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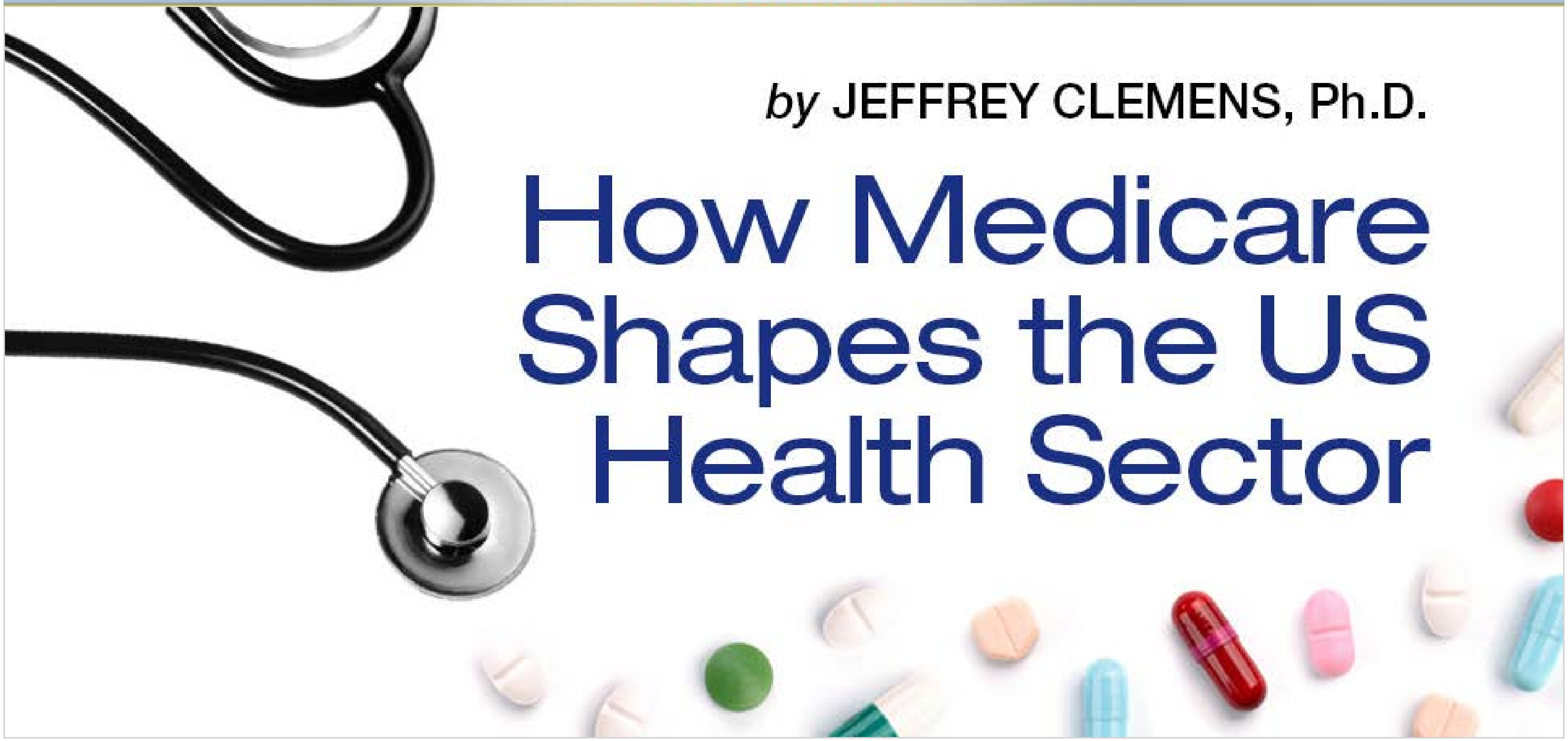

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Economics IN ACTION

ALUMNI SPOTLIGHT

Joshua Rosenberg, Ph.D. ’96

A Glimpse Inside the Federal Reserve Bank of New York

By Doug Kurtz

Two key members on the leadership team of the Federal Reserve Bank of New York’s Risk Group are alumni of the Department of Economics at UC San Diego. However, they did not discover this coincidence until 2003, when Professor Robert Engle became a Nobelist. Joshua Rosenberg, Ph.D. ’96, and Sandra Krieger, Ph.D. ’81, knew each other simply as colleagues within the bank. “One day, Sandy came out of her office,” recounted Joshua. “She announced excitedly, ‘My former advisor just won the Nobel Prize!’ This had just been reported in the news. I rushed out of my office and said, ‘*My* former advisor just won the Nobel Prize!’ Before that moment, we did not know we had this connection with UC San Diego.”

Fast forward to 2008-09 when the tangle of the financial crisis unwound. As liquidity programs were put in place, the assets of the Federal Reserve Bank of New York (FRBNY) changed substantially and warranted the creation of a new risk-management group (now called the Risk Group). Sandra was selected to lead the Risk Group and tapped Joshua to head the Risk Analytics Function. In this role, Joshua assembled teams and carved out their three main responsibilities: (1) overseeing development of models to measure the bank’s market risk and credit risk; (2) validating models (analyzing the data, methodologies and implementation of the bank’s internal and external models); and (3) conducting price verification of the securities and loans held by the bank.

Joshua’s career had several incarnations once he completed his doctorate at UC San Diego in 1996. After UC San Diego, he made his way to New York, where he became an assistant professor of finance at New York University’s Stern School of Business. He then joined the Federal Reserve Bank of New York in 2001 as a research economist in the capital markets function of the Research Group. His research focus was on derivatives, volatility and risk management. During the financial crisis, he helped with the design and implementation of emergency lending programs, including the Term Asset-Backed Securities Loan Facility (TALF) and the Commercial Paper Funding Facility (CPFF).

Now, with two decades of professional experience under his belt, Joshua is able to reflect on some of the key skills that are valued at the bank and more generally in risk-management roles. He has seen a continued significant demand for quantitative talent at FRBNY. In junior quantitative roles, the bank looks for recent undergraduates with strong programming, statistics and data-analysis skills. Importantly, analysts are expected to work well in teams because many projects are collaborative.

But beyond these practical skills, Joshua advises students and young professionals to pay attention to personal attributes that will help them in the workplace. Some of his advice:

- Know your strengths and weaknesses, and learn to develop your internal characteristics.
- Find mentors and coaches who can help you throughout your career.
- For employees: Learn how to take constructive criticism.
- For managers: Learn and practice giving constructive feedback; learn how to ask for feedback.

Joshua had one of the best mentors at UC San Diego in Professor Robert Engle. He points to Professor Engle’s generosity with one-on-one time for students to help them work through tough problems and grow as researchers. Beyond Professor Engle’s distinguished career as an economist (he is now the Michael Armellino Professor of Finance at New York University’s Stern School of Business), his example is a reminder that many professors are open to working with students.

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Joshua is incredibly grateful for the time spent in San Diego as a student and fondly remembers those days (including afternoon soccer games at Marshall College Field and sunset swims at the Aquatic Center). When the Engle Endowed Chair in Econometrics was established, Joshua jumped at the chance to join a large group of alumni to financially support it. He remains connected to UC San Diego today by meeting with the occasional Triton student visiting New York to discuss careers in risk management. He views it as his way to provide some of the guidance and mentorship he has experienced in his career.

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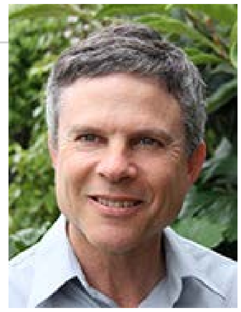
Chair’s Corner



Welcome to the spring 2014 edition of *Economics in Action*. With health care so often dominating recent news, we thought it appropriate to begin with Professor Jeff Clemens’ discussion of his research on how Medicare influences our health-care market. Professor Emeritus Vince Crawford describes his transition from our 53-year-old campus to the centuries-old campus at Oxford, and we describe our efforts to bring 21st-century technology into our undergraduate classrooms. PhD alumnus Joshua Rosenberg, now at the Federal Reserve Bank of New York, tells us about risk management during and after the financial crisis. Two of our female graduate students write about how our department’s mentoring program helps to fix the “leaky pipeline” carrying women in economics from the beginning of graduate school to their PhDs and beyond. Finally, we remember one of our most beloved former faculty, Ramu Ramanathan.

Faculty Highlights

Joel Sobel became the sixth member of our faculty to be inducted into the American Academy of Arts and Sciences, joining Vincent Crawford, Robert Engle, Roger Gordon, Theodore Groves and Mark Machina. Joel is a pillar of our microeconomic theory group and a co-editor of *Econometrica*, the flagship journal of the profession for microeconomic and econometric theory.

Jim Hamilton presented the keynote address at the International Symposium on Forecasting in Seoul, Korea, last June. Fittingly, this keynote address is known as the Granger Memorial Lecture, after UC San Diego’s Nobel Prize-winning economist Clive Granger.

Melissa Famulari received an award of recognition for her service providing accommodations to students with disabilities. She was nominated for the award by students who received services through the Office for Students with Disabilities.

In the last issue, I wrote about the attention UC San Diego’s economics research was receiving from Washington policymakers. Our research is getting lots of attention from Washington think tanks as well. Our new assistant professor in macroeconomics, Johannes Wieland, presented a paper at the Brookings Papers on Economic Activity Conference in late March. Assigned to discuss his paper at the conference were Ben Bernanke and Paul Krugman! Bernanke, of course, just completed his service as chair of the Federal Reserve Board, and Krugman is a Nobel Prize-winning economist as well as being a regular columnist for *The New York Times*. The fact that the organizers chose such prominent discussants speaks to the high regard they have for Johannes’ work. As *The Washington Post* wrote on the topic, “no pressure, young guns, no pressure.”

My own work with UC Berkeley sociologist Peter Evans was the subject of a conference hosted by Johns Hopkins University’s School for Advanced International Studies. The conference, held last November, was entitled “Evans-Rauch 15 Years On: Where Are We Now Regarding Measurement of State Capacity?” The organizers wrote that our (nearly) 15-year-old papers were “agenda-setting in (re-)establishing administrative competence as a core conceptual dimension of state capacity and proposing a novel strategy for how to measure the concept.”

Graduate Students on the Move

Efficient use of resources is, of course, at the heart of economics. One way in which the Department of Economics tries to use resources efficiently is by getting our graduate students through our doctoral program and out to jobs quickly. With the pressure increasing from tightening budgets, UC San Diego as a whole has been measuring the efficiency of doctoral programs by their six-year graduation rates. For the cohorts entering in 2002-06, these range from a high of 45 percent for biology and health sciences to a low of 25 percent for social sciences. In contrast, the average six-year graduation rate in economics for

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our cohorts entering in 1998-2008 is 58 percent! The secrets to our success? First, we place nearly all of our students in high-paying jobs, which gives them strong incentives to complete our program. Second, we encourage our students to begin independent research as early as their second year and then reward them for each research milestone passed, thereby avoiding the ABD (all but degree) syndrome.

[Ex]change of [S]pace

In our last issue, we bid farewell to long-serving staff member Michael Bacci. Before he left, Mike had the brilliant idea of swapping our graduate-student computer room with our library-turned-classroom, simultaneously lifting our students from a cavelike den into an airy, sunlit room and establishing a second classroom large enough for our core graduate classes. I urge you to come visit and see the results!

Undergraduate Program

Melissa Famulari recently hosted an undergraduate opportunities info session and spoke to a full house about the special courses and programs the Department of Economics offers our undergrads. In particular, two new opportunities will start this spring: adjunct faculty James Hilger will be teaching **Introduction to Nonmarket Valuation**, a new topic for ECON 198, and Economics Leadership Council member and alumnus Mark Hoffman will teach new course ECON 177L, **Applied Management Laboratory**. The latter course will feature data sets and projects from Phil Rasori, a Department of Economics alum who was **featured in our last issue**.

Outreach and Alumni

Inspired by Prashant Bharadwaj’s Econ 116 class on the economics of developing countries, Department of Economics alumna Kayla Trautwein ’13 went to work for an online marketplace, founded by two of her high school classmates, which connects buyers with brands that support artisans in developing countries. Kayla currently serves as Enrou’s chief financial officer. For more details see **this article**.

We had an excellent turnout at our reception held Jan. 4 at the Allied Social Science Associations (ASSA) meetings in Philadelphia. Many of our current faculty were able to reconnect with our former students, many former students were able to reconnect with one another, and in at least one case, former faculty connected with current students! The dreadful weather made the recollections of UC San Diego even warmer.

Sincerely,

Jim

James Rauch

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FACULTY SPOTLIGHT

Vincent Crawford

Yet Another Yank at Oxford

By Vincent Crawford, Ph.D.

Department of Economics Research Professor Vincent Crawford has recently been awarded the European Research Council's Advanced Grant (their most prestigious research award) for his work on "Behavioural Economics and Strategic Decision Making: Theory, Empirics, and Experiments." With this grant, Crawford will study "questions of central microeconomic importance via interwoven theoretical, empirical, and experimental analyses, from a behavioural perspective combining standard methods with assumptions that better reflect evidence on behaviour and psychological insights." The abstract is available ***here.***

Crawford spent more than 35 years at UC San Diego (and is now a Distinguished Professor Emeritus of our campus). Here, he reflects on his first few years as Drummond Professor of Political Economy at Oxford University.

There are many differences between the life of an academic at a U.S. university founded in 1960 and at a U.K. university whose founding date is lost in the mists of history. This is an interim report on the first few years of my transition from UC San Diego to Oxford University in 2010.

Most obviously, although annual rainfall in Oxford is surprisingly low, close to San Francisco's 24 inches a year, some of it falls in a form rarely seen in San Diego, and even sticks. Some intrepid souls then borrow gowns to make "snow fellows," while others sit home muttering about the unfairness of giving the good weather to southern Europeans who don't even appreciate it. Even the time-series structure of precipitation is hard to fathom: Weather now is useless predicting weather ten minutes from now, and it's folly to go out at any time without your umbrella.

My job description is quite different from a UC San Diego professor's, not least because it was written two hundred years ago. Aside from being one of the dodecagarchs ("statutory professors") who rule the Department of Economics with a firm but benevolent hand, I am asked to lecture 36 hours a year – the same 36 hours that Joe Stiglitz once proposed getting through in his first two days on the job (not really possible, though it can easily be done in two weeks). In fact, no one counts my lecture hours, though I suspect that if I stopped teaching entirely, an alarm would go off somewhere.

No one even tells me *what* to teach. This is a mixed blessing. When I first asked my head of department what I should teach, he refused to tell me. Instead he said, "Take a look at our graduate program and see what you would like to teach, or to add to it. Then talk to the convenors." Once I convinced myself that he really meant it, I created a new graduate sequence on behavioral economics. I sometimes also teach part of core graduate microeconomics or undergraduate game theory. All of this in relief-pitcheresque bursts: The time-series structure of Oxford teaching is close to that of Oxford precipitation (though I make no claim about causality).

The main difference between Oxford and other universities (except Cambridge) is that academic life is shared between the university and a largely independent college. My professorship makes me a Fellow of All Souls College, founded in 1438, added to in 1720 and not much changed externally since then. Our 1438 job description was to pray for the "faithful departed in Oxfordshire" who died in the Hundred Years' War (our co-founder's dad was Henry V). We still pray for them, but our job description was recently revised, in conformity with British charity law, to include our modern hobby: academic research.

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Ramachandra "Ramu" Ramanathan (1936-2013)

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The university would like me to work in my department office, but that would be irrational. The choice is between a modern Norman Foster building, which inverts the dictum “form follows function,” and whose staff become surly if you ask them to sort your mail correctly; and a beautiful 15th-century quad, with a staff that makes you feel like one of the more fortunate denizens of Downton Abbey. My study has a view of the college chapel and St. Mary’s Church tower one way, and of our warden’s garden the other way. It was Sir John Hicks’s study through the fifties and sixties, which should come in handy if I ever wish to repel a real business-cycle theorist. It even has a UC San Diego connection: Don Bear (UC San Diego Department of Economics faculty, 1965-94) told me he nodded off there many times when he was a lad (as a Rhodes Scholar), sitting at Hicks’s knee.

Although All Souls has a distinguished tradition in economics, a major attraction for me has been the opportunity to interact day-to-day with first-rate people in other fields, and even outside academia. If you want to know why Athens lost the Peloponnesian War, how rapidly Latin grammar really declined after the fifth century, or even to have the pudding called (with unintentional humor) an “Eton mess” explained to you by an old Etonian, All Souls is the place. This concentration of expertise has its comic aspects, of which I will close with two examples.

When Zoe and I moved some of our furniture to furnish our Oxford house, the movers told us our shipment would probably go through the Panama Canal, then (“tickety-boo”) across the Atlantic to the Thames Estuary, thence by truck to Oxford. Unfortunately they also gave me the name of the ship, which via Web tracking I soon discovered was going nowhere near Panama, but instead was north of the Aleutians (looking for the Northwest Passage?). “Our” ship then crossed the Pacific, became stuck in a massive ship traffic jam off the coast of Taiwan, and crossed the Indian Ocean heading for Suez. On the day I found it off the coast of Somalia, I went to lunch quite worried. I explained to my companions why, demurring that I didn’t suppose it was easy to hijack a supercontainer ship. But I had, unwittingly, sat down with two naval historians, among the world’s leading experts on piracy, who thought it was quite easy and proceeded to explain why, in dismaying detail. (Even so, our things arrived safely in Oxford a few weeks later.)

Another day, I sat down by accident with a group of the college’s Distinguished Fellows (usually nonacademics who were once pre-Distinguished Fellows). They were having a spirited discussion, inspired by the news of the day, about why the British government did not more often take back knighthoods from knights who had disgraced themselves. After a while, noting that I was not only a commoner and a nonbaronet but an American, and following the college tradition of making conversations accessible to nonspecialists, one of them said, “You must be wondering why we don’t ask about lordships. You see, the government can take back a knighthood anytime it wants to; but it would take a Bill of Attainder to take our lordships away. That would never get through parliament.” For the hundredth time I thought, *Where else could I have learned this so easily?*

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ECON 191: Senior Essay Seminar

By Chanmealea Thou

Of all the classes that I have taken at UC San Diego, I would have to say that the Economics Senior Essay Seminar, ECON 191A and 191B, is the most exciting. First, it provides ample opportunities for creativity and exploration. The seminar allows me to pursue research on almost any economic topic during any time period. Second, it is intellectually stimulating and enriching. The research is extensive, it requires that I thoroughly explore and think about my topic, and I have to utilize the economic intuition I acquired in other economic classes. The seminar is also helping me learn more about how to use STATA and is honing my data-analysis skills.

The Research

My research is on the returns to education in Cambodia. I chose this topic because I grew up in Cambodia, and I would like to expand my interests in developmental economics and, specifically, the economics of education. I am using the Cambodian Socio-Economic Survey from 2008 and am estimating the impact of years of schooling of household members across three different time periods – before Khmer Rouge (before 1975), the decade after Khmer Rouge started (1975-1985) and the period after 1985 – on current household consumption.

In using my regression model, I have two main assumptions: (1) individuals start school at the age of 6, uniformly, and (2) there is no interruption in the years of schooling. The most problematic assumption is the second one. This is due to the fact that during Khmer Rouge, the public school system was almost entirely obliterated and there was a national ban on education. However, due to the limitation of the information within the data set, I am restrained from adjusting these assumptions. I am also comparing the patterns of returns to schooling to patterns of the death toll in each province to see if there is a correlation between the two conditions.

There are three stages to the overall process: the proposal, the research and the write-up. The proposal begins before admission to the class and cannot change after the class begins. Professor Roger Gordon helped me refine my research topic during the first half of the course. The research stage consists of two substages: the data collection and analysis, and the literature review. Data collection was my biggest challenge, mainly because my data set is managed by the Cambodian government. The communication and the funding process consumed a substantial amount of time. As a result, I have limited time for the data analysis and write-up. The write-up is the stage where I combine my literature review, theoretical framework, results and interpretations of my data analysis and offer a conclusion.

The Experience

This research project is academically challenging and time-consuming. As a result, I am enriched not only intellectually but also professionally. I have encountered many difficulties, such as the delay in the data acquisition and the limitation of the data set. At the same time, I think that these roadblocks gave me a realistic picture of research, and I hope that this experience and insight will help me with my next endeavor. Professionally, the seminar has impacted my consideration of future careers. Although my original plan was to go to law school, this project motivates me to seriously consider careers in education and in economics.

In addition, I learned how to interact with faculty members. The project would have not progressed successfully without the generous help of Professor Gordon. I would like to thank him for his patience, continual support and flexibility, and constructive advice.

I hope that my fellow economic students will give ECON 191A and 191B serious consideration. The seminar may be intimidating, and it may require a substantial amount of time and effort, but there will be abundant support and resources available for assistance. More important, in finishing the research, there is a real sense of accomplishment.

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Hating to Lose: Motivation and Loss Aversion in the NBA

By Matt Goldman

Students, parents and employees in every line of work face trade-offs between the exertion of costly effort and the rewards of better performance. Economists and psychologists have long understood that people work harder if they feel they have failed to live up to some *internally meaningful standard.* This is the idea of loss aversion – we place a larger psychological weight on losses than gains – and the standard against which these losses and gains are measured is called a *reference point*. But where do reference points come from? When are they changed? And why? Do they reflect rational, forward-looking expectations about outcomes, overly ambitious anticipation of success, or the carefully managed expectations of someone afraid to fail?

Everyone Hates to Lose

Recent economic research has focused on how people's reference points can be manipulated. Chinese factory workers, public school teachers and experimental lab subjects all have been shown to adjust their reference point upward in response to a reframing of their compensation. By simply being paid beforehand and docked for poor performance (as opposed to rewarded for good), these individuals come to view themselves as avoiding losses (rather than earning gains) and become significantly more productive. In other lab experiments, competing subjects have exhibited a *discouragement effect* – immediately lowering their own reference point in response to the good performance of an opponent. This behavior may have made their likely loss easier to accept, but resulted in less effort and worse competitive performance.

Basketball Players Hate to Lose More

Are everyone's expectations so malleable to the immediate circumstances? What about motivated experts with a significant psychological stake in their performance? In a project with Justin Rao (former UC San Diego graduate student), we study the in-game performance of NBA basketball players with an eye to understanding how shifts in their effort level and reference point are related to the fortunes of their team.

In contrast to the existing literature, we find stark evidence that NBA players act in accordance with loss averse preferences around a *fixed* reference point for the score margin. Specifically, they play with progressively greater intensity and effectiveness as their team falls further behind. Figure A illustrates this effect: It shows how the expected performance of an average offense varies across the score margin and time remaining in the game. Controlling for the quality of all of the players on the court, an NBA team that falls 10 points behind will improve by four points more per 100 possessions going forward. The estimate is robustly demonstrated in all four quarters of the game and in a variety of methods of controlling for player quality. It is even slightly larger when estimation is restricted to data from closely contested games or from especially meaningful playoff games.

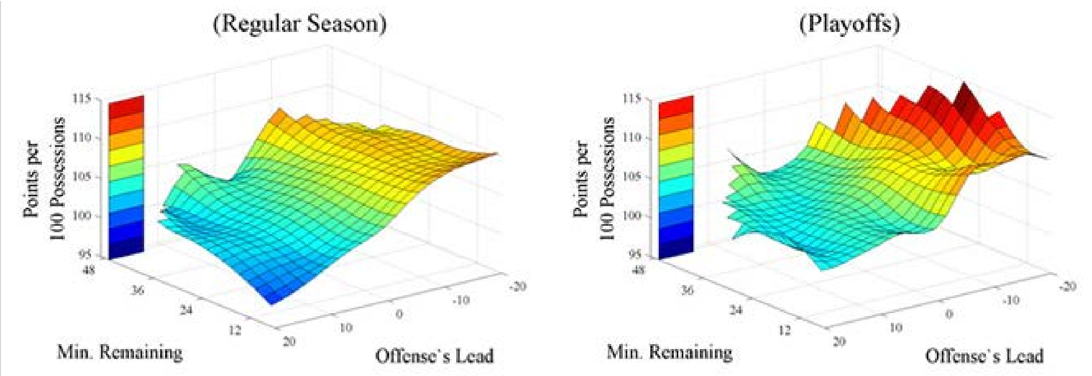

Figure A: The average number of points per 100 possessions for a typical NBA lineup as a function of game state. This is an estimate from a semiparametric model with penalized regressors used to control for the ability of each of the 1,023 unique players in our sample.

As a useful benchmark, in the last five seasons, no NBA team has averaged more than 113 points per 100 possessions, or fewer than 98. The approximate effect then is that an average team would play like a serious playoff contender when 10 points behind and better than the best team in the league when down 20. But when 10 points ahead, performance is like a typical lottery-bound team, and when 20 points ahead, like one of the worst teams of all time.

For an interesting counterfactual, suppose a team was capable of tricking itself into believing that it was always losing (down by *x* instead of up by *x*). We estimate the team would win 5 percent more of its regular season games and 10 percent more of its playoff series. An NBA team seeking a similar improvement by other means would typically have to sign a player costing about $7 million per year. Since most teams are constrained by the “salary cap,” acquiring a player of this quality is typically not possible.

Digging deeper, this result is driven by the losing team’s improved performance in the most effort-intensive aspects of basketball. Losing teams secure more rebounds, take more charges (essentially getting bowled over and drawing a foul from the offending offensive player), and see their star players work to shoulder an even larger burden of the scoring load than usual (see Figure B). We do not, however, observe significant changes in shooting accuracy (conditional on shot location) and actually see slight declines in performance at the free-throw line for the losing team. Taken together, these results indicate that losing teams perform better by trying harder, which tends to help most for the most effort-intensive parts of the game but does not help at all for a task requiring concentration, like shooting free throws.

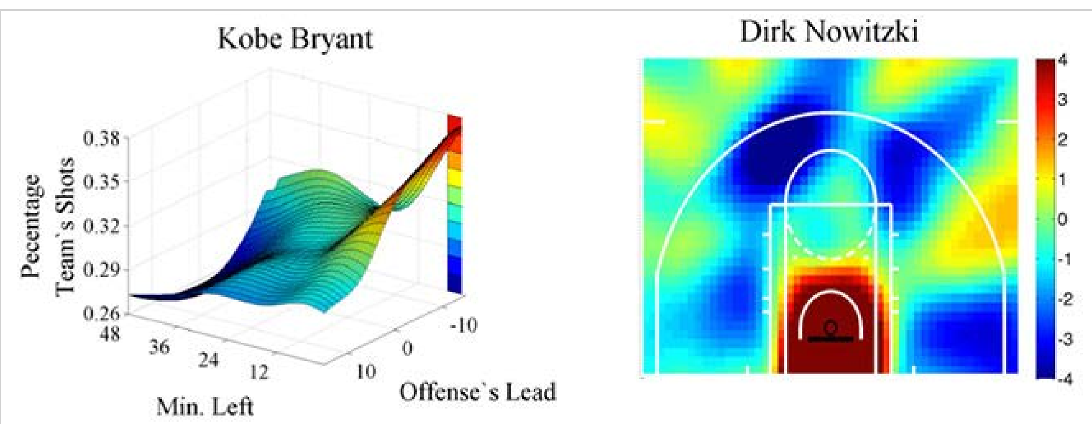

Figure B: The left panel demonstrates that Los Angeles Lakers superstar Kobe Bryant becomes a dramatically more prolific shooter when his team is losing (particularly as the game comes to a close). The right panel shows how Dirk Nowitzki of the Dallas Mavericks changes his shot distribution when his team falls behind. Red regions indicate areas on the court where Nowitzki takes more shots when behind and the color axis indicates the statistical significance of these changes (*t*-value). When behind, Nowitzki is working to create more difficult – but higher-value – shots around the basket.

Discussion

Basketball is a zero-sum game and extra points cannot add to the trailing team’s chances to win without a matching decline in the leading team’s fortunes. Another way of putting this is that the utility function derived from the chances of winning the game is symmetric: Leading and trailing teams should have *the same material incentives* to exert themselves and perform well at any given moment in the game. The fact that losing teams try so much harder only makes sense if they care that their performance has failed to live up to their own reference point.

Unlike laboratory subjects, NBA players do not exhibit a discouragement effect and do not seem willing to update their reference point in response to poor fortune in a contest. Perhaps basketball is fundamentally different because it is a team sport and teammates prefer not to let one another down. Or maybe professional athletes, as highly motivated experts, simply have a more robust reference point for their performance than the college sophomores found in laboratory experiments. I view better understanding this discrepancy as a fertile area for future research.

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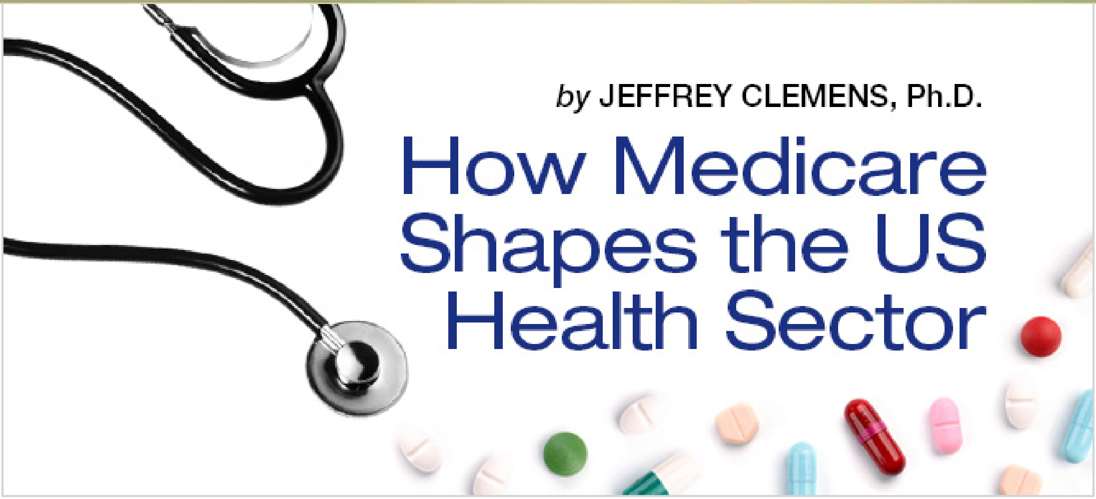

In 2012, the United States spent $2.8 trillion on health care, including $565 billion for outpatient physician services. At the center of the markets for this care lies Medicare, the federal insurer of the elderly and disabled. Medicare finances 23 percent of outpatient services, and spent $128 billion in 2012. In addition to being the single largest buyer of medical care, Medicare enjoys the federal government's backing. Its influence on this industry is thus likely to be pervasive and multilayered. In a **recent working paper**, Josh Gottlieb and I set out to assess both the extent of this influence and the channels through which it works.

Medicare's Influence on Private Payment Systems

Industry participants say that Medicare's physician-payment menu plays a prominent role in private markets: **Medicare's fee schedule is the platform** around which insurers and physicians often negotiate. Many insurers bargain with doctors' practices over a fixed markup relative to Medicare's payment menu. A midsize practice might be offered 110 percent of Medicare's rates, while a larger group with a monopoly in its region might be offered 140 percent.

This characterization implies a strong link between the relative prices of, for example, angioplasty and office visits in the public and private sectors. Once the parties have agreed on a markup relative to Medicare's rates, this relationship becomes mechanical. If Medicare increases payments for primary care relative to more intensive services, private rates would automatically follow suit.

To investigate Medicare's importance, we studied the private sector's response to a large administrative change in Medicare's fee schedule. In 1998, Medicare reduced its payments for surgical procedures by 17 percent relative to its payments for other medical services. Both "surgical" and "other" are broad buckets of services encompassing thousands of distinct billing codes. The dollar value of the resulting payment changes varied significantly across individual services. Using a database of more than 10 million private-sector insurance claims, we found that private prices quite closely tracked Medicare's changes. On average, a $1 decrease in Medicare's payment for a surgical service relative to other services led to a $1.20 change in the relevant private payments. This ratio of 1.2 is quite close to the average ratio between Medicare and private payment rates, suggesting that a mechanical relationship between private rates and the Medicare fee schedule may indeed prevail.

Why Copy Medicare?

Because of well-known inefficiencies built into Medicare's fee schedule, many analysts would find private insurers' choice to copy it a cause for concern. Broadly speaking, Medicare's relative payments are based primarily on estimates of input costs. Congress prohibits Medicare from adjusting its payments to explicitly account for services' value added and/or cost effectiveness. Consequently, one might hope that physicians and insurers would innovate beyond Medicare's menu in ways that increase the value of insurance arrangements. Greater payment system innovation would be a more-than-welcome product of competition among private insurers.

At the same time, bargaining over and implementing payment systems can be complicated and costly.

Medicare and private insurers recognize more than 10,000 distinct billing codes. Code-specific negotiations could carry on interminably. Furthermore, health-care providers are known to devote substantial resources to **billing administration**, as documented by David Cutler and Daniel Ly. Such costs would escalate significantly if each insurer and physician group established unique payment structures.

This explanation for Medicare's influence has testable implications. It suggests that adherence to Medicare's menu will correlate negatively with the size of physician groups. When insurers bargain with small physician groups, for example, haggling over service-specific prices is unlikely to be worthwhile. Fine-tuning the incentives facing a single physician adds relatively little value; the cost of the negotiations and subsequent billing administration will, by comparison, be quite large. When insurers negotiate with large physician groups, on the other hand, more value is at stake. Large groups' billing departments may also be better equipped to manage variation in payment models.

We tested these implications by examining variation in the strength of the public-private price linkage across markets. We found that markets dominated by small physician groups, as measured across both specialties and geographic areas, were markets in which Medicare's price transmission is particularly strong. Conversely, markets with large physician groups exhibit more independence from Medicare's prices. The results thus support the transaction-cost considerations discussed above.

Our results show that, in most markets, Medicare's pricing menu exerts significant influence over private payments for physicians' services. When Medicare pays generously for a low value service, incentives in these markets echo that mistake. The evidence suggests that the development of value-oriented payment systems may suffer from what could be described as a public goods problem. Because private players are small, they may, individually, have insufficient incentives to innovate beyond Medicare's menu. The expense of bargaining and subsequent claims billing may lead private players to look to Medicare as a reference around which they can coordinate. The benefit of getting Medicare's payments right, or at least improving them around the margins, are thus likely to extend well beyond Medicare itself.

How Important Are Payment Systems?

Payment systems are the structures through which we reward health-care providers. Their importance thus depends in large part on the extent to which hospitals, physicians and pharmaceutical companies respond to the incentives these systems provide. A growing body of research, much of it recent, finds that these incentives exert significant influence throughout the health sector.

Several recent studies find that physicians respond to the incentives associated with state Medicaid programs, private-insurance arrangements and Medicare. Craig Garthwaite, for example, finds that pediatricians spent less **time with patients** following expansions in low-paying public coverage (through the State Children's Health Insurance Plan). Looking across private plans, Dominic Coey finds that capitation-based managed care induces more conservative **treatment of heart attacks** than fee-for-service arrangements. In related work, Josh Gottlieb and I find that physicians expand **total service supply** when Medicare's fees rise across the board. The latter finding was particularly true of relatively elective services.

Major investment decisions similarly respond to incentives. Amy Finkelstein, for example, shows that Medicare's insurance expansions spurred **hospital investments in then-new technologies**. Finkelstein and Daron Acemoglu further find that **hospitals' capital investments** responded significantly to the incentives associated with Medicare's Prospective Payment System. Seth Friedman, Haizhen Lin and Kosali Simon emphasize that investments depend on payment generosity as much as on coverage rates per se. Where Medicaid's pregnancy coverage substituted significantly for more generous private coverage, they find reduced **investment in neonatal intensive care units**.

Medical innovation also responds to the spending commitments implied by public policies and other economic forces. In a separate working paper, I find that medical equipment and device patenting underwent a sustained surge following **Medicare's introduction**. Pharmaceutical innovation has been similarly shown to respond to the incentives implied by **patent policy**, **Medicare Part D**, **population demographics** and **vaccine policy**.

The evidence builds an increasingly powerful case that payment systems matter, with Medicare's perhaps the most influential of all. Medicare's incentive structures influence treatment decisions, investments in medical technologies, and the long-run development of these technologies themselves. Private insurers' adoption of Medicare's payment methods magnifies these effects. Reducing inefficiencies in Medicare's payment models should thus sit near the top of lists of health-policy priorities. Insights gained through the **Innovation Center** at the Center for Medicare and Medicaid Services, or through stronger competition among insurers, have the potential to add tremendous value. Improvements in payment models carry the promise of improving the quality of care delivery while reducing strains on household and public budgets.

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Job Placement Strong for Grads

By the Department of Economics

This year we had quite a small class on the job market. Five graduate students accepted assistant professor positions, two accepted postdoctoral fellowships, one took a research position in the federal government and three accepted private sector research positions.

More than half of our students accepted faculty and postdoc positions at universities:

This set includes representatives from the entire array of fields. Macroeconomists Steve Morris and Myungkyu Shim accepted assistant professor positions at Bowdoin College in Maine and Shanghai University of Finance and Economics in Shanghai, respectively. Development economist Ketki Sheth will stay in California as an assistant professor at UC Merced. Behavioral/experimental economists Alex Imas and Michael Kuhn took assistant professor positions at Carnegie-Mellon University and at the University of Oregon, respectively. Alex had a one-year postdoc position at Carnegie-Mellon this year and will move up to a faculty position in the fall.

Our two econometricians accepted postdoc positions at top-ranked universities: Jong-Myun Moon will go to University College, London, and Linchun Chen will go to the University of Michigan in Ann Arbor.

The others will begin exciting careers as researchers in first-rate government and private sector institutions:

Microtheorist Charles Lin will go to Washington, D.C., for a research position at the Securities and Exchange Commission. Macroeconomist Dora Fan Xia will take a research position at the Bank of America/Merrill Lynch. And two of our applied microeconomists, Travis Brayak and Yendrick Zieleniak, will join last year's graduate Kelly Paulson in the economics research group at Amazon.com.

Congratulations to the graduate students and the faculty who supported them in success on the job market this year. And thank you for all the hard work that justifies the department's continuing reputation for producing top-notch economists.

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Flipping Out on Economics

By Natalie Wolfe

The University of California recently launched the Innovative Learning Technology Initiative (ILTI), aimed to increase UC-quality online or hybrid courses by providing funding to help faculty with course development. Only four UC San Diego proposals were accepted for funding by the Office of the President and one of them is from the Department of Economics!

Flipping a Course

Last year, Professor Joel Watson (who initiated the ILTI proposal with Professor Melissa Famulari) experimented with teaching his game theory course (ECON 109) in a hybrid model: He made short videos that covered some of the course material and asked students to watch the videos before class, freeing lecture time to spend on problem-solving and discussion. This technique has been called "flipping" a course because it partially exchanges content that traditionally resides in the classroom with exercises that traditionally are done by students at home. Watson noted that "a flipped course offers students the benefits of online delivery of some content while retaining valuable classroom interaction between the instructor and student. It gives students more ways to learn." Famulari added that "the advantage of the flipped model is that instructors can help teach the students to 'think like an economist' in terms of how they approach solving problems."

Courses that are completely online have some advantages, too. By putting all content online and having all interaction between instructor and student take place over the Internet, students can participate in a course from anywhere in the world. Massachusetts Institute of Technology; Stanford and Harvard Universities; and many other institutions offer massive online open courses (MOOCs), which are taught by faculty and sometimes enroll thousands of students at a time. However, for many reasons, including inability to accurately measure how much a student is learning, most of these courses do not earn students institutional course credit. Watson's flipped course is a great example of a middle-ground method that enhances the learning process within the traditional scholastic infrastructure.

Clicking in an Answer

Another example of a new technology that enhances the learning process is the iClicker, a hand-held remote that allows a student to "click in" an answer to an instructor's multiple-choice question. Answers are recorded and a histogram of responses can be shown to the class. Standard multiple-choice questions used with iClickers can replace the old paper version of a pop quiz, but a good iClicker question does more than that. If posed the right way, an iClicker question will lead to a dispersion of answers, immediately revealing misconceptions. To further engage students, faculty like Famulari ask each question twice. The first time, students answer with their iClicker without speaking to anyone. Once the spread of responses is displayed, students are asked to talk to their classmates about which answer is correct. This results in thoughtful discussion of the material and immediate application of what they were just taught. The question is asked a second time, and the results show that after the discussions, students tend to arrive at the right answer, together.

Innovating to Accommodate Enrollment

Flipping a class and using iClickers are great ways to help engage students, but Professor Valerie Ramey has dealt with another problem: how to accommodate a class of 475 students with another 100 on the waitlist. No single classroom on campus could hold such a high enrollment, but these students needed to take her course. Graduate student Steve Morris and Ramey came up with the idea to try a satellite section, expanding enrollment to all students on the waitlist. Since Ramey could not physically be in the satellite section, the students watched a podcast filmed from her main lecture. A lecturer in the satellite classroom would pause the podcast to run live iClicker questions, facilitate deeper discussions and introduce new concepts. Although there was a lot of trial, error and refinement, Ramey said that the

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students “understood that we were all trying to innovate together and that the quality of their education would be improved as a result.” In the end, it took a team of 11 teaching assistants and some staff at Academic Computing and Media Services (ACMS) to help Ramey create and run the videos, integrate iClicker questions, and make sure that all of this effort was actually working for the students.

Proposing Scalable Positive Outcome

Watson’s and Ramey’s experiences point to a positive outcome for their students. However, the time invested in creating the videos and iClicker questions makes flipping courses a daunting task. Enter Watson and Famulari’s ILTI proposal: It seeks to develop videos and supporting materials for the entire Intermediate Microeconomics course sequence (ECON 100) that can be utilized by all instructors so that they can teach in a flipped format without having to start from scratch with each video or lecture. This is a huge undertaking since Intermediate Microeconomics is a three-course series impacting approximately 3,600 enrollments per year. For this reason, Watson and Famulari are joined by several other faculty members who are contributing to the project, and they are some of the department’s best lecturers: Julie Cullen, Simone Galperti, Mark Machina, and Paul Niehaus. When complete, the video handbook will be made available to all UC schools for microeconomics faculty to use as they like, in the same way that a standard textbook is available for instruction. So far, development is proceeding well, and there are plans to create tracks and cross-references among videos so that students can easily find related content in case they missed a video or need a refresher on some of the material presented earlier. Given the benefits and impact of just this project, the next few years should prove exciting for the UC system and, in particular, the UC San Diego Department of Economics.

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Women in Economics Mentoring Group Successful in Its Second Year

By Shanthi Manian and Erin Troland

Women are increasingly well represented in economics, currently earning about 30 percent of new economics doctorates, compared to fewer than 10 percent in 1974. However, this shift has brought new challenges to the profession. Despite advances in female representation in graduate school, few women continue on to tenured academic positions. According to the Committee on the Status of Women in the Economics Profession (CSWEP), women are less likely to advance on every step of the academic career ladder.

In recognition of these realities, the Department of Economics at UC San Diego has created the Women in Economics mentoring program. The program is a student-led initiative to provide guidance, support and networking to women in our doctoral program. Now in its second year, the program facilitates connections among female graduate students, as well as between graduate students and female faculty.

The Problem: Leaky Pipeline

The status of women in economics has historically been characterized by what can be called a leaky pipeline. After entering an economics doctoral program, the women of each cohort are less likely to complete their degree than their male counterparts (Stock & Siegfried 2014). According to a 2012 survey by CSWEP, women comprised 33 percent of new doctoral students but accounted for only 28 percent of assistant professors, 22 percent of tenured associates and 12 percent of full professors. This long-standing promotion gap is larger in the field of economics than in those of statistics, political science or engineering (Ginther & Kahn 2004).

The Solution: Mentoring and Networking

While there are surely many reasons for the gender gap, mentoring can help overcome it in two ways. First, women who have succeeded in forging an academic career can act as role models. They can provide specific advice on issues such as managing a two-career family, balancing work with family needs, and navigating diverse parental-leave policies. Second, the program allows women to expand their professional networks, opening new opportunities for feedback and co-authorship.

Participants in our program have the opportunity to connect in two settings: a large annual event and small groups that meet quarterly. The annual event fosters networking by allowing graduate students and faculty to get to know one another beyond assigned groups. It creates a space for relationships to form organically. Afterward, the small groups bring women from different cohorts together with an assigned faculty mentor. The groups ensure participation of a wider group of women than would be possible with a single event and provide opportunities for sharing experiences.

The Results: Positive Trend

Preliminary evidence on mentoring is promising, both anecdotally in UC San Diego's program and in more rigorous studies. A small randomized trial of the CSWEP mentoring program for female assistant professors found significant and large impacts on grants and total publications. The program increased the likelihood of a publication in a top journal by 25 percentage points. For graduate students, studies using faculty-to-student ratios and shares of female faculty as a proxy for mentoring have found lower attrition and time-to-completion among women. (Stock & Siegfried 2014; Neumark & Gardecki 1998).

This research dovetails with the experience of the women in the mentor program at UC San Diego. The program's high participation rate suggests that there is a demand for mentoring: About half of the graduate students and female faculty of the Department of Economics attended an off-campus welcome event in November 2013, and all female graduate students in the department are participating in the small

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groups. Early feedback from participants has been positive. Students enjoy the chance to meet women in the program outside their own research fields. Those who are farther along in the program have found the process of advising later cohorts very rewarding.

In addition to providing support to encourage the advancement of women up the ladder of academic positions, the availability of mentoring may increase greater gender balance in future cohorts. Although the number of women earning a doctorate in economics has nearly tripled over the last 40 years, women represent a declining share in incoming cohorts of economics doctoral students since 2008, according to CSWEP. This new trend is reflected in the Department of Economics at UC San Diego, where 1 in 3 current graduate students is a woman, and recent cohorts have seen numbers as low as 1 in 5. We hope that the female mentoring program will help reverse this trend by signaling to future applicants that UC San Diego's Department of Economics is actively making efforts to offer a supportive environment for women in economics.

References

Ginther, D.K. & Kahn, S., 2004. Women in Economics: Moving Up or Falling Off the Academic Career Ladder? *Journal of Economic Perspectives*, 18(3), pp. 193-214.

Neumark, D. & Gardecki, R., 1998. Women Helping Women? Role Model and Mentoring Effects on Female Ph.D. Students in Economics. *The Journal of Human Resources*, 33(1), p. 220.

Stock, W.A. & Siegfried, J.J., 2014. 15 Years of Research on Graduate Education in Economics: What Have We Learned?

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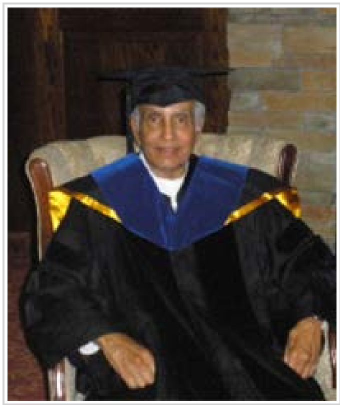
Ramachandra “Ramu” Ramanathan (1936-2013)

Renowned Professor of Economics

By the Department of Economics



Dr. Ramachandra “Ramu” Ramanathan, UC San Diego economics professor, passed away on Nov. 21, 2013, at the age of 77. Dr. Ramanathan was born in 1936 in Madras, India. He earned his Bachelor of Arts in mathematics from the University of Madras (St. Joseph’s College), and a master’s degree in statistics from the Indian Statistical Institute. Dr. Ramanathan obtained his doctorate in economics from the University of Minnesota in 1967. He combined his love of mathematics, statistics and economics by applying these disciplines in the fields of econometrics, energy economics, economic growth and international trade. He authored many research papers, journal articles and a university textbook series on econometrics. Besides his love of research and teaching, Dr. Ramanathan was passionate in co-founding and being president of Quantitative Economic Research Incorporated (QUERI), a consulting firm. He also enjoyed serving on the Energy Finance Advisory Committee for the San Diego Association of Governments.

For those of us in the Department of Economics at UC San Diego, there are two things that stand out about Dr. Ramanathan. He was one of the founding faculty members of the department, and he helped establish and maintain a legacy of congeniality. Dr. Ramanathan’s kindness is fondly remembered by colleagues who worked with him during his more than 30 years in the department. He joined the department in 1967 and in his first academic review on Jan. 2, 1968, chair John Hooper wrote what everyone who knew Dr. Ramanathan would have agreed with: “I have never noticed anything in his personality which might antagonize any reasonable person.” More recently, current chair Jim Rauch wrote, “In addition to his contributions to research and teaching, Ramu will be remembered for his exceptionally gentle and kind personality.” Former chair Julian Betts echoed those sentiments: “He was kind and gentle, thoughtful and always had a smile on his face. That part of the department culture that he helped to create persists to this day!” Although Dr. Ramanathan retired in 1999, he continued to teach for the department for a number of years afterward.

Dr. Ramanathan was a generous and patient man who was committed to the success of his students, the university and his consulting practice. He was also a devoted husband and family man. An avid camper, Dr. Ramanathan took his family on many trips to visit national parks and monuments. He firmly believed that we should all follow our deepest passions and excel in our chosen field. He has been an inspiration to us all and will be sorely missed.

Dr. Ramanathan is survived by his wife, Vimala; sons, Sridhar and Pradeep; and daughter, Sadhana, as well as eight grandchildren.

The family requests that you share your stories, thoughts and memories of Dr. Ramanathan on the remembrance **page** created in his honor. Also, they request that interested friends and colleagues consider donations in his memory to KPBS, a public broadcasting company he enjoyed, by clicking on this **link**.

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