

Human Understanding Measured Across National Surveys: An Introduction

Abstract

INTRODUCTION: Working with multiple public opinion surveys requires formatting and merging different datasets. HUMAN Surveys does this for hundreds of surveys with the aim of crowdsourcing further development. This approach is necessary given the amount of data currently available and forthcoming.

METHOD: The first release formats surveys from 19 sources, representing over 8 million respondents from 160 countries between 1962 and 2016. It merges data into respondent, country-survey, and country-year datasets and creates common variables. Example applications investigate trends by country and effects of economic globalization, income inequality, and political corruption.

RESULTS: Merged datasets currently include satisfaction with democracy, support for democracy, perceived electoral integrity, generalized social trust, and basic demographics. Data visualizations highlight the potential of this resource and contrast it with selected national indices. Globalization tends to increase satisfaction while inequality and corruption tend to decrease it, but with differences between socioeconomic groups.

DISCUSSION: Using more data enables answering new research questions with greater reliability, robustness, and generalizability. Future releases will format more variables from more survey sources to expand the scope and usefulness of the resource. One aim of merging datasets is to use them for meta-analyses following systematic reviews.

1. Introduction

One of the longest running public survey initiatives is the standard Eurobarometer (EB-SS, 1962-2016), which focuses on surveying national populations in Europe. The original ‘Standard and Special’ Eurobarometer series was expanded upon with additional series such as the ‘Applicant and Candidate Countries’ as well as the ‘Central and Eastern’ Eurobarometers (EB-CC, 2001-2004; EB-CE, 1990-1998). There are more survey projects in Europe than other regions, including the Consolidation of Democracy in Central and Eastern Europe (CDCEE, 2004), European Social Survey (ESS, 2002-2014), European Values Study (EVS, 1981-2008), New Europe Barometer (NEB, 1991-2012), and numerous others yet to be included within merged HUMAN Surveys.

The Eurobarometer served as a template and inspiration for other regional barometers. These include the AfroBarometer (1999-2015), AmericasBarometer (2004-2014), ArabBarometer (2006-2014), AsiaBarometer (2003-2007), Asian Barometer Surveys (2001-2012), and LatinoBarometer (1995-2013). Other global surveys focus on including countries from

multiple regions. Perhaps the oldest and most famous of these is the World Values Survey (WVS, 1981-2014), although the International Social Survey Programme (ISSP, 1985-2017) has been running almost as long. The Comparative Study of Electoral Systems (CSES, 1996-2016) similarly includes countries from multiple regions. There are also public survey series focused exclusively on single countries such as the Australian Election Study (AES, 1987-2016), New Russia Barometer (NRB, 1992-2012). There are other cross-national and national series surveys not yet included in the merged datasets, but the aim is to include these within future releases.

There are additional challenges when working with multiple data sources, such as contending with different survey answer scales and survey designs. However, there are also many benefits to cross-survey research that outweigh these challenges when properly accounting for them. For example, using multiple sources provides greater variation and enables answering new research questions. The merged respondent level dataset includes millions of individuals from most countries in the world and extends back decades. This enables tracking trends over time, repeating models across different surveys, and increasing the reliability and generalisability of findings. It is also possible to run parallel models across different survey rounds and source using the original survey items to uncover broad patterns. Yet the advantages come with a cost measured in time managing data. Each survey dataset requires cleaning and formatting before running parallel models or undertaking any analysis, and there are thousands of datasets. The data management required is a substantial barrier to doing cross-survey research, which often requires a well-funded research team. Financial cost is therefore another barrier to doing cross-survey research.

A team of sociologists based jointly at the Polish Academy of Sciences and Ohio State University have won multiple rounds of research funding worth millions of Euros to harmonize multiple sources of survey data (Dubrow & Tomescu-Dubrow, 2016; Tomescu-Dubrow & Slomczynski, 2016). Despite this substantial funding, the team has formatted a fraction of the available sources and variables. The project also uses a suite of customised software tools requiring expert knowledge and paid database specialists to manage the technical aspects of the projects (Powałko & Kołczyńska, 2016). This is a logical approach and it has numerous advantages, but it places this kind of work beyond the capabilities of most social scientists. It means that anyone wishing to expand the resource must first learn specialized programming languages and database management software in addition to statistical analysis software. The funding pays people with the required software skills, which means that when the funding disappears the project may stop harmonizing public surveys. HUMAN Surveys takes a crowdsourced approach to the same problem using only Stata, a statistics software package than many social scientists already know how to use. Comparative public opinion researchers already spend countless hours working ‘for free’ cleaning up survey datasets before analysing them. We separately repeat the same steps on the same datasets, redundantly doing work that somebody else has already done and others will repeat in the future. The idea behind HUMAN Surveys is to operate indefinitely without substantial funding and collectively expand the number of included sources and variables.

One of the uses of formatted and merged respondent level data is to create national level public opinion indicators. Some examples are already included within the standard Quality of Government (QoG) country-year dataset. For example, Teorell et al. (2018) provide country average scores calculated using the population weights in the World Values Survey and European Values Survey data to measure trust in different institutions. They also provide average country scores for satisfaction with democracy using the Comparative Study of

Electoral Systems and additional trust in political institution indicators using the European Values Survey (Teorell et al., 2018). Welzel (2013) similarly constructed national-level indicators of trust in political institutions and generalized social trust with data from the World Values Survey. However, these measures rescaled individual responses to range from 0.0 for no trust to 1.0 for the most trust and then averaged these values within national samples (Welzel, 2013). Averaging approaches may differ slightly, but they avoid discarding data. This study explains the construction of national public opinion indices and applies them to analysing the effects of globalization, inequality, and corruption.

1.1. Effects of globalization, inequality, and corruption

This paper analyses three indices measuring national conditions for their effects on aggregated public opinion indices. First, an economic globalisation index measures the international flow of goods and services as well as trade restrictions such as tariffs or investment limitations (Dreher, 2006; Gygli, Haelg, & Sturm, 2018). The assumption is that globalization has differing effects of different socioeconomic groups. Many multinational firms have gradually moved their production from more developed to less developed countries, leaving workers in affected industries with less job security and lower incomes (Scheve & Slaughter, 2004). Many lower skilled jobs requiring less education have been moving from countries with higher labour costs to countries with lower labour costs. The consequences for people with lower education in developed countries would be less financial security than people with more education (Hacker, Rehm, & Schlesinger, 2013). This economic insecurity is hypothesised to translate into relatively more negative attitudes towards democracy and elections for lower socioeconomic groups than for higher socioeconomic groups.

The distribution of income within societies can also be important for public opinion. Principles of fairness are important for democracy and unjust outcomes such as wide income inequalities are associated with popular dissatisfaction and lower political support (Anderson & Singer, 2008; Muller, 1988; Soci, Maccagnan, & Mantovani, 2014). Higher income individuals also tend to show more positive attitudes towards democracy than poorer people in the same countries (Anderson & Guillory, 1997; Bernauer & Vatter, 2012; Kornberg & Clarke, 1994; Waldron-Moore, 1999; Wells & Krieckhaus, 2006). The causal mechanisms are likely to include that wealthier individuals tend to have better standards of living, live in safer neighbourhoods, and have more political influence than poorer individuals. Economically disadvantaged groups are often more affected by economic downturns, but they are also more likely to support violent protests (Córdova & Seligson, 2010). As income inequality increases in a society and more wealth concentrates within a smaller minority, the absolute number of economically disadvantaged increases. These groups are often more affected by economic downturns and more likely to support violent protests (Córdova & Seligson, 2010). Societies with greater income inequality also have lower levels of social trust and higher rates of violent crime (Elgar & Aitken, 2011). The hypothesis is that income inequality will have negative effect on the measures of public opinion in this study.

A substantial body of literature indicates that corruption tends to have a negative effect political and social trust around the world (Chang & Chu, 2006; Meer & Hakhverdian, 2017; Seligson, 2002; Wagner, Schneider, & Halla, 2009). It can be more important that the electoral system for perceptions of electoral fairness and more important than institutional quality for satisfaction with democracy (Donovan & Karp, 2017; McAllister & White, 2015; McCann & Dominguez, 1998). Corruption in governance is expected to have a negative effect on the public opinion measures in this study.

2. Methods

HUMAN Surveys formats and combines multiple sources of public opinion data and creates commonly formatted variables (Klassen, 2018a, 2018b). The resource is available for replication studies and as a tool for other researchers. Formatted variables are as close as possible to their original formats and it is up to each user to decide on the most appropriate methods for analysing and using this resource. Analysing multiple data sources requires contending with different survey designs and methods. There are also some duplicated national surveys between the sources because a few share data. Users should therefore consult the original technical documents and field reports.

Table 1: Survey sources, years, and respondents

Survey Sources	Years	Respondents
Afrobarometer	1999 – 2015	204,464
AmericanBarometer	2004 – 2014	240,036
Arab Barometer	2006 – 2014	33,781
AsiaBarometer	2003 – 2007	46,094
Asian Barometer Survey	2001 – 2010	39,720
Australian Election Study	1987 – 2016	27,166
Comparative Study of Electoral Systems	1996 – 2013	225,721
Consolidation of Democracy in Central and Eastern Europe	1990 – 2001	27,441
Eurobarometer – Applicant and Candidate Countries	2000 – 2004	143,226
Eurobarometer – Central and Eastern	1990 – 1997	125,875
Eurobarometer – Standard and Special	1962 – 2016	3,958,982
European Social Survey	2002 – 2015	328,548
European Values Study	1981 – 2009	166,502
International Social Survey Programme	1985 – 2016	1,120,599
Latinobarómetro	1995 – 2015	370,540
New Europe Barometer	2000 – 2012	76,492
New Russia Barometer	1992 – 2009	34,071
Voice of the People Series	2000 – 2012	481,067
World Values Survey	1981 – 2014	330,354

This study uses national indices for economic globalization, income inequality, and political corruption. Some of these indicators were accessed through the Quality of Government (QoG) standard dataset (Teorell et al., 2017). The economic globalisation index measures international trade flows as well as trade restrictions or investment limitations (Dreher, 2006; Gygli et al., 2018). Income inequality is measured using the Gini coefficient, with multiple sources of this index averaged to increase coverage (LIS, 2016; UNU-WIDER, 2017; World Bank, 2017). The political corruption index comes from the Varieties of Democracy dataset and measures the pervasiveness of executive, legislative, and judicial corruption (Coppedge et al., 2015). These national indices are contrast with country-year public opinion indices.

2.1. Three levels of analysis

The survey sources displayed in Table 1 are merged into three datasets: respondent, country-survey, and country-year. Each is appropriate for different research methods. At the respondent level, observations are people who responded to questions as part of a national survey. This enables analysing differences between respondents or research about

individuals. The respondent dataset is large and analysing potentially millions of observations can take considerable time. The country-survey dataset includes observations representing aggregated scores from each country within each survey round. This preserves the original structure of having national surveys from different sources. However, the same country is often surveyed multiple times in the same year and some survey rounds span multiple years, which creates overlapping county-year observations. It is therefore useful for aggregate comparisons between different survey sources, but it cannot provide unique country-year observations and thus precludes the use of some methods. The third dataset provides country-year observations by taking aggregation a step further. It is created by averaging country-survey scores by country-year, meaning these scores represent an average of all country-survey scores available within each country for each year. This leaves no overlapping observations so the country-year dataset enables the use of additional analysis methods, such as treating the dataset as panel data.

Another way to create the country-year dataset would have been to aggregate respondents directly to the country-year level, skipping the creation of country-survey scores. However, surveys often span multiple years, often with low numbers of respondents for one of the years. Aggregating responses from one of these small sample years generates scores that differ from the other years of the same survey. Aggregating to the country-survey level first means that each score comes from the same question scale and from all responses in the survey. Aggregating respondent data directly to the country-year level risks combining different recoded scales from different survey items. Aggregating within country-survey observations first helps create country-year scores that are more reliable and consistent both between survey sources and between years from the same source.

2.2. Creating common variables

Data formatting started with renaming original variables based on guidelines and reordering their values for consistency. Values were recoded so that larger numbers meant more of the item measured. Variables that logically included the possibility of having a null value were recoded to start at zero. For example, if respondents had no formal education. Many common respondent variables are binary and result from dichotomizing different answer scales. The dichotomization method combines neutral and midpoint values with negative answers, meaning these common variables measure positive attitudes more accurately than negative. For example, the common binary satisfaction with democracy variable more accurately measures satisfaction than it measures dissatisfaction. However, the respondent dataset includes all recoded original data, so users can recombine these variables to create their own common measures.

The datasets currently focus on a limited set of survey items and different variables are included in each dataset. All datasets use the same variables for country and year. The year indicates when respondents were interviewed or surveyed, with values extracted from date variables or manually coded from technical documents. The respondent and county-survey datasets include variables for the survey round and type. The survey round variable assigns a unique numerical identification code to each survey round, wave, or module. The survey type variable distinguishes between standard nationally-representative surveys and other kinds of surveys, such as those oversampling specific demographic groups. Only the respondent dataset includes variables for age, gender, education, and income. All datasets include a version of generalized social trust, satisfaction with democracy, support for democracy, and perceived electoral integrity.

At the respondent level, the common generalized social trust variable distinguishes between individuals who trust most people and those that would be more careful. Most questions do not specify the population of other people, while some specify others in the same country. Responses that 'it depends' and midpoints on scales were recoded as 'be careful'. The common variable for satisfaction with democracy indicates whether respondents are satisfied with the way their national democracy works. Neutral responses and scale midpoints were recoded as 'not satisfied'. The common respondent variable measuring support for democracy indicates whether respondents find democracy preferable to other forms of government such as authoritarian regimes. Responses indicating indifference and midpoints on scales were recoded as democracy being 'not always preferable'. The common variable for perceived electoral integrity indicates when respondents approve of electoral integrity in their country. Most questions refer to national or parliamentary elections, some do not specify the election type, and some specify presidential elections. Survey items use slightly different wording when referring to elections, such as trustworthy, honest, fair, or clean. Midpoint values on answer scales were recoded as 'disapprove'.

The method creates country-survey variables from respondent data in two steps, followed by a third step to create country-year variables. First, original recoded variables were rescaled to range from 0 to 100. This preserved all responses and avoided discarding data through dichotomization. Second, these rescaled values were averaged within each country-survey observation to create simple mean scores. Upper and lower bound 99% confidence intervals were generated for each score and included within the country-survey dataset. Finally, the country-year dataset was created by averaging country-survey scores within each country for each year. This removed duplicate observations and created a dataset able to be declared panel data for methods such as time-series cross-sectional analysis. These country-years scores are effectively public opinion indices and are useful for a wide range of research projects. They can also be constructed in combination with demographic variables to represent the aggregated opinions of different groups.

Common respondent level demographic variables are grouped into ordinal or categorical variables measuring age, education, and income. The common age variable uses three categories (1 = under 30, 2 = 30 to 50, 3 = over 50) that were the most widely comparable groups across survey sources. However, some surveys use different age divisions, meaning that some values may represent close approximations within a few years. The common gender variable indicates whether respondents are male or female (1 = male, 2 = female). All included sources use the same or a very similar survey item. The common education variable groups respondents within three levels (1 = primary or lower, 2 = secondary or vocational, 3 = tertiary or higher). These levels were estimated based on the age respondents stopped their education or the total years of education respondents had completed. Education levels of respondents still studying were estimated using their age if available. The common education variable is therefore sometimes an estimate of respondents' highest educational attainment. The common income variable divides respondents into three categories (1 = lower income, 2 = middle income, 3 = higher income). The variable was created by supplementing a three-category income variable with a common income quartile variable, with the middle quartiles combined. Values therefore approximate the lowest 25%, middle 50%, and highest 25% within each country-survey observation. These exact percentages are not always achieved so the variable represents an approximate income grouping.

Non-valid or unusable responses were recoded into four common missing values whenever possible. The 'do not know' value (.a) and 'refused' value (.b) indicate active replies from

respondents, meaning that they were asked the question but did not provide a valid answer. These values were setup for use with Stata and may require recoding for use with other software packages. The ‘not applicable’ value (.c) and generic ‘missing’ values (.) indicate that respondents were either not asked the question or that it is not possible to otherwise classify the missing data. The four missing values are applied across all reformatted datasets.

3. Results

The bar chart in Figure 1 displays the total number of respondents across all surveys per year. The vertical axis shows the number of respondents, with year on the horizontal axis. The number of respondents surveyed has increased over time, especially since about 1995. The year 2016 shows a decline because many sources do not publicly release their data for a few years and these figures do not include data from the latest survey rounds. The number of respondents closely parallels the number of country-surveys, but there are usually fewer country-years observations. For example, in 2005 there were over 400,000 respondents in almost 400 national surveys but only 100 country-year observations. This is because the method averages overlapping country-survey scores within each country-year.

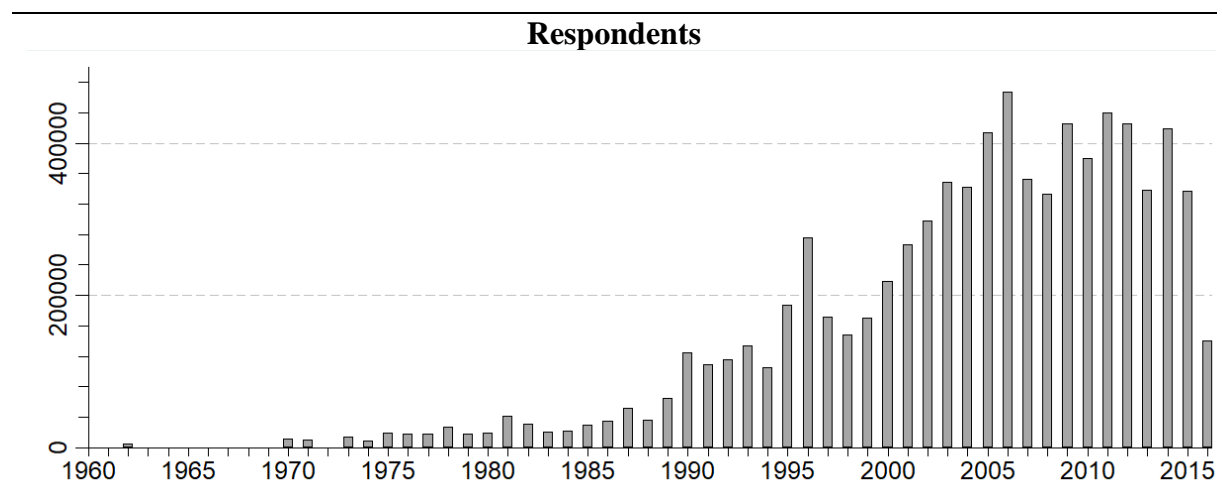


Figure 1: Number of respondents across all survey sources each year

The heat map in Figure 2 illustrates the number of surveys per country, with darker regions representing more surveys. The numerous sources covering Europe mean that many countries have been surveyed at least two hundred times. The most frequently surveyed country is the United Kingdom followed by France and the Netherlands. European countries have been surveyed far more than most, especially those across Africa, the Middle East, and Central Asia. Only one or two surveys are included from countries such as Niger, Qatar and Tajikistan. Many of the countries across these regions and elsewhere have not been included in any of the sources. Multiple sources cover the Americas and more developed countries tend to be included within global surveys. Coverage for South and South-East Asia is moderate, with less frequent overlapping sources.

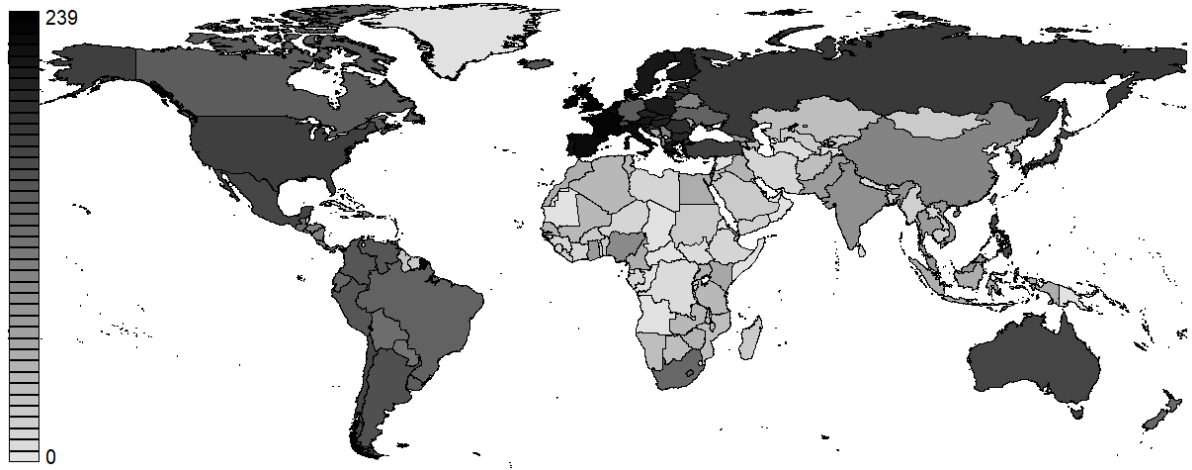


Figure 2: Heat map displaying number of surveys per country

Histograms in Figure 3 display country-year score distributions for four main public opinion indices. With a mean of 36.5, the generalized social trust distribution suggests that respondents tend to be more careful rather than trust most people. The satisfaction with democracy scores have a mean of 50.7 and a kurtosis of 2.6, making it the closest to a normal distribution of the four indices. The mean support for democracy score is 75.3, meaning a substantial majority of respondents think democracy is favourable to other forms of government such as authoritarianism. Perceived electoral integrity scores have a mean of 58.6, but the scores are spread over a wider range of values than for the other indices.

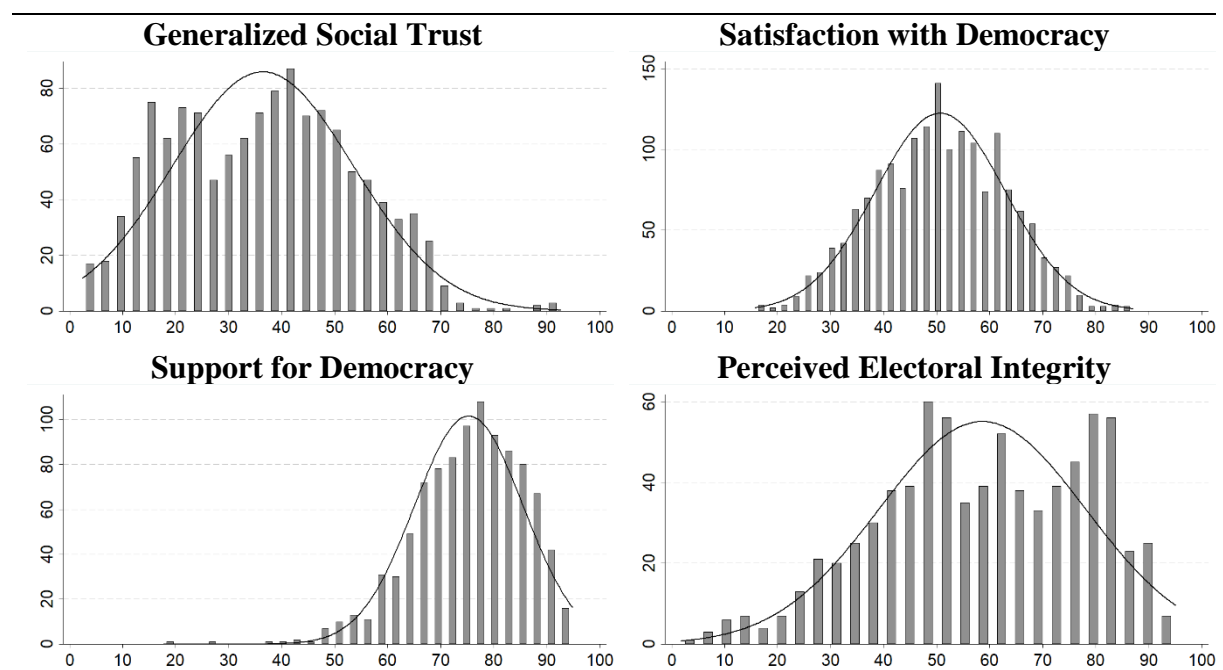


Figure 3: Histograms showing distributions using country-year index scores. Horizontal axes display scores values and vertical shows number of country-year scores at each value.

The connected line plots in Figure 4 use unweighted six-year moving averages. A selection of six countries are displayed, but the country-year dataset includes sufficient data points to produce these plots across many more countries. Each point on the lines is an average of the scores from three past years, current year, and two future years. Creating moving averages fills

in some missing observations if data is available. It also creates smoother lines to visualize public opinion changes over time within each country. They demonstrate that broad patterns differ substantially over time within and between countries. Scandinavian countries such as Sweden and the Norway display some of the most stable and positive public scores. Anglophone countries such as the United Kingdom and United States have high levels of support for democracy, but some have declining satisfaction with democracy and perceived electoral integrity. The indices vary widely across developing countries, but many such as Paraguay and Ecuador have increasingly positive scores. One of the more promising trends observable across many countries from around the world is a gradual rise in generalized social trust.

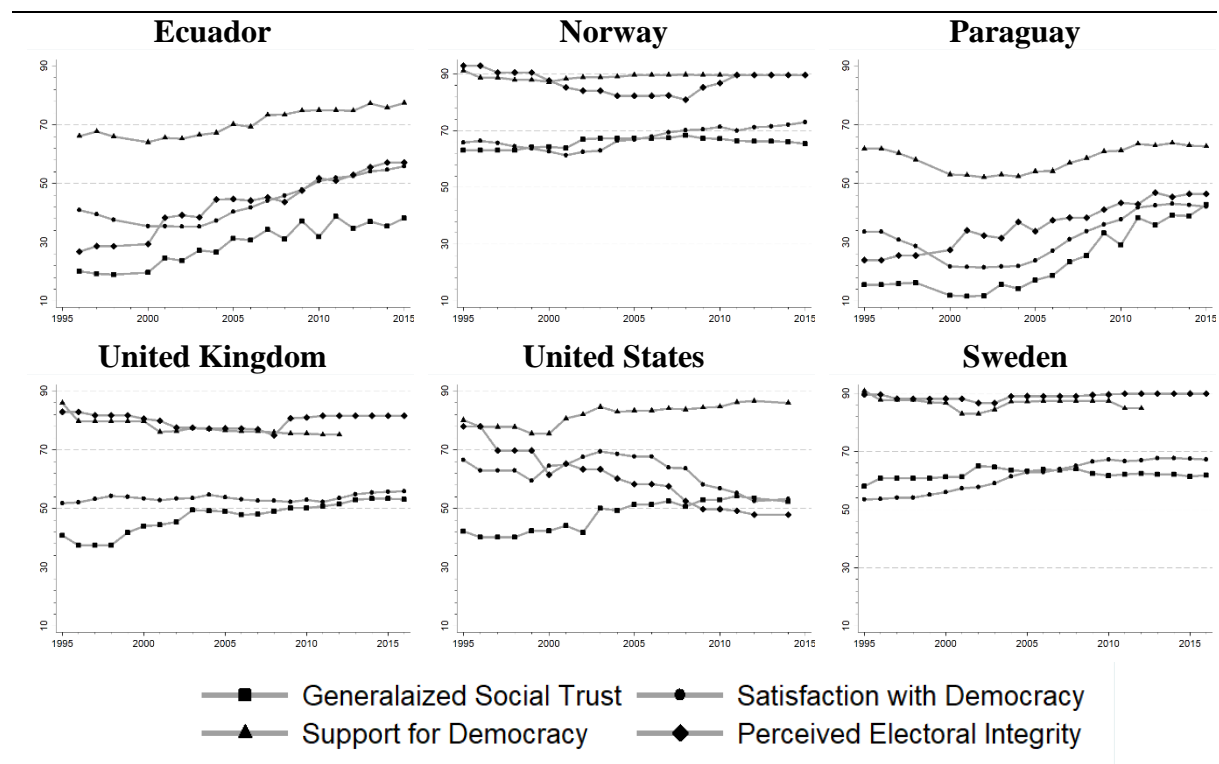


Figure 4: Moving averages with four measures of public opinion in selected example countries

The scatter plots with fitted lines in Figure 5 display the attitudes of groups with different socioeconomic status (SES) compared against national indicators. Columns provide plots for indices of economic globalization, income inequality (Gini coefficient), and political corruption with values from these indices along the horizontal axes. Row displays plots for each public opinion index and with vertical axes displaying the country-year scores for these indices. Black lines (higher SES) represent fitted values for respondents with at least some tertiary education and incomes in approximately the top quartile. Grey lines (lower SES) represent respondents with primary education or less and incomes in the bottom quartile within each national survey.

The broad patterns pictured in Figure 5 are expected, but the differences are also important. As countries integrate into the global economy, both SES groups tend to be more trusting of others, more satisfied with democracy, more supportive of democracy, and perceive greater electoral integrity. Conversely, as income inequality and political corruption rise, both SES groups tend to express more negative attitudes across all four measures of public opinion. However, the diverging and converging lines for the two groups illustrate that the effects of globalization, inequality, and corruption affect the two groups differently. Attitudes of the

higher SES group become more positive faster than for the lower SES group. Conversely, as income inequality and political corruption increase, the attitudes of higher SES respondents tends to become more negative faster than for lower SES respondents, appearing to converge closer together at higher levels of inequality and corruption.

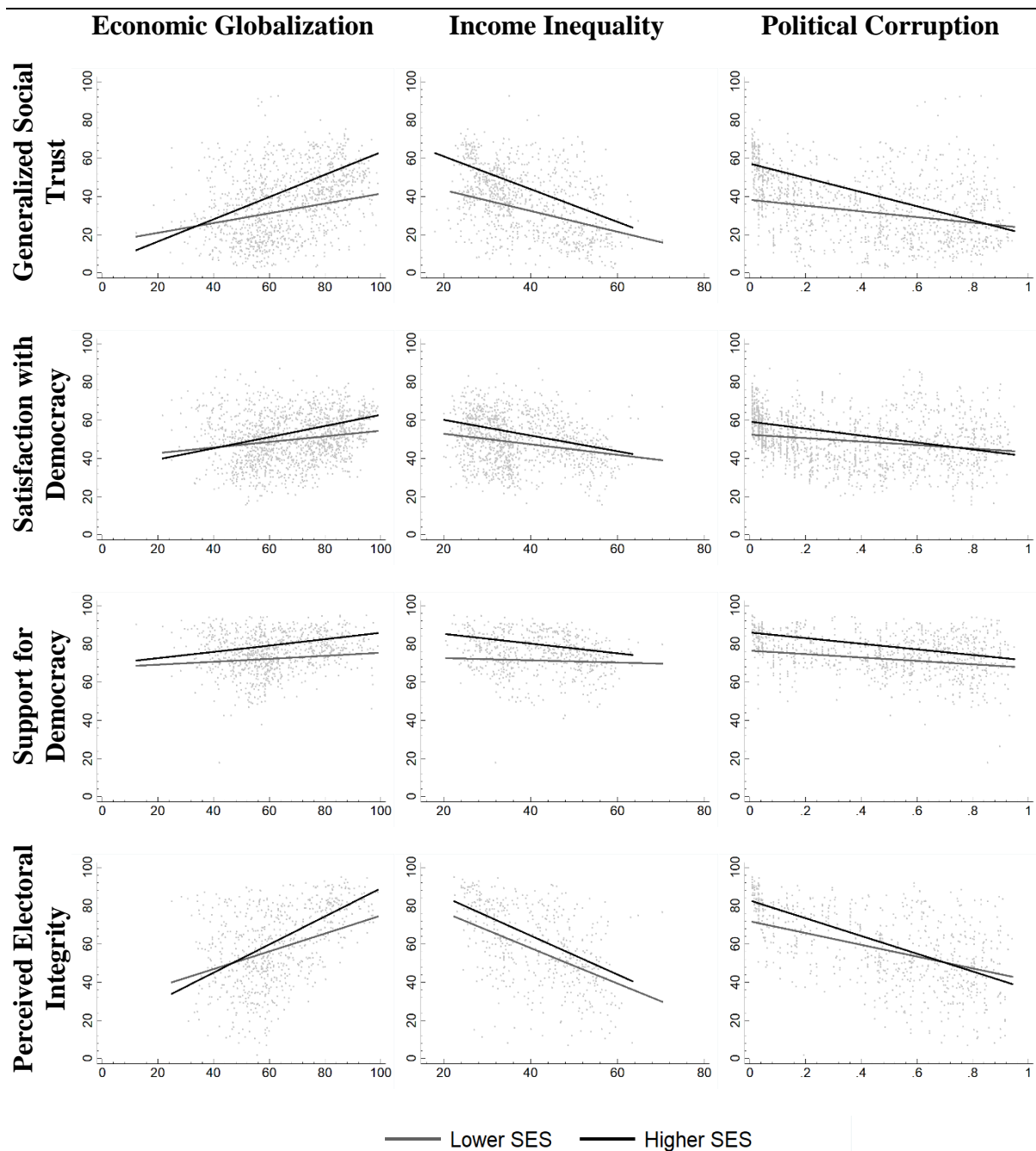


Figure 5: Scatter plots with linear fitted lines comparing demographic groups against national indices of economic globalization, income inequality, and political corruption. The grey Lower SES lines represent people with primary education or less, while the black Higher SES lines represent people with some tertiary education or more and higher income.

4. Discussion

It is important to note that HUMAN Surveys does not produce or conduct any surveys. Respondent data comes from the original sources in Table 1 and using any of the merged

datasets requires also citing these sources. In some cases, it is also necessary to register with the original sources to obtain their permission to use the data. The data cannot be used for commercial purposes and attempts must not be made to identify individual respondents.

The intention motivating HUMAN Surveys is to be able to continue formatting and merging public surveys indefinitely and independently of substantial funding. The goal is to format every variable from every round of every publicly available survey source that takes nationally representative samples of adult populations. This is undeniably ambitious because there are surveys underway with datasets yet to be released, many existing survey sources yet to be included, and public opinion surveys will continue being released indefinitely. The scope of the ambition means that crowdsourced development may be more appropriate than a traditional funded research project model. Using paid research assistants and database specialists is inadequate for the overall goal because the effort would depend on continued funding. The customized programming and software environments used by other survey data harmonization projects require paid specialists to manage the technical aspects of database management (Dubrow & Tomescu-Dubrow, 2016; Powalko & Kołczyńska, 2016; Tomescu-Dubrow & Slomczynski, 2016). This restricts the number of people capable of making contributions to expanding the resource. People with the necessary skills, such as computer scientists, may not have research interests that motivates them to continue formatting public survey data without pay. Ensuring continued expansion independent of funding requires that the people who need and want to use the data are also have the skills needed to incorporate more survey sources and format more variables. Quantitative social scientists tend to use SPSS, R, SAS, or Stata for their data analysis and these packages have data management capabilities. HUMAN Surveys currently uses Stata, but the aim is to move to use R because it is free open-source software. This will remove an additional financial barrier to getting involved with expanding variables and sources included within merged datasets. A crowdsourced model with extensive documentation enables others to continue development with or without funding. Researchers can do small pieces of work for their own projects and give this work back to a growing body of formatted variables. The main normative obligation for using the resource is therefore to give back additions made to the merged datasets and formatting scripts.

Starting with HUMAN Surveys and adding needed variables enables more cost-effective research projects to be completed in less time. Its role within a crowdsourced model is to provide a centralised quality control and a distribution hub for official releases. The aim is to make cross-survey comparative public opinion research easier for others to undertake. Combining data from multiple sources enables us to track trends over time, repeat models across different surveys, and increase both the reliability and generalisability of findings. Analysing more respondents, countries, and surveys also provides greater variation and enables answering new research questions. For example, the merged datasets are useful for research involving minority groups with low numbers. We can analyse disadvantaged socioeconomic or ethnic minority groups that are often not well-represented in some surveys. Individual public surveys often do not include enough respondents belonging to these smaller groups to produce reliable results. The millions of respondents across multiple countries, years, and surveys enables us include and analyse more of these numerically sparse populations.

Although the focus will be on crowdsourced development, this does not negate the possibility of using the merged datasets as part of funded research projects or using funding to expand the resource. Research funding agencies want actionable output, timely analysis, and reliable evidence in exchange for their financial support. Time is an especially valuable resource. HUMAN Surveys can accelerate the generation of reports or other output because it has already

assembled multiple survey data collections. It has undertaken the foundational data harmonization work of creating common variables. It would take someone else one to three years to do the same work. This enables starting large research project faster and incorporating additional new common variables in a matter of months rather than years.

Using the merged datasets to create moving average trend lines and scatter plots contrasting SES groups are two examples of applying the data. The moving averages provide a way of contrasting countries over time and each plot tells a story. There are numerous opportunities for research collaborations with country experts to examine these plots. Moving averages can be created to represent attitude changes over time of different groups, such as the SES groups used in the scatter plot examples. The fitted lines in these scatter plots showed that higher SES groups become more positive faster than lower SES groups as countries globalize. This reflects the relative changes in living standards due to economic globalization. Trading with the global economy helps both groups, but wealthier and educated respondents are better equipped to take advantages of the opportunities. Unskilled workers are easily replaced by cheaper labour overseas, but educated specialists with skills in demand can move around the world pursuing higher salaries. Conversely, as levels of income inequality and political corruption rise, the attitudes of higher SES respondents tend to decline faster than for lower SES groups. The convergence of these groups suggests that when inequality and corruption are pervasive, both groups tend to agree that conditions are bad. There are many opportunities for collaborations to analyse effects like these and investigate their potential causes.

Working with copious amounts of public opinion data is more work than analysing one dataset at a time, but the advantages are potentially world-changing. There are lifetimes of research questions to answer using the surveys already formatted and merged. One of the most important things about this project is what it cannot show us. Many countries are not included within any of the sources, suggesting the global community knows less about the people in these countries. Our collective human understanding of these populations is lacking and there is substantial room for expansion of existing surveys to include these missing countries. There are of course good reasons many have not been surveyed as frequently, such as ongoing armed conflicts or autocratic regimes that make expressing honest opinions dangerous for respondents. However, where possible and safe we should be aiming to include these under-represented countries with our survey programs. The information could be valuable for allocating international aid or supporting these countries to develop and improve the quality of life for their people.

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