

Foreign Students in U.S. Doctoral Programs

Nahid Aslanbeigui and Verónica Montecinos

The growing presence of foreign students in U.S. doctoral programs in economics is an indication of a trend toward internationalization of economics (Coats, 1997). Although the number of doctorates has remained relatively stable over the last quarter century (at approximately 800 degrees annually), the proportion of these doctorates conferred on foreign students has increased from 20.5 percent (183 in total) in 1972 to 43 percent (368) in 1988 (Bowen and Rudenstine, 1992, p. 378). Our own survey of 51 Ph.D. programs in economics, to be described below, indicated that 52 percent of the doctoral students in economics were foreigners in 1995–96. The share of foreign students receiving doctorates is much higher in economics than in the social or physical sciences, but lower than that in engineering fields (National Science Foundation, 1987, xii).

Some studies have examined the general flow of foreign students to the United States, or their fate upon returning to their countries (Barber, 1985; Goodwin and Nacht, 1986; NSF, 1987). But to our knowledge, only a few inquiries have considered foreign doctoral students in U.S. economics programs. Among them are Rao (1995) and Montecinos and Aslanbeigui (1997), which discuss the issues of time-to-completion and foreign students' choice of country of residence. Valdés (1995) has analyzed the trajectory of the "Chicago Boys" in Chile.

In this article, we use data from our survey as well as evidence from other sources to present a profile of foreign students in U.S. doctoral programs; to explore the factors behind the growing internationalization of U.S. graduate economics education; to shed light on foreign students' interests, career plans and assess-

■ *Nahid Aslanbeigui is Associate Professor of Economics, Monmouth University, West Long Branch, New Jersey. Verónica Montecinos is Associate Professor of Sociology, Pennsylvania State University, McKeesport, Pennsylvania.*

ment of the training they are receiving; and to draw attention to implications and questions for further research in this area.

During spring 1996, we sent a seven-page questionnaire with 25 questions and a personal data sheet which had been pre-tested on two campuses during the previous year.¹ We mailed 2,507 questionnaires to all foreign students enrolled in 51 Ph.D. programs in economics. We selected the programs from a list compiled for us by the Institute of International Education's Statistical Research Division (November 1994) showing the number of foreign students in each program. Since not all schools report data to the Institute, we complemented this information by including the larger, top-tier schools that were excluded from the Institute's list. We divided the selected programs into three tiers using the methodology of Conroy and Dusansky (1995).² We then called the graduate directors/secretaries of all the selected schools who either provided a list of their foreign students' names, or, more frequently, agreed to receive and distribute the questionnaires. The response rate of 22 percent (555 questionnaires) calls for caution in interpreting our findings. For example, the few responses from African, Eastern European, and Middle-Eastern students may indicate some selectivity bias. However, the response rates were relatively similar across departments and also similar across students in different years in the program.

We also sent a separate, two-question survey to the same departments asking for the total number of students and the number of foreign students enrolled in their Ph.D. programs; results from the 41 departments that responded indicated that the ratio of foreign students is 52 percent. In addition, in June 1996 we began a series of follow-up interviews at UCLA, Stanford, Berkeley, NYU, Columbia, Princeton, UNC-Chapel Hill, and Duke with 43 foreign graduate students in economics. We also interviewed 16 faculty/graduate directors at these schools, and several foreign economics professors working in the United States or abroad.

Profile of Students

Table 1 presents a profile of foreign graduate students in economics by region and gender. About three-quarters of our respondents were male, although the pro-

¹ Copies of this survey are available upon request from the authors.

² Using the methodology of Conroy and Dusansky (1995), which is based on publications of faculty members and is described in their article in the Winter 1998 issue of this journal, the Tier-I schools receiving our questionnaires were Brown, Ohio State, New York University, Northwestern, Wisconsin, Duke, Maryland, Minnesota, Princeton, Stanford, UCLA, Berkeley, Pennsylvania, Yale, MIT, Michigan, University of California at San Diego, Texas-Austin, Rochester, Chicago, Harvard; Tier-II schools were Illinois-Urbana/Champaign, Cornell, University of California at Davis, Johns Hopkins, Iowa, Indiana-Bloomington, Rutgers, Michigan State, Columbia, North Carolina at Chapel Hill, Arizona, Colorado-Boulder, Iowa State, Pittsburgh; and Tier-III schools were Kansas State, Washington State, Massachusetts at Amherst, Howard University, Vanderbilt, State University of New York at Albany, Purdue, State University of New York at Binghamton, American University, City University of New York, Kansas, Cincinnati, New School, Oregon, and Washington.

Table 1

Foreign Students in U.S. Doctoral Programs by Region and Gender, Spring 1996

<i>Region</i>	<i># of Students</i>	<i>% of Total</i>	<i># of Female Students</i>	<i>% Female</i>
Africa	5	1	3	60
Asia (South and East)	207	39	51	25
Europe (East and Central)	20	4	8	40
Europe (Western), Canada, Oceania	165	31	33	20
Latin America, the Caribbean	107	20	24	22
The Middle East and Turkey	24	5	6	25
Total*	528	100	125	24

Note: This table includes the total number of observations that identified both nationality and gender.

portion of women was higher in lower-tier schools (33 percent) than in higher-tier departments (22 percent). The average student expected to complete Ph.D. training in five years, which is lower than the 6.4 years reported by Hansen as the median for all students in 1989 (1991, p. 1064). The shorter time reported by our respondents may reflect hopes rather than actual events. Forty percent were married (there was no significant difference in the marital status of men and women), and fewer than 10 percent lived with children. Asians were the largest group in our sample, but western Europeans and Latin Americans were well represented.

Previous studies have shown that graduate students in economics as a group come from highly educated families (Klamer and Colander, 1990, p. 14), and our respondents were no exception. Thirteen percent of the parents held doctorate degrees in medicine, law, or natural/social sciences, while 70 percent of the fathers and 42 percent of the mothers had post-secondary education. Sixty percent of the mothers were gainfully employed, and in 10 percent of the cases one parent had held a high position in government.

The students in our sample placed themselves in all categories of the political spectrum: 6 percent placed themselves on the far left, 38 percent left of center, 18 percent at the center, 34 percent right of center, and 4 percent on the far right.

Our data suggest that foreign students enter doctoral programs with very strong academic credentials. Often, their undergraduate training in economics is more lengthy and specialized than the typical U.S. economics major receives. Many foreign students are required to obtain a master's degree before applying to a Ph.D. program. In addition, they tend to have longer work experience than their U.S. counterparts. Almost three-quarters of the respondents entered the program after having worked an average of four years as an economist, primarily in teaching/research institutions or in the financial sector of the economy. In contrast, Klamer and Colander (1990, p. 14) found that only half of students had worked, traveled or studied before entering a Ph.D. program in economics.

It has been suggested that the increasing share of foreign students, and the fact that they tend to score higher than U.S. citizens on the mathematical component of the Graduate Record Examination but lower on the verbal section (NSF, 1987, p. 82), may have contributed to the mathematization of economics curricula (Krueger et al., 1991, p. 1043). With this in mind, it is interesting to note that only one-fifth of our respondents said that speaking and writing in English was a problem for them. Those with more serious language difficulties were often from east Asia and were more likely to be enrolled in lower-tier schools. Students reported that their difficulties with spoken English diminished somewhat over time, but difficulties in writing were more persistent. This may be due to, at least partially, the heavy emphasis on problem solving at the expense of writing research papers before the dissertation stage, a practice that was often criticized during the interviews.³

Foreign students place much weight on the school's international reputation, and apply to universities that are best known in their countries. (A Latin American student told us with great regret that he had been rejected by MIT. He expected that upon his return, a Ph.D. from Stanford, which is not as well-known in his country, would be less helpful in the competition with other foreign-educated economists.) As a result, top-tier programs receive hundreds of applications from foreign students. Our telephone survey of 16 economics departments revealed that for the 1997–1998 academic year, for example, Rochester's Ph.D. program in economics received 446 applications from foreign students; Columbia, 321; Stanford, 250; and Johns Hopkins, 257. Lower-ranked departments received a much smaller number; for example, Kansas State received 86 such applications.

While practically all students had tuition funding from foundations, governments, and/or research and teaching assistantships during their initial years in the program, 35 percent claimed that they had no means of paying for their expenses during the dissertation stage. Those who have problems with funding at this stage either finish quickly or return to their countries without the Ph.D. In some cases, students have contractual obligations to “pay back” loans or scholarships after three or four years of study abroad. Of those who had reached the dissertation-stage, the majority were working as teaching and/or research assistants (82 and 53 percent respectively). A smaller group was also engaged in consulting (20 percent).

Reasons for Pursuing a Ph.D. in the United States

Respondents to our survey cited a number of reasons for pursuing a Ph.D. in economics. Reasons most often cited as “very important” were “intellectual interest” (cited by 79 percent) and “enjoyed classes in economics” (68 percent), fol-

³ Language problems do create difficulties for undergraduate instruction. Some of the schools we interviewed have begun to address this problem by requiring foreign students to pass English-proficiency tests before qualifying for a teaching-assistant position.

lowed by “acceptance by a good graduate school” (46 percent) and “advice of a professor” (31 percent). Students also saw the degree as a step toward a future career: for 46 percent of the students, a “very important” reason for pursuing a Ph.D. was their aspirations to get a job in academia, 17 percent wanted a job in government, and 7 percent wanted a career in politics. The significance attributed to a Ph.D. for careers in politics seemed especially strong among students from Latin America, where economists are currently playing very prominent political roles.⁴

At least for the students in our sample, very few Ph.D. programs in other countries competed with those offered in the United States. Of a total of 2479 applications that these students had made to various Ph.D. programs, only 2.8 percent were to schools in the United Kingdom (mainly Cambridge, Oxford and the London School of Economics); just 1.6 percent of the applications were made to schools in Canada (the leading choices were Western Ontario, British Columbia, and Queen’s); and less than 1 percent were made to schools in 19 other countries.

One reason for the attractiveness of graduate economics education in the United States is that this country offers applicants more financial assistance; 55 percent of our respondents said that financial support was a very important factor in their choice. The perceived quality of economics education in the United States and the international reputation of American universities was the most significant reason for the choice of a Ph.D. program among our respondents. It is widely recognized that in economics, the most eminent sources of intellectual innovation, prestige, rewards and professional resources reside in the United States. When we asked students to list the three internationally renowned economists they admired the most, the 10 most frequently mentioned names, in order, were: Lucas, Krugman, Arrow, Keynes, Becker, Stiglitz, Friedman, Samuelson, Sen, and Solow. Only Keynes had been based in another country. Thus, students in U.S. Ph.D. programs are able to establish contacts with the trend-setters in the profession, and 71 percent of the respondents to our survey rated this as a positive aspect of their educational experience.

The worldwide demand for U.S. graduate economics degrees has been facilitated by several other factors. First, the profession has adopted English as a lingua franca. Second, the increasingly abstract nature of economics education in the United States has validated the claim that economics as a discipline is not an ethnocentric product of Anglo-American traditions but rather it is transferable to distant cultural and institutional milieus. International organizations continue to provide some training in economics, mostly for central-bank and government employees, but no longer attempt to create alternative professional training for economists, as did, for example, the United Nations Economic Commission for Latin America

⁴ In Colombia and Mexico, economists have been elected to the Presidency. In Chile and Peru, several economists are likely presidential candidates. In recent years, Chilean economists have been succeeding each other as ministers of Finance, Economy, Health, Labor, Education, Public Works, and in the Secretary of the Presidency, and many have risen to the leadership of political parties.

Table 2

The Importance Attributed to a U.S. Ph.D. in the Foreign Students' Home Country (% Choosing the Following as Very Important), by Gender, Tier of the Program, and Region, Spring 1996

	<i>Increasing Rationality in Public Policy</i>	<i>Defending National Interests in International Negotiations</i>	<i>Improving the Country's Relations With the U.S.</i>	<i>Creating International Networks</i>	<i>Improving the Quality of Economic Research</i>	<i>Implementing Market- oriented Reforms</i>	<i>Facilitating Country's Integration into the Global Economy</i>
Entire Sample	35	19	10	33	70	30	29
Gender							
Male	35	17	8	32	70	28	28
Female	35	21	15	34	72	36	31
Tier							
I	32	15	7	29	69	26	21
II	37	23	12	38	71	36	38
III	49	33	17	41	72	39	45
Region							
Asia ^a	37	20	7	31	72	32	37
W. Europe ^b	10	4	2	24	67	5	6
Latin America ^c	65	29	18	41	77	53	37

^a Asia includes all Asia except for the Middle East.

^b Western Europe includes Canada, and Oceania.

^c Latin America includes the Caribbean.

in the 1950s and the 1960s (Montecinos, 1993). Third, U.S.-trained economists who have returned home are playing an important networking and communication role in facilitating the recruitment and admission of foreign students to American universities. Finally, the attractiveness of U.S. Ph.D. programs is also enhanced by the world-wide trend to pattern economics programs after the U.S. model (Coats, 1997).

We asked students to speculate on why a doctoral degree from the United States is valued in their countries, and the results appear in Table 2. The dominant response from students of all regions and at all types of institutions was to improve the quality of economic research. However, they thought a Ph.D. from the United States is also valued for increasing rationality in public policy-making, defending the country's interests in international negotiations, implementing market-oriented reforms, and facilitating the country's integration into the global economy. Latin American students attributed special importance to these dimensions, followed by students from Asia and by those in lower-tier schools.

It is well known that leading the world's wave of market reforms and its associated institutional restructuring are cohesive teams of professional economists, mostly trained in the United States (Williamson, 1994). Few governments seem willing to leave economic management and the conduct of economic diplomacy in

the hands of personnel without the appropriate skills, contacts and credentials (Markoff and Montecinos, 1993). The need to signal compliance with accepted standards of economic policy, especially to foreign investors and creditors, is part of what motivates governments to assemble policy teams who speak the language of modern economics, including at least some members who hold the “right” professional titles and are known in international policy circles. Within state economic bureaucracies, especially in countries engaged in the implementation of economic reforms, economists trained in the United States or in the U.S. style are displacing politicians, lawyers, and other professionals.

In sum, doctoral degrees are in high demand because in economics (as in other professional groups) influence, autonomy and self-esteem are increasingly based on theoretical, formal and sophisticated training (Larson, 1977; Brint, 1994). However, unlike physicians, lawyers or other professionals, economists do not face legal restrictions to practicing their profession, and licences or certifications are not required. Thus, the possession of a doctoral degree has come to accredit membership in the profession: “An ‘economist’ is anyone with a Ph.D. in economics” (Leamer, 1992, p. 93). The demand for Ph.D.’s has been rising even in countries where economists do not practice mainly in academic settings. The experience of graduate training in a world-class university not only improves the occupational prospects of economists at home but also facilitates access to transnational professional networks and labor markets.

Career Interests and Plans

Our respondents were highly interested in pursuing careers in research institutions (69 percent expressed high interest), academia (62 percent), and international institutions (60 percent). They also expressed high interest in careers in multinational firms (27 percent), the private sector (24 percent), government (28 percent), and politics (6 percent). These figures did not vary substantially across departments of different rankings or across regions, although students from Europe were somewhat less likely to express interest in a career in the private sector or with a multinational firm. Because in many countries the line between academic and non-academic jobs is much more fluid than it is in the United States (Frey and Eichenberger, 1993; Coats, 1997), it is likely that those entering academic careers will also engage in policy-oriented activities or in private consulting.

When foreign students were asked about the fields in which they were most interested, the leading answer was macro theory, followed by a cluster of areas including micro theory, international trade, econometrics, development economics, and money and banking, financial markets, or finance. Not surprisingly, foreign students were not very interested in areas that are commonly taught from the U.S. institutional perspective, such as labor economics.

For 62 percent of the students, the most important factor in choosing a dissertation topic was a desire to understand some economic phenomenon specific to

their home countries (for 54 percent, the advice of their professors was also important). However, whereas 73 percent of first-year students wanted to work on a topic related to their home country, only 52 percent of those at the dissertation stage (fourth year and higher) had chosen to do so. This shift may reflect lack of data, insufficient financial support, or a realization that the profession tends to reward theory more than applied research.

When asked about their future country of residence, 40 percent of the respondents said they planned to return home or go to a third country before or immediately after finishing their degrees; 45 percent planned to return after working in the United States for a while. A disaggregation of our data by region refutes claims that the majority of foreign students are from low-income countries of Asia trying to immigrate to the United States (Rao, 1995). In fact, a higher proportion (21 percent) of students from high-income countries (western Europe, Canada, and Oceania) planned to stay in the U.S. permanently, compared with students from low-income countries of South Asia (17 percent) (Montecinos and Aslanbeigui, 1997).

Students' Assessment of Their Education

In the last few years, a series of criticisms have been voiced about the structure and content of graduate economics education (Colander and Klamer, 1987; Colander and Brenner, 1992). Many of these complaints were validated by a Committee on Graduate Education in Economics set up by the American Economic Association (Krueger et al., 1991). The thrust of the critique has been that graduate training in economics puts too strong an emphasis on theoretical conformity and specialized techniques at the expense of understanding economic phenomena, practical skills, and institutional knowledge. In their answers to a variety of questions on our survey, presented in Table 3, as well as in the interviews, it became clear that foreign graduate students share much of this critique, but perhaps with a bit of a twist.

During the interviews, students expressed particular dissatisfaction with their experience during the first year in the Ph.D. program, when a rigid and all-absorbing curriculum leaves few opportunities for discussion or independent research. Such rigorous disciplining into the profession's core conventions and techniques may be helpful in creating a sense of identity and shared understanding among students of such widely diverse cultural and intellectual backgrounds. However it also seems to instill resentment among those with professional experience or advanced economic training. Students complained about the "meaningless" and "coercive" nature of problem sets, although they also seemed to accept or justify this experience as a necessary investment, emphasizing its importance not only for teaching and research but also for non-academic jobs. A student from the Caribbean, interested in a job in politics, claimed she had liked the first year: "I want to speak the language of an economist. If you want to be a responsible politician, you must know how to talk back to the World Bank."

Table 3

Foreign Students' Evaluation of their Ph.D. Programs (% Ranking Their Programs Poorly in the Following), by Gender, Tier of the Program, and Region, Spring 1996

	<i>Learning Technical Skills</i>	<i>Learning About Theoretical Debates</i>	<i>Learning About the Role of Institutions</i>	<i>Learning About Home Economic Problems</i>	<i>Learning Skills for Non- Academic Jobs</i>	<i>Learning Skills for Undergraduate Teaching</i>	<i>Acquiring Contacts/ Getting Access to Informal Networks</i>
Entire Sample	3	10	37	49	49	16	29
Gender							
Male	3	10	36	47	49	18	27
Female	3	11	41	58	54	13	39
Tier							
I	1	9	35	47	48	19	23
II	2	11	44	54	51	11	36
III	12	15	34	51	47	14	43
Region							
Asia ^a	2	12	38	54	52	16	42
Western Europe ^b	4	8	38	48	49	17	21
Latin America ^c	1	6	32	39	45	16	21

^a Asia includes all Asia except for the Middle East.

^b Western Europe includes Canada, and Oceania.

^c Latin America includes the Caribbean.

Only 3 percent of the students said that their Ph.D. program did a poor job of teaching technical skills. When we asked them to list the courses/fields which they would like to eliminate from their curricula, very few proposed dropping any courses/fields, and even fewer suggested reducing the number of technical courses. In fact, at some lower-tier programs where curricula were considered as too soft or unsophisticated, students demanded more technical and theoretical rigor. When we asked students to list the courses/fields they would like to add to their curricula, we obtained the following: 100 requests for macro, money, finance courses, and 140 requests for trade, development and other policy-oriented courses. In addition, there were 91 requests for integrative courses in history of economic thought, economic history, political economy or institutional economics.

As documented in Table 3, male students, western Europeans and Latin Americans, and students enrolled in first-tier programs showed greater satisfaction with their experience in graduate school than did women, Asian students, and those enrolled in lower-tier departments. The more satisfied students had chosen their schools primarily for reputation, they were more interested in academic careers, had fewer financial concerns and seemed to have received better mentoring. The less satisfied students were not as likely to be writing for publication, more likely to

be teaching undergraduate courses, and had less success in making valuable professional contacts.

Our interviews indicated that in general, mentoring and academic advising are perceived as inadequate and insufficient. In the case of foreign students, these problems are compounded by several factors. First, students are unfamiliar with the system: "It was only after a couple of years that I realized how important it was to have an advisor," said one of the students. Another emphasized that "when it was time to select an advisor, the American students started overtaking us. We had problems understanding the American way of doing things." Second, cultural differences made some students reluctant to initiate or seek contact with professors. This was particularly problematic for Asian students (who are used to a more formal and hierarchical style of interaction) and for female students (who complained about the insufficient number of female professors).

Discussion and Comments

The rising proportion of foreign graduate students in economics raises a number of broader issues that deserve the attention of the profession. Some tentative observations are presented below.

Forty-five percent of our respondents planned to enter the U.S. labor market for a time, and 15 percent planned to stay permanently. Although the influx of foreign students does not seem to be changing the predominantly male composition of the economics profession in the United States, it may raise the degree of ethnic and racial diversity. It may also change the content or style of economics education. U.S. economics departments are recruiting a growing number of foreign-born professors. Our interviews (and a perusal of biographies of faculty at eight leading economics departments) suggest that the research and teaching interests of this group of professors often include international and comparative dimensions like economies in transition, development, political economy of poverty, and international finance.

Forty percent of our respondents planned to leave the United States before or immediately after graduation. Upon their return, these U.S.-trained economists are likely to influence the teaching and practice of economics in their countries. Ninety percent of the students who planned to work for academic institutions said they would replicate their notes, textbooks and course syllabi to some extent. How such materials will be adapted, if at all, to the circumstances and concerns of specific countries is a matter that merits further inquiry.

The large number of foreign students who are looking to non-academic careers could support the claim that curricular change is necessary to bridge the gap between theoretical and applied economics. Others may argue that instead of reforming doctoral programs, the needs of these students could be met by improving the quality and availability of master's programs in economics, perhaps with a focus in specific policy areas. Recent examples of shorter, more policy-focused master's pro-

grams include the Program in Economic Policy Management at Columbia University (supported by the World Bank), programs proposed or implemented by the African Economic Research Consortium (AERC) in south-Saharan Africa, and various programs being developed throughout Central and Eastern Europe (Goodwin and Kayode, 1993; Goodwin, 1995). Also, there are recent efforts to create or improve local doctoral programs in economics in less developed regions (Fine, 1997).

Many believe that the export of U.S.-style economics is a valuable contribution to the welfare of nations (Harberger, 1993; Williamson, 1994). In some cases, politically savvy and technically skilled economists have contributed to the consolidation of economic reforms under democratic institutions. If economists' technical credentials and skills are employed to encourage pragmatic cooperation among political parties and social groups, they may help reduce market and social instability (Montecinos, 1993; Domínguez, 1997). However, critics worry that some less desirable traits of the profession are also being replicated on a world scale (Amsden, 1992). For example, some analysts have argued that in Latin America, technically skilled economists may be so convinced of their diagnoses and solutions that when they obtain significant power over crucial policy decisions, they tend to bypass or sidestep representative bodies (Centeno, 1994; O'Donnell, 1995; Centeno and Silva, forthcoming). Others are concerned with what they feel is the inability of economists to address socially important but less quantifiable issues (Smelser and Swedberg, 1994).

The growing internationalization of economics education is a crucial dimension of the evolution of the economics profession. It deserves more systematic attention both within and outside economics.

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References

- Amsden, Alice H.**, "The Globalization of the Crisis in American Economic Education," *Journal of Economic Education*, Winter 1992, 23:1, 353–6.
- Barber, Elinor G., ed.**, *Foreign Student Flows. Their Significance for American Higher Education*. New York: Institute of International Education, 1985.
- Bowen, William G., and Neil L. Rudenstine, In Pursuit of the Ph.D.** Princeton: Princeton University Press, 1992.
- Brint, Steven**, *In an Age of Experts. The Changing Role of Professionals in Politics and Public Life*. Princeton: Princeton University Press, 1994.
- Centeno, Miguel A.**, *Democracy within Reason. Technocratic Revolution in Mexico*. University Park, PA: The Pennsylvania State University Press, 1994.
- Centeno, Miguel A., and Patricio Silva, eds.**, *The Politics of Expertise in Latin America*. London: Macmillan, forthcoming.
- Coats, A.W. Bob, ed.**, *The Post-1945 Internationalization of Economics*. Durham: Duke University Press, 1997.
- Colander, David C., and Reuven Brenner, eds.**, *Educating Economists*. Ann Arbor: The University of Michigan Press, 1992.
- Colander, David C., and Arjo Klamer**, "The Making of an Economist," *Journal of Economic Perspectives*, Fall 1987, 1:2, 95–111.
- Conroy, Michael E., and Richard Dusansky (with David Drukker and Arne Kildegaard)**, "The Productivity of Economics Departments in the U.S.: Publications in the Core Journals," *Journal of Economic Literature*, December 1995, 33:4, 1966–71.
- Domínguez, Jorge I. ed.**, *Technopols. Freeing Politics and Markets in Latin America in the 1990s*. University Park, PA: The Pennsylvania State University, 1997.
- Fine, Jeffrey C.**, "An African Based Doctoral Programme in Economics: Summary Report," Nairobi: African Economic Research Consortium Special Paper 26, March 1997.
- Frey, Bruno S., and Reiner Eichenberger**, "American and European Economics and Economists," *Journal of Economic Perspectives*, Fall 1993, 7:4, 185–93.
- Goodwin, Craufurd D.**, "Understanding Markets: A Report on Economics Education in Central and Eastern Europe," prepared for the Pew Charitable Trusts, 1995.
- Goodwin, Craufurd D., and Femi Kayode**, "The African Economic Research Consortium. An Evaluation of Phase II and a Look Ahead to Phase III," unpublished document, Duke University and University of Ibadan, 1993.
- Goodwin, Craufurd D., and Michael Nacht**, *Decline and Renewal. Causes and Cures of Decay among Foreign-Trained Intellectuals and Professionals in the Third World*. New York: Institute of International Education, 1986.
- Harberger, Arnold C.**, "Secrets of Success: A Handful of Heroes," *American Economic Review*, 1993, 83, 343–50.
- Hansen, W. Lee**, "The Education and Training of Economics Doctorates," *Journal of Economic Literature*, September 1991, 29:3, 1054–87.
- Institute of International Education Statistical Research Division**, Unpublished Data, November 1994.
- Klamer, Arjo, and David C. Colander**, "The Making of an Economist," *Studies in the History, Methods, and Boundaries of Economics*. Boulder and London: Westview Press, 1990.
- Krueger, Ann O. et al.**, "Report of the Commission on Graduate Education in Economics," *Journal of Economic Literature*, September 1991, 29:3, 1035–53.
- Larson, Magali S.**, *The Rise of Professionalism: A Sociological Analysis*. Berkeley: University of California Press, 1977.
- Leamer, Edward**, "Taste, Economics, and Econometrics." In Colander, David C., and Reuven Brenner, eds., *Educating Economists*. Ann Arbor: The University of Michigan Press, 1992.
- Markoff, John, and Verónica Montecinos**, "The Ubiquitous Rise of Economists," *Journal of Public Policy*, 1993, 13:1, 37–68.
- Montecinos, Verónica**, "Economic Policy Elites and Democratization," *Studies in Comparative International Development*, 1993, 28:1, 25–53.
- Montecinos, Verónica, and Nahid Aslanbeigui**, "Foreign Doctoral Students: Skilled Immigrants or Cosmopolitan Experts?" Mimeo, Penn State University and Monmouth University, 1997.
- National Science Foundation**, *Foreign Citizens in U.S. Science and Engineering: History, Status, and Outlook*, NSF 86–305 revised, Washington, D.C., 1987.
- O'Donnell, Guillermo**, "Do Economists Know Best?" *Journal of Democracy*, 1995, 6:1, 23–28.
- Rao, Milind**, "Foreign Students and Graduate Economic Education in the United States," *Journal of Economic Education*, Summer 1995, 26, 274–81.
- Smelser, Neil J., and Richard Swedberg, eds.**, *The Handbook of Economic Sociology*. Princeton: Princeton University Press, 1994.
- Valdés, Juan Gabriel**, *Pinochet's Economists*. Cambridge: Cambridge University Press, 1995.
- Williamson, John**, "In Search of a Manual for Technopols." In Williamson, J., ed., *The Political Economy of Policy Reform*. Washington, D.C.: Institute for International Economics, 1994.