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ANSLEY J. COALE  
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*A Biographical Memoir by*  
THOMAS J. ESPENSHADE, JAMES TRUSSELL, AND  
CHARLES F. WESTOFF

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*Ausley / Coals*

## ANSLEY J. COALE

*November 14, 1917–November 5, 2002*

BY THOMAS J. ESPENSHADE, JAMES TRUSSELL, AND  
CHARLES F. WESTOFF

**A**NSLEY JOHNSON COALE, William Church Osborne Professor of Public Affairs and professor of economics emeritus at Princeton University, died on November 5, 2002, at Pennswood retirement village in Newtown, Pennsylvania, at the age of 85. The cause was heart failure following several years with Parkinson's disease.

Coale was born in Baltimore, Maryland, on November 14, 1917. He attended public high school in Annapolis, graduating in 1934 at the age of 16. Since his College Entrance Board scores in Latin were not acceptable for admission to Princeton University (he scored only 28 percent in Virgil), he spent one year at Mercersburg Academy to correct that deficiency on a scholarship for boys from low-income families, and he matriculated at Princeton in the fall of 1935.

Coale was educated entirely at Princeton University (B.A. in 1939, M.A. in 1941, and Ph.D. in 1947) and spent his whole academic career at its Office of Population Research, serving as assistant director from 1954 to 1959, as director from 1959 to 1975, and as associate director from 1975 to 1986. He was appointed assistant professor of economics in 1947, promoted to associate professor of economics in 1954, promoted to professor of economics in 1959, and named

William Church Osborne Professor of Public Affairs in 1964. He retired from the faculty in 1986 to become senior research demographer at the Office of Population Research, a position he held until 2000. During his many years on the Princeton campus, Ansley was a familiar figure on his bicycle and on the tennis and squash courts. In June 2002 Princeton University honored Coale by naming its demographic research library the Ansley J. Coale Population Research Collection.

He served as president of the Population Association of America in 1967-1968 and as president of the International Union for the Scientific Study of Population from 1977 to 1981. He was a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the American Philosophical Society, and he was a recipient of honorary degrees from the University of Louvain in 1979, the University of Liège in 1983, the University of Pennsylvania in 1983, and Princeton University in 1994. He was also a corresponding fellow of the British Academy. He received both the Mindel Sheps Prize in Mathematical Demography and the Irene Taueber Prize, the most prestigious prizes awarded by the Population Association of America. He was appointed by President Kennedy as the United States representative to the United Nations Population Commission and served in that post from 1961 to 1967.

He was very prolific, publishing more than 125 books and articles on a wide variety of demographic topics. He also trained and served as mentor to many students who became leaders in the field. Indeed, he was the principal advisor on more than 35 doctoral dissertations and more than 90 research papers by visiting graduate students who earned the certificate in demography offered by the Office of Population Research.

His first major influential work was *Population Growth and Economic Development in Low-Income Countries* (1958),

coauthored with Edgar Hoover; the results, which showed that slowing population growth could enhance economic development, had a major impact on public policy and set the research agenda in this field. This was followed by *Regional Model Life Tables and Stable Populations* (1966), coauthored with Paul Demeny. These model life tables both established new empirical regularities and proved invaluable in the development of later techniques for estimating mortality and fertility in populations with inaccurate or incomplete data. Along with William Brass, Coale pioneered the development and use of these techniques, first explicated in *Methods of Estimating Basic Demographic Measures from Incomplete Data* (1967) and in *The Demography of Tropical Africa* (1968).

Coale was an able mathematician (he taught radar at the Massachusetts Institute of Technology during World War II as a radar officer in the U.S. Naval Reserve), and his *Growth and Structure of Human Populations* (1972) is an essential textbook for those interested in formal demography. The publication of this book is all the more remarkable since the original source materials (notes, hand-drawn figures, tables), carefully collected over the course of many years, were accidentally discarded by a new custodian who did not recognize their significance; everything had to be reconstructed from scratch. Toward the end of his career Coale became interested in the population changes in China and in understanding the fertility transition there as well as factors affecting the sex ratio at birth.

All three of the writers of this memoir have vivid memories of Ansley as a person. Ansley was the primary mentor and thesis advisor to two of us (T.J.E. and J.T.). We reflect, in turn, on those memories. One of us (T.J.E.), having attended the College of Wooster, a small liberal arts college in Ohio affiliated with the Presbyterian Church, had heard of Ansley

Coale some years before meeting him. Ansley's older son, Pete, was a classmate of mine at Wooster. Wooster College was also the alma mater of Frank Notestein, the first director of the Office of Population Research at Princeton. With these connections, I should have known I was predestined to go into demography.

But as an undergraduate I actually had little idea what demography was. I was interested in mathematics but ended up majoring in economics because several college classmates and I were determined to spend our junior year abroad, and the chair of Wooster's mathematics department convinced me that the European way of sequencing courses in mathematics was so different from the American system that I had to choose between going abroad and staying home to major in mathematics. The London School of Economics won out. Following college I enrolled in a one-year Master of Arts in Teaching program at Yale expecting to become a high school math teacher. But the Vietnam War intervened, and the draft made staying in graduate school an attractive alternative. I singled out Ph.D. programs with a concentration in mathematical economics and arrived at Princeton in the fall of 1966 still not knowing anything about demography. In fact, one of the ironies of my professional career is that I turned down a demography fellowship for graduate study at Michigan for fear that I would be committed to studying a subject that I might actually dislike.

John Isbister introduced me to Ansley during my first semester at Princeton. I wanted to meet him because I had known his son, but I was not in any of Ansley's courses. Two of my graduate school classmates (Kevin Young and Yukon Huang) tried to convince me to study demography, but the whole subject sounded rather uninteresting. During the summer following my first year in graduate school, I was a research assistant in the Department of Economics at

the University of Southampton in England, assigned to work on the dwellings (or household) sector of the U.K. econometric model. I began thinking that there might be a dissertation topic here and decided, therefore, to take the demography sequence in the next academic year.

All it took was a couple of weeks in Ansley's first semester course (Survey of Population Problems) to convince me the subject matter was fascinating. What appealed to me most was Ansley's infectious enthusiasm for the subject, especially his treatment of stable population theory (his disinterest in migration or immigration is another story). The subject involved just the right amount of math, and soon the equations for the stable age distribution, birth rate, and intrinsic growth rate became as familiar as the back of my hand. Ansley also guided me through my dissertation (actually through two false starts and then a dissertation that was completed while I was doing a two-year postdoc at Berkeley under the auspices of Kingsley Davis). I'm still grateful to Ansley not only for shepherding my work long-distance but also for prodding me to consider how estimates of parental expenditures on children might be affected by alternative specifications of the underlying regression models.

Ansley had a strong competitive streak. I experienced this directly during a student-faculty squash tournament in graduate school. I was so nervous playing Ansley in the second round that I lost track of where we were in the game. After one serve Ansley pronounced, "That serve was out." And when I went to serve again, he said, "And that was your second serve!"

Ansley enjoyed a good joke. When he began teaching a radar class at Harvard during World War II, he said, "I'm sure there are many people who know more about radar than I do. But seeing none of them present . . ." And he was fond of saying that so and so was "sui generis to a fault."

There were things that could make Ansley irritable. Just the mention of Ronald Reagan (our “acting” President) would set him off. So, too, could people who used improper grammar. He would always correct someone who began a sentence, “Hopefully, it will . . .” And his frustration boiled over when he once had trouble figuring out the tip at his favorite Italian restaurant and remarked, “I’m usually infallible in such matters.” Ansley kept a weight chart in his office and was proud of the fact that it seldom deviated over many years by more than a pound from a perfectly flat trend line. Being able to wear sport coats that he owned in college was another source of satisfaction. Ansley’s sometimes puritanical streak extended to turning out lights at the office before he went home—a habit that was cut short after someone let out a scream when he turned off the lights in the ladies room.

The things for which I will remember Ansley are his respect for data quality, his attention to detail in his research, and rum and tonic drinks (with Bacardi’s light) and a twist of lime.

The memories of another of us (J.T.) start before coming to Princeton University. After college I went to Oxford University for two years of graduate study in economics. I had no idea what I wanted to do next. In the fall of my second year Professor William Branson visited for a couple of days from Princeton. After I told him what I was interested in, he said that the economics department at Princeton would be the best place for me to finish a Ph.D., because I could study demography with Professor Ansley Coale. So I applied to Princeton and later received a letter from Ansley Coale offering me (he said) a magnificent fellowship with a \$3,000 stipend if I wanted to study demography at the Office of Population Research.

I had never heard of demography, and I dutifully went to the library to look up this Ansley Coale in the card



catalogue. The only book I could find was *Regional Model Life Tables and Stable Populations* by Coale and Paul Demeny, published by the Princeton University Press. This is a substantial book of 900+ pages, weighing in at 4 pounds, 12.5 ounces. It is also the world's most boring book, with only 4 pages of figures and 25 pages of text, but a staggering 875 pages of tables. Altogether there are only 14,850 words of text but 553,609 numbers. So my heart was filled with dread that I would die of boredom at an early age.

However, my fears were groundless. From my first day at Princeton, Ansley became my mentor and friend. His two-semester demography class was the starting point in my subsequent career. And he and his wife, Sue, introduced me in the first week to the Homestead Inn, their (and now my) favorite restaurant in Trenton. Ansley was simply a terrific mentor. As with more than 35 other Ph.D. students over many years at Princeton, he was my principal thesis advisor. I also had the good fortune to stay on at the Office of Population Research after finishing my dissertation, and Ansley and I continued to work together for many years, eventually publishing nine papers together.

What made Ansley such a great mentor? In part it was his infectious enthusiasm for any demographic problem or issue, with the single conspicuous exception of migration. In part it was his extraordinary brilliance and insight, but most of all, it was his integrity. Jane Menken and I were working on our theses at the same time, and we each had the experience of having to completely redo our empirical analyses when Ansley discovered a small error in our calculations. We knew, and Ansley knew, that redoing the calculations would make absolutely no qualitative difference, and only a miniscule quantitative difference, to our results. But we each knew that we had to redo the calculations, even if that took much time and effort, because Ansley would have

done so. “Because Ansley would have done so” is a phrase that I have silently spoken to myself or said out loud to my students many times. Recently, Allison Hedley, a Ph.D. student at the Office of Population Research, handed in a complete draft of her thesis. A week later, she came to tell me that she had discovered that she had miscoded a handful of cases out of 6,568 in the entire dataset and so she would be rerunning all of her analyses. Imbuing that sense of integrity is Ansley’s finest legacy.

Was Ansley without fault? Hardly. He could be incredibly stubborn. And he could also be controlling. In the many times he took me to dinner at the Homestead Inn, he never allowed me to order; instead he always ordered family style for the whole table. He was also extremely competitive. Often, after talking with Ansley about a problem during the day, I would work late into the night trying to solve it, knowing that if I did not, he would arrive the next morning with solution in hand. Ansley could be charmingly naive. The day that Lawrence Altman’s first piece on AIDS appeared in the *New York Times*, a group of us was discussing the content. Regarding the description of a man who had had thousands of sex partners, Ansley proclaimed that the *Times* had made a typographical error by inflating the number by a factor of a thousand.

The last of us (C.F.W.) knew Ansley longest. Ansley is someone I knew well since I first arrived in Princeton in 1955 and with whom I interacted virtually every day at the Office of Population Research.

Ansley had a habit of walking around the office looking for open doors and cornering people with some new idea. Several memories stick with me, especially the incredible and ingratiatingly boyish enthusiasm he had for what would sometimes turn out to be the germ of a really important idea. His chief box of tools would be a piece of paper or a black-

board on which he would depict some relationship with a scribbled graph and some illegible notations. His enthusiasm for ideas was really infectious and made for an exciting intellectual atmosphere at the Office of Population Research.

One of his teaching achievements that he was proud of was to inject an attitude of skepticism into graduate students, many of whom came from developing countries in the 1960s and 1970s. He would rejoice when a student would begin to question the accuracy of a printed number in a census or other publication.

Ansley introduced me to two activities that were to become lifetime habits for me: tennis and squash, and wine. He taught me to play, and it became my lunchtime activity for 45 years. Ansley had a highly competitive streak on the court (as well as at the bridge table) to which his wife, Sue, his two sons, and many others can attest. He also had a low tolerance for any extraneous noise while playing tennis, especially loud music emanating from loudspeakers in nearby dorms, particularly audible after he had made an error.

He also introduced me to wine. I especially remember the 1959 Beaujolais, which at the time sold for \$1.29, later to be regarded as one of the great wines of the century. I could not tell the difference then but I can now; it turned into an expensive habit.

Ansley loved to argue, especially about politics. We certainly agreed on important issues, but if there were any inkling of disagreement, he would interrupt and repeat his position. If you then made the mistake of persisting in your mistaken view, he would interrupt again with an insistent "Excuse me, excuse me" (a polite way of telling you to shut up and listen to him) and with an ever-reddening complexion would begin to question your understanding of the gospel truth. And there was a lot of "gospel" in that Presbyterian conscience he acquired from his father.

He was in love with an Italian restaurant—The Homestead Inn, also known as Chick and Nello’s after the two founders—in a Trenton suburb. Ansley loved that place and once confided to me, *sotto voce*, that Chick’s was perhaps the best restaurant in the world! (He later denied having said that.) Ansley had learned Italian and used the staff at that restaurant to practice and to impress them (*Il capo di tutti capi!*). He and Sue spent many pleasant summers in Italy at a villa in Florence and frequently as the guest of his close friend Massimo Livi-Bacci.

Ansley was a stickler for grammar and for spelling, an obsession I shared with him that he thought was one of my really good points. I did catch him in a grammatical error once that provoked an argument, but he later sheepishly confessed that he was wrong.

There are so many other memories: the annual office picnic softball games in which we would each pitch for opposing teams; the trips we took together to the Caribbean; his accidents on his bike and especially the accident diving into the shallow pool in a Manila hotel (that resulted in his appearance with a huge Band-Aid on his face on the stage at the opening ceremony of an international population conference with President Ferdinand Marcos); and the many lovely dinners at the Coale’s home. Ansley had a very important influence on my life, on the Office of Population Research, and on the field of demography.

Perhaps Coale’s major scientific contribution was to our understanding of the demographic transition. He was the intellectual architect of the European Fertility Project, which examined the remarkable decline in marital fertility in Europe. Initiated in 1963, the project eventually resulted in the publication of nine major books (culminating in *The Decline of Fertility in Europe* [1986]) summarizing the changes in child-bearing during a century in the 700 provinces in Europe.

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