

**Pathways to Prosperity: Building a Data-Driven Workforce**

# **Institutionalizing Science & Technology Expertise Pipeline into State Government**

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# This session

- 1** Specific challenges in recruitment of highly-trained experts
- 2** Model mechanism in New Jersey
- 3** Examples from other states
- 4** Does it work?
- 5** What can you do

# Specific challenges in recruitment of S&T professionals

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**Highest level of S&T expertise mostly reserved for research-based positions in executive branch**

**Need for highly trained experts is ubiquitous**

**Examples from legislature**

**Long hiring process**

**Political & government knowledge gap - absence of political science education in S&T curricula**

# Eagleton Science and Politics Fellowship

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**One year fellowship for PhD-level scientists, engineers and healthcare professionals to serve as full-time in-house science aides in legislative and executive offices.**

- **Full-time & In-house**
- **Prepare reports, analyze existing evidence, compare & contrast approaches, nation-wide landscape analysis of policy solutions, novel suggestions, etc.**
- **No financial cost to the host office**
- **Highly selective training opportunity**
- **Politically articulate scientists & engineers**
- **Science Fellows receive a competitive stipend, health benefits, and are supported by pre-placement intensive training, regular check-ins, professional development and communities of Institute, University, and larger networks**

*The Eagleton Science and Politics Fellows have become an indispensable resource for our office.*

*Their knowledge of science and the scientific process helps inform policy makers and directly influences the formation of policy.*

*The fact that policy fellows have been hired by the Legislature (or offered jobs) speaks to the caliber of the fellows and the success of the program.*

*NJ Senate Majority Office*

## Past Placements – Legislative Branch (9 Science Fellows)

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## Past Placements – Executive Branch (20 Science Fellows)



# ESPF Alumni Institutions & Backgrounds

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# Eagleton Science and Politics Fellowship - Background on Launch

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## Initial funds - California Council on Science and Technology Planning Grant

## Champion – Assemblyman Andrew Zwicker (now Senator)

- PhD in physics
- Head of communications and public outreach at the Princeton Plasma Physics Laboratory
- Secured funds for 4 Science Fellows from NJ state budget

## Institutional home & support

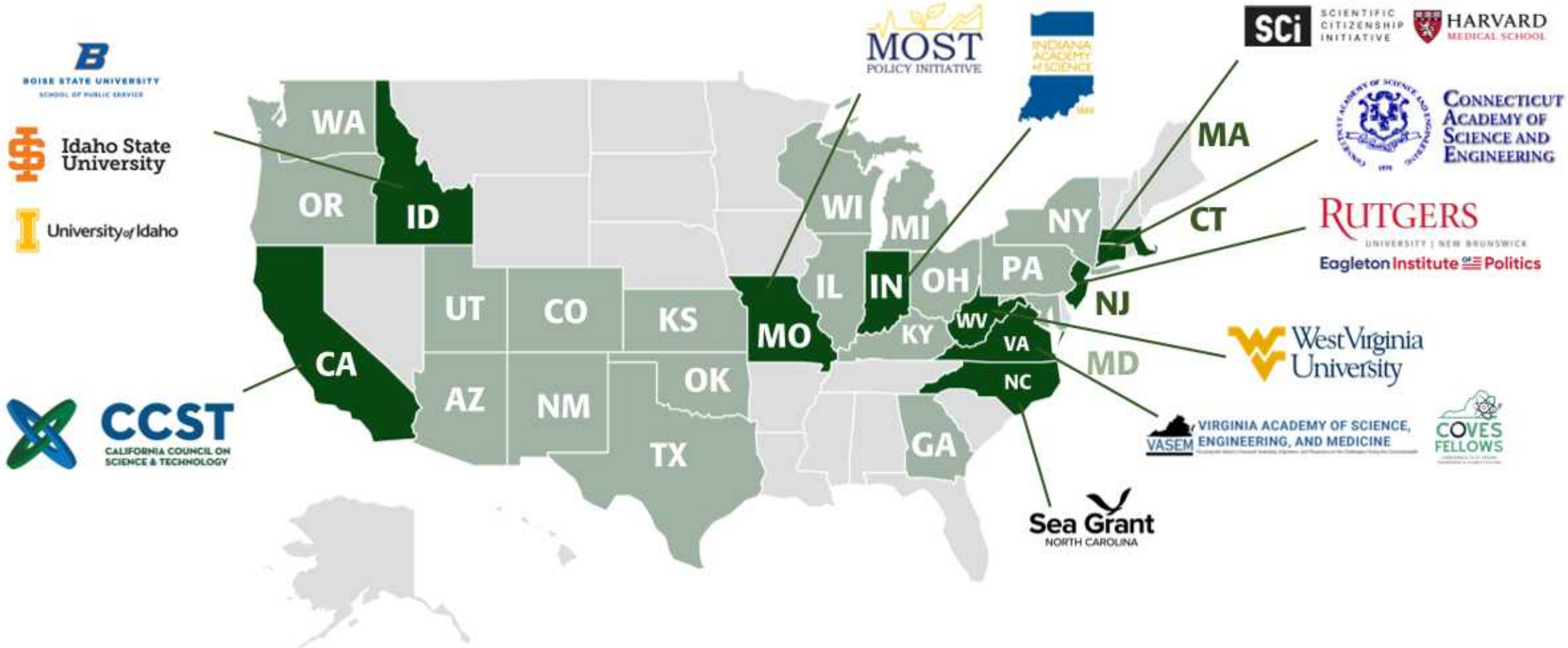
- Rutgers University/Eagleton Institute of Politics
- Previous work in the science & politics field
- 60+ history in administering state-level undergraduate and graduate fellowships



# Similar Active Programs Across the U.S.



# Similar Active Programs & Development Efforts Across the U.S.

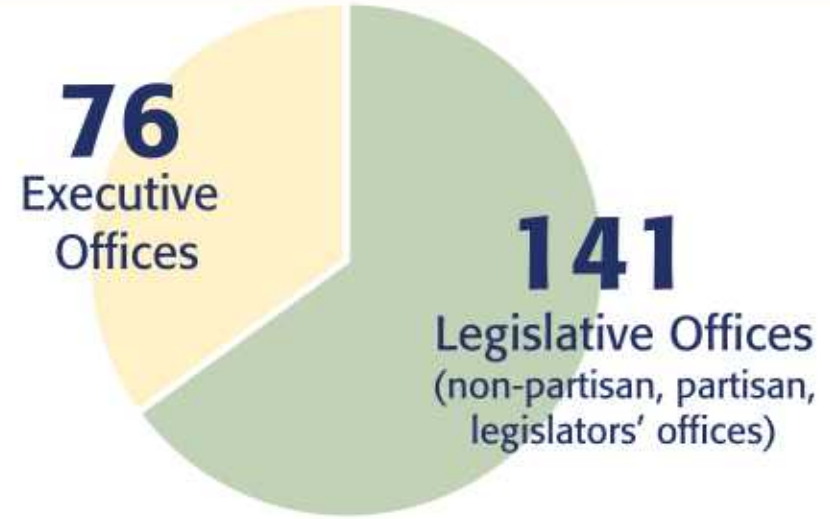


# ROI

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**DURING FELLOWSHIP** (6 active programs)

**217** Scientists & Engineers placed in state governments

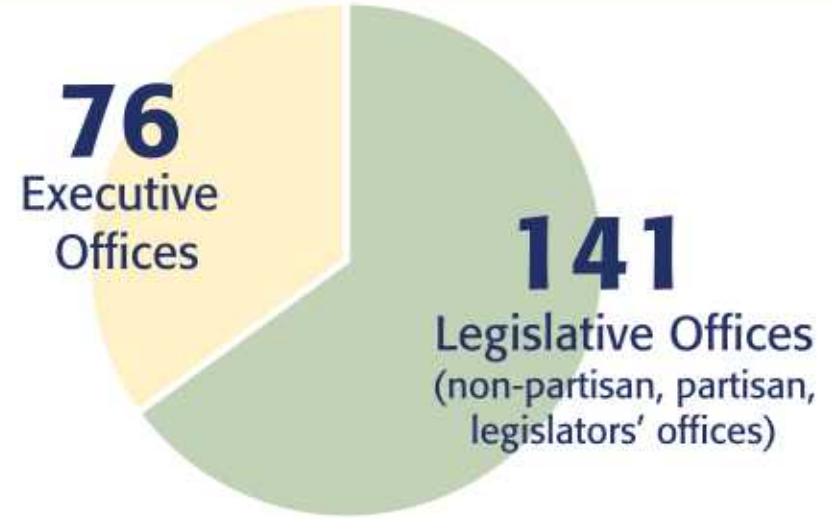


# ROI

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## DURING FELLOWSHIP (6 active programs)

**217** Scientists & Engineers placed in state governments



## POST FELLOWSHIP

STFP Alumni working in state government

**102** | **74**  
1 year after | Currently

**69%**  
STFP Alumni with policy-focused careers

# ROI

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## DURING FELLOWSHIP

Median Cost Per Science Fellow in 5 Active Programs

# \$111,000



Salary, benefits, professional  
development

Administrative  
Costs

# ROI

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## DURING FELLOWSHIP

Median Cost Per Science Fellow in 5 Active Programs

# \$111,000



Salary, benefits, professional development

Administrative Costs

## POST FELLOWSHIP

Median Cost Per ESPF Alumni Working in NJ State Government

# \$153,000



Salary

Fringe

1<sup>st</sup> Year Cost per PhD-level scientist in NJ state government

# \$129K-\$183K



Salary

Fringe

# Opportunities to increase S&T experts in state governments

Groups across the US are looking for your support

Approach institutions & individuals you trust

- Capacity to administer

State funding

- Landscape analysis
- Launch of fellowship



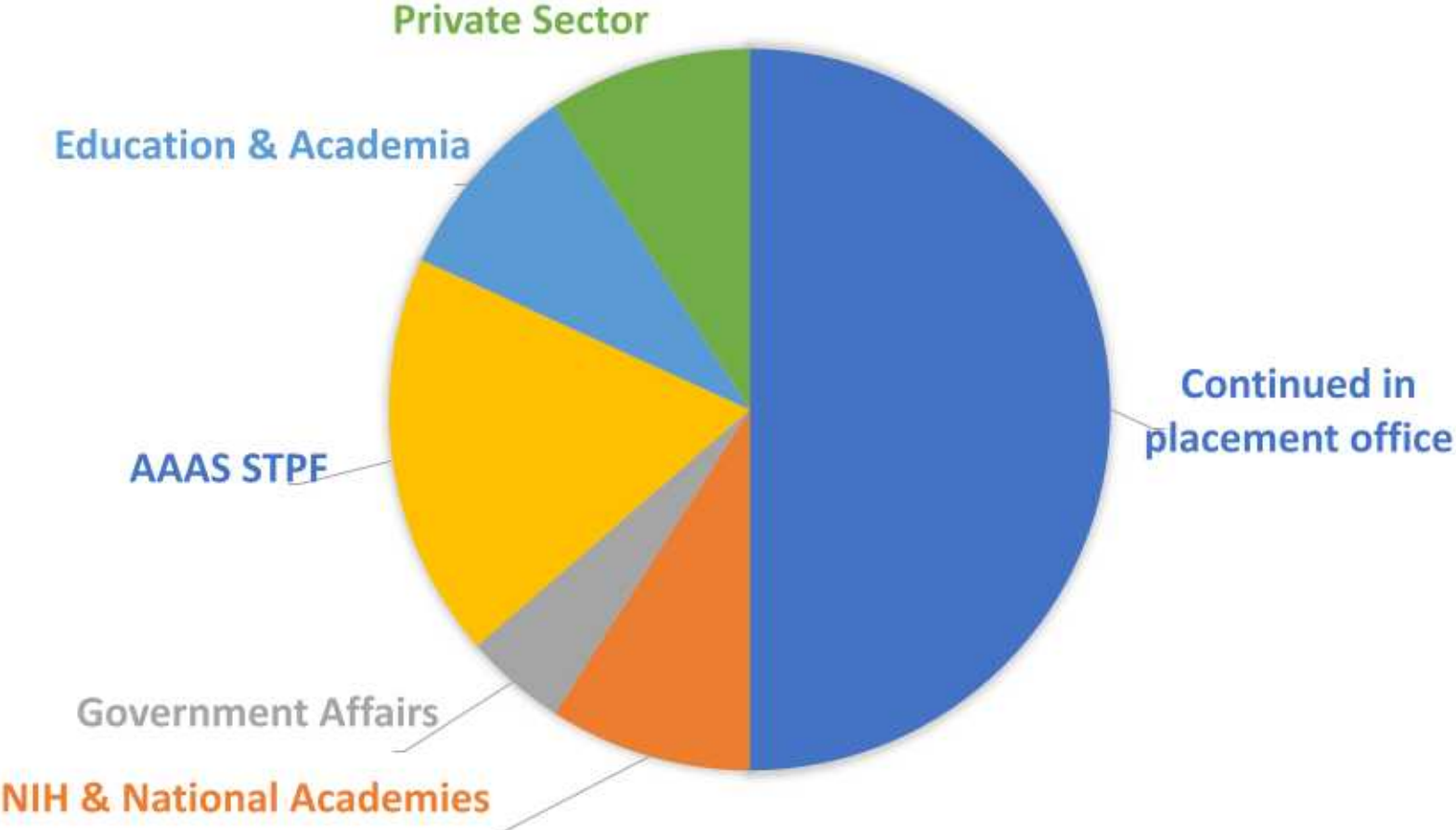
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# ESPF Alumni Careers

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# Evaluation

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## How do we know if the scientists have increased evidence-based policymaking?

- Quantitative methods are challenging
  - Science Fellows are in different government branches & environments
  - Opportunities and outputs vary
- Qualitative & process evaluation
  - Mid-year questionnaire for Science Fellows and supervisors
  - End of year testimonials
- Career trajectory and Science Fellow retainment
  - 7 out of 11 alumni have been retained
  - 2 are AAAS STPF fellows, 1 policy analyst at NIH, 1 program director at National Academies