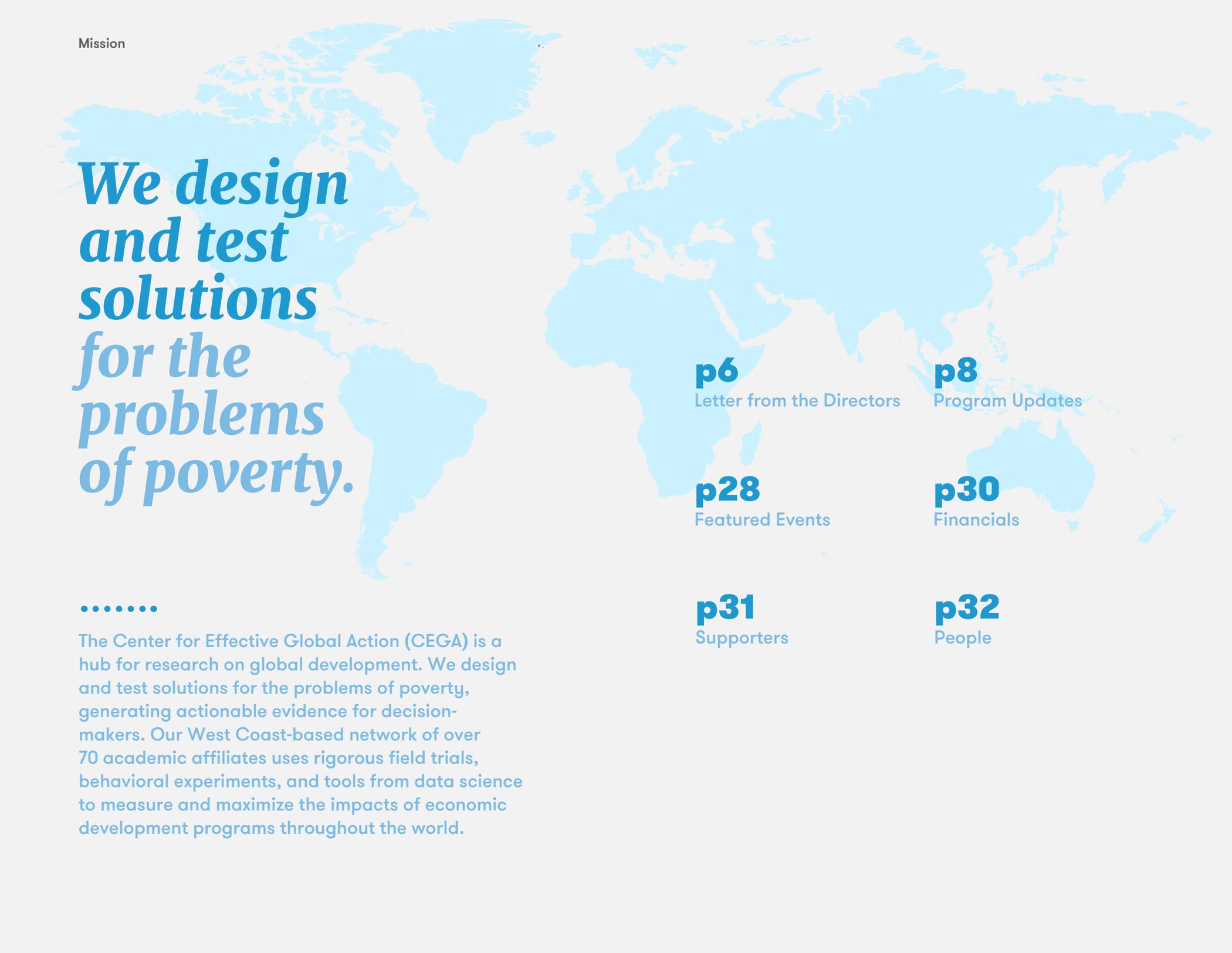




Annual Report  
2015-2016



*We design  
and test  
solutions  
for the  
problems  
of poverty.*

.....

The Center for Effective Global Action (CEGA) is a hub for research on global development. We design and test solutions for the problems of poverty, generating actionable evidence for decision-makers. Our West Coast-based network of over 70 academic affiliates uses rigorous field trials, behavioral experiments, and tools from data science to measure and maximize the impacts of economic development programs throughout the world.

**p6**

Letter from the Directors

**p8**

Program Updates

**p28**

Featured Events

**p30**

Financials

**p31**

Supporters

**p32**

People

Girl helping her family  
in a marketplace in  
Chichicastenango, Guatemala.  
Photo: Lauren Russell





**CEGA is a network of scientists and engineers who are advancing the frontiers of global development. We produce rigorous research and innovative technologies that reduce poverty and promote equitable growth.**

*In the last year, we invested more than \$5 million in projects led by researchers in our network. We convened decision-makers to learn and share at over 35 events around the world, and we provided training for hundreds of researchers in developing countries — not only in the design of interventions and field experiments, but also in reproducible research methods. Through outreach and partnership, we generate ideas, implement experiments, and translate proven ideas into action to improve policies and programs for millions of people in developing countries.*

*As you will see in the coming pages, CEGA has begun to emerge as a leader in technology and innovation for global development. We recognize that economic growth and welfare are increasingly driven by big data, algorithms, digital services, and real-time communications. And so we are working across disciplines and sectors to create technology-driven policies, processes, products, and services that empower the poor and grow economies.*

*To institutionalize and deliver these solutions at scale, we are building networks of leading researchers in Sub-Saharan Africa, South and Southeast Asia, and Latin America — whose influence and expertise are essential for identifying policy priorities, testing ideas, and mainstreaming new solutions. We are also pursuing new strategies to transform the data exhaust from field experiments into visualizations, dashboards, predictive algorithms, and other tools that policy-makers can use.*

*Thank you for taking the time to learn about our work here at CEGA. As we move forward, we welcome your reflections, suggestions, and contributions in generating solutions for global poverty.*



**Temina Madon**

Executive Director



**Edward Miguel**

Faculty Director



# Agricultural Technology Adoption Initiative

**\$300,000**  
in research funding  
awarded in 2015-2016  
to support new studies.

**10**  
randomized evaluations  
synthesized in the *Make  
It Rain* policy report.

Seventy percent of the world’s rural poor rely on agriculture for their livelihoods, and agricultural growth can help lift millions out of poverty and hunger. Yet there is limited evidence on how to improve the productivity, profits, and welfare of poor, small-scale farmers. The Agricultural Technology Adoption Initiative (ATAI) is a portfolio of 40+ randomized experiments focused on rural development in Sub-Saharan Africa and South Asia. Co-led by CEGA and the Abdul Latif Jameel Poverty Action Lab, ATAI is producing rigorous evidence to improve agricultural livelihoods and nutrition in 14 low- and middle-income countries.

ATAI launched in 2010, and the majority of the initiative’s studies are still ongoing. However, there have already been successful scale-ups of ideas developed by ATAI researchers. In 2015, the results from an evaluation of stress-tolerant rice in India motivated the Odisha State Seed Corporation to increase production of this variety by 20-fold, to more than 6,000 metric tons. Also in the last year, organizations in Kenya began scaling up collateralized loans for water tanks and precision agriculture extension services, two products developed by ATAI researchers.



In 2015-2016, findings were shared directly with decision-makers from the US Agency for International Development, the World Bank, the US Department of Agriculture, Governments of Zambia and Kenya, UK Aid, the Bill and Melinda Gates Foundation, 3ie, World Vision, Root Capital, and many more.

In early 2016, the initiative launched a synthesis of all evidence generated to date, called the “Emerging Insights” report. This four part series distills lessons from more than a dozen studies of agricultural training programs, credit and savings products, and weather risk reduction strategies. To ensure these findings reach policy makers, we re-designed the program’s website, [atai-research.org](http://atai-research.org), to more effectively share lessons and results.



.....

# Energy and Economic Growth

## \$15 million

5-year-long research initiative, funded by UK Aid.

## 18

policy reports under development by leading energy researchers.

With growing demand for energy in low- and middle-income countries, it is important to understand the complex trade-offs between economic growth and environmental protection. In 2016, CEGA launched a five-year program on Energy and Economic Growth (EEG), funded by the UK Department for International Development (DFID), to explore how investments in large-scale energy systems can contribute to poverty alleviation and “green” economic growth.

EEG is co-managed by CEGA and Oxford Policy Management (OPM). In its first year, the team has focused on producing 18 state-of-knowledge papers on topics ranging from energy access and clean energy technology, to utility governance and regulation. A policy workshop in Tanzania this summer engaged over 40 senior policymakers, development professionals, and energy researchers from Sub-Saharan Africa to help shape the EEG agenda from a practitioners’ perspective.

**More than a dozen CEGA affiliates are leading ongoing studies in climate and energy.**

In addition to our work in energy, CEGA faculty contribute to a growing body of evidence on the effectiveness of measures designed to curb air pollution, promote urban green growth, and increase the resilience of small-holder farmers in the face of weather shocks. This research will contribute to future CEGA initiatives on climate change and the environment.



Household electrification in Siaya, Kenya. Photo: Ken Lee



# Financial Inclusion Lab

**\$250,000**  
in research funding for  
FinTech evaluations  
in Mexico and the  
Dominican Republic.

**200**  
stakeholders engaged  
at events organized with  
Google, the World Bank,  
and other partners.

CEGA formally launched the Financial Inclusion Lab (FIL) in 2014–2015. The initiative generates scientific evidence to reduce vulnerability and promote equitable growth for under-banked individuals around the globe. In two years, FIL has grown to include a range of partners and donors working together to develop financial products for households and firms in emerging markets.

As part of the initiative, CEGA data scientists have worked with the technology company Visa to develop and test methods for indirectly measuring financial inclusion, using transactions data from prepaid debit cards distributed in developing markets. The team also presented a report on the benefits and challenges of digitizing government-to-person payments to the Vice President of the Dominican Republic, resulting in government approval of several new, experimental products for savings and credit to be evaluated by CEGA researchers.



Buyers and sellers at  
a market in Mexico.  
Photo: Basha Mosko

Two successful events have bolstered FIL this year. In May 2016, CEGA hosted its annual Evidence to Action (E2A) conference on “FinTech for Global Development” at Google San Francisco, with participation from 25 policymakers and 46 private sector partners. In June, CEGA and the World Bank co-hosted a workshop to explore a joint research agenda for financial inclusion, further exposing the need for coordinated work in this space.



# Behavioral Economics in Reproductive Health Initiative



Child receives polio vaccine in Kamuli, Uganda. Photo: Brandie Nonnecke

Central to CEGA's work in the health sector is the Behavioral Economics in Reproductive Health Initiative (BERI), which integrates tools from psychology and economics into the delivery of family planning and health services for women and adolescents. The initiative provides catalytic funding to researchers to test novel behavioral strategies that improve reproductive outcomes for low-income families.

Since its 2013 launch, BERI has funded six evaluations in Sub-Saharan Africa. The portfolio includes a birth planning and commitment program for Kenyan women, to increase delivery in facilities; social reminders for childhood immunization in Sierra Leone; and a goal-setting exercise for adolescent girls in Tanzania. In 2016, CEGA built on this portfolio by funding another six studies on behavioral economics in global health, more broadly – including studies of worker safety in Bangladesh, take-up of prostheses in Rwanda, and child marriage in Pakistan.

**\$190,000**  
in research funding  
awarded to CEGA  
affiliates and graduate  
students in 2015-2016.

**6**  
new studies in Kenya,  
Bangladesh, Pakistan,  
Rwanda, Sierra Leone,  
and the US.

In Fall 2015, CEGA hosted the second annual conference on Behavioral Economics in Global Health, with support from UC Berkeley. The one-day event explored topics on health and behavioral decision making, and convened over 70 researchers and practitioners across economics, psychology, and public health. In Spring 2016, BERI presented ongoing research at multiple venues, including at the International Conference on Family Planning in Indonesia and the Consortium of Universities for Global Health meeting in San Francisco.



*Responsive, transparent governments are critical for sustainable economic growth. In 2015, CEGA launched a new research portfolio on public sector institutions, to identify policy reforms that can drive inclusive growth and enhance the government service delivery.*

**\$50,000**

in research funding for pilot studies in eight different countries.

**40**

open questions to inspire new research on institutional reform.



### Working Group on African Political Economy

Housed within CEGA's Institutions portfolio is the Working Group on African Political Economy (WGAPE), an international network of researchers combining rigorous methods with deep field expertise in African politics. In Spring 2016, WGAPE hosted its semi-annual conference in DC with the World Bank, providing an opportunity for researchers to receive feedback and guidance on ongoing studies. Upcoming WGAPE convenings include a West Coast meeting in Fall 2016 at Stanford, a supplemental meeting in January at NYU Abu Dhabi, and a national meeting in Spring 2017 at UC Berkeley.



# Economic Development and Institutions

The Economic Development and Institutions (EDI) initiative is funded by the UK Department for International Development (DFID); it will support a coordinated portfolio of randomized evaluations managed by CEGA. The program launched in 2016 with a state-of-knowledge report on governance interventions, identifying 40 outstanding research gaps in the field. CEGA also organized a Spring 2016 matchmaking conference in Washington, D.C. to identify opportunities for embedding experiments within planned interventions and policy reforms. The event drew more than 80 researchers, government officials, and civil society actors.



Experimental priming of nationalism using Malawian flags.  
Photo: Amanda Robinson





*CEGA is unique in its mission to provide training and research opportunities for top developing country investigators, through our Global Networks portfolio. The portfolio currently includes three programs that equip researchers in universities, governments and NGOs with the skills needed to carry out rigorous, policy-relevant evaluations in their home countries.*

**\$200,000**  
in research funding  
to scholars from  
developing countries.

**100**  
attendees at the  
Impact Evaluation  
Summit in Nairobi.

**350**  
people trained in  
research methods  
in 2015-2016.

**3**  
visiting fellows  
from East African  
universities.



# East Africa Social Science Translation Collaborative

In 2015–2016, the East Africa Social Science Translation (EASST) Collaborative hosted three Visiting Fellows at UC Berkeley, including faculty members from universities in Ethiopia, Uganda, and Tanzania. The 2016 EASST research competition awarded \$200,000 to four projects led by East African and CEGA co-investigators, supporting studies of trade cost reductions in Ethiopia, screening for noncommunicable diseases in Tanzania, involuntary teacher transfers in Uganda, and women’s empowerment programs in Ethiopia.



EASST Fellows (from left to right) Hailemariam Ayalew Tiruneh, Dr. Saint Kizito Omala, and Dr. Fredrick Manang. Photo: Kuranda Morgan

Also this year, former EASST Fellows conducted impact evaluation courses for East African students and development professionals in Uganda and Ethiopia, reaching more than 300 students and researchers. Fellows also led trainings for African policy-makers sponsored by UNICEF and the World Bank. In July 2015, EASST hosted a week-long Evidence Summit in Nairobi, Kenya commemorating 20 years of randomized experiments in the country. Co-hosted by the World Bank, the African Population and Health Research Center (APHRC), Innovations for Poverty Action (IPA), and The Abdul Latif Jameel Poverty Action Lab (J-PAL), the event featured talks by EASST fellows as well as researchers from CEGA, the World Bank, IPA, and Harvard University. More than 100 local researchers, policy-makers, and development practitioners attended.



### BRAC-CEGA Collaborative

This year CEGA also continued its partnership with Bangladesh-based BRAC, the largest global development NGO in the world. To date, the BRAC-CEGA Collaborative has trained eight BRAC visiting researchers at UC Berkeley and has launched five rigorous studies of BRAC programs in Bangladesh, South Sudan, Uganda, and Tanzania. In 2015-2016 the program focused on research dissemination, including development of a joint website to share findings from complete and ongoing studies.



### Berkeley-IDB Collaborative

This year marked the culmination of CEGA's partnership with the Inter-American Development Bank (IDB), known as the Berkeley - IDB Collaborative (BIC). To provide IDB staff with training in applied data analysis and field methods, CEGA developed a Small Private Online Course (SPOC) on the EdX platform. The private course was used to train IDB professionals and students at UC Berkeley, and this year it was converted into a Massive Open Online Course (MOOC). The course, *Applied Impact Evaluation*, is a companion resource for the 2016 edition of the *Impact Evaluation in Practice* textbook, published by the World Bank and the Inter-American Development Bank.



# Goldilocks



Fields being monitored in the One Acre Fund study. Image: Marshall Burke and David Lobell

Traditional methods for measuring poverty are often error-prone and can be costly and challenging to implement. CEGA’s Measurement portfolio focuses on enhancing the integrity and diversity of data used in global development research, by promoting the use of tools and technologies like wireless sensors, satellites, and ‘big data’.

In 2016, CEGA collaborated with Innovations for Poverty Action (IPA) to launch the Goldilocks Toolkit, an online resource for development organizations. Through case studies on more than a dozen non-profits and social businesses, Goldilocks demonstrates how to build “right fit” systems to track the performance and impact of development programs. CEGA contributed a series of technology scans to the toolkit, describing how mobiles, sensors, and satellites are increasingly used for monitoring and evaluation.

**3**  
how-to guides for using sensors, satellites, and mobile data in research.

**3**  
case studies, with applications in Kenya, Liberia, and Sudan.

As part of Goldilocks CEGA also funded three partnerships with technology companies and NGOs to pilot new tools for measuring development outcomes. Projects include the use of high resolution satellite imagery to predict Kenyan farmers’ crop yields, the capture of high-frequency market price data using mobiles in Liberia, and the use of wireless sensors to track the adoption of improved cook-stoves by households in Sudan. Each project has now been published in the academic literature, accompanied by a case study on the Goldilocks website.



# Berkeley Initiative for Transparency in the Social Sciences

**\$550,000**  
in funding for meta-  
analysis and research  
transparency studies.

**100**  
students reached  
through the new  
Catalyst Program.

To foster open, reproducible research practices within the scientific community, CEGA is working across disciplines to train young researchers, develop new research tools, and promote widespread change in academic norms. The Berkeley Initiative for Transparency in the Social Sciences (BITSS), the anchor of our Transparency sector, has grown into an international network over the last year, reaching hundreds of scholars globally.

Attendees of the 2016  
BITSS Summer Institute.

This past year, BITSS launched the Social Science Meta-Analysis and Research Transparency (SSMART) grant program and the Catalyst Program, two competitive funding opportunities with the goal of cultivating transparency in research. SSMART, a first-in-class “meta-research” competition, funds studies of the practice of science. Two SSMART competitions in 2015–2016 awarded a total of \$550,000 to 20 projects throughout the world. The Catalyst Program enrolled 25 participants in 2015–2016, accelerating the training of the next generation of social scientists with the goal of strengthening the scientific evidence that informs social and economic policies.

In 2015–2016, BITSS organized 12 training events and conferences, reaching more than 500 students, faculty, researchers, and policymakers worldwide. Highlights include the BITSS Annual Meeting and Summer Institute, a Research Transparency Workshop with IPA in Kenya, and a Data Sharing Forum with the California Judicial Agencies. BITSS also published an online course on transparency. With 40 videos, the course offers an overview of topics like publication bias, pre-analysis plans, and replication.





# Featured Events



## North America

*July 27-31, 2015*

Workshop on Institutionalizing Impact Evaluation at the IDB  
Berkeley, California

*April 13-14, 2016*

Economic Development and Institutions Workshop  
Washington, D.C.

*October 16, 2015*

Conference on Behavioral Economics in Global Health  
Berkeley, California

*April 29-30, 2016*

Working Group in African Political Economy Workshop  
Washington, D.C.

*November 6-7, 2015*

Working Group in African Political Economy Workshop  
Tempe, Arizona

*May 9, 2016*

Evidence to Action: FinTech for Global Development  
San Francisco, California

*December 10-11, 2015*

BITSS Annual Meeting  
Berkeley, California

*June 8-10, 2016*

BITSS Summer Institute  
Berkeley, California

*March 5, 2016*

Pacific Conference for Development Economics  
Stanford, California

*June 28, 2016*

World Bank and CEGA Financial Inclusion Research Workshop  
Washington, D.C.



## Africa

*July 8-10, 2015*

East Africa Evidence Summit  
Nairobi, Kenya

*March 7-8, 2016*

BITSS-IPA Transparency and Reproducibility Workshop  
Machakos, Kenya



## Europe

*May 2-4, 2016*

Launch of the Journal of Development Engineering  
Lausanne, Switzerland

*June 6-7, 2016*

Economic Development and Institutions Conference  
Paris, France



## Middle East

*January 6-9, 2016*

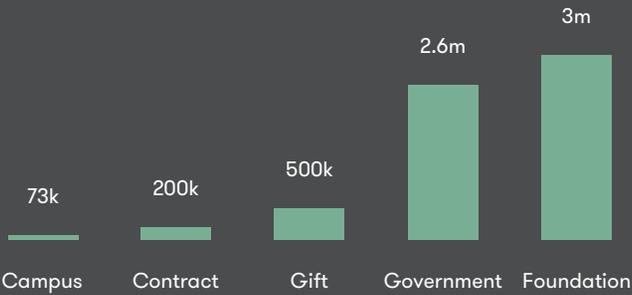
Working Group in African Political Economy Workshop  
Abu Dhabi, UAE



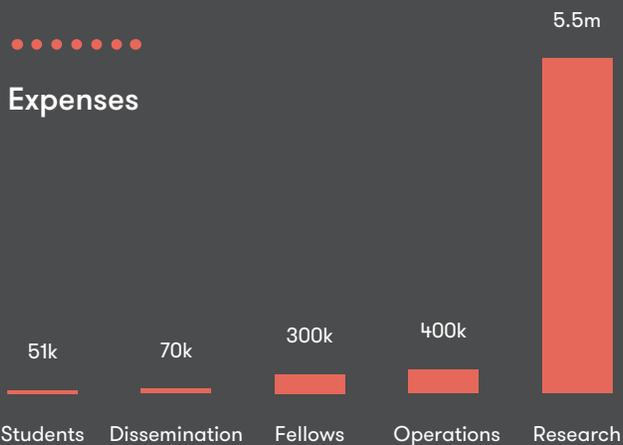
# Financials



## Funding Sources



## Expenses



# Supporters



## \$0 - \$4,999

Jonathan Hsiao  
 Sharon Gay Lapis  
 Martha Eileen Saavedra



## \$15,000 - \$99,999

UC Berkeley  
 College of Natural Resources  
 Executive Vice Chancellor & Provost  
 Institute for International Studies  
 Russell & Beth Siegelman  
 Diana Walsh



## \$5,000 - \$14,999

Matt & Lisa Chanoff  
 Charles & Feralee Levin  
 Matthew Lynde  
 Anand Radhakrishnan  
 Doug Wyatt & Shehla Imran



## \$100,000+

Anonymous Donor  
 Bill & Melinda Gates Foundation  
 William & Flora Hewlett Foundation  
 Child Relief International  
 Laura & John Arnold Foundation  
 Rockefeller Foundation  
 Sloan Foundation  
 Templeton Foundation  
 BRAC  
 DFID  
 USAID  
 Visa Inc.



# Leadership



## Directors

Temina Madon  
*Executive Director*

Edward Miguel  
*Faculty Director*



## Advisory Board

Anand Radhakrishnan  
*Chair*

Robin Burgess  
Matt Chanoff  
Annie Duflo  
Rachel Glennerster  
Matthew Lynde  
Salil Pitroda  
Hemant Taneja  
Andrew Weiss  
Doug Wyatt



## Faculty Committee

Ernesto Dal Bo  
Paul Gertler  
Aprajit Mahajan  
Craig McIntosh  
Grant Miller  
Manisha Shah



## Fellows

Hailemariam Ayalew Tiruneh  
*Debremafos University*

Saint Kizito Omala  
*Makerere University*

Remidius Ruhinduka  
*University of Dar es Salaam*



## Staff

Jeanette Aguilar  
*Administrative Associate*

Leah Bridle  
*Program Associate*

Carson Christiano  
*Director of Partnerships*

Garret Christensen  
*Project Scientist*

Corinne Cooper  
*Administrative Coordinator*

Julianne Baker-Gallegos  
*Senior Program Associate*

Shyan Kashani  
*Program Associate*

Emily Martin  
*Operations Associate*

Kuranda Morgan  
*Program Associate*

Alexandra Orsola-Vidal  
*Global Networks Director*

Ofir Reich  
*Data Scientist*

Lauren Friedman Russell  
*Senior Operations Manager*

Jennifer Sturdy  
*BITSS Director*

Alexander Wais  
*Program Coordinator*

Alexandra Wall  
*Program Associate*

Drew Westbury  
*Program Manager*

Sarah White  
*Senior Program Associate*

Giovanni Castaldo  
*Intern*

Dustin Marshall  
*Intern*

Yubing Tian  
*Intern*



# Affiliates



## UC Berkeley

Stefano Bertozzi  
Joshua Blumenstock  
Eric Brewer  
Jennifer Bussell  
Jack Colford  
Ernesto Dal Bo  
Lucas Davis  
Alain de Janvry  
William Dow  
Thad Dunning  
Benjamin Faber  
Lia Fernald  
Frederic Finan  
Meredith Fowlie  
Paul Gertler  
Ben Handel

Solomon Hsiang  
Susan Hyde  
Ganesh Iyer  
David Levine  
Ethan Ligon  
Jeremy Magruder  
Aprajit Mahajan  
Ulrike Malmendier  
Sandra McCoy  
Erin Murphy-Graham  
Nancy Padian  
Maya Petersen  
Elisabeth Sadoulet  
Raul Sanchez de la Sierra  
Catherine Wolfram  
Noam Yuchtman



## Stanford

Marcella Alsan  
Marshall Burke  
Katherine Casey  
Arun Chandrasekhar  
Dave Donaldson  
Pascaline Dupas  
Marcel Fafchamps  
David Lobell  
Beatriz Magaloni  
Grant Miller  
Melanie Morten  
Jeremy Weinstein



## UC San Diego

Eli Berman  
Prashant Bharadwaj  
Clark Gibson  
Joshua Graff Zivin  
Craig McIntosh  
Karthik Muralidharan  
Paul Niehaus



## UCLA

Randall Akee  
Leonardo Bursztyn  
Miriam Golden  
Daniel Posner  
Manisha Shah



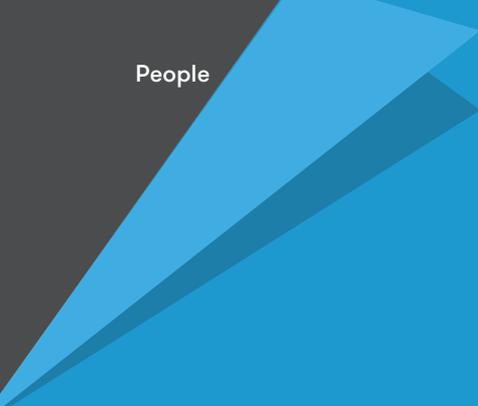
## University of Washington

Brian Dillon  
Mary Kay Gugerty  
Rachel Heath  
James Long



## Other Universities

Michael Carter *UC Davis*  
Travis Lybbert *UC Davis*  
Paulina Oliva *UC Santa Barbara*  
Ketki Sheth *UC Merced*  
Jonathan Robinson *UC Santa Cruz*  
Bruce Wydick *USF*



People

[cega.org](http://cega.org)