Northwestern University, respectively, found in a survey comparing economic performance in 1995 and 2000 in 2,743 counties that the introduction of advanced Internet services spelled wage gains mainly in areas that already enjoyed high wages.

Despite the theory that broadband would reduce the natural advantages of cities, Forman and colleagues find "little evidence that the Internet had much impact in rural areas," and conclude that their results "do not support the use of subsidies to build infrastructure to lower that gap." Many rural areas lack the highly skilled workforces necessary to capitalize on broadband.

In a separate paper, Greenstein and Ryan McDevitt, also of Northwestern, explore the economic growth generated by the switch to broadband. In September 2001, only 10 million American households had broadband Internet access, compared with 45 million that relied on slower dial-up. By March 2006, broadband had overtaken dial-up—47 million households to 34 million.

Certainly, surfing the Internet is more enjoyable when it's fast, but did the economy benefit from the switch to broadband? Greenstein and McDevitt say that payments for Internet access generated $39 billion in 2006 with $28 billion of the total coming from broadband.

The figures aren't pocket change, Greenstein and McDevitt say, but at less than 0.3 percent of gross domestic product they fall far short of the "oversized " figures batted around Washington by policy analysts and lobbyists.

ECONOMICS, LABOR & BUSINESS

The Economists' Bailout

THE SOURCES: "Missing Links: An Intellectual Bailout" by Moisés Naím, in ***Foreign Policy***, Jan.–Feb. 2009, "Goodbye, Homo Economicus" by Anatole Kaletsky, in ***Prospect***, April 2009, and "A Question for the Economists" by Harvey Mansfield, in ***The Weekly Standard***, April 13, 2009.

Early on, Americans blamed rapacious bankers, reckless borrowers, lax regulators, compromised politicians, and greedy CEOs for the financial crisis. Now, with the recession midway through its second year, the onus is spreading to economists. The financial crisis has destroyed the fiction that economics is a science, contends Moisés Naím, editor in chief of *Foreign Policy*. The profession needs an intellectual bailout.

First to go should be the pernicious concepts of "rational" investors and "efficient" markets, says economist Anatole Kaletsky, editor at large of the London-based *Times*. On the backs of these two adjectives, "academic economists erected an enormous scaffolding of theoretical models, regulatory prescriptions, and computer simulations which allowed the practical bankers and politicians to build the towers of bad debt and bad policy" that have come thundering down. While it was always known that not every market was perfectly efficient, failures were chalked up to such problems as a lack of competition or tax distortions. Absent proof of collusion, fraud, tax distortions, or other anomalies, it was taken as axiomatic that competitive markets would deliver rational and efficient results.

> According to one economist, the problem with his discipline is that false theories developed a stranglehold on academia.

The scandal of modern economics, according to Kaletsky, is that false theories developed a stranglehold on academia. The rational expectations hypothesis asserted that a market economy should be viewed as a mechanical system governed by clearly defined economic laws, immutable and universally understood. It allowed the construction of precise mathematical models for economic behavior. The efficient market hypothesis explained that financial markets, because they were populated by a multitude of rational and competitive players, would always reflect available information in the most accurate possible way. Such theories flourished because they "justified whatever outcomes the markets happened to decree—laissez-faire ideology, big salaries for top executives, and billions in bonuses for traders."

Kaletsky argues that economics must be revolutionized or abandoned as an academic discipline. Instead of using oversimplified assumptions to create mathematical

Economists resume business as usual in the wake of economic devastation they failed to predict.

models that purport to reach precise numerical conclusions, economics must return to its roots in the all-too-human imprecision of the real world.

Economic giants such as Adam Smith, David Ricardo, and John Maynard Keynes could never land a university job today, he writes. They failed to produce precise econometric forecasts. Their analytical tools were mere words, not mathematics. They studied real human behavior in markets that actually existed and drew insights from history, psychology, and sociology.

Harvard political scientist Harvey Mansfield writes that while individual economists are generally sober and cautious, when they get together they give way to boyish, irrational exuberance over the accomplishments and prospects of their discipline. Yet they "failed to predict a crisis that has wiped out nearly half the wealth invested in the stock market and elsewhere."

Economics, like all sciences, perhaps, aims at the reduction and control of risk. Who among us, asks Mansfield, now believes that risk has been diminished and control over our lives vindicated by economics?

ECONOMICS, LABOR & BUSINESS

Speedy Spillovers

THE SOURCE: "Peers at Work" by Alexandre Mas and Enrico Moretti, in ***American Economic Review***, March 2009.

When a speedy cashier steps up to a register in a row of supermarket checkout stations staffed by slower-moving clerks, a surprising "spillover effect" occurs, write Alexandre Mas and Enrico Moretti, economists at the University of California, Berkeley. The other cashiers who can see the faster worker speed up.

Mas and Moretti studied the productivity of 394 cashiers working for six stores in a national supermarket chain. They found that the introduction of a single superworker boosted the speed of the entire group by one percent. Such top achievers scanned and sometimes bagged 30 percent more items than their slowest counterparts. The slower cashiers apparently felt "peer pressure" to pick up the pace in the presence of the faster scanner to avoid shame, or even informal or formal "sanctions" for free riding, the authors conclude. And the closer a cashier was stationed to one of the speed demons, the more likely that cashier was to step it up. But the opposite did not happen. The faster workers seemed unaffected by the rate of their coworkers and didn't flag. Once speedy, virtually always speedy, the authors found.

> Placing even a single superworker among slower ones will boost the speed of the entire group.

The sociology of the checkout world could save supermarket chains and other group production enterprises big money, Mas and Moretti write. Worker productivity is greater when high-skilled and low-skilled workers are scheduled on the same shift. For the firm they studied as a whole, achieving the optimum mix of workers could have saved 123,529 hours of labor annually. At current wages, this adds up to $2.5 million every year.