

Walking the rocks: Researchers study undergraduate field education

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Geoscientists learning the local stratigraphy, Tobacco Root Mountains, Montana, USA. Photo by H.L. Petcovic. See related article, p. 4–10. © The Geological Society of America, Inc.

In the July 2014 issue of *GSA Today*, Heather Petcovic of Western Michigan University and colleagues Alison Stokes and Joshua Caulkins

examine the question of geoscientists' perceptions of the value of undergraduate field education. Despite being perceived as integral to both geoscience learning and professional preparation, little research exists on the types of field experiences that carry the most value.

In their study, Petcovic and colleagues compile and analyze [survey data](#) obtained during two Geological Society of America (GSA) annual meetings (2010 and 2011). While 89.5% of respondents indicated that fieldwork should be a required and integral part of undergraduate education, nearly two-thirds felt that the traditional focus of field trips on bedrock mapping was unnecessary. Fieldwork is valued by all groups more for interaction with geological phenomena in their natural state and for general growth in knowledge and understanding of the geosciences than for geologic mapping.

Petcovic and colleagues conclude that this study will help identify long-term goals and outcomes of undergraduate educational fieldwork experiences as well as actions needed to align fieldwork experiences with educational goals, workforce needs, and actual learning outcomes.

The authors call for a robust dialogue between academia and industry, noting that, ideally, students' educational field experiences should prepare them for the workforce, and thus the learning goals of field education and employer needs should be well-aligned.

They also write that academic institutions need the vocal support of industry to ensure that field education continues to have a place in resource-strapped undergraduate programs. Finally, they call on the [geoscience](#) education research community to further investigate the actual impacts and benefits of field education, in order to test empirically whether the value that our professional community perceives in field education is justified.

More information: *GSA Today*, v. 24, no. 7, p. 4-10, [DOI: 10.1130/GSATG196A.1](https://doi.org/10.1130/GSATG196A.1).

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