

Trends in NINDS Extramural Grant Expenditures: Investigator-Initiated Research

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INTRODUCTION

Over the last several years, NINDS advisory and planning groups have discussed the extent to which the Institute directs its research portfolio and expressed concern that investigator-initiated research may not be sufficiently supported. However, this discussion has taken place in the absence of reliable data. We undertook an analysis to better understand the ways that NINDS influences its grant portfolio and how that has changed over time.

METHODS

To address differing opinions about how to define “investigator-initiated” grants, we developed a modular analysis approach that allows us to easily modify the analysis based upon these different definitions. In this approach, we defined 22 different categories based upon NINDS policies and programmatic influence. We then assigned each of the 71,000 grants that NINDS funded between 1995 and 2013 to only one category according to a predetermined category hierarchy (see figure 1). These categories can then be combined in different ways depending upon the precise definition of investigator-initiated research being used.

In the following example analysis, we grouped these categories into 3 classes of influence : 1) solicited grants responding to a funding opportunity announcement (FOA) with set aside funding or special review, such as a PAR, PAS, or RFA; 2) selected grants, which are investigator-initiated grants that NINDS selects for funding outside the payline or that go through a rigorous pre-submission selection process (for example, phase 3 clinical trials); and 3) grants not influenced by NINDS, which are investigator-initiated grants that NINDS pays within the payline or by priority score order.

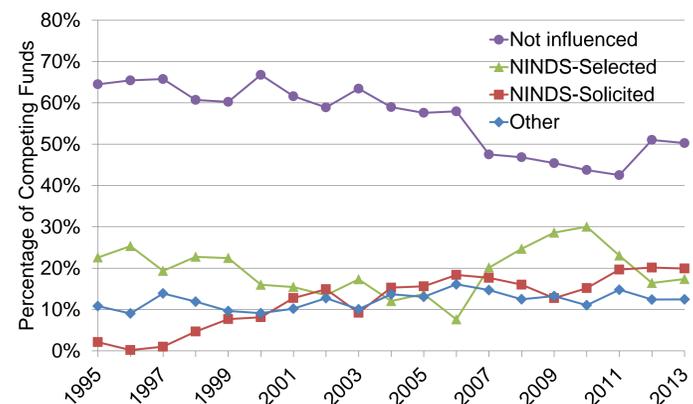
ARRA grants were not included in this analysis.

RESULTS

FIGURE 1: Categories in hierarchical order

1. SBIR/STTR
2. Training/Careers
3. Conferences
4. Clinical Trial Networks
5. Phase 3 Clinical Trials
6. Supplements
7. Bridge (R55/R56)
8. RFA
9. P01 PAR
10. PAR
11. PAS within payline
12. PAS outside payline
13. ESI/NI outside payline
14. HIV/AIDS outside payline
15. A0 outside payline
16. High Program Priority
17. Co-funds (non-NS admin)
18. Other outside payline
19. P01 not percentiled
20. Centers not percentiled
21. Other not percentiled
22. **Within payline no solicitation (traditional unsolicited grants)**

FIGURE 2: As percent of competing budget for investigator-initiated grants within the payline decreased, NINDS-selected grants increased



Classes of Influence

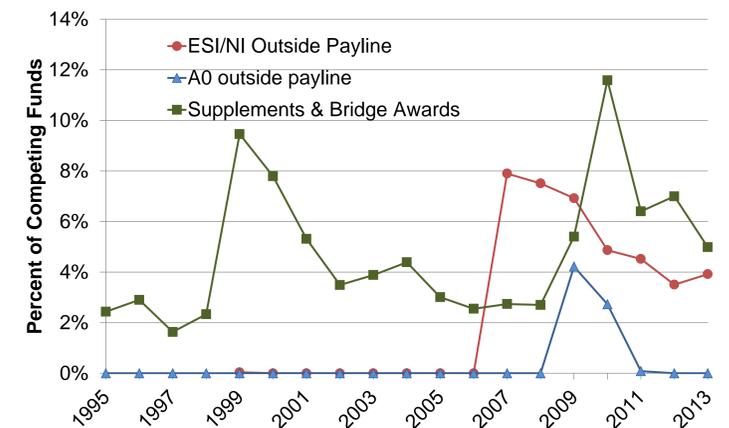
•**Not influenced by NINDS:** Within payline no solicitation, P01, Centers, and Other not percentiled (paid in score order)

•**NINDS-Selected:** High Program Priority, ESI/NI outside payline, A0 outside payline, HIV/AIDS outside payline, Supplements, Bridge, P01 PAR, Co-funds, Phase 3 Clinical trials

•**NINDS-Solicited:** PAR, PAS, RFA, Clinical Trial Networks

•**Other:** SBIR/STTR, Training/Careers, Conferences

FIGURE 3: Increase in NINDS-selected grants due to an increase in 1-year awards and NINDS policies for ESI/NI and A0 applications



Conclusion

This modular approach has two major advantages: 1) categories can easily be combined in different ways depending on the specific question being asked, making the initial work in sorting grants easily adaptable to a variety of other analyses; 2) the method allows us to understand how individual categories affect the overall influence NINDS exerts over its portfolio.

We have further expanded this analysis to ask a variety of questions, including how funding has changed in real dollars and inflation-adjusted dollars, and how total funding (not just competing awards as is illustrated in this poster) has changed over time. We have also integrated this analysis with parallel analyses of the scientific content of our portfolio (see Trends in NINDS Extramural Grant Expenditures: Basic and Applied Research, which is also being presented today).

The NINDS leadership and Council have found this analysis strategy to be very useful in shaping Institute programs and policies, and we will continue provide this information for each fiscal year.