

**FIRST National Advocacy Conference – Washington, DC**  
**Talking Points**  
**June 25 – 27, 2017**

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**Each Person Introduces Themselves (Name, Grade, School, Title/Position)**

**Thank you for past/future support**

**Introduce your team and where you are from City/School(s)**

**What is FIRST?**

- Started 28 years ago by Dean Kamen to inspire kids to become STEM professionals
- Adopted sports model and created four programs (briefly describe each)
  - Jr. FLL K-3
  - FLL 4-8
  - FTC 7-12
  - FRC 9-12
- Describe what *FIRST* means to you, e.g.,
  - Teamwork, leadership, communication skills, STEM interest/career, making classroom work real, etc.
  - Tell your personal and team story
- *FIRST* works
  - Preliminary evidence from a 5-year longitudinal study comparing FIRST students and a similar group of students indicates that FIRST has a positive impact in maintaining and increasing the STEM interest, STEM attitudes, STEM skills, and STEM knowledge of students who participate in *FIRST*.
- Last year over 460,000 students participated in some 52,000 *FIRST* teams with 120,000 coaches/mentors though 2600 events
  - Growing every year
  - Over 65,000 people attended the Championship events in Houston and St. Louis in April
- Major corporations supporting *FIRST* and teams (examples of support for your team)

**Personal Experiences on Your Team (Customize to your team and program)**

- Each year, *FIRST* publishes a game challenge and each team has six weeks to design and build a robot that accomplishes the game challenge.
- Students can participate in design, manufacturing, electrical, strategy, business, media, or any number of other areas to make this happen.
- Each team then competes at Regional or District competitions with their robot and for judged awards hoping to ultimately make it to the World Championship event currently in St. Louis.
- During the off season, we do presentations within our community and participate in parades and festivals.
- We hold camps for younger students to get them involved and excited about STEM.
- Our team creates and mentors elementary and middle school *FIRST* Teams to keep these students excited about STEM and to act as a Feeder system for our team.
- We hold trainings year round in engineering, programming, safety, communications, resume writing and about a dozen others.
- We are also now getting more involved with Advocacy to make sure that STEM concepts are supported and strengthened within legislation both at our state and here in DC.

## **US STEM Challenges**

- Even with *FIRST*'s success, two problems remain:
  - Not enough US STEM graduates
  - Diversity
- President's Science Council projected a need of 1 Million Additional STEM workers by 2022
  - Even with *FIRST*'s healthy growth, we will not achieve that goal
- Not Just an Education Issue
  - Workforce development, national economic security and defense security issue
  - To compete in the world economy, we need workers with 21<sup>st</sup> Century skills
    - Robotics, programming, leadership, teamwork, etc.
    - In an economic competition where a nation with 19<sup>th</sup> Century skills will lose
  - Some of the enterprises very interested in *FIRST* students are the Air Force, NASA, Aerospace, etc.
    - Why?
    - Need STEM, particularly robotics experts and cyber warriors

## ***FIRST* is not looking for Federal funds for itself, but funds to supplement States' STEM programs through Title IV, Part A of ESSA**

- The newly enacted bipartisan Every Student Succeeds Act (ESSA) includes a flexible block grant program under Title IV Part A, which is authorized at \$1.65 billion in FY 2017 and 1.6 billion for 2018 to 2020. Title IV, Part A authorizes activities in three broad areas:
- **Well-rounded education** including programs in STEM
- **Safe and healthy** students/schools
- **Technology** (professional development, blended learning, and devices)
- Districts can use Title IV Part A grants to provide students with a well-rounded education and improve instruction and student engagement in STEM by:
- Expanding high-quality STEM courses;
  - Increasing access to STEM for underserved and at risk student populations;
  - Supporting the participation of students in STEM nonprofit competitions (such as robotics, science research, invention, mathematics, computer science, and technology competitions);
  - Providing hands-on learning opportunities in STEM;
  - Integrating other academic subjects, including the arts, into STEM subject programs;
  - Creating or enhancing STEM specialty schools;
  - Integrating classroom based and afterschool and informal STEM instruction; and
  - Expanding environmental education.
- The Title IV Part A Student Support and Academic Enrichments Grants combines (and eliminates) several targeted programs under No Child Left Behind, including the Math and Science Partnership Grants. The Math and Science Partnership grants, which received \$152.7M in FY2016, was the largest single program at the Department devoted exclusively to STEM.
- \$400 million was appropriated for Title IV Part A in April for FY 2017, less than one-fourth of the authorized \$1.65 billion level.

**Can we count on you for your support to fully fund ESSA Title IV, Part A Student Support and Academic Enhancement Grants at the authorized level of \$1.6 billion through regular appropriation bills or through the CR process.** Could you write a letter on our behalf to SENATE: Chairman Cochran and Vice Chairman Leahy, Subcommittee Chairman Blunt and Ranking Member Murray OR HOUSE: Chairman Frelinghuysen and Ranking Member Lowey and Subcommittee Chairman Cole and Ranking Member DeLauro to request full funding for Title IV, Part A? Would you send us a copy of that letter?

***Thank them for their time, leave behind materials provided on FIRST and Team.***

***Invite them (Member/Senator and Staff) to Tues Reception 5pm to 7pm in Rayburn 2043/2044 Invite Senator or Member to your school/build site. Get contact information of district scheduler to make that happen.***