Issues
One of DLESE’s three primary goals is to “establish the library as the premier trusted source for high quality Earth system educational resources and services.” Intended audiences for DLESE resources range from primary through graduate education as well as informal and general public groups. However, an ongoing analysis of hundreds of websites maintained by Geography, Geology, and other geosciences departments in U.S. colleges and universities indicates an almost total absence of links to DLESE.

Data
Beginning in late 2004, the Evaluation Core Services team began to analyze the websites of departments of Geography, Geology, and other geosciences fields located in hundreds of colleges and universities in the USA. Links to these geosciences sites were found through Internet searches using Google and through collections of links that others have compiled, specifically:
Geography Department Links – [http://www.colorado.edu/geography/virtdept/resources/depts/usadepts/usadepts.htm](http://www.colorado.edu/geography/virtdept/resources/depts/usadepts/usadepts.htm)

Most academic departments in the geosciences maintain a typical departmental web page that includes sections about admissions, courses, faculty, research, student organizations, and so forth. Many, if not most, of these departmental sites also include a “Links” or “Resources” page. A few of these resources pages include more than 100 links, but most have fewer. For example, the “Other Links” page ([http://www.geol.lsu.edu/OtherLinks/index.html](http://www.geol.lsu.edu/OtherLinks/index.html)) of the Department of Geology and Geophysics at Louisiana State University has 36 links, but none of them are to DLESE.

Similar findings have been found on virtually every departmental website evaluated thus far. As of the middle of February 2005, the resources pages of over 100 geosciences departmental websites have been analyzed, and only one has been found to include a link to DLESE. (The sole DLESE link was found on the links page ([http://geology.csustan.edu/GeoLinks.html](http://geology.csustan.edu/GeoLinks.html)) of the Department of Physics, Physical Sciences, and Geology at California State University, Stanislaus, a webpage with 195 Earth Science links, including DLESE.)

Interestingly, our analysis is also finding that 25 to 50 percent of the links on these geosciences departmental resources pages no longer work. To follow-up on these findings, each chairperson of the geosciences department whose website has been analyzed is being sent an email with the following message:

Dear Professor ________,

I am writing you as a member of the Evaluation Core Services team for the
Digital Library for Earth System Education (DLESE) (http://www.dlese.org) funded by the National Science Foundation. As part of our responsive evaluation initiative, my graduate students and I have been reviewing the online resources recommended on the Web sites of departments of _____ such as yours. Your department has a resources page with ____ links. However, there is no link to DLESE on your Web site, and so I am writing to recommend this extensive resource to you. DLESE is a free digital library built by the Geosciences community with NSF funding to support teaching and learning about the Earth system at all levels of education, both formal and informal. It includes many educational resources especially designed to support undergraduate and graduate education in the Geosciences. I think your colleagues and their students would find it very useful, and so I hope you will ask your Web page designer to add a link to DLESE to your pages. Thank you.

Discussion
Why is DLESE not currently found on the resources pages of geosciences departments in colleges and universities in the USA? A definitive response to this question should be sought through telephone or Internet survey methods as soon as possible. Meanwhile, it is possible to speculate that DLESE is simply not perceived by many geosciences faculty members as a digital library intended for higher education. Perhaps the fact that an obvious search delimiter on the DLESE homepage is “Grade Level,” a term that may suggest K-12 education to the casual visitor.

On the other hand, it may simply be a matter of unawareness of DLESE among the faculty, students, or staff members who have created and maintain the resources pages for their respective departments. Outreach to department chairs (already underway) or directly to individual faculty members may increase the presence of DLESE links on higher education websites. Ultimately, it is hoped that widespread presence of DLESE links on higher education websites will increase the integration of high quality geosciences resources into undergraduate and graduate education.

Recommendations
• The initial analysis of DLESE links on the resources pages of geosciences departments will be completed by April 2005. Samples of these sites should be reanalyzed every four months (e.g., August and December 2005) to determine the extent to which the presence of DLESE links has increased.

• A survey of geosciences faculty members should be conducted to collect information related to their perceptions of the relevance of DLESE to undergraduate and graduate education at their respective institutions.

• Outreach to higher education faculty should be extended through publication of articles about DLESE in geosciences publications.