



Late Bloomer

*Chris Wellisz profiles **David Autor**, the MIT economist who has done pathbreaking work on the effects of imports on the US labor market*

Drop by David Autor's office at lunchtime and you'll find the Massachusetts Institute of Technology (MIT) economics professor munching on a peanut butter and jelly sandwich that he brings from home every day. Not only does Autor like peanut butter and jelly, it saves him the time it takes to make the trip downstairs to the cafeteria.

"I would never waste an hour," Autor, 53, says in a recent interview in his office overlooking the Charles River. "If I'm not working, I'm doing something else that's useful." That could include sailing with his son, skating as captain of the faculty ice hockey team, or taking electrical gadgets apart and putting them back together.

Economics is all about scarcity, and time seems especially scarce to Autor, who got a late start in the profession and feels he still has a lot of catching up to do—despite the prominence he's achieved with groundbreaking studies of the impact of trade and technology on the US labor market. Autor's substantial body of research on labor markets—29 journal articles on subjects ranging from disability benefits to the minimum wage—is imbued with respect for the dignity of work, sympathy for the disadvantaged, and concern for the damage that unemployment inflicts on families and communities.

"Idleness is a terrible thing," Autor says. "Work gives people's lives structure and meaning. It gives them an identity. It gives them a social circle." He disagrees with economists who think of work as the price we pay for being able to consume. "That's just not at all accurate for what most of us do. We would pay to keep our jobs."

For a scholar, he has an unusual amount of real-life experience: computer software consultant, teacher of underprivileged kids, administrative assistant in a hospital. All of that has given him a practical understanding of his subject and an inclination to use hard facts to test, and sometimes challenge, received economic theory.

Take Autor's studies of the impact of imports from China on US factory workers. In his days as a graduate student at Harvard's John F. Kennedy School of Government in the late 1990s, economists were debating the reasons for the decline in US manufacturing jobs and concluded that it was a long-term trend and that automation was the main culprit. To the extent that workers were displaced by competition from imports, they could

find other jobs relatively easily in the large and flexible US labor market.

"Just as the debate was ending, the facts were changing," Autor says. "China's rise was having a large impact, and people weren't noticing it."

China's entry into the World Trade Organization in 2001 accelerated its emergence as a global economic powerhouse that could tap a vast pool of cheap labor to churn out inexpensive furniture, textiles, and electrical appliances. Between 1991 and 2012, China's share of global manufacturing jumped to 24 percent from 4 percent.

The blow to US workers was both profound and lasting, Autor and his collaborators—David Dorn of the University of Zurich and Gordon Hanson of the University of California, San Diego—argued. In a 2013 article, they calculated that Chinese imports were directly responsible for the loss of 1.53 million factory jobs between 1990 and 2007—about a fifth of the total decline in manufacturing

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employment nationwide. These job losses were concentrated in areas of the country directly exposed to Chinese competition; elsewhere, the decline in manufacturing jobs was far more modest.

More significantly, they found that the “China Shock,” as they provocatively called it, extended beyond manufacturing to industries not directly affected by import competition, such as suppliers. Employment, wage levels, and labor force participation in local labor markets were depressed for a decade or more. (In a subsequent paper, they estimated the indirect job losses at about 1 million.) The findings cast doubt on accepted views on labor mobility. It wasn't as easy as economists had assumed for workers to move to another community where jobs were more plentiful or to switch occupations.

“David questioned the prevailing wisdom,” said Lawrence Katz, Autor's thesis chair at Harvard and an occasional collaborator. “People had continued relying on evidence that was 10 or 20 years out of date. Given that there are frictions in moving, we

Economist David Autor's deep interest in technological change was inspired by his personal experience.



see that the costs of trade are much bigger than we used to think.”

Autor’s work on China tapped into the deep sense of anxiety over the loss of middle-class jobs that roiled the 2016 US presidential election campaign. In a paper published in December 2016, Autor and his collaborators found that the trade shock pushes voters toward the extremes of the political spectrum. In another article, they showed how diminished job prospects and lower wages of young men in trade-exposed communities make them less desirable as potential husbands, contributing to a decline in marriage rates and a rise in the number of children born to single mothers.

Technological change is another source of public anxiety—and a subject of fascination for Autor, inspired in part by his background in computer science. As the use of personal computers became widespread in the home and workplace toward the end of the last century, economists began to study how acquiring computer skills made people more valuable in the job market.

Autor took a different approach. He identified specific tasks carried out by workers—moving an object, say, or performing a calculation—and looked at which ones could be performed by computers. He and his collaborators found that even as computers replaced many routine tasks typical of “middle-skill” jobs, such as bookkeeper or cashier,

they amplified the value of the problem-solving skills, adaptability, and creativity typical of professional and managerial jobs. At the same time, computers couldn’t be used to replace some manual tasks, like those carried out by janitors or fast-food workers. The result has been an increasing polarization of the labor market, with most wage gains going to the workers with the highest and lowest skills, while those in the middle get squeezed.

That insight grew out of a 2002 study of workers at a bank that had installed new software to process checks, something bank employees had been doing by hand since the late 19th century. Autor and his collaborators, Harvard’s Richard Murnane and Frank Levy, spent countless hours in the bank, interviewing employees and managers and watching people at work. They discovered that while the software could process 97 percent of checks, people were still needed to handle the remaining 3 percent—which had such problems as overdrafts or illegible signatures. The work of those employees could then be reorganized in a way that required more skill.

“People were now working with broader sets of accounts and doing more problem solving as opposed to just kind of transactional processing,” Autor says.

Much of Autor’s scholarship is grounded in field work. While researching an article explaining why temporary help agencies offer job training when they appear to get no obvious benefit from it, he registered as an applicant at one agency to get firsthand experience of the interviewing process. He discovered that the firms offered free training to assess the motivations of employees and to learn how to attract people who were willing to improve.

Similarly, his interest in technological change is grounded in life experience: in high school, he taught himself to program an early personal computer, the Radio Shack TRS-80. But his path from computers to economics was anything but direct.

He enrolled in Columbia University, but soon dropped out (“I was extremely immature,” he explains) and moved back to his hometown, Boston, where he worked as an administrative assistant in a hospital. He went on to become a software developer at the hospital and then joined a friend’s software consulting practice, doing things like developing databases for banks.

When he returned to college, this time at Tufts University in Medford, Massachusetts, Autor

majored in psychology with the aim of becoming a clinical psychologist like his parents.

But by the time he graduated, in 1989, “I concluded that, at least the part of psychology that I was studying, I really liked the questions but I was not at all satisfied with the methods or the answers,” he says. “I had this taste for computer science and engineering, but I had an interest in social problems, and I didn’t know how to put the two together.”

So he climbed into a Dodge Colt that he had bought for \$250 and drove across the country, without any firm plan in mind. Listening to the radio on the way, he learned that a Methodist church in San Francisco was starting a program to teach computer skills to inner-city kids. Autor showed up to volunteer and before long became educational director.

“I viewed it as closer to the thing I was looking for,” Autor says. “On the one hand, it was technical; on the other hand, it was working on social issues, so it made sense to me.”

He met his wife, Marika Tatsutani, while they were both looking for a housemate in Oakland, California. At the time, Tatsutani was a graduate student at the University of California, Berkeley. She is now a self-employed energy and environmental writer, editor, and consultant. They have three children, ages 13 to 20.

After three years in California, Autor, ever restless, decided it was time to move on. He toyed with applying to medical school, but ultimately opted for the public policy program at Harvard’s Kennedy School where, with its required economics courses, Autor discovered his future field. “I was just blown away because I thought, ‘Oh, why didn’t anyone ever tell me about this? This is what I was looking for,’” he says. “It works on the problems I care about, but it does it using methods that I esteem, that I value, that I enjoy.”

Murnane, one of Autor’s professors (who later collaborated on the bank study), was impressed by his curiosity and enthusiasm. “The fact that he had a background in psychology, I think, was important, and it gave him a broader lens of looking at problems than those who only studied economics.”

In 1999, PhD in hand, Autor found himself in the job market, figuring institutions like MIT wouldn’t take him seriously as an economist because his degree was in public policy. So when Olivier Blanchard, then chairman of MIT’s

economics department, called to offer him a job, Autor was so taken aback that he initially didn’t want to take the call.

“It was terrifying,” Autor recalls. “I felt on the one hand like the most fortunate person in the entire profession, and on the other hand like a complete poseur. Like what was I doing here?”

“David was indeed an unusual hire for MIT,” says Blanchard, who later became chief economist at the IMF and is now a senior fellow at the Peterson Institute for International Economics in Washington. “But there was a sense of purpose, a real talent, a seriousness to the work that convinced us to go for it. And gosh, we were right.”

Still, the first couple of years were tough for Autor, who felt he lacked sufficient theoretical grounding in economics. He recalls being assigned to teach an undergraduate course in macroeconomic theory and doubting that he was qualified.

“At first I thought, ‘Wow, I don’t really know this stuff; I shouldn’t be teaching this.’ And then I thought, ‘Well, this is a good way to learn it.’”

These days, Autor is as busy as ever, though his stress level is lower. He’s been appointed codirector of the Labor Studies Program at the National Bureau of Economic Research, along with

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Princeton University’s Alexandre Mas. He’s teaching an undergraduate class on applied microeconomic theory and public policy. He’s continuing his research on how economic shocks shape political beliefs and the structure of the American family. And he has embarked on an ambitious, multiyear study of the impact of financial aid on college attendance and completion.

All that leaves him time for six hours of sleep—if he’s lucky. But he has no complaints.

He says people have been very generous in mentoring him and giving him opportunities to learn that shaped his career. He wants to pay forward that generosity. “I’ve been extremely fortunate.” **FD**

CHRIS WELLISZ is on the staff of *Finance & Development*.