THE IMPACT OF FAMILY COMPOSITION ON EDUCATIONAL ACHIEVEMENT

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Parents preferring sons tend to go on to have more children until one or more boys are born, and to concentrate investment in boys for a given sibsize. Therefore, having a brother may affect child outcomes in two ways: indirectly, by decreasing sibsize, and directly, where sibsize remains constant. We develop an identification strategy that allows us to separate these two effects. We then apply this to capture the heterogeneous effects of male siblings in both direct and indirect channels, using 0.8 million Taiwanese first-borns. Our empirical evidence indicates that neither effect is important in explaining first-born boys' education levels. In contrast, both effects for first-born girls are evident but go in opposite directions, resulting in a near-zero total effect which has previously been a measure of gender bias. These results offer new evidence of sibling rivalry and gender bias in family settings that has not been detected in the literature.

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Keywords: sibling rivalry and spillover; direct and indirect effects

We find new empirical evidence of gender bias in family settings using unique data from Taiwan, an economy with a long tradition of son preference. As in most countries in East and South Asia, many parents in Taiwan follow a son-prefering fertility-stopping rule.¹ They tend to go on to have more children until a boy is born, and to concentrate investment in boys conditional on sibsize. Thus, having a brother may affect his sibling's human capital formation in two ways: indirectly, by decreasing sibsize (Das 1987, Jensen 2003) and directly, where sibsize remains constant as the family goes through adjustments.² Perhaps surprisingly, little

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¹See Deuchler (1992), Das Gupta and Li (1999), and Croll (2000) for the literature on family systems and son preferences in East and South Asia.