Development Impact Evaluation (DIME)

Research Assistant for IB-NET global utility survey

August 2021

1. Summary

The Development Impact Evaluation (DIME) department seeks to recruit a Short-Term Consultants (STC) Research Assistant (RA) to support the IB-NET global utility survey, a global survey of water and sanitation utilities in collaboration with the Water Global Practice. The consultant will help launch a pilot in November and a full survey in March 2021, contributing to the sampling, questionnaire design, quality assurance of survey activities and analysis, under the supervision of a research team from DIME and the Water Global Practice project team.

With consideration for the ongoing pandemic, the research assistant will be expected to work remotely for the duration of the assignment, with daily interaction with the broader global research team. The consultant will be involved with the project during design and data collection, processing, and analysis. Qualified candidates should apply using <u>this link</u> no later than September 8th, 2021. Applications will be reviewed on a rolling basis.

2. Background and objectives

DIME generates high-quality and operationally relevant data and research to transform development policy, help reduce extreme poverty, and secure shared prosperity. It develops customized data and evidence ecosystems to produce actionable information and recommend specific policy pathways to maximize impact. Most DIME IEs are associated with a World Bank project. DIME works across the following World Bank sectors: Agriculture, Governance, Climate Change, Financial & Private Sector Development, Entertainment Education, Transport & Infrastructure, Social Protection & Jobs, and Fragility Conflict and Violence. DIME establishes a research team to work on each IE study through its completion.

Each research team typically includes a principal investigator and co-investigators, a field coordinator based in country to support the government team on all aspects of the IE, and one or more research assistants based in Washington, DC, to support data cleaning, processing and analysis.

IB-NET global utility survey

DIME is collaborating with the Water Global Practice to conduct a global survey of water and sanitation utilities, to capture information about management practices, resources, service coverage and investment plans. The survey will help contribute to the relaunch of the international benchmarking network, or <u>IB-NET</u> program. The survey is expected to be conducted as an annual panel that will produce a unique global picture of how utilities operate around the world. These data will provide a foundation for providing utilities with benchmarking opportunities to help them identify areas to focus on potentially improving

service delivery and will offer the chance to significantly expand the scope of potential research on the predominant service delivery model for basic services in cities around the world.

3. Tasks and deliverables

The consultants will report to the project Principal Investigators and other members of the Impact Evaluation team.

Duties include, but are not limited to:

- Clean administrative and primary datasets and create all indicators required for analysis
- Write well-documented, reproducible code for data cleaning, descriptive statistics, regression analysis, data visualization, and any other analysis as per project needs; document all data work on the project's GitHub repository
- Manage databases, integrating various data sources (for example, project monitoring data, administrative data from local government, and household survey data). This may require programming matching algorithms, using spatial data to create linkages, performing manual matching, and linking up with field staff for additional information on specific tasks
- Support primary data collection: participate in questionnaire design; program electronic questionnaires, design and run high frequency quality checks on raw data; liaise with field staff to resolve data issues and required clarifications
- Conduct literature review and syntheses, contribute to impact evaluation reports and policy briefs, support the development of grant applications, and other writing and editing tasks
- Prepare push-button replication files academic papers and related outputs
- Support receipt of ethical approvals and ensure that data security of identifiable information on project are maintained
- Deliver training courses like impact evaluation, data processing and analysis for government counterparts
- Participate in regular code review sessions with **DIME Analytics**
- Perform other related tasks, upon request

4. Skills Required

- Academic specialization: A Master's degree in economics, public policy, statistics, computer science or related field with strong quantitative research skills is essential
- Technical skills:
 - o Advanced skills using either Stata or R for data processing and analysis is required
 - Experience with survey programming in an ODK based platform is strongly preferred
 - Experience with machine learning, natural language processing, Shiny dashboards, and geospatial analysis are desirable. Knowledge of python is an advantage.
 - Experience coding in a team environment and using GitHub is highly desirable. Knowledge about the relevant sectors is desirable.
- Experience:
 - The candidate must have background in impact evaluation and econometric analysis.

- Experience working with raw household survey data is required for most positions.
- Field experience working on impact evaluations, and/or managing data collection, is preferred.
- o Experience working in developing countries preferred
- *Capacity Building Skills*: Demonstrated ability and experience in designing and delivering training and capacity building activities or other teaching experience is a plus.
- Language:
 - Superior written and oral communications skills in English is essential.
- *Interpersonal skills*: Motivated self-starter, with demonstrated ability to work effectively and sensitively in teams, and excellent cross-cultural communication skills.
- Any additional skills specific to a project are listed alongside the project description in the *Open Positions* section (Section 8) of this document.

5. Intellectual Property

The World Bank shall, solely and exclusively, own all rights in and to any work created in connection with this agreement, including all data, documents, information, copyrights, patents, trademarks, trade secrets or other proprietary rights in and to the work. The consultant is not allowed to post or publish (electronically or in print) any project-related information without the explicit permission of the Impact Evaluation Team.

6. Terms

The Research Assistant will be hired as a short-term consultant and remunerated according to the World Bank scale. Contract duration will be discussed on a project by project basis.

7. Selection Process

Qualified candidates should apply using <u>this link</u> no later than September 8th, 2021. Applications will be reviewed on a rolling basis. Applicants will be asked to upload a zipped folder which include the following:

- resume
- brief statement(s) of interest (SOI). Candidates have the option to include a specific SOI for each position they are applying to. Each SOI should be no longer than 200 words, and the file title should clearly indicate the position of interest.
- Applicants are recommended to include sample files prepared by them that best indicate their level of experience in Stata, R, Python, and/or ODK. Candidates may submit multiple code samples (no more than one per programming language), if relevant to their position(s) of interest.

Shortlisted candidates might be invited to take a technical test based on the skills required by the hiring team and will be required to participate in interviews. Only shortlisted candidates will be contacted.

The World Bank Group is committed to achieving diversity in terms of gender, nationality, culture, and educational background. Individuals with disabilities are equally encouraged to apply. All applications will be treated in the strictest confidence.