



# Sustaining Scholarship in Business Schools

Report of the Doctoral Faculty Commission to AACSB International's Board of Directors

## Executive Summary

September 2003

*The full report is available at [www.aacsb.edu/dfc](http://www.aacsb.edu/dfc)*

In August 2002, the AACSB International Management Education Task Force (METF) issued a landmark report, "Management Education at Risk," which identified and prioritized the most pressing issues facing management education. One of the foremost METF concerns related to an emerging global doctoral faculty shortage in business. The AACSB International Board of Directors responded by creating the Doctoral Faculty Commission (DFC). The DFC was asked to analyze trends related to the supply and demand of business doctoral faculty, assess the magnitude and gravity of the issue, and offer solutions if necessary.

### PROCESS

The DFC conducted extensive research. It examined historical data and projected production and demand for doctoral faculty by business schools. Surveys and interviews were conducted among business school undergraduates who might be potential doctoral candidates, and with deans and doctoral program directors. Fairly robust modeling and extrapolation were possible for the US, where data are most accessible. General trends and issues in other countries have been validated through interviews, and commentary alludes to implications for other parts of the world. The DFC also researched a number of doctoral education models around the globe.

### FINDINGS

Unless decisive action is taken to reverse declines in business doctoral education, academic business schools, universities, and society will be faced with an inevitable erosion in the quality of business education and research.

In recent years, the production of new business doctorates has decreased. In the US, for example, business doctorates declined from 1,327 in 1994–95 to 1,071 in 1999–2000, or more than 19 percent. The percentage of doctorates produced

by AACSB-accredited institutions also has decreased, to 84 percent in 1999–2000 from 92 percent a decade earlier. Today, the number of doctorates produced by accredited schools is at its lowest level since 1987. Although there are some examples of new programs and marginal increases in enrollment in various parts of the world, local demand has outstripped supply in virtually all countries.

Within five years, the US shortage of business Ph.D.'s is expected to be 1,142; and in 10 years, the shortage will reach 2,419. Although considerable uncertainty about these projections must be acknowledged, the findings take into account an in-depth review of current Ph.D. enrollments, projected demand for business education, faculty retirements, and the typical hiring patterns of Ph.D.'s by accredited and non-accredited schools.

The DFC concluded that doctorally trained individuals are the most essential element in assuring the continued rigor of business education and research conducted in academic, business, and public policy institutions. Ensuring adequate supply must, therefore, be a primary concern from an industry-level perspective. From a school perspective, many deans, department chairs, and program directors face unfilled positions after each hiring season. They confront salary escalation that far exceeds

market changes or salary trends in other academic fields and must deal with internal management challenges posed by salary inversion.

Demand for doctoral faculty will continue to increase as the number of MBA providers and students expands globally, business schools strive to meet global standards for quality, and demographic trends drive up undergraduate business enrollment and the proportion of faculty likely to retire.

Substantial increases in production are not expected because of funding and incentive issues. A DFC survey of US program directors and deans suggests that about 80 percent of funding for doctoral programs derives from business schools' own resources. Endowments and university sources, such as fellowships and assistantships, constitute the remainder. Federal and corporate funding supports only a small fraction of the costs. In some instances, costs are somewhat offset by assigning teaching responsibilities to Ph.D. students. Funding models are more variable outside the US, but generally doctoral students are more likely to be self-funded or employed in junior faculty positions.

Unlike other business school programs, such as the MBA, there are few financial or reputational incentives to invest in Ph.D. programs. The advantages to enlarging a Ph.D. program are intangible—increased faculty satisfaction, for example.

DFC research suggests that a significant percentage of potential Ph.D. candidates do not fully understand and appreciate the opportunities and rewards of a business doctoral program. These potential candidates are unaware they would likely receive full funding for their studies in the US and appear to have little appreciation for the career opportunities or rewards of a business school Ph.D.

Two additional business doctorate production trends specific to the US were uncovered by the DFC. First, four out of every five of the largest doctoral producers are in public institutions, which will face repeated budget contraction and rescission. Second, today more than half the enrolled doctoral students are on temporary visas and are not immediately eligible for employment in the US after graduation.

This confluence of factors presents a growing gap between production and demand for doctoral faculty. This problem will become more critical in the future, and the effects will be compounded by demand from growing market segments worldwide and the for-profit segment of the education industry.

## RECOMMENDATIONS

The most obvious and direct response to the worsening doctoral faculty shortage is to attract more students of high quality to business Ph.D. programs. The action is not quite as simple as it seems, however. While a limited number of research oriented schools might start new Ph.D. programs, the realities of startup time and cost almost guarantee that increased production must come from the 200 or so schools worldwide that have Ph.D. programs. But since most of the schools self fund their Ph.D. students, there is little or no incentive to support substantial growth in doctoral programs—which means that production can increase only marginally.

A variety of remedies to the emerging scenario were considered. Ultimately, DFC recommendations were guided by several overarching decisions. First, for any strategy to succeed, the industry must educate government and corporate decision makers about the importance of research qualified business Ph.D.'s who contribute scholarship-based teaching and research. Second, strategies with short-term and larger-scale impact should be promoted over alternatives. Third, leveraging existing programs generally provides more proven and cost-effective impact than the creation of new programs. Finally, it is beneficial to preserve variability in doctoral degree "products."

Several alternative recommendations are offered. Some of these actions would need to occur at the industry level, to be led by AACSB International, partner bodies, and by professional associations in business. Others must be driven by individual business schools.

### *Attract Alternative Sources*

Postdoctoral programs for non-business Ph.D.'s could lure a new pool of candidates into business-related research and teaching. Superior market opportunities in business may provide the incentive for significant numbers of Ph.D.-

trained researchers from other fields to invest in the transition. Disciplines that are theoretically or methodologically proximal to business should be targeted, and mentoring and collaborative research opportunities could be provided by the host departments.

To support the transition, AACSB might work with other organizations and selected schools to provide intensive workshops to accelerate learning of the language and frameworks of business. Business schools would benefit from teaching delivery during the post-doctoral program, interdisciplinary research enrichment, and a relatively short-term, inexpensive strategy to produce and evaluate a new source of Ph.D.'s.

Moderate growth should be encouraged for doctoral programs aimed at executives and developing teaching professionals in business.

Alternative career tracks should be legitimized for non-research Ph.D.'s in research-driven business schools. Providing a hospitable and rewarding academic environment for practice professionals can encourage a more vibrant pipeline and protect against a decline in research among doctoral faculty.

AACSB accreditation standards allow for the use of non-doctoral "professionally qualified" faculty where suited to the school's mission. Since it is inevitable that many faculties will resolve shortages by recruiting more professionally qualified faculty, additional clarification in the standards about how such qualifications are achieved and maintained is recommended.

#### *Increase Production of Ph.D.'s*

Creating a public/private funding program, which might be called the "Business Futures" program, could channel a new generation of Ph.D.'s into business schools. In the US, one recourse might be to lobby the National Science Foundation for increased funding for management research. Current NSF funding for key science, engineering, and social science initiatives is more than \$2.2 billion, of which less than \$10 million flows to business schools. Similar government sources can be identified and targeted in other countries. By increasing business research funding by governments and other sources, such as foundations and corporations, the Business Futures program

could have a large impact on doctoral enrollment. For example, an infusion of \$55 million to US doctoral research programs could provide direct and indirect support for approximately 220 additional business doctoral students each year. Within 10 years, this program could produce 946 additional doctoral graduates.

The primary role of AACSB International and other management education associations is to make the case—internally to business schools, as well as externally among targeted government and business organizations—for funding business Ph.D.'s by establishing the urgent need to ramp up Ph.D. production. The competitive risks of inaction should be cited. Research faculties and schools should be enlisted and supported in the campaign to motivate additional funding.

Business schools should be encouraged through reputational incentives to invest in Ph.D. programs. Management research already is ranked in some countries, such as the UK. In the US, the addition of business Ph.D. programs to reputable rankings, such as those published by the National Research Council, may provide this incentive. Traditional media outlets also should be educated about research as an important contributor to program quality and the appropriate role of research in rankings.

#### *Promote Business Ph.D. Programs to Prospective Students*

An industry-wide marketing program should be developed to educate constituents about the advantages and attractiveness of academic careers in business. Marketing should target high potential groups, starting with outstanding undergraduate business students.

Dedicated recruitment channels for Ph.D.'s in business should be established. One model might be the global recruiting forums developed for the MBA. Talented students should be proactively recruited using Business Futures funds as leverage. Marketing of Ph.D. programs can be enhanced by providing prospective students with convenient online access to information about doctoral education and academic careers.

The Graduate Management Admission Council (GMAC), DocNet (an organization of business doctoral program directors), disciplinary associations, and the Ph.D. Project (a successful

SUMMARY OF DFC RECOMMENDATIONS	INDUSTRY LEVEL	SCHOOL DRIVEN
<b>Attract Alternative Sources</b>		
Develop post-doc and bridge programs	✓	✓
Expand doctoral programs for executives		✓
Legitimize alternative faculty tracks		✓
Clarify “professionally qualified” standards	✓	
<b>Increase Production of Ph.D.’s</b>		
Initiate new funding from federal, corporate, and joint sources	✓	
Recommend NRC rankings of business schools	✓	
Grow size of Ph.D. programs		✓
<b>Promote Business Ph.D.’s to Prospective Students</b>		
Market Ph.D. programs	✓	
Develop dedicated recruitment channels	✓	
Attract high quality applicants with special funding	✓	✓
Develop doctoral program resource site	✓	
<b>Foster Innovation in PhD Delivery</b>		
Test use of consortia models	✓	✓
Use technology to reduce costs	✓	✓
Share information about best practices	✓	

initiative to increase minority doctoral faculty) might partner with AACSB International in these marketing efforts.

*Foster Innovation in Ph.D. Delivery*

Mechanisms that increase cooperation among schools engaged in Ph.D. education should be encouraged. Consortia where schools pool faculty or other resources can increase the number of students served while concurrently reducing costs. Several examples already have emerged in Canada and the European Union. Custom programs delivered by well-established doctoral faculties also might provide a viable option for schools in countries that lack the research traditions required for doctoral education.

Technology can be utilized to expand the breadth and quality of program offerings, concurrently lowering the costs of delivery of small Ph.D. programs. Results could include reduced attrition and shortened time to degree.

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Successful implementation of the above recommendations has the potential to inject 1,800 new doctorates into business schools in the U.S. alone. Similar strategies adapted to particular educational, cultural, and political circumstances in other countries or regions could yield sufficient doctoral production to maintain and enhance the scholarship-based teaching and research role of business schools.

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