

Yale Longitudinal Studies

Overview

Economic development is inherently a dynamic but often slow process characterized by changes in institutions, the natural environment and by the mobility of individuals. Advances in the scientific understanding of both the multi-level causes and consequences of development have been hampered by the lack of comprehensive data tracking individuals, their environment and institutions over the long term. Our goal is to provide a new laboratory for carrying out a wide range of potential studies of the medium- and long-term changes, or lack of changes, that take place during the process of development. We are particularly interested in providing a framework for the investigation of the large set of issues that have remained outside the scope of scientific analysis because of the short time frame and narrow methodological focus of most existing surveys in developing countries. By committing to a very long term, comprehensive study that obtains information on individuals and the built and natural environment in which they reside through their life courses, we can provide the tools required for a transformation of the study of development.

The guiding principles of the studies are flexibility and a long-run commitment. We aim to provide a research infrastructure that will encompass a wide range of innovative studies of the process of economic development, many of which cannot be predicted in advance. Some examples of the types of research that will become possible with these data are:

- the long-term impacts on individuals of health shocks, childhood nutritional status, and schooling;
- control-trial evaluation of development and health interventions with long-term follow-up;
- local institutional transformation and economic development;
- the interactions between ecological transformation and patterns of growth;
- the dynamics of household formation and restructuring;
- patterns of long-term occupational or expenditure mobility.

Scope

Our strategy is to permit the investigation of unexpected connections between the multiple transformations that occur during the process of economic development. To do so, we plan large scale panel surveys in three developing countries to continue for at least 12 years. The project will begin in 2007 in Tamil Nadu, India and in Ghana. A third country will be chosen for work in 2008.

In each country, we will conduct surveys once every three years. The interval length is chosen to conserve on costs, and because three years is sufficient to begin to observe significant changes beyond the short-run fluctuations that have been the focus of many other studies. The surveys would begin with a (clustered) random sample of

approximately 5,000 households in 200 communities in rural and urban areas of each country. Every three years following the initial survey, a (stratified) random sample of each individual in the original 5,000 households would be followed for re-interviews. Individuals and households will be followed irrespective of whether they move out of their original community, or where they move to. This aspect of the study design is essential to capture the important, but heretofore understudied, spatial component of economic mobility as we follow individuals over their life courses.

A very broad range of data will be required to maximize the usefulness of this research infrastructure. Each round of the survey will consist of three key elements:

1. A community inventory that documents a broad range of natural and institutional features of the community, including political organizations, financial institutions, the presence of various development programs, community infrastructure, and characteristics of land, water and air. Some of this data collection might be implemented via participatory community appraisal methods; other dimensions might rely on audits of community facilities such as schools and health clinics.
2. A census of all inhabitants of the community. This provides the sample frame for the next stage, and also permits measurement of the broad characteristics of inhabitants of community and their linkages with each other.
3. A household survey that collects the key socioeconomic and health data for individuals in the household. Key modules in the survey instrument include: household demographics, consumption, time allocation, house construction materials, income and employment, migration, land holdings (including property rights, and perhaps GPS mapping and soil testing), asset holdings, health (including some anthropometric data) and education.

The survey instruments will vary across the three countries, but will cover similar material to the extent that this is possible.

Flexibility

The core panel study provides a framework around which a wide range of additional research can be generated, funded by add-on grants and other sources. These additional projects can be carried out at relatively low marginal cost, because the larger study provides complementary data and the infrastructure for survey research. For example, it would be possible to introduce at low cost a project to evaluate the consequences of a community-level project to reduce the incidence of malaria. Not only would the cost be relatively low, but we would be able to provide a dedicated framework for long-term follow-up of the consequences of any reduction in the incidence of malaria, and the broad scope of the data collection would permit investigation of a much broader range of effects than would typically be possible. We are optimistic that outside funding for add-on projects will be relatively easy to attract, given our long-term commitment to the core

project. Indeed, our collaborating institution in India is providing supplementary funding to expand the scope of the surveys in India.

Interdisciplinary

The goal of this project is to shed new light on long-run processes of economic development, and thus embodies the central mission of the Economic Growth Center. Development economics provides the intellectual framework that guides the overall design of project. Progress on understanding economic development, however, relies on insights from a broad range of disciplines. The broad scope of this project provides a natural setting for collaboration across disciplines.

A central goal of the project is to understand the pathways through which local social and political institutions influence patterns of economic development, while taking into account the possibility that the process of economic development itself may shape the evolution of these institutions. There is an extremely broad range of such institutions which we will examine in the context of this long-term study. Three specific examples include: farmers' security of land tenure; processes of dispute resolution within villages; and the role of caste and kin groups in occupational and residential choices.

A parallel goal of the project is to examine the dynamic relationships between economic change and broader measures of human well-being. We will investigate long-term interactions between economic development and individual health, nutrition and education.

The project will clarify our understanding of the long-run connections between environmental and economic change. For example, we will monitor how land resource management and farming systems evolve with economic growth. Similarly, we can study local environmental threats (indoor air pollution, agricultural chemicals, water-borne diseases) are related to individual health and to production and consumption choices.

Intelligent investigation of these broad questions requires collaboration with experts in many fields, including public health, education, environmental sciences, political science, demography, psychology and sociology.

Pedagogy and the Role of the Project in the Economics Department

These long-term panel studies provide an important and unique opportunity for Yale graduate students working in development. Our collaborating institutions will welcome visiting Yale graduate students planning their dissertation research. We plan to have a survey going into the field each year, so that graduate students can implement survey modules for their own research. Over time, as the survey database accumulates, graduate students will work with the existing data to develop new hypotheses for their research projects, and then will have the opportunity to design questions or experiments to implement in the next round of the survey. Although we expect that the data collected in this project will be made available to the general community of scholars, students and

faculty at Yale will be advantaged in both being able to shape the design of the survey and to obtain first access to the collected data.

This project will contribute as well to the broader research agenda within the Economics group at Yale. Faculty and graduate students working in applied econometrics, labor economics, public finance, health economics, and applied microeconomics more generally will have the opportunity to participate in the planning and implementation of the surveys. In recent years our most successful graduate students have worked on the boundaries between development economics and other fields within economics (development and industrial organization; development and health economics; development and econometrics; development and labor economics). We will use this project to facilitate such broad training and research.

There will also be opportunities for Yale College students associated with these projects. There will be research assistant opportunities for Yale College students in New Haven, managing data flows from the surveys. More importantly, summer internships with our collaborating institutions will permit Yale College students to participate in questionnaire design and survey management in Ghana, India and a third country.

Institutional Connections

The Economic Growth Center at Yale is leading this research program, but will rely on strong long-term institutional collaborators in each of the three countries. Our partners will be responsible for the operational management of the surveys, and will collaborate in the development of the survey instruments and the sampling procedures. We anticipate that this operational collaboration will be an important source for capacity building for our partners, and that it will spawn substantive joint research.

In Ghana, the EGC will work with the Institute of Statistical, Social and Economic Research at the University of Ghana. ISSER is the pre-eminent social science research center in Ghana.

In India, the EGC will work with the Centre for Microfinance Research, Chennai. CMFR is an economic research and policy think tank founded by ICICI Bank (the Executive Director of which is former Yale World Fellow Dr. Nachiket Mor).