



An Introduction to Household Data Analysis: Using Stata to describe, transform, and analyze data

A learning event conducted by the International Food Policy Research Institute

Virtual Workshop – April 14-16, 2021

Training Objectives

Household and agricultural data can provide a wealth of knowledge and insights into the economic activities and welfare of rural populations. These datasets can help to answer a variety of important policy questions, such as: Which households are engaged in agriculture, and do they have additional sources of income? What percent of the population is consuming a healthy diet? What are the drivers of poverty across the country? However, to answer questions such as these, it is necessary to have a firm understanding of the nature of the underlying microdata, the ways in which the microdata should be managed, and the analytical tools that can be employed appropriately.

The objective of this learning event is to provide a thorough and hands-on introduction to Stata, a powerful statistical software package commonly used to analyze household datasets and many other types of data. In this training, we will discuss how Stata can be used effectively to answer a wide range of policy-relevant questions. We will use Stata to generate descriptive statistics and tables from household surveys and agricultural data, and to begin a discussion on some statistical methods for hypothesis testing. This event will be the first in a series of trainings on how to effectively use Stata for policy analysis. Although this is an introductory course, we still encourage those with prior Stata experience to attend, as there will be a variety of economic analysis topics and Stata codes discussed, and any subsequent Stata training courses will build on the material covered in this introduction.

This learning event is organized by the International Food Policy Research Institute (IFPRI) in collaboration with the Ministry of Agriculture and Animal Resources (MINAGRI), under the auspices of the [Rwanda Strategy Support Program](#). The workshop is structured around three related topics: (1) exploring datasets and describing data; (2) transforming data to achieve analysis goals; and (3) analyzing data for policy analysis. Please register for the training by **Friday, April 9** by completing [this form](#), and if you have any questions, please e-mail IFPRI-Rwanda@cgiar.org.

Participant Requirements

- BA, MA, and/or PhD in economics, development economics, agricultural economics, statistics, mathematics, or a related field
- 2+ years of work experience in economics, public policy, agriculture, or policy research/analysis
- Familiarity with NISR and MINAGRI datasets (e.g. EICV, SAS, etc.)
- We especially encourage junior staff who are passionate about expanding their technical and functional capabilities
- Participants must have access to a computer that can run Stata smoothly during this learning event (see [this link](#) for the computer requirements). Limited duration student licenses will be given to participants who register by April 9 who do not already have Stata installed on their computer.



Schedule

Day 1, April 14, 3–5pm – ***Exploring datasets and describing data***

- Introduction to Stata and how to explore a new dataset
- Creating and using descriptive statistics
- Creating useful figures and tables

Day 2, April 15, 3–5pm – ***Transforming data to achieve analysis goals***

- Creating new variables
- Cleaning existing variables
- Collapsing and merging datasets

Day 3, April 16, 3–5pm – ***Analyzing data for policy analysis***

- Correlations
- T-tests
- Ordinary least squared regressions

Lecturers

Gracie Rosenbach is the Rwanda country program manager in IFPRI's Development Strategy and Governance Division. Based in Kigali, she manages the Rwanda Strategy Support Program (Rwanda SSP), an initiative aligned with the Government of Rwanda's vision for accelerating agricultural transformation and rural development through policy analysis, capacity development, and partnership. Her research background and interests include rural food systems, nonfarm economies, agriculture-nutrition linkages, and the economic impacts of migrant communities. Prior to joining IFPRI, Gracie worked in sustainability with Olam International in Kampala, Uganda, and held positions with USAID and various implementing partners. She received a Master of Public Policy and a B.A. in Psychology from the University of Virginia.

David J Spielman is a senior research fellow at the International Food Policy Research Institute. He joined IFPRI in 2004 and is currently based in Kigali, Rwanda, where he leads the Rwanda Strategy Support Program. David's research agenda covers a range of topics including agriculture and rural development policy; agricultural science, technology, and innovation; plant genetic resources and seed systems; agricultural extension and advisory services; and community-driven rural development. From 2010 to 2020, David was based in Washington, DC, where he led IFPRI's research theme on science, technology, and innovation policy. From 2004 to 2010, he was based in Addis Ababa, Ethiopia, where he contributed to IFPRI's work on strengthening agricultural innovation systems. Earlier in his career, he worked on agriculture and rural development issues for the World Bank (Washington, DC), the Aga Khan Development Network (Pakistan), and several other organizations. David received a PhD in Economics from American University in 2003, an MSc in Development Studies from the London School of Economics in 1993, and a BA in International Relations from Tufts University in 1992.