ABOUT CEGA

The Center for Effective Global Action (CEGA) seeks to enhance welfare and equity in developing countries, by supporting innovative research and outreach that improves development policy.

Now in its fifth year, CEGA has become a leading center for empirical research on global development, with a network of more than forty faculty investigators extending across the University of California, Stanford University and the University of Washington. Our researchers use randomized trials and other rigorous methods to measure the impacts of large-scale social and economic development programs, building a credible evidence base for policy-makers throughout the world.

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Book design by Nisha Giridhar. Front Cover by Arup Haldar (Photoshare) “Two women work in the paddy field in Hoogly District of West-Bengal, India”
Headquartered at the University of California Berkeley, the Center for Effective Global Action (CEGA) is led by some of the world’s leading thinkers in economics, technology, and global development. Our faculty members are pioneers in the use of rigorous scientific methods to understand markets, institutions, and households in developing countries. This expertise allows us to generate new ideas and solutions to advance society.

Yet to effect social change, CEGA must transform credible research into better policies and programs. Toward this end, we regularly convene decision-makers to share ideas and information. We experiment with new ways to stimulate the demand for high quality evidence. We are also strengthening local voices in policy debates, by increasing the capacity of developing country researchers to rigorously evaluate development policies and solutions.

On the following pages, we highlight our activities and achievements for the 2012-13 fiscal year. Through these efforts, CEGA is driving innovation, promoting international collaboration, and transforming new ideas into social impact.
LETTER FROM THE DIRECTORS

In 2013, CEGA turned five years old. At the start, we were five UC faculty members and an executive director, with an annual budget of less than $100,000. This year, for the first time, our expenditures reached almost $1 million, with an additional $1.4 million invested in innovative field research. In 2014, we will reach a budget of $4 million—with more than half invested in bringing new research ideas to the field.

Today, our membership has grown to more than 40 faculty, spread across eight universities. To support this expansion, our support team has increased as well, with a team of research and policy analysts working to build, refine, and advance our portfolio of initiatives.

A major contributor to our growth has been the launch of the Development Impact Lab (DIL), a $25 million USAID initiative intended to pioneer innovative approaches to development challenges. Our Lab serves as a flagship for a broader network of “development labs” at six U.S. universities (with a seventh lab at Makerere University in Uganda). In addition to providing new funds for research, DIL has linked us with a broad universe of policy makers, funders, and field partners, including the Blum Center for Developing Economies.

Our growth this year was further bolstered by significant contributions from CEGA’s Advisory Board. We see these investments as a landmark achievement, demonstrating donor confidence in CEGA.

Beyond our financial growth, CEGA’s portfolio of initiatives has expanded and matured over the last five years. We now manage 10 research initiatives and collaboratives, each with a unique focus, each improving the quality of evidence that we provide to U.S. and international policy-makers.

In this report, we provide an overview of CEGA’s initiatives and accomplishments in fiscal year 2013. We look forward to leveraging our recent growth to generate and share more evidence, and make a real difference in the lives of people around the globe.

TEMINA MADON  EDWARD MIGUEL
Executive Director  Faculty Director

Temina Madon  Ed Miguez
One of CEGA’s core activities is to identify innovative solutions to development challenges, by running research competitions among the Center’s faculty and partners.

We also forge direct links with implementing organizations, governments, and donors to ensure that our projects address real-world priorities.

The oldest research initiative in our portfolio is the Agricultural Technology Adoption Initiative (ATAI), launched in 2009 in partnership with the Jameel Abdul Latif Poverty Action Lab. This program is now bearing fruit, with exciting results reported by more than 10 of the projects in the portfolio.

In the last year, CEGA launched three additional research initiatives described on the following pages. These programs are building new bodies of research to transform our thinking about economic development.
The Behavioral Economics in Reproductive health Initiative (BERI), launched in June 2013 by CEGA, integrates insights from psychology and behavioral economics into the design of reproductive health and family planning programs.

BERI addresses a persistent challenge in development: although reproductive health services and technologies are now available in most countries, low-income and marginalized households often fail to achieve their desired family outcomes.

With support from the Hewlett Foundation, BERI is building on central tenets of behavioral and economic theory (including our understanding of social learning, time inconsistency, risk preferences, and labor markets) to improve reproductive outcomes in Sub-Saharan Africa.

In its first year, BERI has developed a conceptual framework and white paper to describe how tools from behavioral economics can address reproductive health challenges. These insights were shared at a meeting in Washington, DC with leaders from 15 top NGOs in the field. The initiative also ran a research competition, funding four pilot projects in Malawi, Zambia, Zimbabwe, and Uganda.

In the coming year, BERI aims to identify new sources of funding, increase the number of research grants awarded, and host a matchmaking conference to grow the network of behavioral economists working with practitioners in reproductive health.
To better realize the promise of technology for development, in 2012 CEGA launched a new initiative that integrates development economics with engineering design. The Development Impact Lab (DIL) is a five-year program that addresses global poverty by channeling scientific advances into more equitable growth.

Breakthroughs in science and technology can rapidly accelerate economic development in low- and middle-income countries. A classic example is the penetration of mobile phones in Southern India. From 1997 to 2001, CEGA affiliate Rob Jensen analyzed price data from small-scale fish markets, as mobile towers were being installed along the coast of Kerala. He found that mobile communications introduced large gains in market efficiencies, leading to benefits for poor farmers as well as their customers.

Yet many “pro-poor” technologies fail to generate measurable benefits for the poor. In part, this is because product designers are not trained to design around the market failures, institutional challenges, and behavioral constraints found in many developing countries.

DIL designs “development solutions” that couple innovative social and market interventions with cutting edge technological advances. Lab researchers are also designing wireless tools for real-time data collection—including low-power sensors, smart meters, and mobile applications—to help economists more reliably measure outcomes in the field.

Like other CEGA initiatives, DIL sparks innovation by investing in portfolios of cutting edge research. The Lab also fosters engagement with government and industry, to accelerate the translation of new ideas into action.

Funded by the U.S. Agency for International Development (USAID), and co-managed by CEGA and the Blum Center for Developing Economies, DIL has launched 10 research projects in its first year, each led by a team of social scientists and technologists. The portfolio includes a novel, low-cost cellular infrastructure that provides wireless telephony to remote regions; and a smart, solar microgrid that brings “pay-as-you-go” electricity to rural, low-income households.

In addition to funding research, DIL is launching a new academic discipline, Development Engineering, that will equip social scientists and engineers to design technologies that measurably improve the lives of the poor. For more information, visit dil.berkeley.edu
With funding from DIL, three CEGA faculty affiliates have launched a multi-investigator effort to design better energy solutions for rural communities.

With nearly 1.5 billion people still living without electricity, there is an urgent need to identify clean, economically sustainable technologies to power development. Over the course of this year, the Rural Electrification and Power Project (REPP) has grown into a large multi-country study, with pilot technologies deployed across Kenya and India.

The project uses conventional survey data combined with high-frequency data from wireless sensors to measure electricity consumption as households gain access for the first time. These data are then fed back into the technology design process, to develop electricity solutions that are both affordable and environmentally sustainable.

In India, REPP is working with industrial partner Gram Power to rigorously evaluate solar microgrid installations providing electricity to villages in Rajasthan. Low-cost “smart” metering technology is used to generate real-time energy consumption data, at a resolution that allows for detailed understanding of appliance use.

In Kenya, REPP has forged a partnership with the Rural Electrification Authority (REA) to implement an evaluation of household subsidies for grid connections and energy-efficient appliances. The study will trace out the demand for electricity and electronics, while also measuring the social, economic, and health impacts of electrification.
AGRICULTURAL DEVELOPMENT

ATAI, CEGA’s most established research initiative, aims to improve the welfare of smallholder farmers in Sub-Saharan Africa and South Asia, by expanding the profitable and appropriate use of new agricultural technologies. Since its launch in 2009, ATAI has awarded over $5.9 million to 38 research projects in 13 countries.

In February 2013, ATAI convened more than 30 researchers for a brainstorming conference at MIT, to discuss behavioral marketing of technologies with “hidden” benefits (like hybrid seeds or vaccines). The meeting also explored unanswered questions on market linkages and value chains, agricultural labor constraints, and the environmental impacts of technology adoption.

The ideas developed at this meeting fed into a May 2013 “matchmaking” conference in Berkeley, “Seeding New Partnerships in Agriculture.” We introduced practitioners from 17 agriculture organizations to nearly 30 researchers in the ATAI network, to create new collaborations with organizations like Land O’ Lakes, Oxfam, and the International Rice Research Institute.

In addition to these two convenings, ATAI held two research competitions in the last year, funding ten new research projects that will advance thinking about agricultural technology.

In the coming year, CEGA will present the latest results from ATAI to policymakers and potential donors. This will serve as an opportunity to impact policy, establish new partnerships, and increase funding for ongoing research.

More information is at http://atai-research.org
Over the last 15 years, CEGA researchers have pioneered the use of scientific evaluation in the study of development interventions. As a result of our efforts, and those of sister centers like the Jameel Poverty Action Lab, there is now increased demand for actionable, credible evidence to inform policy-making.

Yet as social scientists become more involved in policy, there is a parallel obligation to bolster the transparency of the scientific process. Problems arising from data mining, selective presentation of results, and publication bias (among other issues) can undermine the rigor of research and call findings into question.

As a community of social scientists focused on poverty and development challenges, how can CEGA advance the integrity, replicability, and validity of research in our field?

As a first step, the Center has launched the Berkeley Initiative for Transparency in Social Sciences (BITSS), a program to promote greater openness in empirical social science research.

We are building an international, interdisciplinary network of scholars—in economics, political science, psychology, and biostatistics—who are committed to greater disclosure of research methods, registration of new trials, and open sharing of data and materials.

The initiative grew out of a December 2012 conference hosted by CEGA at UC Berkeley. In the coming year, the network will begin evaluating new techniques and tools to promote scientific integrity, including software developed by data scientists and computer programmers.

BITSS also will host annual meetings on research transparency and disseminate best practices through training courses and conference sessions.

Importantly, BITSS is engaging research funders, professional societies, and academic journals to help shape incentives for researchers to adopt better practices.

For more information, including a series of blog posts by leading academics, visit bitss.org
CEGA’s “collaboratives” cultivate the leadership of developing country researchers in rigorous policy evaluation. These programs support visiting fellowships at U.S. universities for economists in the global South as well as collaborative research opportunities, annual grant competitions, and skill-building workshops.

By strengthening local voices in international policy debates, CEGA is filling an important gap in the field of development economics.

Empowering researchers as agents of change requires concentrated investment and long-term commitment. Yet the potential returns are profound—including a stronger voice for rigorous evidence in poor countries, and higher quality research achieved through international collaboration.

In the following pages we provide updates on two of CEGA’s first collaborative programs—the East Africa Social Science Translation Collaborative and the BRAC-CEGA Learning Collaborative. In 2013, we also launched a new program with the Inter-American Development Bank, which aims to promote a culture of evaluation across Latin America and the Caribbean.
How is impact evaluation institutionalized within development agencies? At the World Bank, investment in rigorous program evaluation was driven, in part, by the Bank’s internal researcher capacity. To further this trend, CEGA has launched a 3-year partnership with the Inter-American Development Bank (IDB), the leading source of multi-lateral development financing in Latin America and the Caribbean.

The Berkeley-IDB Collaborative (BIC) enables IDB staff, along with government and private-sector clients, to work directly with CEGA researchers to design rigorous evaluations of Bank-financed development projects. The initiative formally launched in summer 2013 with a two-week workshop at UC Berkeley, attended by 18 teams of IDB staff and their regional partners.

Over the course of the workshop, CEGA faculty and PhD students from four UC campuses worked intensively with each IDB team. Evaluations were designed for a diverse array of projects—from police training in Colombia to grid extensions and road upgrades in Ecuador. Of the 18 project teams at the workshop, eight have now entered the evaluation phase with ongoing support from CEGA researchers.

In the coming year, motivated IDB staff and government partners will have the opportunity to join CEGA’s first online course on advanced evaluation methods, delivered through the edX platform. In addition, top-performing Bank staff will return to Berkeley for a one-week follow-up training focused on data analysis, research translation, and dissemination.

BIC exemplifies CEGA’s approach to development evaluation: we leverage the resources of world-class universities to build research capacity in the global South. We also work through existing institutions, fostering local leadership and through long-term engagement.
The East Africa Social Science Translation (EASST) Collaborative was first conceived in 2009, as a way for CEGA to strengthen the involvement of African researchers in economic field experiments. The program promotes regional development by building the leadership of local researchers in impact evaluation.

This year, EASST awarded visiting fellowships to researchers from Ethiopia, Tanzania, Rwanda, and Kenya. Each fellow spent a semester at UC Berkeley auditing courses, conducting collaborative research, presenting at seminars, and attending scientific meetings. Upon returning home, fellows have received “catalyst” grants to host evaluation trainings and conferences at their own institutions.

The 2012-2013 Fellows are now involved in collaborations with UC faculty members and PhD students. EASST also awarded nearly $100,000 in competitive research grants in 2013 to pairs of East African researchers and their CEGA co-investigators. The projects will evaluate mobile pension savings for informal sector workers in Kenya, a pay for performance scheme for HIV services in Rwanda, novel credit products for cookstove entrepreneurs in Uganda, and savings reminders for taxi drivers in Ethiopia.

Collectively, these activities will expand the evidence-base within East Africa, while building a network of researchers who are able to generate and translate evidence for policy-makers in their home countries.
Launched in 2012, the BRAC-CEGA Learning Collaborative is a landmark partnership with BRAC, the largest non-governmental development organization in the world. Through the Collaborative, BRAC has committed to increasing both the demand and capacity for rigorous evaluation of its programs.

This year, four BRAC staff researchers—hailing all from Bangladesh and Uganda—were awarded semester-long fellowships at UC Berkeley to further expertise in impact evaluation. While at Berkeley, the researchers formed partnerships with CEGA-affiliated faculty and PhD candidates and began to collaborate on specific evaluation projects.

In addition, the Collaborative awarded nearly $300,000 in competitive research funds for the evaluation of BRAC programs. The selected projects include an evaluation of credit for migrant workers in Bangladesh and the Targeting the Ultra-Poor program in South Sudan.

Beyond the research directly funded by the Collaborative, there are additional collaborations between BRAC staff and CEGA researchers, including the evaluation of a schools program in Sierra Leone. This work is positioning BRAC as a global leader in evidence-based program design and management.
FEATURED RESEARCH

In 2012-13, CEGA affiliates published dozens of exciting new studies in economics, public health, and other disciplines. Two recent projects are highlighted below.

**NATURAL DISASTERS AFFECT RISK-TAKING:** CEGA Faculty Affiliate Manisha Shah, used standard risk games with randomly selected individuals to study whether natural disasters affect risk-taking behavior in Indonesia. The researchers found that individuals in villages which recently experienced a food shortage or earthquake perceived a greater risk of future disasters, and were subsequently less likely to take risks (compared to like individuals in villages that did not experience a disaster). They also show that access to insurance can partly offset this effect. These findings suggest that natural disasters can heavily impact behavior, through decreased risk taking behavior. If people are less likely to open businesses or switch jobs, this has ramifications for economic growth and development. (Cameron, Lisa A. and Shah, Manisha, “Risk-Taking Behavior in the Wake of Natural Disasters”. IZA Discussion Paper No. 6756. Available at SSRN: http://ssrn.com/abstract=2157898.)

**IMPROVING GOVERNANCE WITH BIOMETRIC TECHNOLOGY:** In India, state-sponsored welfare programs are often plagued by corruption and inefficiency, straining public sector finances and reducing program impact. One potential solution involves transferring benefits through debit cards that can verify the identity of the recipients using biometric authentication. In 2006, the Government of the state of Andhra Pradesh, India started a pilot initiative providing all residents with “Smartcards” for timely transfer of government benefits. An ongoing, randomized evaluation led by two CEGA affiliates is assessing the impact of Smartcards on corruption and welfare outcomes in the region. (“Improving Governance Through Biometric Authentication and Secure Payments: Evaluating the AP Smartcard Program,” Paul Niehaus, Karthik Muralidharan, Sandip Sukhtankar, paper forthcoming. http://tinyurl.com/improving-governance-karthik)

For a full list of research projects completed by affiliated CEGA faculty, please visit our website: www.cega.org
In April 2013, CEGA hosted our fourth annual research symposium, “Evidence to Action: Promoting Global Development in a Changing Climate.” With a keynote address from San Francisco environmentalist Tom Steyer, the conference explored the critical nexus of economic development and climate change in emerging markets.

Climate change introduces complex trade-offs for development policy. On one hand, global changes in weather threaten to exacerbate food insecurity and human conflict, undermining growth in less developed countries. At the same time, poverty reduction is rapidly increasing the demand for energy, which threatens to accelerate carbon emissions and environmental pollution. To further explore these trade-offs, CEGA’s annual symposium highlighted rigorous evidence of the true impacts, costs, and benefits of climate change adaptation and mitigation strategies. The program included policymakers from India and Mexico who are using research findings to improve environment and energy policies in their countries.

The Effect of Climate Change on Conflict:
At this year’s symposium, CEGA faculty director Edward Miguel (with co-authors Marshall Burke and Sol Hsiang) presented a meta-analysis of 60 rigorous quantitative climate studies—from the fields of archaeology, criminology, economics, geography, history, political science, and psychology—with very striking results. The team found strong causal evidence linking adverse climate (including warmer temperatures and extreme rainfall) to increased human conflict and violence at multiple spatial scales, across regions, and throughout history. The paper was recently published in Science magazine. (Hsiang SM, Burke M, Miguel E. 2013. “Quantifying the Influence of Climate on Human Conflict.” Science).

Growing Demand for Energy Among the Poor:
Over the next 25 to 30 years, nearly all of the growth in energy demand, fossil fuel use, associated pollution, and greenhouse gas emissions is forecast to come from the developing world. This was the message from CEGA scientific director Paul Gertler and affiliate Catherine Wolfram, who presented updated forecasts for energy demand in the developing world. As household incomes rise, there will be greater demand for access to electricity grids, roads, and energy-using assets (like appliances and vehicles). Prevailing forecasts fail to accurately capture the growth that will emerge as poor households accumulate wealth and begin to buy their first durable appliances and vehicles. (Wolfram C, Shelef O, Gertler P. 2012. “How Will Energy Demand Develop in the Developing World?” J Economic Perspectives)
EASST Launch Conference
July 12-13, 2012
Kampala, Uganda

Makerere University hosted the inaugural conference of the EASST Collaborative, a multi-institution partnership with a mission to promote rigorous evaluation of social and economic programs in East Africa.

BITSS First Annual Meeting
December 7, 2012 Berkeley

BITSS was launched at a small convening of researchers from economics, political science, psychology and statistics, to explore the promise and limitations of recent developments in research transparency.

BERI Launch Workshop
June 5, 2013 - Berkeley, CA

BERI held a launch workshop with the world’s leading practitioners in reproductive health and family planning services, to identify pressing challenges that can be addressed using tools from behavioral economics.

2012 Symposium on Economic Experiments in Developing Countries (SEEDC)
November 29-30, 2012 - Berkeley, CA

CEGA and partners brought together a community of top scholars who integrate laboratory experiments into field research in developing countries.

Seeding New Partnerships Conference
May 9-10, 2013 - Berkeley, CA

ATAI hosted a successful matchmaking conference bringing together researchers and practitioners working to improve the livelihoods of farmers in sub-Saharan Africa and South Asia.
CEGA relies on contributions from organizations and individuals who share our commitment to rigorous research, evidence-based policy-making, and investment in the next generation of development innovators.

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Jennifer Wang
Sarah White

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FINANCIAL HIGHLIGHTS

Expenses Fiscal Year 2013

- Research $1,447,000 (62%)
- Operations $124,000 (5%)
- Programs $456,000 (20%)
- Training $303,000 (13%)

Income Fiscal Year 2013

- Grants and Contracts $2,208,000 (94%)
- Gifts and Contributions $84,000 (4%)
- Campus Funds $38,000 (2%)
CEGA designs and rigorously tests the impacts of social and economic development projects in low-income countries. We also support efforts to turn evidence into action.

Through CEGA, our donors foster innovative research, promote collaboration among researchers across the globe, and help translate proven ideas into action. Make a gift online today: http://cega.org/donate.

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