

EPO Logic Model

Version: 1.1

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Vision:

A society that appreciates the relevance of seismology and supports Earth science research and education.

Mission: (What we do...Who we do it for...Why we do it)

Producing products and programs for educators, students, and the general public, to advance the awareness and understanding of seismology and geophysics, while inspiring careers in Earth science.

EPO Program Goals: (What we hope to accomplish)

- Develop innovative educational resources and technologies through the involvement of researchers, educators, and other experts, and disseminate a full suite of education, workforce, and public outreach (EWO) products.
- Foster the development of a robust, well-trained, and diverse geoscience workforce with the knowledge, skills, and abilities to tackle emerging scientific and societal issues.
- Engage the public and our scientific communities by highlighting the advances in and societal relevance of geophysical research, particularly with respect to natural hazards, water resources, and energy concerns.

Audiences: (Who we serve)

- Consortium*, Scientific, & Industry Communities
- GeoEducation Community
- Undergraduate & Graduate Students, and Faculty*/Other Geoscience Professionals
- Students & Teachers Grades 5-12
- General Public & Informal Educators

*Note: We differentiate Consortium vs Faculty based on the identity from which they would approach our programming. For example, as a researcher, faculty would be considered under the audience Consortium, while as an educator, faculty would be considered under the audience Undergraduate & Graduate Faculty.

What are the main things the project will do?
Elements

If we accomplish our elements, they will deliver the following...
Outputs

If we continue to accomplish our elements, then in 5 - 7 years they will affect change in the following...
Outcomes

Inputs

SAGEII \$, Other grant \$, Staff, Consortium Members, Consultants & Sub-awardees, Seismic Data

Website, Career and professional development, Advertising and promotion, EPO Collaborations, Dissemination of approaches and impacts, Lessons, labs, and activities, Access, visualize, and analyze seismological data, Teachable Moments, Animations, Videos, Advertising and promotion, Seismology In Schools Support, Museum displays, Lectureship, Social media, Outreach events and booths

Consortium, Scientific, & Industry Communities

IRIS website to host news/events/announcements for the SAGE Facility
Annual creation & dissemination of the science, program, and member highlights.
Early Career Investigator workshops and networking events
Annual reception for interns and alumni at AGU week.
SAGE/GAGE Workshop
Annual booth at AGU, SSA, and SEG
~ 2 in-person meetups/networking workshops annually

Increased awareness of the successes, capabilities and activities of the SAGE facility
Increased sense of connectedness with our scientific community.
Increase awareness of employment and professional skill building opportunities
Lower the barriers to establishing a successful career within the geosciences

GeoEducation Community

Collaborate with at least UNAVCO plus 2 to 5 other organizations annually.
Develop and present at least 15 presentations/posters annually
Develop and submit at least 2 publications annually

Increased capacity for IRIS EPO to achieve programatic goals
Increasing community awareness of IRIS EPO activities and results from EPO research and evaluation.
Increase recognition among peers of IRIS as a leader of seismology/geophysics education and communication

Undergraduate & Graduate Students, and Faculty/Other Geoscience Professionals

InClass website and database
Internship Program for 10 to 15 students annually
Facilitate creation of 4 two-week long intro to geophysics modules
Online Careers-module
At least 6 webinars annually
Create ~ 3 InSight lessons/labs and maintain existing lessons/labs
Create and maintain existing software/website/apps to enable access, visualization, and analyze seismological data
Create an Interactive display of Marsquake information and software to access and analyze InSight seismic data
Produce Teachable Moments for each M7 or larger, or of societal interest
Produce ~5 new animations annually and maintain existing
Create ~20 gifs annually and maintain existing
Create ~3 tutorial videos annually and maintaining existing
Annual booth at AGU and GSA

Increased awareness of the successes, capabilities and activities of the SAGE facility
Increase time faculty spend teaching seismological content
Increase the accessibility of seismic data for education
Increased interest in and understanding of geophysics/ seismology content
Increase undergraduate students awareness of and interest in geophysics/seismological careers
Faculty will perceive IRIS resources and tools as of high quality and indicate the intention to recommend to colleagues
Expand the audience for IRIS educational resources, tools, and programs
Increased sense of connectedness with our scientific community

Students & Teachers Grades 5-12

Develop and maintain InClass website and database
Deliver at least 3 workshops annually
Create and maintain existing software/website/apps to enable access, visualization, and analyze seismological data
Create ~ 3 InSight lessons/labs and maintain existing lessons/labs
Create an Interactive display of Marsquake information and software to access and analyze InSight seismic data
Produce Teachable Moment slides for every earthquake M7 or larger, or of particular societal interest
Produce ~5 new animations annually and maintain existing
Create ~20 gifs annually and maintain existing
Create ~3 tutorial videos annually and maintaining existing
Maintain educational seismograph users website
Annual booth at NSTA and Earth Science Week kit flyer

Increase time teachers spend teaching seismological content
Increase the ease of access to seismic data for education
Increased interest in and understanding of geophysics/ seismology content
Increased perception of IRIS as a source for resources and tools of high-quality
Expand the audience for IRIS educational resources, tools, and programs

General Public & Informal Educators

Develop and maintain InClass website and database
Create website to house ShakeAlert resource collection
Support ~25 Earthquake Channel installations
Consult on the development of ~2 installations annually
Deliver at least 6 lectures/year and reach more than 300 people/year
Record ~ 2 lectureship videos per year and maintain on youtube.
Maintain IRIS Earthquake Science social media pages with ~3000 posts per year
Booth at the Science and Engineering Festival (every other year)
Booth at AAAS Family Science Days when in DC
Present at 3+ conferences to raise awareness of ShakeAlert special collection
Produce ~5 new animations annually and maintain existing
Create ~20 gifs annually and maintain existing
Create ~3 tutorial videos annually and maintaining existing
Create a special collection ~ 20 lessons and labs, geared for informal learning environment, to teach ShakeAlert related concepts
Produce Teachable Moments for each M7 or larger, or of societal interest

Improve the public's awareness, appreciation & comprehension of seismology and the scope of topics studied
Increased perception of IRIS as a source for resources and tools of high quality
Support emergency managers, primarily on the west coast, in their educational missions
Increased public support for seismology research & education
Enabling more people to participate in monitoring Earth's changes through seismology

Program Goals

Foster the development of a robust, well-trained, and diverse geoscience workforce with the knowledge, skills, and abilities to tackle emerging scientific and societal issues.

Engage the public and our scientific communities by highlighting the advances in and societal relevance of geophysical research, particularly with respect to natural hazards, water resources, and energy concerns.

Develop innovative educational resources and technologies through the involvement of researchers, educators, and other experts, and disseminate a full suite of education, workforce, and public outreach (EWO) products.

