To connect to this meeting remotely via WebEx, click the following link. 

(https://nationalacademies.webex.com/nationalacademies/j.php?ED=251469202&UID=0&RT=MiMxMQ%3D%3D)

Using the “Emerging Workforce Trends in the U.S. Energy and Mining Industries” report (NRC, 2013) as a foundation, this meeting will explore the education pathways, changing workforce demographics, and potential solutions to address the nation’s workforce needs in fossil energy (oil, gas, and coal), geothermal energy, and hard-rock mining. The meeting will include perspectives from and exchange among experts from the private sector, government, and higher education. 

Contact Eric Edkin (eedkin@nas.edu) if you are interested to attend.

**Agenda**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Participants</th>
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<tbody>
<tr>
<td>0900-0915</td>
<td>Welcome and introductions</td>
<td>Clayton Nichols, chair, Committee on Earth Resources (CER) and Elizabeth Eide, National Research Council</td>
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<tr>
<td>0915-0945</td>
<td>Nature of the problem</td>
<td>Elaine Cullen, co-chair, NRC workforce study committee</td>
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<tr>
<td>0945-1215</td>
<td>Panel 1: Education Pathways</td>
<td>How should fundamental knowledge be provided to help people enter the energy and mining workforce? What challenges do we face? Moderated by: Richard Sweigard, University of Memphis (CER member)</td>
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<td>- Emily DeRocco, E3</td>
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<td>- Cathy Manduca, Carleton College</td>
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<td>- Claire Bambrrough, Dallas County Community College District</td>
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<td>- Pranoti Asher &amp; Harry Furukawa, American Geophysical Union</td>
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<td>- Gavin Lind, Minerals Tertiary Education Council, Minerals Council of Australia</td>
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Topics may include:
- Opportunities after high school: certifications, classes, degrees that meet competency expectations for hourly and salaried workers
- Role of community colleges and partnerships with industry and government
- University programs—melding curriculum, faculty, research, and job placement
Break 1050-1110

Facilitated discussion 1110-1215

Working lunch 1215-1300

Panel 2: Vision for the Future: Changing Demographics and Workforce Diversity
Current and future challenges to ensuring the most capable, healthy, and safe workforce include large-scale retirements, attracting new and young workers, retraining older workers in different capacities, hiring veterans, and overseeing the professional development of an increasingly diverse workforce in industry, government, and academia.
Moderated by: Michael Carroll, Hunt Oil (CER member)

- Launa Mallett, National Institute for Occupational Safety and Health
- Mary Poulton, University of Arizona
- Benjamin Matek, Geothermal Energy Association
- Jessica Moore, Chevron, representing the American Association of Petroleum Geologists
- Brooke Polk, International Association of Drilling Contractors

Topics may include:
- Components of a successful education and training programs for non-traditional workers that can ensure health and safety and professional growth
- Needs for leadership/management (skills, training) to oversee a diverse workforce and ensure a positive working environment
- Incentives to enter the energy and mining workforce
- New technology, training, and communication for extractive industries
- Partnerships (among industry, academia, government) that could help address the challenges of the changing workforce and provide positive opportunities

Facilitated discussion

Break 1445-1500

Highlights and next steps: group discussion Richard Sweigard and Michael Carroll 1500-1530

End of open session