BLUM CENTER
FOR DEVELOPING ECONOMIES
■ 2013-2014 IN BRIEF
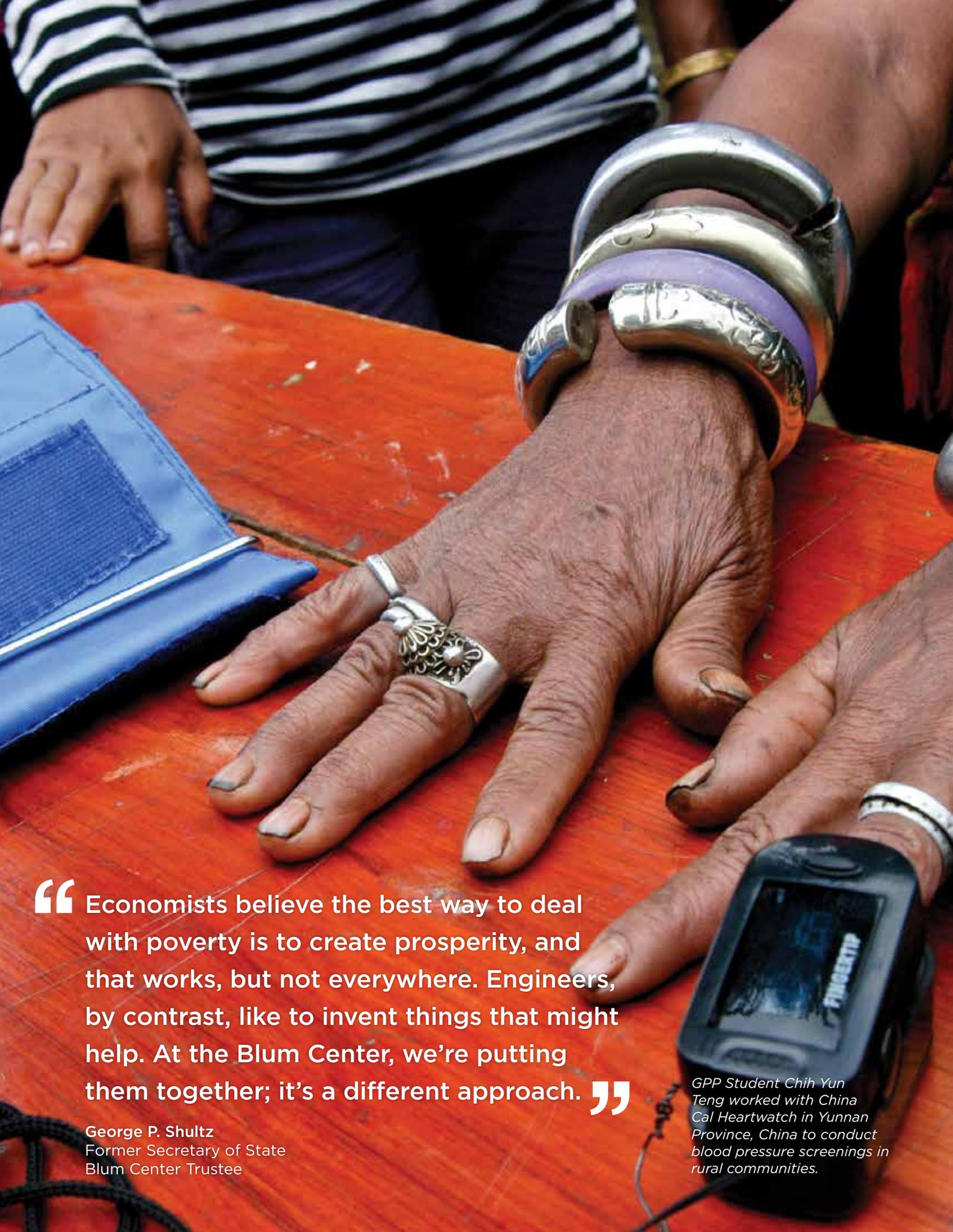
> **Economists believe the best way to deal with poverty is to create prosperity, and that works, but not everywhere. Engineers, by contrast, like to invent things that might help. At the Blum Center, we're putting them together; it's a different approach.**
>
> **George P. Shultz**
> Former Secretary of State
> Blum Center Trustee

GPP Student Chih Yun Teng worked with China Cal Heartwatch in Yunnan Province, China to conduct blood pressure screenings in rural communities.

MESSAGE
FROM THE CHAIR

Greetings from the Blum Center for Developing Economies! I'm delighted to introduce you to our Annual Report. Highlighted here is the remarkable work of our students and faculty who are committed to ending poverty. Combining insights and discoveries from science, engineering, business and economics, our work focuses on improving lives around the world. While the solutions are not simple or obvious, what is clear is the determination and talent of Cal researchers who remind us every day that this great university can be an incredibly powerful force for change.

To help guide and support the Blum Center's work, it has been my honor to welcome three Trustees to our Board this year. Nobel Laureate Steven Chu rejoined the Board after serving as US Secretary of Energy; Mark Yudof joined us following his term as President of the University of California; and our newest member, Jerry Ng, brings incredible private sector insight to our work from his experience as President Director, Indonesia's Bank Tabungan Pensiunan Nasional (BTPN). Thank you, Steve, Mark, and Jerry for your commitment to the Blum Center.

I would love to hear your thoughts about our efforts — and I invite you to join us in this important work.

The University of California, Berkeley has always been a place that combines ideas and action. The Blum Center focuses this enthusiasm to make a real difference in the lives of the poor around the world.

Laura D'Andrea Tyson
Chair, Board of Trustees
Blum Center for Developing Economies

OUR RESULTS: SOCIAL IMPACT

The Blum Center is the central place on campus for students and faculty who want to change the world. Over the past seven years, we've developed an ecosystem for focusing the energy and talent of the world's greatest public university in service of the public good. From the theories and critical analysis of the GPP Minor, to the training and mentoring in Big Ideas@ Berkeley, to the technology innovations and international partnerships of the Development Impact Lab — the Blum Center provides the ingredients for lasting and positive social change.

LINA NILSSON
Engineering Innovation for Development

Lina Nilsson, a biomedical engineer by training, serves as the Blum Center's Innovation Director. As a leader of the Center's Development Impact Lab, she works to leverage university science and technology research toward international development objectives.

Named one of MIT Tech Review's Innovators Under 35 in 2013, Lina is an innovator herself. While completing her MSc at the University of Washington, Lina received a Bonderman Fellowship to travel throughout resource-scarce areas in Asia and South America. She visited labs and met with scientists whose research was significantly hindered by a lack of standard lab equipment. Subsequently, Lina cofounded Tekla Labs, which works to enable scientists in the developing world to construct high-quality lab equipment using readily available, off-the-shelf items.

REBECCA PETERS

Pachamama Project: Clean Water for Gender Equality

Rebecca Peters is a 4th year undergraduate in the Global Poverty and Practice Minor with a background in environmental science, economics, and international development. Rebecca developed the Pachamama Project to improve women's access to clean water and education.

After winning a Big Ideas prize and receiving a Boalt Law Human Rights Fellowship, Rebecca traveled to Bolivia. With project partner Lindsay Dreizler, she launched a curriculum to encourage mothers, daughters, teachers, and community actors to talk about the connection between menstrual hygiene, water access, and educational attainment. After graduating from Cal, Rebecca will continue to work at the nexus of water and gender issues through research, advocacy, and action, as a recipient of both a Truman Fellowship and a Marshall Fellowship.

FERMIN REYGADAS

Water-Related Social Franchise in Mexico and Beyond

Fermin Reygadas is a PhD candidate at UC Berkeley and the Co-Founder and Executive Director of Fundación Cántaro Azul, a non-profit based in Mexico. His research and interests lie in the intersection of WASH (water, sanitation, and hygiene), social entrepreneurship, and health improvements in rural communities.

With Blum Center support, Fermin has developed kiosks to deliver safe water services in underserved communities. Fundación Cántaro Azul has already implemented kiosks in Mexico and is now looking to scale up their impact using a social franchise model called Nuestra Agua. Fermin and his work have received international recognition, and Nuestra Agua was one of the three finalists at the Prize for Water Adaptation Actions at the 6th World Water Forum.

KHALID KADIR

Building Campus Community Partnerships in Engineering

Khalid Kadir is an environmental engineer and a lecturer in the Department of Civil and Environmental Engineering and the Global Poverty and Practice Minor. His work focuses on low-cost, natural waste water treatment technologies with potential for use in developing countries.

In 2013, Khalid was named a Chancellor's Public Scholar for a new course he created that sits at the intersection of environmental justice, social justice, and engineering. Through teaching, he hopes to build engineering students' understanding of both the possibilities and limitations of technically-based solutions, and to help engineers learn how to embed their work in existing social and political frameworks. His goal is to transform the relationship between UC Berkeley and the local — and global — community through public scholarship and community-campus partnerships.

GLOBAL POVERTY & PRACTICE
Students in Action

As the Blum Center has expanded its reach and scope, so has the Global Poverty and Practice Minor. The core academic program of the Center, the GPP Minor, now in its sixth year, continues to draw undergraduate students from nearly every discipline: economics to engineering, anthropology to architecture. They undertake practice experiences in nearly every part of the world: from Richmond, California, to Rwanda. Our alumni tackle urgent and complex problems as policy makers, scholars, educators, entrepreneurs, activists, and global citizens.

Building on these successes, the GPP Minor has embarked on a set of new initiatives that share our work with universities and organizations beyond Berkeley. This includes an expansion of the GPP curriculum to other University of California campuses; the launch of a new book series titled Poverty, Interrupted with the prestigious University of California Press; and The #GlobalPOV Project, which utilizes digital and social media for public scholarship. Finally, this year, supported by the Development Impact Lab, we welcome our first GPP Postdoctoral Fellows. This program exemplifies our commitment to build an intergenerational and interdisciplinary community of inquiry and practice concerned with poverty, inequality, and poverty action.

Ananya Roy
Blum Center Education Director
Professor, City & Regional Planning
Distinguished Chair, Global Poverty & Practice

465
Graduates of the GPP Minor to date

13,000
Students have taken a Blum Center supported class

31
Majors represented in GPP class of 2013

Facilitators lead a women's empowerment and fair trade workshop for Mayan weavers. Nikki Brand, a Peace and Conflict Studies Major, spent three months in Guatemala, conducting workshops for cooperatives of indigenous Mayan weavers, in order to help the women create better market opportunities for their crafts.

2013 GLOBAL POVERTY & PRACTICE STUDENT PRACTICE EXPERIENCE PARTNERS

UNITED STATES

Alameda County Food Bank

Asian Law Caucus

Berkeley Food and Housing Project

Berkeley Public Health Clinic

Center for Empowering Refugees and Immigrants

East Bay Housing Organization

Fair Trade USA

International Rescue Committee

La Clinica

Redwood Empire Food Bank

Roots Community Clinic

Saving Mothers Research Team

Self-Sustaining Communities

StartX

Suitcase Clinic

United Nations Association of East Bay

Voice of the Ex-Offender (VOTE)

Women's Economic Agenda Project

INTERNATIONAL

Bolivia: Foundation for Sustainable Development

Cameroon: CAEPA Cameroon

Cambodia: Women's Organization of Modern Economics and Nursing

Chile: TECHO

China: China California Heart Watch

Guatamala: El Nahual Community Center

India: Bhoruka Charitable Trust

India: Foundation for International Medical Relief of Children (FIMRC)

India: Foundation for Mother and Child Health

India: Potential Energy

Lebanon: Amel Association

Mexico: Fundacion Cantaro Azul

Nepal: The Helambu Project

Nicaragua: Casas de la Esperanza

Peru: Cervicusco

Peru: Peruvian Amazon Ecovillages Project

Philippines: Gawad Kalinga

Philippines: Volunteer for the Visayans

Sri Lanka: Sarvodaya

Tanzania: African Immigrants Social & Cultural Services

Uganda: Uganda Village Project

Vietnam: Project Vietnam Foundation

Vietnam: Vietnam Tooth Project

Ukraine: Virtus

50 Students each design their own unique practice experience. To date, they've served in over 50 countries.

DEVELOPMENT IMPACT LAB
Technology in Action

I am delighted to report on the successful launch of the Blum Center's Development Impact Lab. This bold new initiative, a partnership with the United States Agency for International Development, is bringing together engineers, business strategists, and development specialists from academia, industry, government, and the social sector. Our approach, Development Engineering, is aimed at scaling technologies that sustainably benefit and empower the global poor.

At the heart of our effort is demand-driven technology design that also leverages critical socioeconomic insights to design integrated solutions to complex development challenges. We enable innovators to rapidly and iteratively field-test technologies and services, establish strong international collaborations, and incorporate private sector business and market insights early in the process.

I invite you to join us in unleashing the transformative potential of a world class research university towards the great challenges in international development.

Shankar Sastry

S. Shankar Sastry
Blum Center Faculty Director
Dean, College of Engineering
Chief Scientist, Development Impact Lab

DIL's approach is driven by two guiding insight

1

Rapid Iteration

We focus on bridging the "valley of death" between an invention and the deployment of that innovation to benefit millions. DIL identifies promising development solutions, helps teams pinpoint and address bottlenecks in their work, and creates the infrastructure for researchers to effectively iterate, test and scale their innovations.

Examples of our Solutions

CELLSCOPE
Using Mobile Technology to Diagnose Diseases

In emerging regions, where healthcare infrastructure is limited, there is an urgent need for greater access to cheap and reliable diagnostic testing, particularly for infectious diseases. CellScope is a mobile phone-based, easy-to-use device that can rapidly capture images in blood or other patient samples and wirelessly transmit the data to clinical centers, allowing patients to be evaluated remotely and treatment suggested at the point of care.

CAFÉ
Increasing Citizen Participation in Policy

Traditional polling and survey instruments tend to limit citizen participation and public discourse. The Collective Assessment and Feedback Engine (CAFÉ), envisioned as a virtual coffeehouse, provides a grassroots, user-friendly online platform to increase civic engagement in the decision-making process and allow participants to provide feedback to inform policy decisions.

VILLAGE BASE STATION
Cellular Access in Rural Regions

Billions of people lack access to transformative cell phone technology because the cost of installing and operating telecom infrastructure is too high in remote areas. The Village Base Station (VBTS), a low-cost and lower-power cellular network hardware and software, makes it possible to install and operate community cellular networks at a fraction of the cost and power consumption of traditional telecom infrastructure, bringing cellular access to regions that might otherwise never receive it.

2 Understanding Context

We inform technical design with insights from economics, behavioral sciences, business, policy, law, and other fields. DIL is launching a new academic discipline, Development Engineering, to train the next generation of technologists.

BIG IDEAS@BERKELEY CONTEST
Supporting Student Innovation

GLOBAL POVERTY ALLEVIATION

INFORMATION TECHNOLOGY FOR SOCIETY

IMPROVING STUDENT LIVES

CLEAN & SUSTAINABLE ENERGY ALTERNATIVES
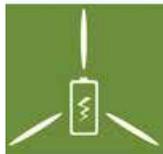
CREATIVE EXPRESSION FOR SOCIAL JUSTICE

PROMOTING HUMAN RIGHTS

FINANCIAL CAPABILITY

OPEN DATA

SCALING UP BIG IDEAS

Big Ideas is an annual innovation contest that provides funding, support, and encouragement to Berkeley students who have "big ideas."

Big Ideas supports students at the very early stages of developing their ideas. Often, students who compete in Big Ideas have never entered an innovation contest or written a real-world proposal. The Contest challenges students to step outside of their traditional university-based academic work, apply their passions, take a risk — and use their education, personal interests, and skills to work on problems important to them!

Seeking fresh, innovative ideas with high potential for social impact, Big Ideas@Berkeley is open to any student on campus, undergraduate or graduate, from any discipline.

CASHIFY

Shuonan Chen, Justin Chu, Virginia Chung,
Financial Capabilities

Cashify is establishing an interactive online platform for financial literacy.

BIG IDEAS WINNERS

These are just a few of the many Cal students that won support this year.
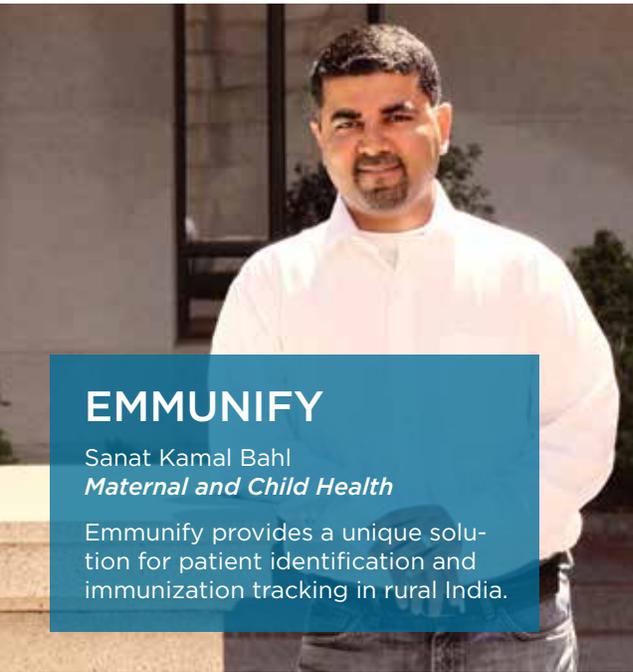
EMMUNIFY

Sanat Kamal Bahl
Maternal and Child Health

Emmunify provides a unique solution for patient identification and immunization tracking in rural India.

INDIA SMILES

Ashmita Baral, Priyanka Athavale, Priya Patel, Sri Rallabandi, Shampa Roy,
Global Poverty Alleviation

India Smiles is improving children's oral health to alleviate the effects of malnutrition in India.

100 STRONG

Vrinda Agarwal, Julie Brown, Madeeha Ghori, Smriti Joneja, Ruhi Nath
Global Poverty Alleviation

100 Strong is an innovative non-profit that gives at-risk teenage girls in the Bay Area the skills they need to take leadership roles in bettering their communities.

Big Ideas Winner Acopio helps coffee producers in South America to be more efficient and profitable, improving the livelihoods of thousands of farmers and their families.

A BIG IDEA IN ACTION

THE PROBLEM

For Latin American coffee producers and cooperatives, poor access to data can have a major impact on their income and livelihoods, reducing efficiency and limiting farmers' ability to access credit and international markets.

THE BIG IDEA

Acopio's solution was to develop software that farmers and cooperatives can use to collect information on their coffee production, and then to manage and analyze that data. Instead of relying on paper records, information can be uploaded directly through a mobile phone or a tablet. This is quicker, easier to use, and provides up-to-date and accessible information. Key metrics can also be shared with funders and buyers to increase transparency, track progress, and evaluate performance.

THE SOLUTION

Acopio was founded by three Berkeley students: Ariel Chait and Paul Goodman from the School of Information, and Iris Shim, an MBA student. It won Big Ideas in 2011 and again in 2012. This support enabled the team to do in-depth market research and to test its software with cooperatives in Mexico and Nicaragua — making sure that it met farmers' needs and was simple to use. Big Ideas also helped them to develop a partnership with Root Capital, the social impact investor. Since then, Acopio has expanded beyond Mexico and Nicaragua into Peru with support from USAID and Sustainable Harvest, attracted an investment from Hub Ventures, and was selected by Agora Partnerships and Village Capital to join their accelerator programs.

> **"** The future doesn't just happen. It's not etched or written or coded anywhere. There's no algorithm or formula that says technology will do X, so Y is sure to happen. Technology doesn't work on its own. It's just a tool. You are the ones who harness its power. And that requires innovation and entrepreneurship. **"**

Eric Schmidt,
Executive Chairman and
Former CEO, Google
UC Berkeley Commencement

PARTNERS

The Blum Center credits productive partnerships with NGOs, governments, entrepreneurs, academic institutions, foundations and generous private donors for our success.

Brookings Institution

Stasia Obremsky & Dan Carroll

The Carter Center

Charles Schwab Foundation

Clinton Global Initiative University

Griscom Foundation

Hellman Family Foundation

Jerry Hurtubise and Catherine Huston

Inter-American Development Bank

Christina & Howard Janssen

Lizbeth and Frank Newman Charitable Foundation

Andrew and Virginia Rudd Family Foundation

Arun and Rummi Sarin

Melissa Stark

US Agency for International Development

Anonymous (3)

Blum Center students lead a demonstration for the Vietnam Tooth Project, working to prevent both tooth decay and malnutrition.
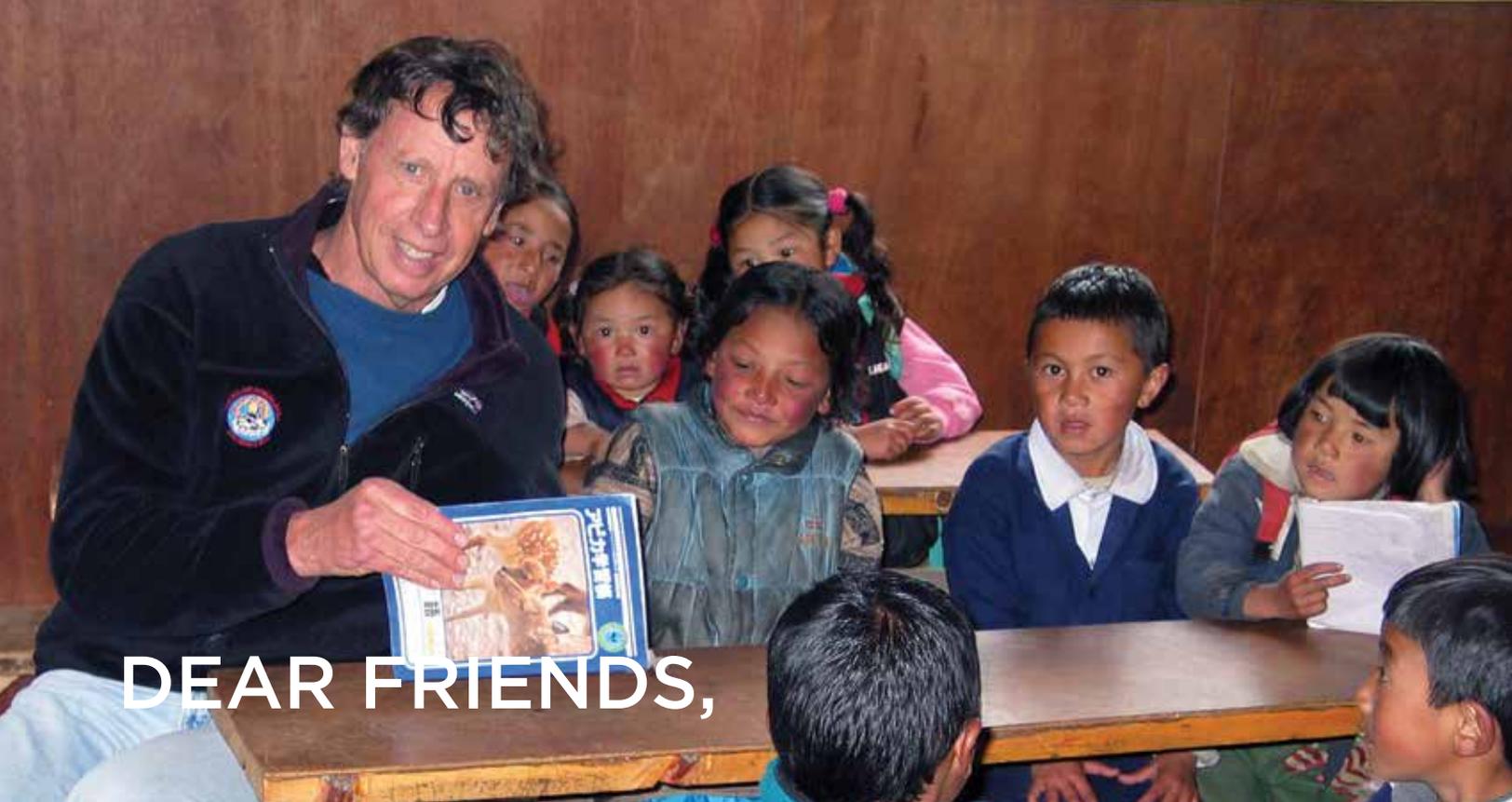
DEAR FRIENDS,

When we started our Center at Berkeley in 2005, we thought there would be some untapped interest among the students in the issue of global poverty. But we never dreamed that in just over seven years, more than 13,000 students would have participated in our programs and classes, and that our minor in Global Poverty and Practice would quickly grow to be the largest minor on campus.

Similarly, we hoped that faculty would be drawn to the goals of the Center. But we vastly underestimated the numbers who've since dedicated their teaching and research to solving the problems of poverty, in disciplines ranging from engineering to business to architecture, working in over 50 countries.

I am proud of what we've done — and humbled by the work left to do. Together, we are dedicated to the principle that someday every person will have the opportunity to grow, be educated and improve their lives, their families, their communities and our family of nations.

I hope you'll join us in supporting the amazing work of students and faculty at the greatest public university on the planet.

Richard C. Blum, Founder

Our students have remarkable abilities and aspirations. With your generosity, their potential is limitless.

Ways to Give: For information on how to support education and innovation initiatives at the Blum Center, please contact Maryanne McCormick, Executive Director, 510.847.6851 or mmccormick@berkeley.edu.

To give online: blumcenter.berkeley.edu

BLUM CENTER
FOR DEVELOPING ECONOMIES

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