



*Econ Journal Watch,
Volume 2, Number 1,
April 2005, pp 133-148.*

INVESTIGATING THE APPARATUS

The Ph.D. Circle in Academic Economics

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[Abstract](#), [Keywords](#), [JEL Codes](#)

IT IS NOT UNCOMMON FOR ECONOMISTS TO REASON AS THOUGH the market for economics is like markets for ordinary goods and services (e.g., Rosen 1997, 151; Scott & Anstine 1997). A believer in the invisible hand, George Stigler was notable in advancing the idea that economists do good by doing well academically:

Scientific research is a market process, differing vastly in form but little in substance, from the comparable activities of grocers or manufacturers of computers. Individual scholars distribute themselves by the action of self-interest. . . . The better the research work, the more prestigious the journal in which it will appear. The superior researcher is hired by the better university, promoted at a rapid rate, favored by the National Science Foundation and the private foundations, given a lighter teaching load. . . . Who decides what subjects to work on, and how good each research product is? In the short run—from year to year—the judges are the fellow scientists. . . . A system of

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I thank Santa Clara University student Leah Verhoeven for her excellent work compiling the Excel sheet containing all the information about doctoral origination of faculty at 25 economics departments. For useful comments, I thank Peter Minowitz.

government of a science by a self-chosen elite has the potential for stagnation and scholasticism of the sort that stultified Oxford and Cambridge Universities in the eighteenth century, but in the American context these evils are escaped. There are so many good universities (not under one control), so many foundations, so many scientific journals, that each major discipline becomes a competitive industry. No one model of orthodoxy can be imposed on a science. (Stigler 1988: 84-85)

Stigler said: The economics market works fine. He told economists: Don't worry about whether you are doing good; rather, respond to the incentives of normal science. In doing well, you do as much good as you can (Stigler 1982: 34, 67; 1988: 179). He acknowledges that the economics market differs from, say, the waiter market in form, but it does not differ in substance. Thanks to the multiplicity of universities, academia avoids the kinds of problems it exhibited in Adam Smith's time.

I think academia today continues to exhibit the kinds of problems Adam Smith discussed. The problems are not as severe, but they are bad enough that we should think hard about them. Here I provide evidence to suggest that, rather than being, as Stigler maintains, a polycentric marketplace responsive to consumers, academic economics is more like an extended family or club, with a pyramidal structure and culture.

IF WAITERS WERE LIKE ECONOMISTS

Do the thought experiment. You arrive on a planet on which the market for waiters is like our market for academic economists. This other-worldly market exhibits the following features:

- Each waiter job is controlled by a collection of other waiters, a Waiter Department.
- Each Waiter Department spends money with very slight regard for the preferences of restaurant customers. Indeed, much of the money comes from coercive extractions from extraneous parties.

- There are 200 Waiter Departments, but they all form an encompassing mono-centric cultural pyramid. Each Waiter Department gets whatever prestige and revenue-base it commands principally by adhering to the accustomed standards of the encompassing club.
- Each Waiter Department produces the new young waiters, whom it tries to place as high up in the pyramid as possible.
- Non-waiters are deemed unqualified to criticize the standards and practices of the encompassing Waiter club. Outsiders are ignored.
- Waiters at departments at the top of the pyramid set the tone for the entire club.
- Waiters carry on political discourse with restaurant customers. Moreover, waiters at the top departments rub shoulders with political elites and power-holders. Sometimes, the top waiters are appointed to positions of influence and power. Many aspire to be or imagine themselves to be part of society's governing set. Their governing-set standing depends on playing according to the rules of conventional political culture. One of those rules is that one must accept the idea that society is an organization and government is the manager of that organization. One must affirm a basic faith in democratic political processes. One must observe that the appointed managers are like us, smart, socially-concerned people who can master the contours of society's unknowability well enough to regulate social affairs beneficially. One must refrain from saying anything that might imply that much of what the government does is fundamentally a sham and a menace. As a result, among the top 50 Waiter Departments there is no voice or vitality for abolitionism.

This waiter market is very different from our real-life waiter market. This waiter market would likely exhibit some of the problems Adam Smith observed in the colleges and universities of his time.

ADAM SMITH ON ACADEMIA

In *The Wealth of Nations*, Adam Smith developed an incisive criticism of academia (pp. 758-81). He at least touches on all of the following familiar criticism of academia:

- Academic societies are organized “not for the benefit of the students, but for the interest, or more properly speaking, for the ease of the masters” (764).
- They self-organize as self-validating societies, in which members indulge each other’s conveniences (761).
- Academics tend toward an esoteric language that excludes outsider participation (765).
- Democratic decision making by professional units fails to make individuals accountable for their actions within the process of collective decision making (779).
- The clubs are prone to groupthink and the lock-in of foolishness. They were sometimes “the sanctuaries in which exploded systems and obsolete prejudices found shelter and protection, after they had been hunted out of every other corner of the world” (772). They have generated sciences that are “a mere useless and pedantick heap of sophistry and nonsense” (781).

Smith acknowledges that there are no easy solutions. There is no easy way for outsiders to evaluate or regulate the inner workings of the scholarly community (761). As for public-policy judgments, while Smith is ambiguous on the education of children (815), on colleges and universities he is libertarian. He clearly opposes “the privileges of graduation” (762, 780), or, in modern parlance, licensing requirements that create much of the demand for the services of accredited schools.¹ And he comes across as

¹ Smith entertains the idea of a basic-education examination required of entrants into “any liberal profession” or “honourable office of trust or profit” (pp. 796, 786), but his interest is in inducing a demand for basic education, not in assuring the quality of practitioners. It is clear that Smith opposed occupational licensing.

against public funding (776-81). As for charitable foundations, he suggests that they shift from producer-side to user-side subsidies (763).

In the midst of his criticism of academia, Smith launches into a wandering account of how ancient Greek philosophy evolved into various scholastic fields (766-72). He describes how academia elevated “Metaphysicks or Pneumaticks,” producing, “after a few very simple and almost obvious truths . . . nothing but obscurity and uncertainty” (771). This subsequently evolved into Ontology. “But if subtleties and sophisms composed the greater part of the Metaphysicks or Pneumaticks of the schools, they composed the whole of this cobweb science of Ontology” (771). Smith’s account concludes as follows:

The alterations which the universities of Europe thus introduced into the ancient course of philosophy were all meant for the education of ecclesiastics, and to render it a more proper introduction to the study of theology. But the additional quantity of subtlety and sophistry, the casuistry and the ascetic morality which those alterations introduced into it, certainly did not render it more proper for the education of gentlemen or men of the world, or more likely either to improve the understanding, or to mend the heart. . . . *This course of philosophy is what still continues to be taught in the greater part of the universities of Europe*, with more or less diligence, according as the constitution of each particular university happens to render diligence more or less necessary to the teachers. (p. 772; italics added)

Smith’s five-page digression is a way of positing a single fact: As he looks out his window, Smith sees an academic establishment that to him appears wasteful and foolish. That is the fact to be explained. The explanation does not seem to lie in the intemperance and prejudice of Smith’s character. Rather, Smith suggests that the structure of academia makes it priestly and almost impervious to criticism. Insiders seek to secure a place on the pyramid and must curry favor and conform. Outsiders are deemed unqualified to judge. The hazards are inherent, and the best way to deal with them, according to Smith, is to remove privilege and coercion from the system.

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DO ECONOMISTS KNOW THE IMPORTANT FINDINGS OF THEIR OWN SCIENCE?

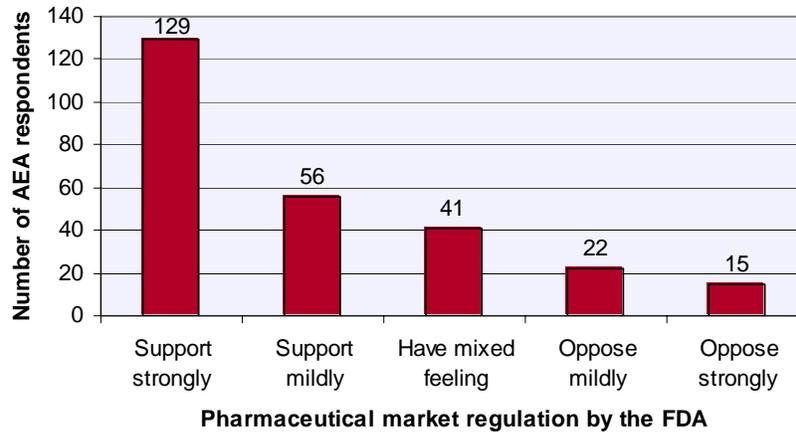
In 2003, I sent a survey to 1000 American Economic Association members. Here I report on one question, to illustrate why the situation seems to me not so different from that of Adam Smith's time.

The survey asked respondents to give their position on various forms of government activism. One question was as follows:

Pharmaceutical market regulation by the Food and Drug Administration (FDA):

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> |
| support
strongly | support
mildly | have mixed
feelings | oppose
mildly | oppose
strongly | Have no
opinion |

FDA control of pharmaceuticals is a topic about which economists have written extensively. Alexander Tabarrok and I review much of the literature in our website "Is the FDA Safe and Effective?" (FDAREview.org). We include a compendium of 22 quotations by economists calling for significant liberalization of FDA control, and we explain that we have been unable to find quotations favorable to current levels of control by economists who work on the FDA. I believe economics reaches a clear conclusion in favor of significant liberalization of FDA control of pharmaceuticals. Thus, given the range of response options provided by the question, the first two options are simply wrongheaded. Yet here is the distribution of responses:

Figure 1: AEA members' responses to the FDA question²

The FDA issue is one of supreme importance and perennial urgency. Seventy percent of AEA members have it very wrong.³ The reasons they have it wrong are like those explained by Adam Smith. Rather than developing economic judgment on policy fundamentals, economists are trained in scholastic subtleties, like estimating elasticities and structural econometric models and building equilibrium models. Indeed, in the establishment culture of the elite departments, young economists are discouraged from exercising and developing fundamental policy judgment. Accordingly, they simply never really learn that FDA protection is a sham. Journals like *Journal of Economic Perspectives* and *Journal of Economic Literature*, supposedly functioning to disseminate important findings to the profession, conform to establishment academic political culture. They fail to bring forward important findings that would upset that culture.

² Also, one respondent selected "Have no opinion."

³ See Klein & Stern 2005a for the basic results of the AEA member survey. The survey contained 18 policy questions, and the FDA question is by no means the only one on which the responses were, in my judgment, disgraceful.

STRUCTURAL SCHOLASTICISM

I wonder what George Stigler would say about the results of the FDA question. He would surely agree that at least 70 percent of AEA members have the issue wrong. In 1959, Stigler asserted, without evidence, that “economists are conservative” (p. 527). In the way he meant it, that statement was probably false then, and it is certainly false today (see Klein and Stern 2005b). Against all the evidence, Stigler clung to the idea that an invisible hand operates in academic economics. I wonder, too, if Stigler would maintain that sociology, anthropology, and urban planning function to advance wisdom and enlightenment. In structure, those fields are identical to economics.

Stigler’s invisible-hand error goes with his error about market structure. Rather than being like a competitive industry, academic economics has the structure of scholasticism. As Robert Nelson (2004) explains, *topical* scholasticism goes with *structural* scholasticism.

Graduate education is a formative period for a young economist. He or she learns directly from professors and learns to emulate them, in order to get a PhD degree. He or she depends on them for resources and for entrée in the journals and job market. He or she continues to depend on them throughout his or her career. The dependence resides in a rich nexus of relationships, exemplified by the letter of recommendation. Academics is an ongoing and circular system of validations, and even full professors need validation to obtain publication contracts, prestige awards, large grants, and jobs at universities further up the pyramid. Thus, the ties and imprint of graduate training is lasting. One’s PhD degree is a marker of the sub-group that raised you. It is a way of drawing the social connections between members of the encompassing society of Economics: “Oh you got your degree at Columbia, so you must know . . .”

About 15 years ago, the American Economic Association appointed a commission to investigate graduate education in economics. The executive secretary of the commission, W. L. Hansen (1991), states one of the findings: “the content and structure of graduate programs in economics are amazingly similar” (1085). It is likely that the programs have since become even more alike. Also, the European doctoral programs have increasingly mimicked the elite programs in the United States (on Sweden, see Boschini et al 2004 and Johansson 2004). All the departments seek to hire people with certain official distinctions, notably publishing in a certain set of top journals and getting cited (as counted by Thomson Scientific-ISI). Contrary

to Stigler's picture of schools competing in differentiated approaches to wisdom, the field at the top is more like an extended family or genteel urban society. Within the family, there is some variation—in methods, politics, and character—but only between the 40 yard lines.

The top dominates the entire profession. The pyramid is seen in the PhD-origination of faculty members. In the tradition of Spellman and Gabriel (1978) and Pieper and Willis (1999), Santa Clara University student Leah Verhoeven and I investigated in 2003 where economics professors got their PhD degrees. We worked with the then-most recent international ranking of the top 200 economics departments (including a few institutions like Brookings) based on 1994-1998 journal publication output, authored by Tom Coupé.⁴ The Excel file in Appendix 1 contains several worksheets. The first worksheet shows the 200 ranking. We investigated where regular faculty members got their degrees.⁵ We investigated 25 departments, namely those with the following ranks:

1, 2, 3, 4, 5
10, 20, 31, 40, 50, 60, 77, 80, 93, 102, 111, 120, 134, 140, 151, 160, 170, 180, 190, 200

The second line of twenty departments takes every 10th department but skips non-U.S. departments. For example, the 30th department is University of Toronto, so we skipped to the 31st, Boston University. For each department investigated, we went to the Economics Department website and copied the name of the professor, position, and where he or she got a PhD.⁶ Altogether, we have a sample of 717 professors with an

⁴ Coupé's ranking is an ordering of mean rank based on 11 different established methodologies of ranking by journal publications, including by the journal's reputation (measure in standard ways). We used the ranking from Coupé (Undated-a, pp. 12-15) because his updated ranking (Undated-b), based on 1990-2000 publication, was not available when we started the investigation. The differences between the two rankings are minor (18 schools are common to each list's top 20, and 34 schools are common to each list's top 35). As of March 2004, both versions were online, with URL links from Tom Coupé's page at: <http://student.ulb.ac.be/~tcoupe/ranking.html>.

⁵ We included Assistant, Associate, Full and Emeritus professors only, not lecturers, adjuncts, or visiting professors.

⁶ We consulted the websites shown on the "Notes" worksheet, from April to August 2003. Five listings (actually four individuals, because Gordon Tullock appears for both Arizona and George Mason) did not have an Economics Ph.D.; those cases are put at the bottom of the appropriate worksheet and were omitted from all calculations.

Economics PhD in the 25 departments investigated.⁷ When a professor's PhD was from a school not included in Coupé's 200 list, it is recorded as rank 201.

Figure 2: Percentage of economics faculty with Ph.D. from the top 20 economics departments.

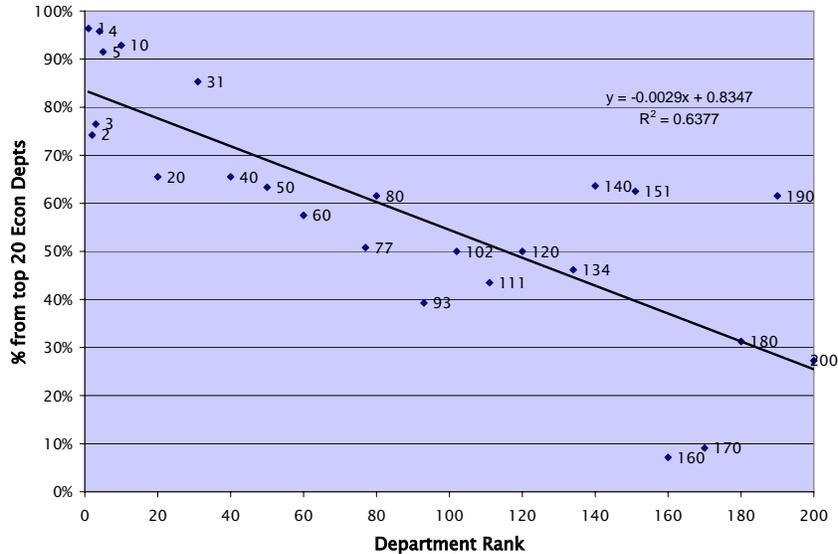


Figure 2 plots percentage from the top 20 departments. At the top, more than 80 percent of the professors are from the top 20. The plot suggests that departments ranked around 115th have 50 percent from the top 20. Since those 115 departments are generally much larger than the remaining departments (Scott and Anstine 1997, 317), these numbers suggest that top-20 PhDs populate more than half of the academic economics profession in the United States.

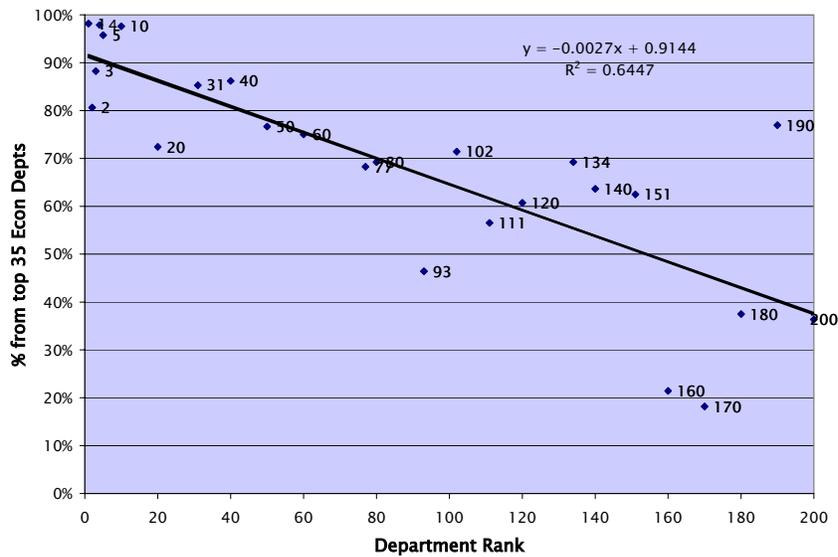
The ranking covers the entire globe, so it makes sense to move the cut-point for “elite” out to the top 35. The set of top 35 departments draws 76 percent of its faculty from itself. Anyone with an inside

⁷ There were 718 names (excluding the five without an Economics Ph.D.), but we could not obtain the Ph.D. origination data for one professor (at Brandeis), and that individual has been omitted from all calculations.

understanding of academics knows that this society is much more like familial affairs than normal markets like waiting tables. Again, it is a society in which everyone who matters is an economist. The idea of economists serving “the customer” is alien to the profession. Economists are uncertain of who “the customer” even is.

Figure 3 plots percentage from the top 35 departments. At the top, more than 90 percent of faculty comes from the top 35 departments. The plot suggests that departments ranked around 44th have 80 percent from the top 35. These results show clearly that the top 35 departments dominate the profession.⁸

Figure 3: Percentage of economics faculty with Ph.D. from the top 35 economics departments.



⁸ Siegfried and Stock (1999, 126) show that higher pay goes to graduates of higher-ranked departments. Stock and Alston (2000, 399) find that “even after controlling for observed differences in the research, teaching, and other observed qualifications that may differentiate [job] candidates, there was a positive return to program rank for both the number of interviews obtained and the initial salaries of candidates in our sample [of new economics PhDs].”

Yet these results do not fully capture the domination by the top departments. In addition to being larger, the top departments have vastly disproportional influence in the profession. Kocher and Sutter (2001, F420) find that the top ten institutions conferred the PhD of about 55 percent of the authors in 15 top economics journals (in a sample ranging from 1977 to 1997). The top departments have disproportional influence also at book publishers, foundations, and government grant-making organizations (Coupé 2004; on graduate-student support, see Siegfried and Stock 1999).

Further, top departments have disproportional impact in second-generation PhDs. Using 1992 data, Pieper and Willis (1999), examining only U.S. departments, find that the top ten departments produced 34.6 percent of all economics doctorates but nearly 50 percent of all the PhD-granting faculty. When they weighted departments by number of PhDs produced, creating a second-generation unit they call a “PhD-equivalent,” they find: “Graduates from the top 10 schools and the top 20 schools produced respectively 54 percent and 72 percent of all PhD-equivalents” (85-56). They also found that “[g]raduates from 10 schools accounted for two-thirds of all dissertation supervisors” (86). While acknowledging that their general concentration finding “probably reflects the ability of the top schools to attract the best students,” Pieper and Willis express concern that it “has also contributed to an inbreeding of the economics profession” (86, 87).

Similar analyses by sociologists of Sociology have been done, most recently by Val Burris in his *American Sociological Review* article, “The Academic Caste System: Prestige Hierarchies in PhD Exchange Networks” (2004). Some relevant findings are conveyed in the following excerpts:

Even for those familiar with the hierarchical nature of academic employment, the results shown in Table 2 are striking. Graduates from the top 5 departments account for roughly one-third of all faculty hired in all 94 departments. The top 20 departments account for roughly 70 percent of the total. Boundaries to upward mobility are extremely rigid. Sociologists with degrees from non-top 20 departments are rarely hired at top 20 departments and almost never hired at top 5 departments. (247-249).

This information confirms the observation made by . . . [six references deleted here] . . . that mobility in academia is mainly horizontal and downward and seldom upward. (249)

[M]y data suggest that the hiring of senior faculty by prestigious departments is even *more* incestuous than the hiring of new PhDs. . . . Of the 430 full-time faculty employed by the top 20 sociology departments . . . only 7 (less than 2 percent) received their PhD from a non-top 20 department, worked for three or more years in a non-top 20 department, and, after building their scholarly reputations, advanced to a faculty position in one of the top 20 departments. (251)

For the Law field, Brian Leiter of the University of Texas found that, among all new faculty who started in tenure-track law school jobs between 1996 and 2001, more than one-third earned their J.D. from just three law schools: Yale, Harvard, and Stanford (Leiter 2002).⁹

CONCLUDING REMARKS

George Stigler's statement about the market structure of academics differing "little in substance" from that of groceries shows how foolish Stigler could be. Academia is more like a self-organizing, self-validating club than like a grocery market. In many respects, in academia the consumers and the producers are the same set of people, and they subsist on money from parties that are largely extraneous to their markets. The structure of scholasticism is very different from supply and demand of groceries or waiter services.

What remains contentious is whether the academic club is systematically flawed or biased, as Adam Smith thought it was in his day. The presumption among the professional elites seems to be that the system works about as well as it can: People with degrees from the top departments hold most of the academic posts and publish most of the top-journal articles mainly because the top departments attract the best students and do the best job of training them.

⁹ I have not searched extensively for similar analyses of the various social-science disciplines; I would guess that the pyramidal structure is common to all.

My take is that, while the top departments attract the most bright-smart students and best train them in club ways, a very deep concern remains about the club being poisoned by a complacent, tepid, genteel, governing-set political culture. (More specifically, this political culture is, as in all other academic disciplines, preponderantly social-democratic.) The plain fact of cultural network externalities, self-validation, sorting, conformism, groupthink, lock-in, preference falsification, etc. give this concern strong foundation in theory—economic, sociological, and cultural. There is nothing remarkable in suggesting that power, prestige, status, and resources influence behavior and organizational norms. To my mind, those influences help explain why few economists have good judgment on policy fundamentals. Adam Smith's criticisms of academia remain highly relevant today.

[Appendix 1: Link to Excel file containing the data on Ph.D. origins of economics faculties, used in Figures 2 and 3.](#)

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