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Cooperative Support of Fermilab's Science Education Programs

Cooperative Research and Development Agreement Final Report

CRADA Number: FRA-2014-0024

Fermilab Technical Contact: Rebecca Thompson

Summary Report

7 March 2021

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In accordance with Requirements set forth in Article X of the CRADA document, this document is the final CRADA report, including a list of Subject Inventions, to be forwarded to the Office of Science and Technical Information as part of the commitment to the public to demonstrate results of federally funded research.

CRADA number: FRA-2014-0024

CRADA Title: Cooperative Support of Fermilab's Science Education Programs

Parties to the Agreement: Fermilab Friends for Science Education and Fermi Research Alliance, LLC

Sponsoring DOE Program Office(s): Office of Science - High Energy Physics

DOE Funding Commitment Table:

Not Applicable.

Abstract of CRADA work:

The purpose of this CRADA is to sustain and expand Fermilab's highly successful science education programs through continued cooperation between Fermilab and Fermilab Friends for Science Education (FFSE). FFSE is a not-for-profit institution that provides support for Fermilab's science education programming, including public events, instructional resources and program development, scholarships and educational equipment.

Summary of Research Results:

This CRADA, active from March 2016 to March 2021, focused on four specific programmatic partnerships, the STEM Career Expo, the Family Open House, the Outdoor Fair, and scholarships for teachers and students. FFSE summed up the successes of the partnership with Fermilab EPE in their annual reports, linked below. The reports cover 2016, 2017, and 2018. 2019, 2020, and 2021 are summarized below with relevant links.

In Feb. 2019 and 2020, Fermilab, with the support of FFSE, welcomed over 4,000 people each year to the Annual Family Open House. FFSE again sponsored the Great Neutrino Hunt, food and snacks for numerous volunteers, and giveaways for those that attended. The events were extremely successful. The Open House in Feb. 2021 look a bit different as it was held virtually. As there was no longer a need for direct financial support, FFSE volunteered time to participate and support the many virtual offerings. Summaries of both events are linked below. In 2019, \$2500 in **scholarships** were given to teachers to attend the annual summer teacher workshops, schools to attend field trips, and children to attend Science Adventures. In 2020,

these programs were either canceled or made virtual and offered for free. As such, the scholarships were not needed.

In 2019, the STEM Career Expo welcomed 1,500 high school students to Fermilab to learn about potential careers in STEM. There were more than 150 STEM professionals representing over 70 different careers in STEM. The event was extremely successful and was attended by Congressman Lauren Underwood, who worked in STEM as a nurse prior to serving in the House of Representatives. The in-person event was canceled with short notice in 2020, but a quick pivot to virtual offered students a view into STEM careers in a new format. Five virtual panels, each with five STEM professionals, were recorded and posted for students to view and post questions. The panels received a total of 1,500 views. Information on both these events is linked below.

In 2019, the Outdoor Fair, held in June, welcomed 450 people onto the site to engage in activities focused on Fermilab's mission as a National Environmental Research Park. A summary of the event is linked below. Unfortunately, the Outdoor Fair was cancelled in 2020.

Related Reports, Publications, and Presentations:

FFSE Annual Reports: <https://ed.fnal.gov/ffse/annual-reports/index.shtml>

<https://ed.fnal.gov/ffse/annual-reports/current-annual-report.pdf>

Family Open House 2019 summary: <https://news.fnal.gov/2019/02/family-open-house-a-success/>

Family Open House 2020 summary: <https://www.chicagotribune.com/suburbs/aurora-beacon-news/ct-abn-fermilab-open-house-st-0210-20200209-465zusnppfhnrdbmhuujcbtqo4-story.html>

Family Open House 2021 summary: <https://news.fnal.gov/2021/03/a-recap-of-fermilab-family-open-house-virtual-edition/>

Outdoor Fair 2019: <https://news.fnal.gov/2019/05/explore-the-wonders-of-nature-at-fermilabs-family-outdoor-fair-on-sunday-june-9/>

STEM Career Expo 2019: <https://news.fnal.gov/2019/04/in-photos-stem-career-expo-2019/>

STEM Career Expo 2020: <https://news.fnal.gov/2020/05/high-school-students-hear-from-professionals-at-fermilab-online-stem-career-expo/>

Subject Inventions listing:

None

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