Is Food Safety Enrollment Meeting National Needs?

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faeis Food and Agricultural Education Information System
http://faeis.ahnrit.vt.edu/
USDA | NIFA

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Abstract

Using data from the Food and Agriculture Education Information System (FAEIS) database, this study explores the pipeline of students to scientists using faculty counts, student enrollment and degrees awarded figures for the Food Safety national priority area. For our analysis, we selected the Food Science and Technology Academic Area (CIP 01.10). We only included institutions that had four consecutive years of data (2006-2009). Our analysis reveals that the number of faculty for the period of 2006-2009 rose only slightly (3%). The number of doctorate degrees awarded has been declining and bachelor and masters degrees awarded are on the rise during this four-year period. Student enrollment for all degree levels is on the rise, with a significant increase in bachelor degree enrollment. Given the increase in the number of students enrolled, perhaps the number of degrees awarded at the doctorate degree level will soon increase, with a subsequent rise in faculty numbers.

Objective

Using FAEIS data for student enrollment , degrees awarded and faculty counts, explore the pipeline of students that are poised to fill needs in the food safety area, one of the NIFA national priority areas.

Introduction

FAEIS (The USDA's Food and Agricultural Education Information System http://faeis.usda.gov) has collected faculty counts, student enrollment and degrees awarded data from agriculture institutions since 1979. Data collected since 2002 resides in the FAEIS Report Builder system and are available for all to use, with data by degree, discipline, gender and ethnicity for over 728,000 agriculture students and 8,700 agriculture faculty from 139 institutions.

Methods

To study the pipeline of students to scientists for the Food Safety national priority area using faculty counts, student enrollment and degrees awarded figures, we selected the Food Science and Technology Academic Area (CIP 01.10). The disciplines included in the academic area are Food Science, Food Technology and Processing, and Food Science and Technology, Other. These disciplines would most likely produce graduates for the Food Safety field.

Compared to the Integrated Postsecondary Education Data System (IPEDS), the FAEIS database includes between 97% to 100% (depending on the degree) of the institutions reporting degrees in this academic area, making this an accurate picture of the national situation.

To look at the trends in student and faculty numbers, we only included institutions that had four consecutive years of data for the period of 2006-2009. For enrollment data this resulted in 34, 32, and 24 institutions respectively for the BS, MS and PhD degree level. For degrees awarded data this resulted in 29, 22, and 19 institutions respectively for BS, MS and PhD degrees.

Results

Our analysis reveals that the number of faculty for the period of 2006-2009 rose only slightly (3%) for the 24 institutions that reported faculty data. See Fig. 1.

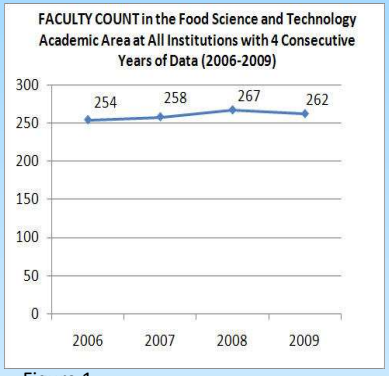

Figure 1.

The number of doctorate degrees awarded has been declining and bachelor and masters degrees awarded are on the rise during this four-year period. See Fig. 2.

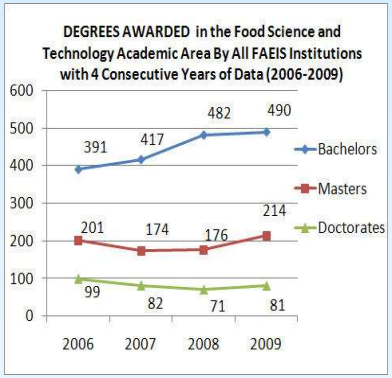

Figure 2.

Student enrollment for all degree levels is on the rise, with a significant increase in bachelor degree enrollment. See Fig. 3.

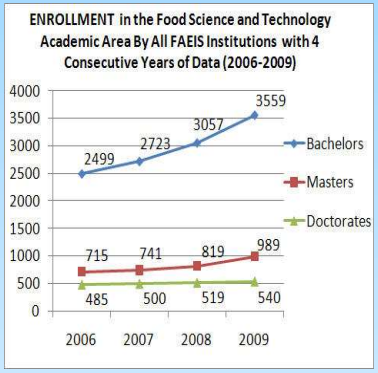

Figure 3.

Conclusions

Since the number of students enrolled is increasing for all degree levels, an increase in the number of degrees awarded should soon follow. Perhaps this will result in a subsequent rise in faculty numbers, positively impacting the number of scientists capable of working on the nation's food safety issues.

For more information or to learn how you can build custom reports using FAEIS data, please contact the FAEIS Helpdesk at faeis@vt.edu