



Representing U.S. Research Institutions and Universities in Support of Future Scientific Ocean Drilling

Our Vision: Long-term investment and maintaining leadership in the *ocean sciences* and *scientific ocean drilling* will be vital to enhancing our understanding of planetary health and sustainability while strengthening STEM research and inclusive workforce development in the United States of America

Re: Follow-up Letter on the Critical Importance of Continued, Future Scientific Ocean Drilling in the U.S.

August 3, 2022

Director, Dr. Sethuraman Panchanathan
Assistant Director, Geosciences Directorate, Dr. Alexandra R. Isern
National Science Foundation

CC: Senior Advisor Facilities Planning and Management, Geosciences Directorate, Dr. Shelby E. Walker
Division Director, Ocean Sciences, Dr. James McManus
Section Head, Integrative Programs, Ocean Sciences, Mr. Bauke H. Houtman
Program Director for Ocean Drilling Program, Ocean Sciences, Dr. James F. Allan

Dear Drs. Panchanathan and Isern,

On 16 May 2022 you received a letter by US-SODA in support of continued, future scientific ocean drilling in the United States. We welcome your positive responses from June 3 and July 25 and your willingness to work in partnership with US-SODA and the larger U.S. science community to plan the next steps of U.S. scientific ocean drilling. With this letter we are providing you with an update on community efforts in support of this cause, emphasizing the wide scope and interest by the research community in the U.S. and internationally, the many U.S. universities and research institutions involved, and the importance of scientific ocean drilling to early career scientists and workforce development.

Over the last two months, US-SODA has had open an online petition to gauge the support for continued, future scientific ocean drilling in the United States. More than 2,200 supporters have signed this petition, with 855 signatures from U.S. researchers and students, from all 50 states plus Washington DC, and representing more than 200 universities and institutions in the U.S. alone (see pages 4-5 for details). The markedly international role of scientific ocean drilling in the global sciences is underscored with more than 1,300 signees from 49 countries. During this two-month period, 50 support letters have been sent to NSF from university leadership in the U.S and from around the world, signed by university presidents, vice presidents for research, deans of colleges, and directors of research institutes. Scientific ocean drilling obviously is vital to an enormously large science community in the U.S. and worldwide.

The critical need for scientific ocean drilling in the U.S. was brought home by a self-organized *early-career* letter co-signed by 208 students, post-docs, and assistant professors (see page 4 for details). This letter demonstrates how scientific ocean drilling provides an important “platform to train a competitive U.S. workforce, broaden access to science, and engage students from historically marginalized groups, as well as students from smaller universities and community colleges”. They also recognize that “while building a new drillship can take up to a decade, continuing scientific ocean drilling in the interim period is critical” and they ask NSF to consider to “also support the 2024-2028 bridging program by extending the funding for the *JOIDES Resolution* during these pivotal transition years.” Failure to provide a drilling platform in the period following the end of the International Ocean Discovery Program (IODP) would be cutting off these early-career scientists from even the possibility of success and would result in an irreversible loss of future U.S. scientific and technical expertise and leadership in exploring the oceans.

As we stated in our first letter and as was reinforced in the many institutional support letters, there is no question that scientific ocean drilling permeates the natural sciences, both in the U.S. and internationally. Without scientific ocean drilling in the U.S. the many fundamental scientific discoveries as foreshadowed



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in the *2050 Science Framework* will never be made; this also means that we can never capitalize on the many opportunities for new engineering solutions, new partnerships with allied science programs and industry, and the extensive workforce development in the STEM fields that are afforded by the scientific ocean drilling programs. We note that several passages in the recently passed CHIPS and Science Act stress the need for such workforce development while also calling out the importance of “research to improve understanding and predictability of the climate system and related human and environmental systems.” A 2024-2028 bridging program using the *JOIDES Resolution* and the lease or acquisition of a new U.S. global-ranging riserless drilling vessel are two essential ingredients to pursuing these goals.

In closing, we would like to propose to meet with the NSF leadership during the summer to further discuss and to provide assistance in the next steps for the successful continuation of scientific ocean drilling in the United States and the leasing or acquisition of a new U.S. drilling vessel.

Yours sincerely and representing the 15 institutions in US-SODA.

Dr. Anthony A.P. Koppers

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Professor [Marine Geology and Oceanography](#) (CEOAS)
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Chair, U.S. National Committee for the Decade of
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2022 US-SODA PETITION AND INSTITUTIONAL LETTERS

Starting on 18 May 2022 and closing on 3 August 2022, US-SODA has had an online petition open to assess the scope and size of the U.S. and international science community “In Support of Continued, Future Scientific Ocean Drilling in the United States of America”. Signees were requested to provide their names, country, affiliation (optional) and could provide a comment (optional). Signatures had to be verified by clicking on a link sent to the signees email address.

In total **2,213 signatures** have been collected over the last two months. On the next page, maps are provided showing the distribution across the world, with the United States providing most signatures at **855** followed by Japan, the United Kingdom, Australia, China, Germany, and Brazil, each with more than 70 signatures. In total **49 countries** are represented. The consortia of Austral and New Zealand (ANZIC) together have 155 signatures and the European Council of Ocean Research Drilling (ECORD) together have 509 signatures.

From the **855 signatures** in the U.S. there are represented **50 states plus Washington DC** with California, Texas, New York, Rhode Island, Massachusetts, Ohio, New Jersey, Oregon, Florida and North Carolina, each with more than 25 signatures. Within the U.S. group of 630 signees that provided their affiliation there was representation from more than **200 U.S. universities and research institutions**.

Over the same time, NSF has received **50 support letters** from groups and university leadership from around the U.S (30 institutions) and the world (23 institutions or organizations), including US-SODA and an open letter co-signed by 208 early career scientists (see below). These supporting letters were signed by 7 university presidents or chancellors, 20 vice presidents or vice chancellors for research, 32 deans of colleges, and 16 directors of research institutes.

OPEN LETTER BY 208 EARLY CAREER SCIENTISTS

Although the petition didn’t include questions about career stage or diversity, a separate open letter **co-signed by 208 early-career scientists** (see <https://us-soda.org/open-letter-by-208-early-career-iodp-scientists-8-july-2022/>) provides a clear view into the modern demography and workforce development in scientific ocean drilling. Initiated by five IODP Schlanger Fellows, the letter was co-signed by early-career scientists from **17 countries** representing **98 different universities and research institutions**. Of these early-career scientists **177 are based in the United States** with a representation of **65% graduate student** and **18% post-doctoral researcher**.

In their letter the U.S. early-career scientists summarized the issue pointedly: “We cannot overstate how detrimental the termination of NSF support for U.S. Scientific Ocean Drilling would be for future generations of scientists and society as a whole, in both the loss of opportunity and the loss of critical knowledge of our Earth system.”

Indeed, there will be many opportunities lost because termination of scientific ocean drilling in the U.S. will deprive the next generation of U.S. scientists “to conduct impactful research, effectively communicate science [to society], and develop a variety of skills [in their workforce development]”. In addition, they state that they see that such a termination will have “far-reaching implications ... given the pressing climate challenges facing our planet ... [and the need to collect] critical information on natural hazards ... allowing us to better predict the rate and magnitude of future [earthquakes and tsunamis]”.

Signings

2,213

Goal

2,220

Petition in Support of Continued, Future Scientific Ocean Drilling in the United States of America

First name _____ Last name _____

Organization (optional) _____

Location _____

Country
United States (US)

Email _____

Comment (optional) _____ 0/280

Yes, I want to receive updates

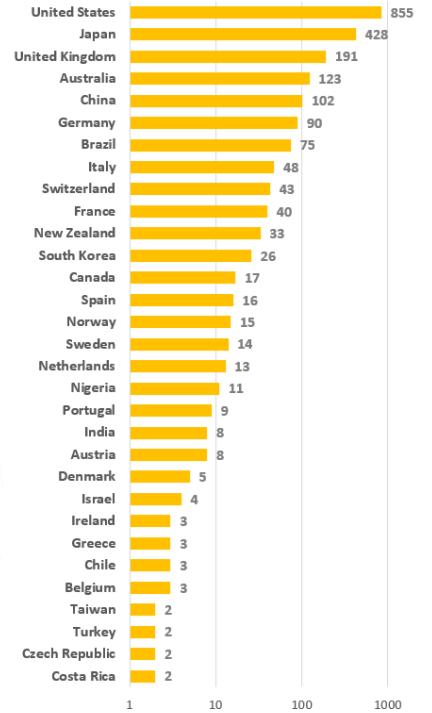
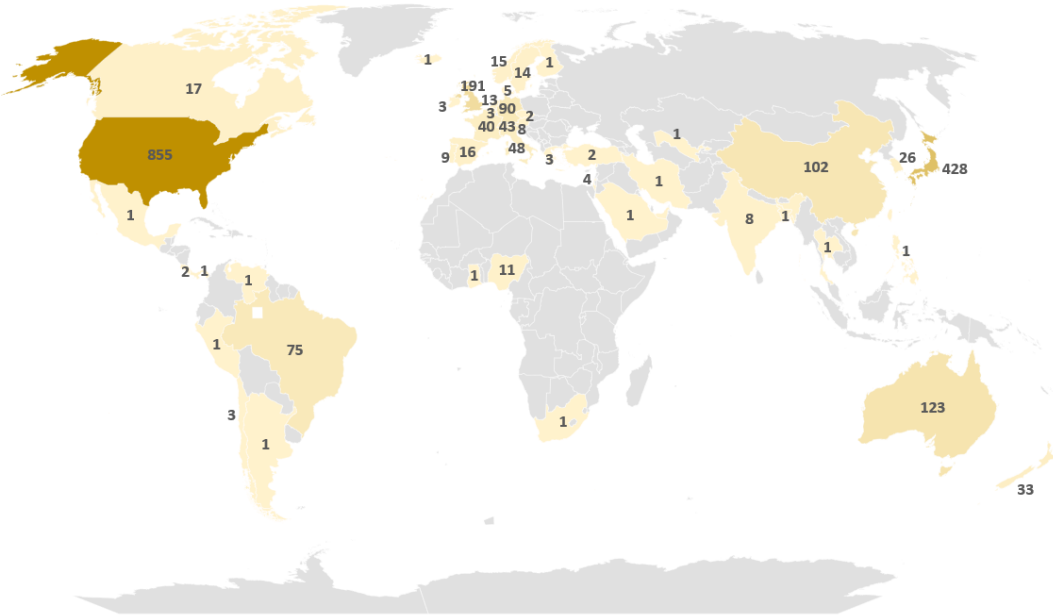
SIGN



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US-SODA Petition by Country
 2,213 Signatures | 3 August 2022



US-SODA Petition by US State
 855 Signatures | 3 August 2022

