

Congressman Wittman Opening Remarks

*Critical Minerals Policy Working Group: Roundtable 5 (Human Capital Gaps and Opportunities) 9.11.24
as prepared for delivery*

Good afternoon and thank you all for joining us for today's session of the Critical Minerals Policy Working Group. Today, we will continue our critical discussions to explore strategies that will ensure the United States has a secure, sustainable, and resilient supply of critical minerals. Our focus today is on the human capital necessary to support this essential industry, an area that presents both significant challenges and opportunities.

As the United States strives to secure its supply chains for minerals like lithium, cobalt, and rare earth elements—materials vital to the alternative energy sources, industrial automation, and advanced defense systems—we face a major hurdle: a shortage of skilled workers trained in critical minerals extraction, processing, and recycling. Unlike other industrial sectors, the critical minerals industry in the U.S. is still in its nascent stages, leaving us with a limited pool of qualified professionals. This shortage is further exacerbated by the lengthy permitting processes that delay project timelines, making it difficult to not only train but also retain a skilled workforce when projects face prolonged delays.

Additionally, the lack of robust university programs specifically tailored to critical minerals exacerbates this workforce gap. Institutions like the Colorado School of Mines and Penn State University are pioneering efforts to address these challenges through specialized programs and research initiatives, but these efforts must be expanded and replicated across the country. Without a strong educational pipeline and stable employment opportunities, we risk falling further behind in developing the human capital needed to compete in the global critical minerals market.

Today's meeting will address these workforce challenges head-on. We will hear from experts at the Colorado School of Mines and Penn State University, who are at the forefront of educational and research efforts to close the skills gap. We will also hear from the United Steelworkers, which plays a critical role in representing U.S. workers and ensuring that the U.S. industry can meet the growing demand for critical minerals.

As we address the workforce challenges in the U.S. critical minerals supply chain, we must consider policy initiatives that could significantly bolster our domestic workforce capabilities. One such initiative is H.R. 2685, the *Mining Schools Act of 2023*. This legislation would require the Department of Energy (DOE), in coordination with the Department of the Interior (DOI), to establish a grant program supporting domestic mining education. Specifically, DOE would be mandated to award up to 10 grants annually to U.S. mining schools, focusing on recruiting and educating mining engineers and other professionals essential to meeting future energy and mineral needs.

We must also bolster the National Science Foundation (NSF) and National Science and Technology Council (NSTC) support for mining schools. We should enable the NSF to engage in activities related to critical minerals research and development (R&D), including providing funds to higher education institutions and nonprofits to train and prepare the next generation of mining engineers and researchers.

Alternatively, we must prioritize mining research within NSF's funding allocations is another critical policy approach. Currently, NSF dedicates only about 3% of its budget to mining research. Legislation that mandates NSF to increase this percentage, particularly in areas related to workforce development and R&D, would help address the skills gap in the critical minerals sector.

Finally, establishing a skills fund or program under the DOE, Department of Labor (DOL), or Department of Commerce for industries of strategic national importance, including mining, could significantly enhance workforce education and development. Such a program would promote education initiatives for industries impacted by competition with China, ensuring that the United States remains competitive in critical sectors like mining.

As we consider these challenges, it is essential to recognize that workforce development is just as critical as technological advancement or resource discovery in securing our critical mineral supply chains. We must explore strategies to streamline permitting processes, enhance university programs, and create incentives for private sector involvement in workforce training. Only through a coordinated, bipartisan effort can we build the robust, skilled workforce necessary to ensure that the United States remains competitive in this vital sector.

Today we have three witnesses to walk us through the opportunities in recycling and nodule harvesting:

- Dr. Elizabeth Holley is an Associate Professor of Mining Engineering at Colorado School of Mines. She will share insights from Mine's collaboration with the federal government to enhance the American workforce.

- Dr. Barbara Arnold is the Undergraduate Program Chair of Mining Engineering and Professor of Practice in Mining Engineering at Penn State University. She will discuss Penn State's programs to improve American workforce capabilities.

- Ms. Anna Fendley is the Director of Regulatory and State Policy at United Steelworkers, she will discuss the perspective of American mine workers.

Thank you, and I look forward to a productive discussion.