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In Pursuit of the PhD: a Review Essay

In Pursuit of the PhD by W.G. BOWEN and N. RUDENSTINE. Princeton: Princeton University Press, 1992, pp. xx + 442. \$35.00 (cloth)

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DEREK BOK, the former president of Harvard, called graduate education "the soft under-belly of the research university", because the programs are so seldom held up for scrutiny. Now two power-houses of academic administration, William Bowen and Neil Rudenstine, have scrutinized and scrutinized, in 400 big pages and with scores of charts and graphs.

Bowen is an economist, the president of the Mellon Foundation and the former provost and president of Princeton. Neil Rudenstine is an English professor, the new president of Harvard and the former provost at Princeton and second in command at Mellon. The Mellon Foundation supported their project, started in 1989 and finished among the many other duties of the authors in record time. It claims to be the first comprehensive study of graduate education since Berelson's in 1960.

The study is "focused on the top echelon of graduate programs", namely, their "Ten Universities" group, Princeton, Harvard, Yale, Columbia, Cornell (that is, most of the Ivy League), Stanford, Chicago, Berkeley, Michigan and North Carolina. Remember that. And it is focused on six fields, namely, English, history and political science (known euphoniouly as "EHP") with some attention to mathematics and physics ("MP") plus economics. The EHP fields were the most intensively studied. Remember that, too.

The main question in the book is: "Is it possible to find ways to reduce attrition and time-to-degree, while simultaneously sustaining, and perhaps improving, quality?" (p. 3). The approach to answering it is demographic. The book treats graduate school as a population (death is graduation

with a PhD; a brief life getting to one's death by PhD is optimal). Part One of three, for example, collects data on death rates by field collected by the National Research Council since the 1920s and data on births, populations and deaths for the Ten Universities group.

Part One, "Trends in Graduate Education", then surveys the demographic conditions — in economic terms, supply and demand, though it does not pretend to econometric exactitude. The demographic approach leads the authors to downplay the role of demand in creating the boom of the 1960s, and indeed the book repeatedly turns away from economic arguments. In the 1960s "large increases in the sizes of the underlying pools of potential candidates for graduate degrees were more dominant" (p. 41). Undergraduates of the 1950s and 1960s just happened to major in fields that led easily to birth, death and transfiguration through a PhD in the traditional liberal arts. After an allowance for the draft-created demographic blip of the late 1960s, the "flight from the arts and sciences" during the 1970s, therefore, is said to explain the contraction on the supply side — although Bowen and Rudenstine would not deny that the depressed job market on the demand side was important, too. (Oddly, they do not emphasize that the flight from the arts and sciences directly reduced the demand for undergraduate teachers in their six fields.)

The chapters in Part One are unsurprising, even boring, as the authors themselves frequently remark. Yes, the best PhD programs by prestige in the six fields tend to be the largest. Yes, losses of big national fellowship programs were bad for graduate support at elite universities, and yes, employment in the old fields was uncertain at best.

Part Two, "Factors Affecting Outcomes", focuses on time-to-degree, which is something of an obsession in the book. The authors claim that "the decision to focus much of this study on completion rates and time-to-degree implies no lack of concern for the qualitative dimension of teaching and learning at the graduate level" (p. 105). But saying is not doing, and it is plain that at least Bowen's heart lies firmly in the numbers. Unhappily, the results of focusing on the numbers are not, as they claim, "surprising and significant". It is not surprising to anyone who knows academic life since the foundation of the University of Berlin that half of the entering graduate students do not get degrees. Nor is it surprising that the highest of higher education takes a long time to get, as it has since Plato's Academy or medieval Bologna. As to the significance of their twice-told tale, Bowen and Rudenstine themselves conclude — on the basis of some canny demographic reasoning presented in Appendix D — that the official measures of time-to-degree have exaggerated its rise during the bust of the 1970s. There was in fact only a 15–20% rise rather than the 40% reported in the newspapers and believed by deans. "Lengthy time-to-degree is a problem with old (and deep) roots; it is not a new phenomenon" (p. 105). Yes, but what else is new?

And if it is not new, is it a "problem"? Bowen and Rudenstine thrash about at the beginning of Section Two trying to think up a standard by which a 50% attrition rate can be called a problem. They fail because they do not here think like economists. The best they can manage is to cast envious glances at professional schools three times in four pages and later assert nervously that "the completion rates . . . seem low by almost any standard" (p. 140), without providing a relevant one. Still later they regress to mere overstated viewing with alarm: "The direction of change [of attrition late in programs] is unmistakable, and the absolute numbers are high enough to be grounds for serious concern" (p. 253). Why exactly? No standard is provided.

The correct standard is that of investment and search. That half of businesses fail in the first few years of their existence does not imply that the investments were foolish. That half of prospective graduate students decide on second thought that it is not for them is no more alarming than the statistics on business failure, and no more likely to be improved by sagacious second-guessing from the executive suite.

A key finding is that smaller graduate programs have shorter time-to-degree than larger ones (Chapter Eight). One gets the impression that neither Bowen nor Rudenstine have in fact run a graduate program. Their surprise at the obvious will strike veterans as odd. A director of graduate studies in economics at the University of Chicago during the 1970s, when the program was among the largest in economics, could tell Bowen and Rudenstine why big programs have longer time-to-degree. In order to be large a large program does not select. (Given the difficulty of accurately predicting performance the lack of selection is not socially unwise.) If a school decides to select more stringently, as Harvard economics did in the 1970s and Chicago did in the 1980s, two things happen. First, the department gets better students, however poor the selection mechanism is, who complete degrees. Bowen and Rudenstine claim that they can extract the effect of better selection by comparing recipients of national fellowships with the rest of the students and using rankings for admission gathered from a few elite schools. As one of the rankers I doubt it. Second, an obviously important point on which Bowen and Rudenstine only touch (p. 149), smaller programs treat the students better, since the ratio of students to faculty goes down. Chicago at its peak had 200 graduate students in residence and a faculty of 25, in a program that emphasized graduate workshops.

There is a more worrying oversight in the analysis of large and small programs. Many of the larger programs, unsurprisingly, are convenient to large cities (thus Maryland at College Park or Rutgers at New Brunswick; or Chicago again), and therefore attract more part-time, partially committed graduate students. Older people with families who are uncertain about their educational goals take longer to get a degree. What is worrying is that Bowen and Rudenstine are not seeing into the lives of the people they are talking about.

In this second part, too, Bowen and Rudenstine collect confirmations in their Ten Universities and three subjects plus three (EHP plus MP plus Econ) of the usual attrition at the thesis. Administrators measure it and talk about it, like the weather, but no one does anything about it. A decade ago the University of Chicago's Baker Report (not mentioned) made a convincing case that we need to do something about the intellectual life of advanced graduate students. Bowen and Rudenstine commend the departments that have "instituted disser-

tation workshops to help combat (the isolation of doctoral research)" (p. 14), but spend more time gathering unremarkable statistics than on understanding the problem.

This is another worrying feature of the book: where clichés of administration need criticism they do not get it, statistically or verbally. The statistical finding that small programs have better records of completion, for example, unsurprising though it is, contradicts the usual administrative rhetoric in other parts of the book about "critical mass" in the scale of graduate programs. Characteristically, the metaphor of "critical mass" is here untested, though defended in footnotes as "reasonable" on grounds unspecified (pp. 77–79). The great and good know it is true, and that must suffice, whether or not it contradicts their other rhetoric. Administrators are much taken with certain figures of speech manipulated without thought: "critical mass", for example, or "specialization" or "building on strength".

Part Three, "Policies and Program Design", is also rather narrower than its title might suggest. It examines what the elite universities and the elite private foundations can accomplish with financial aid. "Money plainly matters" (pp. 12, 178), we are unsurprisingly told. But in their sample "the *form* of financial support appears to make less difference than has commonly been supposed" (p. 178). Bowen and Rudenstine argue plausibly that teaching assistants at elite universities get a more structured life in which to work, with more faculty contact, and therefore complete faster (p. 188). But their argument that teaching assistantships are, therefore, as good as free rides will not stretch beyond the elite, as they themselves admit at the end (p. 194). Four sections of freshman English a term are not what the professor ordered for scholarly productivity at the University of South Carolina. A worry — are Bowen and Rudenstine seeing into the lives of most American graduate students, or merely processing the statistics of students at Princeton?

Chapter Twelve, rather against the quantitative method in the rest of the book, wrestles to a draw with catalogues and program descriptions from the Ten Universities in English, history, and political science. Chapter Thirteen, on departmental culture, while not earthshaking, is the best in the book. It escapes briefly from the scientism of the rest and asks questions worth answering of people who can answer them. We learn, what we knew but perhaps

did not appreciate was so widespread, that students in English and history are frightened by the more sophisticated dissertations they are asked to write nowadays. We learn, from Nerad and Cerny, that "students in the humanities and social sciences . . . felt lost in the transition from what they called a 'class-taking person' to a 'book-writing person'" (quoted on p. 263). But the high quality of this last substantive chapter does not make up for the useless data shuffling of the eleven chapters that came before.

The book, to put the matter briefly, is a failure. It must be given its due. The prose is adequate, if over-freighted with adjectives and adverbs, especially when Bowen wields the pen. The authors are often intelligent, sometimes about their evidence, as when noting that "it is generally more useful to group observations by . . . the year in which [students] embarked on graduate studies" (p. 8, 41–42), not by their year of completion: it is the economic conditions at the decision points, not at the end, that should matter. Rudenstine, in Appendix F, gives a useful and uncommonly sensible view of the turmoil over "theory" in the interpretive sciences.

But the book does not meet the standards of its pretensions and does not yield benefits matching its social cost.

Consider the economic accounting that underlies the analysis. Bowen and Rudenstine assert that, "Students and institutions invest massive amounts of time and other resources, and it seems only reasonable that there be standards of collective accountability" (p. 14; and Chapters Nine and Fourteen). Such accounting, which leaves out the "students" part when it comes down to policy, is used to justify the main proposal, that places like the Mellon Foundation should do the collective accounting and then with the Federal government should give large sums to the elite portion of graduate education. After all, "Universities [by which they evidently mean Harvard and Princeton] are already carrying by far the largest share of the costs of graduate education in the humanities and social sciences" (p. 15). On elementary grounds the accounting is erroneous.

It is erroneous because the students themselves, as every economist understands and as Bowen and Rudenstine themselves emphasize in Chapter Nine, pay the opportunity cost of graduate education. Students time is by far the largest component, especially in equipment-cheap fields like English or

mathematics. (The talk throughout of "time and other resources," by the way, sounds strange coming from an economist: what is wrong with money as a yardstick?). Journalists and other anti-intellectuals to the contrary, graduate students are unusually competent people who if not in graduate school would be running things at big salaries. The cost is their salaries foregone. But the choice and the loss falls entirely on the individual student deciding to embark on graduate study. It does not fall on the universities or the general public.

Now Bowen and Rudenstine calculate that in their sample the number of graduate student years to produce a PhD, allowing for attrition, is "stuck at an exceedingly high level," 13.4 years in English, history and political science and 8.4 years for mathematics and physics. They do not justify the rhetoric of "exceedingly high" or "stuck". But in any case it is the choice of the graduate students to become stuck. There is no case here for "collective accountability." An example of the confusion in the authors' minds is their assertion that "the average societal investment of student time in graduate study is high in relation to the number of PhD's conferred" (p. 105, italics supplied). What is it, then, society at large or the student itself? Accountant, balance thyself.

The biggest problem in the book, however, is not how the sample is analysed, which is competent if uninteresting, but the character of the sample itself. Bowen and Rudenstine scrutinize, remember, six conventional fields of study and 10 elite universities. Both choices are indefensible in a study of American doctoral education as a whole, which is what the book claims to be. Bowen and Rudenstine admit on p. 268 that "we have looked carefully at only a small number of graduate programs . . . located within a clearly unrepresentative group of universities". From this they presume to offer a "discussion of policymaking in graduate education" (p. 268). The presumption is too great.

Choosing English, history, political science, physics, mathematics and economics is to choose a point of view. One cannot avoid choosing. In economic terms, the six fields are the market basket so to speak in an index number. Someone who viewed graduate education in the 1970s from the Department of Classics, for instance, would have a very different view than someone who viewed it from the Department of Orthopedics.

But some choices of point of view are better than

others. The choice made by Bowen and Rudenstine is exceptionally poor. The point of view embodied in choosing their six fields is that of the coastie educational establishment in 1958. One could be more precise by saying that it is a Princeton index, noting that Bowen and Rudenstine both have had most of their seat time at Princeton: in addition to administering there, Rudenstine got a Princeton BA before his Harvard PhD; and Bowen, its long-time president, got his PhD at Princeton. Princeton does not have graduate schools of law, medicine or business. (An old joke among university administrators is that the president of Princeton is the only one smiling in a collective photograph of the Ivy presidents. Why is that? Because he's the only one without a medical school.) Therefore, in a Princeton index the boom in doctoral study in these fields is simply not measured.

Business fields such as accounting and management boomed in numbers and in intellectual quality at the time the six fields were faltering. No business, please; we're Princetonians. A field like communication studies, mainly midwestern though as old as eastern political science as a separate field, has no chance of being represented in the story of doctoral education as told by Bowen and Rudenstine. It too boomed in the 1970s, though sat on by administrators educated east of the Appalachians. And the choice of the six fields of 1958 means, of course, that interdisciplinary fields, often having small programs, such as comparative literature and parts of applied mathematics, are ignored. Film studies is doubtless most vulgar, and best left to places remote from Boston and New York like the University of Southern California, but perhaps it merits a line or two in a 400-page book on graduate education. Most fundamentally an index of fields that marked off the seams of the universe in 1958 has the problem of any Laspeyres index number: it reflects the tastes and conditions of the past, not the present.

But the most damaging error of sampling is to leave it at the Ten Universities (in Chapter Five reduced to the five Ivies among them). Bowen and Rudenstine defend their decision to study only the "top echelon" in a few sentences scattered across the book. It will not do. As they themselves point out, more and more PhDs are coming from non-elite institutions and more and more from places other than the 1958 elite. It has been some time, Bowen and Rudenstine need to learn, since American higher education consisted mainly of clubbable

chaps from the East Coast. I wonder if they know about scanners at grocery checkout counters. Contrary to their confident and final dismissal of the issue in a dependent clause on page 6 of the book, their choice of The Ten certainly does “raise worries about ‘elitism’.” Bowen and Rudenstine want to draw conclusions about doctoral education, but have sampled from an irrelevant universe. The sample has no validity and the conclusions drawn from it do not apply to graduate education as a whole. It is wrong to claim, as in the publicity flyer for the book, that it “is the most comprehensive analysis of the effectiveness of doctoral education in the arts and sciences ever undertaken”. On the contrary, it is the narrowest. The study, therefore, is lacking in point.

No one would propose a study of undergraduate education that focused on Harvard, Amherst, Berkeley and Grinnell. Similarly here. It is not the small size of the sample that is alarming — after all, as Bowen and Rudenstine waste no chance to tell us, it takes a lot of work to follow graduate students over many years — but its bias. One example of many in the book in which findings from the elite sample cannot be generalized is the effect of full-ride fellowships on time-to-degree. At Princeton and Yale three-quarters of the students are supported mainly by full-ride fellowships. Three quarters. The authors do not emphasize that in the real world, represented here by the University of North Carolina, 3% are so supported. Yet they find space to discuss the bracing effects on time-to-degree of doing a little teaching at Yale. Wait a minute. Does anyone doubt that if Wayne State University could offer full-ride fellowships on the scale that even nearby Michigan can its time-to-degree would fall precipitously?

Bowen and Rudenstine observe that the various attempts by foundations to reduce time-to-degree at elite universities have not worked. They recommend that the foundations and the Federal government give more portable fellowships in the humanities, which will of course end up in the coffers of the elite universities. A suggestion for improving the record of the foundations and the government: give the money to the Wayne States of the world.

Occasionally the thought that something is wrong flits into their consciousness. “These nine universities (for which attrition rates could be collected) are by no means representative of the full range of

institutions awarding doctorates” (p. 108; cf. 268). Yes, “by no means,” Messrs les Présidents. But then it’s back to the Amtrak line from Princeton to Cambridge. When they can’t get a good sample from the Ten Universities they get a sample from . . . men [sic] who won Danforth Fellowships. There’s the common touch.

Most of the teaching in American colleges is and will be done by graduates of programs ignored by the Mellon Foundation and well beyond the reach of the city edition of the *New York Times*. Most of them will not come from the Elite Ten. Most of them will not be conventional students going to school at conventional ages from backgrounds that would make deans of admissions of Ivy League colleges in 1958 comfortable. Most of them are not going to be white male honors graduates in mathematics from Yale. Many will be 40-year-old nurse supervisors going back for PhDs in nursing at the University of Texas at Austin. Or late bloomers who become professors of history by way of Case Western after the army. Or PhDs in accounting from Louisiana State with a background in English from Southeast Missouri.

Bowen and Rudenstine pay conventional obeisance of course to a wider academy. No one can be an administrator nowadays without the usual cant. But their heart is not in it: the structure of their study and the character of their recommendations shows that they have no place in the new graduate schools for people who got there by any but the routes conventional in 1958 along the Bowsh corridor. They recommend that the Federal government finance more fellowships in the humanities, but argue against “institutionally targeted programs” [read: programs aimed at the places where most of the graduate students are educated]: “the NDEA program of the 1960s . . . [encouraged] the further development of programs that have remained below critical mass” (p. 275). Heaven forbid that we have programs below critical mass, whatever exactly the phrase may mean. Bowen and Rudenstine repeatedly aver that “programs can be too small to be effective, and the data in Chapter Four suggest that this a serious issue” (p. 280). The data in Chapter Four, which documents the number of programs “below critical mass” by an arbitrary definition without showing that low critical mass so defined has bad effects, suggest nothing of the kind. The candid title for the book would have been *A Report on a Few Established Fields at a Few*

Universities that We at Princeton and the Mellon Foundation Think are Respectable.

When all is said and done, the main recommendation is that we pull up our socks: "more structure is needed in graduate education;" (p. 14) there is "a need for organizational clarity and well-understood expectations" (p. 281). How is this to be provided? By helping graduate students form an intellectual community, as the Bowen and Rudenstine results on teaching assistantships might suggest? By doing something about graduate student housing? By increasing the prizes and other morale-improving signals, as the results on women in the Woodrow Wilson Program show (p. 228) or as Louis Solmon (p. 180 n6) suggests? By giving the graduate students a wider view of their field within intellectual life, so that its point is clear? By inventing fresh institutions cutting across graduate fields, training students for the future? By questioning the rhetoric of specialization? By reframing the Germanic tradition in graduate study? By devising fields of study that are not tired monopolies?

No. Bowen and Rudenstine have a wholly bureaucratic and conservative answer, as might have been expected from two long-time elite bureaucrats. What are needed, say Bowen and Rudenstine in an unusually passionate paragraph in the introduction, are "clearly specified objectives, incentives, and time lines . . . [There is] a strong case for more careful record-keeping and monitoring . . . collective accountability that are both explicit and consistently applied" (p. 14). They piously disavow any desire to make graduate education "so streamlined as to threaten qualitative standards" (p. 15). And yet one comes to know a few sentences later where they live, cutting the cant: what's needed, they say from the president's office, are "prescribed standards and prescribed periods of time" (p. 15). Time lines. Prescribed periods. "A set of guidelines that are consistently monitored and enforced" (p. 283). The voice of the bureaucrat who does not know what graduate school is like in the United States.

Doubtless Princeton Graduate School should pull up its socks. Doubtless its free-riding graduate students, selected from the best and brightest by the Educational Testing Service, supported generously by the Mellon Foundation, by Princeton's endowment, and by the Federal tax payer, spend too much time drinking tea. On the other hand, if that really is the problem one wonders why these men in charge of it didn't pull up the socks and close the tea rooms.

What one wants to know is the way sock-pulling-up and restricted tea times are going to effect those who will in fact make up most of the professoriate in the United States. Bowen (with Sosa in 1989) is responsible for the widely credited prediction that the market for PhDs will be tight in the late 1990s. If he is right then we need wider, not narrower, doors to the professorate. If standards are not to fall we need to reinvigorate the graduate schools, not tighten the bureaucratic screws.

Though they stress the departmental character of graduate study Bowen and Rudenstine do not examine the departments more than superficially. Bowen the economist could have told more about the absurdities of graduate education in economics, a scandal that has brought the American Economic Association to investigate it. (The investigation uncovered some startling ignorance and then was closed without conclusion.) We find here no evaluation of the shallow imitation of economics that political science has become, or the long Bourbaki uselessness of mathematics (which thankfully shows signs of coming to an end). Rudenstine testifies to the invigorating currents of theory in literary studies, but as a bureaucrat he is wary, wary that it might make life too complicated. The book plumbs every time for the *status quo ante* 1958.

The self-interested character of the thing is embarrassing. The book is a tract in favor of continuing the support for elite graduate programs by the government and by elite foundations. Bowen and Rudenstine congratulate the national foundations for being "at least occasionally adventuresome, willing to place bets that might be inappropriate for governmental entities" (p. 15). On the contrary, it is notorious that the private foundations are less adventuresome than the National Science Foundation and much less so than the public universities. The Manhattan foundations have a self-image of daring entrepreneurship making a difference on the margin. Some daring. Some margin.

If this is the best the top academic administrators in the country can offer then there is a simple explanation for whatever problems there might be in American graduate education. The explanation is not that the keeping of records is insufficiently Prussian. The simpler explanation is that our educational leaders, such as William Bowen and Neil Rudenstine, have no educational imagination. I speak from the histories of the two places at which I have taught, each for twelve years. The University

of Chicago was most creative in graduate education under the leadership of William Rainey Harper. Chicago in the 1890s was a break-the-mold place, pushing for example the radical new fields of sociology and political science. The University of Iowa was most creative when the Dean of its Graduate School was one Carl Seashore (dean 1908–1936, 1942–1946): under Seashore's leadership the place invented the Writers' Workshop, the MFA, the public opinion poll, speech pathology, and the pencil-and-paper achievement test for

schoolchildren. Nothing in the present book promises similar vigor. Where is the CCNY of the 1930s in their report? Where is the Johns Hopkins of the 1880s, whose President, when asked why its intellectual life was so vigorous, replied, "Because we go to each others' classes"?

In the 1950s people in academic life used to joke about a color called "graduate-student gray". Judging from *In Pursuit of the PhD*, the problem 30 years later is administrative alabaster, translucent off-white in the universities and in the foundations.