this question has consistently pointed to both over policing and harsher sanctioning of minorities even after legally relevant factors are accounted for. For example, minority youth are more likely to be questioned by police across Canada (Fitzgerald and Carrington 2011), and two surveys of Toronto residents—one carried out in 1994 and the other in 2007—indicate that blacks are much more likely than whites to be pulled over while driving, or while walking, and to have been searched by the police, even after controlling for legal confounders (Wortley 2003; Wortley and Owusu-Bempah 2011). Similarly, a survey of roughly 3,500 youth in Toronto indicated that 40 percent of blacks had been stopped and searched in the past two years, compared with 17 percent of whites (Wortley and Tanner 2005). The same survey found that

65 percent of black drug dealers had been arrested compared with 35 percent of white drug dealers (Wortley 2003). Aboriginals also face adverse circumstances due to their ethnicity in contact with the police (Hylton 2002). For example, Aboriginal youth in similar circumstances to non-Aboriginal youth are less likely to be let off with a warning by police (Havemann et al. 1985).

Discriminatory treatment of minorities seems to extend beyond initial contact with law enforcement. Two studies in Toronto found that blacks are much more likely to be denied bail and spend lengthy terms in pretrial detention (Commission on Systemic Racism in the Ontario Criminal Justice System 1995; Kellough and Wortley 2002; Roberts and Doob 1997). This has also been found to be true for Aboriginals in many Canadian provinces (Hamilton and Sinclair 1991; LaPrairie 1996). When it comes to court sentencing, results are less consistent. For example, Roberts and Doob (1997) found that blacks often received harsher sentences than did whites, but this depended on the offense type observed. Looking at sentencing outcomes for Aboriginals compared with non-Aboriginals, LaPrairie (1990) found that the former may actually receive less severe punishments when they are charged with the most serious types of crime. Despite this finding, there is evidence that Aboriginals received disproportionately harsh sentences (overall), including the more frequent use of prison, even when controlling for offence severity and prior record (Alberta Task Force 1991; Hamilton and Sinclair 1991; LaPrairie 1996). In short, though research on the topic is rather sparse and not entirely consistent, it appears that minorities—especially Aboriginals—are treated more severely than are whites by the Canadian criminal justice system.

What drives such disparate action against minorities in the Canada criminal justice system? Despite conventional portrayals that Canada is less concerned with race and ethnicity than its neighbor to the south, public opinion surveys suggest that negative racial and ethnic stereotypes linking minority group members to criminal and/or violent tendencies persist in Canadian society (Kalunta-Crompton 2012). Studies examining group disparities in the U.S. criminal justice system often identify such negative racial/ethnic stereotypes as the source of discriminatory practices against minority group members, and minority threat theorists argue that these negative stereotypes and the subsequent discrimination fluctuate with the size of the overall minority population within particular jurisdictions. To test these assumptions in the Canadian context, we will see whether the size of the minority population within Canadian provinces influences aggregate-level differences in the use of incarceration.

Theory and Research on the Variation in Imprisonment

A number of explanations have been advanced to further our understanding of the fluctuations in the use of incarceration. Here, we will focus on two

primary theoretical accounts. The first is the more conventional and focuses on changes in the frequency of serious crime to account for variations in incarceration. The second places more stress on extralegal factors. Beyond these two theoretical approaches, we will also consider (in a more limited way) other possible account for changes in prison use.

Crime

Given that imprisonment is a sanction imposed on those charged and convicted of violating criminal law, variation in incarceration should be driven largely by differences across jurisdictions in the number of individuals apprehended for violating the legal code. The logic behind this is straightforward: More arrests and criminal charges, particularly for more serious crimes, should mean more people subject to incarceration. However obvious this may seem, the empirical research to support this assumption is somewhat mixed. Several studies looking at differences either between countries or between jurisdictions within a country have found crime rates to be an important determinant of imprisonment rates (Carroll and Cornell 1985; Lynch 1988; McGarrell 1993; Michalowski and Pearson 1990; Sorensen and Stemen 2002), while others have found a weak or inconsistent association (e.g., Bowker 1981; Sutton 2000; Young and Brown 1993). In the only Canadian study published on this topic, Sprott and Doob (1998) found that the relationship between crime rates and imprisonment rates across the provinces did not reach statistical significance in most of their models. Given that such a strong logic exists for this explanation and that most studies appear to find support for it, we anticipate that crime will be positively associated with the use of incarceration.

Political Ideology

Theoretical work has long argued that the use of punishment is inherently political (Foucault 1977; Garland 1990; Savelsberg 1994), and a number of studies have supported such claims with empirical research. Those who explore the association between politics and criminal sanctioning have often pointed to the important role that political ideology may play in producing different criminal justice policies and practices and how such policies can lead to substantial shifts in the use of punishment. Indeed, studies looking at between-state variation in the use of prisons across the United States have shown that ideological differences are one of the most important explanatory variables (Greenburg and West 2001; Jacobs and Carmichael 2001; Smith 2004; Sorensen and Stemen 2002). No study to date has tested the association between politics and imprisonment within Canadian provinces.

But why should political ideology influence the use of incarceration? Scholars have offered some answers to this question. Most point to ideological

differences about human nature and rationales for criminal behavior. In particular, scholars have argued that conservatives tend to view criminal activity as a result of reprehensible individual choices made by rational individuals (Garland 1990, 2001; Jacobs and Carmichael 2001; Thorne 1990; Tonry 2012). These individuals will only desist from crime, it is believed, if there are sufficient costs associated with the commission of crime. According to this logic, increasing the severity of sanctions is the only mechanism capable of reducing criminal involvement. Thus, for conservatives, crime control strategies largely focus on deterrence and retribution. Alternatively, liberals tend to highlight social ills that produce criminal activity (Thorne 1990). In particular, broader social problems such as poverty and inequality are seen as the real causes of crime and rehabilitation is the preferred punitive strategy for those who violate the law. Survey research has provided strong evidence that such differences between conservatives and liberals exist by consistently showing that liberals are less likely to support severe sanctions for criminal acts than conservatives (Langworthy and Whitehead 1986; Scheingold 2010; Taylor, Scheppele, and Stinchcombe 1979; Tyler and Boeckmann 1997; Van Dijk and Steinmetz 1988).

Given these differences, it is not surprising that empirical studies examining variations in the use of punishment have identified a significant association between political ideology and punitive outcomes such as imprisonment. Jacobs and Carmichael (2001), for instance, provide convincing evidence that U.S. states with the most conservative citizenry have the highest imprisonment rates. But are such partisan considerations relevant in the Canada context? Even a cursory look at recent political developments in Canada suggests this may be possible. One of the first major pieces of legislation advanced by the current Conservative government was an omnibus crime bill that takes a much more punitive stance toward crime. Ultimately, the applicability of such a political is an empirical question that we test here. If this account is relevant in Canada, we should see a positive association between the strength of conservative ideology within a province and the use of prisons.

Political Leaders

It is also plausible that political preference for more severe sanctions may be imposed from above. Several studies have argued that it matters who is in positions of power, for reasons beyond the pressure put on them by citizens of a given political ideology (Smith 2004). Comparing national incarceration rates across five Western societies including Canada, Sutton (2000) found that countries controlled by a right-leaning political party had significantly higher incarceration rates. Most studies on this subject use American states as their unit of observation, and commonly point to one of two explanations as to why the political orientation of leaders might matter, if not both. First, they point to the

fact that right-leaning politicians have more to gain by politicizing issues of law and order and portraying liberals as “soft on crime” (Jacobs and Carmichael 2001; Smith 2004; Yates and Fording 2005). Secondly, some claim that such a discourse is used by conservative politicians because it carries an antimorality sentiment without being overtly prejudiced, given that the public often sees the crime problem as a minority problem (Beckett 1997; Pickett and Chiricos 2012; Scheingold 2010). Conservatives use the issue to gain the support of individuals with more racist sentiments (Beckett 1997; Jacobs and Carmichael 2001; Jacobs and Jackson 2010). By tapping into these beliefs, conservative politicians are able to broaden their base beyond those who benefit from conservative economic policies that often benefit the affluent.

Once in office, Republican politicians appear to follow through with their campaign promises. A number of empirical studies have examined the effects of political leaders on the severity of sanctions imposed on dissidents. Controlling for other important factors, Smith (2004) found that U.S. states where conservative politicians were in control had higher incarceration rates. A related study by Jacobs and Helms (1996) also found that imprisonment rates have grown faster during Republican presidencies. Most within-country examinations of incarceration use, however, focus on variations across U.S. states. It is less clear, though, whether provincial politicians in Canada can influence criminal outcomes within their jurisdictions to the state extent that state officials can in the United States given that, unlike the United States, all criminal law is written at the federal level.

Like their U.S. counterparts, right-wing parties in Canada have, in recent years, begun to politicize the issue of crime and punishment. In fact, since the federal campaigns leading up to the 2006 election that installed a minority Conservative government and later to a majority government in 2011, the Conservative Party has made anticrime measures a cornerstone of their political and legislative agenda. This is somewhat surprising given that crime rates in Canada have been exceptionally low over the last decade. Lower crime statistics, however, did not dispel Conservative politician's anticrime agenda. In fact, Conservatives repeatedly raised fears of a *growing* crime problem in the country. While he was Minister of Public Safety, for instance, Vic Toews declared that “unfortunately, our safe streets and healthy communities are increasingly under threat of gun, gang and drug violence” (Doob 2012).

It is important to note that, like those in the United States, Conservative politicians in Canada fulfilled their anticrime campaign promises once they gained control of the government. While leading a minority government, the Conservatives passed numerous smaller bills that increased sanctions on criminal offenders but once they achieved a majority, their Safe Streets and Communities Act (AKA Omnibus Crime Bill) was passed. The bill contains many “tough on crime” provisions seen in the United States including increasing

maximum prison sentences for certain drugs, such as marijuana; the imposition of mandatory minimum sentences for certain drug and sexual offences; harsher sentencing for certain youth offenders; the elimination of pardons for serious offenders; and restricting the use of conditional sentences (Bill C-10 2012). In short, right-wing politicians in Canada have politicized crime in a way very similar to their America counterparts. We will see whether these partisanship tactics and legislative maneuvering have produced shifts in Canadian incarceration rates equally across the country.

Ethnic Threat

Apart from being a direct response to crime and political arraignments, Sociologists concerned with theories of punishment have long argued that social control strategies favor the privileged within society (Dahrendorf 1959; Turk 1969). These scholars assert that dominant group members have a disproportionate influence on coercive strategies adopted by the state because power is distributed unequally in ways that favor majority group members (Blalock 1967; Blumer 1958). These same scholars claim that elites use their disproportionate power and societal influence to regulate threats to dominant group interests.

Why would dominant group members respond to minority presence in such a way? A number of scholars have tried to answer this question by pointing to negative racial stereotypes that view minorities as violent and criminogenic. A great deal of research in the United States, for instance, has shown how stereotypes of racial and ethnic minorities portray them as violent and criminal (e.g., Quillian & Pager 2001) and how the presence of large minority populations increases white's fear of crime (Liska et al. 1981). Given such views, threat theorists claim that majority group members will use their disproportional influence over the criminal law and the criminal justice system to support more punitive policies and practices to control those groups perceived as threatening. Broadly speaking, traditional threat theorists suggest that a positive relationship should exist between minority group size and the level of social control.

Empirical evidence has largely supported threat expectations. American studies have found, for instance, that after controlling for the level of crime, the size of the minority population has been associated with larger local police forces (Jackson 1989; Kent and Jacobs 2005), greater spending on corrections (Jacobs and Helms, 1999), longer sentences (Chiricos and Crawford 1995; Myers 1990), and higher incarceration rates (Beckett and Western 2001; Jacobs and Carmichael 2001; Smith 2004). In fact, scholarship has consistently shown that the presence of a sizable minority population is the single most important variable explaining variation in the use of incarceration (e.g., Carroll and Cornell 1985; Jacobs and Carmichael 2001; Jacobs and Kleban 2003; Marvell and Moody 1996a; Sorensen and Stemen 2002).

While these studies do not consider the Canadian context, as we have discussed above, the racial schisms that underlie threat expectations are certainly not unique to the United States. As we mention above, Canada has a long history of discrimination against certain minority groups in general, discrimination which extends to the criminal justice system. Thus, if the ethnic threat hypotheses can be applied to minority groups in Canada, we should see higher incarceration rates in provinces with a large minority population.

Additional Factors

Economic Inequality. While both political and/or ethnic threat explanations have been the primary focus of most studies on the variation in punishment, other factors have been considered. Several have tested the influence of an economic version of the threat hypothesis. This perspective assumes that the concentration of wealth into the hands of a few means that a sizable underclass will likely pose a threat to the economically privileged (Collins 1975; Quinney 1974). To reduce such a threat, the affluent will increasingly rely on various mechanisms of formal social control to try and regulate and control the poor (Carmichael and Kent 2014; Jacobs and Carmichael 2001; McGarrell 1993; Turk 1969). Chambliss and Seidman (1980:33) further this claim when they argue that “the more economically stratified a society becomes, the more it becomes necessary for dominant groups to enforce through coercion the norms of conduct that guarantee their supremacy.” A substantial body of work has assessed the link between inequality and incarceration (see Pettit and Western 2004; Western 2006). However, if it is correct, we should expect to see higher levels of incarceration in the Canadian provinces with the greatest income inequality.

Police and Population. Researchers have also argued that variations in imprisonment rates are influenced by jurisdictional differences in their capacity to detect and apprehend criminals. Thus, the size of the police force should be an important determinant of rates of incarceration (see Marvell and Moody 1996b) because a greater law enforcement presence increases the likelihood that offenders in that locale will be caught and punished. If this is the case, we should assume that provinces with more officers on the street will have higher incarceration rates. Finally, previous studies have shown that population has a positive relationship with levels of social control (e.g., Bordua and Haurek 1971).

Methodology

Measure

To assess shifts in the use of imprisonment within Canadian provinces, we use prison admissions per 100,000 residents. These rates were calculated with

data taken from the Canadian Centre for Justice Statistics' archives. Prison admission rates are a common measure used by scholars to capture variations in the use of incarceration (e.g., Keen and Jacobs 2009; Sorensen, Hope, and Stemen 2003; Jacobs and Helms 2001; Jacobs and Helms 1996). Admission rates indicate how many people are admitted to prison per a given population over a given period of time. We focus our study on those admitted to federal prisons because we want to be able to compare our results as much as possible to those examining the variation in U.S. prison use. Provincial prisons in Canada are roughly equivalent to jails in the United States in that they only house inmate sentenced to relatively short terms (no more than 1 year terms for jails in the United States versus 2 years in provincial prisons in Canada). While understanding variations in the use of provincial prisons (and jails in the United States) is important, here we are concerned with ascertaining why jurisdictions vary in their use of prisons housing those sentenced to the most severe sanctions. Importantly, comparable U.S. studies that assess the influence of racial threat on incarceration examine prisons and jails separately (e.g., Jacobs and Carmichael 2001). Using prison admission rates in federal prisons in Canada as our outcome variable will allow us to more accurately compare our results to the U.S. studies on imprisonment.

It is also important to note that inmates sentenced in one province will not necessarily be housed in a federal prison in that particular province. This means, for example, that a person in a federal prison in Ontario may be there for a crime committed and tried in Quebec. Our measure overcomes this potential problem because the prison admission figures used identify the province that sentenced them to a term of incarceration >2 years, regardless of where they are ultimately housed in the province.

While admission rates are a widely used measure of imprisonment (e.g., Carmichael 2011; Keen and Jacobs 2009; Sorensen, Hope, and Stemen 2003), they are not without problems. The primary concern regarding this operationalization is that it fails to consider sentence length and/or early releases. Another potential problem is that there are different ways to measure prison admissions. That is, there are several reasons that a person can enter a prison. Here, only those sentenced to and then admitted to prisons in the year observed are included (called warrant committals for federal prisons.) This is likely a better indicator of contemporary provincial punitiveness in that year than a total admission rate (Sprott and Doob 1998) because it excludes revocation of conditional releases, which would in effect be measuring prison sentences that could potentially have been handed out many years earlier. Thus, our measure of prison admissions presents the most accurate picture of the extent to which each province sentences offenders to severe sanctions within a given year.

Explanatory Variables

We operationalize variations in *crime* across Canadian provinces using charge rates for all criminal offenses. Typically, studies in the United States use overall crime rates which capture crimes “known to the police.” We opt for charge rates over crime rates or arrest rates as the charge rates more accurately reflect the number of individuals at risk of imprisonment because it suggests they are actually prosecuted for their crimes. Crime rates include crimes for which police have been unable to apprehend a guilty party, whereas arrest rates include arrests for which no charge is pressed. It stands to reason that crime can only influence prison use in so far as there is a person arrested and charged for a particular crime. The charge rate data we use here capture this precisely. It reflects the number of individuals within each province that have been charged with a crime. Annual charge rates are taken from the Uniform Crime Report, available through Statistics Canada.

We assess *minority threat* with two separate measures. Aboriginals are a sizable minority population in Canada; to see whether the presence of this group influences the use of incarceration in a manner consistent with ethnic threat theories, we include their proportional representation in each province.¹ We also operationalize racial and ethnic threat with the percentage of “visible minorities” in each province. The term visible minority is used in Canada to refer to all non-white, non-Aboriginal peoples (Statistics Canada 2008). Though the term conflates a large variety of ethno-racial groups, using it allows us to determine whether Canadians seem equally discriminatory toward minorities in general, or whether the case is exceptionally bad for Aboriginals.²

A number of measures were used to assess political differences across provinces. In the absence of annual public opinion surveys, we gauge *citizen ideology* across provinces using voting patterns in the most temporally proximate federal elections.³ Federal election results are a proxy for how strongly citizens in each province support right- or left-wing views. Data were drawn from an analysis carried out at Simon Fraser University of raw Elections Canada data. The variable is coded as the percentage of voters who voted for a conservative candidate.⁴ A measure of *the ideological position of the political party in power* was also included. Finally, to capture the power of right-leaning parties at the provincial level, we generate a dummy variable coded “1” if the provincial premier is from a conservative party.

To assess economic versions of the threat hypothesis, we gauge provincial differences in economic stratification using the Gini coefficient. This commonly used measure of *income inequality* ranges from 1 (indicating perfect inequality) to 0 (perfect equality). These statistics were taken from Statistic Canada and are based on after-tax incomes. Both the number of *police* in each

province—measured as the rate of police officers per 100,000 people—and *population* estimates were taken from data available from Statistics Canada.

Estimation

To examine shifts in the rate of imprisonment that have occurred within Canadian provinces, we created a ten-year annual time series with data for all ten provinces between 2001 and 2010. Thus, our analysis has a sample size of 100 (10 provinces over a 10-year period). Note that while a longer time series would have been preferable, systematic data for incarceration rates across all provinces were not available prior to 2001. We estimate shifts in imprisonment rates using a fixed-effects panel analysis. This particular estimation technique is regularly employed when conducting an analysis of aggregate, longitudinal data as it produces the most reliable estimates of overtime change within each unit. While a fixed-effects approach has some limitations such as the inability to explicitly consider explanatory variables that do not vary over time, there are significant advantages that make this technique superior to the alternative random-effects approach. The principal advantage of a fixed-effects approach is that it effectively controls for unique, unobserved factors within each province (e.g., cultural differences, diverse political arrangements, variations in police culture, etc.) while simultaneously estimating the influence of the independent variables on the outcome. This is the case because fixed-effects techniques can account for otherwise unobserved factors and make greater claims that such unmeasured effects are not biasing the results.

Various statistical tests were carried out to ensure we used the most appropriate estimation techniques and statistical corrections in an effort to provide the most reliable, consistent regression estimates. First, the Hausman test statistic indicated that a fixed-effects model was more appropriate than a random-effects model. Second, tests for autocorrelation suggest that first-order autocorrelation may be an issue. To correct for this potential problem, all our models include an autoregressive term (AR1). Finally, tests for multicollinearity (VIF scores and the bivariate correlation matrix) did not indicate a serious problem.

Results

Descriptive Statistics

Table 1 shows the means, standard deviations, ranges, and expected signs for all the variables in our analyses. We see from these summary statistics that, on average, each province sentenced 18.7 offenders to federal prison each year per 100,000 of its citizens but that there is substantial variation across provinces. Additionally, in nearly every year for the last decade, Saskatchewan has had the highest charge rates (over 5,000 per 100,000) whereas low rates are

Table 1
Predicted Signs and Descriptive Statistics ($N = 100$ Province-years)

Variable	Predicted Sign	Mean	St. Dev.	Min	Max
Prison admissions per 100,000		18.71	7.30	6.45	35.33
Charge rates per 100,000	+	2,438.17	1,048.08	1,401.28	5,601.95
Right Provincial Premier = 1	+	.53	.50	0	1
% Vote for Right Candidate	+	38.67	13.21	8.8	72.4
% Aboriginal	+	5.23	4.76	.98	15.84
% Visible minority	+	8.62	7.86	.74	25.32
Income inequality	+	.30	.018	.25	.34
Police per 100,000	+	180.87	17.62	146.90	220.50
Population	+	3,238,169	3,835,001	136,663	13,223,789

consistently reported in the Eastern provinces of Ontario, Quebec, Newfoundland, and Prince Edward Island. Each of these provinces has had charge rates at or below 2,000 per 100,000 throughout the 2001–2010 time period.

The geographic concentration of ethnic minorities in Canada is also noteworthy. We see from the table that both visible minorities and Aboriginals are not normally distributed geographically across the country. In fact, there are some provinces where minorities are nearly absent and others where they represent over one quarter of the overall population. The Aboriginal population is more heavily concentrated in the Prairie Provinces (Manitoba—16%, Saskatchewan—14%), whereas the visible minority population tends to be highest in the most populace provinces and the commercial centers of the country (e.g., British Columbia—25%, Ontario—24%, Alberta—15%, Quebec—10%).

Two additional factors are also worth mentioning. First, the political context also varies considerably between provinces. Across the country, about 38 percent of the population has voted for right-leaning candidates during election between 2001 and 2010. This has ranged significantly from a low of less than 10 percent in Quebec to a high of over 70 percent in Alberta. Finally, it is worth pointing out one of the variables considered shows little variation. Unlike the United States, where income inequality is relatively high and differences across states are sizable, Canadian provinces all appear to have consistently low levels of income inequality. Variations over time are smaller still, making it unlikely that economic inequality will produce much change in our outcome.

Multivariate Results

Table 2 presents the results from our pooled time series, fixed-effects models of prison admissions rates across Canadian provinces between 2001 and 2010. Model 1 presents the findings from our base model that includes the control for charge rates as well as our political variables. Model 2 adds both the ethnic and economic threat variables to the base model to assess whether or not these factors influence imprisonment beyond the control for the magnitude of charges and the political context. Our final multivariate model—Model 3—introduces the two remaining controls, population, and police strength.

Our initial model shows that the most conventional explanation for the variation in prison admissions—charge rates—does not reach significance nor does the model provide support for our hypothesis that political context can influence levels of punishment. Neither a conservative citizenry nor provincial control by right-wing parties are significantly related to incarceration rates. It does not appear that a more conservative public or party is able to influence criminal justice outcomes across provinces. The other models in our analyses will allow us to see whether these early results remain consistent when additional factors are considered.

Table 2

Pooled Time Series, Fixed-Effects Regression Estimates for the Rate of Prison Admissions across Canadian Provinces, 2001–2010

	Model 1	Model 2	Model 3
Crime Variable			
Charge rates per 100,000	.001 (.002)	.005** (.002)	.005* (.002)
Political Variables			
Right Provincial Premier	.788 (.907)	.966 (.621)	.787 (.724)
% Vote for Right Candidate	.023 (.058)	–1.229 (.782)	–.534 (.996)
Ethnic Minority and Economic Threat Variables			
% Aboriginal	—	2.621** (.839)	2.927* (1.293)
% Visible minority	—	13.594*** (2.843)	2.796* (1.540)
Income inequality	—	–18.155 (35.425)	–43.965 (41.499)
Additional Controls			
Police per 100,000	—	—	–.006 (.062)
Population ^a	—	—	–.003 (.005)
Constant	7.551	–40.898	19.695
# of Province-Years	100	100	100
Adj. R-square	.803	.903	.906
Chi-square	254.66***	779.23***	780.06***

Notes: * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$. Two-tailed significance tests on all coefficients.

Standard Errors are in parentheses. All models corrected for serial correlation using AR1 term.

^aCoefficient and Standard Errors are multiplied by 1,000 to assist with interpretation.

Model 2 introduces the minority and economic threat variables to the equation. In this model, charge rates reached significance, though with a markedly small coefficient. Again, neither political variable reached significance. The results do show, though, that even after we account for these legalistic and political factors, the size of the visible minority and Aboriginal populations are accounting for the most significant shifts in prison admission rates in Canada. Specifically, the findings indicate that a 10 percent increase in Aboriginals per capita is associated with about 26 more individuals per 100,000 admitted to federal prison. Similarly, provinces with a sizable visible minority population have higher prison admission rates. Overall, this nonlinear finding provides strong support for the threat hypothesis advanced by Blalock (1967) and others.

Our final model includes two additional controls. Results from this model show that neither police presence nor population size can account for differences in rates of imprisonment. Yet, even with these added controls, our results still show a significant relationship between minority presence and levels of punishment. Taken together, the results point to the strong role that ethnic divisions play in determining the extent to which Canadian provinces are willing to impose lengthy prison terms. Little support, though, is found for the more explicitly political factors we test. Finally, it is important to note that the variables in our fully specified models are able to account for roughly 90 percent of the variation in imprisonment across Canada between 2001 and 2010.

Additional Considerations

We considered other plausible explanations and specifications (not shown but available from authors) that did not influence imprisonment rates nor alter our main findings. First, we tested a number of alternative measures of crime including the overall crime rate, violent crime rates, property crime rates, and homicide rates. None of these alternatives to the charge measure used in our analyses produced significant coefficients. This is not surprising given that a substantial proportion of criminal activity does not result in a criminal charge, and without a charge, there is no possibility of punishment being imposed. We also tested a number of other factors such as the poverty rate, the unemployment rate, and the size of the young male population. None of these factors significantly impacted rates of incarceration. We also considered a nonlinear specification of the Aboriginal population and the visible minority population, but the squared terms were never significant. Several interactions were also assessed including one between citizen ideology and the size of the minority populations and another which interacts the right premier dummy with the percentage visible minority variable. These interaction terms never reached the level of significance.

Finally, one variable often examined in studies on imprisonment is not considered in our analyses because it is not relevant to the Canadian context. Namely, several American studies have included differences in sentencing laws and guidelines across states as potential explanatory factors (e.g., Grimes and Rogers 1999; Turner et al. 1999). However, as Sprott and Doob (1998) point out, sentencing guidelines are uniform across Canada, so any variation in imprisonment rate cannot be attributed to them.

Limitations

While the findings presented here offer important insights into the use of incarceration in Canada and, in particular, the significance of ethnic threat in determining its use, an important limitation exists. A more precise way of gauging ethnic threat would ideally involve controlling for race-specific crime rates and incarceration rates to account for the possibility that ethnic minorities may account for a greater share of the crime which could explain their influence on the incarceration rates. Unfortunately, there is an informal ban on the release of race-specific crime statistics in Canada that makes this assessment virtually impossible (see Wortley 1999 for elaboration). This informal ban on race-related statistics has placed substantial limits on research exploring the link between race, crime, and the criminal justice system. Despite these limitations, results presented here provides rather compelling evidence that ethnic threat is operating to influence criminal justice outcomes but highlights the need for better data to test this possibility more precisely.

Conclusion

Scholars interested in the sociology of punishment have long worked to establish a clearer understanding of the underlying mechanism associated with the application of criminal sanctions in modern society. A great deal of research in this area has focused on developing a more nuanced understanding of variations in the use of punishment from one jurisdiction to another. This issue is of vital importance because the neutral administration of criminal sanctions is critical in modern states that build their legitimacy on the notion that all citizens are equal before the law and the presumption that law should be created and administered without reference to race, ethnicity, class, gender, or any other extra-legal factor. If evidence points beyond strictly instrumental explanations for the variations in punishment, it could challenge these powerful notions and thereby threaten the legitimacy of modern states and the rule of law.

In an effort to build on our existing knowledge about punishment in modern society, our study worked to isolate and test a series of theoretically derived factors that may help us better understand why the use of incarceration

fluctuates in Canada. Several theoretical accounts that are commonly advanced in the United States and elsewhere were assessed here to see whether they have relevance in the Canadian context. The most conventional explanation we considered was that jurisdictions vary in their use of incarceration in so far as they differ in the occurrence of crime. Two of the three regression models we estimated showed a positive and significant relationship between levels of crime and punishment suggesting that, at least in part, punishment in Canada is fluctuating with shifts in criminal behavior. While results in the United States (Carroll and Cornell 1985; Lynch 1988; McGarrell 1993; Michalowski and Pearson 1990; Sorensen and Stemen 2002), and the only other Canadian study on variation in incarceration (Sprott and Doob 1998), have produced mixed findings about the association between crime and punishment, it is unclear whether these disparities are due to fundamental differences between Canada and the United States in terms of how they use punishment or if these differences have more to do with the way scholars in other studies measure crime.

But beyond support for this instrumental explanation, what other factors may be influencing variation in incarceration across Canadian provinces? Unlike previous studies of the variation in incarceration across U.S. states (Jacobs and Carmichael 2001; Smith 2004) and cross-nationally (Sutton 2000), our results suggest that differences in prison admission rates across Canada are *not* explained by political accounts such as citizen ideological positions or political control by right-leaning parties. This suggests that criminal justice policy in Canada may be more insulated from overt partisan attacks relative to the United States. One plausible explanation for this finding is that politicians in Canada have historically been less likely to use crime and punishment as a wedge issue to gain votes in electoral contests. It is very likely, though, that future scholarship will find support for political hypotheses. Given that the current Conservative government recently passed their signature anticrime that takes Canada into a decidedly more punitive direction. Given this recent shift in justice policy, future studies of the use of punishment in Canada should consider the influence of politics carefully as it may play a much more important role in the administration of justice going forward.

Our results do, however, point to factors that can account for a shift in incarceration across Canada. Consistent with expectations derived from the majority of previous scholarship on the variation in the use of incarceration in the United States, and from considerations of prior research on the nature of disproportionate minority contact with the criminal justice system within Canada, findings from our analysis show that Canadian provinces with larger Aboriginal populations have higher rates of incarceration. Similarly, those provinces with a large visible minority population also admit more individuals to federal prison. Importantly, these threat findings maintain significance after a

number of important controls are accounted for, including the level of crime. Thus, it appears that minority threat theory is relevant in the Canadian context despite views that the society is less racist. Our findings show that as minority representation grows in Canadian provinces, prison admissions rise in tandem.

Taken together, our results suggest that the use of incarceration in Canada has both similarities and differences relative to the United States. Severe sanctions in Canada do not appear to be tied to partisan politics and citizen attitudes as directly as they are in the United States (at least, not yet). Importantly, low levels of income inequality in Canada appear to ensure that this factor is not responsible for a significant share of the variation in incarceration, as it does in the United States. But similarities between these two countries do exist. Despite claims that Canada does not suffer from the same types of racial and ethnic prejudices as the United States, it appears that ethnic divisions in Canada are responsible for a substantial share of the shifts in the use of incarceration across the country.

ENDNOTES

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¹Data were drawn from the Census, and linear interpolation was used to fill-in missing data for minority populations during non-census years.

²Visible Minority category includes the following groups: Blacks, Chinese, Filipinos, Japanese, Koreans, Latin Americans, Pacific Islanders, South Asians, and West Asians/Arabs.

³This is consistent with both Smith (2004) and Jacobs and Carmichael (2001) who use voting patterns to account for citizen ideology.

⁴Parties counted as right wing were the Conservative Party of Canada for the 2004, 2006, 2008, and 2011 elections and the Canadian Alliance and Progressive Conservative Party of Canada for the 2000 election. Left parties are Liberal, New Democratic, Green, and Bloc Quebecois parties.

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