Online Appendix

The datasets used in this paper are all available for download at the websites of the organizations that conducted the surveys. Table A1 lists the variables that we used from each dataset, and Table A2 lists the countries included in the datasets. Figure A1 shows that the average perceived level of corruption in a country (x-axis) plotted against the GDP per capita (y-axis) and the relative size of the samples for the surveys we examine. These simple summary statistics show that in our datasets, citizens in rich countries tend to perceive lower levels of corruption.

In this appendix, we conduct further robustness tests that are not included in the main text. First, we examine the statistical relationship between income and corruption perceptions, including education, gender, and age as control variables. We also examine whether the statistical relationship between income and corruption perception is mediated by trust, and whether the statistical relationship between income and corruption perception is robust to the inclusion of ethnic identity as a control variable. Second, we examine whether the cross-national variation in the statistical relationship between socioeconomic variables and corruption perception depends on the degree of income inequality. Third, we present the results from the multilevel analysis mentioned in Section 3 in the main text. Fourth, we check the comparability of the three surveys by standardizing the variables, and re-run our multilevel analysis using logistic regression models instead of linear models. Fifth, we examine a fourth dataset that covers countries that are mostly outside the range of per capita GDP in the three datasets that we used for the analysis.

Table A1. Variables used in the analysis

	CSES (Module 2)	WVS (Wave 3)	ISSP (2006)
Corruption Perception	4-point scale: "How widespread do you think corruption such as bribe taking is amongst politicians in [country]?" (B3044) 1. It hardly happens at all 2. Not very widespread 3. Quite widespread 4. Very widespread	4-point scale: "How widespread do you think bribe taking and corruption is in this country?" (e196) 1. Almost no public officials are engaged in it 2. A few public officials are engaged in it 3. Most public officials are engaged in it 4. Almost all public officials are engaged in it	5-point scale. Average of the responses to the following two questions: "In your opinion, about how many politicians in [Country] are involved in corruption?" (V60) and "And in your opinion, about how many public officials in [Country] are involved in corruption?" (V61) 1. Almost none 2. A few 3. Some 4. Quite a lot 5. Almost all
Income	5-point scale. Household income quintile of the respondent (B2020). In each country, the researchers generated 5 income ranges based on national statistics, and asked respondents to choose one of the 5 household income levels.	10-point scale. Subjective scale of household income of the respondent (x047). The respondents were asked to choose from between the highest and the lowest decile of incomes.	Household income in logged US Dollars. Converted from family income in local currency units (xx_INC).
Education	8-point scale. Respondent education (B2003).	8-point scale. Highest education level attained (x025).	6-point scale. Highest degree (DEGREE).
Male	Dummy variable for respondent gender (B2002).	Dummy variable for respondent gender (x001)	Dummy variable for respondent gender (SEX).
Age	Respondent age (B2001).	Respondent age (x003)	Respondent age (AGE)
Trust	N/A	Dichotomous. Generalized social trust based on the following question (a165). "Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?" 1. Most people can be trusted 2. Can't be too careful	Trust in civil servants based on the following question (V50): "Most civil servants can be trusted to do what is best for the country." 1. Strongly disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree
Ethnicity	Dummy variable for respondent ethnic identity (B2029).	Dummy variable for respondent ethnic identity (x051)	Dummy variable for respondent ethnic identity (ETHNIC)
Per capita GDP	PPP converted GDP per capita (Chain Series), 2005 USD. Source: Penn World Tables 7.0		
Gini Index	Gini index for the closest year before the survey. Source: World Development Indicators.		

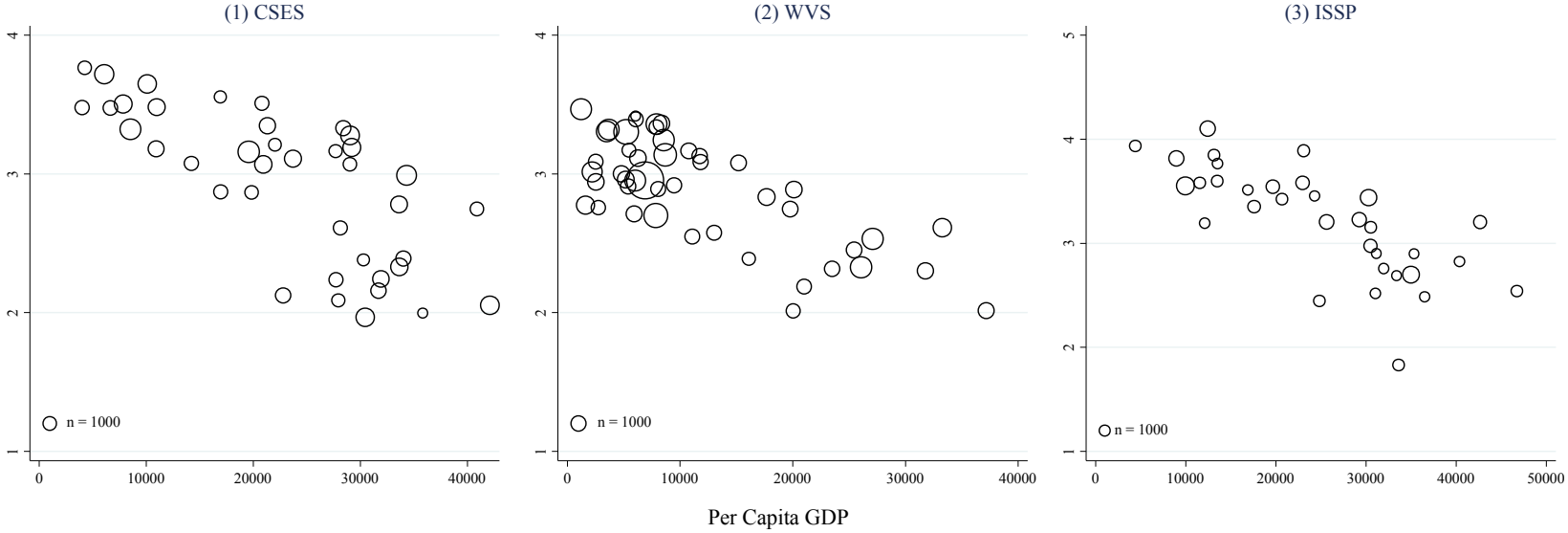
Table A2. List of countries in the datasets

country	CSES	WVS	ISSP	AFB
Albania	X	X		
Argentina		X		
Armenia		X		
Australia	X	X	X	
Austria				
Azerbaijan		X		
Bangladesh		X		
Belarus		X		
Bolivia				
Bosnia-Herz.		X		
Botswana				X
Brazil	X	X		
Bulgaria	X	X		
Cambodia				
Canada	X		X	
Cape Verde				X
Chile	X	X	X	
Colombia		X		
Comoros				
Costa Rica				
Croatia			X	
Czech Rep.	X	X	X	
Denmark	X		X	
Dominican Rep.		X	X	
Ecuador				
El Salvador		X		
Estonia		X		
Ethiopia				
Finland	X	X	X	
France	X		X	
Georgia		X		
Germany	XX	X	X	
Ghana				X
Greece				
Guatemala				
Hong Kong	X			
Hungary	X		X	
Iceland	X			
India		X		
Indonesia				
Ireland	X		X	
Israel	X		X	
Italy	X			
Japan	X		X	
Kenya				X
South Korea	X	X	X	

country	CSES	WVS	ISSP	AFB
Latvia		X	X	
Lesotho				X
Lithuania		X		
Luxembourg				
Macedonia		X		
Malawi				X
Malaysia				
Mali				X
Mexico	X	X		
Moldova		X		
Mozambique				X
Namibia				X
Netherlands	X		X	
New Zealand	X	X	X	
Nigeria		X		X
Norway	X	X	X	
Pakistan				
Panama				
Paraguay				
Peru	X	X		
Philippines	X		X	
Poland	X	X	X	
Portugal	XX		X	
Puerto Rico		X		
Romania	X	X		
Russia	X	X	X	
Senegal				X
Singapore				
Slovak Rep.		X		
Slovenia	X		X	
South Africa		X	X	X
Spain	X	X	X	
Sweden	X	X	X	
Switzerland	X	X	X	
Taiwan	XX	X	X	
Tanzania				X
Thailand				
Togo				
Turkey		X		
Uganda				X
Ukraine		X		
United Kingdom	X	X	X	
United States	X	X	X	
Uruguay		X	X	
Venezuela		X	X	
Zambia				X

Note: The CSES dataset include two surveys from Germany, Portugal, and Taiwan. The German data include a telephone survey and a mail-back survey for the 2002 election. The two surveys in Portugal were conducted for elections in 2002 and 2005. The two surveys in Taiwan were conducted in 2001 and 2004.

Figure A1. Sample Size and Average Corruption Perception



A1. The Impact of Household Income

A1. 1 Education, Gender, and Age as Control Variables

In this paper, we generally examined bivariate relationships between individual characteristics and the level of corruption perception. However, these statistical correlations do not directly capture the causal impact of these predictors if the predictors and the outcomes are both affected by an omitted variable. Household income is especially vulnerable to such biases, since it can be affected by other socioeconomic variables such as education, gender, and age. For example, educated citizens are likely to be richer; males tend to have an advantage over females in both education and income; and older citizens are more likely to have a higher social standing compared to the young. Therefore, the relationship between income and corruption perception may simply be explained away by the strong correlation between corruption perceptions and these other three variables.

To examine how this problem affects our results, we begin with a Least Square Dummy Variable (LSDV) model using household income as the predictor for corruption perceptions, education, gender, and age as control variables, and country dummy variables to control for country-specific effects. In this model, every country is assumed to have the same regression coefficient. Table A3 shows the results. Columns (1), (5), and (9) include only income as the predictor. Columns (2), (6) and (10) show the results when education is added as a control variable. Columns (3), (7) and (11) further add gender. Finally, columns (4), (8), and (12) show the results with age added as a control variable. The table shows that the coefficients for income become smaller, but remain statistically significant, as we add the control variables.

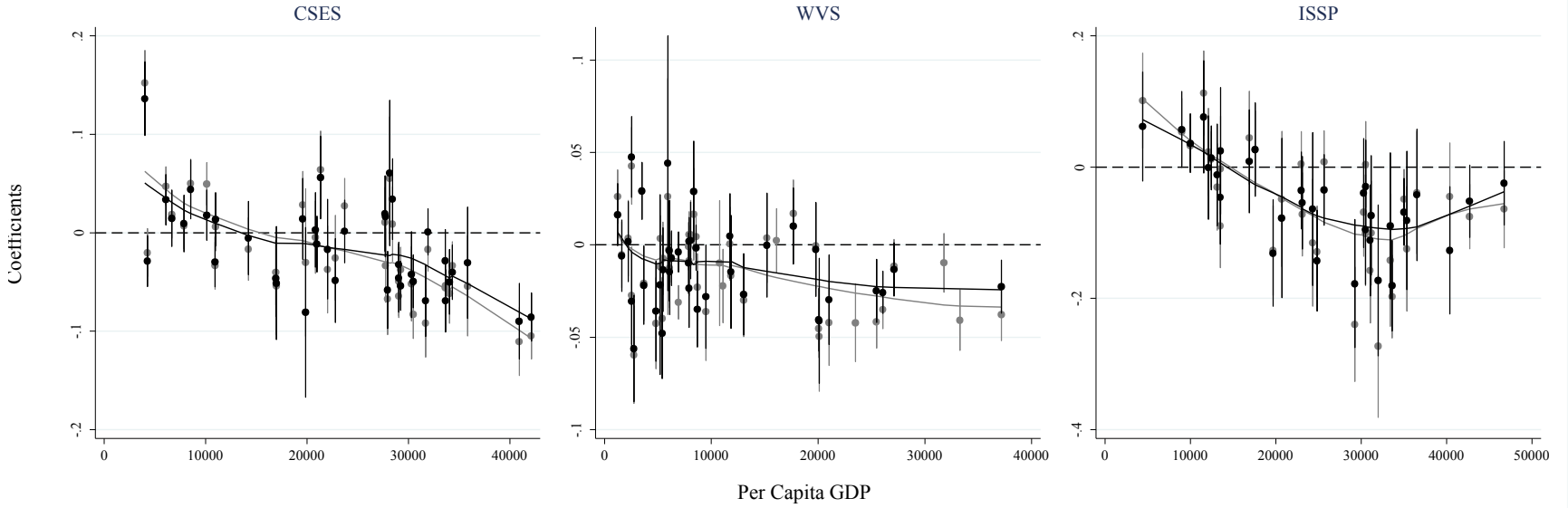
Table A3. Regression with Pooled Data Using Multiple Predictors

	CSES				WVS				ISSP			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Income	-0.019**	-0.014**	-0.011**	-0.013**	-0.013**	-0.008**	-0.008**	-0.009**	-0.027**	-0.016*	-0.015*	-0.020**
	(0.002)	(0.003)	(0.003)	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.006)	(0.006)	(0.006)	(0.006)
Education		-0.009**	-0.008**	-0.011**		-0.015**	-0.015**	-0.018**		-0.016**	-0.016**	-0.022**
		(0.002)	(0.002)	(0.002)		(0.002)	(0.002)	(0.002)		(0.003)	(0.003)	(0.004)
Male			-0.078**	-0.076**			-0.020**	-0.019**			-0.020*	-0.018
			(0.007)	(0.007)			(0.006)	(0.006)			(0.009)	(0.009)
Age				-0.001**				-0.002**				-0.002**
				(0.000)				(0.000)				(0.000)
Constant	2.795**	2.837**	2.866**	2.951**	2.698**	2.742**	2.730**	2.835**	3.482**	3.416**	3.414**	3.583**
	(0.025)	(0.027)	(0.027)	(0.031)	(0.023)	(0.023)	(0.024)	(0.027)	(0.064)	(0.067)	(0.067)	(0.071)
Observations	46,042	45,805	45,749	45,586	58,894	58,457	58,409	58,337	37,026	36,518	36,497	36,394
R-squared	0.368	0.368	0.370	0.371	0.178	0.179	0.179	0.180	0.267	0.268	0.268	0.269

Standard errors in parentheses, ** p<0.01, * p<0.05

These results raise the natural question of whether the bivariate relationships between income and corruption perception in each country are robust to the inclusion of control variables. Therefore, we repeat the analysis presented graphically in Figure 2, examining the statistical relationship between income and corruption perception in each country, but with education, gender, and age added as control variables. Figure A2 corresponds to the left column of Figure 2. The black circles are the regression coefficients for each country when the level of corruption perception is regressed on household income with the three other individual-level characteristics as control variables. Although the estimates are generally closer to zero, the pattern observed in Figure 2 is largely replicated. In rich countries, high-income citizens tend to perceive lower levels of corruption.

Figure A2. Regression Coefficients for Income Controlling for Education, Gender, and Age



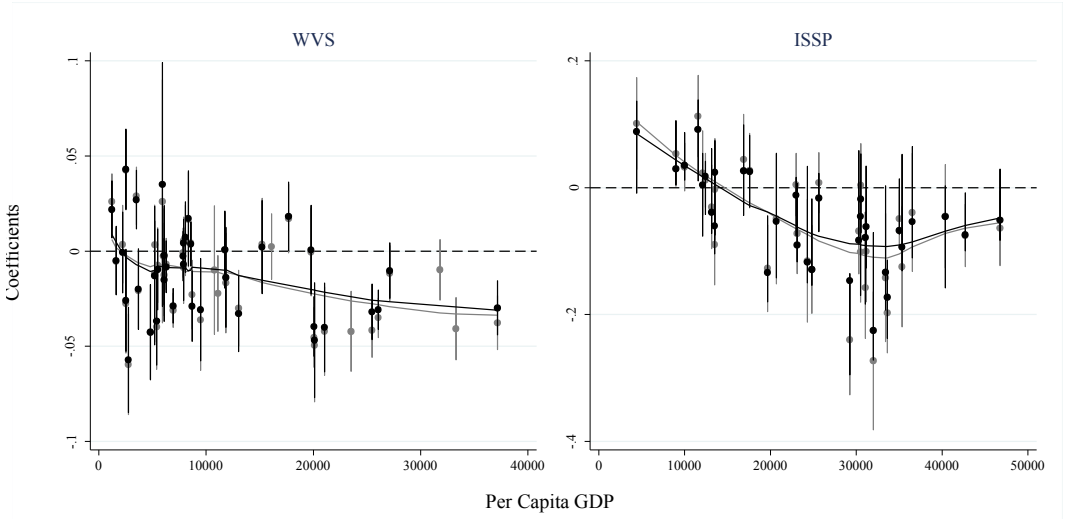
Note: Estimates with controls are in black, and the estimates without controls are in gray. The estimates without controls are identical to the left column of Figure 2.

A1.2 The Role of Trust

One possible variable that might mediate the relationship between income and corruption perceptions is trust. Since low-income citizens tend to trust others less in general, and political elites in particular, a trust-based mechanism might explain why we observe statistical associations between income and corruption perceptions in certain countries.

In order to examine this mechanism, we included trust-based variables in the country-level regression models with household income as the main predictor. If the relationship between income and corruption perceptions was mediated by trust, then we should expect that the inclusion of trust in the regression equation would reduce the coefficients for the income variable. In WVS, we used the responses to the question about whether "most people can be trusted," which takes a value of 0 (no) or 1 (yes). In ISSP, we used the responses to the question about whether civil servants can be trusted, a five-point variable that ranges from "Strongly Agree" to "Strongly Disagree". The results displayed in Figure A3 show that the overall picture changes very little when the trust variables are included in the regression, meaning that the relationship between income and corruption perceptions is largely driven by mechanisms other than those based on trust.

Figure A3. Regression Coefficients for Income with Trust as a Mediator



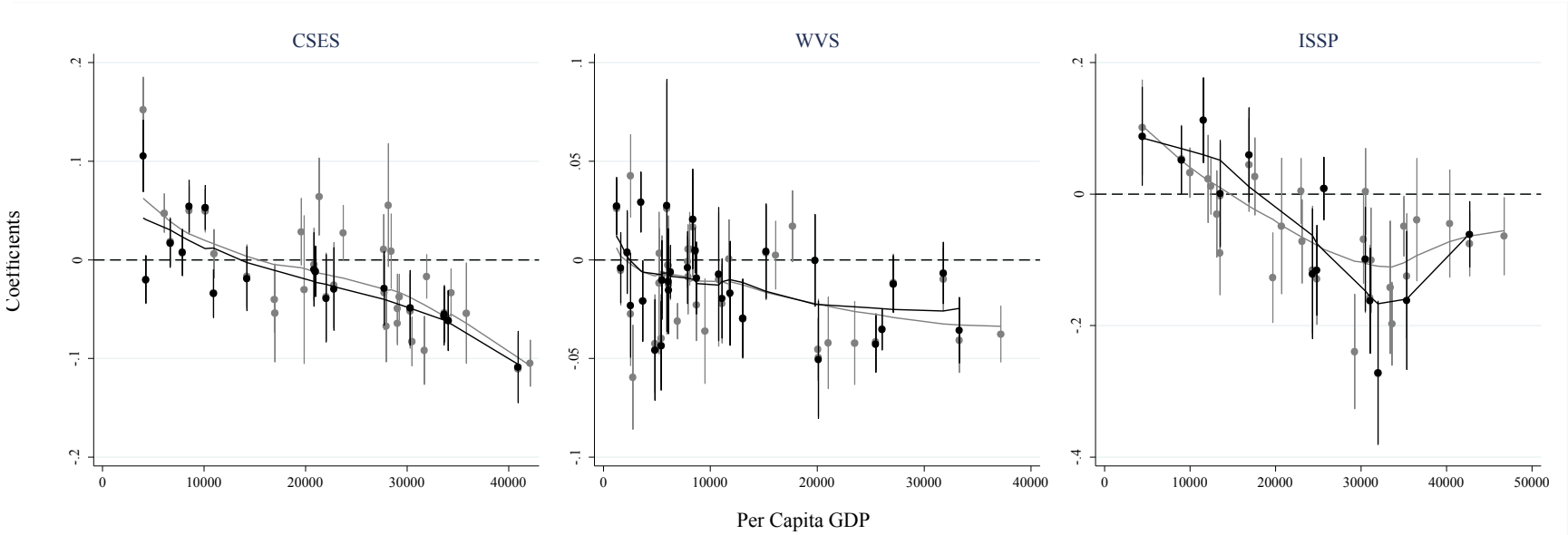
Note: Estimates with controls are in black, and the estimates without controls are in gray.

A1.3 The Role of Ethnicity

Another concern is that the statistical relationship between household income and corruption perception might simply be a spurious correlation that is produced by the ethnic identity of the respondent. If minority ethnic groups tend to face economic discrimination and hence have lower household incomes on average and also perceive more corruption as a result of political discrimination by government officials, then the bivariate relationship between income and corruption perception would significantly overestimate the causal relationship between income and corruption perception. Therefore, we repeated the analysis, adding dummy variables for the ethnic identity of the respondent in each of the three surveys.

Figure A4 shows the results. Because ethnic identity was not included as a variable in many of the countries, the number of regression coefficients was generally smaller for of the surveys. Nevertheless, after controlling for the ethnic identity of the respondent, there was very little change in the estimated regression coefficients, and therefore almost no change in the overall relationship between income and corruption perception in either rich or poor countries.

Fig A4. Regression Coefficients for Income Controlling for Ethnicity



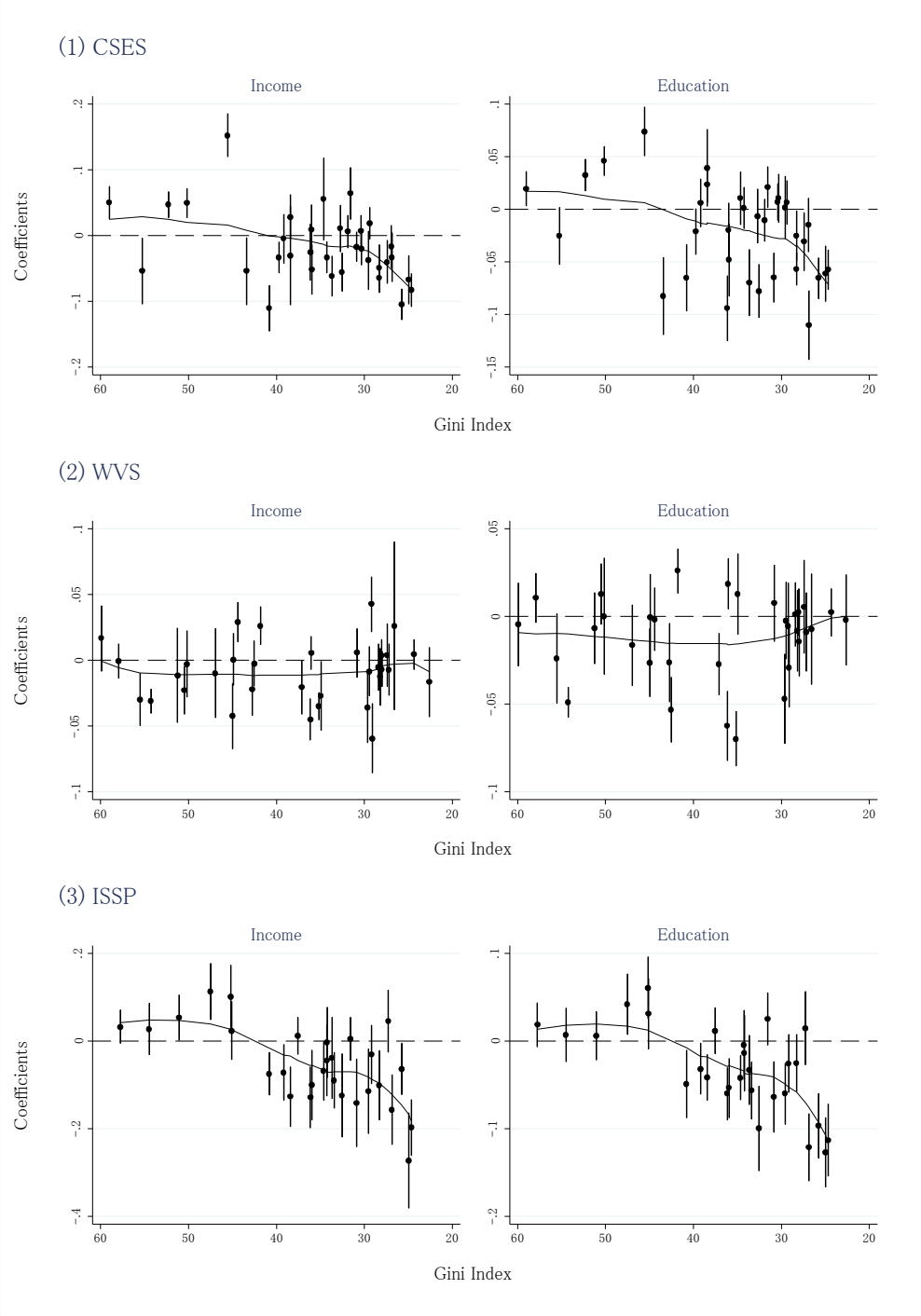
Note: Estimates with controls are in black, and the estimates without controls are in gray.

A2. The Role of Income Inequality

As mentioned in the main text, previous work has argued that differences between the rich and the poor in their corruption perceptions may have something to do with the degree of inequality in a society (Uslaner 2008). For measures of inequality, we use the Gini index for each country, based on the World Bank's World Development Indicators (WDI). The Gini index measures the distribution of incomes among households, based on calculations from household survey data in each country. We use the Gini index for the closest year before the survey was conducted.

Figure A5 shows the relationship between the regression coefficients for the two individual-level predictors and income inequality. Whereas no clear pattern emerges in the WVS data, we observe a somewhat weak and entirely unexpected pattern in CSES and ISSP: the poor perceive higher levels of corruption in highly equal societies. Overall, the results do not support Uslaner's argument that the negative association between socioeconomic status and corruption perceptions is stronger in more unequal societies.

Figure A5. Regression Coefficients and Inequality



Note: The data for the Gini coefficients are from World Development Indicators (WDI). Lower values indicate greater equality.

A3. Multilevel Models

In the main text, we showed that the statistical relationship between household income and corruption perception varies by the level of per capita GDP (Figure 2). In the previous section, the analysis was repeated by using income inequality (Figure A5) as the country-level variable. In this section, we confirm these results using multilevel models. Specifically, the model assumes that the corruption perception for individual *i* living in country *j* is a function of household income x_{ij}:

$$y_{ij}=\beta_{0j}+\beta_{1j}x_{ij}+\varepsilon_{ij} \quad (1)$$

The parameters β_{0j} and β_{1j} enter the model as random effects that are functions of per capita GDP in each country, z_j:

$$\beta_{0j}=\gamma_{00}+\gamma_{01}z_j+\delta_{0j} \quad (2)$$

$$\beta_{1j}=\gamma_{10}+\gamma_{11}z_j+\delta_{1j} \quad (3)$$

Equation (2) predicts the intercept β_{0j} in equation (1) with a constant term γ_{00}, a slope parameter γ_{01}, and an error term δ_{0j}. Equation (3) predicts the slope parameter β_{1j}. We can now rewrite equation (1) by substituting β_{0j} and β_{1j} with the second set of equations (2) and (3):

$$y_{ij}=\left(\gamma_{00}+\gamma_{01}z_j+\delta_{0j}\right)+\left(\gamma_{10}+\gamma_{11}z_j+\delta_{1j}\right)x_{ij}+\varepsilon_{ij}$$

$$=\left(\gamma_{00}+\gamma_{01}z_j+\gamma_{10}x_{ij}+\gamma_{11}z_jx_{ij}\right)+\left(\delta_{0j}+\delta_{1j}x_{ij}\right)+\varepsilon_{ij} \quad (4)$$

Written in this way, the model has two components. The first four terms are the fixed-effects for the four predictors that are assigned to each individual: the constant term, per capita GDP of the country that respondent *i* lives in, household income, and the interaction between income and GDP. To facilitate the interpretation of results, we measure per capita GDP in thousands of US Dollars. The next two terms are the random intercepts and the random slopes

for household income in each country. Since our goal is to understand the difference between rich and poor countries, the parameter of most interest is γ_{11}, the coefficient for the interaction term between household income and per capita GDP.

We present the results for the three datasets in Tables A4, A5, and A6. There are eight models for each dataset. In column (1), the negative coefficients on the interaction term between household income and per capita GDP mean that the association between income and corruption perceptions tends to be more negative in rich countries compared to poor countries. This indicates that the cross-national variation we identified visually in Figure 2 was not generated by chance. In column (2), education is used as the main predictor, and the results are similar to column (1). In all three datasets, the interaction term between education and per capita GDP has a negative coefficient, implying that there is a negative association between the level of education and corruption perception in rich countries. In columns (3) and (4), a similar exercise is repeated by using gender and age as the main predictors, but the patterns are much less clear. Column (5) uses the Gini index instead of per capita GDP as the country-level variable, but as in Figure A5, the results are mixed. Columns (6) through (8) present various combinations of control variables in order to check the robustness of the results in column (1). The results show that adding control variables does not drastically change the results. The magnitudes of the coefficients for the interaction term between income and GDP are roughly identical across the three datasets.

Table A4. CSES

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income	0.060**				-0.110**	0.002	0.048**	0.045**
	(0.014)				(0.036)	(0.037)	(0.014)	(0.013)
Income * Per Capita GDP	-0.003**					-0.003**	-0.003**	-0.003**
	(0.001)					(0.001)	(0.001)	(0.001)
Income * Gini Index					0.003**	0.001		
					(0.001)	(0.001)		
Education		0.042**					0.023	0.027*
		(0.013)					(0.013)	(0.012)
Education * Per Capita GDP		-0.003**					-0.002**	-0.002**
		(0.001)					(0.001)	(0.000)
Male			0.070*					0.064*
			(0.029)					(0.029)
Male * Per Capita GDP			-0.006**					-0.006**
			(0.001)					(0.001)
Age				-0.000				0.001
				(0.002)				(0.002)
Age * Per Capita GDP				-0.000				-0.000
				(0.000)				(0.000)
Per Capita GDP (1000 USD)	-0.028**	-0.025**	-0.035**	-0.036**		-0.029**	-0.022**	-0.012*
	(0.006)	(0.005)	(0.006)	(0.006)		(0.007)	(0.005)	(0.006)
Gini Index					0.010	-0.003		
					(0.010)	(0.008)		
Constant	3.642**	3.599**	3.778**	3.823**	2.658**	3.760**	3.560**	3.466**
	(0.142)	*0.129)	(0.144)	(0.156)	(0.356)	(0.374)	(0.129)	(0.144)
Observations	46,042	55,178	55,515	55,288	39,729	39,729	45,805	45,586
No. of Groups	39	39	39	39	34	34	39	39

Standard errors in parentheses, ** p<0.01, * p<0.05

Table A5. World Values Survey

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income	-0.000				-0.004	0.008	-0.000	-0.001
	(0.005)				(0.015)	(0.015)	(0.005)	(0.005)
Income * Per Capita GDP	-0.001**					-0.002*	-0.001*	-0.001*
	(0.000)					(0.001)	(0.000)	(0.000)
Income * Gini Index					-0.000	-0.000		
					(0.000)	(0.000)		
Education		0.005					0.005	0.003
		(0.006)					(0.005)	(0.005)
Education * Per Capita GDP		-0.002**					-0.002**	-0.002**
		(0.000)					(0.000)	(0.000)
Male			-0.003					-0.001
			(0.016)					(0.015)
Male * Per Capita GDP			-0.002					-0.002
			(0.001)					(0.001)
Age				-0.001				-0.001
				(0.001)				(0.001)
Age * Per Capita GDP				0.000				-0.000
				(0.000)				(0.000)
Per Capita GDP (1000 USD)	-0.025**	-0.022**	-0.031**	-0.031**		-0.027**	-0.019**	-0.016**
	(0.004)	(0.004)	(0.004)	(0.005)		(0.009)	(0.004)	(0.005)
Gini Index					-0.000	0.000		
					(0.005)	(0.004)		
Constant	3.232**	3.216**	3.243**	3.278**	3.063**	3.257**	3.208**	3.249**
	(0.059)	(0.059)	(0.065)	(0.076)	(0.187)	(0.176)	(0.057)	(0.074)
Observations	57,574	63,180	63,635	63,587	44,016	44,016	57,151	57,036
No. of Groups	46	46	46	46	33	33	46	46

Standard errors in parentheses, ** p<0.01, * p<0.05

Table A6. ISSP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Income	0.075**				-0.269**	-0.098	0.057**	0.060**
	(0.019)				(0.044)	(0.059)	(0.018)	(0.019)
Income * Per Capita GDP	-0.005**					-0.003**	-0.004**	-0.004**
	(0.001)					(0.001)	(0.001)	(0.001)
Income * Gini Index					0.006**	0.004**		
					(0.001)	(0.001)		
Education		0.039*					0.021	0.026
		(0.017)					(0.018)	(0.016)
Education * Per Capita GDP		-0.003**					-0.002*	-0.002**
		(0.001)					(0.001)	(0.001)
Male			0.043					0.014
			(0.027)					(0.028)
Male * Per Capita GDP			-0.003*					-0.001
			(0.001)					(0.001)
Age				0.000				0.002
				(0.002)				(0.002)
Age * Per Capita GDP				-0.000				-0.000*
				(0.000)				(0.000)
Per Capita GDP (1000 USD)	0.011	-0.028**	-0.035**	-0.033**		-0.000	0.005	0.019*
	(0.007)	(0.005)	(0.006)	(0.007)		(0.008)	(0.006)	(0.007)
Gini Index					-0.030**	-0.029**		
					(0.009)	(0.010)		
Constant	3.411**	3.990**	4.088**	4.099**	4.867**	4.845**	3.500**	3.372**
	(0.168)	(0.146)	(0.156)	(0.177)	(0.344)	(0.509)	(0.160)	(0.181)
Observations	37,026	43,743	44,335	44,187	30,091	30,091	36,518	36,394
No. of Groups	33	33	33	33	28	28	33	33

Standard errors in parentheses, ** p<0.01, * p<0.05

A4. Increasing Comparability

The major reason why the three datasets in the paper were not directly comparable is that they use different scales to measure the outcome of interest. In order to enhance the comparability of the datasets, we examine another quantity of interest: whether the respondent perceives higher levels of corruption *compared to the national average*. To do so, we transform the corruption perception variables into dichotomous outcome variables that indicate whether the respondent perceives corruption levels higher or lower than the average in her country. For CSES and WVS, we create a variable that takes a value of 1 if the respondent perceives levels of corruption higher than her country's national average and 0 otherwise. For ISSP, we create a similar variable taking a value of 1 if the mean value of the respondent's two corruption perception variables is higher than the national average.

By dichotomizing the outcome variables, we can examine whether the weak relationship between household income and corruption perception in poor countries is simply a statistical artifact. Since poor countries tend to have higher average levels of corruption perception compared to rich countries, there is likely to be less variation, and this "ceiling effect" might explain why we observe strong correlations between income and corruption perceptions only in rich countries. When the outcome variables are dichotomized based on the perceived level of corruption compared to the national average, the average value of the outcome variable is closer to 0.5 in rich and poor countries alike, allowing us to examine how the results would change when the ceiling effect is removed.

The next challenge is to standardize the predictors. There are huge differences in the way income is measured and somewhat smaller differences in measuring education. First, we transform the income variable into a five-point scale, using CSES as our baseline. For WVS, the

original ten-point scale is based on self-assessment, and hence includes a disproportionately small number of high-income citizens. Therefore, we divide respondents in each country into five groups so that a roughly similar number of respondents fall into to each quintile. This means grouping citizens with income levels equal to or above 8 (or 7 in some cases) into the highest income group (5). Another option is to group the respondents into five groups by merging two adjacent income groups. In this case, income groups 9 and 10 would together constitute the highest income group. However, this would create a small number of high-income respondents. For this reason we instead create income groups with roughly equal numbers of respondents. For ISSP, we divide the respondents into quintiles depending on their actual income level. After this transformation, all datasets have five income groups of roughly equal size. Second, we recode the eight-point education variables in CSES and WVS into six-point variables that roughly match the categories used in ISSP. We merged the categories so that they correspond to the highest educational degree attained by the respondent, rather than dividing them into groups of equal size. For example, we merged categories 1 and 2 along with 6 and 7 in CSES. In WVS, we merged categories 3, 4, and 5.

With these new variables, we repeat the procedure in the previous section. As in the previous section, we use OLS instead of logit or probit models because the average values of the corruption perceptions variable in each country are fairly close to 0.5. Although the slopes vary from country to country, none are so steep that the models would predict values close to or outside the range between 0 and 1. For our purposes, the additional benefit of using nonlinear models over OLS is fairly small.

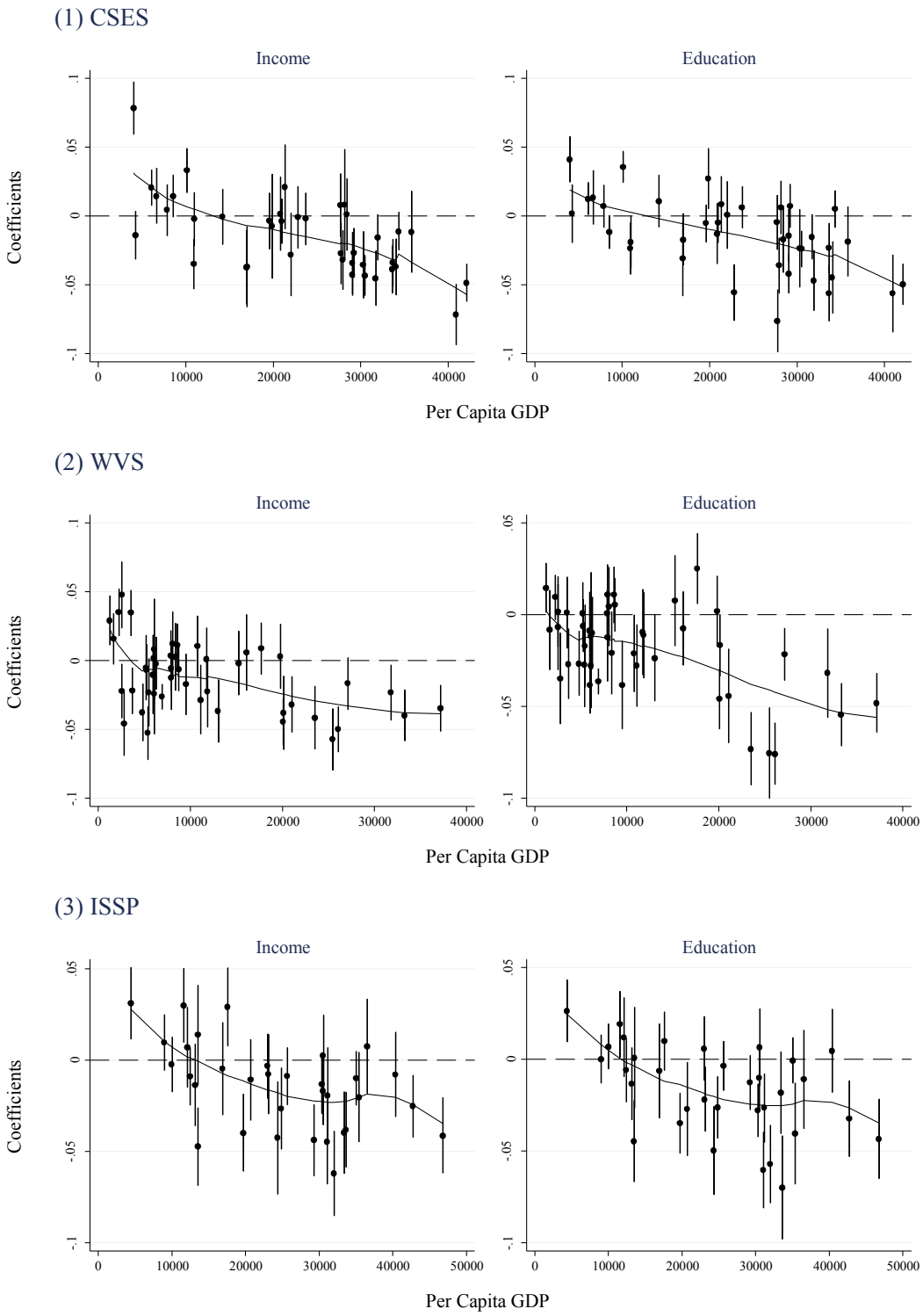
Figure A6 presents the results from using the transformed variables, plotting the regression coefficients against per capita GDP. Compared to Figure 2 in the main text, the three

surveys show remarkably similar patterns. In fact, for both income and education, we find the regression coefficients to have roughly equal magnitudes in each of the three datasets at a given level of per capita GDP. For example, in the most affluent countries, a citizen of average income is as much as 5% less likely to perceive widespread corruption compared to average citizens that are in an income group one category below. This translates into a 20% difference between the citizens in the lowest and highest categories.

An important choice that we make here is to divide the respondents into five income categories in all countries instead of rescaling the income variables to account for income inequality. A difference of one income category in countries with low income inequality implies a smaller absolute income difference and may therefore lead to smaller regression estimates than in countries with high income inequality. Ideally we would address this problem by transforming the income variables for CSES and WVS into the measures used in ISSP. However, since CSES and WVS do not provide raw income figures, this strategy is not possible. As an alternative, we experimented with using the share of national income earned by each income quintile as reported in the World Development Indicators (WDI) in place of the income quintile as our income predictor. Doing so did not change the results significantly, and since this alternative necessitated dropping a sizeable number of countries due to lack of data, the results are not reported here.

In order to take the uncertainty of the estimates into account, we fit a multilevel model as we did above. Here we fit a multilevel logistic regression to show that our essential findings remain the same as fitting a multilevel linear model. The results in Table A7 show that whereas the coefficients for the interaction terms are generally larger in magnitude in CSES, they are largely identical between ISSP and WVS.

Figure A6. Regression with Dichotomous Outcomes



Note: The data for per capita GDP are from Penn World Tables.

Table A7. Multilevel Logistic Models

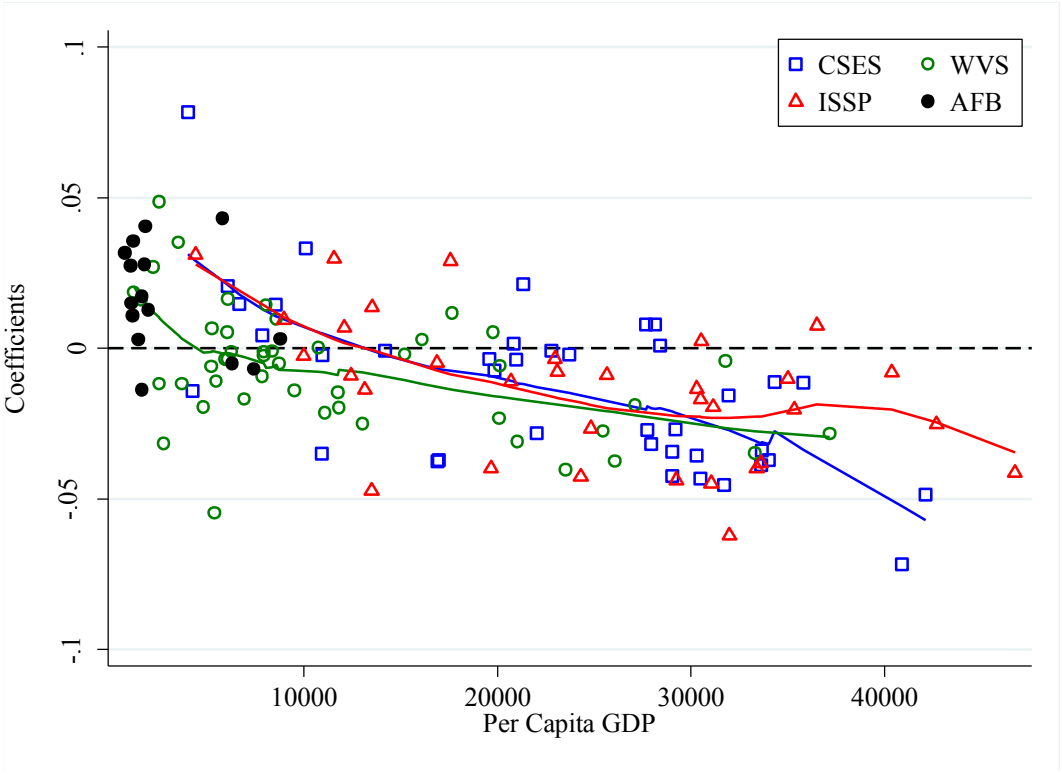
	CSES			WVS			ISSP		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Income	0.131**			0.012			0.054		
	(0.036)			(0.015)			(0.034)		
Income * GDP	-0.009**			-0.004**			-0.005**		
	(0.001)			(0.001)			(0.001)		
Education		0.081**			0.004			0.042	
		(0.031)			(0.015)			(0.035)	
Education * GDP		-0.006**			-0.005**			-0.004**	
		(0.001)			(0.001)			(0.001)	
Male			0.179*			0.022			0.068
			(0.076)			(0.042)			(0.054)
Male * GDP			-0.016**			-0.006*			-0.006**
			(0.003)			(0.003)			(0.002)
Per Capita GDP	-0.000	0.006	-0.016	-0.008	-0.007	-0.031**	0.018**	0.017*	0.006
	(0.012)	(0.012)	(0.012)	(0.011)	(0.010)	(0.010)	(0.008)	(0.008)	(0.008)
Constant	0.098	0.047	0.370	0.121	0.179	0.217	-0.338	-0.291	-0.180
	(0.293)	(0.291)	(0.293)	(0.162)	(0.149)	(0.152)	(0.207)	(0.216)	(0.203)
Observations	46,042	55,178	55,515	57,574	63,180	63,635	37,395	43,743	44,335
Number of groups	39	39	39	46	46	46	33	33	33

Standard errors in parentheses. ** p<0.01, * p<0.05

A5. Out-of-Sample Predictions

The three datasets used in the main text do not cover many low-income countries, and therefore the results cannot be directly extrapolated to countries at much lower levels of economic development. Therefore, we used the Second Afrobarometer survey (2002) to explore the relationship between income and corruption perception in African countries. This survey includes questions for corruption perceptions in several sectors of the society and also asks the household income of the respondents. We transformed these variables in accordance with the procedure in the previous section, and fit a bivariate regression model for each country by using income as the predictor. Figure A7 shows the results for African countries when they are fit into the three other surveys. Black circles represent the results for Afrobarometer, whereas the results for CSES, WVS, and ISSP are shown in color. The black circles fit in with the overall pattern that we observed in other datasets.

Figure A7. Comparisons with Afrobarometer



Note: The plots show the regression coefficients using a dichotomous outcome variable for corruption perception and household income as the predictor. The results for CSES, WVS, and ISSP are identical to the left column of Figure 3. In this figure, we include estimates from the Second Afrobarometer survey conducted in 2002. A nonparametric regression is fitted on to the data for convenience.