Economics

Department Alumni Newsletter

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Bob Stonebraker, editor

Paul Samuelson to be Honored

For the third year running, IUP will show its academic acuity by awarding an honorary doctorate to an economist. In 1991 we awarded one to Paul Volcker, the former Chairman of the Federal Reserve Board credited with pulling the plug on inflation in the early 1980's. Last year we honored Clifton Wharton, economist and former Chancellor of the SUNY System.

This year we've hit the mother lode. We've got Paul Samuelson, Nobel Laureate and one of the most influential economists of the century. His 1941 doctoral dissertation, later published as *Foundations of Economic Analysis* "was finally able to lay down the mathematical foundations of orthodox economic theory." His subsequent contributions have spanned the discipline and graduate students still ponder his classic articles on welfare economics, international trade, public finance, and monetary and fiscal policy, as well as micro and macro theory.

Samuelson has also helped revolutionize the way economics is taught. His *Principles of Economics* redefined how economics is presented at the undergraduate level. Now in its 15th edition, *Principles* is among the most successful textbooks ever written. In addition, his popular *New York Times* and *Newsweek* columns made economics more intelligible to millions of readers.

Samuelson will participate in our departmental commencement and, to accommodate him, we have rescheduled it for 9 a.m. on May 15th. Those of you in the area are welcome to join our festivities and greet him. Our ceremony will be held by the Vietnam Memorial between Keith and Leonard Halls. In case of rain *(does it ever rain at graduation?)* we'll move to Johnson Hall.

In the meantime, we are plowing happily along. Although our enrollments remain strong, an applications shift toward more education and fewer business majors has relieved some of the excess pressure we've labored under in recent years. We hope to use our new-found freedom to experiment with some creative curricula. Any ideas?

In fact, we'd like to pick your brains on a variety of issues. We have embarked on a re-evaluation of our entire department and curriculum. Do we offer an appropriate mix of courses and programs? If not, what courses and/or programs should be changed? Added? Deleted? Do we successfully prepare our graduates for employment and/or graduate programs? What do we do well? What could we do better? How? Are our advising and student services adequate? How might they be improved? Are IUP's library and physical facilities adequate to support our program? What needs to be changed? *We need your help!* Write, call, visit. If you have access to Internet, send us electronic mail (I'm bobstone@grove.iup.edu)! Tell us what you think.

Bob Stonebraker, editor

Rationality Revisited

How many economists does it take to screw in a lightbulb? *None. If it were a good idea, someone would already have done it.*

Almost all economic theory springs from a single premise -- that people make rational decisions, logically balancing the costs and benefits of every action. We portray economic man (woman?) as a maximizing agent carefully rearranging consumption and production patterns until all possible "gains from trade" are exhausted (surely you remember those Edgeworth Box contract curves from microtheory). Ignoring an unexploited gain would be irrational. In a world populated by rational utility maximizers, all lightbulbs have already been attended to.

Our depiction of rational economic man is a powerful tool. It allows us to harness deductive logic and mathematics to derive behavioral predictions under an enormous range of circumstances. It has spawned the development of an impressive array of quantitative and statistical techniques to construct and test and ref~ne hypotheses. It allows us to explain, in a systematic way, what makes an economy tick. In short, it has created a scientific rigor largely absent from our sister social science disciplines.

While rational behavior is the linchpin of most economic analysis, it can be carried too far. Despite its power and success as a predictive tool, exceptions abound; exceptions economists are just beginning to come to grips with. While perfectly rational people exist in fiction, *real* people fall prey to a wide assortment of irrational actions. Star Trek's Spock is slavishly devoted to cold, hard logic and Lt. Commander Data is never swayed by emotion, but real-world counterparts are hard find.

Last week, with my wife out of town, I bought a "family-sized" bag of crunchy cheese doodles. That evening, during a commercial break in *Jeopardy!*, I wandered into the kitchen and pulled out the doodles. And ate them. *All* of them. Soon after, just as the Atlanta Hawks were making a run at the Seattle Supersonics, my digestive system discovered the enormity of my sin -- and made me pay. In the midst of my discomfort I vowed *NEVER AGAIN!* That's exactly what I said the *last* time I pigged out on crunchy doodles and, no doubt, is exactly what I'll say the next time. In other words, I *knew* it would happen. As soon as I pulled those luscious orange morsels from the grocery store shelf, I *knew* I would overeat and I *knew* I would make myself sick. But, I bought them anyway. I have vowed to never do it again. But, I will.

Jim Dyal's office is in chaos. The debris has spilled off his shelves and desk onto floor. Two-year old post-it notes dot the side of his desk and a 1987 planning calendar adorns the wall. With mounds of boxes, books and papers effectively blocking any entry, he works and holds "office hours" in the department lounge. Last summer, during a rare foray into the mess, he discovered his long-lost hairbrush buried under avalanche of papers on his desk. Beside it were the remains of a large Hershey bar (no almonds), almost completely consumed by the office mouse. Only a small corner of the bar and wrapping remained. We suspect the mouse is still there, happily living out his years amidst the clutter.

In the midst of disarray, he vowed *NEVER AGAIN!* That's exactly what he said the last time this happened and, no doubt, is exactly what he'll say the next time. His *"I'm going to clean my office"* cry has echoed around the department for years -- without measurable results. He's no more likely to clean his office than I am to resist crunchy doodles.

And we are not alone. Those of you with broken resolutions to cut back on smoking or ice cream or alcohol should sympathize with my craving for crunchy doodles. And procrastination is by no means

peculiar to Jim Dyal. What about the faucet that still leaks (you promised to fix ~it weeks ago), the photos that need to be arranged in the album, the tax return sitting on your desk?

It's not that we *want* to overeat or *want* the office a mess; we don't. We fully expect to be better off if we no longer overeat or if we clean the office or fix the faucet or arrange the photos. We fully *intend* to stop, clean, fix, arrange, or whatever. We just never get around to doing it -- and the potential gains are lost.

Why? Can this pathological behavior be reconciled with our textbook picture of rational economic man? According to Berkeley's George Akerlof, the answer is yes. Borrowing the psychological concept of "salience", he contends that such behavior can be explained easily, and even predicted.

In a nutshell, people systematically overestimate the importance of vivid or "salient" events relative to less vivid or "pallid" information. For example, even if *Consumer Reports* lists Mazda as the most reliable car on the market, we are unlikely to buy one if a neighbor bends our ear every week about the enormous repair bills her own Mazda runs up. Our neighbor's experience does not alter Mazda's excellent overall record, but its salience will influence our decision. Similarly, the HIV-infection of a single family member or friend will have far more impact on our perception of AIDS than all of the "pallid" data the U.S. Surgeon General can muster. The recent death of Arthur Ashe has no more statistical relevance than the death of an unknown AIDS victim, but its salience will have a disproportionate impact on public opinion and policy.

The same concepts can explain procrastination. The events and emotions of the day are immediate and pressing; those of the future are vague and less vivid. The costs of dieting or cleaning today are painfully salient; the costs of starting later are pallid.

If a clean office is worth $1 per day, and the time and aggravation of cleaning has a cost of $100, rational economic man would clean. The continuing $1 benefits per day will easily outweigh the one-shot $100 cost over the long run. But, suppose we systematically overestimate the cost of cleaning *today*; suppose the salience of immediate pressures makes us assess the current cost at $102 compared to the normal $100 on some future day. That mere 2% difference is all it takes. If we think we can save $2 by waiting a day, and we value a clean office at only $1 per day, it will always seem rational to wait. We will procrastinate forever!

While this notion may seem new and controversial, it is apparently as common and well-accepted among cognitive psychologists as is the law of diminishing returns to economists Salience drives a wedge between current and future values. Rational economic man is supposed to foresee the impact of current decisions on his/her future well-being. But, the salience of short-run pressures can make us systematically act contrary to our own long-run best interests.

Salience can explain more than dirty offices, postponed diets, and leaky faucets. It can explain more critical economic failures as well -- our preoccupation with short-run profits at the possible expense of long-run growth; our passion for consumption at the expense of saving.

According to conventional economic theory, workers voluntarily save whatever they deem necessary for future retirement income. Saving anything less would be irrational! Throwing such workers into mandatory pension programs should have no impact on total savings. They should offset every dollar of forced pension saving by cutting a dollar from voluntary savings. But, they don't. Studies indicate that mandatory pension plans *do* increase total savings. This result is consistent with most modern consumption theory, but is easily explained by salience.

Although economists are just beginning to use the insights of cognitive psychology for predicting consumer behavior, the prospects are exciting. For example, do the Japanese save more than Americans because they are less susceptible to the sins of salience? If so, why? Can we alter the impacts of salience? How? *What fun!*

Parisian Kudos for Don Walker

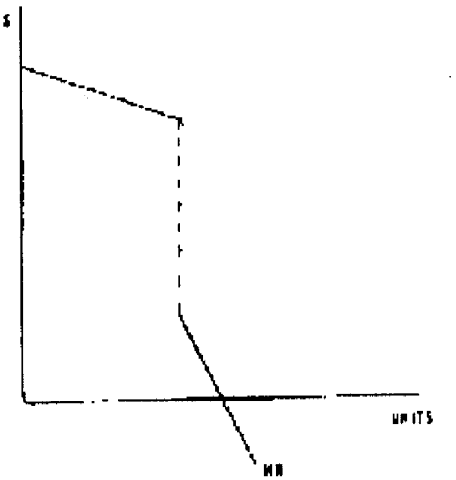
Last January, while the rest of us slogged through the Indiana snow to instruct students in the joys of marginal cost curves, cur illustrious chairperson Don Walker flew to Paris. He was the guest of honor of the *Centre Auguste et Leon Walras* which was celebrating the publication of a 14-volume set of the complete works of Leon Walras (1834-1910).

An audience of some 350 persons, including the cream of the French economics establishment, gathered to hear Dr. Walker and former Prime Minister (and economist) Raymond Barre pay homage to the greatest economist in French history. As one of the world's foremost authorities on Walrasian theory, Walker delivered a speech *(in French!)*, on the importance Walras' work in the contemporary world. He argued Walras' general equilibrium analysis, his "imperishable contribution to economic thought, " is still relevant today and is an integral tool in current analyses of European integration and the reconstruction of former Soviet-Bloc economies.

At the end of his well-received talk, he presented the Center with a bas-relief medallion of Walras that had been presented to the master at the University of Lausanne for fifty years of effort. The medallion had been bequeathed to Don by former Walrasian scholar William Jaffe who, in turn, had received it from Walras' daughter. Although hesitant about parting with his treasure, Don remarked that the officials were extremely grateful to receive it -- "there wasn't a dry eye in the house."

Porno-graphy Puzzler

Willard "Graphman" Radell



Not only was there no winner in last semester's pornograph puzzler, there wasn't even one guess. It seems that I've finally stumped everyone. It's an interesting one, so I'll give you one more chance by repeating it for this semester.

Variations of the following pornograph have appeared in Schiller's principles of economics text, an intermediate price theory text and in the New Palgrave. The graph appears straightforward, but suffers from a fatal structural flaw. It purports to be a mapping of marginal revenue for an oligopolistic firm with a kinked demand function.

If you have suggestions for graph puzzlers, send them on to me. Send your diagnoses and/or puzzlers to Dr. "Graphman" Radell, Department of Economics, IUP, Indiana, PA 15705.

Grade Analysis Redux: *Chressanthis'* Revenge

In December 1974, freshman George Chressanthis made a bonehead mistake on the final exam in Principles of Economics I. Confusing an increase in demand with an increase in quantity , he blew a true-false question-- and his A for the course. Now an Associate Professor of Economics at Mississippi State University, George has turned the tables. Using the very concepts threw in his face almost twenty years ago, he has ripped one of my articles in the last newsletter to shreds. With a simple applicationof demand and supply, he has turned my analysis of grade distributions upside down. *Mea Culpa, mea culpa, mea culpa.*

In the last newsletter, I wrote that interdepartmental grade patterns across colleges and universities are quite similar. Economics, math, and chemistry consistently award lower-than-average grades while art, English, political science, and psychology bestow higher-than-average grades. But, I couldn't explain why. Economics is not *inherently* more difficult than psychology. What we expect students to learn is largely a matter of professional choice. If we chose to cover less material in less depth or construct simpler exams, grades in economics would rise.

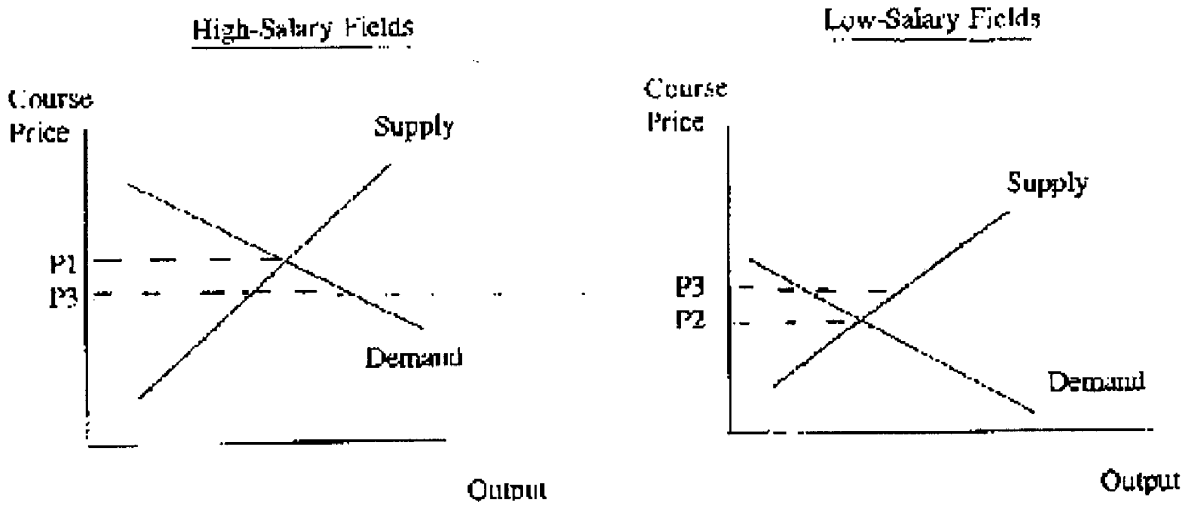
Whatever the cause, I argued, differential grades distort enrollments and spawn inefficiencies. In their quest for A's and B's, students might be tempted to pursue majors in high-grade departments even if their comparative advantages lay elsewhere. If so, we will have too few economics majors and too many psychology majors. The solution? Drive down grades in the high-grade departments. If getting an A in psychology is just as difficult as getting one in economics, students with comparative skills in economics won't be lured away by easy grades.

Or so I thought. But, using simple demand and supply analysis, George Chressanthis has convinced me that differential grades are the *result* of inefficiency and not the cause! *I was wrong.* His analysis follows.

Uniform Pricing

George notes that colleges and universities set very unimaginative prices. All students pay a uniform price for all courses. State schools often raise prices for out-of-state students and some colleges impose higher tuition for upper-level as opposed to lower-level courses (can you guess why?). Yet, with few exceptions, a three-hour course in economics or math is priced the same as a three-hour course in English or psychology.

These uniform prices might make sense if demands were also uniform. But, they're not. Students prefer courses that lead to high-paying jobs. Where starting salaries are high, the demands for courses are also high (and vice versa). In free markets, higher demands would drive up prices. But, markets for college courses are *not* free. Departments are not free to raise and lower course prices at will. Check out the graphs!



Because of strong demand, the equilibrium course prices in high-salary fields (P1) exceed those in low-salary fields (P2). If colleges and universities impose uniform prices (like P3 across-the-board, they force prices below equilibrium levels in the high-salary fields and equilibrium levels in low-salary fields. They create excess demands in high-salary fields excess supplies in low-salary fields.

Non-Price Rationing

When prices can't rise to ration out excess demand, non-price rationing devices emerge For example, when local governments enact rent controls, apartment owners often cut maintenance to reduce costs. Unable to increase rents, landlords cut quality instead to ration out the excess customers. However, college professors can't do that. If they cut course quality to ration out excess students, they jeopardize their chances for tenure and promotion.

But, professors do have another option -- *low grades!* By raising standards and lowering grades, professors in high-salary fields can wipe out the excess student demand. Similarly, if professors in low-demand disciplines cut standards and raise grades, they can increase demand and fill otherwise empty seats. If the hypothesis is correct, professors in fields leading to high-paying jobs should award low grades and vice versa.

That is *precisely* what we find. The table below lists average job offers from the July 1992 Salary Survey published by The College Placement Council, Inc. The low-grade departments identified in the last newsletter are the same ones with the highest starting salaries and vice versa. Unable to raise or lower explicit monetary prices, departments use grades to adjust implicit prices instead. High-salary departments apparently use low grades to drive students out while low-salary departments use high grades to raise demand and lure students in. Colleges and universities scrapped uniform fees and let prices equate quantities supplied and demanded, grade differentials might disappear. Hmmm. Food for thought.

Field	Salary	% of Students Majoring in Area, In-State	% of Students Majoring in Area, Out-of-State
Low-Grade Departments:			
Economics (includes Finance/Banking)	$26,539	0.3	0.5
Math/Statistics (excludes teaching)	$29,063	0.4	0.4

Chemistry	$27,893	0.6	1.1
High-Grade Departments:			
Art (excludes teaching)	$19,454	1.3	0.6
English/Journalism	$19,146	1.1	0.8
Philosophy/Religion	$23,280	0.1	0.1
Political Science	$23,099	1.7	0.2
Psychology	$20,360	2.6	2.0

Addendum

Although George has won the war, one final skirmish remains. Because out-of-state students are charged higher prices, George argues "we should observe greater price rationing behavior" by them and that they should "on average, have higher enrollments in departments ...with lower grade averages." This seems to be true at Mississippi State where, as the above table illustrates, out-of-state students concentrate in low-grade departments. But, I disagree. Since out-of-state students are charged more for courses in *both* high-salary and low-salary fields, the higher price should have no effect on their *relative* enrollment patterns; their demands for both types of courses should be reduced equally. The higher tuition should impact *relative* enrollments only if the demand for courses in high-salary fields is less elastic than that for low-salary fields What do you think?

Draw Your Own Conclusions!

Just how bad is our reputation as economists? A recent clipping from *The Chronicle of Higher Education* quotes a freshman at Colby College upon returning from her economics exam. "I met my goal," she said. "I didn't cry when I saw the test.

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Economic Growth: What Can We Do?

Fiscal stimulus made sense two years ago. With unemployment rising and income falling, Keynesian job creation might have helped. But, paralyzed by deficits and political wrangling, the President and Congress sat on their collective cuffs as the recession rolled on.

Now, with the long-awaited recovery underway, Washington faces a golden opportunity With pressure to pump up the economy fading, Congress might finally screw up enough courage to shift its focus from short-run recession to long-run growth. And not a moment too soon Macroeconomists are increasingly insistent that our fundamental problem is long-run growth; short-run, cyclical stabilization.

Media hype aside, growth rates in the 1980's were well below post-World War II norms. In fact, real economic growth in the 1980's was even a bit below that of the much-maligned 1970's. And the U.S. was not alone. As the data in the table below indicate, the entire developed world has suffered a slow-down in economic growth beginning around 1973.

Country	Annual Growth in Real Per Capita Income; 1947-1972	Annual Growth in Real Per Capita Income; 1973-1990
United States	2.2%	1.6%

Japan	8.2	3.9
West Germany	5.7	2.2
France	4.3	1.8
Canada	2.9	2.4
United Kingdom	2.4	1.7
Italy	4.9	2.3

The question of the decade is "why?". What caused this mysterious worldwide slide? Will it continue? Are there monetary and/or fiscal policies that might reverse it? There is no shortage of questions; only of answers. And the stakes are huge. While our recent recession reduced per capita consumption by about 2.3 %; the post-World War II growth slowdown has slashed it by almost 30 %. Short-run stabilization issues are still important, but modern macro theorists have aimed their big guns squarely into the teeth of economic growth.

Possible Explanations

Alas, their efforts have not yet borne fruit; the quarry is still at large. We know that growth rates are driven by productivity changes, but why did productivity growth fall? Some suggest the slowdown was inevitable; that post-World War II rates were not sustainable. While this makes sense for war-torn economies -- like Japan and Europe -- that had to rebuild, it less sense for the U.S. Others suggest the slowdown is a statistical mirage. U.S. firms have plowed billions of dollars into safety and environmental improvements over the last twenty years. But these improvements are not reflected in Gross National Product. Because we do not include the value of a cleaner environment and safer workplace, official data underestimate the "true amount of economic growth. Although is undoubtedly some bias, most economists doubt this bias can account for much of the observed slowdown.

President Reagan blamed taxes. He alleged that high marginal income tax rates had destroyed incentives. Why work hard and invest, he argued, if high income tax rates confiscate prospective gains? Economists were skeptical; earlier changes in income tax rates prompted no measurable impact on effort or productivity. But, who listens to economists? Congress slashed marginal rates anyway -- in 1981 and again in 1986. The top income tax rate fell from 70% 1981 to 28% in 1987 -- with no measurable impact on effort or productivity.

Early explanations by economists fingered energy shocks, inflation and an inexperienced labor force as possible culprits. Debilitating oil price increases in 1973 and 1979, coupled double-digit inflation supposedly spread financial chaos and destroyed capital investment plans Investment woes aggravated by a labor force flooded with inexperienced baby boomers left awash with worn-out capital operated by wet-behind-the-ears workers, and low productivity.

But, the 1980's blew these theories out of the water. World oil prices, above $30 barrel in 1981, plunged to $15 by 1984. U.S. inflation rates tumbled right in step and have stayed low for a decade. As inflation cooled, baby boomers came of age. The green, boomers of 1973: have matured into seasoned forty-year-old veterans. If rising oil prices, inflation and inexperienced workers thrust us into the growth slowdown of the 70's; falling oil prices, low inflation, and the seasoned labor force of the 80's should have led us out. They didn't.

What Now ?

The mainstream policy prescription is more investment and more saving -- investment spur productivity, and saving to provide the funds needed for that investment. President Clinton's planned deficit reductions do turn us in that direction. Recent federal borrowing has sucked monies out of the financial markets, to the detriment of private firms seeking funds. Democrats and Republicans will argue the relative merits of spending cuts and tax increases, but either approach will reduce deficits and free up dollars for private investment activity.

Is it enough? Harvard's Bradford DeLong and Larry Summers contend that deficit reduction *per se* will have little effect on growth. They agree that deficit reduction will spur investment, but argue that increasing the *quality* of investment matters more than increasing the *amount*. Only investments with unusually high social rates of return will have a substantial impact on growth. We know that commercial real estate investments won't turn the tide; we're already knee deep in empty office buildings. The challenge is to find investments that will!

New infrastructure, originally targeted for an $80 billion boost by Clinton, is a possibility. Relative spending on bridges, roads and other infrastructure declined after the boom in interstate highway construction during the -1960's. But, what was new in 1967 is decaying in 1993. Transportation systems, like hairlines, erode. Yet, without healthy transportation systems, economic productivity grinds to a halt. David Aschauer of Bates College estimates that productivity growth would be 50% higher than it is had the U.S. infrastructure not decayed through the 1970's and 1980's. Those of you who endure the crumbling tunnels and bridges of Pittsburgh can appreciate the problem.

Many other economists stress the need to invest in human capital; primarily through improved education. Several statistical studies have indicated that countries which invest heavily in education have higher rates of productivity growth. While liberals interpret this as cause for increased school funding, especially at the primary and secondary levels, conservatives are less sanguine. They note that educational performance has been falling despite increased spending per student in recent years, and tend to push structural reforms instead. Many advocate forcing public schools to compete by allowing parents to choose which school their child will attend.

DeLong and Summers see equipment investment as the key. They find that differences in equipment investment account for most of the differences between growth rates across countries. Since new technologies are embodied in new types of machines, new equipment becomes the vehicle through which new ideas and innovations are introduced into the workplace. DeLong and Summers favor tax credits targeted for those firms which purchase new machinery and equipment.

So, what is it? Infrastructure? Education? Equipment? All of the above? None? Economists are unsure. But,- if we expect to reinvigorate economic growth, we'd better find out.

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