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Politics by Number: Indicators as Social Pressure in International Relations

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Abstract

The ability to monitor state behavior has become a critical tool of international governance. Systematic monitoring allows for the creation of numerical indicators that can be used to rank, compare and essentially censure states. This article argues that the ability to disseminate such numerical indicators widely and instantly constitutes an exercise of social power, with the potential to change important policy outputs. It explores this argument in the context of the United States' efforts to combat trafficking in persons and find evidence that monitoring has important effects: countries are more likely to criminalize human trafficking when they are included in the US annual Trafficking in Persons Report, while countries that are placed on a "watch list" are also more likely to criminalize. These findings have broad implications for international governance and the exercise of soft power in the global information age.

International politics is essentially about how states attempt to influence one another's policies in ways they believe will contribute to their security and welfare. As nations have become increasingly interdependent, the incentives to exert such influence have increased, even as the utility of military threats or material sanctions wanes. Consequently, social pressure is one of the primary tools of modern international relations (Finnemore and Sikkink 1998, Simmons, et al. 2008).

We focus on a form of social pressure that is increasingly common globally: performance indicators. Easily digestible quantitative ratings of state qualities, activities and policies have been used to measure everything from corruption to happiness. Recent research has documented 178 such indicators (Bandura 2008) and the list is growing rapidly. Indicators are hardly new – sovereign credit ratings first appeared in the 1930s – but the vast majority in use today were created after 1990 (Löwenheim 2008b). Their proliferation constitutes a profound social trend with implications for governance world-wide (Espeland and Sauder 2007:2).

This article argues that performance indicators can influence state policy outputs, especially when they are based on systematic monitoring, are comparative (and especially quantitative), are wielded by a respected actor or group/organization of actors, and are widely disseminated. The promulgation of such indicators is an exercise of what Joseph Nye (2004) calls "soft power," and can be thought of as a form of informal governance (Davis, et al. 2012a). The act of ranking – even when unilateral – can have important political and policy consequences.

The article is organized as follows. The first section theorizes the effects of monitoring and "indicizing" state behavior. These acts constitute an exercise of power, both because assembling such data requires resources and because their influence depends on the status of the creator. Rankings are an especially potent lever of social pressure because they simplify reality and foster explicit comparisons that, once promulgated, are difficult to dislodge from public discourse (Andreas and Greenhill 2010).

Section II introduces our empirical focus on United States (US) efforts to pressure other countries to fight human trafficking globally. These efforts present an excellent test case because they meet the theory's scope conditions: for over a decade now, the US has disseminated country rankings throughout the world in the form of the annual *Trafficking in Persons ("TIP") Report*.[1] Section III discusses the data and analytical approach, while Section IV presents the findings: the US has successfully used these rankings to spur other states to criminalize human trafficking in domestic law. Monitoring and ranking– even if not fully scientific, even if not multilaterally validated – are potentially powerful "governance" tools in international relations.

I. A Theory of Social Pressure: Monitoring, Indicizing, and Ranking

Information as Tacit Social Pressure

How states attempt to influence one another is the core question in international relations. Research has traditionally focused on material punishments and rewards

[1] See: http://www.state.gov/j/tip/rls/tiprpt/.

(Downs, et al. 1996), but a well-developed literature also argues state elites are susceptible to social pressures (Checkel 2001, Johnston 2001a). Shaming, or overtly singling out governments, and sometimes even individual leaders, for public opprobrium, is a tactic used by states, intergovernmental organizations (Lebovic and Voeten 2006, Joachim, et al. 2008) and non-governmental actors (Risse and Sikkink 1999, Hafner-Burton and Tsutsui 2005). .

An increasingly pervasive form of social pressure has developed over the past several years: the use of information gathered and deployed as indicators. Created by governmental, intergovernmental or private actors, indicators are "a named collection of rank-ordered data that purports to represent the past or projected performance of different units" (Davis, et al. 2012a:6). They may represent a range of phenomena, from state qualities ("transparency") to state policies ("press freedom") to prevalent social practices ("corruption"). They tend to simplify a complex reality, attempt to appear objective, and serve to facilitate comparisons across units.

The importance of performance information is of course not new in international relations. Rational functionalist theories highlight the informational function of international institutions (Keohane 1984), and recent studies emphasize that such information can be useful to domestic audiences for holding leaders accountable to international standards (Dai 2007, Kelley 2012). However, information is often used in a more normative and intentional way than these liberal theories of institutions imply: it is also deployed as a form of social pressure to alter state policies in preferred ways.

The ability to apply social pressure – of which performance indicators are but one example – should not be thought of as a substitute for more traditional forms of state

power. The two are integrally related. The nature and extent of that influence is inherently closely connected with the "status" of the pressuring state. Actors often attain their social status by virtue of their ability to control material resources, but this does not mean that status is isomorphic with traditional material measures of state power (Wohlforth 2009). It also depends on the respect and credibility accorded an actor, which in turn affects that actor's social influence. For example, a "World Competitiveness Index" created by the Swiss[2] will carry different weight than a similar index would have if it were developed by Russians. This is not because the Swiss have tremendous coercive power; rather they have much higher credibility for the purposes of such a rating. Emphatically, performance indicators *leverage* power via credibility; they do not create power out of thin air. Nonetheless, resources are admittedly critical to the purposive deployment of information: they are required to gather, extract, analyze and propagate information on a global scale. Less concretely, "network power" may be critical in tapping informants and making sense of the data they provide. We therefore start from the assumption that information gathering is embedded in global power structures.

Information is not neutral; it is powerful and its use is often *purposive.* Since powerful actors are most likely to be able to create influential bodies of knowledge, this capacity gives them additional influence over problem definition and agenda-setting (Keohane and Nye Jr 1998:86). This trend to use performance indicators to influence other states' policies is likely fueled by several factors. Strong normative changes have

[2] A Swiss NGO, the International Institute for Management Development, has created and disseminated such an indicator. See http://www.imd.org/news/World-Competitiveness-2013.cfm

seriously reduced states' ability to use force to interfere in one another's affairs, and especially in their domestic politics (Nardin 1983:269-70). Military coercion has become very costly, both politically and financially (Nye 1990). Economic interdependence also makes it harder to use levers such as sanctions to influence other states (Kim 2012). Meanwhile, the cost of exerting pressure via information has declined. While not costless, it has never been easier to collect and distribute reasonably credible information from highly decentralized sources on a global scale than it is today. Moreover, the indicization of information is a natural response to demands for transparency and accountability (Mathiason 2004). It is likely that the convergence of normative prohibitions against overt force and the ease of collecting, analyzing and disseminating information globally has encouraged the turn to indicators as tools of international influence.

The Power of Monitoring

Most performance indicators originate in some form of monitoring. Monitoring involves observing and checking the progress or quality of a policy, practice or condition over an extended period of time. It implies *systematic* review that is repeated, often even routinized. In experimental settings subjects behave differently when they know they are being watched. Referred to as the "Hawthorne effect," individuals may re-arrange their priorities to meet external expectations when they are aware of being observed (Adair 1984). Sociologists use the concept of *reactivity* – the tendency for people to change their behavior in response to being evaluated – to explain the effect, for example, of US News and World Report rankings on university priorities (Espeland and Sauder 2007). One

reason may be that monitoring signals the social importance of specific tasks or values to the monitor and other actors (Larson and Callahan 1990). Some researchers stress that monitoring is especially effective in impersonal settings where its "disciplining" function outweighs its tendency to undercut personal trust relationships (Frey 1993).

Monitoring has long been theorized as a potent form of social control (Foucault 1995:201-02). Its power lies in its *latent* potential to shame those who are revealed to "underperform." When it is regularized and ongoing, targets may internalize the regime and potentially *self*-regulate. When a monitoring regime is applied generally to like units, rather than on an *ad hoc* basis it may gain acceptance if not legitimacy by undercutting claims that the monitors have singled out specific targets "unfairly" (Löwenheim 2008a). As described further below, there are good reasons to expect monitoring to influence both individual policymakers and organizational routines.

The Power of Indicators

Once established, monitoring systems constitute governing spaces over which monitors can wield considerable influence. This is especially the case when the exercise produces concise and comparable rankings or ratings (Hansen 2011:508, Buthe 2012). Numerical indicators are simple, and readily serve as 'psychological rules of thumb,' precisely because they reduce complexity (Sinclair 2005:52). A column of numbers can be scanned in seconds, while reading the underlying reports on which they are based (which may or may not be translated into the local language) could take weeks (Espeland and Stevens 1998:316, Löwenheim 2008b:257-58). Most importantly, numbers facilitate comparisons among units and over time. They can also be averaged, thereby helping to

establish "norms" or "standards" against which it becomes straightforward to compare different units (Weisband 2000). For these reasons, actors respond differently to ratings than to words alone (Robson 1992, Hansen and Mühlen-Schulte 2012:457).

The starkest form of ranking is "blacklisting." Entities placed on a blacklist are deemed especially poor performers and may even be denied some benefit or privilege by the broader community. Being on a "watch list" is similar, though slightly less stigmatizing. Watch lists are social devices created not only to collect more information (for example, Interpol's terrorism watch list); like blacklists, they may trigger social sanctions (e.g., of firms suspected of insider trading),[3] or at least shame actors who violate community standards. Blacklists and watch lists are quite influential because they exploit negative social information that has especially strong "attention grabbing power" (Pratto and John 1991).

Blacklists and watch lists abound internationally. Greenpeace, for example, publicizes a blacklist of fishing operations it deems "irresponsible" and urges consumers to boycott their products. The Financial Action Task Force (FATF) has long maintained a blacklist of non-cooperative jurisdictions in the fight against money laundering. The US publishes a watch list for violations of intellectual property rights, which not only shames but also triggers "out of cycle reviews…to encourage progress of IPR issues of concern."[4] In short, a blacklist or watch list constitutes a 'bright line' engineered to distinguish actors that are performing to social expectations from those that are not.

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[3] See http://www.investopedia.com/terms/w/watch list.asp#axzz24BH2gFh7.

[4] US Trade Representative, *Special 301 Trade Report,* p. 6; http://www.ustr.gov/sites/default/files/2012%20Special%20301%20Report_0.pdf.

Mechanisms Linking International Monitoring, Indicators and State Policy Change

How are these insights about monitoring and performance indicators connected to state behavioral or policy change? Indicators can affect policy outcomes through several distinct mechanisms. Figure 1 illustrates the general argument.

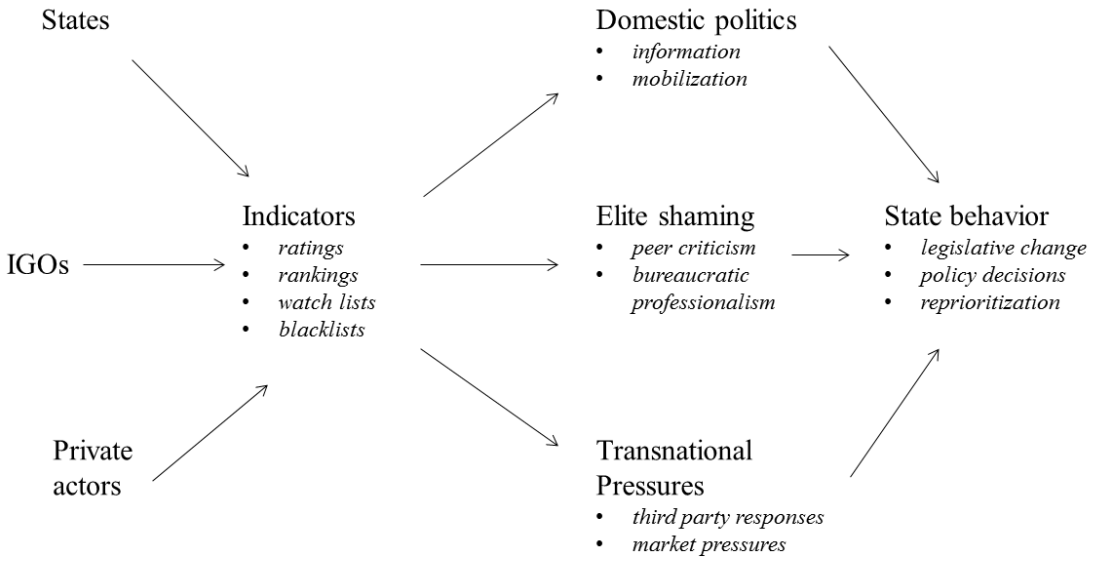

Figure 1: Mechanisms: indicators and policy change

First, performance indicators can influence policymakers to the extent that they influence domestic politics. Higher rankings in a domestically salient policy area such as human rights or environmental protection can help to attract or retain domestic political support (Dai 2007). Salient, negative rankings potentially mobilize domestic political

actors (NGOs, economic actors) who in turn press decision makers for behavioral or legislative change (Simmons 2009). This mechanism does not necessarily depend on external material power, although some groups may mobilize to protect an economic stake that could be threatened by an external sanction. Mobilization can strengthen vocal domestic political coalitions who are inspired or incensed enough by the rating to demand official attention to the matter. Such demands can in some cases raise the costs of not responding for politicians. Even the *anticipation* of publicity and negative domestic reactions could in some cases prompt preemptive policy review by government officials.

Second, performance indicators can work through direct peer shaming. Indicators sometimes target policies for which specific government officials are directly responsible. Ratings and rankings can therefore have a bearing on the personal status of an individual (e.g., government minister) or that of a collectivity such as a department or bureaucracy (Kelley 2013). When rankings reflect poorly, this person or policy body may seek to avoid opprobrium by introducing policy changes before the next "grading period." This mechanism can work independently of the material power of the rater; what is critical is the subjective regard of the rated for the rater and the need or desire to maintain a good professional reputation. The ability of the indicator to trigger localized or transnational blame around the responsible individual or bureaucracy can also matter. Officials may initiate policy change to deflect criticism that could damage their personal or professional reputations.

Sometimes monitoring and ranking may even influence ongoing bureaucratic operations and capacities. Monitoring may elicit compliance activity and stimulate information-gathering. External monitors may prompt bureaucrats to comb through

records, assign employees data collection tasks, and forge connections with private actors who may have useful information. Some researchers have argued that the "collection, processing and dissemination of information" itself shapes the cognitive framework of policy-making (Bogdandy and Goldmann 2008:242). More strategically, bureaucrats are adept at learning what it takes to improve their state's ratings by consulting the bank of "approved" policy advice that monitoring summaries sometimes contain (Cialdini 2012). Teasing out whether monitoring primarily affects bureaucratic operating procedures or involves individual cognitive remapping (or both) is beyond the scope of this paper, but both suggest monitoring and performance indicators are likely to influence both individuals and organizational routines.

Third, indicators may impact policy by activating transnational pressure. Most notably, indicators may influence market expectations. Even if the rater does not have direct control of material resources, indicators can influence policymakers in the target state if they contain market or other relevant information to which private economic agents respond. Credit rating agencies for example control minimal material resources of their own, but their ratings can touch off a tsunami in capital or exchange rate markets. Indeed, states may be concerned that ratings are linked; for example, credit rating agencies may be influenced by other indicators such as Transparency International's "corruption" index (Mellios and Paget-Blanc 2006).[5] An indicator produced by one entity may also inspire third parties to apply additional pressure on a particular target. For example, the US uses many indicators in its assessment of whether countries qualify for

[5] This study does not document the effect of TI ratings on credit ratings, but uses the former as a predictor of the latter.

Millennium Challenge Corporation (MCC) funds.[6] A rater therefore need not have significant material power for the indicator to change the incentives of policymakers in a target country, although their assessments would need to have enough credibility to be taken seriously by the market or other actors.

Through each of these mechanisms, the performance indicator may have a "multiplier effect," raising the target's perceived risk that undesired behavior might have political, reputational or material consequences. These consequences likely vary by issue area. Money laundering black lists may work through transnational market pressures, but human trafficking ratings may work through the mobilization of domestic NGOs. A particular ministry or minister may be especially impacted by indicators in his or her bailiwick; the World Wildlife Fund's "ecological footprint index" might be a particular embarrassment for Ministers of the Environment, for example. Even when fairly tightly coupled with the material power of the rater, the *added* value of social pressure via indicators resides in their ability to signal community displeasure to the target and to stimulate a policy response. It is also important to recognize that positive ratings may stimulate efforts at "status maintenance," or efforts to maintain good ratings. Either way, indicators can be used by powerful actors, to paraphrase Kofi Annan, to amplify the effect of their own moral, institutional, and material resources (Annan 1998:129). Prima facie evidence of their influence can be found in their contestation (Hansen and Mühlen-

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[6] The MCC aids countries on the basis of 17 indicators generated by third parties, from IGOs (e.g., UNESCO) to NGOs (e.g., Freedom House) to universities (e.g., Columbia/Yale), and aids only those who score above the median. See http://www.mcc.gov//pages/selection/indicators.

Schulte 2012:458). The fact that ratings are cited, discussed, and sometimes excoriated indicates their power to draw attention and to set the terms of the policy debate.

To summarize, indicators are exercises in social power that interact with the status of the ranker in the broader international community. They can mobilize and inform domestic actors, embarrass specific policy makers, and sometimes even activate other transnational pressure and move markets. Powerful rankers, such as the United States, seem well aware of the possibilities, expending resources to collect reasonably credible information. That they increasingly choose to do so is revealing in itself, since the entire monitoring machinery is difficult to explain if powerful states could simply threaten others bilaterally if they do not cooperate.

Monitoring, Scope Conditions, and the Case of Human Trafficking

In an age of information overload not all performance indicators exert the same degree of social pressure. Source matters. In psychology, "social impact theory" emphasizes the importance to the target of the actor or group of actors engaging in pressure, the nature and extent of the target's exposure to the group, and, to some extent, the size of the group attempting to enforce conformity (Latané 1981). Social pressures in international relations can be exercised by highly respected or hegemonic state actors, through international organizations (Johnston 2001b, Bearce and Bondanella 2007) or non-state actors. The higher the monitor's status the more focal the information is likely to become, raising its perceived validity and reducing its deniability among a broad range of actors.

Information should also be expected to exert more social pressure when it is imbued with normative significance, especially when it conveys a bright line between acceptable and unacceptable behavior. As argued above, social pressure increases when information is comparative. Such information may even change basic power relationships and have effects akin to regulation (Buthe 2012, Davis, et al. 2012b:72).

These scope conditions may hold in a broad range of cases, from the World Bank's "Ease of Doing Business" rankings to the United Nations' "Gender Empowerment Measure." To illustrating the theory, this article examines the area of human trafficking. Increasingly, non-governmental and intergovernmental organizations as well as individual states collect information on the nature and extent of human trafficking world-wide. New technologies from global positioning to web-based reporting platforms are increasingly deployed to detect trafficking, to aggregate country profiles, and to disseminate assessments of government efforts to counter trafficking (Latonero 2012). This information is being funneled via local governments, non-governmental organizations and law enforcement to United States embassy staff around the world, who in turn vet and collate it for the US State Department's highly visible *Trafficking in Persons Report* (TIP Report), published annually since 2001.

Human trafficking therefore fits the scope conditions of the theory. Furthermore, it is imbued with normative salience, there are a range of possible policy responses, and no reason to think criminalization on the US model is the best or only policy response. In fact when the United States first started monitoring, fewer than 10 percent of states had criminalized human trafficking in their domestic law. Now approximately 70 per cent of

all countries have done so (Lloyd, et al. 2012). The following section discusses human trafficking and US policies to reduce it world-wide.

II. The human trafficking problem and US policies

Human trafficking is the trade in human beings or organs for any purpose, but generally for labor or sexual exploitation.[7] The issue has gained attention since the nineties and become an industry estimated at over $31 billion annually (Besler 2005). The adoption in 2000 of the Human Trafficking Protocol to the Transnational Organized Crime Convention – as of the autumn of 2013, ratified by some 157 states[8] – testifies to the growing international concern about human trafficking. The convention requires parties to criminalize human trafficking and encourages them to develop and implement national action plans to identify and protect victims, arrest traffickers, create trans-border cooperation and so on.

The US has played a central role in combatting human trafficking (Efrat 2012). The Victims of Trafficking and Violence Protection Act (TVPA) of 2000 authorized the State Department to push for anti-trafficking policies around the world and to *monitor and rate* other countries' performance. Since 2004 these ratings have been tied to access

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[7] See the Human Trafficking Protocol (2000), Article 3(a) at: http://www2.ohchr.org/english/law/protocoltraffic.htm.

[8] For up to date ratification status see http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XVIII-12-a&chapter=18&lang=en

to US foreign aid, although due to a combination of waivers and existing sanctions, they have rarely resulted in sanctions.

Core to this program is the annual TIP Report, which assesses governments' efforts to combat trafficking and protect its victims. The report, released each summer since 2001 with great fanfare, uses country narratives accompanied by three "Tier ratings," with Tier 1 being the best (18% of country-years) and Tier 3 the worst (about 11% of country-years). The modal rating has been Tier 2, which has been given half the time. The State Department added a "watch list" in 2004, often considered "Tier 2.5," and has placed countries on this list about 21% of the time. Countries on the watch list or Tier 3 are determined by the State Department to have a serious trafficking problem without taking adequate measures to address it, clearly falling below a bright line of socially unacceptable behavior. With a total of 1,345 annual country ratings since inception, this reporting system is a good opportunity to examine the effect of monitoring and indicators on state trafficking policies. The 2001 report rated 79 countries. Until 2009 inclusion depended on the availability of what the US deems reliable information that trafficking in a specific country is "significant," defined as exceeding 100 cases.[9] Recent reports render almost universal coverage. (See Supplementary Information, item 4.2.) Allies as well as adversaries are subject to scrutiny and appear at all three tier levels.

The tier rankings are hardly scientific (United States 2006, Wooditch 2011) and may well miss selective compliance maneuvers by states. Even so, it is recognized as "the

[9] For the criteria for inclusion on the watch list see the Introduction of the 2004 Report, at http://www.state.gov/j/tip/rls/tiprpt/2004/34021.htm.

most influential and the most trusted indicator of states' performance vis-à-vis human trafficking" (Zaloznaya and Hagan 2012:18)..

There are numerous reasons to think that the TIP Report and tier ratings exert social pressure on rated states. The United States' global position enables it to exert social pressure that other countries apparently experience in a variety of ways. For example, responding to Honduras's 2004 Tier 2 rating, a Honduran newspaper, *El Heraldo*, called on the government to improve its policies "not only because we may lose some of the cooperation we get from the U.S. but because it's their legal and moral obligation."[10] The US actively publicizes its TIP reports, and a very high or very low rating increases the likelihood that a country will be named in a major news article that also mentions human trafficking (Figure 1). News coverage of a country in the Lexis-Nexis database in conjunction with reference to human trafficking increases significantly if the country was included in the TIP Report in the previous year, controlling for population, wealth, democracy, ratification of the UN TIP protocol, and country and year fixed effects.[11] The United States' TIP Report is a primary source of information for organizations such as the United Nations and the International Organization for Migration.[12] Evidence at many different levels suggests that the TIP Report enhances scrutiny both in domestic and international policy circles, plausibly creating pressure on politicians to address the problem.

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[10] See http://dazzlepod.com/cable/04TEGUCIGALPA1384/?rss=1.

[11] Results available in the supplementary information, item 2.

[12] See http://www.unodc.org/unodc/en/human-trafficking/global-report-on-trafficking-in-persons.html.

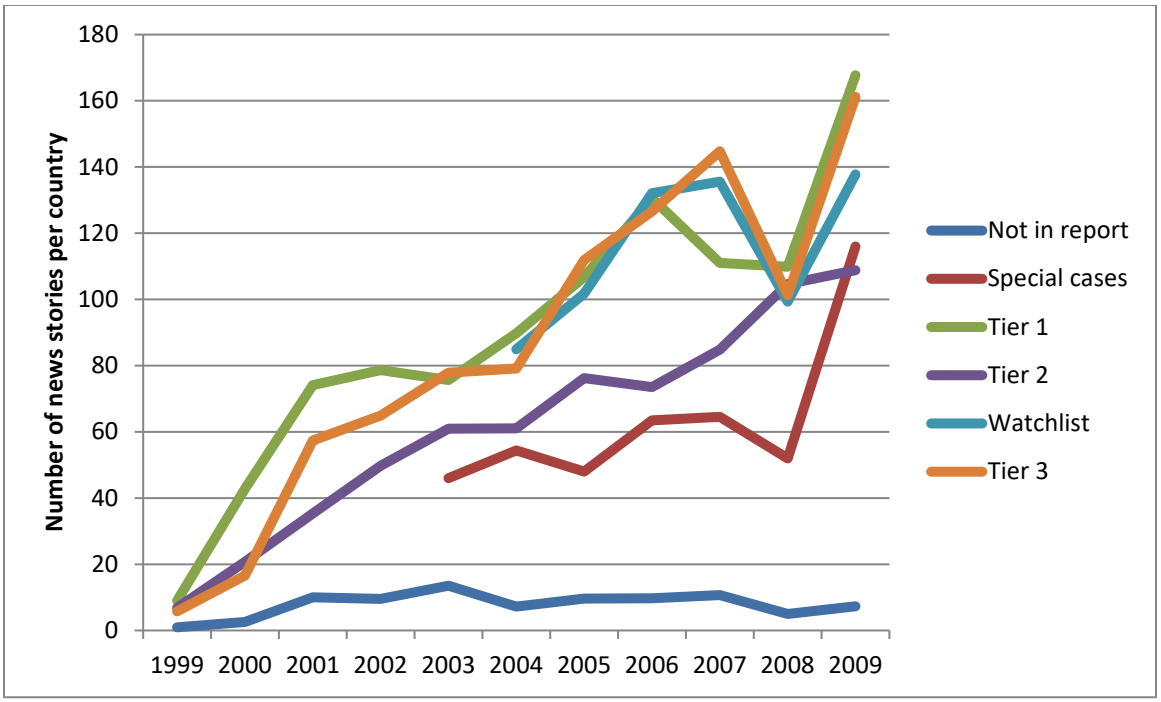

Figure 1: Media Coverage of Human Trafficking in countries rated and unrated by the annual United States' *Trafficking in Persons Report*

Source: Lexis-Nexis database.
NOTE: Years 1999 and 2000 are based on countries' rating/ status in 2001.

Ongoing US monitoring, channeled through US embassies abroad, has stimulated information producing networks among ministries of foreign affairs, prosecutors' offices, border police, and a broad array of non-governmental organizations. Indeed, before the State Department began monitoring, most governments did not gather or would not share information on human trafficking systematically (Laczko 2002, Lee 2005). The annual information gathering stimulated by the US report thus raises the awareness and knowledge of the issue and engages local actors. Alongside the narrative reports, the TIP monitoring and rating system has the potential to mobilize domestic groups to demand and stimulate state bureaucracies to supply attention to the problem of human trafficking.

For these reasons, we hypothesize that countries included in the US reporting regime will strengthen their laws on human trafficking to a greater extent than countries not included in the monitoring regime. We also hypothesize that countries rated at a lower tier will move to correct their policies, and that they will make an effort to do so particularly after they are placed on or below the watch list. This leads us to posit three major hypotheses. The first relates purely to monitoring:

> **Scrutiny Hypothesis**: *Inclusion in a report makes compliant behavior more likely.* Specifically, countries included in the US reporting system will be more likely to criminalize than countries not included in the reporting system.

The second relates to the power of socially constructed thresholds to alter behavior:

> **Bright line hypothesis**: *Explicit categories of social shame induce more compliant behavior.* Specifically, countries placed on the watch list or Tier 3 will be more likely to criminalize than those ranked Tier 2 or above.

The third relates to the first time effects of watch listing a country, or what we refer to as “social demotion:”

Demotion hypotheses: *The first clear instance of shaming positively affects compliance behavior.* Specifically, countries that have been recently demoted to the watch list or below will be more likely to criminalize than other countries.

III. Empirical approach

The analysis proceeds in three stages. First we analyze inclusion in the TIP report as well as determinants of shaming. These are important in considering selection issues, which influence the strength of any conclusions about monitoring and rating. For example, if the United States strategically monitors or shames states that are likely to criminalize human trafficking *anyway*, the analysis will over-estimate the effects of monitoring and rankings on policy. We therefore begin with a cox proportional hazards model of determinants of time to inclusion in the report, followed by a probit analysis of determinants of the likelihood of shaming – that is, the likelihood that the US places a country on the watch list or Tier 3.

The main analysis examines the effect of monitoring and ranking on state behavior. As discussed further below, the dependent variable is criminalization of human trafficking in domestic law. Because this is a unidirectional event that occurs only once per country in the dataset, a cox proportional hazards model is used to analyze how various factors influence the probability that a country will criminalize, given that it has not already done so. All explanatory and control variables are lagged to help address reverse causality and selection issues. Even though the statistical analysis cannot establish causality definitely its purpose is to establish plausibility of the claim that

international actors can use ratings and reporting to influence other state's policy. The data are global and include the years 2000-2011.

The Dependent Variable:

The US supports a wide range of anti-trafficking policies. We have chosen a relatively objective dependent variable to represent compliant behavior, namely whether countries criminalize human trafficking in their domestic legislation. Criminalization is one of the main tenets of the 2000 UN human trafficking protocol.[13] It is widely viewed as necessary, though not sufficient, for greater anti-trafficking efforts (Gallagher 2001:980) and is one of the foremost goals of US policy.[14] Some research suggests that stringent law enforcement efforts in fact do reduce the likelihood of human trafficking corridors between states (Frank and Simmons 2013). Legislative change in a country's penal code is often a significant endeavor. Many democracies have cumbersome legislative processes where politicians may want to prioritize other matters. In other cases, criminalization is resisted by cultural practices that tolerate domestic servitude or underpaid or bonded child labor. In some countries, local officials benefit directly and indirectly from trafficking, which can further increase resistance to criminalization. While it is clearly not as difficult to pass a law as to enforce it, the former often enables

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[13] Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, Article V Paragraphs 1 and 2. Text at http://www.uncjin.org/Documents/Conventions/dcatoc/final_documents_2/convention_%20traff_eng.pdf.

[14] See policy statement by the Department of Justice at http://www.justice.gov/archive/olp/human_trafficking.htm.

the latter. Moreover, criminalization may raise *expectations* of greater law enforcement efforts, which may be politically difficult for some governments to ignore.

Legislative responses to the demand for criminalization may take various forms. Consistent with the US Department of State's expectations, a country is classified as having *fully criminalized* when it prohibits all forms of human trafficking, including sex and labor trafficking of men, women and children, and when the domestic law prescribes minimum sentences of 3-5 years. Sources include the UN global report on trafficking, US TIP reports, and domestic legislation from the International Organization of Migration (IOM) database. The dependent variable indicates the status of criminalization in the twelve-month period prior to the release of the TIP report.

Explanatory Variables

Several variables capture social pressure. *In Report* is an indicator that denotes whether a country is rated in the report at all and therefore captures "scrutiny." *Tier* denotes the country's rating: whether *1, 2, 3* or placed on the *Watch list*. These indicators capture the degree of shaming, with Tier 1 countries being praised for full compliance. A binary indicator of *Shaming*, defined as placement of a country either on the watch list or Tier 3, is also used. *First demotion* is an indicator equal to 1 in a year that a country is placed either on the watch list, or rated a Tier 3 (without first having been on the watch list) for the first time. We also include some measures of US material power that may be very relevant to the specific rated state. The most direct pressure point in the context of human trafficking is aid assistance. We use primarily *log of US aid*, but also *US aid as share of GDP.* As an additional check, the target country's *trade with US as a share of GDP* is also used.

Throughout the analysis a number of other variables are used as controls. All are described further in the supplementary materials (item 1). *Intensity of the trafficking* problem in countries of *origin, transit* and *destination countries* was generated based on the 2006 UN Trafficking in Persons report and is a constant for all years, *Missing information* measures the availability of information on trafficking, which may influence the ability of the US to include a country in the report in the first place. It is a count of how often a country has missing information on ten types of data in a given year, including seven unrelated to trafficking. To reflect the US State Department's access to information about trafficking in the country, we also created a variable, *NGO density*, based on the number of NGO mentions in the US TIP reports, extended backwards to all years, creating a constant measure for almost all countries included in the analysis. Finally, *regional density of criminalization* measures the proportion of countries within a country's region that had criminalized as of the previous year. Other variables include *civil liberties* from Freedom House, an indicator of *2000 TIP protocol ratification*, *total population (logged)* as well as measures of a country's *bureaucratic quality*, *rule of law*, *corruption*, or the *share of women holding seats in parliament.* All sources and measurement details are listed in the supplementary materials (item 1).

IV. Findings

Preliminaries: Inclusion in the report and shaming

As discussed, the TIP report methodology section is fairly explicit about inclusion criteria: There must be sufficient information and evidence of at least 100 cases of trafficking reported. Table 1 supports this informational explanation of the data generation process, using a Cox proportionate hazard model to estimate time to inclusion

in the report. *Missing information*, and the estimated *intensity of the trafficking* problem in countries of *origin, transit* and *destination* are the factors most robustly associated with inclusion in the TIP Report. Few other factors explain inclusion. As Table 1 shows, countries with *worse civil liberties* are also likely to be included. The level of *NGO density* and *total population (logged)* are only occasionally significant. Additional testing, shown in the supplementary materials (item 3.1), reveals no correlation for other factors that might influence both criminalization and monitoring: inclusion in the TIP Report is not correlated with *trade with US as a share of GDP*, *log of US aid*, *US aid as share of GDP*, or a country's wealth (*log of GPD per capita*). Nor is it influenced by a country's *bureaucratic quality*, *rule of law*, *corruption*, or the *share of women holding seats in parliament*. In sum, as the US itself acknowledges, *missing information* (negatively) and *trafficking intensity* (positively) are the factors that drive selection into monitoring. Strategic monitoring based on the likelihood of criminalization or special political or economic relationships finds no support.

Table 1:

Time to a country's inclusion in the annual *US Trafficking in Persons Report*
Table 1: Cox duration models of time to inclusion in report, Hazard Ratios

	Model 1.1	**Model 1.2**	**Model 1.3**
Total population (logged)	1.172** (0.0758)	1.076 (0.0714)	1.011 (0.0559)
Missing information	0.736*** (0.0374)	0.738*** (0.0380)	0.831*** (0.0592)
NGO density		1.086* (0.0481)	1.064 (0.0442)
Worse civil liberties		1.096** (0.0504)	1.103* (0.0558)
Regional density of criminalization		2.101 (1.027)	1.359 (0.641)
2000 TIP Protocol Ratification		0.944 (0.177)	1.064 (0.207)

Trafficking intensity in countries of origin			1.100* (0.0595)
Trafficking intensity in transit countries			1.133*** (0.0545)
Trafficking intensity in destination countries			1.184*** (0.0747)
Observations	663	493	384
Number of countries	179	146	146
Number of criminalizations	169	161	145

*** p<0.01, ** p<0.05, * p<0.1

Robust standard errors in parentheses. All explanatory variables are lagged one period unless otherwise noted. All models satisfy the proportional hazards assumption.

Does the U.S. strategically shame countries that are likely to criminalize anyway? This is important for understanding selection issues, but in practice this is quite implausible; indeed it could be counter-productive to embarrass those on the verge of improving on their own. While the US did apparently drop Jordan to the watch list to pressure officials to speed up the long-lingering process of criminalization, there is no general pattern of manipulating ratings prior to criminalization. For example, Austria and Australia both entered the report in 2004 as a Tier 1 and stayed there until they criminalized fully in 2004 and 2006, respectively. Chile also entered in 2004 as a Tier 2 and stayed there although it did not criminalize until 2011. The idea that the rating reflects the immediate anticipation of criminalization seems unfounded.

Nor is there any systematic statistical evidence that the US strategically shames easy-to-influence states. Table 2 displays the results of several probit models designed to predict shaming, defined as either watch list or Tier 3 status. Some factors that might also explain criminalization do correlate with shaming. States are more likely to be shamed the more *US aid (logged)* they get, the larger their *GDP (logged),* the smaller their *total population (logged)*, the greater their TIP-related *NGOs density*, and if they have *ratified the 2000 TIP protocol*. Supplementary models (items 3.2 and 3.3) also find that

trafficking intensity in *origin, transit* and *destination countries* is sometimes associated with shaming.

On the other hand, some factors that drive shaming seem to work in the opposite direction of what would favor criminalization: Countries are more likely to be shamed the *less* democratic they are, the *more* corrupt they are and the *lower* their rule of law. Lastly, a number of other variables that might affect criminalization were not associated with shaming, such as *regional density of criminalization*, *US trade share of GDP*, *missing information*, and *bureaucratic quality*. (See Supplementary Information item 3.3, which show the results hold when restricting the sample to countries that have not criminalized.) Overall, there is practically no systematic evidence that the US merely criticizes countries that would have criminalized anyway.

Table 2: Correlates of Shaming in annual *US Trafficking in Persons Reports*
Logit model; odds ratios reported

	Full sample	
	Model 2.1	**Model 2.2**
Civil Liberties	1.720*** (0.094)	1.766*** (0.102)
US aid logged	1.063*** (0.017)	1.069*** (0.017)
GDP (logged)	1.637*** (0.117)	1.540*** (0.109)
Total population (logged)	0.607*** (0.050)	0.643*** (0.053)
2000 TIP Protocol Ratification	2.606*** (0.353)	2.636*** (0.359)
NGO density	1.188*** (0.058)	1.194*** (0.059)
Corruption	0.568*** (0.081)	
Rule of Law		0.698** (0.099)
Constant	0.000*** (0.000)	0.001*** (0.000)
Observations	1,846	1,846

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors in parentheses. All explanatory variables are lagged one period.

In short: states that are monitored and shamed with poor ratings are not easy cases ripe for criminalization. Monitored states are those about which the US is likely to have more information and with a worse trafficking problem than other states, but they are not more democratic, or richer or otherwise better placed to criminalize trafficking. Those shamed are likely to have worse civil liberties, corruption and rule of law, receive more US aid, all factors which would likely weigh against criminalization. They are more likely to have ratified the 2000 TIP protocol, and have more NGOs concerned with human trafficking, so in the following section, these potentially confounding conditions are taken into account.

Main analysis: criminalization

The analysis of criminalization generally supports the hypotheses. Table 3 first examines the scrutiny hypotheses by looking at the effect of being in the report both with and without interacting this variable with measures of US material pressures. Model 3.1 is included only to show that the trafficking incidence variables are not significant in predicting criminalization.[15] The rest of the models in Table 3 all show considerable

[15] Further analysis shows the models in both Table 3 and 4 do not satisfy the non-proportional hazard assumption when these incidence variables are included, so we do not interpret the explanatory variables in these models, and leave these variables out of the remainder of the models in Table 3 and 4.

support for the scrutiny hypothesis. Models 3.2 and 3.3 show that compared to countries not in the report, included states are about 3.6 to 3.9 times more likely to criminalize human trafficking in any given year. Other factors also matter. Countries are more likely to criminalize the greater the share of women in parliament, the greater their civil liberties, the greater the regional density of criminalization and if they have ratified the 2000 TIP protocol. Interestingly, US aid in itself appears to have little effect on criminalization.

Models 3.4 and 3.5 examine how the scrutiny in the reports *interacts* with US aid, measured either as the *US aid (logged)* or *US aid as share of GDP*. We also test the relationship for *trade as share of GDP* (not shown). Model 3.4 interacts *log of aid* with scrutiny. The interaction term has a p-value of .103, suggesting that scrutiny may marginally magnify the ability of the US to use aid effectively when the country is in the report. However, scrutiny encourages criminalization even among countries that receive no US aid, while aid in the absence of scrutiny has little effect on criminalization.

Perhaps the *expectation* of US aid, rather than the possible loss of it, leads countries to criminalize. As shown in the supplementary materials (item 3.5), there is no evidence that countries that criminalize receive any additional aid. Criminalization does not appear to be a function of aid expectations (see also Wooditch 2011). In sum, scrutiny of human trafficking policies may have *enhanced* the pressure of US foreign assistance from the United States, engendering results that aid alone has not been able to achieve.

Table 3: The relationship between scrutiny, aid and criminalization

Cox duration models of time to criminalization, Hazard Ratios

	Model 3.1	**Model 3.2**	**Model 3.3**	**Model 3.4**	**Model 3.5**
In Report	5.706***	3.609***	3.897***	2.208*	3.437***
	(3.387)	(1.218)	(1.289)	(1.052)	(1.205)
Share of Women in Parliament	1.019**	1.020**	1.016**	1.015**	1.016**
	(0.008)	(0.008)	(0.007)	(0.007)	(0.008)
Civil Liberties	0.888	0.900	0.867**	0.864**	0.843***
	(0.080)	(0.083)	(0.053)	(0.053)	(0.049)
Regional density of criminalization	4.576***	3.110**	4.048***	4.399***	4.453***
	(2.486)	(1.601)	(1.886)	(2.095)	(2.053)
2000 TIP Protocol Ratification	1.872**	1.787**	1.927***	1.888***	1.810***
	(0.460)	(0.442)	(0.438)	(0.432)	(0.398)
Missing Information (t-2)	1.192	1.154	1.192**	1.202**	1.212**
	(0.143)	(0.115)	(0.091)	(0.093)	(0.093)
Trafficking intensity in countries of origin	0.956				
	(0.085)				
Trafficking intensity in transit countries	1.146				
	(0.123)				
Trafficking intensity in destination countries	0.964				
	(0.104)				
Total population (logged)		0.951			
		(0.076)			
NGO density		1.116			
		(0.082)			
GDP per cap (logged)		1.105			
		(0.119)			
Corruption		1.008			
		(0.203)			
US Aid (logged)			0.978	0.937**	
			(0.015)	(0.029)	
US Aid (logged)* In Report				1.057	
				(0.036)	
US aid as share of GDP					0.988
					(0.012)
US aid as share of GDP * In Report					1.012
					(0.013)
Observations	1,251	1,307	1,392	1,392	1,373
Log Pseudo-likelihood	-400.5	-433.6	-467.4	-466.3	-457.7
Subjects	144	157	160	160	158
Failures	95	99	107	107	105

*** p<0.01, ** p<0.05, * p<0.1

Robust standard errors in parentheses. All explanatory variables are lagged one period unless otherwise noted. All models meet the proportional hazard assumption except Model 3.1. See fn. 15. Note: we also check the last two models by using trade as share of GDP and its interaction with being in report. The findings, not reported, are similar to model 3.5.

Table 4 examines the shaming and demotion hypotheses. Model 4.1 first includes the variables that were significant in predicting shaming. Several variables such as civil liberties, regional density of criminalization, women in parliament and 2000 TIP protocol ratification increase the likelihood of criminalization in the expected direction. Interestingly, whereas countries with worse civil liberties are more likely to be shamed, they are less likely to criminalize. Apparently more repressive regimes are among the most resistant to policy change. Several variables that were important in predicting shaming (e.g., variables capturing trafficking incidence) were not important in predicting criminalization.

Models 4.2 and 4.3 test for the effect of actual tier rankings. In both models, being shamed matters: countries below the bright line (on the watch list or ranked as Tier 3) are most likely to criminalize. Their likelihood of criminalization is higher than those countries not in the report, and in the case of Tier 3 countries, also higher than countries rated Tier 1. The coefficients on *Tier 3* and *Tier 1* are statistically different from one another in both models. However, as models 4.2 and 4.3 show, even countries rated Tier 1 are more likely to criminalize than countries not in the report at all, suggesting that these countries, although not shamed in the traditional sense, may be concerned with status maintenance. Tier 1 countries are 2.6 to 3.4 times more likely to criminalize in any given year than those not in the report. The coefficients on Tier 2 and watch list are also statistically different from each other, suggesting that the watch list constitutes a clear *bright line* that goes well beyond the milder criticism of being placed on the second tier.

Finally, Model 4.4 examines the demotion hypothesis. A first-time drop appears to galvanize legislative action within two to three years, and, by year 3, doubles the

likelihood of criminalization in any given year. The demotion models are robust to all the control variables discussed above and to the domestic variables found significant in the scrutiny model.

Overall, the observed relationship between monitoring, rating and criminalization does not appear to be explained by the variables that drive report coverage or ratings in the first place. Rather, it appears that countries react strongly to scrutiny, rankings and in particular falling below a certain socially acceptable threshold.

Table 4: The relationships between ranking, shaming and criminalization

	Model 4.1	**Model 4.2**	**Model 4.3**		**Model 4.4**
Tier 1	4.575**	2.628**	3.420***	In Report	3.331***
	(2.713)	(1.155)	(1.348)		(1.140)
Tier 2	2.517*	1.654	1.884*	First demotion	2.127**
	(1.225)	(0.566)	(0.613)	(t-3)	(0.640)
Watch List	7.324***	4.587***	4.870***	First demotion	1.676*
	(3.587)	(1.615)	(1.630)	(t-2)	(0.478)
Tier 3	10.575***	8.235***	7.211***	First demotion	1.259
	(5.300)	(2.867)	(2.455)	(t-1)	(0.334)
Share of Women in Parliament	1.022**	1.022***	1.020**		1.021***
	(0.009)	(0.009)	(0.008)		(0.008)
Civil Liberties	0.795**	0.814**	0.796***		0.820***
	(0.076)	(0.077)	(0.052)		(0.048)
Regional density of criminalization	4.318***	3.742**	4.110***		4.756***
	(2.319)	(2.019)	(1.968)		(2.130)
2000 TIP Protocol Ratification	1.848**	1.965***	1.859***		1.643**
	(0.484)	(0.491)	(0.421)		(0.370)
Missing information	1.143	1.044	1.141*		1.194**
	(0.130)	(0.104)	(0.084)		(0.091)
Trafficking intensity in countries of origin	1.029				
	(0.092)				
Trafficking intensity in transit countries	1.116				
	(0.119)				
Trafficking intensity in destination countries	0.924				
	(0.098)				
Total population (logged)		0.961			
		(0.084)			
NGO density		1.082			
		(0.077)			

US Aid (logged)		0.969			
		(0.023)			
GPD per capita (logged)		0.905			
		(0.109)			
Corruption		1.101			
		(0.247)			
Observations	1,251	1,307	1,392		1,392
Log Pseudo-likelihood	-391.5	-422.9	-458.8		-464.9
Subjects	144	157	160		160
Failures	95	99	107		107

*** p<0.01, ** p<0.05, * p<0.1
Robust standard errors in parentheses. All explanatory variables are lagged one period unless otherwise noted. All models meet the proportional hazard assumption except Model 4.1. See fn.15.

Robustness checks

The association of monitoring and ranking with criminalization cannot easily be attributed to other factors. The results cannot be explained by ratification of the 2000 human trafficking protocol, which is controlled in the tables above. Chronologically, states are more likely to ratify the protocol *after* they enter the report than before. It is possible, however, that the US is simply good at selecting countries that *intended* to ratify the protocol and criminalize, and that this intent is really driving criminalization patterns. To check for this possibility or other factors related to the early years of the report, the first four years of the report were excluded from the analysis so that early ratifiers do not bias the analysis. The main results still hold. Although the ratification of the protocol is associated with criminalization, this is unlikely to account fully for the positive relationship between inclusion in the TIP report and criminalization. We also ran models for scrutiny and shaming excluding countries that are consistently rated either Tier 1 or Tier 3 throughout the reporting years, making the test as close as we can to a regression discontinuity design without being privy to discussions about which Tier 2 countries came closest to being bumped down to the watch list. The main results hold. Finally, the

European Union (EU) has been another prominent actor in fighting human trafficking. It has been active in pushing for ratification of the UN protocol and its members are also obligated to criminalize under various EU directives. It could therefore be that EU countries drive the results. All EU countries were removed from the sample; the main results are robust to this exclusion (Supplementary Materials, item 3.6).

V. Conclusion

For international actors seeking to wield influence in interstate relations, information is a potentially powerful policy tool, especially when it takes the form of easy-to-understand rankings or ratings. Similar to the sociological concept of reactivity, once decision makers realize that they are being monitored they may change their priorities to meet external expectations. Monitoring can also be facilitative: it spurs information gathering and disseminates information on what it takes to garner social approval. Finally, when monitoring produces comparable numerical indicators, it can stimulate competitive status concerns domestically and internationally and enhance shaming by drawing a bright line under socially acceptable behavior. Such bright lines can stimulate domestic mobilization around an issue, raising demands for policy change. They can also shame individual ministers or ministries. Government officials react strongly to negative performance indicators in their areas of responsibility. Pakistan's Interior Ministry provides striking evidence of the power of falling below a socially acceptable bright line. According to a 2008 press release from the Ministry: "[T]he United States State Department had previously ranked Pakistan on Tier-2 Watchlist which was a cause of concern for the country. With significant efforts of Ministry of

Interior ...[]... under the supervision of Rehman Malik, Minister for Interior, the US has upgraded Pakistan's ranking. This development has improved the stature of Pakistan before the world."[16] Not only do government officials dislike low ratings, they respond positively to them, and then take credit, sometimes publicly, for improving their grade.

This paper is one of the first to offer cross-national systematic analysis of the use and performance of indicators as social pressure in interstate relations. The case of the US global policy on trafficking in persons provides some initial evidence that governments respond to the scrutiny that comes from inclusion in a monitoring scheme. It appears that states are sensitive to monitoring, respond faster to harsher "grades," and react when their grade first drops below a socially significant threshold. Confidence in the findings is bolstered by the ability to rule out several alternative explanations.

This research augments our knowledge of international politics by exploring the subtle processes of establishing and promulgating indicators of status and respectability. Moreover, this research goes beyond the well-known phenomenon of "naming and shaming" to suggest the critical role of monitoring itself as a way of wielding power. Given the growing role of information technology worldwide, the need to understand the effects of monitoring takes on added urgency. Combined with indicization, such performance information has a potentially powerful impact on state policies.

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[16] Associated Press of Pakistan. "Upgradation of Pakistan on human trafficking list a significant achievement." June 28, 2012. Available at http://www.app.com.pk/en_/index.php?option=com_content&task=view&id=107655&Itemid=2. Accessed December 2, 2013.

Although the evidence supports the powerful influence of monitoring and ranking, more research is needed. How does the proliferation of rankings from various sources influence their effectiveness? Does it matter whether rankings are produced multilaterally rather than unilaterally, or by private actors rather than public ones? Does monitoring and rating matter in issue areas less imbued with normative significance than is the case of human trafficking? Do numbers consistently have more influence than narratives alone? Future research should explore scope conditions for the influence of monitoring and ranking schemes. To date, rating schemes by respected actors have mostly been used as *dependent variables*; these findings suggest the value of a research program that converts them into *explanatory variables* and looks for their impact on specific policy innovations.

Research along these lines will greatly increase our knowledge of "soft power" that underlies modern global governance. It should also spark further inquiry into the incentives of actors to collect and propagate such information in the first place, as well as the strategies actors employ to enhance perceptions of the 'authoritative' quality of the information they produce. In terms of practice, more knowledge of alternatives to the traditional policy tools of coercion and direct intervention in other states' affairs would be welcomed by those charged with formulating and executing foreign policy. The evidence presented here is a beginning.

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SUPPLEMENTARY INFORMATION FOR "POLITICS BY NUMBER: INDICATORS AS SOCIAL PRESSURE IN INTERNATIONAL RELATIONS"

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1. DATA TABLE

Name	**Description**	Source
Full Criminalization	The complete prohibition of all forms of human trafficking, including sex and labor trafficking for men and women, children and adults. Penalties must be significant, usually meaning minimum sentences of 3-5 years. Note that, because the US trafficking report comes out annually in June, to avoid sequencing errors in our inference, a country is coded as having fully criminalized in a given year only if it had done so prior to the issuance of the report in June. Dates usually refer to the actual enactment of the legislation, but in cases where that information is not available, the month of passage of the legislation is used. If no date could be established, the country was coded as having fully criminalized that year (equivalent to an assumption that it criminalized before the report came out, thus biasing any systematic error against a finding of an effect of the report on criminalization).	UN global report on trafficking, 2009. US TIP reports, domestic legislation from the International Organization of Migration (IOM) database and other sources.
In Report	Dichotomous variable indicating whether a country is included in the report.	US TIP Report
Tier 1	Dichotomous variable (0/1) indicating whether the US has rated a country as Tier 1, which means that the US has assessed it to fully comply with the Trafficking Victims Protection Act's (TVPA) minimum standards.	US TIP Report
Tier 2	Dichotomous variable (0/1) indicating whether the US has rated a country as Tier 2, which means that the US has assessed that it does not fully comply with the Trafficking Victims Protection Act's (TVPA) minimum standards, but is making efforts to do so.	US TIP Report
Watch list	Dichotomous variable (0/1) indicating whether the US has placed a country on the Tier 2 watch list, which means that it may drop to Tier 3 the following year.	US TIP Report
Tier 3	Dichotomous variable (0/1) indicating whether the US has rated a country as Tier 3, which means the US has assessed that it does	US TIP Report

	not fully comply with the minimum standards and is not making significant efforts to do so.	
Shaming	Dichotomous variable (0/1) indicating whether the US has rated a country as Tier 3 or placed it on the watch list	US TIP Report
First Demotion	Dichotomous variable (0/1) coded 1 in a year that a country is placed either on the watch list or rated a Tier 3 (without first having been on the watch list) for the first time.	US TIP Report
Sanctions (used supplementary testing only)	Dichotomous variable (0/1) indicating whether a country received any sanction that was not subsequently waived by the US president according to Section 110 (d) of the United States Victims of Trafficking and Violence Protection Act of 2000.	Annual US presidential statements, TIP report
US Aid	The log of Total Aid from the United States constant 2010 $US. We add 1 before taking the log so that the value for no aid is 0.	US Overseas Loans & Grants [Greenbook]
Civil Liberties	Freedom House Civil Liberties; 1 to 7 scale, with 1 representing the best civil liberties and 7 the worst.	Freedom House, http://www.freedomhouse.org/reports
Bureaucratic Quality	Ranging from 0-4, with 4 indicating the highest quality	The International Country Risk Guide (ICRG), www.prsgroup.com
Share of women in parliament	Share of voting seats in the lower house of national parliaments held by women (% of total seats), as of the last day of the listed year.	Women in National Parliaments, statistical archive. http://www.ipu.org/wmn-e/classif-arc.htm, accessed February 2012.
Trafficking intensity in (destination/origin/transit) countries	Incidence of reporting of trafficking persons in (destination/origin/transit) countries. 1=very low; 2=low; 3=medium; 4=high; 5=very high.	2006 UNODC TIP report, Appendix 5- Incidence of reporting of (destination/origin/transit) countries. The incidence from the 2006 report is extended to all years in the analysis.
Regional density of criminalization	A measure capturing the percent of countries in a region that have criminalized trafficking	Generated based on the criminalization variable
GPD (logged)	GDP in current US dollars	World Bank

		Indicators
GPD per capital (logged)	GPD/ Total Population (logged) in current US dollars	World Bank Indicators
Corruption	Variable ranging from -1.7 to 2.4	World Bank Indicators
Rule of Law	Variable ranging from -2.2 to 2.0	World Bank Indicators
Total Population (logged)	The log of total population	World Bank Indicators
2000 TIP Protocol Ratification	An indicator (0/1) for whether a country has ratified the UN Palermo Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime	United Nations website
NGO density	A count of number of total times the annual US State Department TIP report for a given country mentions the word NGO, divided by the number of reports in the data. Thus, it captures average number of NGO mentions per report for a given country and it is a constant for each country. The data is extended backwards to years before a country was included in the report.	TIP report, variable generated by authors
IGO density (used supplementary testing only)	Analogous to NGO density, only counting mentions of the following specific IGOs: ILO, IOM, OSCE, UNICEF, Council of Europe, UNHCR, UNIFEM and UNDP	TIP report, variable generated by authors
Missing Information	A count of number of variables for which information is missing in a given year for: Freedom House civil liberties, the International Country Risk Guide corruption score, Erik Voeten's UN Affinity voting data, and four variables from the World Bank: Net ODA, Intentional homicides, Health expenditures, and GDP. The variable also counts the three variables from the UN incidence data on TIP, adding a one for each of these variables where the UN did not find any information.	Author generated based on included variables and their sources

2. MEDIA COVERAGE

To examine media coverage we created the following additional variables

Coverage: the log of the number of times a country's name will appear in a news story in the Lexis-Nexis database within 50 words of the phrase "human trafficking" (or a close cognate)

In report: an indicator equal 1 when a country is included in the report (or *Unrated* reversed)

Change in coverage: the change in Lnstory from year t-1 to year t.

First year in report: an indicator for the first year a country is in a report

	Model 1	**Model 2**	**Model 3**
	Change in coverage	**Coverage**	**Coverage**
First year in report	0.219***		-0.0437
	(0.0564)		(0.0657)
In report		0.497***	0.516***
		(0.0572)	(0.0695)
Coverage (lagged)	-0.752***	0.192***	0.188***
	(0.0238)	(0.0240)	(0.0247)
Freedom House political rights (lagged)	0.0378	0.0440	0.0387
	(0.0314)	(0.0306)	(0.0309)
GDP per capita (logged and lagged)	0.308*	0.335**	0.325**
	(0.168)	(0.161)	(0.165)
2000 TIP Protocol Ratification	0.102*	0.0344	0.0384
	(0.0524)	(0.0509)	(0.0522)
Total Population (logged and lagged)	2.970***	2.969***	3.034***
	(0.376)	(0.366)	(0.369)
Constant	-47.52***	-46.81***	-48.59***
	(6.337)	(6.202)	(6.226)
Observations	1,664	1,690	1,664
R-squared	0.486	0.702	0.698
Number of cowcode	174	174	174

All models have country and year fixed effects
**** p<0.01, ** p<0.05, * p<0.1, Standard errors in parentheses*

The analysis here is suggestive. There are outliers and the relationships depend on logging the dependent variable. That said, Model 1 captures the effect of being included in the report. That is the first year bump. Model 2 captures just the effect of being in the report generally. Model 3 combines them suggesting there is a smaller gain in the first year and then stronger thereafter.

3. SUPPLEMENTARY TESTING

3.1 Robustness tests for table 1: Time to Inclusion

Cox duration models of time to inclusion in report, Hazard Ratios

Total population (logged)	1.177**	1.259***	1.166**	1.096	1.140**	1.169**	1.085	1.193***	1.193***
	(0.078)	(0.061)	(0.073)	(0.067)	(0.060)	(0.078)	(0.067)	(0.075)	(0.074)
Missing Information	0.742***	0.746***	0.741***	0.719***	0.775***	0.738***	0.738***	0.723***	0.723***
	(0.039)	(0.038)	(0.036)	(0.034)	(0.037)	(0.042)	(0.042)	(0.039)	(0.039)
Share of Women in Parliament	0.998								
	(0.006)								
Share of Trade w/ the US		0.540							
		(0.238)							
US Aid (logged)			1.013						
			(0.012)						
IGO density				1.014					
				(0.073)					
Criminalization					0.939				
					(0.200)				
GPD per capita (logged)						0.946			
						(0.053)			
Bureaucratic Quality							0.971		
							(0.069)		
Rule of law								0.959	
								(0.085)	
Corruption									0.952
									(0.079)
Observations	646	550	663	575	504	638	361	647	647
Log Pseudo-likelihood	-706.0	-666.5	-734.5	-721.7	-689.5	-721.7	-547.5	-715.6	-715.6
subjects	174	165	179	171	163	175	134	179	179
failures	164	157	169	169	161	167	132	163	163

*** p<0.01, ** p<0.05, * p<0.1, Standard errors in parentheses. All variables lagged by one year unless otherwise noted

3.2. Robustness tests for Table 2: Selection into Shaming, Full Sample

Logit models, odd ratios

	With corruption			With rule of law		
Civil Liberties	1.850***	1.994***	1.796***	1.927***	2.072***	1.857***
	(0.120)	(0.160)	(0.130)	(0.126)	(0.169)	(0.137)
US Aid (logged)	1.092***	1.090***	1.067***	1.095***	1.096***	1.076***
	(0.019)	(0.023)	(0.021)	(0.019)	(0.023)	(0.021)
GDP (logged)	1.585***	1.693***		1.475***	1.590***	
	(0.130)	(0.185)		(0.115)	(0.166)	
Total population (logged)	0.611***	0.565***	0.974	0.645***	0.605***	0.989
	(0.056)	(0.068)	(0.059)	(0.057)	(0.070)	(0.059)
2000 TIP Protocol Ratification	2.809***	3.553***	3.010***	2.888***	3.621***	3.003***
	(0.421)	(0.718)	(0.556)	(0.434)	(0.736)	(0.557)
NGO density	1.261***	1.372***	1.231***	1.265***	1.398***	1.249***
	(0.069)	(0.091)	(0.075)	(0.069)	(0.093)	(0.077)
Corruption	0.577***	0.613**	0.454***			
	(0.093)	(0.133)	(0.092)			
Rule of law				0.716**	0.823	0.667**
				(0.114)	(0.172)	(0.125)
Missing Information	0.887	0.955	1.124*	0.861*	0.935	1.098
	(0.070)	(0.095)	(0.079)	(0.067)	(0.093)	(0.077)
US trade as share of GDP		0.432	0.462		0.498	0.569
		(0.360)	(0.356)		(0.417)	(0.436)
Share of Women in Parliament		0.989	0.989		0.987	0.985*
		(0.010)	(0.009)		(0.010)	(0.009)
Bureaucratic Quality		0.885	1.125		0.816	1.028
		(0.133)	(0.156)		(0.123)	(0.145)
Regional density of criminalization		0.892	0.951		0.920	1.027
		(0.361)	(0.351)		(0.370)	(0.375)

Trafficking intensity in countries of origin	0.850**	0.940		0.865**	0.955	
	(0.060)	(0.082)		(0.062)	(0.085)	
Trafficking intensity in transit countries	0.843***	0.821***		0.833***	0.807***	
	(0.053)	(0.062)		(0.053)	(0.061)	
Trafficking intensity in destination countries	1.217***	1.291***		1.248***	1.319***	
	(0.080)	(0.100)		(0.081)	(0.101)	
GPD per capita (logged)			1.757***			1.592***
			(0.175)			(0.151)
Constant	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	1,592	1,266	1,355	1,592	1,266	1,355

*** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses
All variables lagged by one year unless otherwise noted

3.3. Robustness tests for Table 2: Selection into Shaming, Sample limited to countries that have not yet criminalized

Logit models, odd ratios

	With corruption			With rule of law		
Civil Liberties	1.999***	2.191***	1.939***	1.986***	2.191***	1.940***
	(0.150)	(0.203)	(0.162)	(0.151)	(0.208)	(0.166)
US Aid (logged)	1.112***	1.109***	1.088***	1.110***	1.110***	1.091***
	(0.023)	(0.026)	(0.024)	(0.023)	(0.026)	(0.024)
GDP (logged)	1.619***	1.786***		1.608***	1.726***	
	(0.150)	(0.224)		(0.143)	(0.207)	
Total population (logged)	0.633***	0.562***	1.010	0.638***	0.584***	1.028
	(0.066)	(0.078)	(0.071)	(0.065)	(0.078)	(0.072)
2000 TIP Protocol Ratification	4.170***	4.779***	3.910***	4.175***	4.797***	3.883***
	(0.758)	(1.110)	(0.821)	(0.758)	(1.118)	(0.819)
NGO density	1.355***	1.436***	1.300***	1.353***	1.439***	1.301***
	(0.083)	(0.108)	(0.090)	(0.083)	(0.109)	(0.091)
Corruption	0.767	0.688	0.525***			
	(0.138)	(0.167)	(0.121)			
Rule of law				0.756	0.749	0.642**
				(0.135)	(0.179)	(0.141)
Missing Information	0.964	1.081	1.224**	0.953	1.065	1.199**
	(0.086)	(0.123)	(0.102)	(0.084)	(0.121)	(0.101)
US trade as share of GDP		0.474	0.247		0.467	0.250
		(0.431)	(0.213)		(0.429)	(0.218)
Share of Women in Parliament		1.001	0.993		0.999	0.989
		(0.011)	(0.010)		(0.011)	(0.011)
Bureaucratic Quality		0.937	1.140		0.918	1.090
		(0.163)	(0.191)		(0.162)	(0.185)
Regional density of		1.696	2.223*		1.718	2.297*

criminalization						
		(0.869)	(1.049)		(0.880)	(1.080)
Trafficking intensity in countries of origin	0.789***	0.830*		0.783***	0.824*	
	(0.064)	(0.084)		(0.064)	(0.085)	
Trafficking intensity in transit countries	0.935	0.939		0.940	0.937	
	(0.071)	(0.082)		(0.071)	(0.083)	
Trafficking intensity in destination countries	1.224***	1.232**		1.242***	1.255**	
	(0.093)	(0.110)		(0.093)	(0.111)	
GPD per capita (logged)			1.965***			1.858***
			(0.223)			(0.203)
Constant	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	1.999***	2.191***	1.939***	1.986***	2.191***	1.940***

*** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses

All variables lagged by one year unless otherwise noted

3.4. Robustness tests for table 3: scrutiny and shaming

Cox duration models of time to criminalization, Hazard Ratios

	Excludes EU countries	Excludes years before 2004	Excludes years before 2005	Excludes countries always Tier 1 or Tier 3	Excludes EU countries	Excludes years before 2004	Excludes years before 2005	Excludes countries always Tier 1 or Tier 3
In Report	4.351***	4.556***	3.720***	4.339***				
	(1.678)	(1.7678)	(1.459)	(1.643)				
Tier 1					5.222***	4.381***	3.154**	2.800**
					(2.632)	(2.091)	(1.587)	(1.360)
Tier 2					1.914*	2.391**	1.978	2.120**
					(0.670)	(0.991)	(0.831)	(0.733)
Watch List					5.147***	6.212***	4.942***	5.278***
					(1.881)	(2.618)	(2.040)	(1.885)
Tier 3					7.399***	9.482***	7.528***	9.029***
					(2.684)	(4.307)	(3.415)	(3.264)
Share of Women in Parliament	1.018**	1.016**	1.016*	1.015*	1.020**	1.020**	1.021**	1.025***
	(0.009)	(0.008)	(0.009)	(0.008)	(0.009)	(0.009)	(0.009)	(0.008)
Civil Liberties	0.836***	0.878**	0.902	0.884**	0.796***	0.823***	0.837**	0.829***
	(0.051)	(0.054)	(0.057)	(0.055)	(0.053)	(0.058)	(0.059)	(0.054)
Regional density of criminalization	8.743***	4.686***	4.207***	4.389***	8.078***	4.231***	3.982***	4.541***
	(5.028)	(2.066)	(1.842)	(1.984)	(4.191)	(2.009)	(1.893)	(2.140)
2000 TIP Protocol Ratification	2.102***	1.554**	1.755**	1.794**	2.273***	1.651**	1.833**	1.762**
	(0.523)	(0.338)	(0.410)	(0.407)	(0.584)	(0.388)	(0.460)	(0.405)
Missing Information (t-2)	1.241***	1.251***	1.277***	1.228***	1.163*	1.185**	1.220**	1.150*
	(0.101)	(0.100)	(0.107)	(0.095)	(0.092)	(0.094)	(0.100)	(0.087)
Observations	1,291	793	656	1,306	1,291	793	656	1,306
Log Pseudo-likelihood	-379.9	-366.2	-336.0	-415.8	-370.6	-357.1	-328.2	-406.5
subjects	146	138	131	146	146	138	131	146
failures	89	85	78	96	89	85	78	96

*** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses. All variables lagged by one year unless otherwise noted

3.5. Does Criminalization cause aid?

	No country fixed effects, but clustered		Country fixed effects	
Criminalization status	-1.599***	-1.455***		
	(0.429)	(0.436)		
First year w/ change in criminalization status			-0.756	-0.725
			(0.604)	(0.615)
Criminalization status in other years			-1.999***	-1.809***
			(0.471)	(0.479)
US aid (Logged)	0.313***		0.314***	
	(0.042)		(0.042)	
US aid as share of GDP		-1.251		-1.332
GDP per capita (Logged)	-5.265***	-5.223***	-4.959***	-4.955***
	(1.096)	(1.118)	(1.105)	(1.127)
Total population (logged)	-9.152***	-5.131**	-9.073***	-5.053**
	(2.061)	(2.036)	(2.060)	(2.035)
		(6.036)		(6.031)
Constant	195.817***	135.763***	192.237***	132.497***
	(31.849)	(31.482)	(31.864)	(31.520)
Observations	1,767	1,767	1,766	1,766
R-squared	0.085	0.052	0.087	0.054
Number of un_ccode	161	161	161	161

3.6. Robustness tests for Model 4.4

Cox duration models of time to criminalization
Hazard Ratios

	Excludes EU countries	Excludes years before 2004	Excludes years before 2005	Excludes countries always Tier 1 or Tier 3
In Report	3.650***	3.726***	3.090***	3.6301***
	(1.450)	(1.448)	(1.216)	(1.410)
First demotion (t-3)	2.149***	2.010**	1.912**	2.047**
	(0.633)	(0.592)	(0.581)	(0.622)
First demotion (t-2)	1.541	1.541	1.510	1.645*
	(0.475)	(0.465)	(0.458)	(0.461)
First demotion (t-1)	1.360	1.255	1.163	1.322
	(0.358)	(0.348)	(0.326)	(0.353)
Share of Women in Parliament	1.021**	1.020**	1.019**	1.019**
	(0.009)	(0.008)	(0.009)	(0.008)
Civil Liberties	0.813***	0.856**	0.882**	0.860**
	(0.052)	(0.053)	(0.056)	(0.055)
Regional density of criminalization	9.583***	4.853***	4.341***	4.621***
	(5.052)	(2.071)	(1.837)	(2.044)
2000 TIP Protocol Ratification	1.980***	1.435	1.624**	1.673**
	(0.507)	(0.325)	(0.393)	(0.396)
Missing Information (t-2)	1.221**	1.225**	1.251***	1.201**
	(0.099)	(0.099)	(0.105)	(0.094)
Observations	1,291	793	656	1,306
Log Pseudo-likelihood	-376.9	-363.7	-334.0	-413.0
subjects	146	138	131	146
failures	89	85	78	96

*** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses, all variables lagged by one year unless otherwise noted

3.7. Sanctions: test for years before sanctions (2001-2003 only)

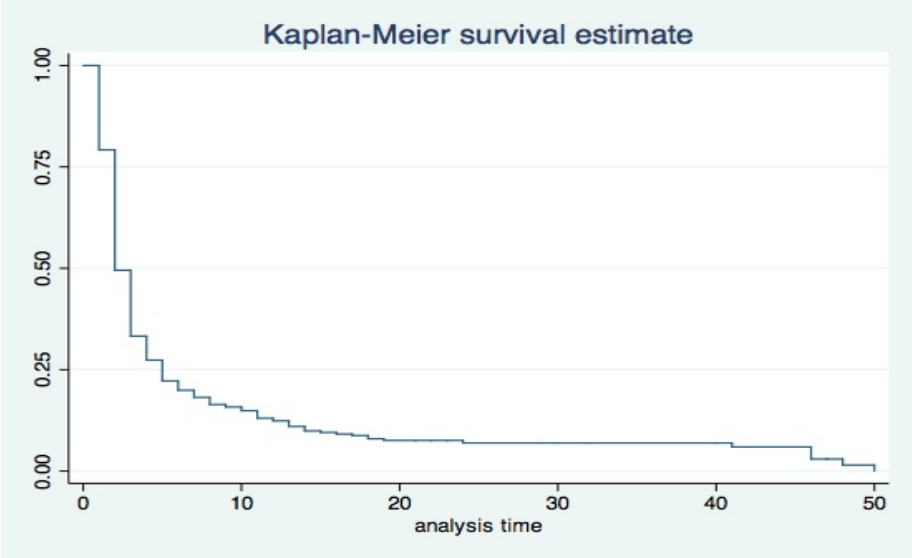
Cox duration models of time to criminalization
Hazard Ratios

Tier 3	4.096**	
	(2.619)	
Civil Liberties	0.575***	0.629**
	(0.121)	(0.117)
Share of Women in Parliament	1.001	0.998
	(0.024)	(0.024)
2000 TIP Protocol Ratification	8.006***	7.126***
	(3.486)	(3.095)
Total population (logged)	1.006	0.983
	(0.130)	(0.133)
Missing Information (t-2)	0.710	0.751
	(0.152)	(0.151)
In Report		1.537
		(0.784)
Observations	490	490
Log Pseudo-likelihood	-83.65	-84.98
subjects	169	169
failures	19	19

*** p<0.01, ** p<0.05, * p<0.1, standard errors in parentheses
All variables lagged by one year unless otherwise noted

4. OTHER INFORMATION

4.1. Kaplan Meier survival curve for time to criminalization



4.2. Year First Included in the TIP Report*

2001			2002	2003	2004	2005	2006	2007	2008	2009	2010
Albania	Georgia	Netherlands	Afghanistan	Belize	Argentina	Algeria	CentralAfRep	Fiji	Congo	Bahamas	Antigua&Barbuda
Angola	Germany	Nigeria	Armenia	Bolivia	Australia	Chad	Djibouti	PapuaNG	(Brazzaville)	Botswana	Barbados
Austria	Ghana	Pakistan	EqGuinea	Burundi	Azerbaijan	Libya	Guinea-Bissau			Eritrea	Grenada
Bahrain	Greece	Philippines	Estonia	Croatia	Chile	Mongolia	Ireland			Iceland	Kiribati
Bangladesh	Guatemala	Poland	Iran	Cuba	Cyprus	Oman	Jordan			Iraq	
Belarus	Haiti	Qatar	Latvia	Denmark	Ecuador	Syria	Malta			Lesotho	
Belgium	Honduras	Romania	Portugal	Finland	Egypt	Uruguay	Tunisia			Maldives	
Benin	Hungary	Russia	Senegal	Gambia	Guinea	YemenAR				Micronesia	
BosniaandHerz	India	SaudiArabia	Tajikistan	Jamaica	Guyana					Namibia	
Brazil	Indonesia	SierraLeone	Tanzania	Kenya	Madagasgar					Somalia	
Bulgaria	Israel	Singapore		Kuwait	Mauritania					St.Vincent	
BurkinaFaso	Italy	Slovenia		Liberia	NewZealand					Swaziland	
Burma	Japan	South Korea		Malawi	Panama					Trin &Tobago	
Cambodia	Kazakhstan	SouthAfrica		Mauritius	Paraguay					Turkmenistan	
Cameroon	KyrgyzRep	Spain		Mozambique	Peru						
Canada	Laos	SriLanka		Nicaragua							
China	Lebanon	Sudan		Niger							
Colombia	Lithuania	Sweden		Norway							
Congo (Zaire)	Luxembourg	Switzerland		Rwanda							
CostaRica	Macedonia	Thailand		SlovakRep							
Cote DíIvoire	Malaysia	Togo		Surinam							
CzechRep	Mali	Turkey		Uzbekistan							
DomRep	Mexico	UArabEmir		Venezuela							
ElSalvador	Moldova	UK		Zambia							
Ethiopia	Morocco	Uganda		Zimbabwe							
France	Nepal	Ukraine									
Gabon											

* Missing data on the dependent variable, so excluded from analysis: Cape Verde, Central African Rep, Comoros, Dominica, Grenada, Sao T&P, Seychelles, Solomon Islands, Somalia, Samoa, Antigua & Barbuda, Belize, Marshall Is, Micronesia, St. Kitts &Nevis, Vanuatu.