

ESTIMATING THE IMPACT OF PUBLIC GRANTS ON RESEARCHER PRODUCTIVITY: AN ANALYSIS OF BIOMEDICAL RESEARCH IN JAPAN, 2007 TO 2017

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Abstract

As Japan's national research output faces decline, the role of public research grants is of critical importance. This study combines data on all Grants-in-Aid for Scientific Research in biomedical fields from 2007 to 2017 with time- and field-normalized bibliometric data on the publications produced therefrom. Analysis reveals a 6.8% increase in the impact of research per million yen (9,090 USD) of funding, which levels off as funding increases. Researcher productivity, however, peaks at about 1.6 million yen (14,500 USD) per year. Differences in acceptance rates over time are exploited to reveal that the impact of receiving a boost in funding produces only a limited increase in a researcher's output, although positive spillover effects are seen in the aggregate. The study also finds that the top 10 universities produced 15% more publications with 14% greater impact per million yen of grant than other institutions, which is in sharp contrast to previous research on NIH grants in the U.S. Finally, grants of the lowest amount (type C) produced 45% more publications and 25% greater impact per million yen than other grant categories. These findings provide significant insights for future funding policies.