

Food and Agriculture Education Information System Expert Panel

"Know where to find the information and how to use it - that's the secret of success"

— Albert Einstein

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Introduction:

The Food and Agriculture Education Information System (FAEIS) is a comprehensive database that gathers information on a voluntary basis on student enrollment, degrees awarded and graduate placement at all degree levels and by gender and race. The goal is to establish Web-based access to educational information for food and agricultural sciences collected from institutions of higher education in the United States. These data are available to students, colleges and universities, and the USDA through the FAEIS website and the helpdesk at Virginia Tech.

The Purpose of Expert Panels:

The Expert Panel critically reviews policy issues, program initiatives, staffing requirements, management of resources and provides feedback and recommendations on the work previously conducted by the program. The panel's recommendations may extend the direction for further work, generate new ideas to move the project forward and improve the technical features of the program.

The FAEIS Expert Panel will answer the following questions:

1. What is the service that FAEIS offers?

- a. What is FAEIS?
- b. What service does FAEIS offer?
- c. Why is that service needed and by whom?

2. What is the national accessibility of the FAEIS service?

- a. How can interested parties access FAEIS information?
- b. Does FAEIS conduct the necessary analysis—or just provide the data, or both?
- c. Does FAEIS do anything to interpret the data, identify trends?

3. What is the validity/reliability of the data?

- a. How is the data collected?
- b. Is the data “groundtruthed?”
- c. Is inaccurate and missing data corrected?

4. What other databases/sources are available?

- a. Are there other sources that have this data?
- b. Can the same data be obtained from IPEDS or other databases?
- c. If so, what advantages does FAEIS have over them?

5. What is the future need for such a database?

- a. Should FAEIS be reduced in scope? In addition, increased in focus?
- b. Is greater focus on Agriculture and USDA's needs needed?
- c. What should be cut due to an \$85,000 reduction for funding this year? Cut next year with another \$62,000 reduction?

Conclusions from the FAEIS Expert Panel meeting, April 8, 2011

“Policy decisions should be driven by evidence. Robust, unbiased data are the first step toward addressing our key policy priorities.” —Peter Orszag, 2009

1. A cleaner set of data with a much narrower focus (agriculture only) would be more valuable to the funding agency, as well as users, instead of collecting everything related to agricultural sciences. A number of components have nothing to do with agriculture.
2. A central mission with specifically defined boundaries that FAEIS adheres to is needed. These must be specified by NIFA and not the peer panel (What can FAEIS do with the data?). FAEIS team should generate higher-level findings (a published report similar to IPEDS and SED) and align the findings with the USDA's national priorities. A published report would help to make the case that this data project is valuable to the funding agency. In addition, additional interaction between the Expert Panel with key educational leaders at the USDA and the PIs of FAEIS would improve data collection, utilization and reporting.
3. The USDA/NIFA must remove the vague objectives in the RFA. Clarification must be demanded by NIFA in order to ensure that the project activities align with the funding agency's expectations.
4. Eliminate the username and password requirement. This is a public database funded by the USDA; it must be accessible to all. We have no idea of how many people use FAEIS, but we assume it is quite limited.
5. The report builder must be redesigned so that nontechnical end-users can obtain data at night and on weekends. The FAEIS website is extremely confusing to use at best and often impossible for the public to surf. The systematic process, step-by-step, includes about 20 steps to create a table of many different layers of data collected. Consider offering two services: provide access to general information up front and more technical services (i.e., the extensive help desk services) for the people who want it.

- 6.** Outlier data have been found in recent analyses, even though FAEIS has assured the USDA/NIFA that transcription errors, missing data and outliers had been corrected and/or removed. Implementing quality control procedures must be performed before tables are created. The RFA clearly addressed these issues. FAEIS must address the validity of the volunteered data compared to IPEDS. Findings from the quality assurance study should feed back into the verification process.
- 7.** Clarify that the trends evident in the graphs may be due to increases in the number of institutions sampled from year to year, not due to increasing enrollment, graduation, etc.
- 8.** There is not a lot of front structure with the data. The team must add census date, discipline definitions and the reporting period. This would require making more demands on the institution, but it would ensure that data are consistent across reporting sites.
- 9.** There needs to be a data dictionary readily available and easy to access on the website. There needs to be a more comprehensive term and definition Web page, which is easier to find. Terms such as “enrollment” mean different things to different people, professions and institutions. Is enrollment taken the semester before, the 1st day of class, the 4th day, or on the last day to drop?
- 10.** The future of the FAEIS database will be linked to its ability to meet the USDA’s need to address the STEM pipeline in food and agricultural sciences. The USDA needs data so that it can accurately talk about where the new scientists are coming from (students enrolled, degrees awarded) and going (graduate placement). FAEIS can provide these data and should market itself accordingly. The Panel trusts that their comments will be viewed as supportive of the need to maintain a data system relative to agriculture education.