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Mineral Resources Research and Education
 - Ongoing collapse of mineral resources education and research

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Write / e-mail / fax / call
 - Representatives and senators
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 This year's RFP (request for proposals)

USGS MRP Budget Proposed Cuts
 Helping avoid proposed cuts is a key piece of the picture

MERIT

(Mineral Resources Education and Research Initiative)

Write (by fax or e-mail) in support of "Dear Colleague" Letter and long-term support for Minerals Research in the USGS

The "Dear Colleague" letter for MERIT was circulated in April. Both the House and Senate budgets have restored the President's proposed cuts to the USGS MRP. The Senate language currently (summer 2005) proposes a \$1M external grants program through the MRP.

We were able to generate some considerable support, however additional communication with Congressmen and Senators is always needed. Even a quick e-mail (if you have already written, or a longer message if you have not) about the letter, the MERIT initiative, and the importance of the USGS Minerals Program is always helpful.

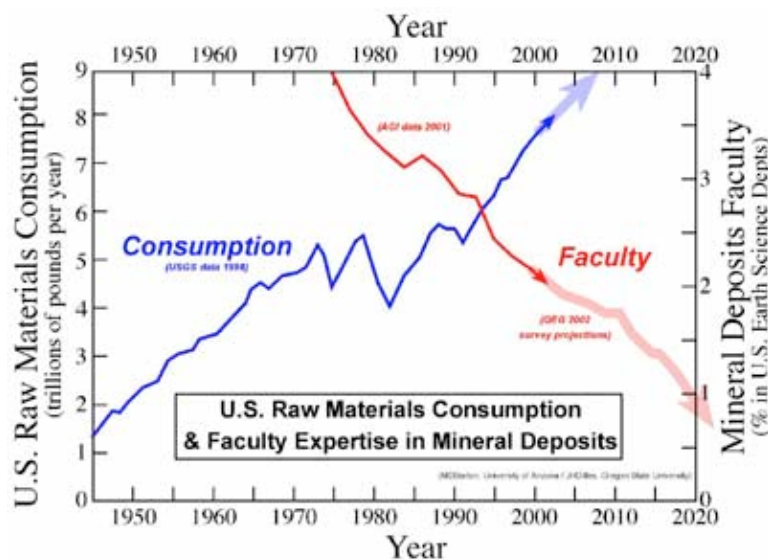
[Click here](#) for background, suggestions on what to say, and text of Representative Gibbon's letter.

Why is action needed immediately?

Mineral resource education and research in the United States is collapsing: Minerals education and research is at risk in the United States, no matter what its aim: basic concepts, societal relevance, or needs of industry. Expertise and education on minerals issues are imploding in the United States and, indeed, in much of the world.

University positions in Economic Geology (right) and Mining Engineering (below) have steadily disappeared with retirements or transfer into other fields. This is happening in spite of the fundamental role of mineral resources in civilization, the increasing production and use in the U.S. and globally, and the need for socially responsible and economically sound use of these materials.

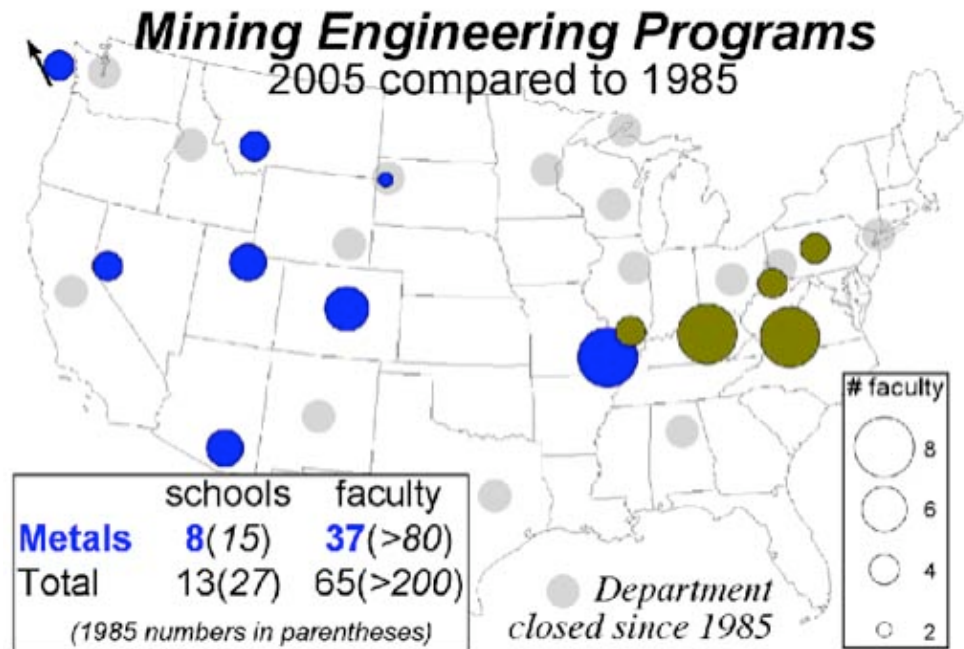
The fundamental reason for this decline is that minerals programs are small and thus are at risk of elimination when there is a down turn in the employment market and when there is an academic focus on other, better funded topics. This decline thus is a direct consequence of solid research



funding in other fields, but very little for applied minerals-related related studies. Universities follow dollars.

USGS and other organizations: Similarly, funding to maintain the professional expertise and applied science in the USGS Mineral Resources Program and related related fields has been under attack for many years as illustrated by the demise of the US Bureau of Mines in 1995 and the continuing annual proposed cuts to USGS mineral resource studies. *This year the proposed funding reduction for the USGS MRP is more than 50%.*

The consequence is that within the next decade, if not sooner, the US will lose its intellectual critical mass for sustaining training, education, research, and public service related to mineral resources. This is in spite of the fundamental importance of earth materials to the national economy and, more broadly, the impact that these disciplines have on many other aspects of our life from the environment and public health to land use decisions to jobs to national security.



This figure shows the change in Mining Engineering Departments in the US between 1985 and the present. The majority of programs in the US have closed since 1985 -- only a handful of minerals focused programs remain. **Economic Geology programs** have an analogous pattern though they typically consist of only single faculty (top figure shows national trend since the 1970s) -- it is equally dire.

MERIT – an initiative that can make a difference

What is MERIT? MERIT will create an externally funded competitive grants program through the USGS that would support applied research and education broadly related to mineral deposits (from environment to materials flow to geologic studies). Such a program is critical for the survival and health of mineral resources activities in US institutions and thus to addressing the long-term sustainability of education and research in service needs of the country. **Links to the MERIT proposal:** ([html](#), [MS Word](#), [pdf](#)).

The National Research Council (NRC) has published three reports that highlight the need for federal funding of mineral-resource and related research. In 1996 (and reiterated in 2004), the NRC recommended funding an external grants program for minerals-related research within the USGS. In 2003, the NRC recommended funding a program in Material Flows, the tracking of supplies, use, and paths of minerals and other materials within the global economy, which has tremendous implications for national security.

In Fiscal Year 2004, in response to these reports and strong interest from the community, the USGS Minerals Program created an external grants program (MRERP) using internal funds. This program received a strong response (about 35 proposals) yet because of limited funds it and it was able to

fund only a total of six proposals. Although this program is continuing in FY 2005, at a slightly higher funding level ([request for proposals, linked here](#)), it will be eliminated in FY 2006 if the proposed cuts to the Mineral Resources Program are enacted.

Who is involved? The MERIT effort involves an increasing group of **academics, industry professionals, and professional societies** (Society of Economic Geologists, American Institute of Professional Geologists, Geological Society of Nevada, Arizona Geological Society among them) along with others including **NASULGC** (National Association of State Universities and Land Grant Colleges, the DC group representing state universities). All are engaged in to advancing this request in Congress. In 2005 many individuals and groups from more than 20 states and have committed to supporting MERIT.

The MERIT effort has been coordinated by four of us:

Mark Barton (Director, Center for Mineral Resources and Professor of Economic Geology;
(520) 621-8529 barton@geo.arizona.edu)

John Dilles (Professor of Economic Geology, Oregon State University;
(541) 737-1245; dillesj@geo.oregonstate.edu)

Jon Price (State Geologist and Director, Nevada Bureau of Mines and Geology;
(775) 784-6691; jprice@unr.edu)

Larry Grayson (Chair of the Department of Mining & Nuclear Engineering,
University of Missouri-Rolla; (573) 341-4753; graysonl@umr.edu)

Progress: MERIT has been in development for over two years. In our most recent trip, John Dilles and Jon Price visited Washington, D.C. on February 6 to 9 to line up support for MERIT. We are pleased to report that Congressman Jim Gibbons will champion the effort for the House of Representatives by circulating a "Dear Colleague" letter that expresses support for the program. We are also pleased that there has been good reception for MERIT among key Senators and their staffs. Later this month (March), Jon Price, Mark Barton, and Larry Grayson will be in DC and will continue with Capitol Hill and other contacts.

It goes without saying that the challenges in 2005 for funding any initiative are immense, yet the status of mineral resources science and engineering is sufficiently grim that avoiding the challenge may result in an irreversible collapse. Here is what is needed:

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Active support needed – now

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Click here for background, suggestions on what to say, and text of Representative Gibbon's letter.

We need you to make a difference! Only through active political support in Washington can MERIT come to pass and, more broadly the mineral resources activities in the US be sustained for the long term. ***We ask for your help in writing to your Congressional delegation within the next***

few weeks. Below are example letters that indicate whom your Representative should contact to sign onto the "Dear Colleague" letter (mentioned above) and how your Senators best can express support for the program. Additionally, strong support for restoring the proposed budget cuts in the USGS MRP would be key.

The House Appropriations Subcommittees want input from constituents no later than April 1, thus requests from members (e.g., MERIT, MRP funding) must be in as soon as possible (they may listen later, but chances of impact are reduced).

If you have questions, [please contact any of the principals \(above\) by e-mail or phone.](#)

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Writing / e-mailing your representatives and senators

What to do: Direct communication with Representatives, Senators, and their staff members is needed, whether by letter, fax, e-mail, phone, or in person (**fax and e-mail are best** because of speed). Copies to the relevant members of the executive branch would be helpful as well. All communications supportive of the need for maintaining Federal, State, and academic expertise in mineral resource issues would help, but specifically on MERIT and the USGS MRP.

Generic draft letters (from Jon Price) are available from these links:

- 1) - MS Word format: [House / Senate](#)
- 2) - pdf format: [House / Senate](#)

Please modify them (or, write your own) to best suit your message.

Congressional contact information: If you need e-mail addresses or other information on how to contact your delegation, you should be able to find all you need on the Web at <http://thomas.loc.gov/>.

Arizona delegation contact information: For Arizona residents, companies, etc. the e-mail and postal addresses and telephone / fax numbers are given for the 8 Arizona Representatives and the two Senators in the attached documents ([MS Word format](#), [Adobe Acrobat \(pdf\) format](#)).

Links to Key Committee Lists: These links list the members of the House and Senate Appropriations Committees and their web links. Contact with Appropriations Committee Members and other committees with jurisdiction of minerals issues is very helpful.

- [House Appropriations Committee](#)
- [House Interior Appropriations Subcommittee](#)
- [Senate Appropriations Committee](#)
- [Senate Interior Appropriations Subcommittee](#)
- [House Resources Committee](#)
- [House Energy and Minerals Subcommittee](#)
- [Senate Committee on Energy and Natural Resources](#)

Document with Subcommittee fax numbers and executive branch addresses for sending copies: Secretary of the Interior, Director of the Office of Management and Budget, Vice President, President ([MS Word format](#), [Adobe Acrobat \(pdf\) format](#)).

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USGS 2005 MRERP Requests for Proposals (Mineral Resources External Research Program)

MRERP (web site; pdf version): The Mineral Resources External Research Program is starting its second year with a request for proposals. This program, funded internally by the USGS MRP, gives an inkling of the interest in and possibilities for MERIT. Last year, over 30 proposals were submitted from across the country, many of high quality and most focused on applications. Resources were sufficient to fund only 6 of these ([web site](#)).

Applications to MRERP are strongly encouraged as are expressions of support to Congress and those responsible for this effort in the USGS. Community interest and commitment is essential to a successful long-term program that might compare with analogous programs in Earthquake Hazard Reduction (NEHRP) or Geologic Mapping (STATEMAP/EDMAP).

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USGS MRP Proposed Cuts

Proposed 2006 Cuts to Minerals Program: The President's proposed budget for Fiscal Year 2006 (starts 1 Oct 2005) would cut more than half the funding from the USGS Minerals Program ([click here for pdf file with relevant budget summary](#)). This would not only eliminate MRERP and any realistic chance of MERIT, but it would eliminate many projects covering the entire United States and the globe.

Maintaining funding for the MRP is a key part of the overall strategy for the long term health of minerals expertise and information in the US. Without a firm Federal commitment and participation, universities, state surveys, and other organizations would not be able to meet the many public and private needs for minerals-related information and expertise.

From the USGS Director's Testimony to the House Appropriations Subcommittee on Interior, Environment, and Related Agencies, 3 March 2005: ([link to pdf file with full testimony](#)) "To provide resources for other Administration, Interior, and USGS priority efforts and to support the Administration's plan to reduce the Federal deficit by half by 2009, the FY 2006 budget request includes a proposed reduction in the Geology program of \$29.8 million for selected individual projects and lower priority mineral resource efforts. This reduction will terminate the collection of nation-wide basin geologic and mineral deposit data, the internationally coordinated global mineral resource assessment, many mineral commodity reports, and will eliminate approximately 240 FTE within the USGS. The \$25 million remaining in the program will continue funding for minerals surveys and studies relevant to ongoing Federal energy, land management, regulatory, and remediation activities more oriented to the interests of States, local governments, and universities, all of whom are significant users of information generated by the Minerals Resources Program. ***The expertise exists at various universities and state geological surveys to continue minerals work brought to an end with this reduction.***"

(The **total number** of science + engineering faculty in US universities focused on mineral resource issues is far smaller than the 240 proposed cut (see the illustrations above). Moreover, there is virtually no research funding in this field for the many topics of public interest. Who could do the critical work?)

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[Mark Barton Home Page](#) | barton@geo.arizona.edu | [Geosciences Home Page](#) | [Lowell Program in Economic Geology](#)

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