PEOPLE IN ECONOMICS

Peter J. Walker profiles

Angus Deaton, who
pioneered approaches that
connect the dots between
theory, measurement,
policy, and people's lives

Deaton. There was the trip to Stockholm to receive the Nobel Prize in economics from King Gustaf of Sweden. And there was the ground-breaking new paper with Anne Case on midlife mortality in the United States, which captured public attention around the broader debate on inequality and stagnating incomes.

"When you receive the Nobel Prize, there is an enormous amount of press attention, and I did not think you could beat that, but our paper generated more attention—it was like one tsunami was ebbing and then another, larger, tsunami hit us," recalls Deaton in an interview in his office at Princeton University, his soft Scottish accent infused with transatlantic hints.

In the paper, Deaton and Anne Case, a leading economist and Princeton colleague, made a startling discovery: after decades of progress, mortality rates for white, middle-aged Americans flatlined or increased after the late 1990s, largely because of suicide and abuse of alcohol and drugs such as opioids. When Case and Deaton, who are married, met President Barack Obama at the White House at a reception for US Nobel Prize winners, he interrupted Deaton's introduction of Case to say, "I know who Dr. Case is, and we are going to talk about your paper."

The paper, "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century," strikes at the heart of the opioid epidemic, arguing that it is more than a public health crisis—it is also an economic crisis. "Even if you get rid of the addiction, that does not solve it, because there is a much deeper problem—for people who only have a high school diploma, real wages have been falling for 50 years," Deaton says.

The twin tsunamis of the prize and the paper capped a prolific academic career marked by research of notable significance and variety—encompassing public health, poverty, consumption, savings, and much more.

"Deaton has used his fine quantitative skills to tackle a breathtaking range of topics in economics and in other fields," says Princeton economics professor Orley Ashenfelter. "His judicious use of evidence and careful attention to data have probably never been more important than today, a time when uninformed opinion, vehemently asserted, has increasingly become a powerful political force."

Deaton's story begins in a very different world. Growing up in 1950s Edinburgh, which he recalls as "a pretty grim place back then," the young Deaton found an escape in books about India and other far-off places. He also loved the outdoors, spending many afternoons playing in The Meadows, a large open space that was then being converted back to parkland from the allotments on which people had been urged to "Dig for Victory" during the Second World War, which ended a few days before Deaton was born.

At age nine, Deaton and his family moved to a small village near the Scottish-English border, where he caught the attention of his teachers at the local school. This was of great encouragement to his parents, particularly his father, who was not permitted to attend high school but caught up later through evening classes, became a civil engineer, and vigorously encouraged his son's education. Deaton's

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subsequent scholarship to the prestigious Fettes College—at the age of 13 as one of two boys from underprivileged backgrounds admitted that year—marked the realization of his father's unlikely dream.

At Fettes, pupils learned independently, an approach that served Deaton well. Learning became a hobby. Like other boys, Deaton joined the school's Royal Navy cadet corps and spent summers at sea, going abroad for the first time—to Brittany, in France, where they "all went ashore and bought cheap red wine."

Following his secondary education, Deaton was admitted to the University of Cambridge to study mathematics but soon lost interest, finding it to be "incredibly badly taught" at the time. He cast about for another field, and was steered into economics, without much idea of what "economics" was.

Deaton's interest in the discipline steadily grew. He spent a summer reading economics textbooks while holding down a job selling clothes aboard the transatlantic ocean liners *Queen Elizabeth* and *Queen Mary*. Every fortnight he disembarked at New York's Pier 92, in an area that was "pretty rough and littered with sleazy diners," and gradually set out beyond the waterfront to explore the rest of Manhattan.

Back at Cambridge, such glimpses of the harsh realities of life animated student discussions. "We all

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read left-wing newspapers and we all worked for the revolution—whatever that meant—but it mostly meant sitting around drinking and playing cards," Deaton says.

After his graduation in 1967 and a brief stint at the Bank of England, Deaton returned to Cambridge to pursue his PhD and work as a research assistant—and to be with Mary Ann Burnside, his first wife. They moved to a nearby village and had two children, Rebecca and Adam.

At work, Deaton found a mentor in future Nobel Prize winner Richard Stone, and the two collaborated on the analysis of saving and demand—two foundations of economics. An early insight came when Deaton used his hesitation to buy coffee in high-inflation 1970s Britain to argue that, contrary to conventional wisdom, unanticipated inflation can help increase—not decrease—savings. Doubters were surprised when the government announced a rise in household savings, as his theory had predicted.

While Deaton impressed, his early academic career was not an unchecked ascent; he sometimes became frustrated with his perceived lack of progress. He was not alone. Deaton and his tennis partner, future Bank of England Governor Mervyn King, bonded over their mutual, if premature, disappointment at not landing professorships. Neither one had attained his 30th birthday.

That changed in 1975, when Deaton became professor of econometrics at the University of Bristol. Just a few months before, Mary Ann had tragically passed away, and Deaton sought a change of scene for both personal and professional reasons.

At Bristol, Deaton developed the Almost Ideal Demand System with John Muellbauer, who was then at Birkbeck College, London. As its name suggests, the model did not claim perfection—it was almost ideal—but it did provide a more complete and realistic picture of consumer behavior than previous attempts. Among other benefits, it could more accurately predict how policies, such as tax changes, affect different income and demographic groups. The Nobel Committee later noted that "even after 35 years, it remains a cornerstone of demand estimation around the world, whether that estimation is based on aggregate, individual, or household-level data."

Deaton spent the 1979–80 academic year on sabbatical at Princeton—a prelude to a permanent move in 1983—and was impressed by its resources and intellectual quality. The only snag with the sabbatical was that Princeton "only paid me for nine months, so I needed something to do in the summer." He found a job at the World Bank, working on the incipient Living Standards Measurement Study, which sought to understand how policies affect social outcomes in developing economies. Deaton proved to be instrumental in its evolution, especially its development of household surveys.

As Deaton's career progressed, household surveys would rank among his most influential contributions. He pioneered ways to use and interpret household surveys to more accurately describe realities on the ground by looking at consumption, analyzing birth cohorts, and estimating local market prices. Deaton conducted much of his work in India, rekindling a childhood fascination with the country.

HEALTH AND WAGES

In their 2015 paper, "Rising Morbidity and Mortality in Midlife among White Non-Hispanic Americans in the 21st Century," Anne Case and Angus Deaton offer important insights into the opioid epidemic, comparing its significance to that of the AIDS crisis.

They find that mortality rates for non-Hispanic white men and women ages 45 to 54 increased by half a percent a year from 1999 to 2013, after falling in the previous two decades. Drugs, alcohol, and suicide were the main drivers of the rebound in mortality, which was more pronounced among those without a college degree. Morbidity also increased, with significantly more reports of poor physical and mental health. By contrast, mortality continued to decline among other US demographic groups and in other advanced economies.

What, according to Case and Deaton, lies beneath these alarming trends? Prescription painkillers known as opioids—synthetic forms of opium—became more widely available in the late 1990s, around the same time as the increases in mortality and morbidity. Economic insecurity may also play a role, with poorer middle-aged whites particularly affected by the slow growth in US median wages as well as moves from defined-benefit to defined-contribution pension plans, which transfer financial risk to the employee. Case and Deaton caution that failure to bring the epidemic under control could result in a "lost generation."

Their 2017 follow-up paper, "Mortality and Morbidity in the 21st Century," found that the trend continued through 2015.

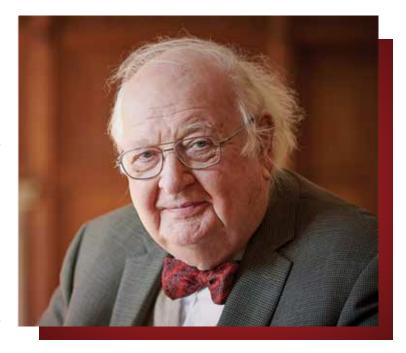
Throughout much of the 1980s and 90s, Deaton made further groundbreaking discoveries in the study of consumption, identifying the need to reconcile individual behavior with aggregate outcomes. He also analyzed how consumption changes over time, formulating the Deaton Paradox, which notes that the standard representative agent version of the permanent income hypothesis is internally inconsistent because the time-series behavior of average income implies that temporary changes in income should lead to larger changes in consumption, not smaller ones.

During this period, Deaton deepened his engagement in development economics. For instance, he addressed the so-called poverty trap thesis. He took issue with the widely accepted argument that poor nourishment keeps people from earning enough to escape poverty. Drawing on research in India, Deaton and Shankar Subramanian of Cornell University showed that an adequate diet cost just 5 percent of a day's wages. They concluded that malnutrition is a consequence, rather than a cause, of poverty.

In *The Great Escape: Health, Wealth, and the Origins of Inequality*, published in 2013, Deaton argued that foreign aid can be harmful because it makes recipient governments more accountable to foreign donors than to their own people. As a result, the social contract between a government and its citizens is eroded, reducing incentives to strengthen institutions and undertake other reforms central to sustainable development. "The argument that we have to do something because these people are so poor seems like a very powerful argument, even though it is not," he says. "The one thing you do not want to do is hurt them, but that is exactly what is happening now."

These arguments have been contentious. "We have lots of concrete, tangible benefits in the shape of nurses, teachers, vaccinations, avoided deaths etc., lined up against a rather vague and not very well evidenced claim of long-term institutional damage," Duncan Green of Oxfam GB wrote on the anti-poverty organization's blog. Others argued that the real issue is how foreign aid is delivered. The debate continues.

So, too, does discussion of the book's central narrative—that the past 70 years have seen remarkable reductions in poverty and improvements in health around the world. "It is inconceivable that these advances would have happened without globalization," Deaton writes. He rejects the notion that globalization is the problem, contending that the true culprits are the "winners who pull up the ladders behind them"—



Economist Angus Deaton argues that foreign aid can

yielding poor public policies that breed corporate rent seeking, inadequate health care, and stagnant wages. Aspects of this argument are put forth in Case and Deaton's 2017 paper "Mortality and Morbidity in the 21st Century."

It was at Princeton that Deaton and Case met; they married in 1997 and today work in adjacent offices. Being married to a colleague brings many pleasures and much joy, but also involves some trade-offs that the two have yet to solve, Deaton concedes. "People want us to speak everywhere all the time, and if I am speaking and Anne is teaching, it is quite hard to sit down and do our work." In their scarce spare time, they like to fly-fish, cook, and travel.

In December 2016, a year after the heady days of the Nobel Prize and the mortality paper, Deaton jumped into a London black cab with Case and his son, Adam, and asked to be taken to Buckingham Palace. "What are you here for?" asked the cabbie, unsure if they were tourists or royal guests. "My Dad invented a new kind of toilet-roll holder that the Queen likes," his son quipped. Once inside, Deaton was knighted by Prince William, Duke of Cambridge.

"It is a wonderful tribute to scholarship," pronounced Professor Sir Angus Deaton, "and much more fun than having to find a horse, a suit of armor and a lance, so to ride into battle for the Queen."

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