



# Community Communication Activities

Louise Suter, Fermilab UEC

For USLUA, SLUO, and FNAL UEC  
DPF@Fermilab, Aug 2nd 2017





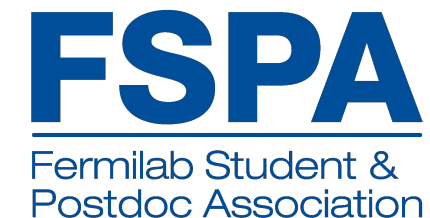
# Annual Users DC trip Overview

- Joint effort of three Users groups
  - **UEC** - Fermilab Users Executive Committee
  - **SLUO** - SLAC Users Organization
  - **USLUA** - US LHC Users Association
- Through election represent nearly entire US HEP user community

In addition the UEC invites FSPA on the trip and USLUA invites winners of 'lighting round' competition provided support for the trip

Few additional people invited who can benefit the trip

Running for ~35 yrs

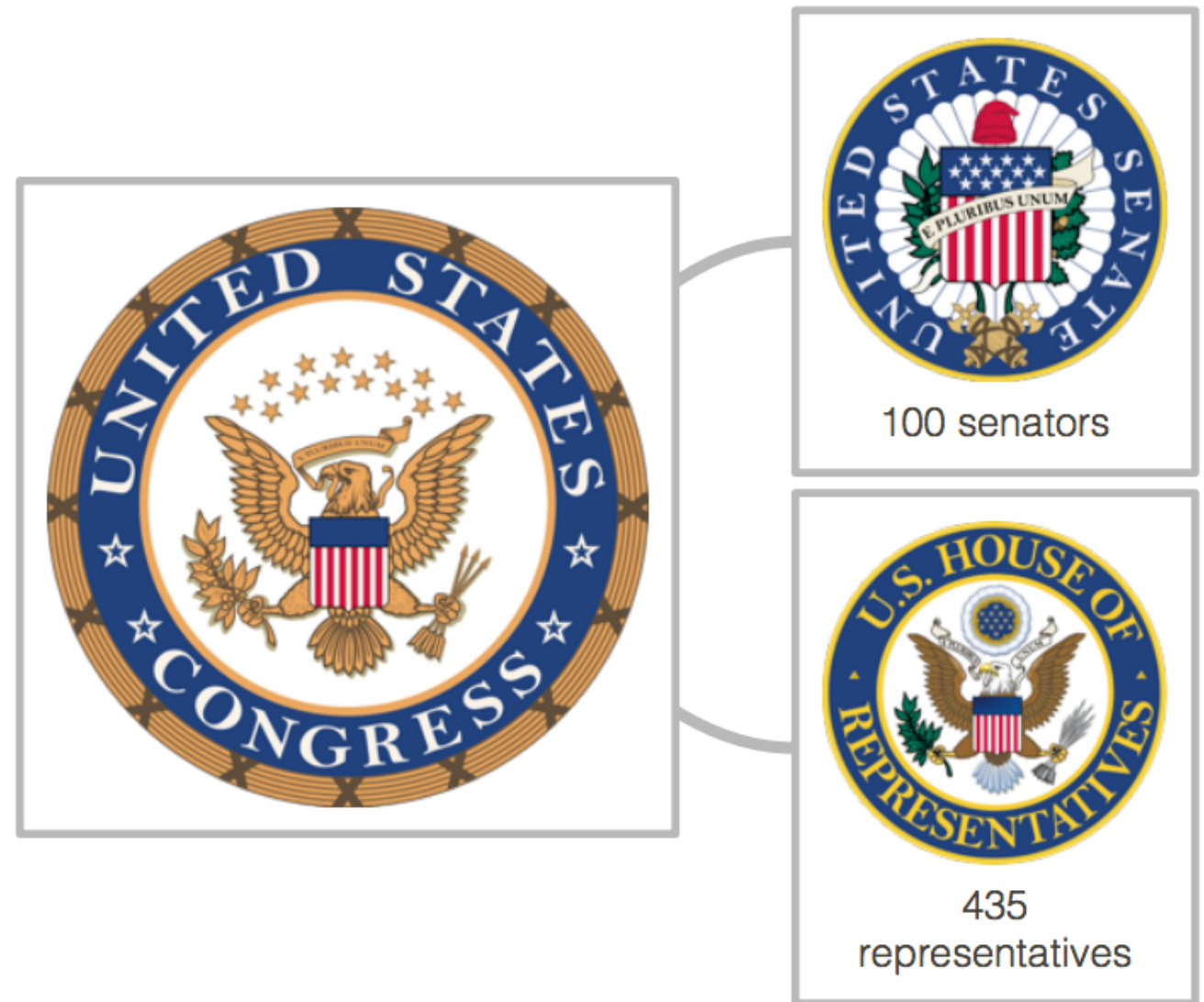




# Annual Users DC trip Overview

Purpose: to visit with as many Congressional members and relevant staff offices as possible, as well as with particular representatives of the administration and funding agencies

**Message: garner support for funding of physical science research in general, and HEP in particular.**



Running for ~35 yrs



# The P5 report was received within congress

- 2014 House Energy & Water Approp.: “**Committee supports the Office of Science’s challenge to the HEP community** to identify an LBNE construction approach that avoids large out-year funding spikes or to identify viable alternatives with similar scientific benefits at significantly lower cost.”
- 2015 House Energy & Water Approp.: “Committee notes that the HEP research community is currently engaged in developing a ten-year plan for U.S. particle physics, which will include a ten-year report by the **Particle Physics Project Prioritization Panel** under various budget scenarios. **The Committee applauds the Department for this undertaking . . .**”
- 2016 House Energy & Water Approp.: “Committee **strongly supports** the Department’s efforts to advance the recommendations of the **Particle Physics Prioritization Panel** and urges the Department to maintain a careful balance among competing priorities and among small, medium, and large scale projects.”
- FY 2017 House (\$823M) and Senate (\$833M) marks above President’s Request (\$818M)



# HEP DC Trip basics

- Over the three day trip we visit offices of congresspeople, generally meeting with a staffer.
- Visit in teams of two and we try to get a mix of experience and background
- Trip is timed based on the appropriations cycle- normally in March/April
- Use algorithm to assign trip attendees to congresspeople based on where people lived/worked/voted/have family.

FY 2017 Budget	Spend the Fiscal Year Budget																																			
FY 2018 Budget	OMB Review			Budget Release	Congressional Budget and Appropriations				Spend the Fiscal Year Budget												Image taken from M Cooke HEP Civics talk Monday															
FY 2019 Budget	DOE Internal Planning with OMB and OSTP Guidance									OMB Review			Budget Release	Congressional Budget and Appropriations				Spend the Fiscal Year Budget																		
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
	CY 2016			Calendar Year 2017									Calendar Year 2018									Calendar Year 2019														

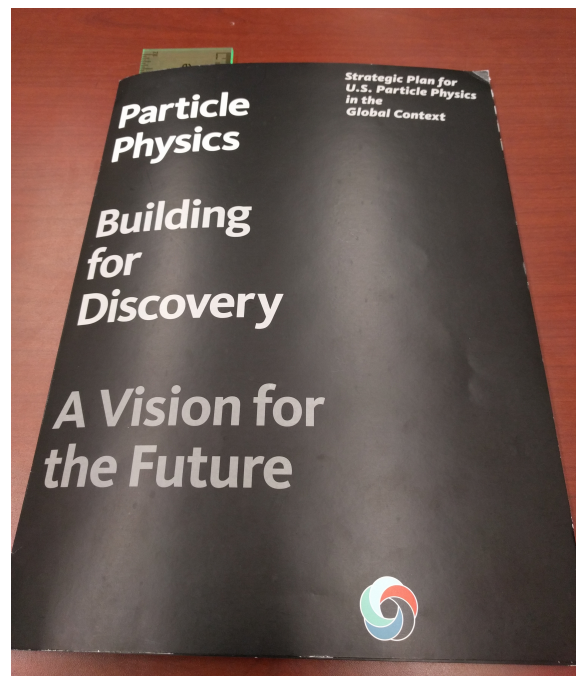
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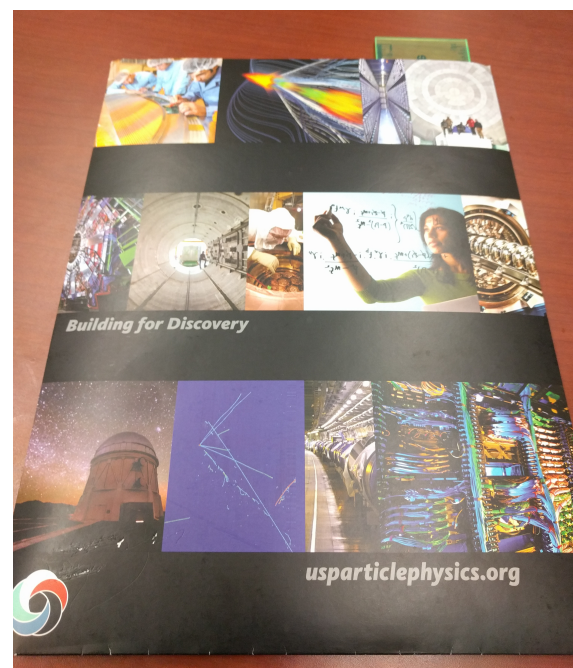
# HEP DC Trip basics

- The community works to put together a coherent message before the trip, and all trip attendees go with this one coherent message
  - Message covers P5, the status and priorities of the community
- Bring a packet of material on HEP, and P5, to support our message and help lead the conversation
- Hold multiple practice sessions to teach people about the appropriations process, meeting etiquette, and the material

Front



Middle



Center





# Summary of 2017 trip

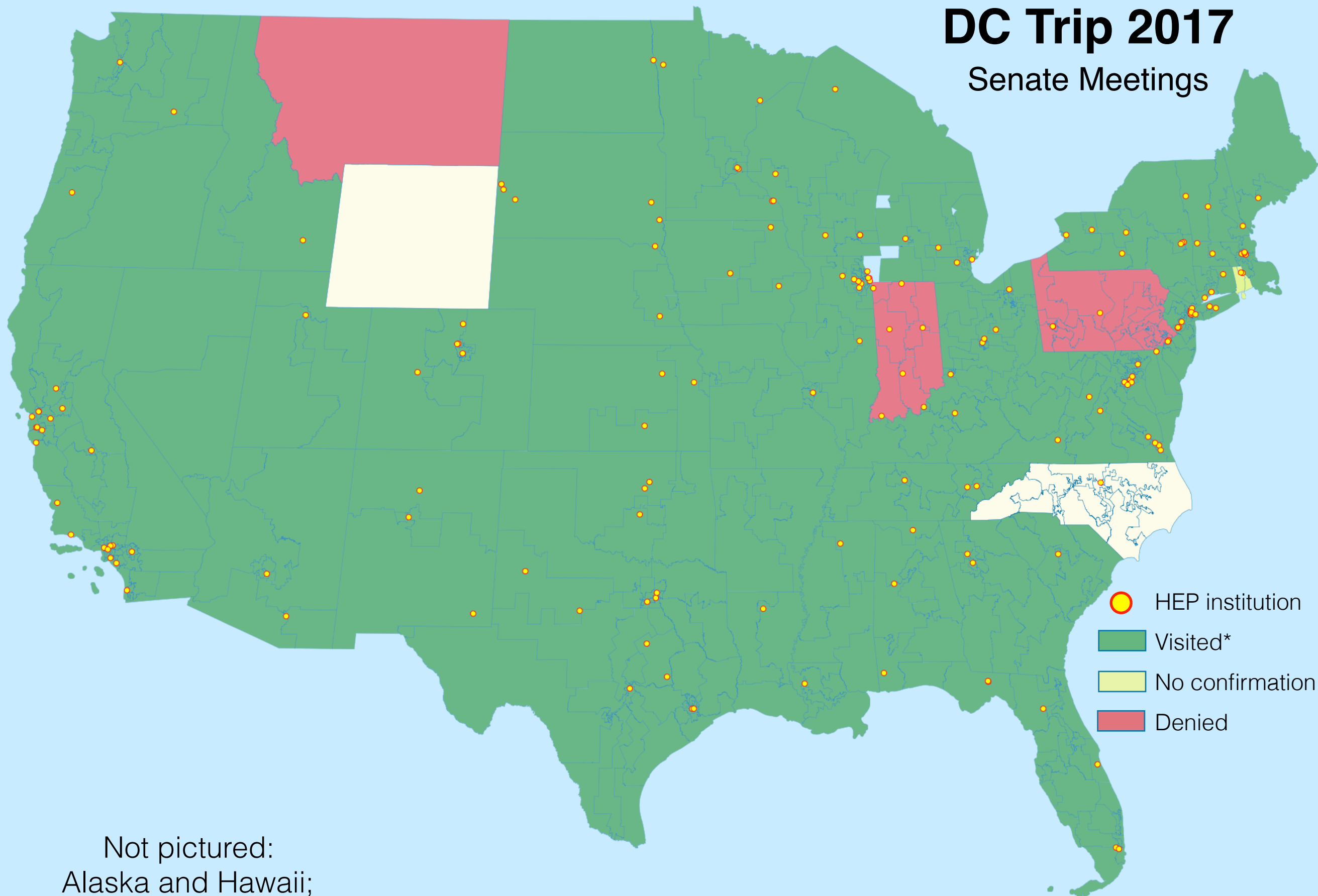
- 54 trip attendees
  - 24 from UEC, 10 from SLUO, 20 from USLA
  - Of which 24/54 are 'young' (grad students/post docs) and 21/54 were women
- Contacted 78/100 senators. Meetings were scheduled with 69 offices (**69% of senate**)
- Contacted 338/435 congressional districts. Meeting scheduled with 307 (**70% of house**)
- Contacted but not scheduled meetings were mostly not actual rejections
  - Some offices respond they are too busy and we arranged to drop off materials or do not respond at all.
- Trip 29-31st of March 2017



**FNAL student and postdoc association on trip**

# DC Trip 2017

## Senate Meetings



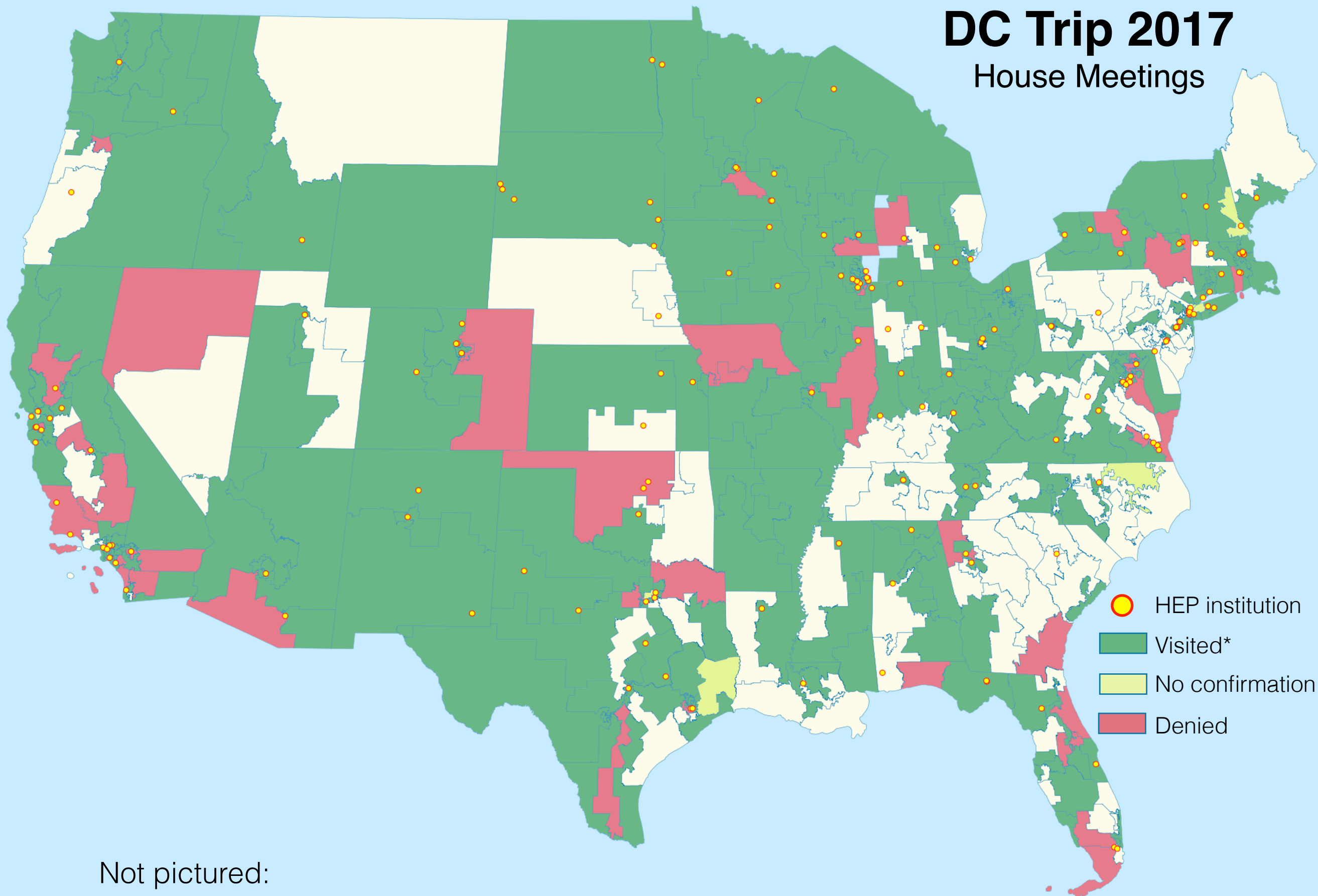
Not pictured:  
Alaska and Hawaii;  
both visited.

\* one or two Senators



# DC Trip 2017

## House Meetings

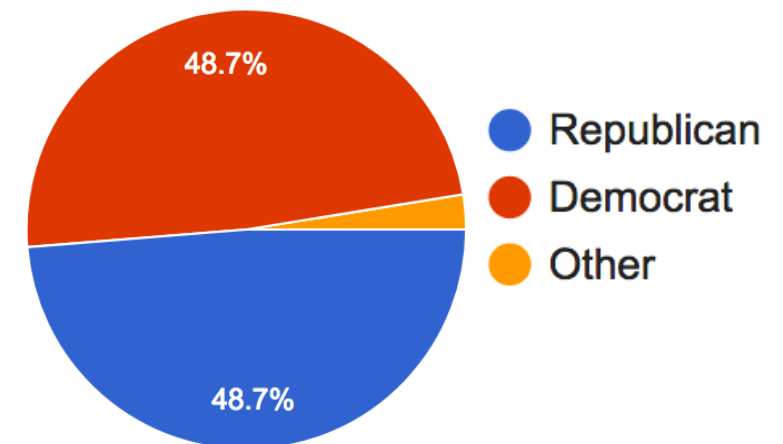


# Summary of 2017 trip

- Had meeting with all of the 'big 8' committees (first time)
  - House Subcommittees
    - Approp: Commerce, Justice, Science
    - Approp: Energy & Water Development
    - Science, Space & Tech: Energy
    - Science, Space & Tech: R&T
  - Senate Subcommittees
    - Approp: Commerce, Justice, Science
    - Approp: Energy & Water Development
    - Commerce, Science, & Transportation: Space, Science and Competitiveness
    - Energy and Natural Resources: Energy
- Equal coverage of offices from both parties
- Had meetings with DOE, NSF, OSTP and OMB

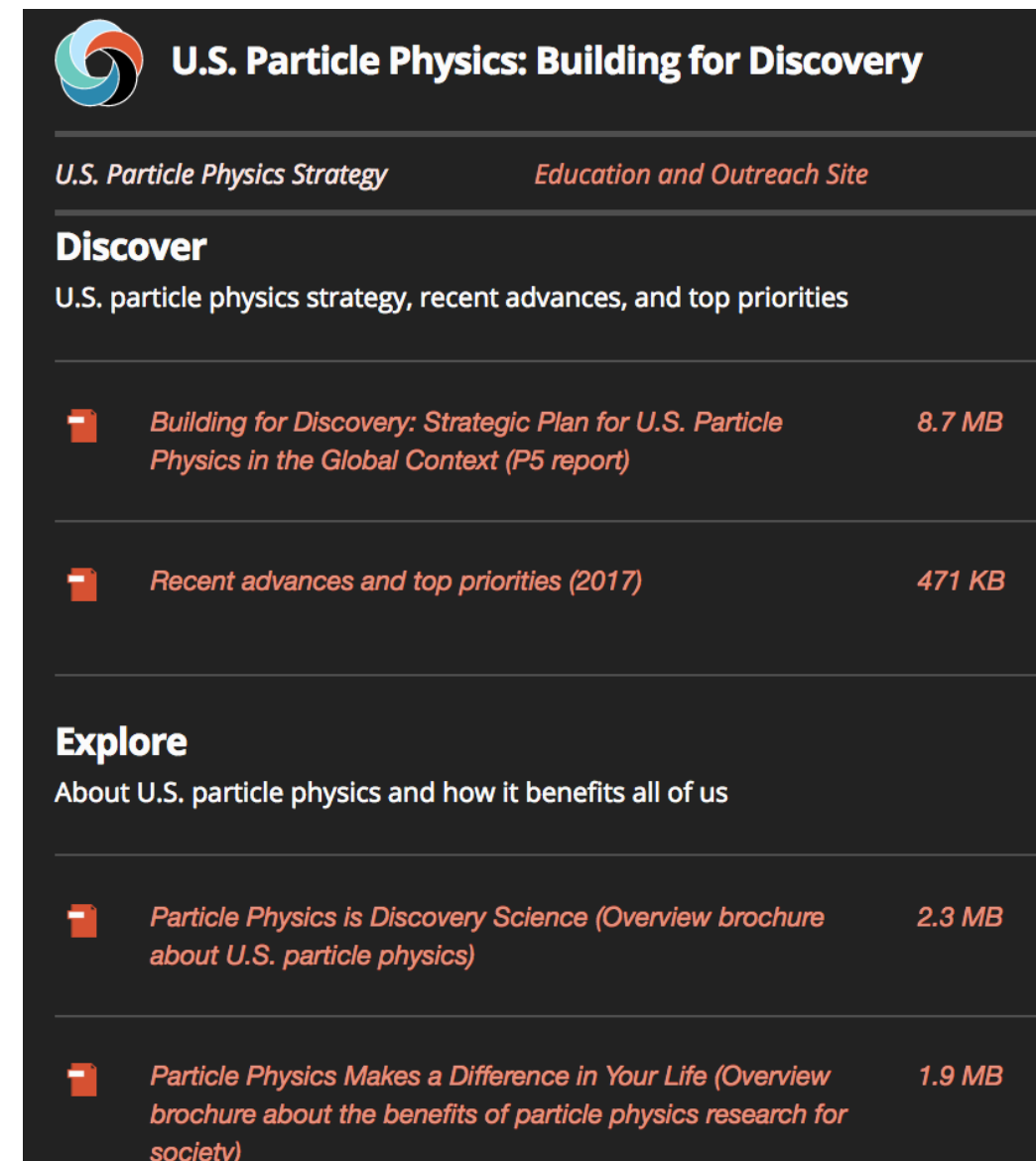


**Party of offices visited**

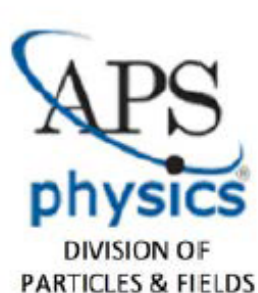


# New Community Communication Material

- In late 2016 groups started a push to make new communication material for the US HEP community to use in all the communication needs, and we able to use these for the Users 2017 DC trip
- Text was worked on as joint effort by the users groups and DPF EC, and HEPAP
- Produced updated version of P5 2-pager
- Two new documents put together a
  - A new 'What is HEP' document
  - A new 'Benefits of HEP' document



<http://www.usparticlephysics.org/>



**Building for Discovery**

**Received very positive feedback on all the new material**



# **P5 Report Report:** Updated yearly, contains top priorities, recent results, advances, forward plans



**Building for Discovery**

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

[usparticlephysics.org](http://usparticlephysics.org)

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

## **The top four priorities in 2017**

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**Advance the High-Luminosity LHC (HL-LHC) accelerator and detector upgrade projects** on schedule, continuing the highly successful bilateral partnership with Europe. This is P5's highest-priority near-term large project.

**Advance the Long-Baseline Neutrino Facility (LBNF) and Deep Underground Neutrino Experiment (DUNE)**, working with international partners to move forward with the engineering design, construction site preparation, and long-lead procurements. This is P5's highest-priority large project in its time frame.

**Support the existing construction projects** enabling the next major discoveries in particle physics, including the ATLAS and CMS upgrades, LSST, DESI, Mu2e, Muon g-2, LHCb, LZ, ADMX-G2, and SuperCDMS-SNOLAB.

**Balance scientific research** with facility operations and the carefully selected portfolio of small, medium, and large projects that together facilitate the success of the community's strategic vision.

Most used piece on Users DC trip, used in almost every meeting.

***“P5 one pager was the only piece of material that I've seen staffers read and keep outside of the carpet 90% of the times”*** DC trip feedback questionnaire

available from <http://www.usparticlephysics.org/>

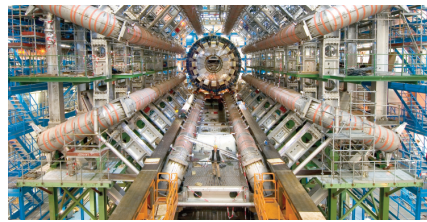
Front



## 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.



ATLAS detector at CERN (above); CMS detector at CERN (below).



### Building for Discovery

The United States has entered a new era of discovery. The U.S. particle physics community is implementing its vision for the future, based on five intertwined science drivers that show great promise for discovery:

- ▶ Use the Higgs boson as a new tool for discovery
- ▶ Pursue the physics associated with neutrino mass
- ▶ Identify the new physics of dark matter
- ▶ Understand cosmic acceleration: dark energy and inflation
- ▶ Explore the unknown: new particles, interactions, and physical principles

Find all the details at  
[usparticlephysics.org](http://usparticlephysics.org)



Developing the LZ dark matter detector

The report of the Particle Physics Project Prioritization Panel (P5) provides the long-term strategy and identifies the priorities for U.S. investments in particle physics that will enable discovery and maintain the U.S. position as a global leader.

# Introduction to HEP

- Overview of main questions in field
- Benefits to society - leads into other booklet
- Intro into P5 - leads into other booklet

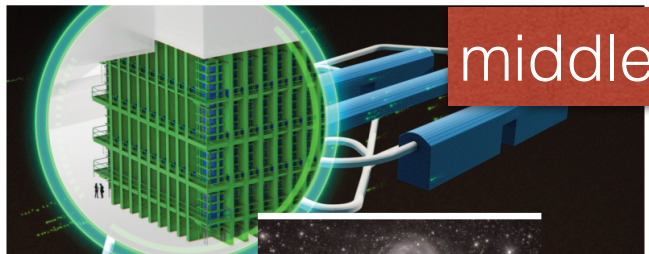
Pictures chosen to represent all P5 projects and priorities

Provided a cheat sheet to trip attendees with more details on images and text

***“The professional folder was a big upgrade from last year! It had a good amount .. of material.”***

DC trip feedback questionnaire

middle



## Leading the World to New Discoveries

America's particle physics research program positions U.S. scientists to make the next generation of discoveries at home and abroad. U.S. university and national laboratory researchers lead in the global search for answers to some of humankind's biggest questions:

**What are the fundamental forces of nature?**  
Particle physicists from the United States are leaders in the quest to understand the Higgs boson and to search for new particles and forces.

**What are the building blocks of matter?**  
Ghostly and mysterious neutrinos seem to be a keystone in the interplay of elementary particles. U.S. scientists are leaders in using intense neutrino beams and sensitive detectors to uncover the role they play.

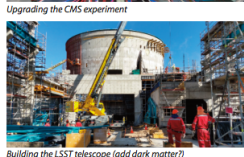
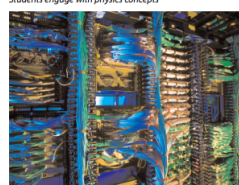
**How did the universe develop into its present form?**  
Dark matter and dark energy make up 96% of the content of the universe and built the structure of galaxies that we see today. But what are dark matter and dark energy? U.S. scientists are leaders in Earth- and space-based experiments to answer these questions.

## Particle Physics Propels U.S. Progress

The quest to better understand our world inspires and educates tens of thousands of students across the country every year and creates a globally competitive, highly trained workforce in the United States. Advanced research and development (R&D) in particle physics drives innovation that benefits other sciences and improves the nation's health, wealth, and security.

Here are just a few examples of the ways in which particle physics works for you.

- ▶ **Medicine:** Particle accelerators help develop more effective drugs to fight disease.
- ▶ **Security:** Particle physics detector technology enables advanced cargo screening.
- ▶ **Computing:** Particle physicists push the frontiers of big data analysis.
- ▶ **Manufacturing:** Radial tires are made stronger and lighter using particle accelerators.
- ▶ **STEM:** Research in particle physics inspires young people to engage with science.

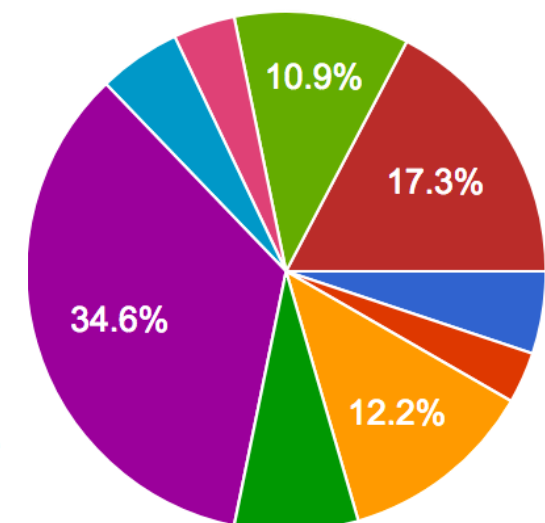




# Benefits to society

## What staffers/representative most 2017 DC trip feedback form

- 5% ● Grants info
- 3% ● Procurements info
- 12% ● STEM
- 8% ● Medical Benefits
- 35% ● Science
- 5% ● Security Benefits
- 4% ● Manufacturing Benefits
- 11% ● P5
- 17% ● Other



Provided a cheat sheet to trip attendees with more details on images and text

Front

### 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 directly impacts your quality of life.



back



### Training the next generation of STEM leaders

- ▶ **The high-tech global economy** benefits from students, scientists, engineers, and technicians trained in the cutting-edge science of particle physics.
- ▶ **Particle physics research inspires** young people to engage with science.
- ▶ **The U.S. Particle Accelerator School** fills a critical need for training highly skilled personnel to operate the world's 30,000 industrial and medical particle accelerators.
- ▶ **More than 100 U.S. universities and five national laboratories** give students hands-on learning experiences every year. Particle physics education programs teach students the principles of science, math, computing, and engineering.



For more examples of particle physics in society:  
[www.symmetrymagazine.org/applied](http://www.symmetrymagazine.org/applied)

Images courtesy Fermilab, NASA, Shutterstock

middle

There are just a few examples of the ways particle physics works for you:



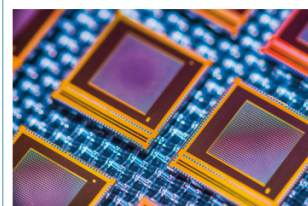
### Medicine

- ▶ **The pharmaceutical industry** uses X-ray beams created by particle accelerators to develop more effective drugs to fight disease.
- ▶ Next-generation **medical imaging devices** are being powered by detectors developed for particle physics experiments.
- ▶ **Radiation treatment plans for cancer** are powered by software originally developed to model particle detectors, and treatments with gamma rays and protons are delivered using particle accelerator technology.



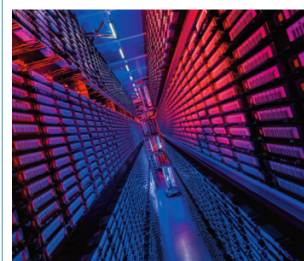
### Sensors and security

- ▶ Custom silicon sensors developed for Large Hadron Collider experiments **drive industrial applications** including X-ray and medical imaging, testing of new materials, and radiation dosimetry aboard the International Space Station.
- ▶ Particle physics detector technology **improves homeland security** by enabling advanced cargo screening and new techniques for monitoring the contents of nuclear reactor cores.
- ▶ **Chemistry, biology, and materials science** researchers use sensors developed for particle physics in cameras that collect signals from visible and infrared light and from X-rays.



### Computing and simulation

- ▶ **Tomorrow's computers** will be built from materials now being characterized using intense beams of X-rays and neutrons from particle accelerators.
- ▶ **The World Wide Web** was first developed by particle physicists to share information quickly and effectively around the world. Particle physicists continue to push the frontiers of big data analysis with global grids and cloud computing.
- ▶ **Radiation exposure for spacecraft** is simulated using software originally developed to model particle detectors.
- ▶ **Atomic and nuclear physics advances** benefit from precise mathematical techniques developed by particle physicists, now used to predict new materials and molecules.



### Manufacturing

- ▶ **Precise, customized medical implants** are manufactured using electron beams from particle accelerators.
- ▶ **The food industry** has used particle accelerators for decades to produce the sturdy, heat-shrinkable film that turkeys, fruits, vegetables, and baked goods come wrapped in.
- ▶ **Ink curing companies** use particle accelerators as an environmentally friendly way to produce the colorful packaging on many grocery store items, including cereal boxes.

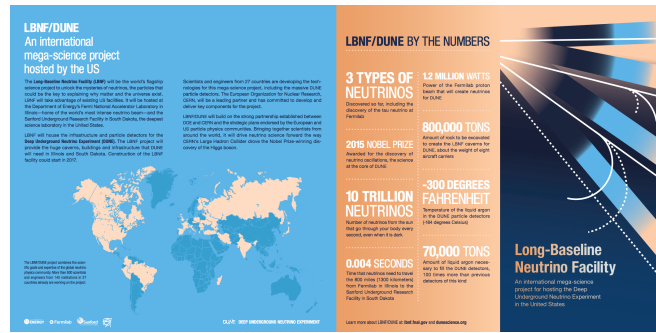


available from <http://www.usparticlephysics.org/>



# Additional Material

- Pamphlet on DUNE
- Pamphlets from UEC, USULA, USLO
- 5 symmetry articles as chosen by the user groups
- Tchotchkes: FNAL wave-length shifting ruler, Particle zoo buttons
- Procurement and grant information: Very useful to make quantitative connection to district/state
  - FNAL provides list of all procurements separated by state and zip code
  - Stanford PhD student M. Baumer's produced new [HEP spending page](#) making grant info per district easy to get



## Dune pamphlet

***“ I really liked  
the buttons”***

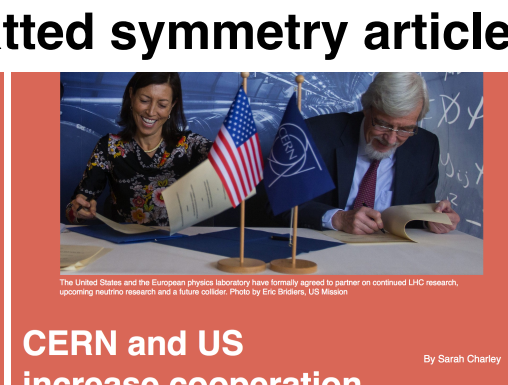
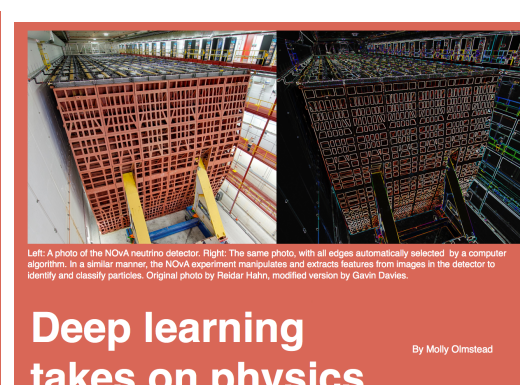
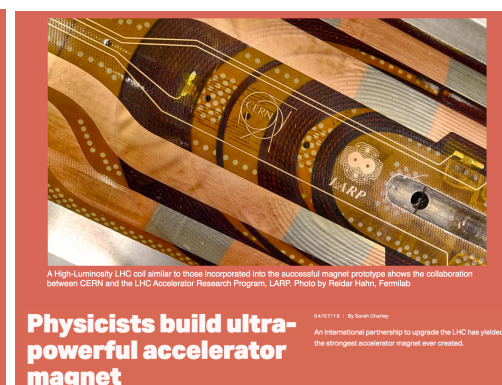
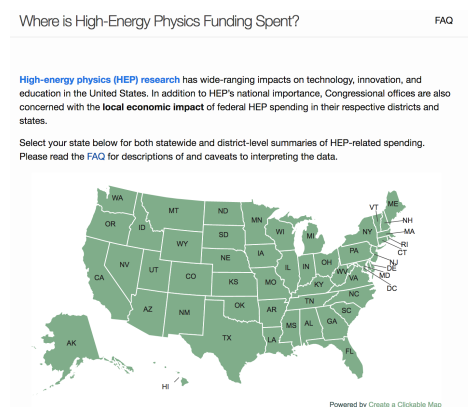
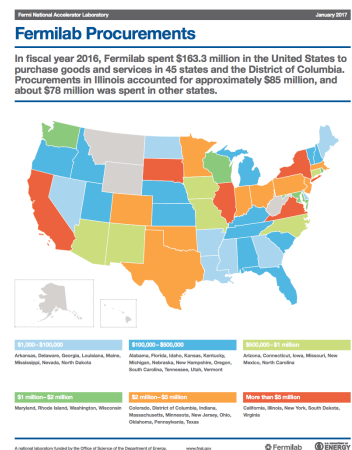
## buttons



# ruler



**“you guys bring  
the best stuff”**



# 2017 DC trip - 'Ask'

- In addition to the material we bring, we bring an 'Ask'.
- This is the statement of what congress can do to help our community
- **The 2017 “Ask” of Congress was simple and focused: PASS THE FY2017 BUDGET.**
  - The Congressionally proposed FY2017 budget was favorable for HEP and offered strong support for the P5
  - Trip attendees were asked to encourage Congress to pass specifically the Energy & Water Appropriations bill and generally the budget for FY2017.

Reminder 2016 Ask was: Please support funding for HEP in FY 2017 by sponsoring:

- \$833M for HEO within the DOE Office of Science in the FY 2017 E&W Appropriations bill
- \$295M for Physics within the Directorate of Mathematical and Physical Sciences of the NSF in the FY 2017 CJS and Related Agencies Appropriations bill



# 2017 Budget passed

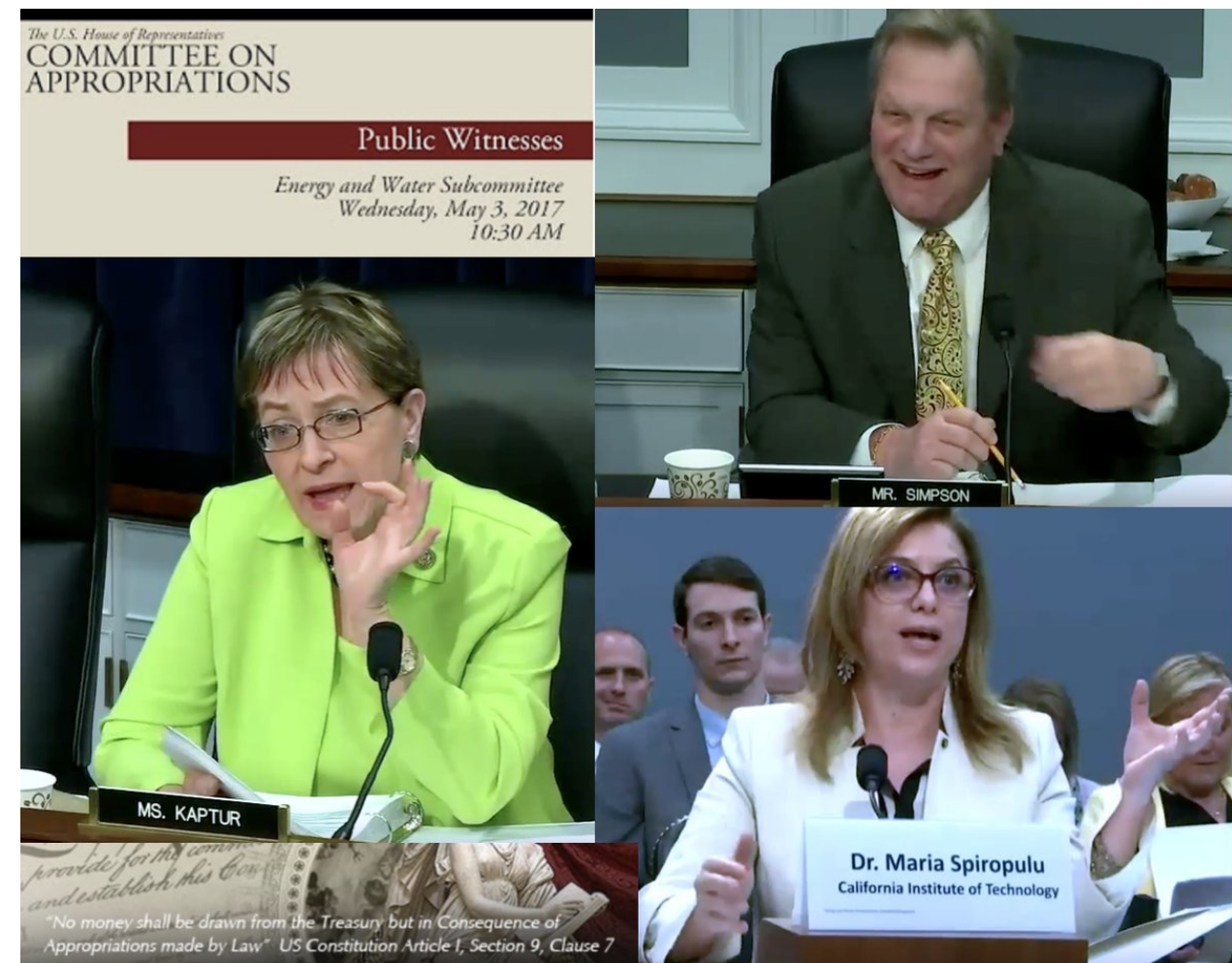
- On May 1st 2017 Y17 Omnibus Bill released by House and Senate Appropriators
- DOE HEP fared quite well within Office of Science: **HEP received \$825 million, \$8 million more than the PBR**
  - FY16 enacted (\$795M), FY17 Pres Proposed (\$818M, +2.9%), FY17 Omnibus (\$825M, +3.8%)
- The HEP mark is between the original House and Senate marks of \$823M and \$833M respectively.
- **Of VERY significant note, HEP was the only area of Office of Science to fare better in the Omnibus than it did in the President's request.**

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# Maria Spiropulu's congressional testimony

- Maria Spiropulu (Caltech) was invited to testify before the House Appropriations Energy and Water Subcommittee on HEP priorities, May 3, 2017
- Maria highlighted the importance of the P5 plan, neutrino physics and LBNF/DUNE, dark energy/matter experiment program, and U.S. support of the LHC
- Maria also described the contributions of high-energy physics to technical innovation and a well-trained scientific workforce.



[click for link to video \(1:47\)](#)



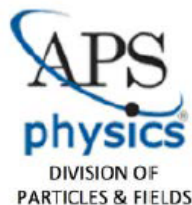
# 2018 Appropriations Community Letter

A letter written by the FNAL, SLAC and US LHC users group and DPF EC was finalized and sent out to House and Senate Energy & Water Appropriations Committees June 2017.

*“As you prepare a fiscal year 2018 Energy and Water Development appropriations bill, we strongly urge you to provide \$868 million for High Energy Physics in FY2018. This funding level is vital to maintain U.S. leadership in particle physics, move forward with world-class scientific projects, and meet scheduled commitments to our international partners.*

*We ask that the \$868 million include support for construction of the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) at Fermilab, and for the upgraded High Luminosity Large Hadron Collider (HL-LHC) accelerator and experiments at CERN. “*

Letter was made available to community via email from DFP, along with convenient tool to contact your rep. (<https://goo.gl/Z3dh8X>)



House and senate E&W approp. mark up bills now been release with \$825M and \$860M respectively

# Wider HEP Communication Efforts Going Forward

- Building and improving our community wide communication tools will be important moving forward - this being actively worked on
  - Working on getting available communication material out and known to the community
  - <http://www.usparticlephysics.org/> could be used to give example on communicating about HEP to the general public, for example providing scenarios/talking points.
- Build and provide the community the tools needed
  - Information on best times and ways to get involved
  - Provide platform that enables access to the information and tools that the users groups have put together to the wider community
- Determine the best way of communicating information with the whole community, possibly through DPF





**Interested participating the 2018 trip? Fill out this form**  
**<https://goo.gl/forms/1pWQ6UWIh8yPsCz63>**



# Contacting congress

[VoteSmart.org](http://VoteSmart.org), they are a one stop shop for information on contacting all politicians.

To find your(a) representative

<http://www.house.gov/representatives/find/>

<https://www.govtrack.us/congress/members/map>

Senators contact info

[https://www.senate.gov/general/contact\\_information/senators\\_cfm.cfm](https://www.senate.gov/general/contact_information/senators_cfm.cfm)

Info on congressional staff

<http://congressional-staff.insidegov.com/>

Info on committee membership

<https://www.congress.gov/committees>

# P5-Particle physics project prioritization panel

[https://science.energy.gov/~media/hep/hepap/pdf/May-2014/FINAL\\_P5\\_Report\\_053014.pdf](https://science.energy.gov/~media/hep/hepap/pdf/May-2014/FINAL_P5_Report_053014.pdf)

- Community wide effort to produce a develop a clear vision for the future
- Report was released in 2014 but it was multi year effort to produce it.
  - P5 take 2 process to start around 2021
- Laid out the communities priorities for the next 10 years
- The P5 plan balanced investments between research at leading universities and laboratories throughout the country and overseas, and the construction of new U.S. facilities.
- The P5 report worked with two constrained budget Scenarios, and a third, unconstrained Scenario.
  - This effort is focusing on the science not on the budget



## U.S. Particle Physics: Building for Discovery

*U.S. Particle Physics Strategy*

*Education and Outreach Site*



[http://  
www.usparticlephysics  
.org/](http://www.usparticlephysics.org/)

**Connections file:** text file containing the complete description of connections between a team member and members of Congress. Essentially a mapping between Congressional districts and connection codes for any given person.

**Connection code:** two-letter code used to describe the kind of connection with members of Congress.

**State code:** two-letter code representing the state.

**Meeting roles: Primary/Secondary.** Primary is the person with the strongest connection to a member of Congress and therefore will be in direct communication with that specific office. Secondary is usually an overloaded term (more on that later).

**Primaries (secondaries):** list of Congressional offices a person will visit as primary (secondary).

Mapping to determine the kind of connection each team member has with members of Congress.

A text file with lines with the following format:

**Congressperson;StateCode;DistrictNumber;ConnectionCode1,ConnectionCode2**

where:

**Congressperson** is the name of the Congressperson (must be identical to that in the congresspersons.txt file that will be provided).

**StateCode** is one of:

AL, AK, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH, OK, OR, PW, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY

**DistrictNumber** is either:

- a two digit number, or
- the same as StateCode for Senators or at-large House Members.



**ConnectionCodeN** is one of the following:

IF = immediate family (mother, father, siblings)

EF = extended family (grandmother, cousins, uncles and aunts, etc)

CR = current resident

FR = former resident

RV = registered voter

CW = current workplace

FW = former workplace

ED = educated in district/state

PC = personal/previous connection (e. g. met with them before, know a staffer, etc.)

Depending on the relationship with specific members of Congress, each line can contain several connection codes separated by commas.

Each team member will provide a connections file describing as many relevant connections as they can.


To facilitate association, please name the connections file using simply your first and last name (for Jesus Orduna: **JesusOrduna.txt**).

See next slide for two examples of connections files...

# Find your representatives

<https://www.house.gov/representatives/find/>

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## Find Your Representative

Not sure of your congressional district or who your member is? This service will assist you by matching your ZIP code to your congressional district, with links to your member's website and contact page.

Please review the frequently asked questions if you have problems using this service.

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### Resources

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<https://www.senate.gov/senators/contact/>

SENATORS

COMMITTEES

LEGISLATION & RECORDS

ART & HISTORY

REFERENCE

States

Leadership

## Biographical Directory

The [Directory](#) provides information about former and current senators.

## Statistical Information

The [Senators page](#) on Statistics & Lists is a great resource for information about current and former Senators. Statistics are available on a variety of topics, including biographical characteristics and Senate service records.

## Senators Phone List

This list of [senators' suite and phone numbers](#) in pdf format is updated every couple of weeks at the beginning of a new Congress.

## Senators of the 115th Congress



Sort by: Name State Party

[XML](#)

Choose a State

Choose a Senator

Choose a Class

[What is a class?](#)

[Alexander, Lamar](#) - (R - TN)

Class II

455 Dirksen Senate Office Building Washington DC 20510  
(202) 224-4944

Contact: [www.alexander.senate.gov/public/index.cfm?p=Email](http://www.alexander.senate.gov/public/index.cfm?p=Email)

[Baldwin, Tammy](#) - (D - WI)

Class I

709 Hart Senate Office Building Washington DC 20510  
(202) 224-5653

Contact: [www.baldwin.senate.gov/feedback](http://www.baldwin.senate.gov/feedback)

[Barrasso, John](#) - (R - WY)

Class I

307 Dirksen Senate Office Building Washington DC 20510  
(202) 224-6441

Contact: [www.barrasso.senate.gov/public/index.cfm/contact-form](http://www.barrasso.senate.gov/public/index.cfm/contact-form)

[Bennet, Michael F.](#) - (D - CO)

Class III

261 Russell Senate Office Building Washington DC 20510  
(202) 224-5852

Contact: [www.bennet.senate.gov/?p=contact](http://www.bennet.senate.gov/?p=contact)

[Blumenthal, Richard](#) - (D - CT)

Class III

706 Hart Senate Office Building Washington DC 20510  
(202) 224-2823



# New Community Communication Material

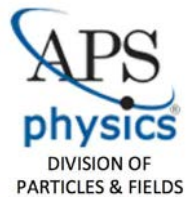


Folder

Received very positive feedback on all the new material



# Community 2018 Appropriations House Letter



June 2, 2017

Chairman Mike Simpson  
Subcommittee on Energy and Water  
Development  
Committee on Appropriations  
2362-B Rayburn House Office Building  
Washington, D.C. 20515

Ranking Member Marcy Kaptur  
Subcommittee on Energy and Water  
Development  
Committee on Appropriations  
1016 Longworth House Office  
Washington, D.C. 20515

Dear Chairman Simpson and Ranking Member Kaptur:

We are writing on behalf of the U.S. community of approximately 6,000 scientists, engineers and students from 160 universities and DOE national labs that conducts research on high energy physics. We thank you for your continued support for the High Energy Physics (HEP) program in the DOE Office of Science. As you prepare a fiscal year 2018 Energy and Water Development appropriations bill, we strongly urge you to provide \$868 million for High Energy Physics in FY2018. This funding level is vital to maintain U.S. leadership in particle physics, move forward with world-class scientific projects, and meet scheduled commitments to our international partners.

We ask that the \$868 million include support for construction of the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment (LBNF/DUNE) at Fermilab, and for the upgraded High Luminosity Large Hadron Collider (HL-LHC) accelerator and experiments at CERN. These are the two highest priority large projects, and critical to maintain U.S. leadership in particle physics over the next several decades. LBNF/DUNE is an international neutrino facility hosted in the U.S. This level of funding is needed to enable prototype detector construction with our international partners as well as to excavate underground caverns that will house the final neutrino detectors. Funding for the HL-LHC enables leading U.S. responsibilities including essential upgrades to the accelerator and experiments, to empower the next round of discoveries at the highest energies.

In addition to these major projects, the \$868 million funding level will advance and support world-leading undertakings including the next generation dark matter and dark energy experiments which are critical to understanding what makes up our universe and what is causing its expansion, as well as particle physics and accelerator research at universities and DOE national labs across the U.S. Funding at this level would continue to drive forward the stream of innovations that result as we push the boundaries of technology development, from superconducting magnets, to accelerator-based medical treatment and biomedical research, to advanced scientific computing; innovations whose benefits improve the quality of our daily lives.

Our priorities are based on the 10-year strategic plan "Building for Discovery", also known as P5, that was developed by the High Energy Physics community in close consultation with our funding agencies. Our community has come together behind the P5 plan, its compelling comprehensive scientific vision, and the tough decisions made to fit the research program within the available funding envelope. Our community continues to achieve its groundbreaking scientific milestones,

and has an excellent track record of delivering projects on time and on budget. Since the implementation of the P5 strategic plan in 2014, we have explored the nature of the Higgs boson and new states of four-quark matter with LHC experiments that have outperformed expectations, delivered the world's highest intensity neutrino beam, set the world's best constraints on dark matter, constructed a successful prototype of the strongest accelerator magnet ever built, and demonstrated multi-stage acceleration in laser-driven plasmas.

The President's budget request for FY2018 of \$672.7M, an 18.5% cut below the FY2017 enacted level, falls far short of the funding needed for a healthy HEP program, and further short of a world-leading program. The PBR, if enacted, would have dire, long-term consequences both for our highest priority projects and for the field as a whole. The P5 report warned of the impact of such budgets on the field. Research would be severely compromised through reductions in scientific staff, failure to attract the best minds, and major cuts to operations of user facilities that support hundreds of scientists and students. Projects for future research, such as LBNF/DUNE, would be substantially delayed, and costs would increase. Existing international commitments, such as for the HL-LHC, would be jeopardized, and international partnerships that are fundamental to particle physics as a global field would be damaged, with lasting consequences. Training of the science and technology workforce would be dramatically reduced, and the inspiration and attraction to the public and the future workforce would be compromised.

Robust funding, at the \$ 868M level, is necessary to build on recent progress. We are grateful for your continued leadership in funding this important field of science.

Professor Marcela Carena  
Chair Division of Particles and Fields  
of the American Physical Society  
Enrico Fermi Institute and Kavli Institute  
for Cosmological Physics  
Department of Physics at The University of Chicago  
5460 Ellis Ave.  
Chicago, IL 60637

Professor Edward Kearns  
Chair Fermilab Users Executive Committee  
Boston University Physics Department  
590 Commonwealth Ave.  
Boston, MA 02215

Professor Harvey B Newman  
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. Nicola Omodei  
Chair SLAC Users Organization Executive Committee  
Hansen Experimental Physics Laboratory and  
Kavli Institute for Particle Astrophysics and Cosmology  
Stanford University  
Stanford, CA 94035

<https://goo.gl/aOrxMR>



# Community 2018 Appropriations Senate Letter



May 31st, 2017

Chairman Lamar Alexander  
Subcommittee on Energy and Water  
Development  
Committee on Appropriations  
186 Dirksen Senate Office Building  
Washington, D.C. 20510

Ranking Member Dianne Feinstein  
Subcommittee on Energy and Water  
Development  
Committee on Appropriations  
188 Dirksen Senate Office Building  
Washington, D.C. 20510

Dear Chairman Alexander and Ranking Member Feinstein:

We are writing on behalf of the U.S. community of approximately 6,000 scientists, engineers and students from 160 universities and DOE national labs that conducts research on high energy physics. We thank you for your continued support for the High Energy Physics (HEP) program in the DOE Office of Science. We are grateful for the letters you have already sent to President Trump supporting the DOE basic research programs. As you prepare a fiscal year 2018 Energy and Water Development appropriations bill, we strongly urge you to provide \$868 million for High Energy Physics in FY2018. This funding level is vital to maintain U.S. leadership in particle physics, move forward with world-class scientific projects, and meet scheduled commitments to our international partners.

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Department of Physics at The University of Chicago  
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Boston, MA 02215

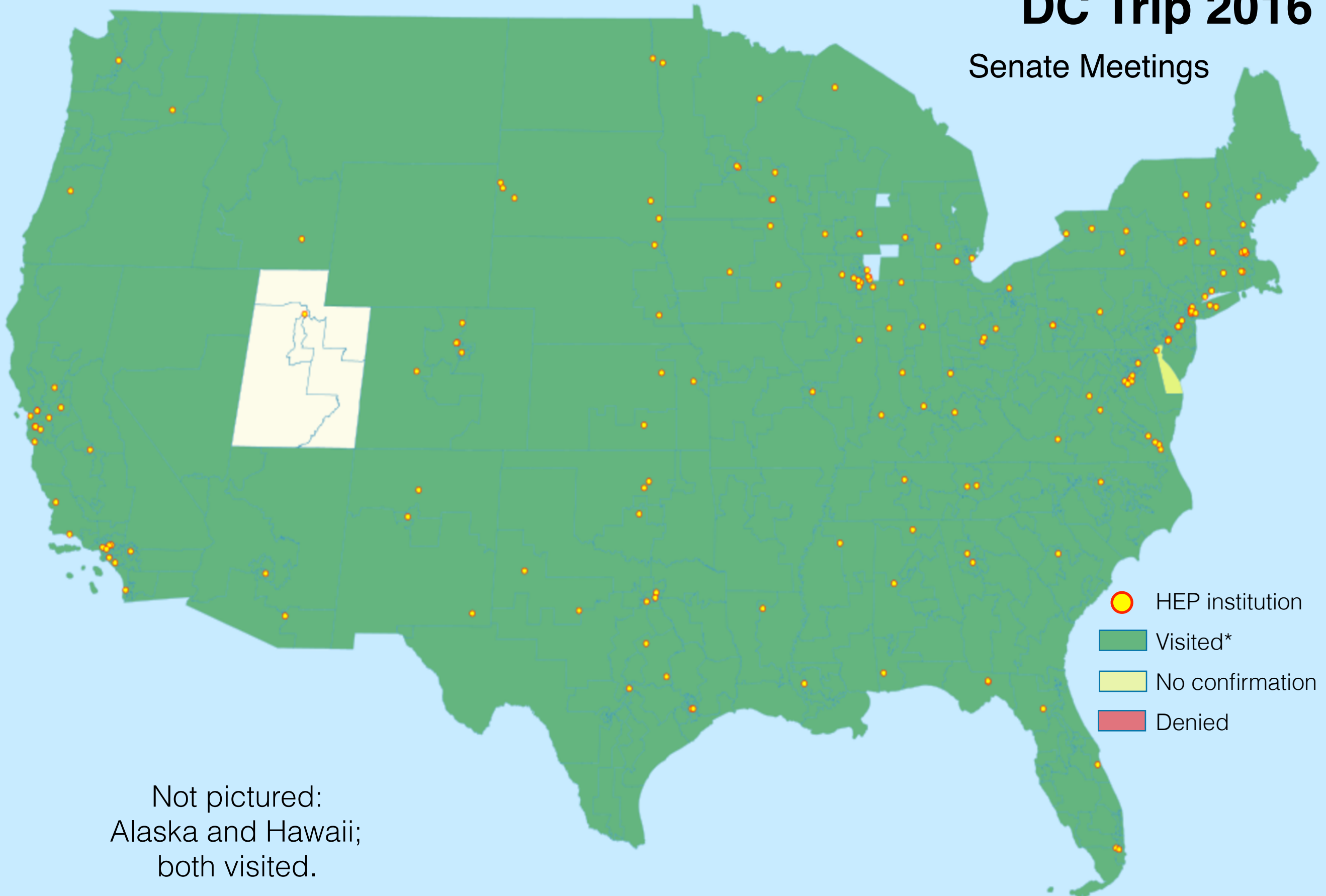
Professor Harvey B Newman  
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Charles C. Lauritsen Laboratory of High Energy Physics  
Division of Physics, Mathematics and Astronomy  
California Institute of Technology  
1200 East California Boulevard  
Pasadena, CA 91125

Dr. Nicola Omodei  
Chair SLAC Users Organization Executive Committee  
Hansen Experimental Physics Laboratory and  
Kavli Institute for Particle Astrophysics and Cosmology  
Stanford University  
Stanford, CA 94035

<https://goo.gl/r6NKkX>

# DC Trip 2016

## Senate Meetings

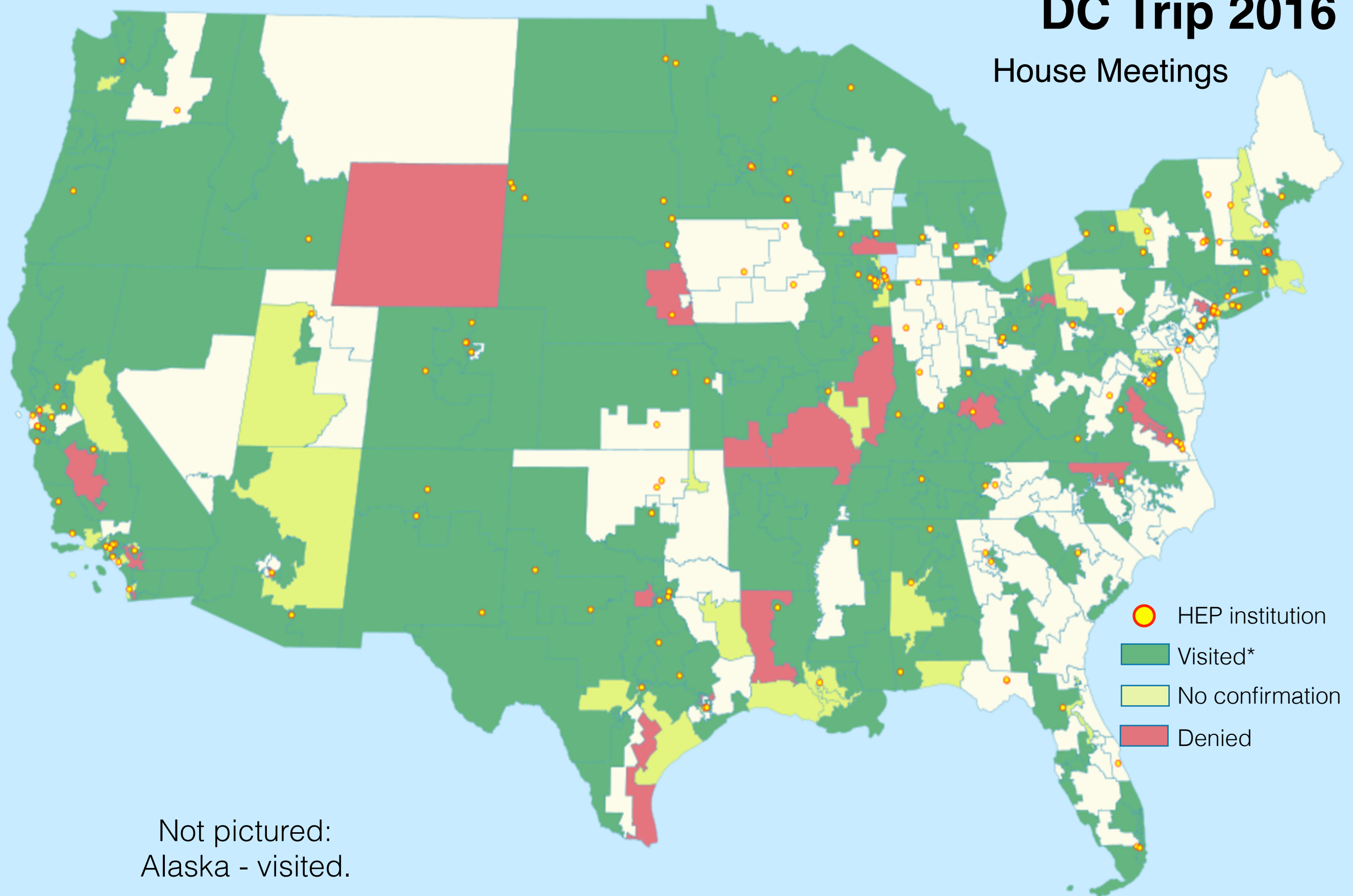


\* one or two Senators



# DC Trip 2016

## House Meetings



\* one or two Senators