

Preliminary look at road cost data

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The World Bank maintains the Road Costs Knowledge (ROCKS) database, which compiles data on the cost of road construction projects¹. ROCKS was first compiled in 1999, and updated once in 2008 and most recently in 2018 by the Doing Business group. The total database covers 3911 road construction projects in 110 countries. Projects in the database were started between 1984 and 2017. A single project may involve multiple components. A component may be comprised of different road sections. Work activities in the database are described at the section level. For example, within the same project, one section of a road may be widened while the next section may be graded or regravelled. Therefore, road work activities at the section level are the unit of analysis throughout the document. Figure 1 maps the extent of coverage around the world. Table 1 describes the different types of data appearing in the database. Figure 2 presents a first look at the distribution of costs. Figure 3 plots actual versus estimated costs for the 557 work activities where the data exists. Finally, 4 plots the discrepancies between planned and estimated costs against discrepancies in planned and estimated road length.

¹<https://www.doingbusiness.org/en/reports/thematic-reports/road-costs-knowledge-system>

Figure 1: Number of work activities per country in ROCKS database

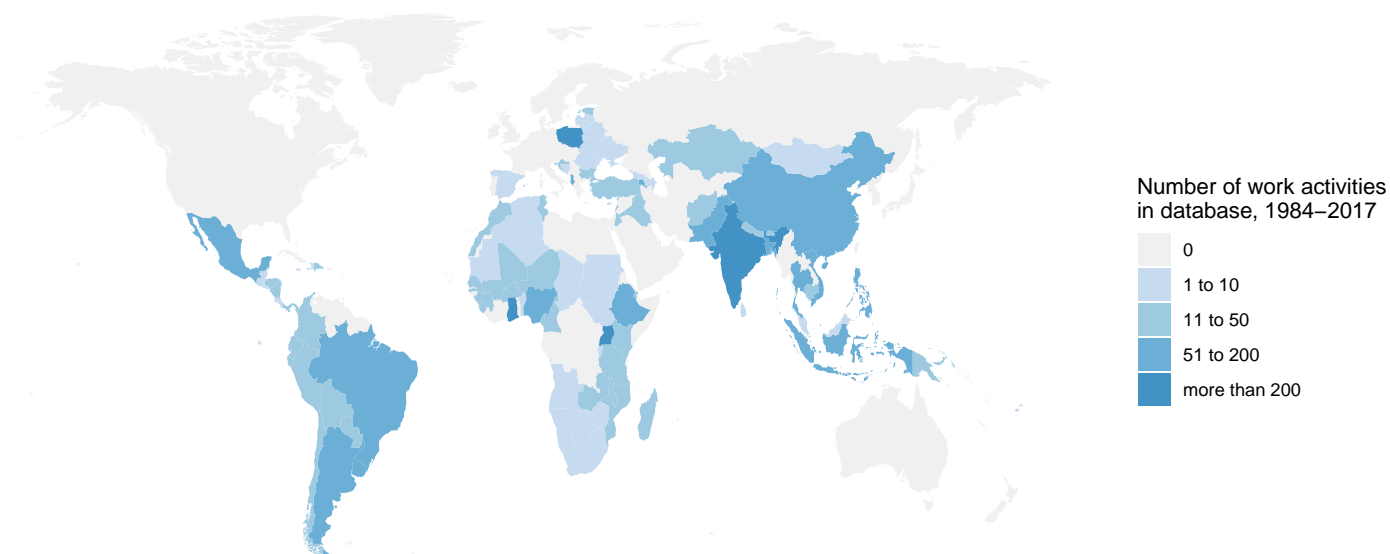


Table 1: Different sources of data. ROCKS compiles data from sources that include project proposals contracts, and evaluations. Projects appearing in the database may have information based on estimates, details of the signed contract, actual costs evaluated after project completion or some combination of the three.

Number of activities with data			Type of data recorded		
cost	length of road		estimated	contract	actual
1639	943		x		
1009	1006			x	
1104	892				x
0	0		x	x	
557	557		x		x
0	0			x	x
0	0		x	x	x
Total	4309	3398			

Figure 2: Distribution of project costs

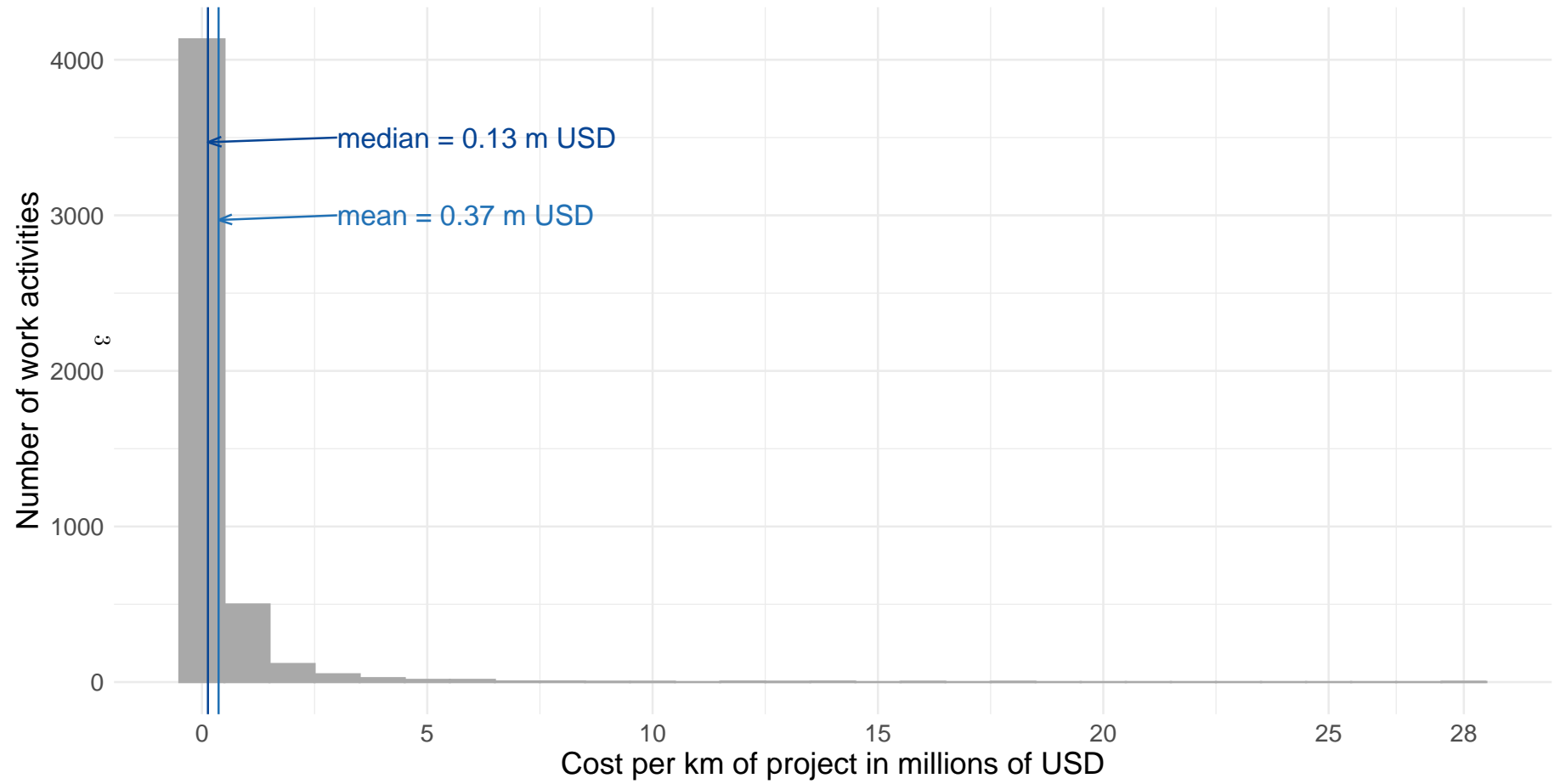


Figure 3: Estimated against actual costs

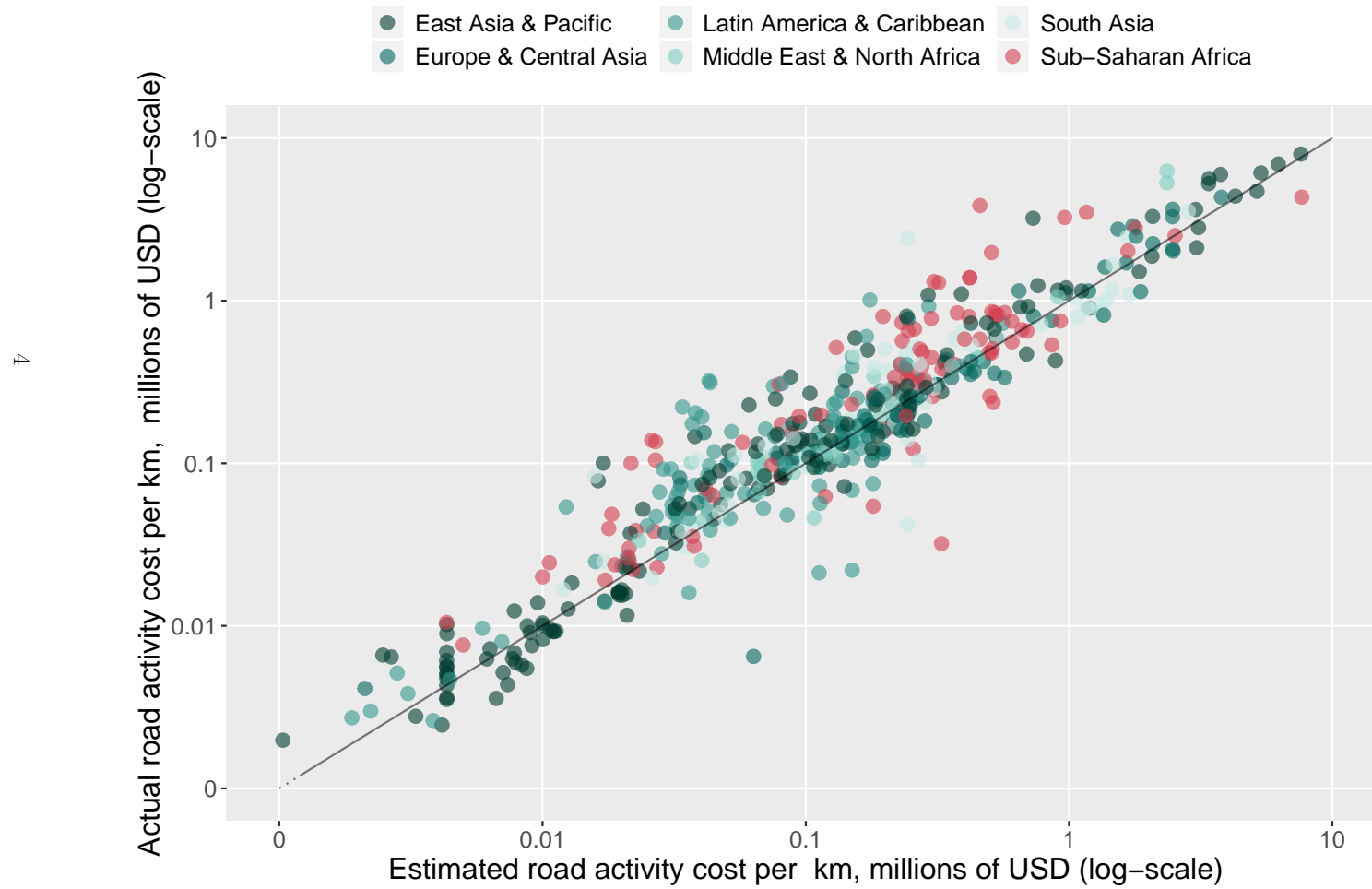
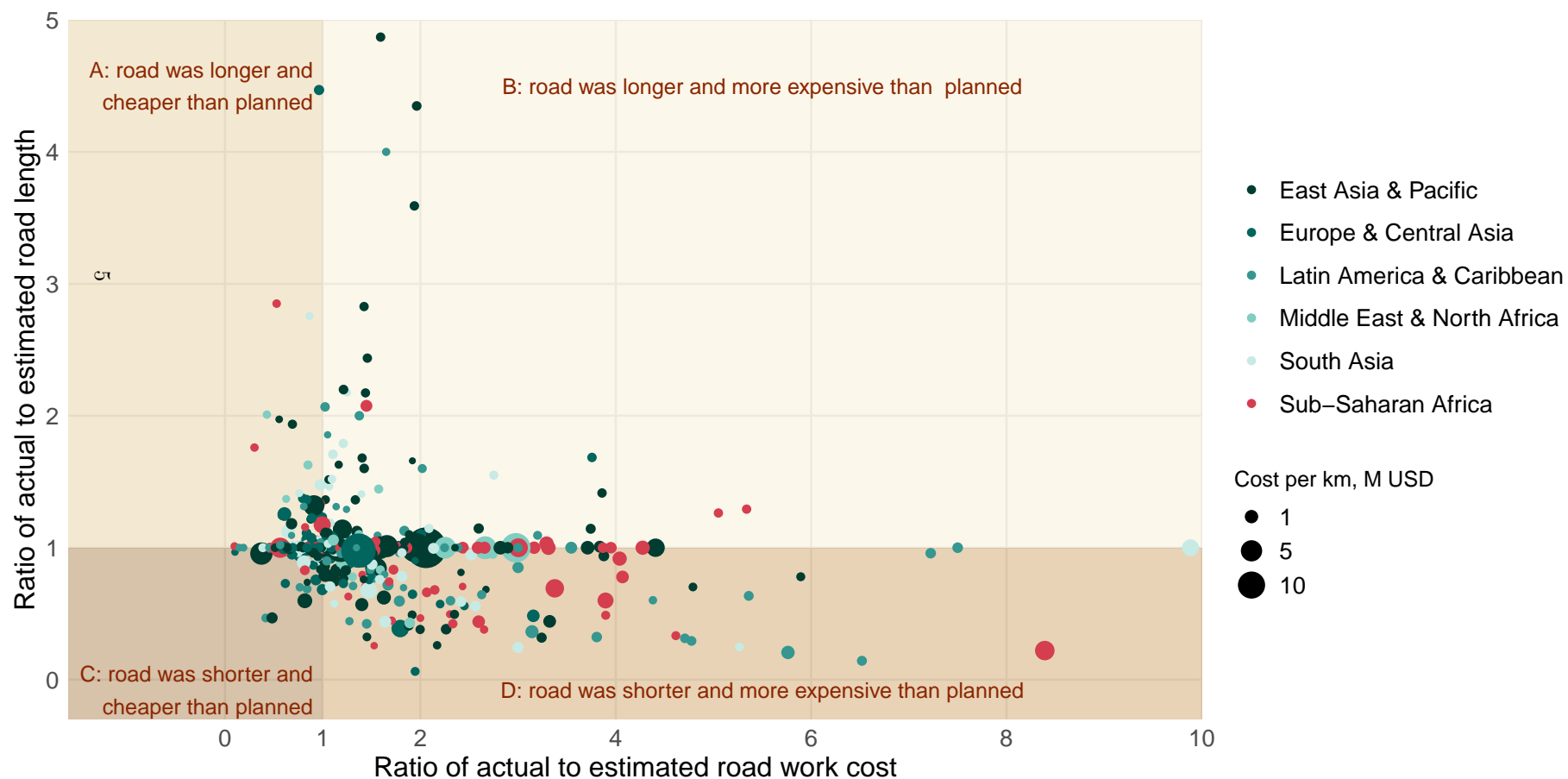


Figure 4: Cost and length overruns

31% of roads in sub-Saharan Africa were shorter and more expensive than planned



Data from ROCKS database. Each point represents a road work project sponsored in part or wholly by the World Bank and selected international donors between 1994 and 2018.