Who Gains from Which Infrastructure in Rural China?

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The distributive impacts of infrastructure have largely been overlooked despite a growing literature on its role in promoting growth. This paper will: (i) demonstrate the deficiency of the conventional approach to modeling inequality; (ii) extend the Mincer earnings function so that both growth and distributive effects of infrastructure can be estimated; and (iii) fit the extended model to a large sample of individual-level data from rural China for the period of 1989–2011, providing estimates of growth and distributive impacts of specific physical infrastructures: telephone, tap water and electricity. All these infrastructures are found to promote rural income growth, helping narrow the rural—urban gap, which is the dominant component of China's overall inequality. Further, the poor are found to gain more than the rich, implying benign distributive effects of these infrastructures. In addition, males, the more experienced, the better educated, and to some extent the married benefited more than their counterparts, especially from telephone. Finally, some of these subpopulation effects became more significant in recent years and are larger in inland China. The empirical results are robust to different definitions of the experience variable, consideration of the mortality selection bias, reconstruction of the telephone data, and possible reverse causality.