



Impact of Bicycles on Girls' Education & Empowerment in Rural Zambia

Like many countries worldwide, Zambia is characterized by social norms that favor early marriage and limit girls' access to education. While overall enrollment and gender parity have improved at the primary education level, school attendance in rural Zambia remains a challenge. The project investigates the benefits of providing bicycles to girls walking long distances to school. In 2016, researchers (Muralidharan and Prakash) in India found this program successful at reducing the gender gap in enrollment. Still, there is little rigorous evidence on how providing bicycles impacts educational outcomes and empowerment.

In Zambia, IPA is collaborating with World Bicycle Relief (WBR) to evaluate the impact of their program providing bicycles to grade 5-7 girls in remote communities. Throughout November, IPA conducted a needs and feasibility assessment of the eligible districts in Southern and Eastern Provinces in order to inform the evaluation design. The researchers are designing the protocols and instruments to conduct a baseline survey of participating schools and communities, which will be launched in February 2017. Following the baseline, approximately 4,000 bicycles will be distributed to the assigned schools, communities, and households in accordance with the experimental design.

Researchers: Nishith Prakash & Nathan Fiala (UConnecticut), Kritika Narula (Yale), and Rachna Nag Chowdhuri (World Bank)
Partners: World Bicycle Relief (WBR)

Recruiting & Motivating Community Health Workers

In 2010, the Government of Zambia created a new civil service position: the Community Health Assistant (CHA). They are the first line of healthcare for Zambians living in the most remote regions of the country. The government aims to train 5,000 new CHAs by 2017—a massive investment in a country with only 6,000 nurses. CHAs are recruited from the communities, undergo a year of formal training, and then return to their rural home communities to work.

To understand the effect of incentives on performance through selection, districts were randomly assigned to two recruitment strategies: one that stressed career benefits and one that stressed social benefits. After a promising limited

endline study conducted by IPA in 2014, which showed that recruiting CHAs with career incentives led to more facility utilization and better health outcomes, IPA is conducting a full endline study from September to December 2016.

Teams are interviewing community members, health facility staff, and the CHAs themselves in all 162 communities where the original cohort of CHAs were placed. The household interviews collect data on health information (e.g., under-5 health status), CHA behavior (e.g., frequency and duration of home visits), and child career and educational aspirations (e.g., expected versus desired future occupation). The CHA and health facility interviews focus on CHA work behavior, task shifting within the health facility, interpersonal professional relationships, and CHA career aspirations. All together, the data will provide long-term evidence of the effects of career incentives on performance through selection. Results will be disseminated in mid-2017.

Researchers: Nava Ashraf (London School of Economics), Oriana Bandiera (LSE), Scott Lee (Harvard); Partners: Ministry of Health (MOH), Clinton Health Access Initiative (CHAI)

Improving Basic Literacy & Numeracy Skills in Primary Schools

Despite increases in enrollment, learning levels in Zambia remain low. Large classrooms of learners with a wide range of abilities mean that students who miss basic skills never have the chance to catch up. Evidence from researchers in the J-PAL/IPA network proves that learning programs tailored to the level of the child help to solve this problem.



The Teaching at the Right Level pedagogy creates groups of similarly performing children and dedicates time to basic skills. Researchers have evaluated numerous variations in different contexts. When correctly implemented, the method has been proven to work whether delivered by government teachers or volunteers, and regardless of the time of instruction.

The Ministry of General Education is piloting two models to test how they work in Zambia. The first is a short but intensive program, during which teachers will lead literacy and numeracy lessons for three hours per day over one month. The second model will run for two terms, but teachers will lead lessons for one hour per day. The pilot will run in grades 3-5 in a total of 80 schools, and will be based in two districts in Eastern Province and two districts in Southern Province. IPA and J-PAL are conducting independent process monitoring of the 80 schools participating in the pilot in order to inform a potential scale-up of the program.

Partners: J-PAL Africa, Zambia Education Sub-Sector Technical Assistance (ZESSTA), VVOB, Ministry of Education

Pay & Productivity in Civil Service

In September 2013, the Zambian government implemented a salary reform that included significant pay increases for all civil servants, though the increase differed across positions and individuals. The Cabinet Office and Public Service Management Division (PSMD) are interested in learning how this reform affects individual performance and public service delivery. IPA Zambia is collaborating with the Cabinet Office to analyze the payroll data resulting from this reform. The project provides a unique opportunity to better understand the impact of salary increases in absolute terms and relative to coworkers in the same organizational unit.

The project primarily focuses on the health and education sectors. IPA has worked with PSMD on employee salary data from 2012-2014, and with the Ministries of Health and Education on outcome measures such as student test scores or attendance records. IPA is currently developing a report on the findings to date for the Cabinet Office.

The reform may have had important impacts beyond those on salaries, which IPA and the project's researchers are investigating. One area of focus is whether increased spending on payroll affected investment in infrastructure and materials. In addition, the reform may have affected the allocation of workers across posts by changing incentives to work in rural areas. Learning about these and other factors that can affect civil service productivity will help provide insight into the reform's impact.

Researchers: Nava Ashraf (London School of Economics - LSE), Oriana Bandiera (LSE), Kelsey Jack (Tufts), Torsten Walter (LSE)
Partners: Cabinet Office, PSMD

Environmental Quality & Economic Development: Filling the Data Gaps

Zambia is dependent on natural resources: agriculture, wildlife, and minerals are all central to economic growth,

making the balance between economic development and environmental sustainability particularly important. Policymakers, both in Zambia and in other country contexts, increasingly recognize this link between environmental quality and economic growth. High levels of pollution harm human health and lower human capital accumulation. Rapid deforestation contributes to erosion and desertification, with negative implications for hydroelectricity and agricultural output. Habitat loss hurts ecotourism revenue. Unreliable energy and water supplies interfere with firm growth.

All of these links are highly relevant for Zambia, and navigating each one successfully is crucial to the country's long-term growth. However, a lack of data hinders rigorous research on these relationships and their ultimate effect on economic growth. Accordingly, this project seeks to provide a base for more research on the impacts of environmental quality on economic outcomes and, in turn, the effects of rapid development on environmental quality.

In order to meet those objectives, IPA is compiling data on energy and the environment in Zambia, beginning with three target areas: 1) supply and demand of water and energy, 2) rural prices, and 3) environmental policies and implementation. On this last point, IPA is compiling a web-based public database resource to catalogue environment and energy policy in Zambia for the use of policymakers and other actors. This effort will help provide easy access to up-to-date information on the government's responses to environmental policy issues. Together, these datasets will serve as a resource for further investigation by a wide variety of researchers and for the Government of Zambia.

Researcher: Kelsey Jack (Tufts)

Partner: International Growth Centre (IGC)

Girls Arise! The Impact of Teaching Negotiation Skills on Health & Educational Outcomes

To identify ways to alleviate gender inequality in human capital investment in Zambia, the researchers developed a negotiation skills curriculum, titled Girls Arise!, for secondary school girls in Lusaka. The researchers test the hypothesis that improved negotiation skills could help shift household resources towards girls, leading to higher female educational attainment, lower risks of sexually transmitted diseases and unwanted pregnancies, and greater family health and wellbeing. A wide range of outcome measures was collected through surveys, negotiation games between the girls and parents, and from administrative records at participating schools.

The randomized evaluation of this intervention concluded in 2015, and the field team has been wrapping up administrative data collection throughout 2016. The Ministry of Education (MoE) Curriculum Development Centre introduced a revised life skills sexual comprehensive curriculum for multiple grades for the whole of Zambia, including feedback from IPA on the negotiation and communication sections of the national grade 8 life skills textbook. A summarized version of the Girls

Arise! curriculum was included in the revision, reaching all grade 8 pupils in government schools beginning in early 2016.

The data analysis is ongoing and the researchers expect to disseminate the results in early 2017. In the meantime, we have made our curriculum freely available for download so that it can be incorporated into existing life skills, HIV prevention, and girls' empowerment programs.

Researchers: Nava Ashraf (LSE), Corinne Low (Wharton Business School), Kathleen McGinn (Harvard Business School)

Partners: Ministry of Education, AATAZ, FAWEZA

Trust, Spontaneous Clusters, and the Growth of Urban Small- and Medium-Sized Enterprises

Between May and September 2016, IPA conducted a thorough, spatially mapped census of economic activities in Lusaka. For each establishment across all industrial sectors, this "Census of Urban Entrepreneurs" included 1) location geo-code, 2) industrial classification, 3) number of employees, and 4) location description (e.g., type of site, electrification). The census covered all 48,670 businesses in Lusaka operating from a fixed location. The team also administered a short survey to all 2,216 business owners (or managers) with fewer than 20 employees and in the following industries: manufacturing, mining, and construction. The survey asked about business practices and history, collaborative behavior with other businesses, owners' demographics, and trust level.

This dataset provides unique firsthand evidence on the spatial distribution of businesses in a fast-urbanizing environment and the correlation between urban density, trust, and knowledge-sharing among small and medium urban entrepreneurs. Data analysis is ongoing and a policy brief will be disseminated in 2017.

Researchers: Nava Ashraf (LSE), Edward Glaeser (Harvard), Alexia Delfino (LSE); Partner: Private Enterprise Programme – Zambia

Strategies for Measuring Change in Demand for Reproductive Health Education and Family Planning in Lusaka's Compounds

From November 2015 to May 2016, the field team hosted community meetings, spreading information about family planning and maternal mortality. IPA is now preparing to launch a midline survey for the respondents who participated in the intervention in November 2016. The survey will ask about respondents' and spouses' future intentions and desired fertility, knowledge and attitudes on family planning and maternal health, and intra-household decision-making. In order to reach couples who did not come to the community meetings despite repeated invitations, the researchers are designing a new style of intervention to take place at the respondents' residences, which they will pilot in January 2017.

Researchers: Nava Ashraf (LSE), Erica Field (Duke), Alessandra Voena (UChicago), Roberta Ziparo (Aix-Marseille); Partner: Ministry of Health (MOH)

Understanding Citizen Voting Behavior

Performance-based or economic voting means that citizens vote based on the quality of a candidate's past term in office, since this should best indicate how well he or she will govern in the future. Currently, there is very limited evidence on how citizens vote. Much of the theory about African politics is described as ethnic clientelism, with candidates gaining support in ethnic strongholds through the delivery of targeted public services or personal favors. The Citizen Attitudes and Performance Based Assessment household survey is primarily intended to understand how introducing different types of performance-based information affects evaluation of politicians' performance and stated willingness to support a candidate. This survey will help answer the following research questions: Will citizens only use performance-based measures in the absence of ethnic cues or when evaluating candidates of different ethnicities from their own? Are candidates of the same ethnicity as respondents held to a lower performance standard? All of the experimental components asking respondents to consider specific forms of performance are for hypothetical candidates. The survey will also collect data on general political attitudes, knowledge of Zambian politics, and households' livelihoods to understand how these characteristics influence the use of performance information.

IPA recently completed a two-wave panel survey of approximately 1,260 residents in Lusaka and Chisamba. A pre-election baseline survey ran from June-July 2016, and the endline survey ran after election results were confirmed, from October to November. Data analysis is ongoing.

Researchers: Nicole Bonoff (USAID, University of Wisconsin) and Aaron Abbarno (USAID)

Interpersonal Communication to Encourage Use of Female Condoms

In March 2016, Society for Family Health (SFH) launched the new Maximum Diva Woman's Condom distribution and advertising. In May, SFH began an interpersonal communication (IPC) campaign in Lusaka, Chongwe, Chilanga, and Kafue districts. The IPC is targeted to urban 18- to 24-year-olds to foster peer-to-peer discussions in order to increase knowledge, acceptability, and use of contraceptives, specifically Maximum Diva. Since the IPC launched, IPA has monitored the fidelity of the intervention, as carried out by SFH, to the planned activities. Observation and distribution checks are used to determine the quality and frequency of the IPC sessions, as well as the availability of the new Maximum Diva Woman's Condom in different types of retail outlets. We are also assessing community acceptance of the product via focus group discussions during the process evaluation. The process evaluation will help us understand the results that emerge from the endline survey and will better inform policy recommendations.

In 2017, IPA will conduct an endline survey to assess the effectiveness of the IPC intervention. The endline survey will ask respondents about their knowledge of contraceptives, current contraceptives use, and their knowledge of female condoms, particularly the new Woman's Condom. The study protocol is expected to be published in *BioMed Central (BMC) Trials* in December 2016.

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About

Innovations for Poverty Action (IPA) discovers and promotes effective solutions to global poverty problems. We design, rigorously evaluate, and refine these solutions and their applications together with decision-makers to ensure that the evidence created is used to improve opportunities for the world's poor.

The Zambia Bulletin is designed to keep stakeholders and partners informed of ongoing research. For more information, visit <http://www.poverty-action.org/zambia>.

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