



HEP COMMUNITY COMMUNICATIONS ACTIVITIES

Kirsty Duffy, Fermilab

On behalf of

Fermilab UEC, US LHC UA, and SLAC UO

HEPAP

10th July 2020

ANNUAL DC TRIP

- For over 35 years members of the three major HEP users communities have come together for this visit to Congress

This effort is possible thanks to support from



And participation/organization from the HEP community



ANNUAL DC TRIP

- For over 35 years members of the three major HEP users communities have come together for this visit to Congress

The aim of the trip is to visit with:

- Congressional offices
- Congressional appropriations and authorization committee staff
- The Administration (Office of Management and Budget/Office of Science and Technology Policy)
- Funding agencies (DOE and NSF)

Our message:

1. Share our excitement about our research
2. Thank everyone for their continued support
3. Help convey the value added to society by HEP

LAYOUT OF TRIP (IN THEORY...)

- Use algorithm (in our logistics system — discussed later) to **assign trip attendees to contact specific people based on their connections**
 - → offices are contacted by this ‘primary’ and a meeting is arranged
- Over three days, **pairs of trip attendees visit every office*** that a meeting could be scheduled
 - → **packets of materials** are brought to help reinforce the message
- Practice sessions are held to help educate attendees about **congressional process, meeting etiquette, science communication**, and the **materials**



* in a “normal” year — this year was not normal

2020: A VIRTUAL “TRIP”

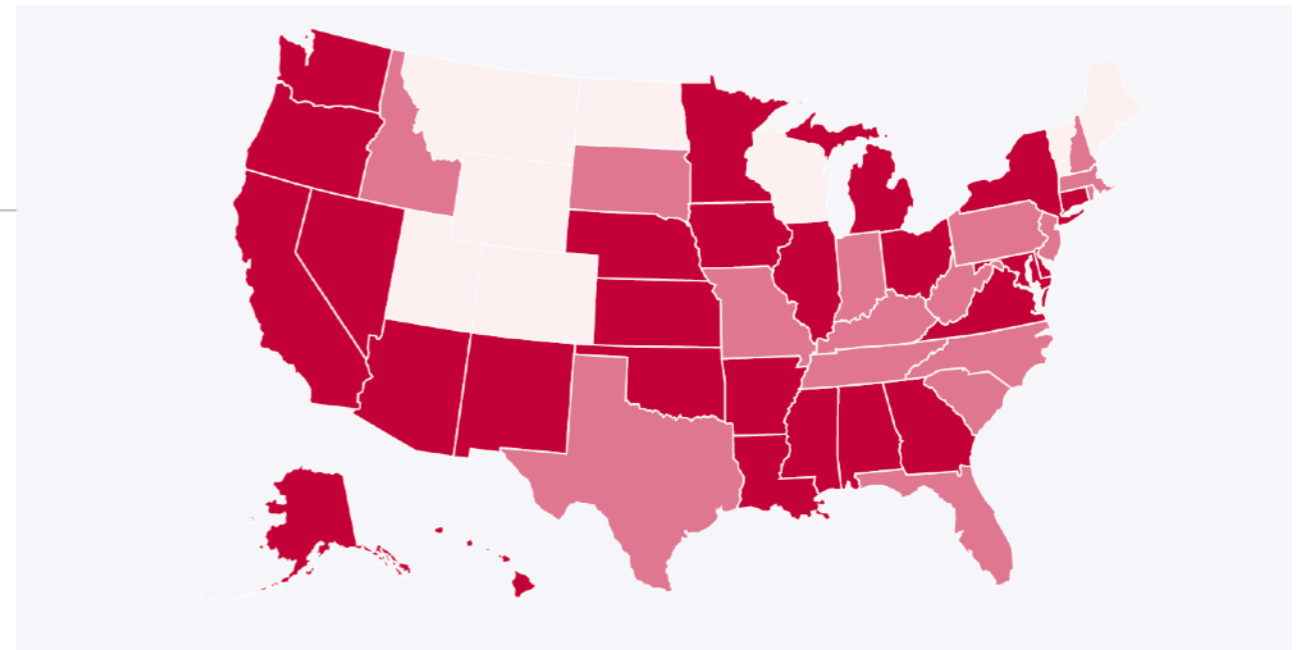
- We decided **not to travel** to DC this year due to COVID-19
 - Trip was scheduled for March 17-19
 - Decision was made not to travel on March 9th and all attendees did an excellent job in pivoting to **virtual meetings**
- Meetings were assigned in the same way as previous years
 - We requested meetings via **phone call or zoom**
 - **Emailed packet materials** ahead of our meetings
- Found in general that offices were happy to switch to phone meetings → despite exceptional circumstances, most offices were able to make time to talk with us



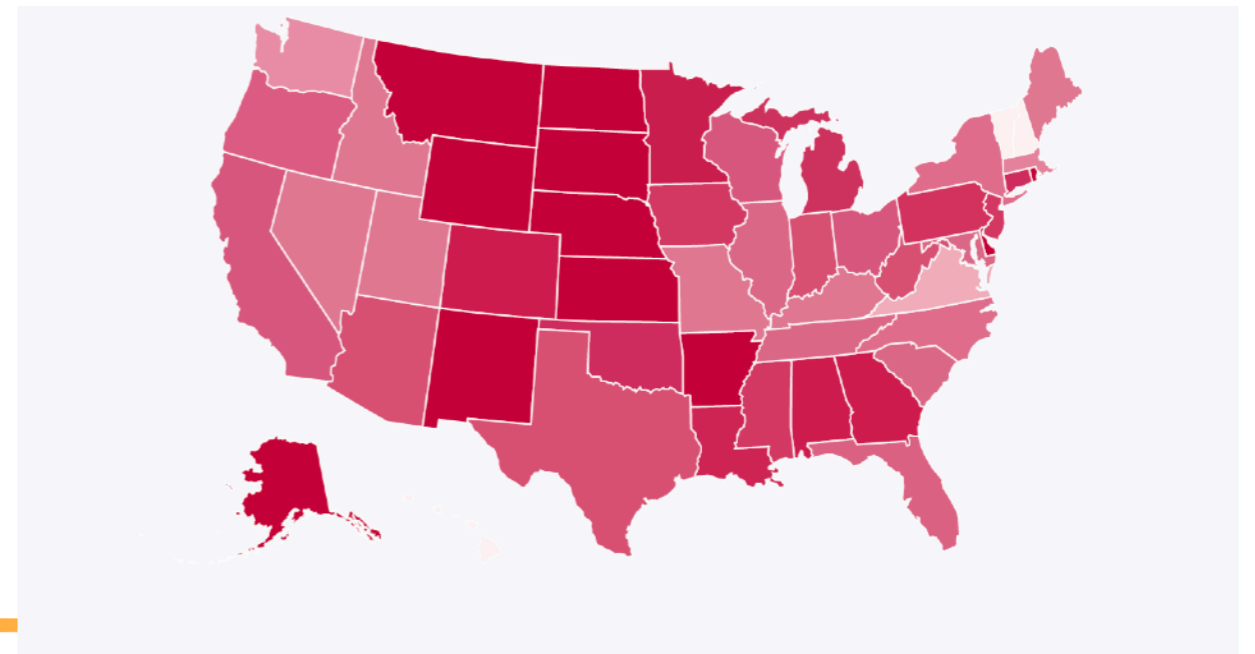
SUMMARY OF 2020 “TRIP”

- **67 participants:**
 - 37 UEC, 20 US LUA, 10 SLUO
 - 24 women
 - 44 early career (students and postdocs)
- We contacted 498 offices and met (via phone call) with **303 offices**
- Delivered our message (via email) to **351 offices in total**

**Message delivered to
68/100 Senate offices**



**Message delivered to 283/439
House offices (64.5%)**



67 “trip” participants

WHO WERE WE?

Organizers:

Kirsty Duffy, Ketino Kaadze (UEC)
Harvey Newman, Kevin Black (US LUA)
Kelly Stifter, Ryan Linehan (SLUO)

Trip logistics system:

Justin Vasel, Fernanda Psihas (UEC)

Meeting Planning:

Breese Quinn (Congressional committee scheduling)
Harvey Newman (Executive office scheduling)

Institutional Support:

University Research Association



Kirsty Duffy
Ketino Kaadze
Saptaparna Bhattacharya
Josh Isaacson
David Martinez
Cindy Joe
Ashley Back
Jonathan Asaadi
Yuanyuan Zhang
Isobel Ojalvo
Reddy Gandrajula
Luke Pickering
Richie Diurba
Abhilash Yallappa
Dombara
Maria Martinez-Casales
Mike Wallbank
Joseph Zennamo
Louise Suter
Mateus Carneiro
Breese Quinn
Fernanda Psihas
Justin Vasel
Sam McDermott
Rob Fine
Anne Norrick
Herman White
Jim Hirschauer
Andrew Whitbeck
Karri De Petrillo
Amber Johnson
Wes Ketchum
Bryan Ramson
Ciaran Hughes

Xuan Chen
Alexx Perloff
Scarlet Norberg
Micah Groh
Matt Solt
Rachel Mannino
Jannicke Pearkes
Cameron Bravo
Ryan Linehan
Kelly Stifter
Jorge Diaz-Cruz
Ari Cukierman
Maris Arthurs
Eli Rykoff
Kevin Black
Harvey Newman
Yuri Gerstein
Zeynep Demiragli
Sarah Demers
Emma Castiglia
Mariel Pettee
Gianantonio Pezzullo
Austin Baty
Matthew Feickert
Fernando Flor
Dylan Frizzell
Aaron Dominguez
Sergei Gleyzer
Marcellus Parker
Justin Williams
Suzanne Rosenzweig
Joe Haley
Rachel Bartek
Sarah Eno

OUR MESSAGE

Slide adapted
from J. Zennamo
and S. Rappoccio

We contact Congress to deliver a **clear and concise message**:

- We represent over 6000 scientists from over 180 institutions across the country working on **exciting** science
- As a community, we are **well focused** with a **clear plan** to achieve our discovery potential: **the P5 report**
 - We are succeeding at implementing this plan, making optimal use of the funds given to us, by staying **on time and on budget**
- The science that we perform **uniquely trains the future innovators of the world**, both in academia and the broader economy
 - Our science is important to the United States
 - We drive tomorrow's innovations



OUR MATERIALS

Michael Cooke (DOE) coordinated a group of community stakeholders to develop materials for public engagement: hosted at usparticlephysics.org

These formed the foundation of our “packets”, along with other materials developed by community groups throughout the year. UEC, SLUO, USLUA, and DPF are all represented in this community effort

The U.S. particle physics community asks for your support of the P5 Report's strategic plan by the passage of appropriations bills for FY 2021 that include:

At least \$1285M for High Energy Physics within the Department of Energy's Office of Science

At least \$9B for the National Science Foundation

This level of funding will provide needed support for scientific researchers at universities and national laboratories throughout the nation and will advance P5 priority projects, operations of existing and recently completed large facilities, and the completion of small and medium-sized projects, to explore the nature of neutrinos, the Higgs Boson, dark matter, dark energy, and the yet-to-be-discovered forces that govern the origin and evolution of our universe.

The “Ask”

PARTICLE PHYSICS Makes a Difference in Your Life
Global science, local impact
Particle physics is a global discovery science central to the modern innovation ecosystem. It drives national, regional, and local progress in science and industry. And it improves our quality of life.

PARTICLE PHYSICS Builds STEM Leaders
Particle physicists share the excitement of discovery, inspire young minds, and enhance public understanding of science. We partner with educators to prepare students to thrive in our high-tech global economy and develop the next generation of innovators.

PARTICLE PHYSICS is Discovery Science
Exploring the Universe
The challenge of particle physics is to discover what our world is made of and how it works at the smallest scales. Particle physics explores the undiscovered universe from the tiniest particles to the outer reaches of space.

Particle Physicists Deliver Discovery Science Through Collaboration
Particle physicists seek to discover the fundamental laws of nature by making observations at the largest and smallest distances ever probed by humans. To meet this challenge, particle physicists from the U.S. and around the world join together in teams.

Dark Matter Science - Beyond the Ordinary
Dark matter is the most abundant matter particles in the universe. They are produced in great quantities in the sun and other stars. Each second, a billion neutrinos pass through our bodies, yet very little is known about them.

The United States at the Large Hadron Collider
What are the smallest things that exist? The subatomic world is a complex mosaic of fundamental particles, fields and forces. But there are still many pieces we don't understand. How can we find these particles? Albert Einstein discovered that energy and mass are two sides of the same coin. Pack enough energy into a tiny region of space, and new particles will pop into existence. What does this research accomplish? • Uncovers the ultimate laws of nature • Charts the origins of the universes • Explores the properties of matter and energy

SLAC National Accelerator Laboratory
As one of 17 Department of Energy national labs, SLAC pushes the frontiers of human knowledge and drives discoveries that benefit humankind. We invent the tools that make those discoveries possible and share them with scientists all over the world.

Cosmic Acceleration
Understanding Mystery of Cosmic Acceleration
Cosmic acceleration is the most mysterious force of nature at work in the universe. We know it's there, but we don't know what it is. We know it's there, but we don't know what it is. We know it's there, but we don't know what it is.

An International Flagship Experiment
A team of over 1,000 scientists and engineers from more than 30 countries are conducting the most advanced neutrino experiment in the world, which could change our understanding of the universe. Groundbreaking for this revolutionary endeavor—hosted at Fermilab with contributions from across the U.S.—took place in July of 2017. The first of two prototype detectors was installed in Sept. 2018.

VetTech Program at Fermilab
Are you a veteran with technical or computing skills? Then we want to hear from you. The program places veterans in a wide range of jobs, from mechanical to electrical to computing and software development. The program also provides valuable job experience to veterans who plan to pursue a degree in a technical field.

Vera C. Rubin Observatory
The Legacy Survey of Space and Time (LSST)
Rubin Observatory's Legacy Survey of Space and Time (LSST) will scan the entire visible southern sky every few days for a decade – the widest, fastest and deepest view of the night sky ever observed. Its vast public archive of data will dramatically advance our knowledge of the dark energy and dark matter that make up 95% of the universe, as well as galaxy formation and potentially hazardous asteroids.

Fermi National Accelerator Laboratory
Fermilab is America's premier laboratory for particle physics and accelerator research, funded by the U.S. Department of Energy. Thousands of scientists around the world collaborate with Fermilab on research at the frontiers of discovery.

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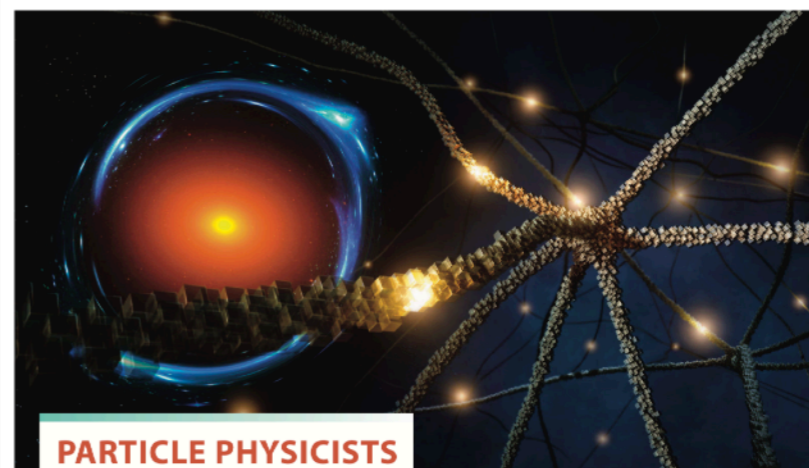
NEW MATERIALS

One key new brochure developed this year details links between **HEP and AI**

- Particle physicists have been using AI for decades. We have **specific challenges** (large datasets, harsh environments, high speed data-taking, sparse data) that need **innovative solutions** — these solutions then feed back into industry
- Gives specific examples of **industry collaboration** and how we train an **AI-ready workforce**

AI is a **national priority** and was highlighted as a high priority for many offices (and Senate Energy and Natural Resources staff)

→ this brochure is timely and was very well received. We were encouraged to continue positioning **HEP as a leader in AI**



PARTICLE PHYSICISTS

Advance Artificial Intelligence

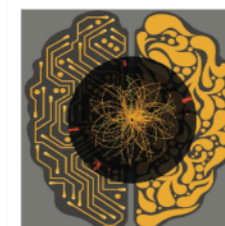
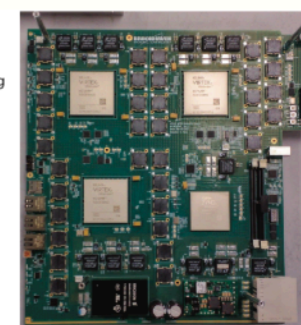
Particle physicists advance artificial intelligence in their quest to explore the frontiers of science. They face unique challenges in operating complex accelerators and detectors and in analyzing massive streams of data. They meet these challenges with innovative techniques that have applications in other areas of science and in industry.



Particle Physicists collaborate with industry leaders

Researchers in industry work together with particle physicists to develop new AI technology for these challenging applications.

Xilinx constructs advanced hardware that enhances the rapid data processing needed for the CMS experiment at the Large Hadron Collider (LHC).



Particle physicists are using the advanced AI processors on Microsoft's Azure cloud service to process LHC data in record time.

Particle Physics trains an AI-ready workforce

Particle physicists who work with AI bring their effective, multidisciplinary skills to other fields and industries.



AI is important because it can help you discover things your brain and other techniques can't. There are many algorithms, but you have to know which one to use and understand where it's applicable. Industry needs this expertise, and I've already worked with Boeing, Lockheed Martin, and companies in the energy sector.

—Sandra Biedron, University of New Mexico and Element Aero



At Tesla, I transformed enormous data sets into detailed road maps for self-driving cars and at DeepMind, I am building AI systems that imagine and plan. My experience in particle physics trained me to tackle these complex problems while dealing with the noisy and uncertain data of the real world.

—Alex Mott, DeepMind

NEW MATERIALS

Other materials were refreshed for this year

Current priorities and progress on plans laid out in P5 report



Strategic Plan for U.S. Particle Physics in the Global Context
usparticlephysics.org

The P5 Report provides the strategy and priorities for U.S. investments in particle physics for the coming decade.

The top four priorities in 2020

Advance the High-Luminosity Large Hadron Collider (HL-LHC) and detector upgrade projects. In addition to the construction projects, support the highly successful partnership with CERN for near-term large projects.

Advance the Long-Baseline Neutrino Experiment (LBNF), Deep Underground Neutrino Experiment (DUNE), and Proton Accelerator Experiment (PAX) working with international partners on prototypes, initial site procurements. This project in its time frame

The P5 strategy has been very successful. Projects are on schedule and within budget.

Recent results

The **NOvA experiment** published a measurement of oscillations of anti-neutrinos, a key milestone in their program, and the **T2K experiment** reported evidence that the neutrino-antineutrino asymmetry may be non-zero.

The **LHC experiments** reported many important and precise results, continuing the program of using the **Higgs as a new tool for discovery**. The ATLAS and CMS experiments made the first-ever observations of the scattering of W bosons. The LHCb experiment observed a matter-antimatter asymmetry in charm quark interactions for the first time.

The **Dark Energy Survey (DES)** completed its data taking and published new combined measurements of cosmological parameters related to dark energy. The **ADMX-G2** experiment performed the world's most sensitive search for axions, hypothesized to solve one of the most persistent problems in particle physics and which could also be a component of dark matter.

Theoretical physicists have characterized new mathematical functions central to precision calculations of processes at the LHC. They also continued to develop new ideas about the quantum structure of spacetime and the nature of dark matter.

Program advances in 2019

Building upon the historic 2015 and 2017 bilateral U.S.-CERN agreements, U.S. and CERN scientists successfully continued their cooperative partnership at the LHC and the international neutrino program hosted by Fermilab. The ProtoDUNE neutrino detector successfully completed its first test run. Phase-1 upgrades to the ATLAS and CMS detectors were successfully installed.

Fermilab set a world record of 14.1 Tesla for an accelerator steering magnet, an important achievement toward the next generation of colliders.

The inner detector of the **LZ dark matter experiment** was installed underground in South Dakota and will soon be operational. Two **Dark Energy** experiments progressed well: **DESI** construction was completed, with commissioning now underway; and the huge lenses and all the detector modules for the **Rubin LSST Camera** were completed, with integration and testing proceeding.

The **next-generation cosmic microwave background facility**, CMB-S4, which will probe in unique ways the physics of the very early Universe at energies far higher than can be achieved in earthbound accelerators and will also reveal neutrino properties, progressed.



The SAGE-S summer camp introduces high school girls to the work and daily life of National Laboratory scientists and engineers. We complement technical activities that foster creativity with insights about professional growth. SAGE students discover how their passion for STEM can become a career that impacts their community and the world.

—Diana Gamzina and Giulia Lanza, SLAC National Accelerator Laboratory



In my third year of college, my physics professor recruited me for a Research Experience for Undergraduates program. The adventure of a real summer job in research inspired me to pursue science as a career. Now, as a scientist at Fermilab, I find it rewarding to work with summer students and try to inspire them in the same way I was.

—Michelle Stancari, Fermilab

“Particle Physics Builds STEM Leaders”: new personal anecdotes and examples

Contributing to the innovation economy

We develop our students' analytical and technical skills, enabling them to excel in today's technology-driven economy. Particle physics students pursue many career paths and become leaders in their fields. Their contributions spur innovation in medicine, manufacturing, and technology.



—Andrea Albert, Los Alamos National Laboratory



—Kanika Sachdev, Waymo



—Wesley Gohn, Siemens Medical Solutions, USA

FERMILAB VET TECH AND NATIONAL LAB JOBS ACCESS PROGRAM

- Took information about Fermilab's Vet Tech program, that offers **paid summer internships to veterans** to train **skilled technician workforce**
- FY20 National Defense Authorization Act establishes the **National Laboratory Jobs Access Program** to build on this: **pre-apprenticeship and apprenticeship** programs at DOE national labs aimed especially at **veterans and minorities**
- Very well received - *Prof. B. Quinn: "Huge enthusiastic support of and praise for this. Many offices particularly keen on getting detailed information, and especially expanding it to reach more Vets (and districts) across the US. This is a HUGE opportunity to garner more and more passionate support for DOE Office of Science if we can expand"*

Fermi National Accelerator Laboratory

VetTech Program at Fermilab

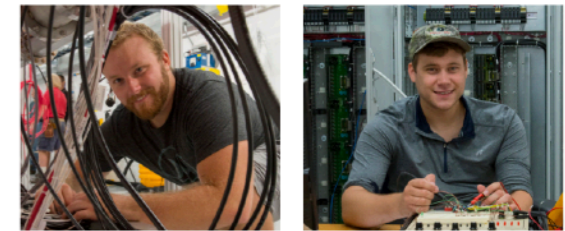
Are you a veteran with technical or computing skills? Do you want to pursue a career at the leading edge of technology and innovation? Then we want to hear from you.

VetTech Internships

Every year, Fermilab's VetTech internship program provides training and career opportunities for military veterans seeking to build or enhance their technical and computing career options. The program places veterans in a wide range of jobs, from mechanical to electrical to computing and software development. The program's aim is twofold: identify skilled people to fill open positions at Fermilab, and provide valuable job experience to veterans who plan to pursue a degree in a technical field.

VetTech interns may fabricate, assemble, calibrate, operate, test, repair or modify electronic or mechanical equipment, systems, devices or databases. The interns may also work in information technology, procurement or perform environmental, safety and health duties.

The VetTech internships are paid 10-week, full-time internships that start in June. The application period runs from November to January.



Learn More

Fermilab is located 40 miles west of Chicago in Batavia, Illinois. Our laboratory is home to particle physics research, a herd of buffalo and 1,100 acres of prairie. To find out more about our VetTech program and to apply, visit diversity.fnal.gov/VetTech. To browse our current job openings, go to jobs.fnal.gov.

Diverse people. Diverse jobs. Great science.

DISTRICT-SPECIFIC INFORMATION


New last year, very effective: automated, district-specific grant and procurement information

District-specific materials provide **direct links** between appropriated funds and local economic benefits

- DOE Office of Science HEP research grants
- DOE Office of Science contracts
- NSF MPS research grants
- SULI and CCI students
- Fermilab procurements (as an example of indirect HEP spending)

Developers: Rob Fine, Michael Baumer, Justin Vassel, Fernanda Psihas

From **Michael Baumer's** https://mbaumer.github.io/us_hep_funding/



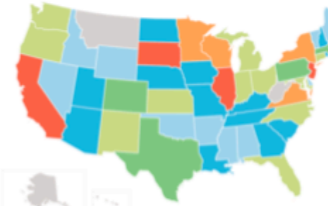
Kirsty Duffy
 Fermilab Users Executive Committee
 Fermi National Accelerator Laboratory
 P.O. Box 500 - MS 220
 Batavia, IL 60510
 Phone: 331 701 8528
 E-mail: ke.duffy1@fnal.com

The Honorable Bryan Steil
 United States House of Representatives
 1408 Longworth House Office Building
 Washington, D.C. 20515

March 19, 2020


Dear Representative Steil:

In fiscal year 2019, Fermilab spent \$281 million in the United States to purchase goods and services in 44 states and the District of Columbia. Please find below specific information about goods and services purchased by Fermilab from your State or district during this time.



Amount Range	States
\$1,000-\$100,000	Alabama, Arkansas, Delaware, Idaho, Maine, Mississippi, Nevada, Oklahoma, Vermont, Wyoming
\$100,000-\$1 million	Alabama, Georgia, Iowa, Kentucky, Louisiana, Missouri, Nebraska, New Hampshire, North Dakota, Rhode Island, South Carolina, Tennessee, Utah
\$1 million-\$2 million	Connecticut, Florida, Indiana, Kansas, Maryland, Michigan, New Mexico, North Carolina, Ohio, Oregon, Washington
\$2 million-\$5 million	Colorado, District of Columbia, Massachusetts, Pennsylvania, Texas
\$5 million-\$10 million	Minnesota, New York, Virginia, Wisconsin
More than \$10 million	California, Illinois, New Jersey, South Dakota

Vendor	ZIP Code	Amount (\$)
Superior Crane Corporation	53189	\$201,100
Premier Fall Protection Inc	53182	\$7,495
Konecranes Inc	53189	\$6,212
Aegis Laboratory Solutions Inc	53179	\$4,760
Industrial Air Power LLC	53150	\$648




The Honorable Christopher Coons
 United States Senate
 127a Russell Senate Office Building
 Washington, D.C. 20515

March 25, 2019

Dear Senator Coons:

The DOE Office of Science and NSF Directorate for Mathematical and Physical Sciences (MPS) directly support scientists, engineers, and students in all 50 States, the District of Columbia, and Puerto Rico through research grants to academic institutions and contracts to supporting industries. In fiscal year 2018, the Department of Energy (DOE) Office of Science had a budget of \$908 million for High Energy Physics, and the National Science Foundation (NSF) had a budget of \$7.7 billion.



Institutions receiving DOE HEP grants during FY18

Please find below specific information about grants and contracts that were awarded by the DOE Office of Science and NSF to institutions and businesses in your State during FY18 and preceding years.

Delaware State

In the past 6 years, this district has been awarded:

• DOE Office of Science HEP research grants totaling: <i>Grants to researchers in your State from the DOE Office of High Energy Physics</i>	\$1,658,825
• DOE Office of Science contracts totaling: <i>Contracts with companies in your State, primarily related to the operation of DOE National Laboratories</i>	\$NA
• NSF MPS research grants totaling: <i>Grants to researchers in your State from the NSF Directorate for Mathematical and Physical Sciences</i>	\$37,093,195

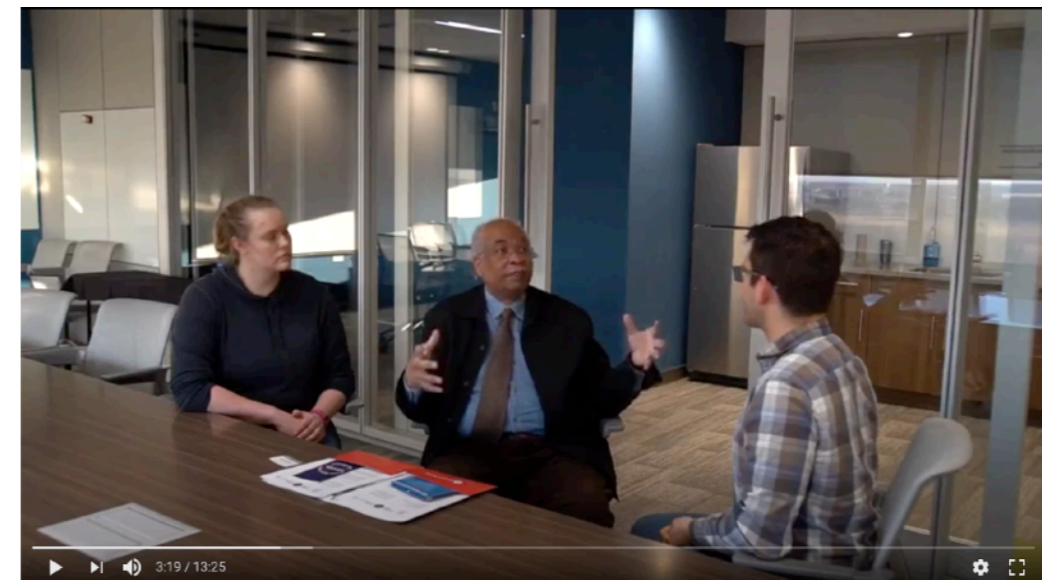


SCIENCE COMMUNICATIONS TRAINING

- Science communications training for all trip participants helps us deliver our message clearly
 - Congressional process, meeting etiquette
 - Communication strategies and best practices
 - Identifying the clear benefits to society of fundamental research
 - Forming and providing a clear and concise message to the public
- Virtual meetings posed a new challenge:
 - Most years, new trip participants get the chance to observe some meetings (as “secondary”) before leading one — not as easy to do virtually
 - Instead, a number of seasoned trip participants recorded meeting “role plays” so newer attendees can see how a meeting goes in advance



B. Quinn, G. Davies



**H. White, S. Sword-Fehlberg,
A. Perloff**

LOGISTICS

Washington-HEP Integrated Planning System

Slide adapted
from F. Psihas

**Manages the
logistics for
this effort**

*Tracks attendee's
schedules and
connections*

*Allows for live
scheduling on the
ground*

*Tracks scheduling
progress and office
information*

2020-march 4 2019-march 10

Your Full Schedule

Enable All Secondaries Disable All Secondaries

Yellow = you are the primary.

Search:

Type	Meeting	Time	Location	Primary	Secondary
Committee	House Commerce, Justice, Science, and Related Agencies	2020-03-11 15:00:00	NA https://zoom.us/j/251468459	--	[Multiple]
Legislator	Roe, Phil R-TN 1 ✓ Packet Phone meeting	2020-03-26 13:00:00	He is calling me	Kirsty Duffy	
Legislator	Steil, Bryan R-WI 1 ✓ Packet Phone meeting	2020-03-31 14:00:00	None	Kirsty Duffy	
Legislator	Green, Mark R-TN 7 ✓ Packet Phone meeting	2020-04-01 15:00:00	202 680 2912	Kirsty Duffy	

Showing 1 to 4 of 4 entries

Kirsty Duffy

THIS IS A PHONE MEETING

MEETING #1507 2020-MARCH

Rep. Phil Roe R-TN 1

Congressional Office Meeting - House

Edit meeting details

Packet Delivered! (undo)

ASSIGNED CONTACT SCHEDULE FILE REPORT

Attendees Enable Secondary

Primary Kirsty Duffy (UEC)

Secondary None assigned

Coordinates

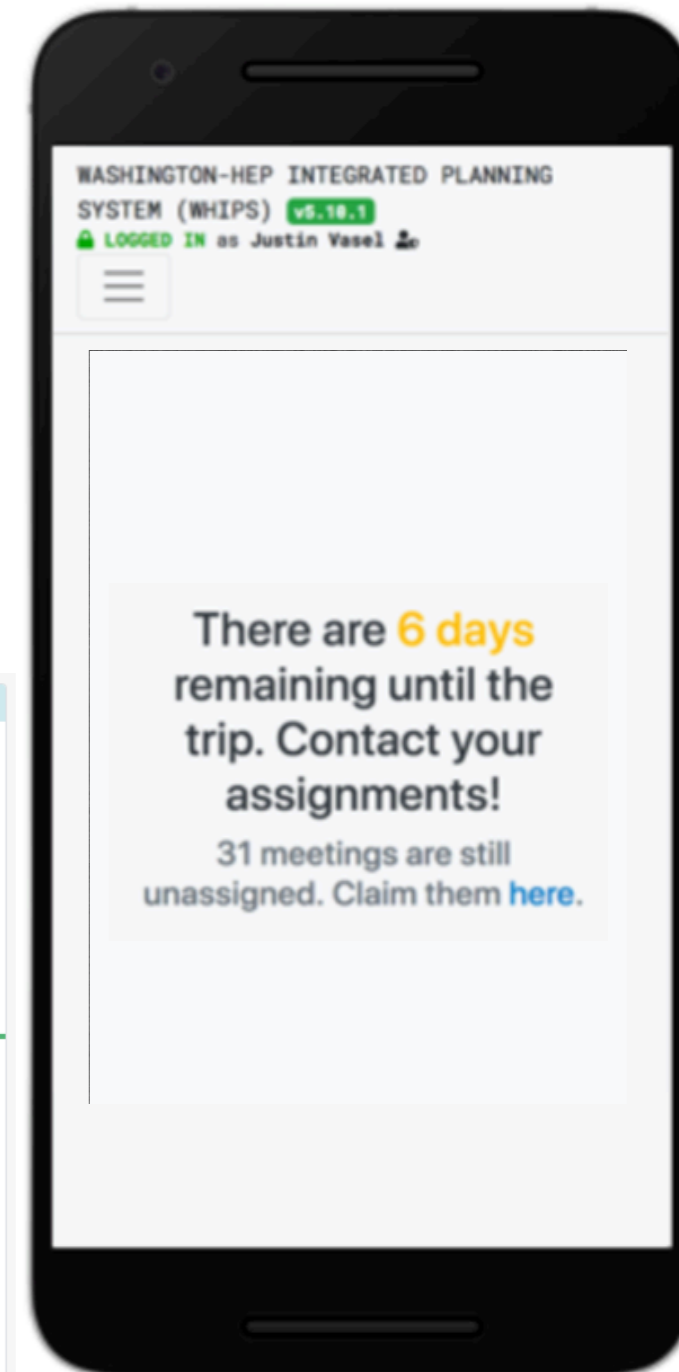
Time 2020-03-26 13:00:00

Phone Number (if any) He is calling me

Meeting with

Name & email
Liam MacDonald
<Liam.MacDonald@mail.house.gov>

Position
Legislative Assistant



LOGISTICS

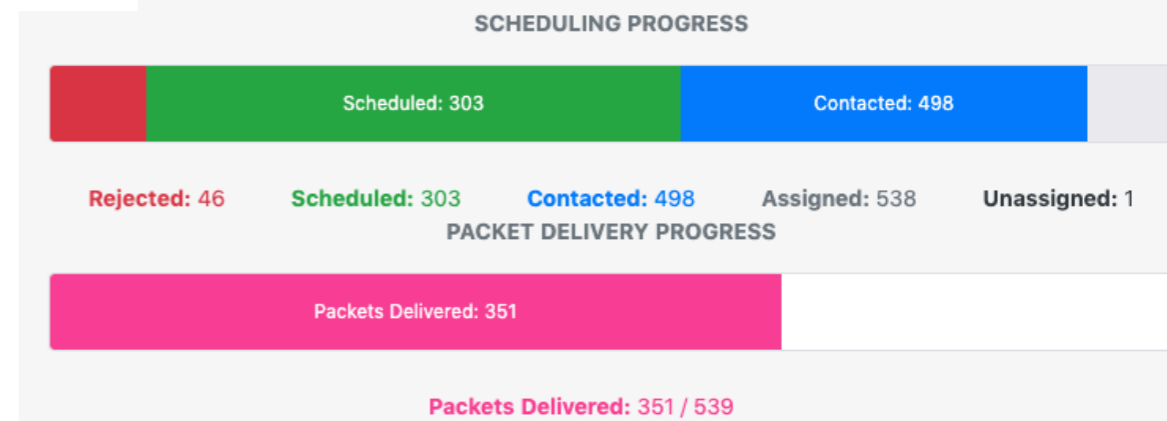
Washington-HEP Integrated Planning System

Slide adapted
from F. Psihas



*Live information
about scheduled
meetings and
office visits*

1 meetings are still unassigned. Claim them [here](#).
40 meetings are still uncontacted. Contact your assignments!
189 meetings are still unscheduled. We can do it!



*Maintains records of
meetings and
meeting reports over
all years*

REPORT #1150

I spoke with Joshua Lipman, Legislative Director, for 35 minutes and covered the range of activities outlined in the document that supports the HEP budget for 2021. He said that the congressman was supportive of the science work that we do and particularly pleased to see the connection between the Florida Atlantic University and HEP.

I mentioned the SULI students, all from FAU and the NSF funds to that university.

We discussed the 2021 ask and he was impressed with the range of projects. He said that he would make sure that the Congressman saw the document and get back to me with questions if any.

This is a supportive office and there were no additional questions.

— Herman White Thursday, March 19th 2020, 01:45 -0500

REPORT #1146

Phone call with Austin went pretty well (though just 10 minutes). We walked through the ask, what it supported. He was grateful for the information and the funding numbers of the state as a whole (based on previous reports, I modified the letters to by KY total, since there's not much spending directly in the district). Austin runs the CGS portfolio, and he'll pass along info the the EW staffer. I stole a bit more of his time to highlight SULI and CCI interns from his district, but then ended cordially. They'll get back to me if they need any more information.

— Wesley Ketchum Thursday, March 19th 2020, 01:13 -0500

WHO WE MET WITH

Staff title	Meetings
-----	-----
Legislative Assistant	124 (41%)
Legislative Correspondent	27 (9%)
Legislative Director	17 (6%)
Senior Policy Advisor	16 (5%)
Legislative Aide	15 (5%)
Policy Advisor	14 (5%)
Other	13 (4%)
Fellow	8
Deputy Chief of Staff	4
Chief of Staff	3
Senior Legislative Assistant	3
Legislative Counsel	2
Scheduler	2
Press Secretary	1
[unspecified]	54 (18%)



Out of the 539 offices, we assign 297 non-zero “relevance scores” based on their participation in appropriations and authorization committees and leadership
→ met with 185 of these offices

APPROPRIATIONS SUBCOMMITTEE MEETINGS

Slide adapted
from F. Psihas

Committee

Senate Energy and Water Development

House Commerce, Justice, Science, and Related
Agencies

Senate Commerce, Justice, Science, and Related
Agencies Subcommittee

House Energy

House Research and Technology

Senate Science, Oceans, Fisheries, and Weather
Subcommittee

House Energy and Water Development, and Related
Agencies

Senate Energy Subcommittee

**Meetings arranged every
year by Prof. Breese Quinn**



These high-impact meetings provide us with valuable feedback for our message and give us an insight into the appropriations process for the coming fiscal year

APPROPRIATIONS SUBCOMMITTEE MEETINGS

Slide adapted
from F. Psihas

Committee
Senate Energy and Water Development
House Commerce, Justice, Science, and Related Agencies
Senate Commerce, Justice, Science, and Related Agencies Subcommittee
House Energy
House Research and Technology
Senate Science, Oceans, Fisheries, and Weather Subcommittee
House Energy and Water Development, and Related Agencies
Senate Energy Subcommittee

These high-impact meetings provide us with valuable feedback for our message and give us an insight into the appropriations process for the coming fiscal year

Meetings arranged every year by Prof. Breese Quinn

Two points of specific feedback from Prof. Quinn:

House E&W Staff: *Good chance that E&W budget will decrease. They would work to protect Office of Science. Not sure how well HEP will fare within Office of Science, though, due to other major priorities - will not be as good as last few years*

Senate E&NR Staff: *AI is a very high priority. HEP should get positioned as a leader in AI*

EXECUTIVE/AGENCY MEETINGS

- Beyond talking to Congress we also arranged meetings with OSTP, NSF, and DOE
- OMB was unavailable to meet this year (the NSF Examiner and DOE Examiners were both out of town) - we look forward to resuming meeting with them next year
- Meetings arranged by Prof. Harvey Newman each year
- These meetings enable us to communicate directly to the agencies what we are hearing on the Hill, and to convey the messages we are delivering

Office
Office of Science and Technology Policy
National Science Foundation
Department of Energy Office of High Energy Physics
Department of Energy Headquarters



FEEDBACK FROM OFFICES VISITED: SOME EXCERPTS

“Multiple office commended us and expressed gratitude for the foresight of our early decision to cancel the in-person trip due to COVID-19. Indicated that our quick response enabled us to organize in a way that made it very easy on them and it was much appreciated”

“Consistent praise for our work, science, and project management record”

“A lot of interest in what we are doing in AI since it is a very high priority for many offices”

“Offices were supportive but busy! Less response from offices this year, probably due to the pandemic”

“Huge enthusiastic support of and praise for the VetTech program”

“Overall, offices were very supportive. This may be selection bias, since the offices that we managed to meet with are more likely to be supportive. But it seems that offices were generally aware of the importance and far-reaching consequences of basic research, and typically excited to support it”

“DEAR COLLEAGUE” LETTERS

- During our meetings, we ask all offices to consider signing on to “Dear Colleague” letters sponsored by HEP supporters in Congress
- The number of signatories is also a source of feedback regarding the support of Congress to HEP through the DOE Office of Science and the NSF
- Despite the challenging circumstances of our trip, three of the four letters received more signatures this year than for FY20

FY21 Senate DOE Office of Science Letter **31 signatures**
30 for FY20

United States Senate
WASHINGTON, DC 20510

March 30, 2020

Senator Lamar Alexander
Chairman
Subcommittee on Energy and Water Development
Senate Committee on Appropriations
142 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Alexander and Ranking Member Simpson:

As you begin work on the Fiscal Year 2021 appropriations bill, we write to express our strong support for robust funding for the Department of Energy (DOE) Office of Science and request that you ensure that the DOE Office of Science receives the funding it needs to continue its work.

For more than forty years, research performed at the DOE Office of Science has laid the foundation for scientific and technical progress in the United States. The DOE Office of Science has supported the development of new technologies and the training of a new generation of scientists and engineers. The DOE Office of Science has also supported the development of new energy technologies and the training of a new generation of energy workers.

The Honorable Marcy Kaptur
Chairwoman
Energy and Water Development
House Appropriations Committee
H-305, U.S. Capitol
Washington, DC 20515

The Honorable Mike Simpson
Ranking Member
Energy and Water Development
House Appropriations Committee
1016 Longworth House Office Building
Washington, DC 20515

Dear Chairwoman Kaptur and Ranking Member Simpson:

FY21 House DOE Office of Science Letter **142 signatures**
160 for FY20

Congress of the United States
Washington, DC 20515

March 17, 2020

The Honorable Marcy Kaptur
Chairwoman
Energy and Water Development
House Appropriations Committee
H-305, U.S. Capitol
Washington, DC 20515

The Honorable Mike Simpson
Ranking Member
Energy and Water Development
House Appropriations Committee
1016 Longworth House Office Building
Washington, DC 20515

Dear Chairwoman Kaptur and Ranking Member Simpson:

As you begin work on the Fiscal Year 2021 appropriations bill, we write to express our strong support for robust funding for the Department of Energy (DOE) Office of Science and request that you ensure that the DOE Office of Science receives the funding it needs to continue its work.

For more than forty years, research performed at the DOE Office of Science has laid the foundation for scientific and technical progress in the United States. The DOE Office of Science has supported the development of new technologies and the training of a new generation of scientists and engineers. The DOE Office of Science has also supported the development of new energy technologies and the training of a new generation of energy workers.

We must set priorities and make sure that scientific research is the top priority. We must overcome many of our greatest challenges, including our energy needs, our need for clean energy to curing diseases and our need for clean energy to cure diseases and believe funding for the DOE Office of Science is a top priority.

FY21 Senate NSF Letter **40 signatures**
37 for FY20

United States Senate
WASHINGTON, DC 20510

March 30, 2020

Senator Lamar Alexander
Chairman
Subcommittee on Energy and Water Development
Senate Committee on Appropriations
142 Dirksen Senate Office Building
Washington, DC 20510

Dear Chairman Alexander and Ranking Member Feinstein:

As you begin work on the Fiscal Year 2021 appropriations bill, we write to express our strong support for robust funding for the National Science Foundation (NSF) and request that you ensure that the NSF receives the funding it needs to continue its work.

For more than forty years, research performed at the NSF has laid the foundation for scientific and technical progress in the United States. The NSF has supported the development of new technologies and the training of a new generation of scientists and engineers. The NSF has also supported the development of new energy technologies and the training of a new generation of energy workers.

Senator Dianne Feinstein
Ranking Member
Subcommittee on Energy and Water Development
Senate Committee on Appropriations
142 Dirksen Senate Office Building
Washington, DC 20510

FY21 House NSF Letter **177 signatures**
173 for FY20

Congress of the United States
Washington, DC 20515

March 13, 2020

The Honorable Jose Serrano
Chairman
Subcommittee on Commerce, Justice, Science, and Related Agencies
H-307, The Capitol
Washington, D.C. 20515

The Honorable Robert Aderholt
Ranking Member
Subcommittee on Commerce, Justice, Science, and Related Agencies
1016 Longworth House Office Building
Washington, D.C. 20515

Dear Chairman Serrano and Ranking Member Aderholt:

We write to respectfully request that the National Science Foundation (NSF) receive an appropriation of at least **\$9 billion** in the Fiscal Year (FY) 2021 Commerce, Justice, Science, and Related Agencies Appropriations bill.

Now in its 70th year, the NSF is an independent federal agency created by Congress to promote the progress of science, secure the national defense, and to advance the nation's health, prosperity, and welfare. The scientific research and educational programs supported by NSF are integral to the continued success of America's innovation enterprise. NSF funded research has produced transformative scientific discoveries that have led to new industries, products, services, and enhanced the lives of all Americans. For example, NSF-funded research has supported technological advancements in artificial intelligence, advanced manufacturing, quantum computing, and space exploration.

FOLLOWING UP

- **Maintaining relationships with Congressional offices is a year-round task**, and is crucial to keeping the HEP message relevant through the appropriations office
- In addition to **following up with individual offices** on current developments, the Chairs of the three Users' groups and the Chair of DPF sent a **letter to the Chair and Ranking Members of the appropriations committees** to help further reinforce the message that we delivered



April XX, 2020

Chairwoman Marcy Kaptur
Subcommittee on Energy and
Water Development
Committee on Appropriations
2186 Rayburn House Office Building
Washington, D.C. 20515

Ranking Member Mike Simpson
Subcommittee on Energy and
Water Development
Committee on Appropriations
2084 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairwoman Kaptur and Ranking Member Simpson:

We are writing on behalf of the U.S. community of approximately 6,000 scientists, engineers and students from 180 universities, laboratories and institutes that conduct research in high energy physics. We greatly appreciate your support for the High Energy Physics (HEP) program in the DOE Office of Science in fiscal year (FY) 2020. As you prepare the FY 2021 Energy and Water Development appropriations bill, we strongly urge you to provide at least \$1.285 billion for HEP. This funding level is vital to maintain U.S. leadership in particle physics, by strengthening support for scientific research at universities and laboratories throughout the nation, moving forward with priority scientific projects, operating existing large facilities, completing small and medium sized projects, and meeting scheduled commitments to our international partners.

• • •

Robust funding, at the \$1.285 billion level, is necessary to build on recent progress and the sustained, unified, groundbreaking efforts of our nation's high energy physics community. We are grateful for your continued leadership in funding this important field of discovery science that contributes to the pre-eminence of our nation and our quality of life.

Professor Young-kee Kim
Chair, Division of Particles and Fields
of the American Physical Society
Louis Block Distinguished Service Professor
of Physics
The University of Chicago
5640 South Ellis Avenue,
Chicago, IL 60637

Dr. Saptaparna Bhattacharya
Chair, Fermilab Users Executive Committee
Distinguished Researcher, LHC Physics Center
Department of Physics and Astronomy,
Northwestern University
2145 Sheridan Road,
Evanston, IL 60208

Professor Harvey B Newman
Marvin L. Goldberger Professor of Physics
Chair US LHC Users Executive Committee
Charles C. Lauritsen Laboratory
of High Energy Physics
Division of Physics, Mathematics and Astronomy
California Institute of Technology
1200 East California Boulevard
Pasadena, CA 91125

Dr. Maria Elena Monzani
Acting Chair, SLAC Users Organization
Kavli Institute for Particle Astrophysics and Cosmology
and SLAC National Accelerator Laboratory
Menlo Park, California 94025, USA

SUMMARY OF THIS YEAR

- **Despite difficult circumstances this year, the virtual DC trip has continued to be a success!**
- We have learned important lessons about **communicating with Congress without traveling to DC**
 - This could form the basis of a hybrid model in the future: meeting in-person in March and keeping in touch by phone throughout the year
- Want to continue to build on our progress in the future — continue to improve the way we select and train trip attendees to **represent the community and most effectively deliver our message**
- **Communication with the community** is essential to the success of this effort — wide communication to make sure that all members are being represented by elected members of users' bodies
- **Thank you for the support that makes this effort possible**

“Meetings were briefer, and more to the point [than normal trips]. Once I got the hang of it, I think it was a generally effective medium. The bigger issue was how busy staffers were with COVID-19, but I think that having the ability to do phone meetings could be a powerful tool for future years’ efforts”

“Meetings were surprisingly comparable [to previous years]. It was a bit unfortunate to not be able to quickly point to things in the packet, but screen-sharing via Zoom was very successful”

“It’s always easier to gauge interest in person but I thought the phone meetings went similarly to the in-person meetings”

“Remarkably effective, considering. Of course in-person meetings are better. On the other hand the ‘stay at home’ rule meant that some, and perhaps many, of the staff actually had more time compared to normal operations”