Taking Rights Seriously in Chile

By Lydia Brashear Tiede
Assistant Professor
University of Houston
Department of Political Science
ltiede@uh.edu

For presentation at the International Political Science Association Annual Meeting
Santiago, Chile
July 2009

Abstract: Legal reforms throughout Latin America, and in particular Chile, have increased the transparency of the criminal justice process and provided new rights to defendants. I ask two questions: Has the government taken rights seriously such that the reforms have had a measurable impact? Have reforms changed citizen behavior? Using an original data set, I test the impact of Chile’s criminal law reform on the rights of criminals as well as the reforms’ effect on citizens’ reporting of crimes. I find that Chile’s criminal law reform has enhanced defendants’ rights by reducing the percent of individuals incarcerated prior to sentence. This reduction signals a significant change in the treatment of criminals who once languished in jail for long periods without adequate due process and in violation of many international human rights standards. The reform also has increased the percent of individuals reporting crimes implying that citizens have sufficient trust in the government’s reform process to seek assistance from legal institutions. I conclude by arguing that the government’s focus on rights has not been misplaced.
If the Government does not take rights seriously, then it does not take law seriously either.

-Dworkin (1977)

Politicians enacting reforms and foreign donors ranging from the World Bank to the U.S. Agency for International Development (USAID) have spent billions of dollars on legal reform projects throughout the world (Carothers 1999; U.S. GAO 2001). The underlying philosophy behind such projects is that improving law and legal institutions solidifies the rule of law in a given country by ensuring that citizens have greater access to justice, speedier and more efficient case processing, and more rights such that all members of society are treated equally. In fact, the theoretical connections between legal reforms and improved rule of law and civil rights are weak and poorly specified. Further, there are few quantitative studies, which directly test the effect of the reform on aspects of the rule of law.

Given the lack of quantitative tests thus far, transformative criminal law reforms enacted in Chile between 2000 and 2005 provide a unique opportunity to test the effects of specific legal changes on aspirations projected by reformers. Importantly, Chile’s criminal law reforms were aimed directly at enhancing the rule of law by making the justice system more transparent, open and efficient, and providing criminal defendants with rights such that their cases are heard in a more timely and fair manner. Further, unlike other countries in the region, Chile’s reform was not merely a paper tiger and the government’s apparent commitment to the reform was unprecedented in the region. In addition to receiving foreign assistance to reform the criminal justice system, the Chilean government signaled its commitment to the reform by spending 341,000 million pesos from its budget (approximately U.S. $617 million) on the reform and continuing to commit more than 2% of the national budget continuously (Ministerio de Justicia 2008).² The reform also included a massive advertising campaign, the training of thousands of
judges and lawyers, and the construction of new court houses throughout the region, such as the impressive and modern Centro de Justicia in Santiago. Fortunately, the reform was implemented over time by region providing a unique opportunity to conduct a quasi-experiment to test the effect of the reform on various aspects of the rule of law. Finally, the use of original data collected on the number of individuals incarcerated regionally provides a fine grained measurement for aspects of civil rights over time.

In this analysis, I use the reform to test hypotheses about the effect of reforms on civil rights and citizens’ trust in legal institutions. I ask whether legislation aimed at improving civil rights works? Further, I ask whether reforms aimed at making the criminal justice system more open and transparent change citizen behavior? The findings are generally positive as to the effect of the reforms on improving civil rights of criminal defendants. I find that the reforms decreased the number of individuals who remained in prison prior to sentence, a category of detainees who had previously languished in jail under the old process in violation of international standards of due process. I also find that the reform positively affected citizens’ trust in the government, evidenced by the increase in citizens reporting of crimes after the reforms.

**Legal reforms, civil rights, and citizen trust in government**

Scholars have speculated as to the effect of legal reforms on democratic development and the improvement of civil rights in a society. The literature in this regard is influential, but not informed. It is influential as foreign donors and politicians advocate legal reform as part of a broader modernization and democratization agenda (USAID 2008). The literature, however, is not based on informative quantitative studies on the success of any of these reforms, but rather depends on largely unsubstantiated arguments positing that the existence of rights *should* result in the enforcement of these rights.
In relation to legal reform and civil rights, scholars debate whether reforms related to improving rights are effective. While these scholars tend to fervently state why reforms should be effective, they avoid the more challenging question of whether or how introducing rights would suddenly transform a society that had not valued such rights into one that recognizes and enforces such rights. Scholars believe that such reforms should enhance civil rights by incorporating constitutional and international human rights norms into domestic legislation (Venegas & Vial 2008, USAID 2008). Further, scholars commenting on criminal law reform throughout Latin America (Langer 2007) have asserted that reforms converting countries’ criminal justice systems from inquisitorial to adversarial were motivated in part by politicians’ desires to improve civil rights in these countries. Academics and policy experts have justified criminal law reforms throughout Latin America on the grounds that in comparison to inquisitorial systems, procedures under accusatory systems are not as abusive of human rights and are more transparent, efficient, and rapid (Davis and Lillo 1996).

While generally scholars assert that reforms directed at civil liberties should positively affect human rights as intended, some scholars are skeptical about the potential effectiveness of such reforms in light of many countries’ entrenched legal cultures and populations that are resistant to change (Berkowitz, Pistor and Richards 2003). Many scholars writing about legal reforms instituted during the law and development movement of the 1960s and 1970s, found that such reforms resulted in only minor changes to society. Hammergren (2007) is especially skeptical that the current era of criminal law reforms in Latin America will achieve their intended results. She notes that reformers have had “excessive faith” that law could change behavior and “excessive reliance” on the proposition that adversarial systems were much better at delivering justice than inquisitorial systems (38-39). She further notes that reforms were hindered by problems related to adopting legislation from other countries, failing to implement
complementary legislation, and errors and oversights. Despite the debate over whether reforms should achieve direct benefits to civil rights, there is little quantitative work on the subject.

The only exceptions to the dearth of quantitative studies on the subject are recent influential studies conducted by Finkel et al. (2007, 2008), under the auspices of USAID. These scholars look at the effect of legal reform on civil rights through the lens of democracy assistance and find a surprisingly negative relationship between reforms funded by USAID and the improvement of rights. These scholars use as their dependent variables both Freedom House and Polity IV scores for rights and democracy. Although finding that USAID assistance generally improves countries’ Freedom House and Polity IV scores, when rule of law programs emphasizing both civil liberties and political rights are looked at specifically, the authors find that “USAID human rights assistance has a significant negative impact on the human rights outcome” (Finkel et al. 2008: 3). In an appendix, the authors, attempt to explore this result by looking, among other things, at issues of reverse causality, measurement error and omitted variables of judicial independence and constitutional protection of rights. While the Finkel, et al. studies do not directly attempt to measure the effect of a specific legal reform on rights, these scholars do suggest a negative relationship between certain rights’ reforms – those funded by USAID - and enhanced civil rights.

The above studies show that scholars have mixed opinions regarding whether legal reforms should enhance civil rights. These studies, however, do not touch on why government’s may choose to push costly reforms that have such a significant civil rights component and why reforms on paper would actually work? The implementation of procedures to protect civil rights demonstrates that the government is committed to a legal system that is based on the rule of law rather than “the rule of men” or politicians. However, only if the government ensures that rights are actually enforced by spending money on training judges and lawyers and on new laws and
procedures can it prove to citizens that it is committed to the rule of law in actual fact. Dworkin (1977) suggests that the “[t]he institution of rights is ... crucial, because it represents the majority’s promise to the minorities that their dignity and equality will be respected” (at 205). Criminal defendants’ represent both a minority and a group with which the average citizen is unconcerned. If the government provides rights for such individuals, it goes a long way in establishing that it will uphold the rights of any groups or minorities. Dworkin stresses the importance of this by stating:

They [the government] must show that they understand what rights are, and they must not cheat on the full implications of the doctrine. The Government will not re-establish respect for law without giving the law some claim to respect. It cannot do that if it neglects the one feature that distinguishes law from ordered brutality. If the Government does not take rights seriously, then it does not take law seriously either (205)

A system based on rights shows citizens that they will be treated the same under the law and that government officials do not have impunity.

For countries transitioning from authoritarian rule to democracy, there is no better way for the government to re-establish respect for law than by asserting the primacy of rights. Therefore, the theory behind why rights on paper would actually be enforced in practice is due to the fact that the government has no other choice. By committing to rights, governments not only assert their willingness to be bound by law, but also to treat unpopular people and causes with equal respect under the law. The government’s commitment has the added benefit of demonstrating to outsiders that if they choose to invest in a country, then their rights will be well respected (Brunetti, Kisunko, and Weder 1997; see also Weingast 1997, 2003; Olson 1993; McGuire & Olson 1996).
Chile’s Criminal Law Reforms

Chile provides a unique opportunity to test the impact of specific criminal law reforms on both civil rights and citizen trust. Chile’s transition to democracy after authoritarian leader General Pinochet failed to win a plebiscite, resulted in the 1990 election of President Patricio Aylwin, who championed human rights. As part of Aylwin’s initiative for dealing with Chile’s past human rights atrocities, he created the Rettig Commission which severely criticized the Chilean judiciary’s complicity in these abuses. In their report, members of the Rettig Commission emphatically suggested that international human rights standards related to criminal defendants and prisoners should be incorporated into Chile’s domestic law. In this way, Chile’s democratic transition provided impetus for the subsequent criminal law reforms analyzed here. For Aylwin and members of the Rettig Commission, improvement of civil rights in Chile necessarily involved the improvement of rights of the most vulnerable members of society, criminal defendants and showed Chileans and the world that the new government was committed to the rule of law without impunity for politicians.

In Chile, the reforms promulgated between 1997 and 2001 moved Chile’s criminal law system closer to that existing in the United States. In effect, the reforms converted Chile’s criminal justice system from one that was inquisitorial to one that is adversarial. These reforms included: 1) The creation of lower criminal juzgados de garantía to ensure or guarantee the rights of the defendants during their criminal investigation and to considerably reduce pre-trial detention times, 2) The creation of collegial courts, juzgados de juicio oral, to conduct oral criminal bench trials and review evidence presented at such trials, 3) The creation of national, regional, and local prosecutors, accomplished through Constitutional changes, making the Ministerio Público an independent governmental institution, 4) The creation of a public defender agency, and 5) The creation of a revised penal code, the Codigo Procesal Penal [CPP],
which defines new rights and procedures for defendants and victims in criminal proceedings and
defines functions and limitations for judges, prosecutors, public defenders, and the police during
criminal proceedings.

Although all of Chile’s criminal law reforms were approved by 2001, the laws
themselves provided for gradual implementation. The new CPP, effective in October of 2000,
allowed for the new process to be implemented in stages by region over a five year period. The
first stage of the reform was implemented in Serena (Region IV) and Araucanía (Region IX).
The final stage of the reform was completed by mid-June 2005 in Santiago, the most populated
area in the country. In August of 2001, the legislature revised the schedule of implementation
making the Santiago metropolitan area the last region for implementation. The timetable of the
reform and a map of Chile’s regions are found in Figure 1 and Table 1 respectively. As the new
reform was phased in, the old system was phased out such that non-reformed courts still applied
the pre-reform law to existing cases through 2008.

[Insert Figure 1 and Table 1]

The new reforms significantly changed the structure, power, and function of the lower
criminal courts making them more accountable and all the reforms were focused on defendants’
rights. Under the reform, courts placed their efforts on adjudication rather than investigation.
The creation of a true public prosecutor’s office (Ministerio Público) ensured that judges no
longer conducted criminal investigations eliminating judicial bias that would arise by having
judges’ being involved in all stages of the criminal prosecution and ensuring that the process
occurred more quickly so that defendants would not languish in jail. Furthermore a bifurcated
lower court procedure provided a separate preliminary trial stage in which defendants’ rights
were respected and guaranteed.
Besides creating a public defender service, la Defensoría Penal Pública, the new criminal reform also substantially improved the rights of defendants by providing criminal defendants with new substantive and procedural rights. Judges now see defendants within twenty-four hours of their arrest. At every stage of the process, defendants have additional rights including the right to be presumed innocent, the right to a defender de confianza (licensed lawyer), a right to an oral public trial, the right to intervene in the entire process, a right to immediately know the charges against oneself, the right to contradict allegations and the right to review the prosecutor’s file.

There are strict time limits for defendants’ incarceration essentially ensuring defendants a right to a speedy trial. In the pre-reform system, individuals in pretrial detention or procesados, who constituted about half of the incarcerated population, had no time limits to their incarceration (Riego 1998: 440). Riego asserts that one justification for the Chilean criminal law reform was to reduce “restrictions of the people’s rights (especially a shortening of time in prison” (p. 446). The new statutory time limits placed on incarcerated individuals as well as the emphasis on defendants’ rights ensured that defendants would not remain in jail for lengthy periods prior to trial and conviction as they did under the pre-reform system.

Data and Methodology

There are few empirical studies testing the effect of legal and judicial reforms on observable outcomes (Hammergren 2007; McAuslan 1997). In fact, there seems to be an implicit understanding that the enactment of reforms focusing on rights is enough to ensure the enforcement of such rights and improvement of citizen trust. This study uses quantitative analysis to explore the specific effect of reforms on civil rights and citizen trust at the regional level. As with many social science or policy implication investigations, randomized experiments are rarely possible as governments do not generally randomly assign policy to locations.
Although randomized experiments provide the gold standard for testing the effect of a treatment on a population, the next best thing is a natural or quasi-experiment based “on naturally occurring circumstances or institutions that (perhaps unintentionally) divide people into treatment and control groups in a manner akin to purposeful random assignment” (Angrist, 2003, p. 11). Quasi experiments have been used to determine the impact of changes in laws or policies on specified dependent variables in a number of contexts (Card & Krueger, 1994; Currie & Gruber, 1993; Katz & Krueger, 1992; Meyer, 1995, citing Card, 1992a, 1992b).

Chile’s criminal law reform, by region over time, provides the perfect framework for a quasi-experiment. For this experimental analysis, the control groups are the regions where the reform was not implemented and the treatment groups are those where the reform was implemented at given time periods. For example, all the regions are control groups in 1998 and 1999 as the reform was not implemented until 2000. In December 2000, the reform only occurred in Regions IV and IX, so these are the only two treatment groups for this fraction of a year and the other regions provide control groups for comparison.

One challenge to testing the effect of legal reform thus far has been data. There is little available data on court decisions in countries undergoing major legal reforms, especially when those reforms affect lower level trial courts. Further, other variables purporting to measure aspects of the rule of law are generally inadequate for testing the effect of specific legal reforms because they aggregate many concepts together into one indicator (Tiede 2007) and they provide little variability over time. For example, if one wanted to test the effect of legal reforms on civil liberties undertaken by the Chilean government in the early 1990s after its return to democracy, a broad measurement of civil liberties, like that provided by Freedom House would provide little leverage because this variable does not vary significantly over time. Specifically, Freedom House gave Chile the same score (a 2) for civil liberties for every year between Chile’s return to
democracy in 1990 until 2003 when Freedom House gave Chile the highest civil liberties score of 1. Therefore, if one was to test the effect of any legal reform that the government enacted after it returned to democracy, the only possible change reflected by a Freedom House score would be that occurring thirteen years after the country had transitioned to democracy and it would be very difficult to tell if this change in a civil liberties score was due to a specific reform or the longevity of its democracy after the authoritarian regime of General Pinochet.

In this analysis, the dependent variable for defendants’ civil rights is not a Freedom House score, but rather the log of the number of *procesados* - individuals incarcerated prior to sentence after initially appearing before a judge by region from 1991 to 2007. *Procesados* are individuals who have appeared before a judge within five days of arrest, but are waiting to be either charged, tried, or convicted. *Procesados* are the largest group of individuals incarcerated in Chile, constituting about half of the detained population (Riego 1998: 440). *Procesados* have suffered the most from a lack of rights under pre-reform Chile, as they had to wait months and often years to have formal charges brought against them to reach a verdict. During this time, *procesados* often lost their jobs and certain rights such as the right to vote (Riego: 440). As a result, the number of *procesados* provides a good measure for civil rights because prior to the reform this group lacked due process rights, standard in well established western democracies. For this portion of the analysis, I created an original data set by collecting information on the incarceration of specific groups of detainees for each of Chile’s thirteen regions. I collected the data from the Biblioteca Unidad de Investigaciones Criminológicas de Gendarmería de Chile in Santiago in the summer of 2007. This unique data collection provides the number of *procesados* for each region prior to and after the reform had been enacted in each region.

To test the effect of the reform on civil rights using the percent change of *procesados*, the following equation is used:
\[
\log(\text{procesados}_{it}) = \beta_0 + \beta_1 \text{REFORM}_{it} + \beta_2 \log(\text{criminal reports}_{it}) + \beta_3 \log(\text{criminal arrests}_{it}) + \beta_4 \log(\text{GDP}_{it}) + \beta_5 \log(\text{population}_{it}) + \sum(\text{years}) + \sum(\text{regions}) + \alpha_i + \nu_{it}
\]

Data for the independent variables was collected from the following sources:

1) Criminal reporting rates from the Anuario Carabineros de Chile (INE) 1997 to 2007.
2) Criminal arrests from the Anuario Carabineros de Chile (INE) 1997 to 2007.
3) Gross National Product by region from the Central Bank’s Anuario de Cuentas Nacionales.
4) Population estimate by region from the Instituto Nacional de Estadísticas, Proyecciones de Población de Chile Hace 2050.
5) Reform, the most important independent variable analyzed, in each region was coded using criminal reform legislation and amendments specifying the dates when the reform was actually introduced into each region.

The independent variable of reform was coded as a dummy variable of zero or one. Fractions were used if the reform occurred in the middle or end of a year. Using incarcerated \text{procesados} as a proxy for rights, I hypothesize that the percent of \text{procesados} will decrease as a signal of the governments’ commitment to such rights. Because there was available data for \text{procesados} dating back to 1991, but not for criminal reporting rates and arrests, I also ran an alternative model (ie. model 2) as a robustness check in which these two independent variables were removed, but the number of observations was almost doubled.

To test, the effect of the reform on citizens’ trust, I used the log of criminal reports as a dependent variable. Criminal reports are used as a proxy for trust because trust is largely unobserved. However, I theorize that citizens would not bother to report crimes or increase crime reporting if they did not believe that the government stood behind the reforms’ enforcement and success. Reports of crimes should not be confused with incidence of crime or
crime rates because, as well known by criminologists, actual crime cannot be measured due to the large number of crimes that go unreported. To test the effect of the reform on the percent change in citizens’ reports of crime, I used the following regression equation:

\[
\text{Log(criminal reports)}_{it} = \beta_0 + \beta_1 \text{REFORM}_{it} + \beta_2 \text{log(population)} + \beta_3 \text{REFORM*URBAN} + \beta_4 \text{REFORM*VALPARAISO} + \beta_5 \text{REFORM*INDIGENOUS} + \Sigma(\text{year dummies}) + \Sigma(\text{regional dummies}) + \alpha_i + \nu_{it}
\]

This equation tests whether the new reforms caused citizens to report crimes more. I hypothesize that the reform will cause citizens to increase the number of crimes they report due to the government’s commitment to creating a new criminal justice system. I predict that citizens will believe that the government’s commitment is sincere and as a result the reformed criminal justice system will function well. As a result, citizens will report more crimes because they have a higher expectation of them successfully being resolved.

The equation for criminal reporting also includes three interaction variables. The purpose of the interaction terms is to test whether the effect of the reform is driven by demographic differences such as whether the region is highly urban or has a relatively high percent of indigenous people. The first interaction variable measures how the reform affected areas that are particularly urban (Santiago and Valparaiso). The second interaction is between the reform and whether it occurred in the region containing Chile’s second largest city Valparaiso. The third interaction is between the reform and whether a particular region had a population that was at least ten percent indigenous determined by using Chile’s 2002 census results found in the INE’s *Sintesis de Census 2002*. The interactions test whether there is a significant difference in how the reform performs in certain areas of the country.\textsuperscript{10}
Results and Implications

As stated from the onset, one of the cornerstones of the reform was to limit the amount of time that individuals remained in jail while their cases were being processed by overburdened judges who in the pre-reform system were tasked with investigation, prosecution, review of evidence for determinations of guilt or innocence and the sentence. The results in Model 1 show that the reform resulted in a sixteen percent decrease in the number of procesados\textsuperscript{11} (See Table 2). The results in Model 2 show a thirteen percent decrease in procesados and serve as a robustness check because there are more observations in this model, but it does not include the independent variables for criminal reports and arrests. As to civil rights, a decrease in the percent of procesados indicates that one of the major goals of the reform was achieved. Procesados were specifically targeted by the reform because historically they had been deprived due process rights and remained in jail for lengthy periods without being charged or tried in a timely fashion and often without access to licensed attorneys.

[Insert Table 2]

Another significant finding from this analysis is that the reform increased the percent of citizens reporting crime by eight percent (See Table 3). This is a positive by-product of the reform. If citizens believed that the legal system did not function properly or that reporting crime had no effect, then they simply would not do it. Therefore, the increase in criminal reporting is an indication that Chilean citizens, some of who were nervous about the reforms focus on rights, trusted the governments’ programs enough to report their crimes.

[Insert Table 3]

In this analysis, I have shown that Chile’s law reform improved civil rights of defendants and increased citizen trust. I further argue that the Chilean governments approach to taking rights seriously was not misplaced. First, governments that transition from authoritarian rule to
democracy are better served by focusing criminal justice reforms on the rights of defendants’ rather than on more typical tough on crime policies because such a focus signals a clear break from the authoritarian government. If politicians had delivered more law enforcement or tougher crime policies at the expense of defendants’ rights the break from the former authoritarian regime would neither have been significant nor complete. Focusing on rights also signals that new governments are not extending past practices or beliefs.

In the case of Chile, the reform’s focus on rights and commitment to enforcing them signaled that the democracy emerging after the transition was a true break from the past abusive regime of General Augusto Pinochet. Under Pinochet, rights not only were abused, but the judiciary was found to be complicit in many instances (Hilbink 2007) this in turn made citizens’ less likely to trust courts and judges. Other governments that have made similar transitions should similarly take rights seriously because courts under authoritarian regimes were not only implicated in human rights abuses, but also ineffective, slow, and antiquated. Criminal justice systems that focus on rights force courts to do the same and signal a country’s commitment to the rule of law.

Second, governments transitioning from authoritarian rule to democracy should enact criminal justice policies that favor rights over other goals because such a focus signals that the government is credibly committed not only to rights of defendants, but also the rights of every day citizens and even rights of foreign investors. Such credible commitments to rights and rules in general should induce both citizens and foreign investors to invest not only in a country’s businesses, but also in the governments’ continued vitality. In the long run, trust and economic investment improve the success and longevity of a government.

Third, not only does favoring rights of defendants send a clear signal to voters and foreign investors that the government is committed to rights, but it more generally shows these
populations that the government is committed to law. According to many scholars, the rule of law means a system of law which not only binds citizens, but also governments to law (Hampton 1994; Kavka 1986; Barros 2003; Cass 2001). In other words, the rule of law does not mean two separate systems of law – one for government officials and one for the rest of the population. Rather, the rule of law implies that all individuals are accountable to one set of laws. Weingast (1997, 2003) defines the rule of law as a set of stable political rules applied impartially to all citizens. Accordingly, the rule of law exists when society resolves its coordination dilemmas concerning the appropriate limitations that should be placed on the state. Laws with well defined rights for criminal defendants, such as found under Chile’s criminal law reform, provide such limitations by setting standards for the rights of criminal defendants that cannot be overridden by the state that prosecutes and incarcerates these criminals.

***

Chile’s criminal law reform, implemented in stages across regions and time has provided the perfect setting for testing the effects of the criminal law reform on the government’s commitment to the reform as well as observable outcomes. The reform had a positive effect on decreasing the percent of procesados and increasing citizens’ reporting of crimes. The success of the reform should not be limited to the results presented in the quantitative analysis alone. The government’s commitment to reforming its justice system seen in the reforms magnitude as well as capital expenditures to create new institutions should not be overlooked. Such changes can lead to greater citizen confidence in courts and government institutions which deepen the quality of democracy.
Figure 1. Map of Chile’s regions.
(Source: INE)

<table>
<thead>
<tr>
<th>DATE</th>
<th>REGION</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/2000</td>
<td>IV, IX</td>
</tr>
<tr>
<td>10/2001</td>
<td>II, III, VII</td>
</tr>
<tr>
<td>12/2002</td>
<td>I, XI, XII</td>
</tr>
<tr>
<td>12/2003</td>
<td>V, VI, VIII, X</td>
</tr>
<tr>
<td>6/2005</td>
<td>Metropolitan Santiago (R.M.)</td>
</tr>
<tr>
<td></td>
<td>Model 1</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Reform</td>
<td><strong>-0.16</strong> (0.09)</td>
</tr>
<tr>
<td>log(criminal reports)</td>
<td>-0.15 (0.31)</td>
</tr>
<tr>
<td>log(Apprehensions)</td>
<td>0.15 (0.16)</td>
</tr>
<tr>
<td>log(Gdp pesos)</td>
<td><strong>1.11</strong>** (0.04)</td>
</tr>
<tr>
<td>log(Population estimate)</td>
<td><strong>-9.55</strong>* (0.04)</td>
</tr>
<tr>
<td>Constant</td>
<td><strong>49.73</strong>* (21.14)</td>
</tr>
</tbody>
</table>

R^2  

N  

117  

221

Note: Estimates made using panel corrected standard errors. Results for year and regional
dummies for all regressions are not reported, but are available from authors. Coefficients in
bold are significant at p<0.10, *p<0.05, **p<.01
<table>
<thead>
<tr>
<th></th>
<th><strong>Criminal reporting</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reform</td>
<td><strong>0.08</strong></td>
</tr>
<tr>
<td></td>
<td>(0.02)</td>
</tr>
<tr>
<td>Log(population estimate)</td>
<td>2.54</td>
</tr>
<tr>
<td></td>
<td>(1.59)</td>
</tr>
<tr>
<td>Interaction (reform*urban)</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
</tr>
<tr>
<td>Interaction (reform*Valparaiso)</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>(0.05)</td>
</tr>
<tr>
<td>Interaction (reform*indigenous)</td>
<td>-0.02</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
</tr>
<tr>
<td>Constant</td>
<td>-9.52</td>
</tr>
<tr>
<td></td>
<td>(8.94)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.99</td>
</tr>
<tr>
<td>N</td>
<td>104</td>
</tr>
</tbody>
</table>

Note: Estimates made using panel corrected standard errors. Results for year and regional dummies for all regressions are not reported, but are available from authors. Coefficients in bold are significant at p<0.10.
References


McGuire, Martin & Olson, Mancur, Jr. 1996. “The Economics of Autocracy and Majority Rule:
The Invisible hand and the Use of Force.” *Journal of Economic Literature* 34: 72-96.


I would like to thank Juan Goldberg Villalón of the Biblioteca Unidad de Investigaciones Criminológicas de Gendarmería de Chile for facilitating collection of data during my visit to Santiago in July 2007 and for answering additional questions regarding this data. I also would like to thank Ryan Kennedy, Tanya Bagashka, Mathew McCubbins, and David Tiede for helpful comments.

Chile’s Ministry of Justice estimated that the implementation of the reform cost 341,000 millions of pesos broken down as follows: 180,000 millions of pesos to the judicial branch, 131,000 millions of pesos to the Ministry of Justice and 30,000 millions of pesos to the Public Defender. Finally, in 1999, the government estimated that 0.99% of the national budget was spent on the reform. From 2000 and on, the government indicated that it will spend 2% of the national budget on reform.

Inquisitorial systems, existing in Latin American countries until major reforms beginning in the early 1990s, are those in which the judge oversees the investigation, trial, and sentencing phases of the criminal justice process. This process was conducted almost entirely through the submission of written documents and is shrouded in secrecy. Adversarial systems are those in which the public prosecutor oversees investigations and trials, and the procedures are public, transparent, and include oral hearings and trials. Reformers throughout Latin America, including Chile, adopted adversarial criminal justice procedures as part of under their major reforms.


Posner (1998) finds “[a]s for granting extensive rights to criminals, this is bound to undermine the efficacy of the criminal laws, and by doing so, unsettle property rights” (at 9). As a result, more rights makes it “harder to convict the guilty as well as the innocent” and reform of this type is costly (at 9).

6 Ley No. 19.665 Reforma el Código Orgánico de Tribunales (Publicada en el Diario Oficial el 09 marzo de 2000) [Ley No. 19.665]; Ley No. 19.708 Adecua la Ley No. 19.665, que modifica el Código Orgánico de Tribunales, al Nuevo Código Procesal Penal (publicada en el D.O. el 05 de enero de 2001) [Ley No. 19.665]; Ley No. 19.519 Reforma Constitucional que crea el Ministerio Público (publicada en el D.O. el 16 de septiembre de 1997) [Ley No. 19.519]; Ley No. 19.640 Establece la Ley Orgánica Constitucional del Ministerio Público (publicada en el DO el 15 de octubre de 1999) [Ley No. 19.640]; Ley No. 19.718 Crea la Defensoría Penal Pública (publicada en el D.O. el 10 de marzo de 2001) [Ley No. 19.718]; Ley No. 19.696 Codigo Procesal Penal (publicada en el DO 12 de octubre de 2000) [CPP].

In the original legislation, the implementation was supposed to occur quite a bit faster. Specifically, regions II, III, VII were supposed to be completed in 2001, and the Santiago Metropolitan region by 2004. “Aprueban el Nuevo Cronograma de la Reforma Procesal Penal,” El Mercurio 15 Aug. 2001: C9.
Other groups are *detenidos* (individuals who are detained after arrest and waiting to see a judge within five days of that arrest and *condenados* (individuals who are incarcerated after conviction and sentence).

The fixed effect models used in these regressions are the most appropriate models due to the constraining assumptions needed for both pooled OLS and the random effects techniques. Specifically, the pooled OLS technique requires us to assume that there are no unobservable differences in regions. Due to Chile’s unique geography and demographic extremes in the far north (desert) and far south (Antarctica) of the country, it is hard to believe that there are not unobservable differences in the regions related to crime and justice. Like the pooled OLS technique, the random effects technique requires the extreme assumption that the country specific regional effects are orthogonal with independent variables in the regression. Again, such an assumption would be hard to justify due to the diversity of Chile’s regions.

Prior to running any of the incarceration related regressions, tests for autocorrelation, using the methods suggested by Drukker (2003) and Wooldridge (2002), revealed autocorrelation for each dependent variable tested using both the reform and reform counter. The p-values for all the autocorrelation tests for these incarceration variables were 0.000. As a result, the regressions were run modeling time as an AR-1 process.