

## Geoscience Academic Provenance Series

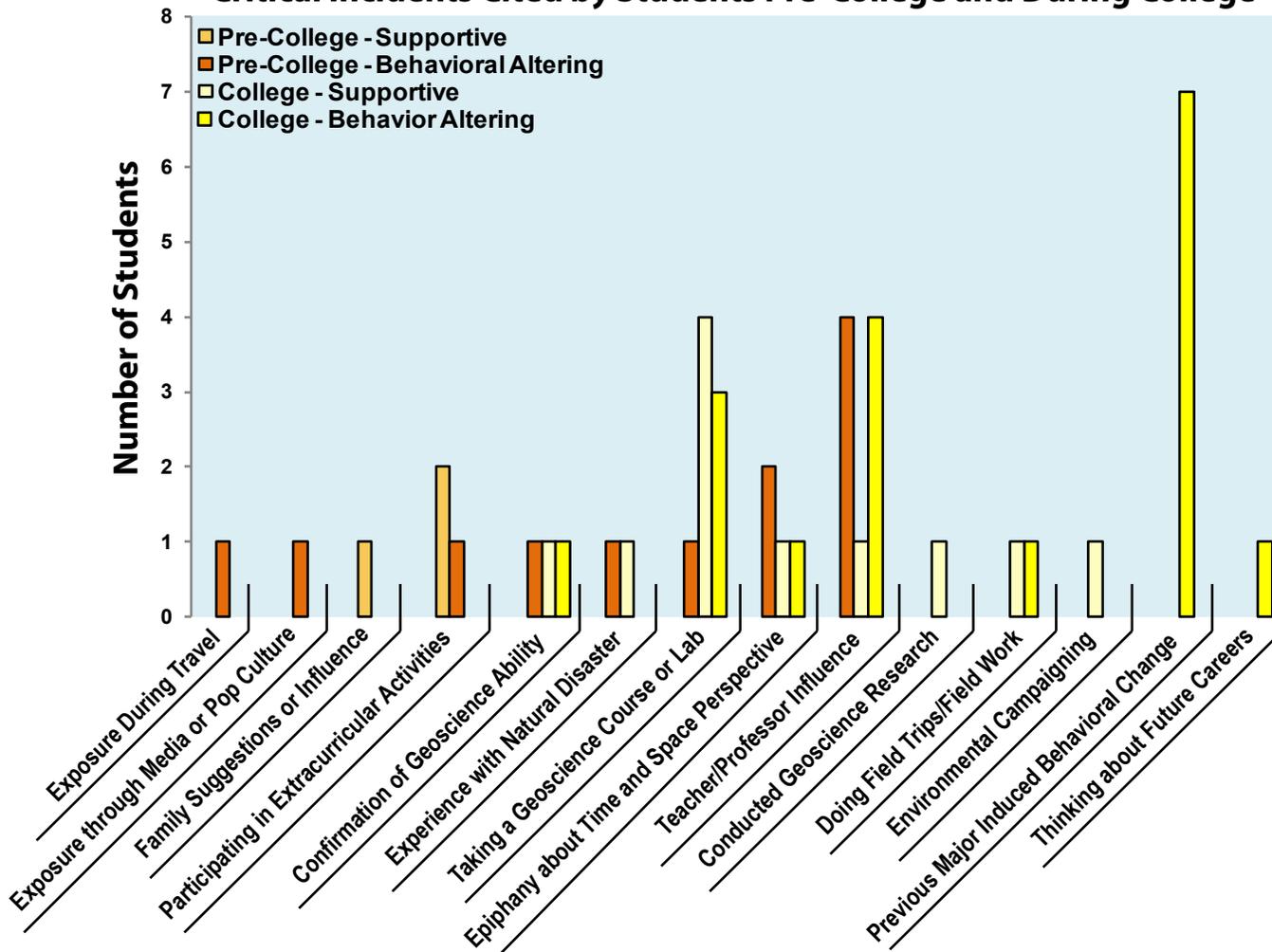
### Critical Incidents: Why Students Choose to Pursue the Geosciences

Houlton (2010) found that three geoscience student populations followed six distinct pathway steps in pursuing their career in the discipline (see Geoscience Currents #45-46). Within the students' pathways, two steps specifically identify Pre-College and College Critical Incidents: specific events, situations or influences students experienced that lead them to make certain choices or changes in behavior (Flanagan, 1954). Traditionally, critical incidents act on behavior either positively or negatively (Levine et al., 2007; Per. Comm. Levine, 2010). However, Houlton's data (2010) identified two different types of critical incidents:

○ **Supportive Critical Incidents** confirm the decision to major in the geosciences. They reinforce students' choice and do not catalyze behavioral change.

○ **Behavior Altering Critical Incidents** catalyze students' decision to pursue a geoscience major through experiences, actions or interactions that introduce them to the geosciences or remind them of forgotten interests.

**Critical Incidents Cited by Students Pre-College and During College**



This is the third of four Geoscience Currents on the topic of Geoscience Academic Provenance. AGI is hosting a **GeoWebinar** to discuss this set of Geoscience Currents on **August 23, 2011 from 1:00-1:30 pm US EDT**. Register at:

[www.agiweb.org/workforce/webinars.html](http://www.agiweb.org/workforce/webinars.html)

To read Houlton's full study, go to:

[http://www.eas.purdue.edu/riggslab/Houlton\\_Final\\_Thesis.pdf](http://www.eas.purdue.edu/riggslab/Houlton_Final_Thesis.pdf)

-Heather R. Houlton