

Cambridge 02138

Mary Sears, Gen Ed, football concussions

INFRASTRUCTURE AND OLYMPICS

I HAVE LONG FELT that a large, modern city cannot function efficiently without free public transportation (see “Why Can’t We Move?” by Rosabeth Moss Kanter, July-August, page 42). The key words here are “efficiently” and “free.” A large building wouldn’t function efficiently without vertical transportation, yet we do not charge

a person a nickel for each ride on an elevator or a penny for each ride on an escalator. Why should we expect a large city to function without similarly free horizontal transportation?

Of course there is no free lunch, and the vertical transportation in a building is free to the users only because it is paid for by the tenants as part of their rent. Simi-

7 WARE STREET

Sharing Governance

ONE SHIBBOLETH of academic life is “shared governance”: involving faculty members in shaping the direction, even the management, of their institutions. In theory, that makes the operation of the academy more consensual—if also messier and less efficient—than other sectors of society, like business.

Princeton president emeritus William G. Bowen and Eugene Tobin examine the concept in their recent *Locus of Authority* (Princeton). Their subject “is really about leadership, and how it is both constrained and exercised” in the college or university. They note, “Faculty are not generally in a position, nor are they responsible, for providing institution-wide leadership on their own.” But “faculty can either encourage (and facilitate) the wise exercise of leadership by others or...throw...sand in the wheels.”

At some universities, a faculty senate enables deliberation and voice. Stanford has one; Yale’s arts and sciences faculty recently created one—with 60 percent of members voting in the initial election, a participation rate many times that at regular faculty meetings. (That would be true in Cambridge, too.) But in a centralizing era of investing in information systems, complying with federal regulations, and mounting massive capital campaigns, no such legislature has advanced at Harvard—not

even during the governance crisis of the late 1960s and early 1970s, when a senate was discussed. Today, administrators probably wouldn’t welcome the aggravation; professors probably don’t want the extra work.

But a model for valuable, if less formal, consultation exists. MIT’s recent task force on its educational future engaged the whole community in work that has accelerated online learning, laid the foundation for involvement in K-12 education, and provided the architecture for fundraising. A “conversation on climate change committee” similarly reached constituents across campus; its suggestions may not all advance, but they broaden debate and understanding. Even when lobbying Congress for more funds to combat an “innovation deficit,” MIT put its professors’ expertise forward.

All that is shared governance, based on MITs most valuable coin, its intellectual capital. The innovation could very productively travel upriver.

* * *

ZARA ZHANG ’17, our Daniel Steiner Undergraduate Editorial Fellow this summer, contributed deeply reported, well-written articles online, on subjects ranging from the arts and humanities to urban design. Enjoy her work at the redesigned harvardmagazine.com, and in this issue on pages 7 and 8. We were lucky to have her as a colleague, and thank her for her outstanding work on readers’ behalf. —JOHN S. ROSENBERG, Editor

HARVARD MAGAZINE

EDITOR: John S. Rosenberg

SENIOR EDITOR: Jean Martin

MANAGING EDITOR: Jonathan S. Shaw

ART DIRECTOR: Jennifer Carling

ASSOCIATE EDITOR: Sophia Nguyen

ASSISTANT EDITOR-ONLINE: Laura Levis

ASSISTANT EDITOR: Nell Porter Brown

BERTA GREENWALD LEDECKY

UNDERGRADUATE FELLOWS

Olivia Munk, Melanie Wang

DANIEL STEINER UNDERGRADUATE

EDITORIAL FELLOW

Zara Zhang

CONTRIBUTING EDITORS

John T. Bethell, John de Cuevas, Dick Friedman, Adam Goodheart, Elizabeth Gudrais, Jim Harrison, Courtney Humphries, Christopher S. Johnson, Adam Kirsch, Colleen Lannon, Christopher Reed, Stu Rosner, Deborah Smulyan, Mark Steele

HARVARD MAGAZINE INC.

PRESIDENT: Henry Rosovsky, JF ’57, Ph.D. ’59, LL.D. ’98. DIRECTORS: Suzanne Blier, Peter K. Bol, Jonathan L.S. Byrnes, D.B.A. ’80, Thomas F. Kelly, Ph.D. ’73, Lars Peter Knuth Madsen, Margaret H. Marshall, Ed.M. ’69, John P. Reardon Jr. ’60, Bryan E. Simmons ’83

BOARD OF INCORPORATORS

This magazine, at first called the *Harvard Bulletin*, was founded in 1898. Its Board of Incorporators was chartered in 1924 and remains active in the magazine’s governance. The membership is as follows: Stephen J. Bailey, AMP ’94; Jeffrey S. Behrens ’89, William I. Bennett ’62, M.D. ’69; John T. Bethell ’54; Peter K. Bol; Fox Butterfield ’61, A.M. ’64; Sewell Chan ’98; Jonathan S. Cohn ’91; Philip M. Cronin ’53, J.D. ’56; John de Cuevas ’52; James F. Dwinell III ’62; Anne Fadiman ’74; Benjamin M. Friedman ’66, Ph.D. ’71; Robert H. Giles, NF ’66; Richard H. Gilman, M.B.A. ’83; Owen Gingerich, Ph.D. ’62; Adam K. Goodheart ’92; Philip C. Haughey ’57; Brian R. Hecht ’92; Sarah Blaffer Hrdy ’68, Ph.D. ’75; Ellen Hume ’68; Alex S. Jones, NF ’82; Bill Kovach, NF ’89; Florence Ladd, Bl ’72; Jennifer 8 Lee ’99; Randolph C. Lindell ’66; Ann Marie Lipinski, NF ’90; Scott Malkin ’80, J.D.-M.B.A. ’83; Margaret H. Marshall, Ed.M. ’69, Ed. ’77, L ’78; Lisa L. Martin, Ph.D. ’90; David McClintick ’62; Winthrop L. McCormack ’67; M. Lee Peltan, Ph.D. ’84; John P. Reardon Jr. ’60; Christopher Reed; Harriet Ritvo ’68, Ph.D. ’75; Henry Rosovsky, JF ’57, Ph.D. ’59, LL.D. ’98; Barbara Rudolph ’77; Robert N. Shapiro ’72, J.D. ’78; Theda Skocpol, Ph.D. ’75; Peter A. Spiers ’76; Scott H. Stossel ’91; Sherry Turkle ’69, Ph.D. ’76; Robert H. Weiss ’54; Jan Ziolkowski.

larly, the city's horizontal transportation should be paid for through real-estate taxes. Some will say they shouldn't have to pay for public transit if they don't use it, but every city dweller does "use" public transit even if they don't "ride" on it. After all, the city wouldn't exist as we know it if it didn't have public transit.

Recall what happened when public transit was unavailable during last winter's storms. The disaster goes beyond city limits, so even state subsidies for free city public transportation should be used. Illinois would not be what it is without Chicago, or Massachusetts without Boston, or Georgia without Atlanta.

ETHAN JACOBS '62
Chicago

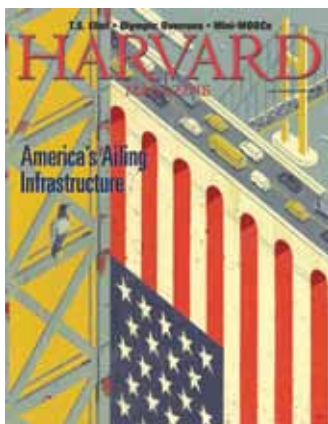
THE U.S. INFRASTRUCTURE? Apparently George Bush thought it more important to rebuild the infrastructure of Baghdad. Then there were the lost billions on similar ventures in Afghanistan.

No political will, no way.

A.E. SANTANIELLO, Ph.D. '61
Dana Point, Calif.

PROFESSOR KANTER presents memorable and interesting stories to raise public awareness of the obviously poor condition of our transportation infrastructure. Although she pinpoints "chronic underinvestment" as the culprit for the condition of Boston's T and, by association, the country's infrastructure, she offers no specific funding solution other than a "national narrative." More discussion is not the catalyst to provide the "will" to invest in infrastructure. "Will" would follow if a specific long-term funding plan, i.e., a tax beneficial to all constituencies, were offered that generated the \$1.5 trillion to \$2 trillion needed to repair and enhance our bridges, roads, and water systems. Such a tax, unlike the regressive fuel tax, would take, like Robin Hood, from those most able to pay, invest in infrastructure, create millions of new high-paying jobs, and result in enhancing the investable assets of those who pay the tax.

Here's how it would work. First: remove the cap on the payroll tax (currently 6.2 percent, capped at \$118,500) for earned income



of \$500,000 and greater—which, according to the Political Economy Research Institute (PERI) at UMass Amherst, would yield \$120 billion per year. Second: invest the \$120 billion along with the current \$40 billion generated from fuel taxes to produce a world-class infrastructure. This investment would create three million jobs, based on PERI

research. Third: the three million new jobs would decrease the unemployment rate 1.9 points, to 3.6 percent. Economic research reveals that a one-point decrease in the unemployment rate increases the S&P 500 by 3.4 points. Thus the three million jobs would increase the S&P 500 6.46 percent. Fourth: According to Fidelity Investments, people with earned income of \$500,000 or more have investable assets of \$5 million. Removing the payroll tax for these people will increase their investable assets by 6.46 percent or \$300,000—which would more than offset their tax increase of \$24,000. Not a bad trade!

Goodbye to potholes, congestion, and middle-class wage stagnation. Hello to world-class infrastructure and improved fortunes for all Americans. Given Kanter's communication skills, I hope she would become an advocate of this plan, or of some variation, to give it "will" through public and political exposure.

JOHN A. SIMOURIAN
Needham, Mass.

THE EFFORT to inject common sense into the current Olympic fever in Boston ("A Faustian Fiscal Bargain," by Andrew Zimbalist, July-August, page 39) and the informative article "Why Can't We Move" are both outstanding and offer an all-too-neglected dose of realism. Many thanks to the authors and the magazine.

JOHN T. HAZEL JR. '51, LL.B. '54
Broad Run, Va.

Editor's note: The U.S. Olympic Committee ended Boston 2024's bid on July 27.

MARY SEARS

As THE intelligence briefer for the commander of the U.S. Pacific Fleet, I have more than once uttered words to the effect of, "Admiral, the hydrographic survey ship

HARVARD MAGAZINE

PUBLISHER: Irina Kuksin

DIRECTOR OF CIRCULATION AND
FUNDRAISING: Felecia Carter

DONOR RELATIONS AND STEWARDSHIP
MANAGER: Allison Kern

DIRECTOR OF ADVERTISING:
Robert D. Fitta

NEW ENGLAND ADVERTISING MANAGER:
Abby Shepard

CLASSIFIED ADVERTISING MANAGER:
Gretchen Bostrom

DESIGNER AND INTEGRATED MARKETING
MANAGER: Jennifer Beaumont

PRODUCTION AND NEW MEDIA
MANAGER: Mark Felton

ASSOCIATE WEB DEVELOPER:
Jeffrey Hudecek

GIFT PROCESSOR AND OFFICE MANAGER:
Robert Bonotto

IVY LEAGUE MAGAZINE NETWORK
DIRECTOR, SALES AND MARKETING:
Ross Garnick, www.ivymags.com

EDITORIAL AND BUSINESS OFFICE
7 Ware Street
Cambridge, Mass. 02138-4037
Tel. 617-495-5746; fax: 617-495-0324
Website: www.harvardmagazine.com
E-mail: harvard_magazine@harvard.edu

@harvardmagazine

facebook.com/harvardmagazine

Harvard Magazine (ISSN 0095-2427) is published bi-monthly by Harvard Magazine Inc., a nonprofit corporation, 7 Ware Street, Cambridge, Mass. 02138-4037, phone 617-495-5746; fax 617-495-0324. The magazine is supported by reader contributions and subscriptions, advertising revenue, and a subvention from Harvard University. Its editorial content is the responsibility of the editors. Periodicals postage paid at Boston, Mass., and additional mailing offices. Postmaster: Send address changes to Circulation Department, Harvard Magazine, 7 Ware Street, Cambridge, Mass. 02138-4037. Subscription rate \$30 a year in U.S. and possessions, \$55 Canada and Mexico, \$75 other foreign. (Allow up to 10 weeks for first delivery.) SUBSCRIPTION ORDERS AND CUSTOMER SERVICE INQUIRIES should be sent to the Circulation Department, Harvard Magazine, 7 Ware Street, Cambridge, Mass. 02138-4037, or call 617-495-5746 or 800-648-4499, or e-mail addresschanges@harvard.edu. Single copies \$4.95, plus \$2.50 for postage and handling. MANUSCRIPT SUBMISSIONS are welcome, but we cannot assume responsibility for safekeeping. Include stamped, self-addressed envelope for manuscript return. Persons wishing to reprint any portion of *Harvard Magazine's* contents are required to write in advance for permission. Address inquiries to Irina Kuksin, publisher, at the address given above. Copyright © 2015 Harvard Magazine Inc.

USNS *Mary Sears* is currently conducting operations in the Western Pacific....” To my shame, I knew almost nothing of the ship’s illustrious namesake until I read Peter Denton’s wonderful pocket biography of Commander Sears (Vita, July-August, page 46). As one of a relative few Harvardians currently on active service, I am always eager to talk up Harvard’s many contributions to the national defense, particularly involving the Navy. My thanks to Mr Denton and *Harvard Magazine* for illuminating for me yet another fine example of Harvard’s links to the Naval Service.

LT. BEN CLICK ’06
Pearl Harbor

WHILE TAKING nothing away from the wartime contribution of Mary Sears and her Oceanographic Unit (OU) in preventing another World War II amphibious assault disaster after the one at Tarawa, some mention ought to have been made of the courageous men who, while reconnoitering the beaches and destroying defensive obstructions, often under fire from the islands’ defenders, actually collected the data that was later analyzed by the OU. These men were the U.S. Navy’s Underwater Demolition Teams (UDT), founded and led by Draper L. Kauffman, who were the forerunners of today’s Navy SEALs.

G.W. SCHMIDT, M.B.A. ’79
Willow Street, Pa.

IF NOBODY from the Greatest Generation has indicated that the B-29, not the still-in-service B-52, was the bomber used to bomb Japan, I wish to do so.

EUGENE LIPKOWITZ ’60
Wyckoff, N.J.

Editor’s note: Mr. Lipkowitz was the first of many correspondents to correct our obvious historical error. The B-52 entered service in the 1950s.

UNDERGRADUATE EDUCATION

FROM THE far-off “Fifties,” superstars Reuben Brower, John Finley, and John Conway (former masters of Adams, Eliot, and Kirkland Houses), Edward Purcell (1952 Nobel Prize in Physics), Sam Beer, and others would salute Professor Louis Menand’s critique of the sad state of what *Harvard Magazine* describes as “the College’s flagship general-education curriculum...” (University News Briefs, July-August, page 32). In those distant

days, every Harvard and Radcliffe first- and second-year student was required to complete one full Gen Ed course in each of three broad areas: only 18 (not 574) two-semester courses qualified for “Humanities,” “Social Science,” or “Natural Science” credit, plus a two-semester Gen Ed A writing course required of virtually all entering freshmen.

Memorable was “Hum 6” (literary classics), taught in my freshman year by humanist Ben Brower, an English professor like Menand; Brower’s edition of Alexander Pope’s translation of *The Iliad* in rhyming couplets is on my shelf. Ed Purcell’s Nat Sci 2 brought physics, astronomy, and history of science to nonspecialists; John Conway’s Soc Sci 6 discussed the English, American, French, Industrial, and Russian Revolutions through the eye of a gravely wounded Canadian World War II hero. (Conway was described in his *New York Times* obituary as “a scholar and teacher who sees no gulf between his life with books and his life with students.”) John Finley in Hum 2 and Sam Beer in Soc Sci 2 were campus-wide idols. The list goes on.

Those scholar-teachers would not have imagined Menand’s description of faculty views that Harvard College “[d]epartments don’t normally generate courses for the nonspecialist, or...prepare students for life after college.” For three close friends who pursued careers as classicist and educator, as international banker (with Harvard Ph.D.), and as international lawyer-manager, everything started in Hum 6 with Ben Brower and with the other senior faculty who—in only 18 Gen Ed courses—“prepared students for life after college.”

TERRY MURPHY ’59, O.B.E.
Bethesda, Md.

FOOTBALL INJURIES

I HAD ONE concussion playing college football, but that one was a doozy. My class notes only became legible and minimally coherent on the Friday after the Saturday game. And, like Chris Borland, I’ve read *League of Denial*.

So I found “Tackling Football Trauma” (July-August, page 7) perplexing. Why is Harvard taking money to help the National Football League change the subject and evade the issue for another 10 years?

The subject is concussions in pro football; repeated hits to the head damage players’ brains and ruin their lives. The issue is how to stop the hits to the head.

None of Harvard’s NFL-funded studies address the issue.

What’s needed is to stop the hits to the head. Abolish pro football? No. Change it.

Two suggestions: Let every player on offense receive a forward pass. The 300-pound athlete with braces on his knees would re-emerge lighter and faster. The game might somewhat resemble ultimate Frisbee, but it would still be football. And penalize any hit to an opponent’s head—purposeful or not—with immediate ejection from play. Lower-on-the-body tackling would result, with more grabbing and wrapping up instead of smashing. Lower blocking, too. The game might somewhat resemble rugby, but it would still be football.

When they abolished the flying wedge, it didn’t kill the game. Same now. Given radical reforms of the sort I suggest, pro football would be a more wide-open game. More, and more varied, offensive and defensive strategies would be possible. Thrilling to watch, but with far less damage to brains.

The NFL, with its 10-year, \$100-million Football Players Health Study, is investing in delay and evasion. Unfortunately, Harvard is helping.

DAVID BERGER, M.B.A. ’55
Madison, Wisc.

Editor’s note: The project is in partnership with the National Football League *Players Association*; the union won annual funding for medical research, among other benefits, after fractious contract negotiations with the NFL in 2011. After the article was published, the Medical School advised that the study duration and cost are in flux and have not been publicly revised since the project was announced in 2013, and that the goal of the study, since it launched in 2014, is to reach as many of the estimated 20,000 former NFL players as possible; the originally announced goal was to recruit “at least 1,000 retired athletes.”

ONLINE EDUCATION

KUDOS TO Harvard for innovating in on-line education, and kudos to Stephanie Garlock for her thoughtful article on the progress of Harvard’s early experiments in that area (“Is Small Beautiful?” July-August, page 48). Unfortunately, however, Garlock goes astray



Visit harvardmag.com/extras for additional letters.

TRAVELS

Travel the world with fellow alumni and Harvard study leaders. **Choose from more than 60 trips annually.**

FEATURED TRIPS



FEBRUARY 10-15, 2016

**SAN MIGUEL DE ALLENDE
& COLONIAL MEXICO**



MARCH 2-18, 2016

KENYA & TANZANIA



APRIL 10-18, 2016

**DUTCH & FLEMISH LANDSCAPES
ON AMAPRIMA**

STUDY LEADER: THOMAS F. KELLY PHD '73

TO BOOK YOUR NEXT TRIP,
CALL US AT 800-422-1636.
FOR MORE TRIP OPTIONS, VISIT
ALUMNI.HARVARD.EDU/TRAVELS.



HARVARD
Alumni Association

LETTERS

when she contends that “SPOCs” (small, private, on-line courses) are some kind of new innovation, growing out of mixed success with MOOCs (massive open on-line courses). In fact, SPOCs, some with participation by both on-line and resident students, have been used for years by institutions such as the University of Southern California, Georgia Tech, Columbia, Pennsylvania State University, and others, to teach engineering and other disciplines to distance students. These courses may not always “communicate the complex skills taught in college classrooms” (to quote her summary of Harvard’s ambitions), but they certainly have succeeded in providing high-quality education to many people for whom it would not have been easily available otherwise. That record should not be overlooked.

MIKE FOREMAN-FOWLER '91
Cambridge

T.S.E.

T.S. ELIOT was a close Harvard friend of Conrad Potter Aiken (see “The Young T.S. Eliot,” July-August, page 54). Both were grandsons of distinguished Unitarian ministers: William Greenleaf Eliot and William James Potter. The latter’s son, Alfred J. Potter, was a librarian at Harvard College. He was notoriously shy and uncomfortable in society. Eliot and Aiken were frequent visitors in the Potter home on Fayerweather Street. Eliot saw much of Uncle Alfred. Alfred J. Potter; J. Alfred Prufrock?

Ironically, as an adult Aiken discovered that Uncle Alfred had a rather raucous secret life.

REV. RICHARD A. KELLAWAY, B.D. '61
Dorchester Center, Mass.

VITAMIN D DOSAGES

I AM NOT a healthcare specialist, but read “Is Vitamin D a Wonder Pill” (May-June, page 14), by Sophia Nguyen, with interest. My wife and I have received repeated pleas from doctors to consume more of this wonder sub-

stance. New Englanders are often told that we cannot get sufficient exposure to sunlight in these “northern latitudes” for our bodies to make sufficient vitamin D in winter. Readers were spared this, and a quick look at the atlas would show that most people in Britain live at the latitude of Labrador and many Norwegians and Swedes live even further north. I am one of these northern types and have never experienced a broken bone and do not know of one in my family. Furthermore, of my many relatives who have become older than 90, I know of none with osteoporosis.

This is not to say that vitamin D is unimportant or does not play a role. Lifestyles have changed, as have diets. But I was pleased to see the qualifying note of caution in this article about the use of vitamin D supplements. It seems that the medical profession is in search of a number to define a “normal” vitamin D level. Perhaps this is a false search, because it assumes that all humans have the same requirements. Needs may vary, and the impact of a vitamin supplement may vary, too.

IVOR P. MORGAN, D.B.A. '80
Lexington, Mass.

SCARCITY AND POVERTY REDUX

SURELY THE letter in your July-August issue (page 4) from Dr. Mitchell Levin was a joke, right? His comments are so Dickensian (“poverty is a choice”) and his recitation of the “overwhelmingly broad safety net” suffers only by its omission of workhouses and prisons. Yikes.

LEE BISHOP '72
Louisville, Ky.

EDITING LAPSE

MY WIFE’S July-August issue arrived today, and I was perusing it casually when my eye fell on this passage near the foot of page 76 (“Mystery Solved,” The College Pump): “Saunders [curator at the Harvard Club of New York] cares for a collection of more than 2,000 items comprising about 100 painted portraits of Harvard men and women and some 50 mounted taxidermy specimens,...”

Rather gave me pause.

BOB KITTREDGE, MIT '66
Newtonville, Mass.

INVESTMENT-MANAGER EARNINGS

FOR THE PAST 10 YEARS or more, Harvard Management Company has significantly underperformed the Standard and Poor’s 500. Yet their
(please turn to page 74)

LETTERS

(continued from page 6)

officers are paid like superstars—10 times what the president of the University is paid. Does the Board of Overseers not have access to the same data as *Harvard Magazine* (Brevia, July-August, page 33), or do they choose to ignore it?

CHARLES RESNICK '48, LL.B. '50
Longboat Key, Fla.

THE FOREMOST RABBI?

THE JULY-AUGUST obituary for Rabbi Aharon Lichtenstein (Ph.D. '57) characterized him as “a rabbi considered to be the foremost intellectual and spiritual guide of Modern Orthodox Judaism.” Although he certainly ranked up there among the leading lights of non-haredi Orthodox Judaism, I seriously doubt that he would be universally regarded as the foremost among them. Indeed, there are even some who would not associate him with the “Modern” strand of Orthodoxy altogether. What, then, was the basis/source/rationale for this exalted wording?

STANLEY COHEN, G '81
Baltimore

Obituaries editor Deborah Smullyan replies: I fear I accepted uncritically the appraisal of the gentleman who submitted Rabbi Lichtenstein's obituary. He did refer me to two websites for corroboration, containing the obituaries in *Haaretz* and the *Jerusalem Post*, which certainly didn't cast any suspicion on his exalted assessment. But I must remember to be cautious in accepting the opinions of others. Thank you for keeping me honest.

ERRATA

“SURGERY FOR ALL” (July-August, page 26) misidentified the affiliation of Lars Hagner, who is at Lund University, in Sweden.

Susan C. Seymour writes that the Off the Shelf item describing her biography of Cora Du Bois (July-August, page 68) incorrectly stated that Du Bois conducted fieldwork in Sri Lanka; that work took place in India. In addition, although the Zemurray chair that Du Bois held was funded by Radcliffe, the professorship was at Harvard.

The title of a work in “The Young T.S. Eliot” (July-August, page 54) should have been *The Complete Prose: The Critical Edition*; the text inadvertently rendered it as the “Collected Prose.”

BUSINESS FOR THE

OTHER BILLIONS (continued from page 39)

what to measure and its value to the company. A customer who can now afford prescription eyeglasses surely benefits; but can the impact on her income be quantified?

IGNIA's experience to date suggests that affecting the lives of lower-income people by financing base-of-the-pyramid businesses that serve them “takes time,” as Rodríguez Arregui put it. “The biggest element is patience. It's *hard*.” (It may be even harder in rural Africa and Asia, where the challenges are more daunting than those in urban Mexico, IGNIA's base.)

Moreover, given the business risks and external challenges in the sector, deep knowledge of local circumstances matters—as Rangan's marketing insights and the experiences of IGNIA's entrepreneurs suggest. “This is not an activity about writing checks,” Rodríguez Arregui said. “That's the easy part. It's about how you support entrepreneurs in their endeavors.” Impact investors can no more “defy the laws of gravity” than can their strictly financial peers. Global social-impact investors, he observed, are based in Geneva and financial centers where it is easy to access funds, “but they are investing in Pakistan, Nairobi, and Peru. No venture-capital investor in the world does that. In Cambridge, a VC investor thinks a deal across the river in Boston is too far from his office.” Base-of-the-pyramid investing will mature, he said, when people “raise the money in Nairobi to put it to work there.” Paraphrasing a Spanish proverb, he said, “Under the eye of the owner, the horse is healthy.”

How to Create Value

WHAT BUSINESS MODELS, then, can work at the base of the pyramid? Anyone who delves into the debates about impact investing, or peruses a course like BBOP, learns that such models are a work in progress. Entrepreneurs may approach the base of the pyramid with an innovative idea, only to founder financially. Developed-world pharmaceutical giants differ on how to deploy their research when applied to diseases endemic in low-income, developing nations. (Students in BBOP encounter both Novartis, which has distributed billions of tablets of a malaria drug at its manufacturing cost, but struggles

to develop revenue to sustain further research, and Sanofi's vaccine unit, whose dengue vaccine is embedded more deeply in its business operations.)

Given that sense of flux, it is not surprising that the three faculty members who taught the sections of BBOP last year hold distinct views of this nascent field. By design, HBS professors principally guide student discussion of cases during class meetings, but in conversation and in their writing (cited earlier), they open up about their perspectives.

Michael Chu, who more than his academic colleagues professes from practice, approaches the problem pragmatically. “I find it interesting,” he said, “to apply commercial models, particularly high-impact ones,” to enable people “to live closer to their potential.” He proceeded from that almost spiritual tone to a bright line, with clarifying appeal for the financially minded.

Among his fellow teachers, Chu said, “I'm the most aggressive in saying, ‘If you're achieving high impact *and* high financial returns, that's the magic combination.’...Because if you want to move the needle” for billions of people, “the way to guarantee it is to create an industry via an economic activity with above-average returns.” In this view, “A 60 percent return on equity is better than 50 percent, and 50 percent is better than 40 percent”—not because it is an extraordinary profit margin that rewards investors, but because “That's when you can really disrupt and reinvent an industry.”

Eye-popping profitability, in other words, is the way to attract competition into markets where the low-income majority of humanity today is served poorly, if at all, with intolerable consequences. “Competition is precisely what reconciles profitability and the creation of social value,” he wrote in 2007. “The social role of profit is in fact creating an industry,” he said now.

The faster that can happen, the better life will be at the bottom of the pyramid. But as Bechtel learned in Bolivia, that approach might not always be politically palatable. As IGNIA's investments have shown, the work of identifying and nurturing those pioneering companies can itself be difficult and time-consuming (and the universe of possibilities for extraordinary returns may be limited). Still, applied to urgent social needs, Chu argued, the animating incentive of profitability—part of HBS students'