

## **Replication Files**

### **“Public Procurement in Law and Practice” (AER-2020-0738)**

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This folder contains the data and Stata do-file to generate the tables and figures from the paper. “Master\_Procurement\_Data.xls” is the main dataset. “Master\_Procurement\_Code.do” is the code file. The replicator should expect the code to run for about 10 minutes.

### **Data Availability**

All data used in this paper is available on the archive in the file “Master\_Procurement\_Data.xls”. All data received through surveys used in this paper was validated/reconciled through extensive readings of the relevant laws, as well as multiple follow-ups conducted by phone and/or through country visits. (For more details on this consolidation process please refer to the paper and Appendix A). The data was collected by a team led by one of the authors as part of the World Bank *Doing Business 2020* data collection cycle. The survey administered to collect this data is included in this folder as “Survey.doc”. The number of experts consulted through the surveys, the phone follow-ups and the country visits are recorded through a “customer relationship management” (Salesforce CRM) system. The CRM system provides data on the total number of experts consulted per country. This data is used to produce Figure A1, which displays the distribution of countries by number of experts consulted by the data collection team.

In addition to the data collected by the authors, the paper uses data from the Road Cost Knowledge System (ROCKS) Database to motivate case study facts as well as GTIs Global Government Contracts Database. All data are publicly available.

We certify that the authors of the manuscript have legitimate access to and permission to use the data used in this manuscript. We certify that the authors of the manuscript have documented permission to redistribute/publish the data contained within this replication package.

## Computational Requirements

### *Software Requirements:*

Data manipulation and analysis were performed using Stata 17. The following packages were installed:

- aaplot
- estout
- extremes

### *Memory and Runtime Requirements:*

Data manipulation and analysis were last performed on a Mac (32 GB, 8 cores). The approximate time needed to reproduce the analyses on a standard 2021 desktop machine is around 10 minutes.

## Instructions to Replicators

To replicate the results of the paper (except Figure A1 and Figure A4):

1. Place “Master\_Procurement\_Data.xls” and “Master\_Procurement\_Code.do” in the same folder.
2. Adjust line 4 in “Master\_Procurement\_Code.do” to indicate the directory that includes the replication files.
3. Adjust line 6 in “Master\_Procurement\_Code.do” to indicate the directory for the output files.
4. Run “Master\_Procurement\_Code.do”.

To replicate Figure A1:

1. Data and histogram are in the worksheet tab “Figure A1” of the dataset file “Master\_Procurement\_Data.xls”.

To replicate Figure A4:

1. Data and histogram are in the worksheet tab “Figure A4” of the dataset file “Master\_Procurement\_Data.xls”.

Figure A4 displays data for 82 countries on actual works contracts involving road resurfacing. For 73 countries, the data is extracted from the Road Cost Knowledge System (ROCKS) Database, which is publicly available. The ROCKS Database contains the estimated and actual cost per km of a variety of road-related projects from routine maintenance and resurfacing, to building a new 6-lane highway. Given that the data collection survey assumed simple maintenance work, Figure A4 was produced using only the actual cost data per km from ROCKS for 7 categories of works that are relevant to the case study. These seven categories are: asphalt mix resurfacing, concrete payment restoration, routine maintenance, strengthening, surface treatment resurfacing, upgrading, and reconstruction. All other categories were excluded for the purposes of Figure A4. For an additional 9 countries (Australia, Austria, Canada, Germany, Lao PDR, New Zealand, South Africa, Switzerland and the United States), the team was able to collect comparable data from national statistics. These data are also used to produce Figure A4. Data were not available for the rest of the sample countries.

### List of Tables and Programs

Figure/Table #	Program	Line Number	Output file
Figure 1	Master_Procurement_Code.do	190	Figure 1.png
Figure 2	Master_Procurement_Code.do	194	Figure 2.png
Figure 3	Master_Procurement_Code.do	199	Figure 3.png
Figure 4	Master_Procurement_Code.do	204	Figure 4.png
Figure 5	Master_Procurement_Code.do	208	Figure 5.png
Figure 6	Master_Procurement_Code.do	213	Figure 6.png
Figure 7	Master_Procurement_Code.do	226	Figure 7.png, Figure 7more.png
Figure 8	Master_Procurement_Code.do	234	Figure 8.png, Figure 8more.png
Figure A1	Master_Procurement_Data.xls	Figure A1 Tab	
Figure A2	Master_Procurement_Code.do	258	Figure A2_more.png

Figure A3	Master_Procurement_Code.do	262	Figure A3_more.png
Figure A4	Master_Procurement_Data.xls	Figure A4 Tab	
Figure A5	Master_Procurement_Code.do	274	Figure A5_more.png
Figure A6	Master_Procurement_Code.do	278	Figure A6_more.png
Figure A7	Master_Procurement_Code.do	284	Figure A7_1.png, Figure A7_2.png, Figure A7_3.png
Figure A8	Master_Procurement_Code.do	297	Figure A8_1.png, Figure A8_2.png, Figure A8_3.png
Table 3	Master_Procurement_Code.do	183	Table 3.csv
Table A1	Master_Procurement_Code.do	243	Table A1.csv
Table B1	Master_Procurement_Code.do	311	Table B1.csv
Table B2	Master_Procurement_Code.do	325	Table B2.xlsx
Table B3	Master_Procurement_Code.do	356	Table B3.csv
Table B4	Master_Procurement_Code.do	373	Table B4.csv
Table C1	Master_Procurement_Code.do	404	Table C1.csv
Table C2	Master_Procurement_Code.do	413	Table C2.csv
Table C3	Master_Procurement_Code.do	417	Table C3.csv
Table C4	Master_Procurement_Code.do	432	Table C4.xlsx
Table C5	Master_Procurement_Code.do	558	Table C5.csv

## References

- Bosio, Erica, Jean Arlet, Antoni Albert Nogues Comas, and Nicole Anouk Leger. 2018. Road Costs Knowledge System (ROCKS) – Update. Washington: World Bank. Database available at:  
<https://www.doingbusiness.org/content/dam/doingBusiness/media/Special-Reports/roadcosts-knowledge-system-Updated.pdf>
- Bosio, Erica, Simeon Djankov, Edward L. Glaeser, and Andrei Shleifer. “Public Procurement in

Law and Practice.” American Economic Review.

Fazekas, Mihaly. 2021. GTI’s Global Government Contracts database. Government Transparency Institute, Vienna. July. Database available at:

<http://www.govtransparency.eu/gtis-globalgovernment-contracts-database/>.