SUPPORTING STATEMENT U.S. Department of Commerce Bureau of Economic Analysis 2017 Biomedical Research and Development Price Index Expenditure Survey OMB CONTROL Number 0608-0069

B. Collection of Information Employing Statistical Methods

1. Describe (including a numerical statement) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

Survey respondents are selected based on award levels, which determine the contributing weight of the respondent in the biomedical research and development price index.

BEA proposes to survey 150 organizations that receive NIH biomedical research awards. This sample will include the top 100 organizations in awards received and a random 50 organizations in awards received from the remaining award recipients.

	Number of	Percent of	Awards	Percent of
	entities	entities		awards
Universe	2,383	100.00	\$22,166,274,661	100.00
Sample	150	6.29	\$18,060,897,244	81.48
Top 100	100		\$17,027,902,856	76.82
Random 50	50		\$1,032,994,388	4.66
	Number of	Percent of	Awards of	Percent of
	respondents	sample	respondents	awards sampled
Response rates				
FY2015	123	82.00	\$14,988,355,380	82.92
FY2016	121	80.67	\$17,065,349,174	94.49

BRDPI Survey Universe, Sample, and Response Rates

Recently, survey response rates have been steady as respondents have become more familiar with the survey and BEA has made efforts to communicate the importance of the survey. BEA expects this trend to continue in the future.

Prior analysis conducted by NIH has demonstrated that there are no biases in selecting the largest award recipients—that the survey results for smaller recipients, on average is not significantly different from those of larger recipients. Thus, sampling the recipients who receive the most funding simply raises the representativeness of the survey without introducing any systematic biases.

It is also important to note that recipients receiving small award amounts from NIH are not necessarily smaller organizations in terms of the amount or breadth of their R&D activities. It is more often the case that those organizations that receive smaller funding from NIH receive, instead, larger funding for biomedical research from other science agencies, e.g., from the National Science Foundation, the Department of Energy, etc. They may also receive funds from private organizations, especially large pharmaceutical firms. Thus, the connection between size of NIH awards and size of R&D operations is extremely weak, implying those organizations that received fewer NIH awards are not likely to be fundamentally different from those that received higher levels of funding.

NIH has stated that current response rates are high enough to generate data of sufficient accuracy for their intended purposes. Their statement is attached below.

NIH Statement:

The National Institutes of Health (NIH) is satisfied with the survey of institutions receiving NIH awards, conducted by the Bureau of Economic Analysis at Department of Commerce. We hope that OMB will clear the survey under the Paperwork Reduction Act for another three years.

The survey provides timely, essential data on the cost structure of award recipients, which is used to estimate expenditure weights for the Biomedical Research and Development Price Index (BRDPI). The response rates are currently sufficient and coverage is broad enough to provide data of satisfactory quality for NIH purposes. NIH would be adversely affected if the expenditure survey were to be interrupted.

The BRDPI measures changes in the weighted average of the prices of all the inputs (e.g., personnel services, various supplies, and equipment) purchased with the NIH budget to support research. The weights (including those derived from the survey of extramural institutions) are used to construct the index to reflect the actual pattern (or the proportion) of total NIH expenditures on each of the types of input purchased.

The BRDPI supports a comprehensive analysis of trends in NIH expenditures and the development of future budgets. These analyses inform policy decisions affecting the budgets for intramural labs as well as the average size of grant awards that support extramural research.

2. <u>Describe the procedures for the collection, including: the statistical methodology for</u> stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

See answer to number B.1 above.

Collecting data at a less than annual frequency would be more difficult, as the data to be collected are mostly available on an annual basis. In addition, for purposes of the BRDPI, only aggregated annual data will be requested from the respondents.

3. <u>Describe the methods used to maximize response rates and to deal with</u> <u>nonresponse. The accuracy and reliability of the information collected must be shown to be</u> <u>adequate for the intended uses. For collections based on sampling, a special justification</u> <u>must be provided if they will not yield "reliable" data that can be generalized to the</u> <u>universe studied.</u>

With the assistance of NIH, non-respondents are contacted through follow-up calls and email to encourage response. Response rates have not differed substantially across strata and have been trending upward.

To ensure accuracy and completeness, all reports are carefully examined for errors and omissions.

4. <u>Describe any tests of procedures or methods to be undertaken. Tests are</u> <u>encouraged as effective means to refine collections, but if ten or more test respondents are</u> <u>involved OMB must give prior approval.</u>

In 2004, nine organizations were contacted to obtain their feedback on the survey form. Seven of these organizations responded and expressed their willingness to participate in the survey.

5. <u>Provide the name and telephone number of individuals consulted on the statistical</u> <u>aspects of the design, and the name of the agency unit, contractor, grantee, or other person</u> <u>who will actually collect and/or analyze the information for the agency.</u>

The proposed survey is designed and will be conducted by the Chief of the Government Fixed Assets Branch, Government Division, National Economic Accounts Directorate, Bureau of Economic Analysis (BEA).

For further information, contact:

Jennifer A. Bennett Chief, Government Fixed Assets Branch Government Division, NEA BEA, Department of Commerce Phone: (301) 278-9769 E-mail: jennifer.bennett@bea.gov