

TABLE 3—ASSIGNMENT TO ESKOM PROJECT: FIRST STAGE OLS ESTIMATES

Dependent variable: Eskom project = [1 or 0]	(1)	(2)	(3)	(4)
Gradient $\times$ 10	−0.083** (0.040)	−0.075** (0.034)	−0.078*** (0.027)	−0.077*** (0.027)
Kilometers to grid $\times$ 10		−0.040* (0.021)	−0.012 (0.023)	−0.011 (0.023)
Household density $\times$ 10		0.017*** (0.004)	0.012** (0.006)	0.013** (0.006)
Poverty rate		0.023 (0.069)	0.019 (0.070)	0.017 (0.069)
Female-headed HHs		0.393*** (0.120)	0.165 (0.107)	0.155 (0.107)
Adult sex ratio		−0.173*** (0.052)	−0.130*** (0.042)	−0.121*** (0.042)
Indian, white adults $\times$ 10		−1.236*** (0.401)	−1.116** (0.459)	−1.105** (0.452)
Kilometers to road $\times$ 10		0.003 (0.009)	−0.010 (0.010)	−0.010 (0.010)
Kilometers to town $\times$ 10		0.016 (0.015)	0.008 (0.015)	0.008 (0.016)
Men with high school		−0.269 (0.500)	−0.185 (0.411)	−0.152 (0.417)
Women with high school		1.046** (0.475)	0.965** (0.413)	0.984** (0.409)
$\Delta$ , water access				0.012 (0.048)
$\Delta$ , toilet access				0.155 (0.104)
District fixed effects	N	N	Y	Y
Mean of outcome variable	0.20	0.20	0.20	0.20
<i>N</i> communities	1,816	1,816	1,816	1,816
<i>R</i> <sup>2</sup>	0.01	0.07	0.18	0.18
<i>F</i> -statistic on gradient	4.20	4.87	8.34	8.26
Pr > <i>F</i>	0.04	0.03	0.00	0.00

Notes: Robust standard errors clustered at subdistrict level. Ten district fixed effects included in columns 3 and 4. Change in fraction of households with access to water and flush toilet measured between 1996 and 2001.

\*\*\*Significant at the 1 percent level.

\*\*Significant at the 5 percent level.

\*Significant at the 10 percent level.

The inclusion of district fixed effects in this first stage is important, as a large amount of the variation in gradient comes from cross-district variation (see Figure 3). This means that without controlling for district, the first stage compares project assignment across very different places in terms of gradient and in terms of local labor market conditions. By controlling for district as in columns 3 and 4, I compare places that are in the same local labor market, but which are slightly flatter or steeper.

The two other cost variables have coefficients of expected sign in the first stage results of Table 3: a three-quarter-standard deviation increase in distance from the grid (about 10 kilometers) reduces the probability of electrification by 1 percentage point, although this is not significant when all other controls are added. A one-third-standard deviation increase in household density (10 households) per square kilometer increases the probability of electrification by about 1.3 percentage