

Supporting Statement
Bureau of Economic Analysis
2012 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. The potential respondent universe of organizations receiving biomedical research and development funds from NIH is 3,091 based on the latest available awards data from NIH, which pertains to FY 2007. Out of this potential number of NIH award recipients, a sample of 150 will be selected to participate in the proposed survey. The 150 organizations will include the top 100 academic organizations in awards received and the top 50 nonacademic organizations in awards received. Based on awards data for FY 2007 by type of organization (the most recent data available from NIH at this writing), academic organizations received \$16.1 billion in awards, compared with \$6.5 billion received by nonacademic organizations. The top 100 academic recipients received \$14.0 billion, representing 86.9 percent of all awards going to academic organizations. The top 50 nonacademic organizations received \$3.6 billion, representing 56.3 percent of all awards going to nonacademic institutions. The combined sample of 150 organizations will thus account for \$17.7 billion in total NIH awards, representing 78.1 percent of all awards given in FY 2007.

In the most recent survey in FY 2010, the response rate weighted by award amount was 75.89 percent. This response rate is very close to the OMB Standards for Statistical Surveys best practice guideline of 80 percent. The survey is a relatively new collection and response rates have increased significantly as respondents have become more familiar with it. BEA expects this trend will continue in the future. At the current rate of increase, the response rate will be greater than 80 percent within two years.

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 which received 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, the Department of Defense, the National Aeronautics and Space Administration, etc. They may also receive funds from private organizations, especially large pharmaceutical firms, or may even receive additional NIH funds secondarily as subcontractors on NIH awards given to other organizations (which would not appear in the NIH data from which the sample is derived). 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 conducted by the Bureau of Economic Analysis, Department of Commerce of institutions that receive awards from the NIH. 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 used to estimate expenditures weights for the Biomedical Research and Development Price Index (BRDPI). It currently has sufficient response rates and coverage to provide data of satisfactory quality for our 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 or 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 inputs purchased.

The BRDPI supports analysis of trends in NIH expenditures and the development of future budgets. It informs such policy decisions as by how much to adjust the budgets for intramural labs and the average size of extramural awards to compensate for inflation.

2. **Describe the procedures for the collection, including: the statistical methodology for 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. **Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield “reliable” data that can be generalized to the universe studied.**

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

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

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

For further information, contact:

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