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# Use and Application of Federal Advisory Committee Act (FACA) Database

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# Use and Application of Federal Advisory Committee Act (FACA) Database

## **Abstract**

University experts can offer uniquely valuable insights for informing policy based on expertise they develop through research. The application of knowledge through public service is an important and understudied mechanism for translating academic expertise to government and other communities. Today universities encourage researchers to engage in public service, and often they actively provide institutional support to create a culture and environment where such pro bono work is regarded as an important activity by the research community. Yet the question remains as to whether or not a systematic mechanism exists to track, record, and measure the value of university expertise influencing policy within the context of research. We explore a useful but underutilized administrative data source, the Federal Advisory Committee Act (FACA) database, with an eye towards linking the federal service data to other sources in order to measure research impact in a sociopolitical setting. This publicly available dataset contains rich information on federal advisory committees that play an important role in shaping national programs and policies. Each year an average of 900 advisory committees with more than 60,000 members have provided either policy or grant review advice in 40 different issue areas. Our exploratory findings suggest a steady increase of academics in federal service, the different level of federal service contribution by universities, and the association between federal service and university R&D spending. We also discuss the importance of data cleaning when using administrative data for research and data linkage methods when linking federal service data to university research spending records.

## **Comments**

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# Use and Application of Federal Advisory Committee Act (FACA) Database

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**Institute for Research on Innovation and Science  
University of Michigan**

**ADRF Network Research Conference  
Washington DC, Nov 13-14, 2018**

# Presentation Overview

## 1. Focus on Research Impact

- 1) What we do at IRIS: Measuring the impact of research
- 2) Different aspects of impact: Economic, sociopolitical
- 3) Increased needs at universities to measure the *pro bono* work by academics – Measuring the social impact of research through university experts' federal service (FACA database)

## 2. Use and application of federal service data

- 1) Descriptive findings
- 2) Ongoing and future work: Building datasets and record linkage
  - a. Institutional profile (R&D, institutional characteristics) (*public data*)
  - b. Publicly available university salary data (*public data*)
  - c. IRIS UMETRICS award, employee, vendor transaction data (*restricted data*)

# IRIS: Measuring the Impact of Research

## What is IRIS?

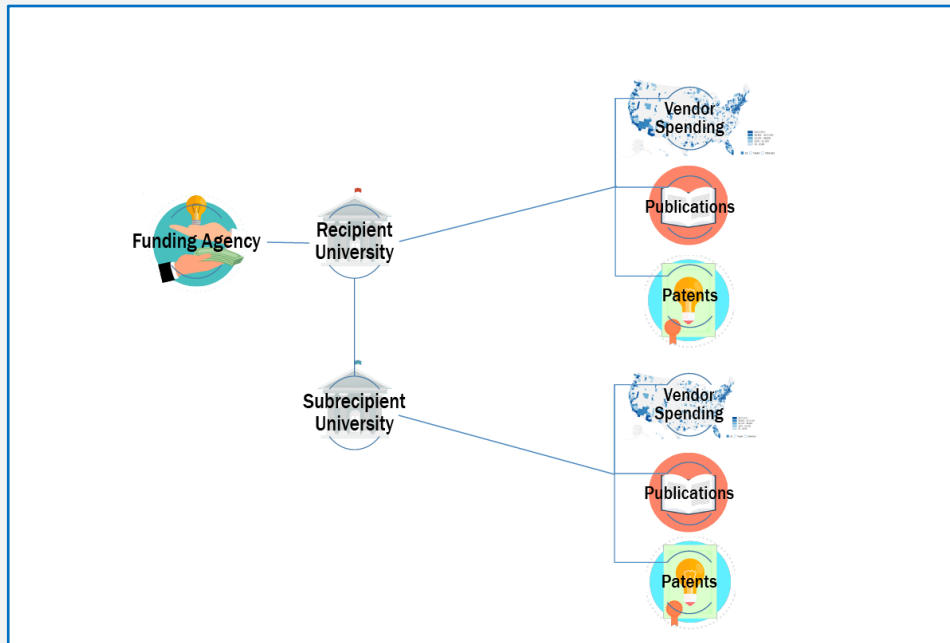
The Institute for Research on Innovation and Science (IRIS) is a national consortium of research universities organized around an IRB-approved data repository. IRIS develops data for research and reporting to understand, explain and improve the public value of academic research.



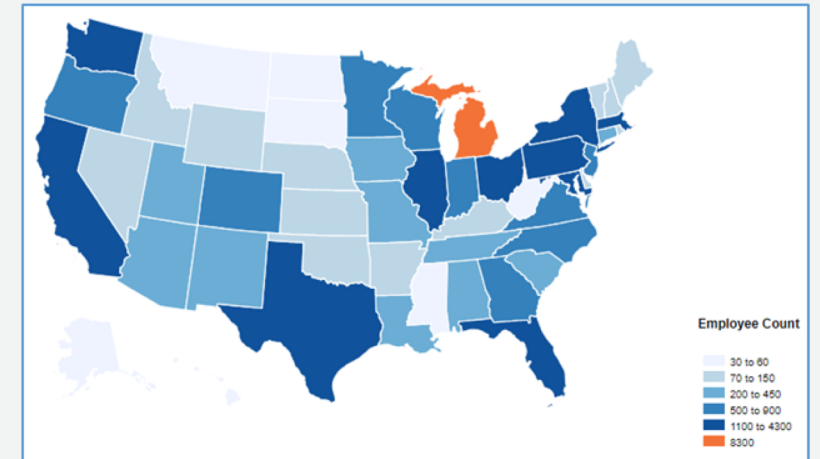
# Different Approaches to Measure the Impact

People take different approaches to examine how public investment in research can continue to advance human knowledge, economic growth, and quality of life. IRIS data permit stakeholders like university administrators, funders, and us researchers to model the production and impact of science at different levels.

*Individual-level*



*State and national level*



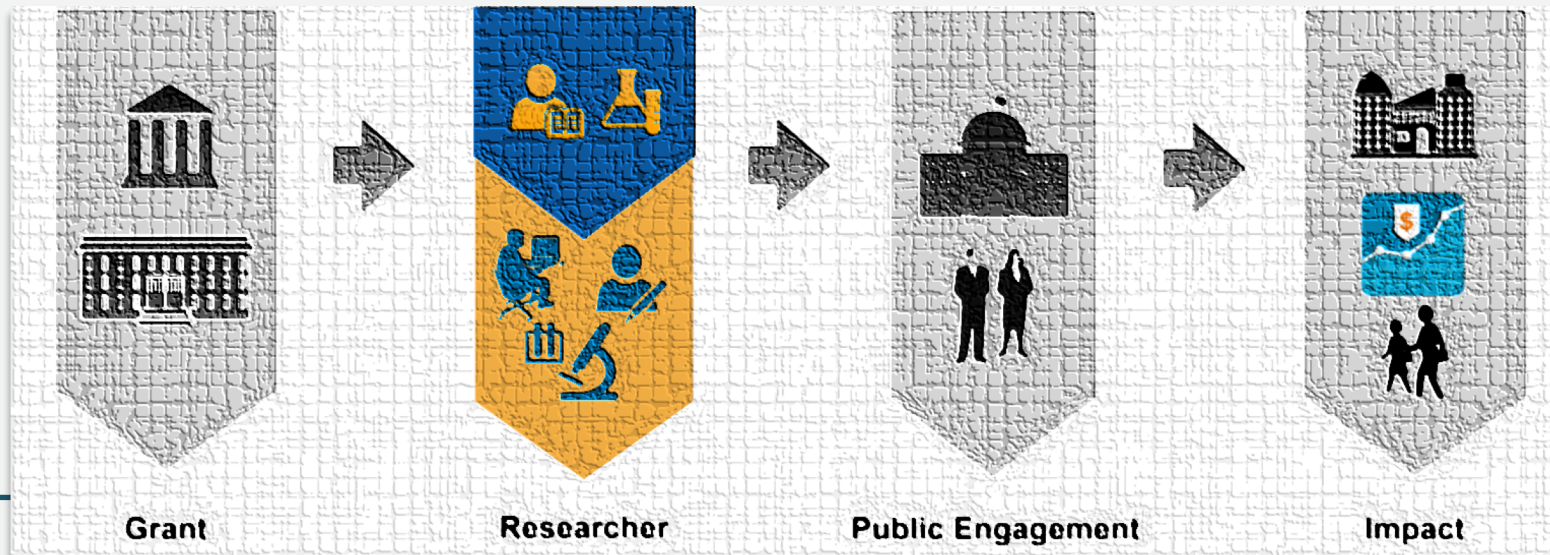
What industries are supported by our research spending?



*Industry level*

# Research Focus: Social Impact of Research

- Focusing on the way that scientific knowledge is applied and translated into society through researchers' public engagement and service.
- The application of knowledge through public service is an important and understudied mechanism for translating academic expertise to government.
- The question remains as to whether or not a systematic mechanism exists in order to track, measure, and assess the value of university expertise influencing policy within the context of research and its impact.
- Exploration into a useful but underutilized administrative data source, the Federal Advisory Committee Act (FACA) database, with an eye towards linking the federal service data to other sources in order to measure research impact in a sociopolitical setting.



# Transforming Administrative Data into Research Data

1. Identifying data discrepancies
  - Inconsistency in data structure and formatting
2. Finding solutions
  - Extensive effort of data manipulation (e.g., de-duplication, cleaning, parsing, classification, tagging, transformation, mapping, etc.)
3. Adding value: Examples of how we added value to the federal service data through data processing: e.g.,
  - Cleaned member occupational and affiliation records
    - ✓ Help to differentiate academics from non-academics
    - ✓ Help to identify academic institutions represented by university experts
  - Cleaned individual names (with a combination of other data fields)
    - ✓ Help to disambiguate advisory experts' names
    - ✓ Help to assign unique identifiers to unique individuals



# FACA

- FACA: Federal Advisory Committee Act (1972-)
  - The Federal Advisory Committee Act (FACA) database is publicly and electronically available dataset that contains rich information on federal advisory committees and committee members. There have been only a handful of social science studies making use of the information on advisory committees.
  - This law requires records of all advisory committees should be made available to the public with some exceptions. This is still the legal foundation for committee operation and defines an “advisory committee” that dispenses objective advice and recommendations to officers and agencies of the executive branch.
- [Data about federal advisory service](#)
- (Digital) data coverage: 1997-2017
- Understanding the relationships between FACA database tables (*next slide*)

# FACA Database Relational Tables

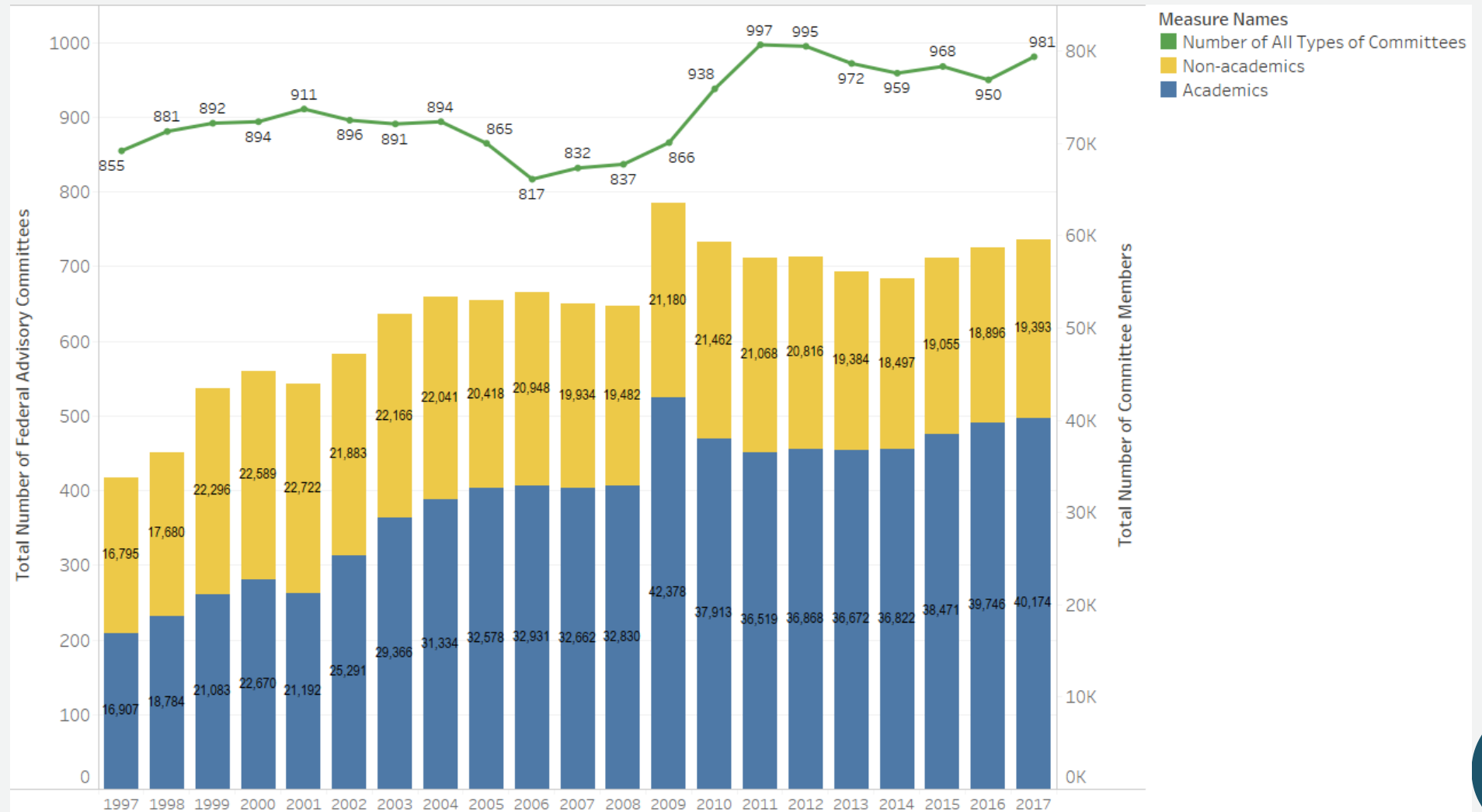
<p><b>faca_faca_AgencyHistory_199...</b></p> <ul style="list-style-type: none"> <li>AgencyHistory_Id</li> <li>Agency_Id</li> <li>Agency_Name</li> <li>Agency_No</li> <li>Agency_Abbr</li> <li>FiscalYear</li> <li>AgencyURL</li> <li>DeskOfficerNumber</li> <li>CMOOfficeAddress1</li> <li>CMOOfficeAddress2</li> <li>CMOOfficeCity</li> <li>CMOOfficeState</li> <li>CMOOfficeZipcode</li> <li>Classification</li> <li>Ceiling</li> <li>Hierarchy</li> <li>Complete</li> <li>LastUpdate</li> <li>CMOPositionTitle</li> <li>CMOPrefix</li> <li>CMOFirstName</li> <li>CMOMiddleName</li> <li>CMOLastName</li> <li>CMOSuffix</li> <li>CMOPhone</li> <li>CMOFax</li> <li>CMOEmail</li> <li>DMPositionTitle</li> <li>DMPrefix</li> <li>DMFirstName</li> <li>DMMiddleName</li> <li>DMLastName</li> <li>DMSuffix</li> <li>DMPhone</li> <li>DMFAX</li> <li>DMEmail</li> </ul> <p><b>1,047 rows</b></p>	<p><b>faca_faca_CommitteeHistory_...</b></p> <ul style="list-style-type: none"> <li>CommitteeHistory_Id</li> <li>Committee_Id</li> <li>Agency_Id</li> <li>FiscalYear</li> <li>Committee_Name</li> <li>Committee_No</li> <li>NewCommitteeThisFY</li> <li>TerminatedThisFY</li> <li>AgencyContinuanceRecommendation</li> <li>CommitteeRemarks</li> <li>SpecificTerminationAuthority</li> <li>EstablishmentAuthority</li> <li>SpecificEstablishmentAuthority</li> <li>CommitteeType</li> <li>Presidential</li> <li>CommitteeFunction</li> <li>CommitteeStatus</li> <li>Agency_No</li> </ul> <p><b>20,928 rows</b></p>	<p><b>faca_faca_InterestArea_1997t...</b></p> <ul style="list-style-type: none"> <li>InterestArea_Id</li> <li>CategoryFull</li> <li>Category</li> <li>Area</li> <li>InterestAreasID</li> </ul> <p><b>169 rows</b></p>	<p><b>faca_faca_memberhistory_199...</b></p> <ul style="list-style-type: none"> <li>CommitteeMemberHistory_Id</li> <li>CommitteeMember_Id</li> <li>Committee_Id</li> <li>FiscalYear</li> <li>Prefix</li> <li>Suffix</li> <li>OccupationOrAffiliation</li> <li>AppointmentStartDate</li> <li>AppointmentEndDate</li> <li>RepresentedGroup</li> <li>Chairperson</li> <li>AppointmentType</li> <li>AppointmentTerm</li> <li>PayPlan</li> <li>PaySource</li> <li>MemberDesignation</li> <li>IncludeInAnnualReport</li> <li>Committee_Name</li> <li>Agency_Id</li> <li>CommitteeType</li> <li>Presidential</li> <li>CommitteeFunction</li> <li>CommitteeStatus</li> <li>Agency_No</li> <li>EstablishmentAuthority</li> <li>type_of_service</li> <li>academics</li> <li>new_lastname</li> <li>new_firstname</li> <li>new_middlename</li> <li>new_affiliation_academics</li> <li>member_id_four</li> </ul>
		<p><b>faca_faca_CommitteeInterestA...</b></p> <ul style="list-style-type: none"> <li>CommitteeInterestAreaHistory_Id</li> <li>CommitteeInterestArea_Id</li> <li>Committee_Id</li> <li>InterestArea_Id</li> <li>InterestAreasID</li> <li>Committee_No</li> </ul> <p><b>10,034 rows</b></p>	
		<p><b>faca_faca_CommitteeReportHi...</b></p> <ul style="list-style-type: none"> <li>CommitteeReportHistory_Id</li> <li>CommitteeReport_Id</li> <li>Committee_Id</li> <li>FiscalYear</li> <li>ReportTitle</li> <li>IncludeInAnnualReport</li> <li>ReportLink</li> <li>IsPresidentialActionRequired</li> </ul>	
		<p><b>16,894 rows</b></p>	<p><b>1,303,085 rows</b></p>

# *Descriptive Findings: Federal Advisory Committee & Member History at a Glance*

# Annual Trend: All Types of Advisory Committees

Over the last two decades, more than 300,000 unique individuals have engaged in federal advisory service. Of all, approximately 60% are academics.

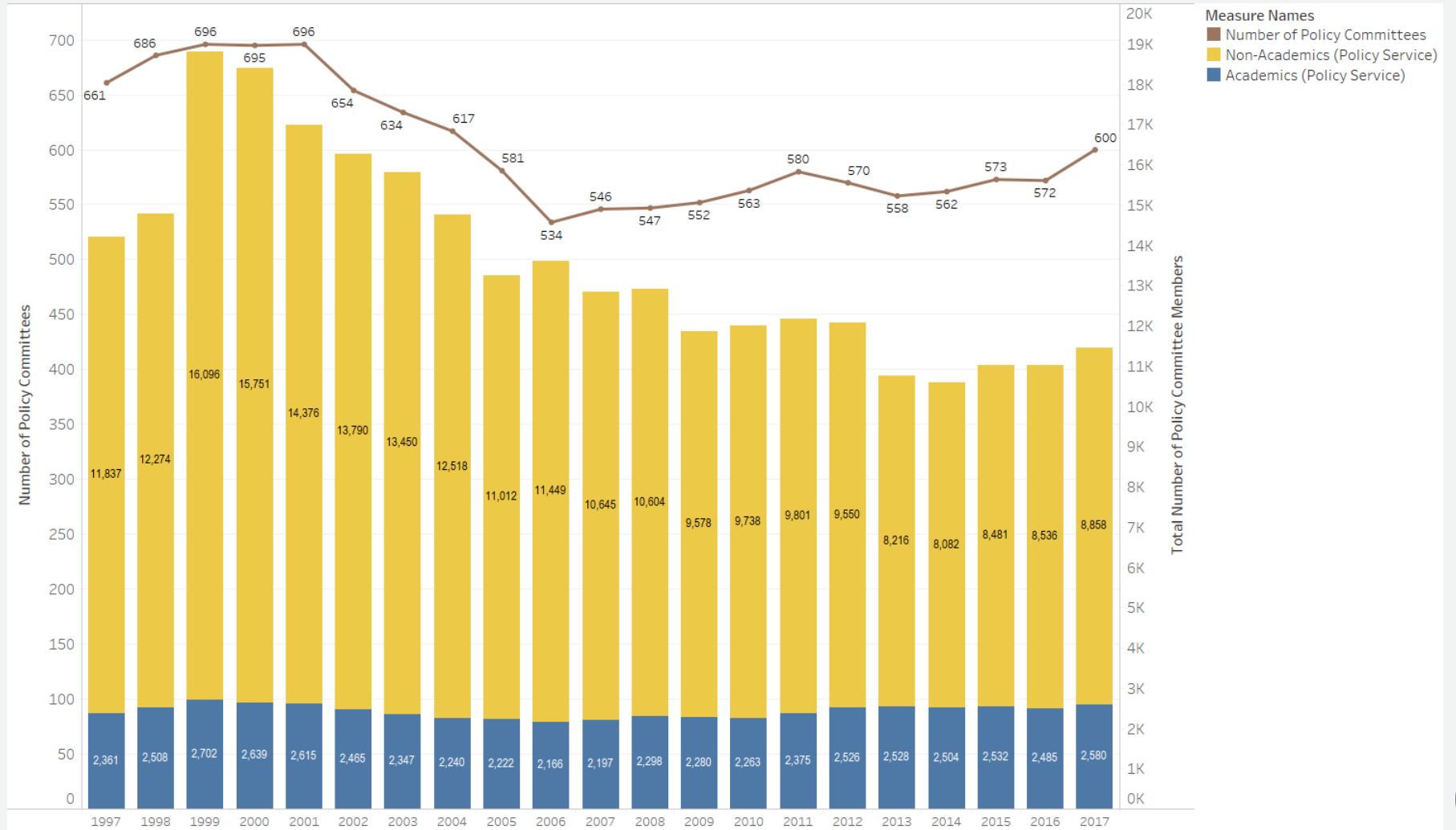
Each year with an average of 1,000 active advisory committees in existence, more than 60,000 members provided either policy or non-policy advice in over 40 broadly defined issue areas.



# Annual Trend: Policy Service

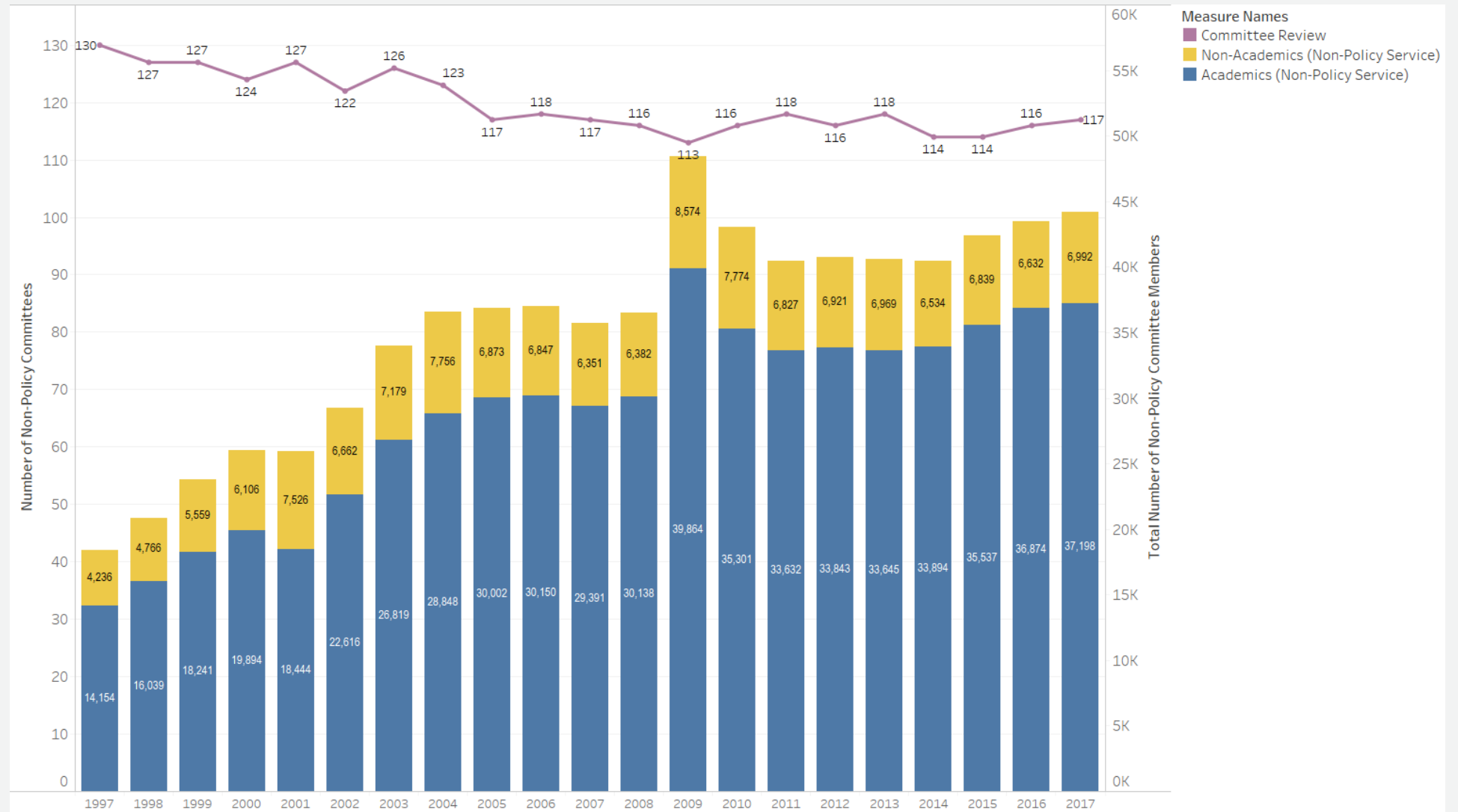
Re-grouping committee functions into a two broader categories: 1) 'national policy issue advisory board' as policy; 2) 'regulatory negotiations' as policy; 3) 'scientific technical program advisory board' as policy; 4) 'non scientific program advisory board' as policy; 5) 'grant review' as grant review; and, 6) 'special emphasis panel' as non-policy.

Despite steady decrease in number of individuals who served on policy advisory committees, academics have kept relatively stable spots in policy advisory committees (around 20%).



# Annual Trend: Non-Policy Service

An increased number of academics have provided non-policy (mostly grant review) service over the last two decades.

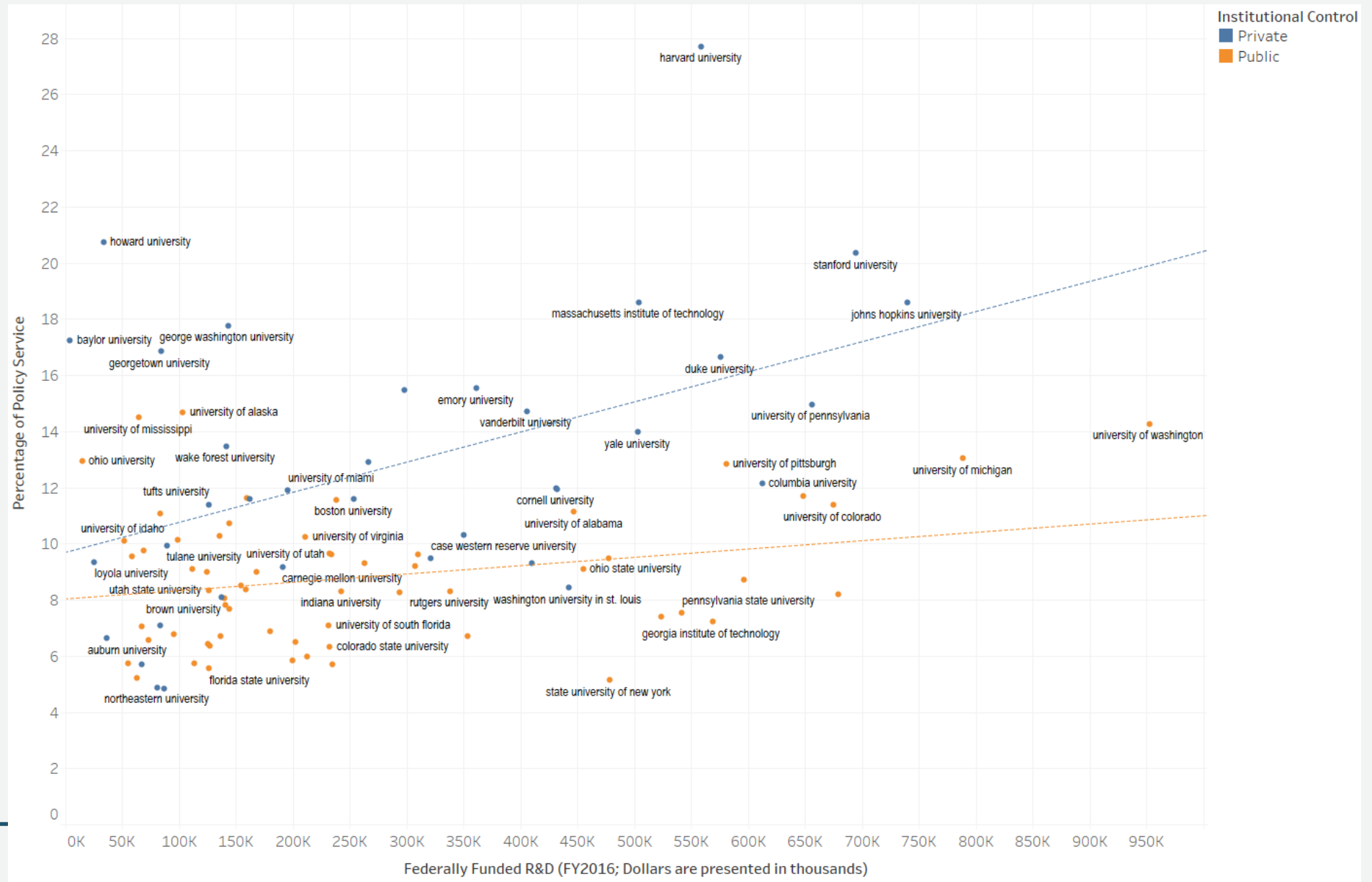


*The Nexus between University Research and  
Public Service with an Advisory Role*

# Relationship between Federally Funded R&D and Percentage of Policy Service

A plot includes 100 selected universities except for the UC and UT systems.

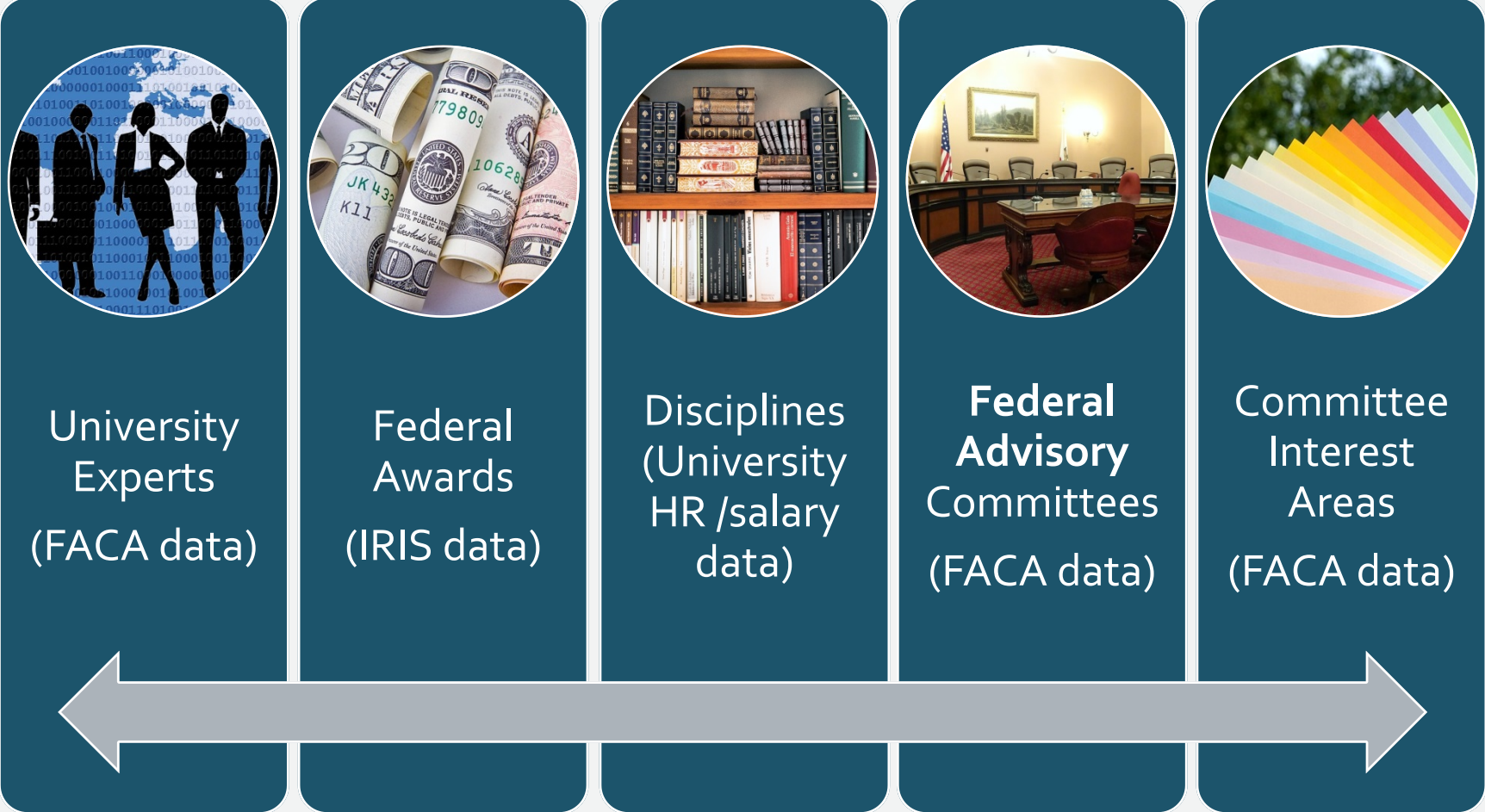
JHU's R&D is adjusted by removing Applied Physics Lab's R&D.





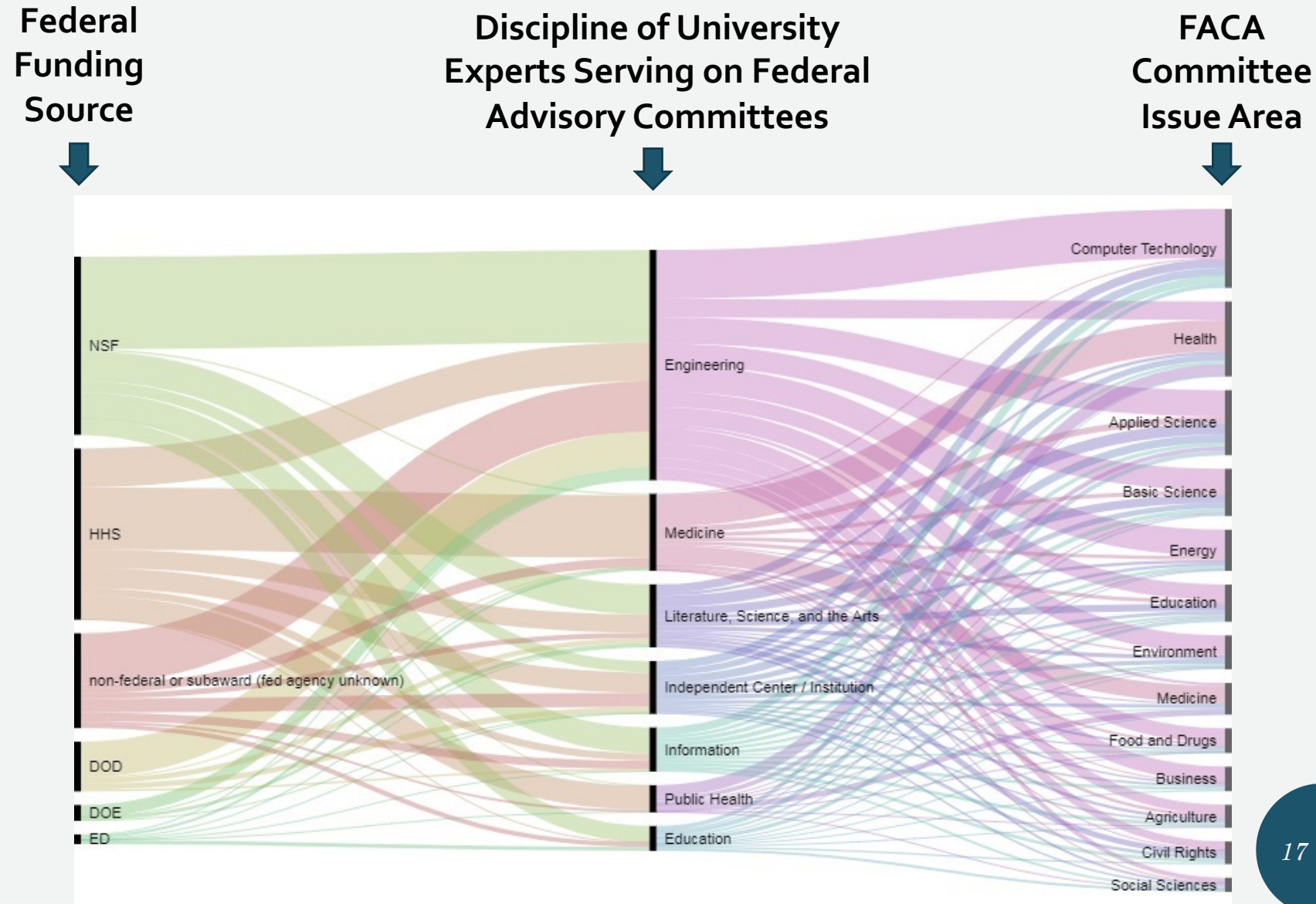
# *Ongoing and Future Work*

# Linking FACA to Other Data Sources



# Linking FACA to Other Data Sources

1. University salary data (*if publicly available*) help to verify university experts' affiliations that are often only partially available in FACA
2. IRIS UMETRICS data (*though restricted access*) help to integrate information on grants that fund university experts' research



Thank you.

Any questions about our research and/or  
IRIS UMETRICS data?

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