Using Undergraduate Students to Provide Data Services

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Who: DASIL

- The Data Analysis and Social Inquiry Lab (DASIL, pronounced “dazzle”)
- 18 undergraduate students, working in three types of positions:
  - Peer tutors (8 staff during the spring 2015 semester)
  - Programmers (5 staff during the spring 2015 semester)
  - “History team” (5 staff during the spring 2015 semester)
- Post-baccalaureate fellow (1 annually)
- DASIL director (1 faculty who receives release time for this service)

What: Data Services

- **Peer tutors**
  - Work with students who drop in for help
  - Prepare datasets and classroom exercises for faculty
  - Go into classes to help with “data labs”
  - Areas of expertise include GIS, economics, statistics, experimental design, qualitative research, and associated software packages

- **Programmers**
  - Write custom data visualizations using the D3 Javascript library
  - Help faculty with advanced data wrangling, such as converting data only available via an API to a format that faculty can analyze

- **“History team”**
  - Working on a long-running project to create a time series of georeferenced microdata for three townships in central Iowa

- **Post-baccalaureate fellow**
  - Recent Grinnell graduate
  - Works 40 hours per week
  - Helps to supervise student employees
  - Works with faculty to prepare classroom exercises that use data; available to come to classes and help with “data labs.”

Other data services are provided by permanent, non-student staff

- The data services librarian (affiliated with DASIL, but housed in the library) provides assistance in finding datasets.
- A statistics professor (not affiliated with DASIL) has a course release to act as a statistical consultant to faculty on their research.

Where: Grinnell College

- Residential liberal arts college with 1600 undergraduates and no graduate students
- Top 20 U.S. liberal arts college (U.S. News & World Report rankings)

When: 2010-present

- Launched in 2010 with 4 peer mentors
- Increased to 6 peer mentors in 2011, and 7 peer mentors in 2012
- “History team” began work in 2012
- First programmer hired in 2012
- First post-baccalaureate fellow hired in 2013

Why:

**A College-Wide Commitment to Peer Tutoring and Mentoring**

Peer mentors (advanced students embedded in a lower-level course to assist students) and peer tutors (advanced students who provide drop-in help to other students) are widely used at Grinnell. Assessments by faculty and staff at Grinnell have demonstrated the benefits of peer mentoring/tutoring for both the mentors/tutors and the students they help.

How has it worked out?

- In the 2010-2011 academic year, about 150 students used DASIL. By 2014-2015, that had increased to over 200 students.
- More faculty are incorporating data-driven exercises, created with help from DASIL, into a wider range of classes:
  - Using GIS to visualize U.S. immigration since 1980 in a history class
  - NVivo exercises for analyzing Shakespeare’s works and a large corpus of early English books in a Renaissance literature class
  - A political science professor is launching an entire new course on social network analysis this fall

Want to know more?

- Check out the DASIL blog and visualization archive (http://dasil.grinnell.edu)
- E-mail me (bauderj@grinnell.edu)