



WORKING PAPER NO. 388

Laws and Stigma: the Case of Prostitution

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Abstract

We study the opinions on prostitution that emerged from the World Value Survey. We show that individuals tend to justify prostitution more in countries where it is legal or regulated and less in countries where it is prohibited, even after controlling for religious, cultural and sociological factors. To overcome the endogeneity of the policy to the opinions, we propose an instrumental variable strategy, instrumenting prostitution policy with legal origins. At least for the case of prostitution, policies seem to affect opinions.

JEL classification: O17, K14, J16.

Keywords: Prostitution, Stigma, Law, Gender.

Acknowledgements: We would like to thank Luigi Benfratello and two anonymous referees for comments and suggestions that greatly improved the paper.

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1 Introduction

The amount of literature that assigns a central role to the stigma and reputation of prostitution, both for sex workers and clients, is growing (Della Giusta et al. 2008, 2009, Immordino and Russo 2014, 2015). The key features of all of these contributions is that the social stigma is a consequence, among other factors, of a given countrys policy approach. Specifically, those papers hypothesized that the stigma would be higher in the countries that prohibit prostitution and lower in the countries that have a *laissez-faire* or regulation regime, i.e. those that consider prostitution an occupation like many others.

In this paper, we present support for this theory, showing, empirically, that if prostitution is legal or regulated, individuals tend to justify it significantly more than they do if it is prohibited. We constructed a dataset matching country-level information on prostitution policies with the answers from the World Value Survey questions related to prostitution, to moral values, to religion and to womens roles in the society. Since the prostitution policy is likely to be endogenous to the attitudes, for instance because beliefs and values shape policies via the democratic process, we propose an instrumental variable strategy. Specifically, we used legal origins as an exogenous instrument for prostitution policy.

In addition to the main result, we also find that the attitude towards prostitution are significantly explained by: the percentage of Muslim and Buddhist respondents to the WVS questions, which both predict a more severe attitude (less justification); by the GDP per capita at PPP, with a more lenient attitude in richer countries; by the percentage of women respondents, which number is associated with a more lenient attitude; and by the average score to the WVS question: “Do you consider beating the wife justifiable”, because the positive responses to this question predict a greater tendency toward justification.

The bulk of the theoretical proposition that we empirically tested is from Della Giusta et al.s (2009) article, which highlighted the effects of different policy approaches on the social stigma associated with buying and selling sexual services and the effects thereof on equilibrium prices and quantities.

Our work is also closely related to Jakobsson and Kotsdams (2011), who investigated the attitudes towards prostitution and their effects on market outcomes in Norway and in Sweden.

They found that a policy reform that made buying sexual services a criminal offense in Norway did not much change the attitudes towards prostitution, although they were not able to make a causal statement (see also Kousmanen 2010 for a similar study). They explained the results stressing the likelihood that the laws have a greater effect on attitudes after longer periods of time, but their study only covered a relatively short time span. Nevertheless, they also found a significant change of attitudes following the reform when looking at data for the city of Oslo alone, where prostitution was arguably more visible: in the big city, the criminalization of clients did indeed increase the stigma towards them, in contrast with the nationwide result.

In a related contribution, Kotsadam and Jakobsson (2014), using the same dataset as their 2011 paper, also found that the same reform determined, in Norway, a decrease in the quantity of prostitution exchanges in the market but not an increase in the stigma. They interpreted the reduced quantity to be the result of an increase in the enforcement rather than of an increase in the stigma.

Unlike Kotsadam and Jakobsson (2011; 2014), we used a cross-country dataset that provides a wider perspective on the relationship between prostitutions legal regime and its stigma. However, we deal with aggregate data and we identify the effect of the legal regime on the stigma using an instrumental variable approach, while Kotsadam and Jakobsson relied on longitudinal data, identifying the effect with a difference in difference methodology. In terms of the findings, while our results contrast with what Kotsadam and Jakobsson found for Norwegians in general, they coincide with their results for the city of Oslo alone, which encompasses about one third of the Norwegian population. One possible explanation for why we found such a result when looking at aggregate data is that we compared countries that experienced the same policy for a reasonably long period of time, therefore having more time to influence attitudes.

2 Data

We constructed a dataset that matches the information from the World Value Survey (WVS) with information on prostitution policy. The WVS is a global research project, the aim of which is to compare people's beliefs and values in different countries and to track their evolution over time. Among the many questions contained in the surveys, which are distributed to representative na-

tional samples, is one specifically related to prostitution: “Do you consider prostitution justifiable?” Respondents answer on a scale from 1 to 10, where 1 indicates “Never justifiable” and 10 indicates “Always justifiable.” We used the last wave of the WVS, which covers the period from 2005 to 2008.

For each country included in the WVS, we classified the legal regimes prevailing at the time of the survey in one of three possible categories, consistently with our previous work (Immordino and Russo 2014; 2015): illegal, legal and regulated. Prostitution is illegal if it is specifically forbidden by the law and if the government enforces the law by spot checks resulting in fine or imprisonment. We grouped together the countries that punish the clients only, like Sweden; the countries that mainly punish sex workers, like the US; and the countries that punish both, like China. On the opposite side, prostitution is legal if the exchange of sex for money is not specifically prohibited by the law and if there are no other laws concerning prostitution except, eventually, for the prohibition of exploiting sex workers. Prostitution is regulated if it is specifically allowed by the law under certain circumstances. The regulations entail either licensing policies that concern the individual characteristics of the sex workers, typically establishing an age threshold or mandatory health checks; or zoning policies that confine prostitution to specific areas within a country or a city; or both. Of all the countries included in our sample, only Slovenia experienced a change of policy right before the survey, and we decided to exclude it from the analysis. We found most of the information on the legal regime through the national legislations (complete data documentation is available upon request).

Table 1 reports the complete list of countries with the year of the survey, the legal status of prostitution (at the time of the survey), the average answer to the WVS and the standard deviation of the answers. A nice feature of our dataset is that it includes countries at very different stages of development. In terms of GDP per capita, the ratio of the highest (Norway) to the lowest (Ethiopia) value in the sample, at PPP, is 68:1. Moreover, it also has variability within each single legal regime: among the countries that prohibited prostitution are Zambia and the US; among the countries with legal prostitution are France and Ethiopia; among the countries with regulated prostitution are Switzerland and Mexico. In addition, it also is heterogeneous in terms of religion, since we have countries where the majority of the population is Catholic, Protestant, Muslim, Buddhist and Hindus. In terms of education levels, not necessarily as a consequence of the

different levels of the GDP per capita, we also found heterogeneity. In short, we were reasonably able to exclude the possibility of sample selection.

Figure 1 plots for six countries the empirical distributions of the answers to the WVS question: “Do you consider prostitution justifiable” tTwo countries were represented for each policy regime. In the top graphs, we plotted the distributions for two countries where prostitution is illegal, the USA and Iran. In both countries, most of the respondents never justified prostitution, although the distribution was much more dispersed in the USA, where almost 20average answer, than in Iran, where more than 80% of the respondents strongly condemned prostitution. The middle graphs show the distributions for two countries with legal prostitution, Thailand and Spain. The distribution was bimodal in Spain, where most respondents gave an average answer or strongly condemned prostitution; conversely, the distribution was unimodal in Thailand, with most respondents condemning prostitution and with a decreasing weight for increasing justification. Finally, the bottom graphs show a plot of the distributions for two countries where prostitution is regulated: the Netherlands and Mexico. In the Netherlands, many individuals justified prostitution, with more than 15

Regarding the average responses by policy regime, the most significant empirical evidence is that average opinions were higher, or more justificative, in countries where prostitution is legal and regulated. Figure policy regimes and shows a more lenient attitude in countries where prostitution is regulated or legal. More specifically, the average score in the 18 countries where prostitution is illegal was 2.31, while it was 3.12 in the 22 countries where prostitution is legal and 3.91 in the 7 countries where prostitution is regulated. As for the variability of the answers, the standard deviation was similar in the countries with illegal and legal prostitution, respectively 0.86 and 0.88, but it was significantly higher in the countries with regulated prostitution, where it was 1.5.

In Table 2, we report the breakdown of the answers by the respondents individual characteristics. The answers were not very different, on average, for men and women: the cross sectional mean scores were 2.91 for male respondents and 2.66 for female respondents. Conversely, answers differed substantially based on the respondents marital status, with values that ranged from 2.39 of the widowed, to 3.55 of the divorced. Furthermore, we found a monotonic increase in the cross-sectional average scores by respondents education level, from 2.31 of individuals with no formal education to 3.07 of the individuals with a university education. Finally, we also found a variation

with respect to religion: the average answer for Catholics was 3.09, for Protestants was 2.83, for Orthodox was 2.41, while it was only 1.99 for Muslims.

Table 3 reports the summary statistics for the average score.

3 Analysis and discussion

To test if the law influences the opinions, and in what direction, we run the following regression:

$$opinion_i = \beta_0 + \beta_1 policy_i + \Psi controls_i + \varepsilon_i \quad (1)$$

where $opinion_i$, a continuous variable between 0 and 10, is the average score in the WVS question: “Do you consider prostitution justifiable”, $policy_i$ is a dummy that equals 1 if prostitution is legal or regulated, $controls_i$ is a vector of control variables and ε_i is an error term. The main problem with this regression is the endogeneity of the policy, which can be influenced by opinions. To deal with this problem, we instrumented policy with legal origins. The rationale is that legal origins influence the regulatory environment of a country (La Porta et al. 1999; 2008), for instance in terms of entry regulations (Djankov et al. 2002), labor market regulations (Botero et al. 2004), military conscription (Mulligan and Shleifer 2005a; 2005b) and government ownership of the media (Djankov et al. 2003), but they are exogenous because they were chosen in the past as a consequence of local political conditions in France and in England (Glaser and Shleifer 2002, La Porta et al. 2008). Therefore, they are not the result of cultural, religious or sociological aspects that, throughout their evolution, can be correlated to some omitted determinant of the opinions towards prostitution. Since our endogenous dependent variable refers to the regulation of a particular market, considering legal origins as an instrument is therefore natural. In section 4 we provide a more detailed discussion of the instrument relevance. As control variables we used a number of cross country indicators of sociological, cultural and religious aspects that can influence both the policy and the individual perceptions of prostitution. Table 4 and table 5 report, respectively, the correlations and the IV regressions results for the set of significant control variables.

Overall, the coefficient on policy was positive and significant, meaning that, if prostitution was

legal or regulated, individuals tended to justify it more than otherwise. Specifically, legalizing or regulating prostitution resulted, on average, in a score increase of 1.5 points on a scale from 1 to 10. Given that the sample mean of the score was 3 and that the standard deviation was 1.3, this effect is quite large. We concluded that these policies influence the individual attitudes towards prostitution with an expressive effect.

We found five control variables to be significant determinants of the individual attitudes towards prostitution: the percentage of Muslim and Buddhist respondents to the WVS questions, the GDP per capita at PPP (from the World Bank), the percentage of women respondents and the average score to the WVS question: “Do you consider beating the wife justifiable?”.

Greater percentages of Muslims and Buddhists were associated with lower justifications of prostitution, which finding is consistent with the strong moral characterizations of both religions. The level of GDP per capita was associated with an increase in the justification of prostitution, perhaps as a consequence of increasing democracy and freedom of expression that are associated with development. Since the vast majority of sex workers are women, and since there are different feminist views on prostitution, both supportive and critical, we were curious to see if the percentage of female population was a determinant of the opinions towards prostitution. We found that the greater the percentage of women respondents to the survey, the higher the score. Therefore, we assumed that women were more likely to consider the prostitutes as exploited victims of male individuals, and they showed empathy towards them.

The last variable is arguably the most interesting in shedding light on the cultural determinants of attitudes toward prostitution. Namely, an increase in the justification of a violent behavior against wives was associated with an increased justification of prostitution. One possible interpretation comes from the feminist view of domestic violence, according to which power, control, and patriarchal attitudes toward women can contribute, if not generate, men’s violence. Since this last variable is also potentially endogenous, we should nevertheless refrain from a causal interpretation of the coefficient.

Overall we concluded that some deep cultural and sociological determinants influence the opinions on prostitution over and above the policies. The inclusion of these controls in the regression is also important because they make the IV procedure more robust against the potential criticism that legal origins might serve as proxy for cultural or sociological factors.

As a robustness check, we considered the opinions of men and women separately and found a similar effect of the policy. The only notable difference in the regressions was that the R^2 was higher in the case of men.

We also considered the effect of the policies on the standard deviation of the opinions. The results are reported in the last column of Table 5. We found that legalizing prostitution also increased the standard deviation of the answers: not only did legalization and regulation make individuals more tolerant, but also they increased the variability in the opinions.

To further investigate, we regressed the percentage of individuals that answered a specific value (from 1 to 10) on policy, controlling for the same variables that we had in the main regression. The results are reported in Table 6. As expected, the countries where prostitution is legal or regulated had a lower percentage of low scores and a higher percentage of high scores, even controlling for cultural and religious aspects. Nevertheless, we found no evidence that the policy influences people with moderate opinions more than those with extreme opinions. In fact in the countries where prostitution is legal or regulated, we found a much smaller number of individuals who never justify prostitution and an increase of all scores above 5, with a peak at 5 and 10. Therefore the data do not support the view that individuals with very strong opinions on prostitution are less influenced by policy. This might have been the case if people with extreme opinions had some very strong and encompassing cultural backgrounds that left little place for other considerations.

4 The Instrument

The key to the identification assumption is that France and England chose the legal framework (civil law or common law) in the past as a result of different political conditions, and then they exported these laws through conquest and colonization. The framework survived despite local legal evolution. Therefore legal origins influence actual regulations, policies and economic outcomes (La Porta et al. 2008). Since the endogenous regressor in our model refers to the presence of regulations in a particular market, considering legal origins as an exogenous instrument is natural.

From a statistical perspective, the instrument is relevant in the regression, in the sense that it is a significant determinant of the endogenous policy variable. In particular, the first stage regression of the instrumental variable estimator highlights a significant coefficient of the French

legal origins, and the robust f-test of the significance of the regressor is 20.7 (the t-stat is 4.56). Therefore French legal origins explain the policy towards prostitution. This result adds to the long list of institutional dimensions that have been shown to be associated with legal origins, such as product and labor market regulations, investor protection, government ownership of the media and even military conscription.

To identify the empirical model we also need to exclude that legal origins have a direct effect on the opinions towards prostitution, over and above the effect through the policy regime, but this is extremely unlikely. The only potential issue is the possibility of a correlation between legal origins and some omitted, country-specific variable that might drive spurious results. In general, only weak evidence exists that legal origins serve as proxy for cultural, political or historical factors, as some critics of the legal origin theory sometimes claim. As shown by La Porta et al. (2008), legal origins do not serve as proxy for cultural factors, such as religion and broad social attitudes, or for political factors like proportional representation and social democracy.

As far as our study is concerned, the group of countries with French legal origins for which we have data is so heterogenous that a correlation with an omitted determinant of the opinions towards prostitution is extremely unlikely. For instance, a systematic difference in the perception is unlikely to exist regarding womens role in society, or in their actual role, since we have countries as different as Indonesia and Spain. In addition, we already controlled for some of the proxies that are correlated with womens roles, like female labor force participants and a relative percentage of female executives.

In addition, a cross country difference might also exist with respect to the development of womens emancipation movements correlated with legal origins. But, once again, the sheer number of differences in the countries where prostitution is legal or regulated is so large to make this possibility extremely unlikely. Another possibility might be related to the historical development of the civil rights movements, which could potentially be correlated with legal origins, and, in turn, the criminalization of the prostitutes would be a by-product of poor respect for civil rights. However, it is unlikely that Iran, Jordan, Ethiopia, France and the Netherlands have much in common as far as civil rights are concerned.

Religion should not be an issue as well, because in the regression we controlled both for religious denomination (percentage of Roman Catholics, Muslims, etc.) and for religious sentiment (how

often participants attend civil service and the percentage of individuals who declare religiosity).

To sum up, while we recognize that omitted variable biases are a serious issue in a cross-sectional study like ours, at the same time, we are sufficiently confident about our instrumental variable analysis validity.

5 Robustness

We considered several additional control variables in the regression, but we dropped them because they were not significant. Specifically, we did consider the following variables: With regard to the WVS survey: the percentage of the respondents to the WVS questions that declared to be religious; the percentage of respondents to the WVS questions that attended religious services once a week or more than once a week; the percentage of Catholic, Orthodox, Protestant, Hindu and Jewish respondents (one at the time and in various combinations); the average score to the question: “Do you consider divorce justifiable ”; the percentage of respondents having an elementary education, secondary education, a university education, or having no formal education; the percentage of married, divorced widowed and single respondents; the average age and the percentage of the respondents aged 15 to 24, 25 to 34, 35 to 44, 45 to 54, 55 to 64 and more than 65; Based on data from the World Bank: the percentage of female executives over the total number of executives in the country; the prevalence of HIV in the country; the percentage of rural population in the country; the female participation rate in the country; A dummy for OECD countries.

To test for the robustness of the specification, we included two separate dummies, for legal and for regulated prostitution, instead of the single dummy for both regimes, instrumenting them with French and German legal origins. The results were very similar and highlighted, as expected, a higher coefficient on regulated prostitution than on legal prostitution.

We also tried a different classification for the prostitution law for two countries: Ukraine and Russia. In Ukraine, although prostitution is formally illegal, there is little or no enforcement. In Russia, prostitution is illegal but it is an administrative offence rather than a felony. Therefore we tried classifying prostitution as *de facto* legal in both cases. The results are very close to the baseline specification. In addition, we tried excluding Jordan, which has the lowest average opinion in the sample, and the Netherlands, which has the highest average opinion, without any

significant change in the results. Excluding both of them also delivers similar results. The results are less strong in case of a separate regression for OECD and developing countries, but the number of observations is very small, respectively, 23 and 24. Still, the policy dummy is positive and significant, although just at the 10% level. Furthermore, the coefficient is 3 times bigger in the OECD regression than in the developing regression.

6 Conclusion

Using a data set that matches the information from the World Value Survey with information on prostitution policy, we showed that if prostitution is legal or regulated, individuals tend to justify it significantly more than if it is prohibited. Moreover, not only do legalization and regulation correspond with more tolerant individuals, but also they correspond with greater variability in the opinions. The results confirm that stigma and reputation are endogenous to policy, with important consequences for the design and reform of prostitution laws.

A major drawback of our analysis, however, is the lack of data on quantity of prostitution, since the stigma for both clients and sex workers is likely to be endogenous not only to the policy but also to the equilibrium quantity (see Della giusta et al. 2009). For instance, it is likely that, the higher the fraction of individuals that participates to the market, the lower the stigma.

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Table 1: Data by Country

Regime	Country	Year	avg opinion	std of opinions
Illegal	China	2007	1.4	1.37
	Georgia	2008	1.2	0.61
	Ghana	2007	2	2.14
	Iran	2005	1.6	1.6
	Jordan	2007	1	0.23
	Malaysia	2006	3	2.38
	Moldova	2006	2.4	2.24
	Romania	2005	2.1	2.14
	Russian Federation	2006	2.3	2.23
	Rwanda	2007	1.7	1.54
	Serbia	2006	4.6	3.52
	South Africa	2007	2.5	2.38
	South Korea	2005	2.5	2.02
	Sweden	2006	3.1	2.47
	Trinidad and Tobago	2006	2	1.88
	Ukraine	2006	2.5	2.16
	United States	2006	3.2	2.52
	Viet Nam	2006	1.6	1.29
Zambia	2007	3.2	2.68	
Legal	Argentina	2006	4.1	3.33
	Brazil	2006	3.1	2.61
	Bulgaria	2006	3	2.57
	Burkina Faso	2007	2.3	2.37
	Canada	2006	3.3	2.41
	Chile	2006	3.5	2.69
	Cyprus	2006	2.6	2.23
	Ethiopia	2007	2	2.14
	Finland	2005	3.1	2.41
	France	2006	3.4	2.66
	India	2006	3.1	3.1
	Indonesia	2006	1.4	1.41
	Italy	2005	2.4	2.08
	Japan	2005	2	1.84
	Mali	2007	3.3	3.21
	Norway	2007	4.1	2.57
	Poland	2005	2.5	2.23
	Spain	2007	4.6	2.79
	Thailand	2007	2.8	1.7
UK	2006	3.9	2.74	
Uruguay	2006	5.1	2.92	
Regulated	Australia	2005	4.6	2.86
	Colombia	2005	1.9	1.88
	Germany	2006	4.5	2.82
	Mexico	2005	3.9	3.1
	Netherlands	2006	5.6	3.12
	Switzerland	2007	5.1	2.94
Turkey	2007	1.8	1.59	

Notes: Answers to the World Value Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). avg opinion is the average of the responses. std of opinions is the standard deviation of the answers. Year is the specific year within the same wave of the survey. Regime is the legal regime of prostitution, classified in 3 categories: illegal, if prostitution is explicitly prohibited and punished; legal, if prostitution is not specifically forbidden but if no specific laws regulate prostitution, even if soliciting, procuring and exploitation are forbidden; regulated if there are specific laws that discipline prostitution.

Table 2: Data by Respondents Characteristics

	avg opinion	std of opinions
Full Sample	2.78	2.57
Male	2.91	2.64
Female	2.66	2.50
Married	2.67	2.51
Living together as married	2.99	2.71
Divorced	3.55	2.85
Separated	3.26	2.78
Widowed	2.39	2.36
Single	2.88	2.61
No education	2.31	2.43
Primary school	2.56	2.45
Secondary school	2.96	2.34
University	3.07	2.65
Muslim	1.99	2.16
Orthodox	2.41	2.40
Buddhist	2.63	2.00
Hindu	2.86	2.80
Protestant	2.83	2.55
Catholic	3.09	2.64
Jewish	3.58	2.81

Notes: Answers to the World Value Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). Score avg is the average of the responses. Score std is the standard deviation of the answers.

Table 3: **Average Opinion: Summary Statistics**

	avg opinion	avg opinion male	avg opinion female	std of opinions
mean	2.91	3.08	2.76	2.29
std	1.12	1.16	1.12	0.66
1st quartile	2	2.2	2	1.88
median	2.8	3	2.6	2.38
3rd quartile	3.5	3.9	3.4	2.74

Notes: avg opinion is the average score given to the World Values Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). avg opinion male is the average over male respondents. avg opinion female is the average over female respondents. std opinions is the standard deviation of the scores.

Table 4: **Correlations**

	avg opinion	legreg	beatwife	muslim	buddhist	gdppc	female
avg opinion	1						
legreg	0.44	1					
beatwife	0.07	-0.20	1				
muslim	-0.39	-0.03	0.24	1			
buddhist	-0.16	0.03	0.03	-0.10	1		
gdppc	0.54	0.31	-0.46	-0.33	-0.01	1	
female	0.19	0.03	-0.39	-0.32	0.17	0.29	1

Notes: avg opinion is the average score given to the World Values Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). avg opinion male is the average over male respondents. avg opinion female is the average over female respondents. std opinions is the standard deviation of the scores. legreg is a dummy variable that is equal to 1 if prostitution is legal or regulated. beatwife is the average score to the World value survey question: "Do you consider beating the wife justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). muslim is the percentage of muslim respondents to the survey. Buddhists is the percentage of buddhists respondents to the survey. Female is the percentage of female respondents to the survey. gdppc is the GDP per capita at purchasing power parity. All variables are from the World Values Survey dataset except for gdppc, that is from the world bank.

Table 5: Prostitution policy and opinions: IV results

	avg opinion	avg opinion male	avg opinion female	std of opinions
legreg	1.484*** (0.455)	1.516*** (0.436)	1.476*** (0.477)	0.776*** (0.241)
beatwife	0.712*** (0.146)	0.704*** (0.141)	0.744*** (0.154)	0.522*** (0.077)
muslim	-1.188*** (0.394)	-1.128*** (0.379)	-1.142*** (0.413)	-0.907*** (0.208)
buddhist	-1.523*** (0.573)	-1.425*** (0.551)	-1.673*** (0.601)	-1.143*** (0.302)
female	0.101* (0.053)	0.103** (0.051)	0.109* (0.056)	0.032 (0.028)
gdppc	0.036*** (0.011)	0.042*** (0.011)	0.032*** (0.011)	0.015*** (0.005)
R^2	0.621	0.673	0.585	0.656

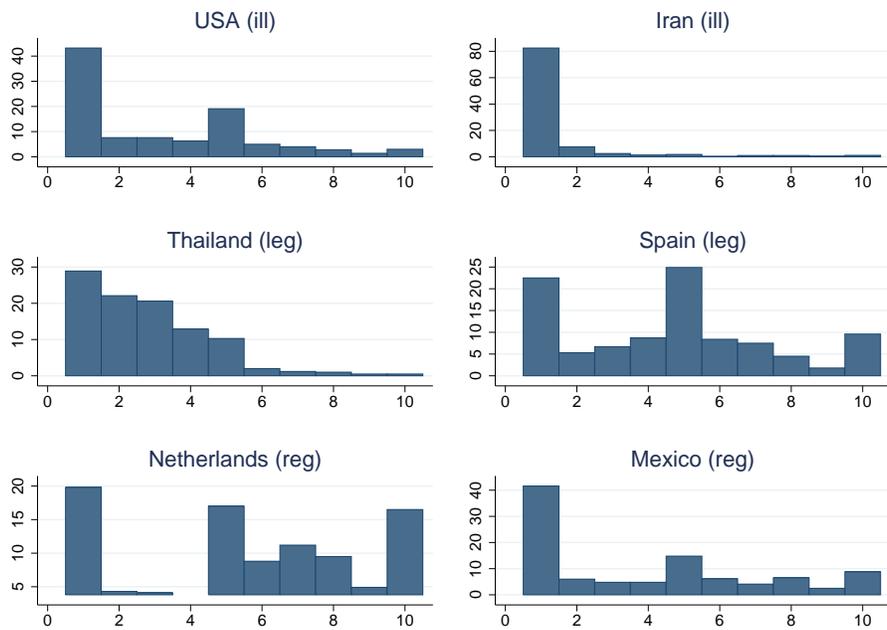
Notes: avg opinion is the average score given to the World Values Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). avg opinion male is the average over male respondents. avg opinion female is the average over female respondents. std opinions is the standard deviation of the scores. legreg is a dummy variable that is equal to 1 if prostitution is legal or regulated. beatwife is the average score to the World value survey question: "Do you consider beating the wife justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). muslim is the percentage of muslim respondents to the survey. Buddhists is the percentage of buddhists respondents to the survey. Female is the percentage of female respondents to the survey. gdppc is the GDP per capita at purchasing power parity. All variables are from the World Values Survey dataset except for gdppc, that is from the world bank. The regression is performed with a 2 stages least squares estimator where legreg is instrumented with French legal origin; first stage robust F stat 20.76 (t-stat on French legal origins 4.56). Standard errors in brackets. The sample consists of 47 countries (see table 1 for details). *** significant at the 1% level. ** significant at the 5% level * significant at the 10% level.

Table 6: Prostitution policy and opinions: specific answers, IV results

	op1	op2	op3	op4	op5	op6	op7	op8	op9	op10
legreg	-20.997*** (7.241)	-2.089 (2.708)	-1.225 (1.851)	-0.424 (1.403)	9.821*** (3.297)	0.517 (1.350)	3.264*** (1.061)	2.212** (1.101)	1.379** (0.676)	7.518*** (2.467)
beatwife	-11.654 *** (2.336)	-0.119 (0.873)	0.835 (0.597)	1.007** (0.452)	1.839* (1.063)	1.459*** (0.435)	1.238*** (0.342)	1.255*** (0.355)	1.115*** (0.218)	3.001*** (0.796)
muslim	25.037*** (6.284)	-1.772 (2.351)	-2.253 (1.606)	-2.793** (1.218)	-7.052** (2.861)	-3.028*** (1.171)	-1.349 (0.921)	-2.308** (0.955)	-0.756 (0.586)	-3.731* (2.141)
buddhist	10.081 (9.128)	8.675*** (3.413)	6.798*** (2.333)	3.442* (1.769)	-7.729* (4.156)	-3.043* (1.701)	-4.348*** (1.338)	-3.932*** (1.388)	-2.405*** (0.852)	-7.541** (3.110)
female	-1.44 (0.855)	-0.322 (0.319)	0.085 (0.218)	-0.272* (0.165)	0.859** (0.389)	0.136 (0.159)	0.367*** (0.125)	0.071 (0.13)	0.203** (0.079)	0.313 (0.291)
gdppc	-0.838*** (0.173)	0.042 (0.064)	0.142*** (0.044)	0.109*** (0.033)	0.169** (0.079)	0.138*** (0.032)	0.084*** (0.025)	0.098*** (0.026)	0.035** (0.016)	0.016 (0.059)
R^2	0.675	0.02	0.294	0.299	0.375	0.486	0.499	0.525	0.378	0.159

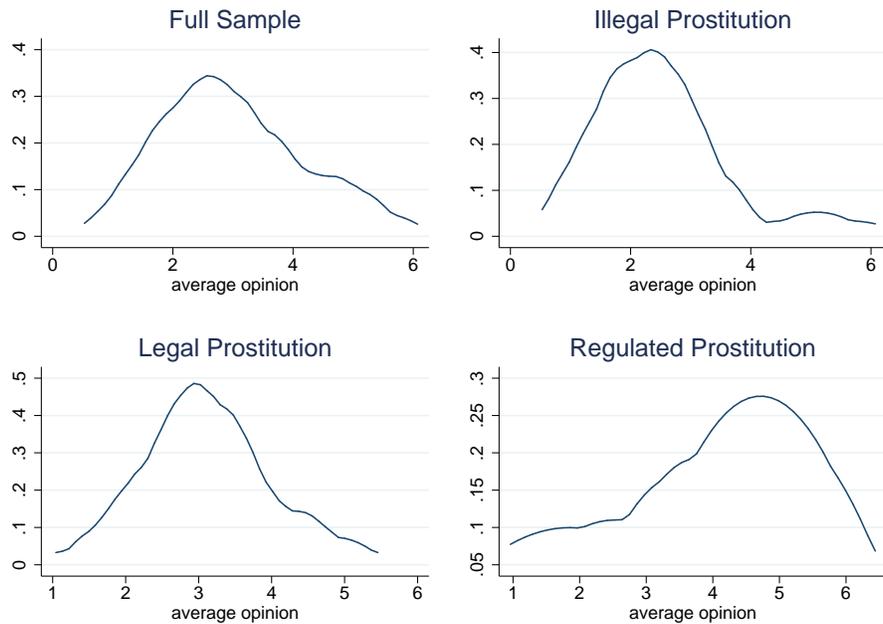
Notes: in columns there is the percentage of respondents to the WVS question: "Do you consider prostitution justifiable?" that answered a specific score: on a scale from 1 (never justifiable) to 10 (always justifiable), op1 is the percentage of respondents that answered 1, op2 is the percentage of respondents that answered 2 etc. legreg is a dummy variable that is equal to 1 if prostitution is legal or regulated. beatwife is the average score to the World value survey question: "Do you consider beating a wife justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). muslim is the percentage of muslim respondents to the survey. Buddhists is the percentage of buddhists respondents to the survey. Female is the percentage of female respondents to the survey. gdppc is the GDP per capita at purchasing power parity. All variables are from the World Values Survey dataset except for gdppc, that is from the world bank. The regression is performed with a 2 stages least squares estimator where legreg is instrumented with French legal origins (first stage robust F stat 20.76). Robust standard errors in brackets. The sample consists of 47 countries (see table 1 for details). *** significant at the 1% level. ** significant at the 5% level * significant at the 10% level.

Figure 1: WVS Answers: examples



Notes: Answers to the World Values Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). Percentage of respondents on the y axis.

Figure 2: WVS Averages by Policy Regime



Notes: Empirical distributions in the full sample and by legal regimes of the average answer to the World Values Survey question: "Do you consider prostitution justifiable?", on a scale from 1 (never justifiable) to 10 (always justifiable). 19 countries with illegal prostitution, where it is specifically forbidden and punished; 21 countries with legal prostitution, where there is no law punishing the exchange of sex for money even if procurement, soliciting and advertising might be forbidden; 7 countries with regulated prostitution, where the exchange of sex money is specifically allowed under certain circumstances. See table 1 for details on the countries included in each group and for the raw data.