Factors Limiting MIS Faculty Supply

O. Harry Glover  
*Georgia College & State University*

Tanya Goette  
*Georgia College & State University*

Follow this and additional works at: [http://aisel.aisnet.org/amcis2001](http://aisel.aisnet.org/amcis2001)

**Recommended Citation**  
[http://aisel.aisnet.org/amcis2001/374](http://aisel.aisnet.org/amcis2001/374)
FACTORS LIMITING MIS FACULTY SUPPLY

Harry Glover
Georgia College & State University
hglover@mail.gcsu.edu

Tanya Goette
Georgia College & State University
tgoette@mail.gcsu.edu

Abstract
This exploratory research is designed to determine the factors limiting the supply of MIS-CS faculty. It proposes that a vicious cycle exists in that flagship (doctoral producing) universities have been unable or unwilling to increase the supply of MIS faculty. It further posits that the flagship universities are less likely to feel the pressure to increase productivity of information technology BS, BBA, and MS graduates. If this cycle is to be interrupted, the factors contributing to it must be explained before remedies may be designed. Interviews will be employed to clarify and expand a list of probable factors and to develop a theoretical basis for a final survey instrument.

Keywords: IS faculty shortage, doctoral programs

Introduction
This paper begins with the hackneyed phrase “there is a short supply of MIS Ph.D.s.” Other researchers have documented this problem and proposed various remedies (Freeman, Jarvenpaa, & Wheeler, 2001; ComputerWeekly.com, 2000). Demand may easily be proposed as a determinant of the supply shortage. Universities and colleges are under pressure to increase the supply of undergraduate and masters-level graduates in computer science and information technology. In order to output more graduates, more faculty are needed to teach the required classes. AACSB guidelines dictate that massive justification for out-of-field Ph.D.s and fixed ratios for non-Ph.D.s are required. Therefore, AACSB accredited institutions need faculty members with MIS Ph.D.s.

The large, and usually well endowed, research and Ph.D. granting institutions (hereafter referred to as flagship institutions) have a decided recruiting advantage for obvious reasons (pay, teaching loads, research facilities, research assistants, etc.) over that of the teaching institutions. The paradox here is that the first link in the MIS-CS faculty supply chain is least likely to feel and respond to the demand pressure. The short supply is sufficient evidence that the flagship institutions have not increased production to meet demand.

This is an exploratory study designed to explicate and examine factors that limit or abet MIS-CS doctoral production. Some factors to explore are:

- Do current market demands for MMIS-CS majors severely limit the Ph.D. applicant pool? This factor may be verified by examining the number of applicants and the acceptance rates.
- Are the current applicants qualified? If this is not the case, have the flagship institutions adjusted their qualifications in light of demand? Are qualified applicants being rejected? If so, why?
- Are flagship institutions unable to increase production because they too cannot attract faculty? This may be verified by examining the applicant pool and the length of time that positions remain open.
- Do flagship institutions believe that increases in production may only be achieved through decreases in quality and, therefore, resist pressure to increase production?
- Do flagship institutions, to promote their own images, dissuade graduates from applying to teaching institutions? In other words, is there a bias against teaching institutions? This position might be rationalized by a belief that teaching institutions may fill positions with faculty from other disciplines via such means as the now defunct “AACSB computer camp.”
Research Study

The first phase of this study was limited to the MIS Ph.D. shortage only. Telephone interviews between the researchers and the coordinators or directors of MIS Ph.D. programs were conducted. Five institutions were contacted to determine the actual number of applicants for Ph.D. programs in MIS, the number accepted (showing up), and the number graduating from the program each year for the last three years. The number of applicants ranged from 6 to 50 while the number of students actually starting the program ranged from 0 to 8. The number of applicants probably varies based on the reputation of the university. Most candidates submit applications to multiple institutions so the number of applicants per university cannot be summed. The average number of new Ph.D. students beginning each year was 4. Approximately the same number graduate as are accepted. These numbers have not increased or decreased significantly over the last three years.

Interview findings will be used to develop and validate a survey instrument that will be e-mailed to a statistically significant number of flagship institutions with MIS doctoral programs. Preliminary findings indicate that the doctoral programs only accept full-time students matching research interests of available faculty members and meeting the university’s unwritten criteria for success. The full-time status of all students requires that stipends be available to support these students. This is a bias limiting the number of applicants to those that can survive off of graduate research stipends while limiting the number accepted to the funds available as well.

In general, this study proposes that a “Catch-22” exists with respect to the supply of MIS-CS faculty. It further proposes that the effects of short supply are felt more strongly at teaching institutions because the doctoral-granting, flagship, institutions have been unable to increase production for reasons yet to be explained.

Conclusions

If the vicious cycle of high-demand, short-supply of MIS faculty is to be broken, its causes must be explained and remedies designed. If we are going to meet future job requirements for the number of MIS graduates, then the Ph.D. granting institutions will have to increase output. One way to accomplish this would be to allow part-time students that do not require stipends.

References


Preliminary Sample Survey Questions

1. How many MIS PhDs will graduate from your institution in
   a. 2001?
   b. 2002?
   c. 2003?

2. How many MIS Ph.D.s did you graduate in the preceding three years?

3. Do you encourage your graduates to accept positions in
   a. Primarily research institutions?
   b. Primarily teaching institutions?
   c. Have no influence.

4. How many faculty positions do you currently have open?

5. What is the usual length of time taken to fill a faculty position?

6. What percent of the preceding three years’ graduates accepted non-academic positions or non-U.S. faculty positions?
7. What factor(s) currently limit the number of applicants you accept on an annual basis?

8. Do you encourage PhD graduates to
   a. Seek positions in your state?
   b. Seek positions in other states?
   c. Have no influence.

9. Do you allow part-time students in your Ph.D. program? If so, how many?

10. Do you have any PhD students that work somewhere other than your institution?
    a. Part-time?
    b. Full-time?

11. Do you discourage your PhD students from working at any position other than a graduate assistantship?

12. Do you prevent your PhD students from working at any position other than a graduate assistantship?

13. Do you require your PhD students to work as a graduate assistant?

14. Do you have enough assistantships for all your PhD students?

15. Would you admit more PhD students if you had more assistantship positions?

16. Do you have any PhD students attending on a part-time basis (part-time means less than a full load)?

17. Would your institution be willing to admit students on a part-time PhD basis?

18. Do you have problems attracting PhD students?

19. How many applications did you receive for the 2001-2002 year?

20. How many students did you admit for the 2001-2002 year?

21. Do you prefer PhD students with IS work experience?

22. How many of the PhD students you admitted for 2001-2002 have 5 or more years of IS work experience? Of the ones that applied?

23. What percentage of your PhD students are U.S. citizens?