



2017 Engineering Deans

Public Policy Colloquium

Fairmont Hotel • Washington, DC • February 6-8, 2017



Legislative Update 115th Congress

ASEE Engineering Deans Council

Public Policy Colloquium

- Kenneth S. Ball,
George Mason University
- Amr Elnashai,
Penn State University

Legislative Highlights from 2016

- American Innovation and Competitiveness Act (reauthorization of America COMPETES)
- Manufacturing Engineering Education provision in 2016 National Defense Authorization Act
- 21st Centuries Cures Act

Key Budget Question

- Repeal of the 2011 Budget Control Act.
- The most recent 2-year budget agreement is due to expire, restoring the sequestration hammer.
- BCA caps would reduce discretionary spending.
- Defense hawks, Democrats favor lifting caps.

GOP Priorities

- Repeal of Affordable Care Act
- Senate confirmation of Supreme Court nominee
- Tax reform
- Infrastructure
- Increase in defense spending



White House Budget

OMB Director, Mick Mulvaney,
Republican Study Committee
& House Freedom Caucus:
both targeted discretionary
spending.



A deficit hawk, not a defense hawk.

Key Appropriators - House



Rodney Frelinghuysen,
N.J. Chair



Nita Lowey, N.Y.,
Ranking Democrat



Kay Granger,
Texas, Defense



John Culberson,
Texas. Commerce,
Justice, Science



Mike Simpson,
Idaho, Energy &
Water

Key Appropriators - Senate

- Chairman Thad Cochran (R, Miss.) chair, Defense subcommittee
- Vice Chairman Patrick Leahy (D, Vt.) [Replaced Barbara Mikulski]
- Lamar Alexander (R-Tenn.) Energy & Water
- Richard Shelby (R-Ala.) Commerce, Justice, Science

Pending FY 2017 Appropriations Bills

- House & Senate Appropriations Committees completed work on most spending bills in 2016.
- None has won final passage.
- Additional changes are possible.



Regulation and Deregulation

- 329 bills introduced in the 115th Congress as of Feb. 1, 2017.
- **Regulatory Accountability Act of 2017** passed House Jan. 11. Now before the Senate.
- **Sponsor, Rep. Bob Goodlatte (R-Va.)**



Regulation and Deregulation

- **Midnight Rules Relief Act of 2017**
- Sponsor: Rep. Darrell Issa (R-Calif.)
- Passed House Jan. 4; now before the Senate
- Lets Congress disapprove a group of regulations “en bloc” that were imposed shortly before a president left office.
- **Regulations from the Executive in Need of Scrutiny (REINS) Act**
- Sponsor: Rep. Doug Collins (R-Ga.) Passed House Jan. 5; now before the Senate
- Provides that major rules of the executive branch shall have no force or effect unless a joint resolution of approval is enacted into law.



Unmanned Aerial Systems



Federal Aviation Administration Reauthorization Act

- Moved forward in the Senate Commerce Committee; report filed in December.
- Sponsor: Sen. John Thune (R-S.D.).
- Cites UAS potential to perform a wide variety of functions more efficiently, and at a lower cost and safety risk, than manned aircraft

Federal Aviation R&D Reauthorization Act

- Introduced in 114th Congress. Could be incorporated in other legislation, such as FAA reauthorization.
- Sponsor: Rep. Eddie Bernice Johnson (D-Tex.); 4 Democratic cosponsors.
- Reauthorizes civil aviation R&D through FY 2018
- Provides for R&D on “the safe integration of evolving drone systems into the National Airspace System.”

Infrastructure

- Congress anticipating Trump admin proposal
- Key player: Transportation Secretary
Elaine Chao – popular with both parties.
- Enthusiastic about self-driving cars,
intermodal systems.
- Partisan split on payment: tax dollars vs.
public-private partnerships (i.e. tolls, fees) or both.
- Broad scope for new technology – sensors, road-vehicle
communication, high-performance concrete.
- Big economic payoff expected.



Autonomous Vehicles

- **Growing congressional interest.**
- House Transportation and Infrastructure Committee: “The expanded deployment of autonomous vehicle technologies across the different levels of automation is likely to have tremendous impacts on the nation’s surface transportation system, including improving transportation efficiency, safety, and mobility.”

Intellectual Property

- Continuing efforts to change 2011 patent overhaul, America Invents Act.
- Many groups (e.g. IEEE) say law favors large corporations over startups.



World Trade

- Resolution urging negotiations for the development of a North Atlantic Trade and Investment Partnership (NATIP) between the United States and the United Kingdom.
- Sponsor: Rep. Charles Dent (R-Pa.); 31 co-sponsors.



Cuba Trade Act of 2017

- To lift the trade embargo on Cuba.
- Bars use of government funds to promote trade with Cuba.

Sponsor: Tom Emmer (R- Minn.)

Bipartisan cosponsors

Also: Cuba Reconciliation Act – specifies removal of more restrictions, including on travel.

Sponsor: Rep. Jose Serrano (D-NY)



TPP Withdrawal Act

- Sponsor: Rep. Rosa DeLauro (D-Conn.)
- Provides written notice to Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam of the withdrawal of the United States from the Trans-Pacific Partnership Agreement.

Higher Education Act Reauthorization

- A priority of Sen. Lamar Alexander (R-Tenn.), chair of Health, Education, Labor, & Pensions.
- House Counterpart: Rep. Virginia Foxx (R-N.C.)
- Cornerstone of federal support for higher ed.
- Sets policy on accreditation, international and graduate education, teacher training, and financial aid.
- First enacted 1965; reauthorized in 2008 (expired at the end of 2013).
- Trump policy: Cut cost of college, student debt; support for vocational and technical education; oppose tuition-free higher ed.



Trump on Higher Ed

- Liberty University President Jerry Falwell Jr. will head a task force charged with reforming the country's higher education system.
- Will recommend changes in the U.S. Department of Education's policies and procedures.
- A response to "overreaching regulation."
- Liberty has 3 ABET-accredited engineering programs and one accredited computer science program.



Defense Spending

- Sen. John McCain (R-Ariz.) has issued “Restoring American Power,” which calls for significant increases, including in R&D.

| | FY 2018 | FY 2019 | FY 2020 | FY 2021 | FY 2022 |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|
| SASC Recommendation | | | | | |
| Base 050 | \$640,341 | \$662,342 | \$686,531 | \$720,975 | \$740,517 |
| <i>Above President Obama's Budget</i> | \$54,141 | \$68,042 | \$86,131 | \$105,075 | \$116,517 |
| <i>Above BCA Caps</i> | \$91,341 | \$100,342 | \$110,531 | \$130,975 | |
| OCO Estimate | \$60,000 | \$60,000 | \$60,000 | \$60,000 | \$60,000 |
| Total National Defense | \$700,341 | \$722,342 | \$746,531 | \$780,975 | \$800,517 |

Department of Energy Research and Innovation Act

- Sponsors: Rep. Lamar Smith (R-Tex.); bipartisan co-sponsors.
- The first comprehensive authorization of the DOE Office of Science
- DOE technology transfer provisions included in the Democratic Competes bill;
- The first authorization of the Energy Innovation Hubs model established under the Obama Administration;
- Continues Energy Frontier Research Centers
- A key provision requested by ARPA-E to enable greater private sector engagement in its programs;
- An updated version of the Nuclear Energy Innovation Capabilities Act, introduced in the last Congress.
- Electricity Storage Research Initiative and a Solar Fuels Research Initiative.
- Lacks any authorized funding levels
- **Passed House**



Senate's Main Energy Bill in 2016

- **North American Energy Security and Infrastructure Act of 2016**
- Sponsored by Sen. Lisa Murkowski (R-Alaska), with broad bipartisan support in the Senate. Co-sponsor, Maria Cantwell (D-Wash.)
- Intended to increase energy efficiency in buildings, require significant upgrades to the electrical grid including large-scale storage systems for electricity, expedite liquid natural gas exports, loosen permitting rules for construction of natural gas pipelines on federal lands, provide subsidies for hydropower and geothermal.
- Failed to reach agreement with the House in conference.
- May be reintroduced.
- Sections relevant to engineering R&D contained in the American Innovation and Competitiveness Act and in H.R. 589.



Advanced Nuclear Technology Development Act of 2017

- To foster civilian research and development of advanced nuclear energy technologies and enhance the licensing and commercial deployment of such technologies. Sponsor: Rep. Robert Latta (R-Oh). Passed House.
- **Nuclear Energy Innovation Capabilities Act of 2017 Sponsors: Sen. Mike Crapo (R-Idaho); Rep. Randy Weber (R-Tex.) Bipartisan co-sponsors**

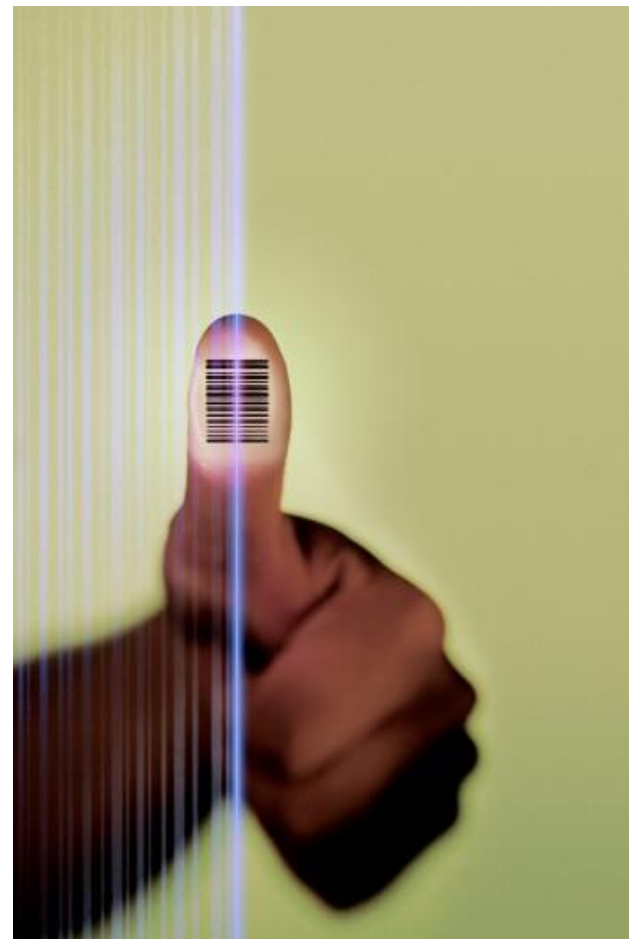
Hypersonic & Drone Aircraft

- Bill in 114th Congress – may be reintroduced:
- **Aeronautics Innovation Act**
- **Sponsor: Rep. Stephen Knight (R-Calif.); bipartisan cosponsors.**
- Establishes NASA demonstration programs for:
 - a low-boom supersonic aircraft program,
 - three subsonic flight programs, and
 - an unmanned aircraft (drone) operations program.



Infrastructure

- Support for Rapid Innovation Act
- Sponsor: Rep. John Ratcliffe (R-Tex.)
- Directs the Department of Homeland Security to support cybersecurity R&D.





Hot Topics: Extreme Weather

- House passed HR 353, **Weather Research and Forecasting Innovation Act** sponsored by Rep. **Representative Frank D. Lucas (R-Okla.)**
- **Bipartisan co-sponsors**
- **Tsunami Warning, Education, and Research Act of 2017**
- **Sponsor: Suzanne Bonamici (D-Or.), Sen. Maria Cantwell (D-Wash.); bipartisan cosponsors. Authorizes \$31.7 million annually through 2021.**

Hot Topics

H1-B Visas

- Legislation: **Protect and Grow American Jobs Act (Rep. Darrell Issa, R-Calif.; bipartisan cosponsors)**
- This bill amends the Immigration and Nationality Act to revise the definition of "exempt H-1B nonimmigrant" to eliminate the master's or higher degree requirement and raise the annual salary threshold requirement from \$60,000 to \$100,000.
- (An exempt H-1B nonimmigrant is a nonimmigrant H-1B [specialty occupation] worker meeting certain criteria whom an H-1B-dependent employer may hire without having to satisfy certain otherwise applicable H-1B hiring criteria.)

Immigration – ‘Dreamers’

- **Bar Removal of Individuals who Dream and Grow our Economy (BRIDGE) Act**
- Provides “provisional protected presence to qualified individuals who came to the United States as children.”
- Bipartisan Senate Sponsors: Graham, Durbin, Murkowski, Feinstein, Flake Harris, Schumer; House Sponsor: Rep. Mike Coffman (R-Colo.), bipartisan cosponsors.



Workforce Development

- **To promote a 21st century energy and manufacturing workforce**
- Sponsor, Rep. Bobby Rush (D-Ill.) – 1 GOP co-sponsor.
- Instructs the Department of Energy to prioritize education and training for energy and manufacturing-related jobs – including engineering – and also prioritize the education and training of underrepresented groups.



Workforce Development

- **Promote Workforce Development for the Advancement of Manufacturers Act of 2017**
- This bill amends the Internal Revenue Code to allow manufacturing employers located in the United States a business-related tax credit for the manufacturing training expenses of their employees. The definition of "manufacturing training expenses" includes related course work, certification testing, and essential skill acquisition. Sponsored by Rep. **Brenda L. Lawrence (D-Mich.) – no co-sponsors**

Workforce Development

- **Jobs, On-the-Job ‘Earn While You Learn’ Training, and Apprenticeships for African-American Young Men Act.**
- Sponsor: Rep. David Scott (D-Ga.)
- The Department of Labor should coordinate recruitment, hiring, and on-the-job training of African American men 18-39 among unions, contractors, and businesses that will rebuild infrastructure, transportation systems.



Biomedical Engineering

- **Medical Device Access and Innovation Protection Act**
- **Sponsor: Sen. Orrin Hatch (R-Ut.); bipartisan co-sponsors.**
- To repeal the excise tax on medical devices.
- **House version by Rep. Erik Paulson (R-Minn.)**
- **First Responder Medical Device Tax Relief Act**
- Sponsor: Rep. Michael Turner (R-Ohio)
- Exempts a qualified emergency medical device provided by first responders from the excise tax on medical devices.



Entrepreneurship & Diversity

- **Promoting Women in Entrepreneurship Act**
- Sen. Amy Klobuchar (D-Minn.)
- Authorizes the National Science Foundation to encourage its entrepreneurial programs to recruit and support women to extend their focus beyond the laboratory and into the commercial world. Similar bill passed the House Jan. 24.

Entrepreneurship & Diversity

- **Inspiring the Next Space Pioneers, Innovators, Researchers, and Explorers (INSPIRE) Women Act.**
- **Sponsor: Rep. Barbara Comstock (R-Va.). Backs various NASA initiatives to encourage women and girls to study science, technology, engineering, and mathematics, and pursue careers in aerospace.**

