

UNIVERSITY OF CALIFORNIA, BERKELEY

The Econ Exchange

NEWS AND NOTES FROM THE DEPARTMENT OF ECONOMICS

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Gerard Debreu dies at 83:

First of four Berkeley economists to win Nobel Prize over 18-year span

By Noel Gallagher,
Public Affairs
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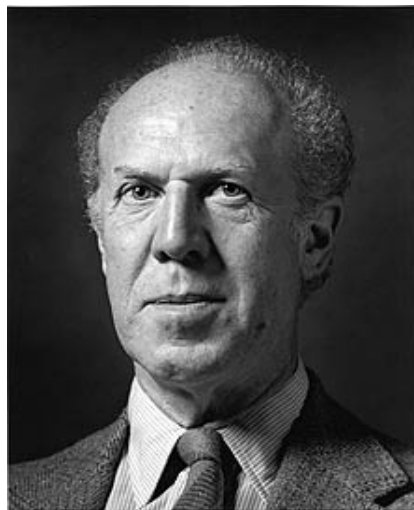
Nobel Prize winner Gerard Debreu, emeritus professor of economics and mathematics, died Dec. 31 in Paris of natural causes. He was 83.

Debreu won the Nobel Memorial Prize in Economic Sciences in 1983 for applying mathematical rigor to the fundamental theory of supply and demand in economics. The law of supply and demand dates back to the 18th century, but Debreu's mathematical models provided proof of how prices affect the supplies of goods bought and sold. Through the work of Debreu and others, the conditions of the "invisible hand" in the marketplace were clarified.

A native of Calais, France, Debreu also was an officer of the French Legion of Honor and a commander of the French National Order of Merit.

Fellow Nobel laureate and Stanford University economics professor Kenneth Arrow said he and Debreu found themselves independently researching similar economic ideas in the early 1950s, which eventually led to a joint paper in 1954 on the existence of

equilibrium in an economy. Arrow warmly remembered how they collaborated on the paper. "It was a wonderful experience; he was just so brilliant to work with," Arrow said. "One of us would say a single word, and the other would



just understand immediately. I learned quite a bit from him."

Debreu was born on July 4, 1921. He broke off his studies in mathematics as a young man to enlist in the French Army after D-Day, serving briefly in the French occupational forces in Germany until July 1945. He resumed his studies after the war, shifting his focus to economics, a subject in which he became interested after

reading a book that described the mathematical theory of general economic equilibrium, established by Leon Walras in the 1870s.

"During that period, I was an Attaché de Recherches [research associate] of the Centre National de la Recherche Scientifique, which showed an impressive tolerance for the absence of tangible results associated with the change from one field to another distant field," Debreu dryly noted in an autobiography he prepared for the Nobel Foundation.

Prior to his almost-30-year tenure at Berkeley, Debreu worked from 1950 to 1960 at the University of Chicago and Yale University for the Cowles Commission for Research in Economics, and at Stanford's Center for Advanced Study in the Behavioral Sciences from 1960 to 1961.

Debreu joined the Berkeley faculty in 1962, at a time when the economics department was pointedly building up its staff and would soon be recognized as the pre-eminent economics department in the academic world. Debreu's Nobel was the first in a string of four Nobel Prizes in economics won by Berkeley faculty. John Harsanyi won in 1994, Daniel McFadden in 2000, and George Akerlof in 2001.

Writing this note to you is one of my final acts as Chair of the Department of Economics. I stepped down on June 30th, after three very busy and exciting years as Chair. Ben Hermalin, Professor of Economics and Willis H. Booth Professor of Banking and Finance at the Haas School of Business, succeeded me as Chair on July 1st.

On May 19th we celebrated the Department's 102nd Commencement in an outdoor ceremony at the Greek Theater, and for the first time in our institutional memory, it rained! But it didn't dampen the enthusiasm. It was an uplifting event that was much appreciated by everyone. Bill Dudley, the Chief Economist at Goldman Sachs and a 1980 Ph.D. from our Department, gave the Commencement Address. Bill's dissertation research was in microeconomics, but he evolved into one of the most influential macroeconomists in the business community. It is a great career story. Bill joked that his transformation into a macroeconomist was an effort to prove himself to George Akerlof, who had given him his only "B" in graduate school—in macroeconomics no less! In all, 400 undergraduates and 14 Ph.D. candidates were awarded their degrees this year.

Looking back, one of my first acts as Chair was to preside over the Department's Centennial Celebration in November, 2002. It was an honor to do so, and it gave me a great opportunity to meet a substantial number of alumni and friends under such exhilarating circumstances, as we marked the Department's hundredth anniversary with testaments to the Department's many past successes, intellectual excellence, and future potential. The gathering was a vivid demonstration of the many people in the economics profession who made their start or advanced their careers at Berkeley. The day included amusing memories as well as emotionally moving moments and led to the creation of the Economics Centennial Fund,

which has garnered over \$500,000 — from alumni, department faculty, parents of recent graduates, and friends.

During my term as Chair, the Department rededicated itself to reaching out to alumni and friends through symposia such as "California's Fiscal Crisis" and "Prescriptions for Social Security Reform", which addressed urgent matters in our lives and involved some of the leading thinkers on these issues. I would like to thank Professor Alan Auerbach, who organized both of these symposia, for his great community spirit and enthusiasm. In the last three years, we also opened *The Econ Exchange* to more input from alumni, which gives me great satisfaction, and I hope to see even more alumni-generated items in future issues.

Since I never miss an opportunity to laud the Department's many successes, let me give you a brief overview of where we stand as I exit from the Chairmanship. We added ten new professors to our faculty in the past four years, and will welcome one more—econometrician Bryan Graham from Harvard University—this summer. A number of our junior hires have been selected for the *Review of Economic Studies* tour, which sends the cream of a given year's Ph.D.s on a lecture tour of European universities to represent the best new research in the field. This is a great, great honor and I am proud of our success in attracting the very best junior faculty to Cal.

Last semester the Department underwent a formal review conducted by a team of distinguished economists from other universities with support from the Berkeley administration and the Academic Senate. The last department review of this extent occurred in 1988. The review concluded that our Department has been extraordinarily successful over the past fifteen years and praised our efforts to create a productive and congenial environment for research and teaching, despite having too few faculty to meet instructional demand and inadequate resources to support our graduate students. The review remarked favorably on the level of professionalism in our

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Former PUC Chair (and Economics alum) Donald Vial Dies

From Chair Richard Gilbert: *I am saddened to report that Don Vial passed away recently. Don was a Berkeley graduate ('49, '52) and a long-time friend of the Department. He served the State as member and President of the California Public Utilities Commission and as Chairman of the Board of Directors of the California Foundation on the Environment and the Economy. The Peevey/Vial Chair is a source of support for the Center for Labor Economics. Clair Brown and Michael Reich presented a recognition award to Don Vial at our Centennial Celebration [in 2002], and spoke eloquently of his dedication to the University.*



Alumni Updates

Muge Adalet (Ph.D., '04) recently received the European Association for Banking History's 2005 "Young Scholar Prize" for best dissertation in the field for "Capital Flows and Financial Crises: A Historical Perspective".

Chian Choo (B.A., '02), now a bank associate in Singapore, has won the 2003-04 essay competition, organized by the Monetary Authority of Singapore and the Economic Society of Singapore, on the theme "How Can Singapore Remain Competitive in a Globalising World Economy?" He particularly enjoyed applying both theory and empirical research learnt and carried out at UC Berkeley, in a context relevant to Singapore.

Miguel Fuentes (Ph.D., '04) has returned to his home in Chile to take up his position as Assistant Professor of Economics at the Pontifical Catholic University of Chile.

Kenneth N. Kuttner (B.A., '82) was recently appointed to the Danforth-Lewis Chair in Economics at Oberlin College. Prior to joining Oberlin, Ken worked at the Federal Reserve Banks of New York and Chicago, and held visiting teaching positions at Columbia Business School, New York University, and the University of Wisconsin at Madison. He received his Ph.D. from Harvard in 1989.

Eric X. Li (B.A., '90) is Managing Partner of Chengwei Ventures in Shanghai, China. He will welcome your visits. Contact: ELi@chengwei.com sent wirelessly via Blackberry from T-Mobile.

Anna Wong (B.A., '04) presented her economics senior thesis (written under Professor Barry Eichengreen) in the 85th Annual Southwestern Economics Association Conference (New Orleans) and won 3rd place in their student paper contest (1st place for undergraduate papers).

Alumni Exchange

Thank You to Our Friends

The Department of Economics gratefully acknowledges the alumni, friends, and organizations who have made pledges and donations to the Economics Annual Fund, Centennial Fund, Grace Katagiri Fund, and other initiatives, from December 2004 through May 2005:

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Harold & Dawn Perlis
Marion Ross '56
Elizabeth Savoca '78
Hal '73 & Carol Varian
James & Robin '75 Walther

**From Marcus Berliant
(Ph.D., 1980)**

Professor Debreu was a complex and generous man; his death is a great personal loss for me. He became my role model—long before I ever met him—when I was exposed to his work in my days as an undergraduate at Cornell. I had intended to major in physics or chemistry, but his ideas changed my goals completely. From then on I hoped to work with him. It was my great fortune to have him as my mentor, friend, and thesis supervisor.

The graduate students at Berkeley liked to call him “Uncle Gerard,” but never had the courage to address him as such. He was the coach of the football team of the economics department and on those occasions we called him “coach”; he seemed to like that very much.

When I was writing drafts of my dissertation, as he approved each chapter, Professor Debreu gave me a piece of paper that simply said, “Imprimatur Chapter X G.D.” After I collected all of them, my dissertation was complete. I treasure these slips of paper.

Professor Debreu was always available to his students, providing advice during our graduate years and beyond throughout our careers. He was always subtle, but we listened closely to his precious advice. It is truly a privilege to have known him. I often speak of him in class or to my graduate students at the University of Rochester (1982-1994) and currently at Washington University in St Louis. He will remain an inspiration. Professor Debreu left a bedrock foundation for economics and set a standard to which we can only aspire.

**From Professor
Oliver Williamson**

I always marveled at Gerard’s quiet, kind and inclusive ways—an example being his insistence on referring to me as an “economic theorist”, my protests to the contrary notwithstanding. Plainly, Gerard (also John Harsanyi) defined theorist very broadly. In the end I got used to it.

**From Hal Varian
(Ph.D., 1983)**

...I must say a word about Debreu as a teacher. I was fortunate to attend his lectures on mathematical economics at Berkeley during the Fall of 1970. Without a doubt they were among the highlights of my graduate career. Each lecture was carefully prepared and delivered; and each lecture was characterized by the elegance of presentation that I have referred to several times in this essay. Indeed it was Debreu’s role as a teacher and as an exponent of the interest and importance of mathematical economics that must remain one of his most satisfying accomplishments. For through these activities, as well as through his written work, Debreu has played a major role in the development of modern economic theory.

[Source: Hal Varian, *The Scandinavian Journal of Economics*, Vol. 86, 1984 pp. 13-14]

From Xavier Vives (Ph.D., 1983)

When at Berkeley I chose the field of mathematical economics led by Gerard Debreu. His lectures were a pleasure of elegance and clarity. Gerard Debreu was economical and concise in his communications but I felt warmly supported all along the dissertation process. I still remember the first time I presented him some results I had obtained on demand theory. The first thing he said is that “this is not obvious”. I panicked for a moment until I understood that he meant that the results were not trivial.

**From Beth Allen
(Ph.D., 1978)**

Early during my first year of graduate school, Professor Debreu—as I called him then—asked me how I liked Berkeley so far and I responded that I missed the change of season and especially the lack of snow. It was just a brief and casual hallway or coffee room conversation. Several months later, when it did actually snow an inch or so in Berkeley, he came to find me in my windowless office inside 608 Evans and insisted that I follow him to his office to see the snow. I was amazed that he had remembered my earlier remark and very impressed by his kindness and thoughtfulness to fetch me when it snowed.

Remembering

From Wanjin Kim (Ph.D., 1988)

When I came across with The Theory of Value as a graduate student at Seoul National University in 1977, I was instantly fascinated by the beauty and simplicity of the book. Since then, I became an ardent admirer of Professor Debreu. And I was overjoyed to be admitted to Berkeley because I could study under his guidance. I still remember the first impression of him in the welcome meeting for the new students in 1981. His gentle and warm smile will remain in my memory forever just as the fascination of his book has thrilled me over my entire career as an economist.



Photo Credit: Curt Grimm. TOP ROW: Chuck Mason (Ph.D. '83), Don Andrews (Ph.D. '82), Frank Rimlinger, Bob Jacobsen (B.A. '77, Ph.D. '81), Coach Gerard Debreu, Brian Newton, James Peoples (Ph.D. '84), Steve Popper (Ph.D. '85), Mike Luger (MCP '77, Ph.D. '81), Bob Powell (Ph.D. '85). BOTTOM ROW: Curt Grimm (Ph.D. '83), Stu Gabriel (Ph.D. '81), Phil Young (Ph.D. '84), Spence Krane (Ph.D. '85), Ken Myers (Ph.D. '84), (front) Barry Ickes (Ph.D. '84), (behind) John Henly, Larry Jones (Ph.D. '81).

From Martha Olney (M.A., 1980, Ph.D., 1985) in conjunction with several participants in the first Little Big Game in 1979: Curt Grimm (Ph.D., 1983), Spencer Krane (Ph.D., 1985), and Robert Powell (Ph.D., 1985).

The very first Little Big Game was held at Stanford in 1979, under threatening skies that opened with a torrential downpour in the second half. Both Gerard Debreu and Ken Arrow were present as coaches. Berkeley led at halftime 6-0. During the half, Arrow came over to the Berkeley side of the field to greet Professor Debreu. Arrow and Debreu shook hands, chatted briefly, and then, as the game was about to begin again, Arrows said as he departed, "May the best team win." Professor Debreu, with a twinkle in his eye, replied quite formally, "It appears they already are." Cal took two late safeties and hung on for a 6-4 win in the very first Little Big Game.

And from the post-game party: First, Gerard gave a gracious victory speech and said something like "I hope that, over the years, the sequences measuring the frequencies that the core resides in Berkeley and resides in Stanford both converge to $\frac{1}{2}$ —but I also hope that they don't converge too quickly." Second, the post-game party was held at a pizzeria in Stanford. Always the gourmand, Gerard noted: "The pizza is better at Kip's." But always the gentleman, this fact was just quietly relayed to a couple of Berkeley folks seated nearby.

Gerard Debreu

From Jean-Michel Grandmont (Ph.D., 1971)

I remember vividly my time in Berkeley as Gerard Debreu's Ph.D. student in 1968-70. Coming from France, attracted by his worldwide reputation, I soon discovered with great astonishment that I was to be among the FIRST THREE Ph.D. students ever registered with Gerard: apparently, the towering scientific stature of the man may have made a few prospective students apprehensive? The three of us (Truman Bewley, Richard Cornwall and myself) shared a large office in the Department, then in Barrows Hall, during 1969-70.

Gerard gave us friendly scientific support by visiting us often there. But you had to win his approval by meeting his high standards! I remember giving him regularly hand written notes on what I had done, that were noticeably piling up on a shelf in his office, and being in great despair as I wasn't getting more than a neutral "keep going, it is interesting..." in return. Gerard had warned me early on that I would be "on my own", as I had elected a field, the integration of money in general temporary equilibrium and the microeconomic foundations of macroeconomics, which "he had not thought about", but still... Until I gave him in April 1970 a short piece on a technical issue that I had discovered during my research work. I still see him coming to our office two days later and throwing a great smile: "Jean-Michel, I READ your paper!" That was the most explicit evaluation of that piece I got from him, but I took it to mean something...

Gerard was always a wonderful person, ready to go out of his way to support a friend or a student in case of need. Beyond his great scientific achievements, he will live in our hearts for a long time.

From Jean-Pascal Bénassy (Ph.D., 1973)

Everybody knows Gérard Debreu the scientist. But because he was such a discreet person fewer people know some more personal aspects of his character. So here is a little anecdote that will tell about that.

We were both in a conference, and just before entering the room for my talk, he told me he was hoping we could get together, but because he had already so busy plans this might simply not be feasible.

It turned out to be one of these unlucky days and, to make a long story short, I had a really tough session. Just as we exited, Gérard came to me and asked with an innocent look on his face: "So, Jean-Pascal, have you decided which day you want us to have lunch?" I tried to tell him that he should be the one to tell me whether and when he might be available, but he said nothing, and we ended up having lunch at a time of my choosing.

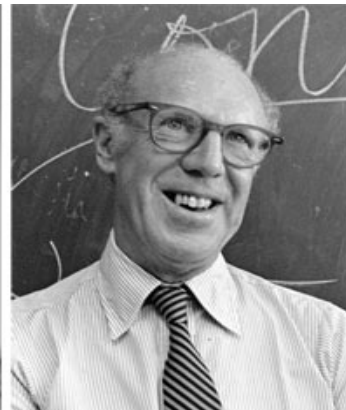
This was Gérard. He would never show off, but was always present to give you moral support when it was needed. And to all his students such "hidden" qualities are remembered as dearly as the scientific ones everybody knows.

Econ Echoes...

*a column of recollections of
Economics at Cal*

"Econ Echoes" (a title coined by alum Dr. Richard E. Jay, PhD '53) is a new column in The Econ Exchange. Alumni (of any vintage), friends, faculty, and students are invited to write original essays which recall special occasions or people in the Department of Economics—Commencement, a favorite faculty member or course or fellow student, or an event—for publication under their own byline in the semi-annual Econ Exchange.

Please send your entries no later than October 1 (for Fall issue) or April 1 (for Spring issue) to the Editor, The Econ Exchange, Department of Economics, 549 Evans Hall, #3880, University of California, Berkeley, CA 94720-388 or email alumni@econ.berkeley.edu. Essays should not exceed 500 words and selection is at the discretion of the Editor. Please remember to include your name, degree, and degree year with your submission, if you are an alum.



complete markets, and symmetric information, Gerard played a pivotal role on all four questions. The Arrow-Debreu theorem on existence of equilibrium and a similar paper

Gerard Debreu

By
Robert Anderson,
Professor of Economics and
Mathematics

Gerard was a perfectionist. Every paper he ever wrote was polished to perfection. The assumptions were clearly stated and very general, the proofs were unfailingly elegant, and not a single word could be added or subtracted without weakening the presentation. He refused to comment on the reasonableness of assumptions, believing that his job was to make the assumptions clear, and it was the reader's job to assess them. In a profession that rewards brash scholars who overstate the importance of their results, he rose to the very top by making no claims for his work beyond the unvarnished statements of his theorems.

He wrote far fewer papers than most famous economists. Each was a gem, not just of exposition, but also of content. His work defines what is important in general equilibrium theory. General equilibrium theory studies four main questions: the existence of Walrasian equilibrium, the welfare properties of equilibrium, determinacy of equilibrium, and the justification of the Walrasian assumption that agents act as price-takers. In Arrow-Debreu economies, that is economies with a finite number of goods, finite number of agents,

by Lionel Mackenzie were the first reasonably general existence theorems for Walrasian equilibrium. Although the concept of the First Welfare Theorem goes back to Adam Smith, Gerard and Kenneth Arrow, in separate papers, provided the first modern formulations and rigorous proofs, under reasonably general assumptions, of both the First and Second Welfare Theorems. Determinacy of equilibrium—the fact that, for a generic set of economies, there are only finitely many equilibria and they move smoothly in response to changes in underlying economic parameters—was first established by Gerard; it is the critical theoretical underpinning of comparative statics results, which are so important in applied analysis. There are many approaches to justifying the assumption that agents act as price-takers, but the core is the one that has been the most studied. The core of an economy was introduced by Edgeworth in 1881, who gave a geometric argument for core convergence, but the paper by Gerard and Herb Scarf in 1964 generalized Edgeworth's claim and provided the first rigorous proof; it led to a very active literature through the early 1980's.

General Equilibrium Theory has expanded far beyond the Arrow-Debreu context. In each new context, research has focused on

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Faculty News & Notes

The recent Supreme Court decision to strike down individual state's discriminatory laws which prevented direct intra-state shipments of wine between producers and consumers was informed by an *Amici Curiae* written by a group of leading economists, including Cal's **George Akerlof**, **John Leticche**, and **Daniel McFadden**. The group found that "the principles of open state borders and non-discrimination, as they have been explicated in this Court's decisions under the Commerce Clause, are consistent with the economic profession's well-accepted views on the benefits of free trade and competitive markets. Those views support the invalidation of the discriminatory state regulations at issue in these cases."

Professors **Ron Lee** (Demography and Economics) and **Bob Powell** (Political Science, Economics Ph.D., '85) are two of Cal's five new Fellows of the American Academy of Arts and Sciences.

Joe Farrell, **Hal Varian**, and **Carl Shapiro** are the authors of *The Economics of Information Technology*, a new book published by Cambridge University Press in December, 2004.

George Akerlof has received a three-year National Science Foundation grant to study "Identity and the Economics of Organizational Behavior". This project will integrate economic theory and practice with findings in sociology and psychology by considering the implications of the concept of identity for economics. Using the Xlab, it will yield a better understanding of the relation between economics and human motivation, especially within groups and organization, and could increase our understanding of gender discrimination, minority poverty, academic achievement in schools, the division of labor in households, corporate governance, and the role of compensation as an incentive. [Source: *IBER Bulletin*, Dec. 2004]

In December and January, **Pranab Bardhan** gave two sets of lectures in India, one the K.C. Basu Memorial Lecture at the National University of Juridical Sciences on "Law and Economics in Development", and the other, the Kalinga Lectures at the N.K.C. Center for Development Studies on "The Global and the Local in the Lives of the Poor". During March, April and May, he lectured at the East-West Center of the University of Hawaii, Yale University, and the University of Siena, where he presented three talks. His book, *Scarcity, Conflicts, and Cooperation* was published by MIT Press in January.

Ken Chay reports that three papers have been accepted for publication: (with Michael Greenstone) "Does Air Quality Matter? Evidence from the Housing Market", *Journal of Political Economy*, April 2005; (with Patrick McEwan and Miguel Urquiola) "The Central Role of Noise in Evaluating Interventions that Use Test Scores to Rank Schools", *American Economic Review*, forthcoming; and (with Douglas Almond and David Lee) "The Costs of Low Birth Weight", *Quarterly Journal of Economics*, forthcoming. Four of Chay's co-authors have ties to Cal: Lee is an Economics faculty member, Greenstone a former postdoctoral fellow, and Urquiola and Almond are former Ph.D. students. Chay was further honored as Best Teacher by the Graduate Economics Association for 2004-05.

Raj Chetty has been awarded a three-year National Science Foundation grant to study behavioral responses to taxation. The aim of the project is to improve our understanding of how individuals and firms change their behavior in response to taxes, which is an important step in evaluating optimal policies. Specifically, the project will focus on examining the effects of dividend taxation on corporate behavior and the link between the salience (or visibility) of a tax and the extent to which agents respond to it.

The National Science Foundation has recently awarded **Stefano DellaVigna** a three-year grant for his project "Attention, Demographics, and the Stock Market". He explores the question "Do some really big changes go unnoticed by the market" by attempting to determine if a forecastable variable—demographic changes—may be partially neglected, both by individual investors and companies. DellaVigna hopes to improve understanding of the economic consequences of demographic changes as well as the empirical support for the efficient market. [Source: *IBER Bulletin*, Dec. 2004]

Faculty News & Notes

Aaron Edlin (a founder of the Press) reports that the Berkeley Electronic Press (bepress) has created three new prizes in Nobel Laureate Kenneth J. Arrow's name (in addition to the existing Junior and Senior Faculty Prizes): the Kenneth J. Arrow Prizes in Theoretical Economics, Macroeconomics, and Economic Analysis and Policy. Three each of these new prizes will be awarded annually, for a total of nine prizes. For more information, please visit www.bepress.com.

Barry Eichengreen delivered the annual Thornton Lecture at the Cass School of Business, City University, London, on "The Dollar and the New Bretton Woods System". In April, he was in the UK again to present the Tawney Lecture at the Annual Meetings of the Economics History Society in Leicester on the subject "Sterling's Past, Dollar's Future? Historical Perspectives on Reserve Currency Competition".

A paper by **Bronwyn Hall** and coauthors Adam Jaffe and Manuel Trajtenberg entitled "Market Value and Patent Citations" was published in the *RAND Journal of Economics* this Spring. Although Hall's two terms as a member of the Science, Technology, and Economic Policy Board of the National Academies came to an end this June, she recently joined the Research Advisory Board of the Deutsche Bundesbank, Frankfurt, and will be traveling even further afield for board meetings.

In February, **Ted Miguel** was awarded a two-year Alfred P. Sloan Fellowship to support his research in development economics. He also received a Harry F. Guggenheim research grant for new work on "War and Economic Development in Vietnam and Sierra Leone". This grant will fund applied microeconomic empirical work estimating the impact of war damage on a variety of postwar institutional and economic development outcomes in the two countries. And in addition to being named Best Advisor of 2004-05 by the Graduate Economics Association, he was also honored with the Distinguished Teaching Award from the Division of Social Sciences at Berkeley.

The Carroll Round conference on international economics brings undergraduates from top economics programs to present their original research. **Maury Obstfeld** presented the keynote lecture at the 4th annual conference on April 23rd. The three earlier keynoters were: R. Glenn Hubbard, John Williamson, and Nobel Laureate John Forbes Nash, Jr. (of "A Beautiful Mind" fame). In addition, Obstfeld gave another keynote address in May at the Bank of Japan's annual research conference in Tokyo.

Martha Olney, 2003 recipient of the campus-wide Distinguished Teaching Award, was invited to speak in the Frontiers of Education program as part of Chancellor Birgeneau's inauguration activities. The program focused on the newest approaches to teaching across the nation. Her presentation was entitled "Why Come to Class? The Future of the Large-Enrollment Class in the Age of Webcasting". Despite increasing access to web-based learning tools, Olney has found that students will continue to come to class only if the faculty make class "indispensable" by developing in-class activities, involving students, and teaching without lecturing.

In October, 2004 **Oliver Williamson** received an honorary degree from Valencia University in Spain and presented the Richard T. Ely Lecture on "The Economics of Governance" at the Annual Meetings of the American Economic Association in Philadelphia in January. In April he was named the 2004 Distinguished Fellow of the International Industrial Organization Society at the Society's conference in Atlanta, and in May he delivered the Eli F. Heckscher Lecture on "Business History and Economic Organization: The Lens of Contract/Governance Perspective" in Stockholm, Sweden.

On April 8th, **Glenn Woroch** gave the keynote address on "Facility Sharing and Infrastructure Investment" at the Workshop on ICT Market Policy, organized by the Ministry of Internal Affairs & Communications, Tokyo, Japan.

**Annual Graduate
Student Skit Party
held April 17th**

From Joshua Tasoff: *Grad students and faculty alike were brought to tears [of joy?] at this year's annual Skit Party. The first years, as always, delivered hilarious impersonations of the core-curriculum instructors. The second years presented a multimedia PowerPoint presentation about the kidnapping of a vector. The third and fourth years came on strong, mocking the orals and dissertation-writing processes. The much-anticipated faculty skit revolved around the concept that hiring terrible junior faculty can be used as an identification strategy to test the effects of department matching. You had to be there.*

The following Economics graduate students were recipients of **2004-05 IBER Mini-Grants** to support new research projects: **Avraham Ebenstein** ("The Effect of Late Marriage on Women and the Family: Evidence from Taiwan's Dragon Year Baby Boom"); **Miguel Fuentes** ("Microeconomic Evidence on Exchange-rate Pass-through of Imported Goods in an Emerging Economy"); **Kory Kroft** ("Peer Effects in Professional Golf"); Ting Lu ("An Empirical Study on China's Enterprise Privatization—Effects and Determinants"); **Kristy Piccinini** ("The 1/n Effect in Public Good Provision"); and, **Gerardo Zuniga-Villasenor** ("Measuring the Efficiency of Banks: An Application to the Mexican Banking System"). [Source: *IBER Bulletin*, Spring 2005]

First year graduate student **Marina Halac** reports that her article (with Sergio L. Schmukler) entitled "Distributional Effects of Crises: The Financial Channel" was published in the Fall 2004 issue of *Economia – Journal of the Latin American and Caribbean Economic Association*.

David Reinstein's article (with Christopher Snyder) "The Influence of Expert Reviews on Consumer Demand for Experience Goods: A Case Study of Movie Critics" was

published in the March 2005 issue of the *Journal of Industrial Economics*.

From Michael Jones: *The UC Berkeley Chapter of **Omicron Delta Epsilon (ODE) Economics Honors Society** was reinstated in August 2004 with the help of Undergraduate Assistant **Sandy Jaeger** and May 2004 graduate **Michael H. Jones**. Although ODE is the world's largest undergraduate economics honors society, it had been dormant on the Berkeley campus for years. Jones served as President of the Berkeley chapter for the 2004-05 academic year and on the Executive Board with four other recent Economics graduates: **Shi Ying Lim, Shruti Malani, Jennifer Wright** and **Katherine Zhou**. Since its reinstatement, the Berkeley Chapter of ODE attracted over 50 exceptional economics students as members and initiated numerous educational economics-related activities, including a private conference with the President and CEO of the Federal Reserve Bank of San Francisco, Dr. Janet Yellen. Continuing students have already been recruited to serve on next year's board, ensuring that the chapter will remain active. The outgoing board members would like to thank Sandy Jaeger and Professors **Roger Craine** and **George Akerlof** for all of their support during the reinstatement process.*

The **Shapiro Fellowship in Economics** for 2004-05 was held by first-year Ph.D. student **John Bellows** of Ft. Collins, Colorado. Bellows' primary interest is in applied microeconomics, with a focus on health and development, and he looks forward to working with faculty such as **Ted Miguel** and **David Card**, whose research maps well with his interests.

The Shapiro Fellowships are funded by **Sherman and Ellen Shapiro** to strengthen the Department's ability to attract superior students to its graduate program. The Department heartily thanks the Shapiros, who have renewed their generous support for another fellowship for 2005-06!

[Source: *IBER Bulletin*, Spring 2005]

Debreu remained an active researcher and teacher after his retirement in 1991. He was also an economic adviser to several governments and toured extensively in Europe to lecture on economic theory.

"He really was the most important contributor to the development of formal math models within economics," said Professor Robert Anderson, who holds a joint appointment in economics and mathematics at Berkeley. "He brought to economics a mathematical rigor that had not been seen before." That rigor made lasting changes to the field of economics, making it a more formal and precise science, Anderson said. Debreu is remembered by friends as unfailingly polite and gracious, with a love of hiking in the Bay Area and of good food and accommodations when traveling. He also took an interest in politics, deciding to become an American citizen after the Watergate hearings were over and he saw how the country had dealt with the constitutional crisis, friends said.

"After the impeachment, he said: 'This is a great country. I will become a citizen,'" Arrow recalled. Debreu became a U.S. citizen in July 1975.

Arrow said Debreu also showed great courage when he went to Chile around 1980 on a human-rights fact-finding mission on behalf of the National Academy of Sciences to report on how scientists were being treated.

It was a more playful Debreu who was seen on campus in 1979, before he won the Nobel, when he enthusiastically volunteered to coach the first-ever "Little Big Game" between economics graduate students from Berkeley and Stanford — despite knowing nothing about American football. Debreu coached the Berkeley team while Arrow coached the Stanford team. The intradepartmental touch-football game became an annual event, with the winner awarded a bronzed-apple-core trophy in honor of Arrow's and Debreu's Nobel Prize-winning theoretical work on

the equilibrium (or "core") of an economy.

"Everything he did was with elegance," Anderson said. "In his lectures he would always make a beautiful presentation, which clearly identified all of the assumptions and explained the proof in detail — and then ended precisely when it was supposed to."

Debreu is survived by his former wife, Francoise Debreu; two daughters, Chantal De Soto and Florence Tetrault; five grandchildren, and four great-grandchildren. A service at the Columbarium of the Pere Lachaise Cemetery in Paris was held on Friday, Jan. 7.

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Department and the collegiality that was communicated by faculty, students and staff. There was a general sense that Berkeley is on the right track to building and maintaining the premier public institution for teaching and research in economics. Others appear to agree, as reflected by the recent ranking of Cal's Economics Department as the third best in the world by *US News and World Report*.

It takes a lot of work by a lot of people to make a great economics department and I want to take this opportunity to thank the many faculty and staff whose efforts have contributed to our success. Our faculty worked together to recruit and retain the best and brightest professors and to present our students with an outstanding teaching program. Our dedicated administrative staff labored hard, often behind the scenes, to attend to the many operational details that are necessary to run a top economics program. My thanks go out to all of you!

This was also a year touched by sadness over the loss of two close friends of our Department, Gerard Debreu and Grace Katigiri. In different ways, Gerard and Grace symbolize the best of Berkeley. Gerard Debreu won the Nobel Prize in Economic Sciences in 1983 for his pioneering work in

mathematical economics and general equilibrium theory. Gerard joined the Berkeley faculty in 1962. His book, *The Theory of Value*, published in 1959, developed the theory of supply and demand on a grand scale and did for the entire economy what Adam Smith did for microeconomic theory in his *Wealth of Nations*. Grace Katigiri was our Department's information technology manager and the manager of the Econometrics Laboratory and the new Experimental Social Science Laboratory. Dan McFadden, with whom Grace Katigiri worked throughout her professional life, described her contributions to his work and to the Department of Economics in the last issue of *The Econ Exchange*. The Department created the Grace Katigiri Fund to support graduate students and initiatives in behavioral and applied microeconomics. Gerard and Grace left their mark on our Department in different ways: Gerard as a towering intellect and Grace as a superb administrator and computer analyst. As friends and colleagues, we will miss both of them dearly.

Before I end, I would like to say a few words about my successor, Ben Hermalin, who will be at the Department's helm for the next few years. Ben received his Ph.D. in 1988 from MIT. He specializes in industrial organization, with interests in corporate finance, governance and contracts. In addition to his award-winning teaching, Ben is an avid and capable administrator who has served as both Interim Dean and Associate Dean for Academic Affairs & Chair of the Faculty of the Haas School of Business. He brings enthusiasm and vigor to the Department, as well as a keen interest in building still stronger relations with our alumni and friends, as the Department presses ahead in its second century.

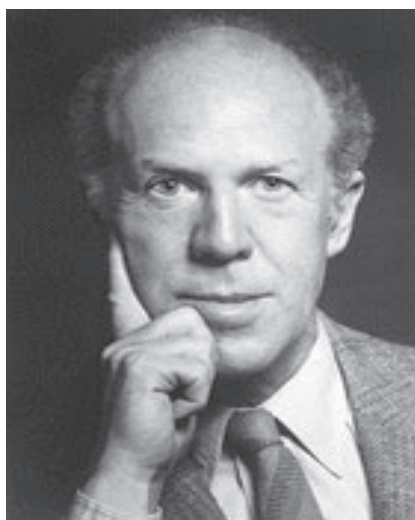
I now embark on a much-needed sabbatical year during which I will rededicate myself to my various research projects. I'd like to wish all of you the very best and thank you for your support of, and enthusiasm for, the Department of Economics. And Go Bears!!

the same four questions, that is, in following the agenda set out by Gerard. When markets are incomplete, existence results were not proven until the 1980's, and the welfare theorems and determinacy do not extend. Infinite-dimensional commodity spaces provide the natural models for commodity differentiation, interest-rate determination, and choice under uncertainty (particularly Finance). Gerard flagged the importance of infinite-dimensional spaces, and established welfare theorems, in the 1950's. The existence question was not resolved until the mid-1980's, with major contributions by Truman Bewley (Gerard's student) and Andreu Mas-Colell, Gerard's colleague in the 1970's here at Berkeley. It is worth noting, however, that the equilibrium existence problem in continuous-time finance markets, where agents can only trade a pre-specified set of securities, remains a very difficult open question. Determinacy was resolved in the late 1990's, with a major contribution by Chris Shannon, whom I am very fortunate to have as a colleague here at Berkeley. Core convergence results were obtained by Bill Zame and myself in the mid-1990s, but many open questions remain. This coming October, Berkeley will be hosting an international conference on General Equilibrium Theory, in memory of Gerard.

Gerard supervised sixteen dissertations while at Berkeley. Many of his students have risen to great academic prominence. He also profoundly influenced many who were not his students, most notably Werner Hildenbrand and Andreu Mas-Colell. Throughout the 1970's a steady stream of the leading economic theorists came

through Berkeley to learn from him.

All of us who were fortunate to overlap with Gerard at Berkeley remember him fondly. We remember his unfailing courtesy and grace. We remember his formality, leavened with a dry and slightly mischievous sense of humor. He loved books and the cinema. Although he was friendly and had interesting things to say on just about any subject, he was also rather shy, and extremely



protective of his personal thoughts and feelings. In the decade I overlapped with him at Berkeley, I recall only one time when he asked a question in a seminar. But if you talked with him privately the day following a seminar, he would have the most insightful and penetrating comments. When he once asked a question during a seminar by Andreu Mas-Colell, before I arrived at Berkeley, I am told Andreu responded by saying "But Gerard, if you are asking the question, *you* must be the one to answer it."

In addition to setting the agenda for General Equilibrium Theory, Gerard had a profound influence on the way *all* economic research is carried

out. B.G. (before Gerard), few economics papers had clearly specified models, and virtually none showed that their models were internally consistent by exhibiting equilibria. If you look at articles in major research journals today, virtually all clearly specify a model. Theoretical papers analyze the properties of these models, and along the way almost always establish existence of equilibrium, using the techniques developed by Gerard and those who followed him. Empirical papers virtually always set out a model, which they then proceed to test, using econometric techniques, on a data set. Experimental papers virtually always set out a model, which is then tested in a laboratory setting with human participants. So while mathematical economics is a small subfield within economics, Gerard's insistence on mathematical clarity and rigor has had a profound effect on virtually all economic research.

When I first came to Berkeley in 1983, general equilibrium theory was taught in the theory course required of all first-year Ph.D. students, but few of the proofs were presented. To get the proofs, students had to take the field sequence in mathematical economics, a pair of classes that Gerard and I taught, to a rather small audience. Today, virtually all leading economics programs include in the first-year theory class a full half-semester of general equilibrium theory, proofs and all. They cover four issues: existence of equilibrium, the welfare theorems, determinacy of equilibrium, and core convergence. That is to say, they cover the work of Gerard Debreu.

UNIVERSITY OF CALIFORNIA, BERKELEY

The Econ Exchange

NEWS AND NOTES FROM THE DEPARTMENT OF ECONOMICS

The Econ Exchange is published semiannually for alumni and friends of the Department of Economics, University of California, Berkeley.

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THE ECON EXCHANGE

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New assistant professor on board:

Bryan S. Graham



Bryan Graham, who recently earned his Ph.D. in Economics at Harvard University, will join the Department of Economics in 2005-06. Originally from Portland, Maine, he is the recipient of both the Fulbright Scholarship (to study at Australian National University) and the Rhodes Scholarship (St. Antony's College, Oxford University). Graham's primary research fields include econometrics, development economics, and labor economics, and he also teaches the history of economic thought. His dissertation, "Essays on the Econometrics of Social Interactions" focuses on methodological issues that arise when attempting to test for the presence, and measure the magnitude, of social interactions. Graham will be teaching Econ141: Econometric Analysis during the Fall 2005 semester. Welcome to Berkeley!

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