Andrew Reamer, Ph.D., Research Professor

Bureau of Economic Analysis
Surveys
Benchmark Survey of U.S. Direct Investment Abroad (BE-10)

Bureau of Labor Statistics
Surveys
Current Population Survey

Census Bureau
Surveys
American Community Survey Content Review

National Center for Science and Engineering Statistics
Surveys
Microbusiness, Innovation, Science and Technology (MIST) Survey
October 14, 2014

Ms. Patricia Abaroa  
Ms. Barbara K. Hubbard  
Office of the Chief, Direct Investment Division  
U.S. Department of Commerce, Bureau of Economic Analysis  
Washington, DC 20230.

Mr. Paul Bugg  
Office of Management and Budget, OIRA  
Paperwork Reduction Project 0608–0049  
Washington, DC

Dear Ms. Abaroa, Ms. Hubbard, and Mr. Bugg,

I appreciate the opportunity to respond to the request for comments regarding the design of the Benchmark Survey of U.S. Direct Investment Abroad (BE-10) of the U.S. Bureau of Economic Analysis, as published in the Federal Register on August 14 and September 9, 2014. As a research professor at the George Washington Institute of Public Policy, George Washington University, I focus on federal policies that support U.S. economic competitiveness. From that perspective, I believe that the BE-10 survey is a necessary and important data collection effort. The survey gathers data essential for full understanding of the U.S. position in the global economy and fulfills the President’s data collection responsibilities under 22 U.S. Code § 3103.

That said, I believe that 2014 BE-10 survey design and utilization could be revised to increase its value and reduce survey respondent burden—particularly with regard to sales, revenue, and employment information.

Context: Efforts to Map Global Value Chains and Measure Trade in Value-Added

I’m particularly interested in seeing the BE-10 survey facilitate the mapping of global value chains (GVCs) and the measurement of trade in value-added (TiVA). As noted in last year’s Economic Report of the President:

[R]ecent advances in information technology along with improving industrial capabilities in emerging markets have made it profitable to segment production processes and relocate them throughout the world, creating global value chains. This shift has made it increasingly difficult to interpret international trade statistics. In the past, it was safe to assume that most if not all of the value of a traded product was created in the country that exported it. Thus, a country’s industrial capabilities could be judged by the content of exports, trade rules could be tied to gross levels of
trade in specific products, and exports could be directly related to domestic job creation. With the rise of global value chains, however, one can no longer be sure how much of the value of a product or service is added in the country that declares it as an export. . . .

Official trade statistics are measured in gross terms—the amount the importer pays the exporter for the good. That approach is appropriate for adding up a country’s balance of payments made to, and received from, the rest of the world. To determine how much value an exporter adds to a good or service traded internationally, however, one must subtract the value of intermediate inputs supplied by other countries, including the country importing it. Removing these intermediate flows from exports gives a measure of “value-added” trade.¹

In the absence of official trade in value-added (TiVA) measures, Congress, Administration policymakers, and federal policy stakeholders cannot clearly ascertain the competitive role, advantages, and disadvantages of individual U.S. industry sectors. As a result, they are hampered in the development of legislation, regulations, policies, programs, and trade agreements that can effectively support the nation’s economic competitiveness.

In response to this problem, economists in several U.S. universities and the U.S. International Trade Commission recently pioneered “top-down” methods for creating multi-national input-output tables that estimated TiVA through integrating individual national input-output tables with bilateral trade data. Since 2011, these methods have been enhanced and implemented internationally through the efforts of the European Commission, the Organisation for Economic Cooperation and Development (OECD), the World Trade Organization (WTO), and the UN Conference on Trade and Development (UNCTAD).

At the same time, the global community recognizes that modeling of TiVA and mapping of GVCs can be made significantly more reliable through the incorporation of firm- and establishment-specific international transaction data collected by:

- linking of Business Register records with trade transactions and
- firm surveys that capture the breadth and nature of relations cross-country, by business functions.

Again, U.S. researchers have been leaders in the development of these “bottom-up” methods. In the first category, the Census Bureau created a Longitudinal Foreign Trade Transactions Database. In the second category, researchers such as Tim Sturgeon, Gary Gereffi, and Clair

Brown have developed approaches to capturing economic activity by business function. Sturgeon recently served at the primary consultant to the European Commission on a trade and globalization data collection plan.

Further, the United Nations Statistical Commission has convened a Friends of the Chair (FoC) Group on International Trade and Economic Globalization to develop an accounting framework for trade and globalization that reflects GVCs and TiVA. In addition, the Conference of European Statisticians of the UN Economic Commission of Europe (UNCE–CES) created a Task Force on Global Production (TFGP) to address issues in measuring global production, including factoryless good producers (FGPs), intellectual property ownership, and trade in services.

Two weeks ago, all the major parties met in Mexico to review activities and coordinate efforts.

BEA has been a participant in these multi-national efforts. However, it has not served a primary leadership role. Further, it has not actively identified and implemented approaches for organizing the U.S. system of national accounts to map GVCs or measure TiVA. BEA’s priority focus on traditional trade measures was affirmed by Robert Yuskavage at a 2011 World Bank Trade workshop in 2011. Mr. Yuskavage then emphasized BEA’s “top-down” role in the TiVA measurement effort: “BEA will support the development of value added measures by continuing to improve the accuracy and timeliness of its input-output accounts for the United States.”

To enable sound trade analysis and competitiveness policies, I encourage OMB to convene the primary federal users of trade data (e.g., Council of Economic Advisers, Office of the U.S. Trade Representative, National Economic Council, International Trade Commission, International Trade Administration) and the primary federal producers of trade data (including BEA, Census, the Bureau of Labor Statistics, and Customs and Border Protection) to coordinate development of the statistical means for mapping GVCs and measuring TiVA through a combination of “top-

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down” and “bottom-up” means. Such an effort would seek parallel improvements in a number of data collection instruments, including the BE-10.

Observations on the Proposed BE-10 Survey

I suggest that the BE-10 survey would benefit from substantial revision of the forms, both to increase the value of data collected and to decrease the burden on respondents.

In particular, I suggest that the BE-10 instrument be designed in a way that allows data collection, publication, and analysis to be consistent with the emerging international accounting protocols noted above. In light of the recent OMB decision to postpone measurement of the FGP phenomenon, I believe such a redesign would allow federal statistical agencies to measure the FGP phenomenon reliably and without political misinterpretation.

Such an approach would seek to systematically capture data on firm sales and revenue by:

- Business functions,
- ISI code,
- Imports and exports by country, and
- Distribution of sales and purchases by type of customer (in-country affiliated, in-country unaffiliated, out-of-country affiliated, out-of-country unaffiliated),

with equal emphasis on goods and services, consistent with BEA’s congressionally mandate to collect trade in services statistics.

As currently drafted, the BE-10 forms are not systematic in the collection of these data. Some data are not collected (e.g., secondary business functions other than R&D and contract manufacturing) or collected in less detail (e.g., trade in services). Other data (e.g., sales or revenues) are requested in different places from different perspectives (e.g., industry, nature of customer). The instruments seem to proceed in a complex, disparate, and idiosyncratic fashion. The nature and flow of questions in BE-10A and BE-10B differs significantly in places. The result, I perceive, is a burden on the respondent to have to repeatedly interpret complex instructions to calculate seemingly ad hoc slices of data.

I believe data collection could be expanded and improved, and the burden on the respondent could be reduced, by a reorganization of the instrument so that the respondent carries out one

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8 While BE-10B asks for information on sales destinations, BE-10A does not. I wouldn’t perceive this as a problem if BEA has U.S. reporter sales destination data from other sources.
large, integrated set of calculations, primarily in a matrix format, rather than a long series of smaller ones.

As part of an effort to improve the design of the 2014 BE-10 survey instrument, I encourage BEA to engage the services of the Census Bureau’s Usability Laboratory, if it has not already done so.

Moving beyond survey design, I believe that the BE-10 data are underutilized for research purposes. Despite the allowance made in 22 USC 3014(d), the Census Bureau has not received the authority to incorporate previous Direct Investment Abroad surveys into its Longitudinal Business Database. The combination would be a powerful research resource. Consequently, I encourage OMB to assist BEA in making BE-10 data available to the Census Bureau’s Center for Economic Studies.

I appreciate the opportunity to provide comments and hope you find them helpful.

Sincerely,

Andrew Reamer
Research Professor
September 12, 2014

Carol Rowan, BLS Clearance Officer
Division of Management Systems, Bureau of Labor Statistics
Room 4080, 2 Massachusetts Avenue, NE
Washington, DC 20212

Dear Ms. Rowan,

I am pleased to provide comments on the revisions to the Current Population Survey (CPS) proposed by the Bureau of Labor Statistics (BLS), as described in the Federal Register on July 17, 2014. As a research professor at the George Washington Institute of Public Policy, George Washington University, I focus on federal policies that promote competitiveness and innovation. I also serve on expert advisory panel of the National Center for Education Statistics’ Interagency Working Group on Expanded Measures of Enrollment and Attainment, which provided advice on the CPS revisions currently proposed. From these perspectives, I support the plan to add three questions on certification and licensure and the remove three questions on educational attainment.

U.S. economic competitiveness depends on the nation’s capacity to provide the skilled labor that businesses require to be successful. For this reason, the Lumina Foundation, the nation’s largest philanthropic foundation with a sole focus on increasing higher education attainment, has set a goal of increasing the proportion of Americans with a postsecondary credential valued by the market—including degrees, industry-recognized certifications, and licenses—to 60 percent by 2025.1 Educators, policy analysts, business leaders, and elected officials are placing increasing emphasis on the importance of teaching workers the particular competencies sought by businesses and verifying through industry-recognized certifications and government licenses that workers indeed have the competencies for which they were trained.2 Recent research indicates that occupations with industry-recognized certifications are less likely to experience “credential inflation” than occupations without such certifications.3

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1 Lumina Foundation, “Lumina Foundation Strategic Plan 2013-2016.”
2 See for instance, Robert Mendenhall, “What is Competency-Based Education,” Huffington Post, September 5, 2012; the Competency Model Clearinghouse hosted by the U.S. Employment and Training Administration; the efforts of the National Network of Business and Industry Associations, working through the ACT Foundation; and The White House, “Ready to Work: Job-Driven Training and American Opportunity,” July 2014.
3 “Jobs resist credential inflation when there are good alternatives for identifying skill proficiency. Many health care and engineering technician jobs, such as Respiratory Therapists, show little sign of upcredentialing. That is likely because those positions are governed by strict licensing or certification standards, well-developed training programs, or by measurable skill standards such that employers do not need to look at a college degree as a proxy for capability.” Burning Glass, “Moving the Goalposts: How Demand for a Bachelor’s Degree Is Reshaping the Workforce,” September 2014.
However, at present, the data do not exist that would enable:

- the Department of Labor, the Department of Education, philanthropic foundations, and policy researchers to see the relative prevalence and value of non-degree credentials among the adult population;
- businesses to more clearly see the utility of competency-based training for competitiveness;
- educators and trainers to identify the workforce outcomes of graduates with competency-based credentials compared to graduates without such credentials;
- students and workers to make informed decisions about competency-based career paths and education and training programs; and
- federal, state, and local workforce and education agencies to make investments in competency-based education and training activities with a high likelihood of success.

The proposed addition of the three questions on certification and licensure to the CPS would make a substantial contribution to filling this data gap and ameliorating its consequences. Implementation would allow policymakers and researchers to immediately see the prevalence of certification and licensure in the adult population and the correlations between such credentials and job status and characteristics. The new questions would provide a very valuable baseline complement to the far more detailed household data on competency-based credentials and experience that the National Center for Education Statistics plans to collect periodically.

I support creating room on the CPS instrument for the new questions by removing the three questions on graduate education, which I don’t find useful for the purposes of competitiveness policy.

I appreciate the opportunity to comment on the proposed CPS revisions and hope you find these thoughts helpful.

Sincerely,

Andrew Reamer
Research Professor
December 3, 2014

Office of Information and Regulatory Affairs
Attn: OMB Desk Office for DOL-BLS
Office of Management and Budget, Room 10235
725 17th St., NW
Washington, DC 20503

Submitted via email: OIRA_submission@omb.eop.gov

To whom it may concern,

I am pleased to provide comments on the revisions to the Current Population Survey (CPS) proposed by the Bureau of Labor Statistics (BLS), as described in the Federal Register on November 3, 2014. As a research professor at the George Washington Institute of Public Policy, George Washington University, I focus on federal policies that promote competitiveness and innovation. I also serve on expert advisory panel of the National Center for Education Statistics’ Interagency Working Group on Expanded Measures of Enrollment and Attainment, which provided advice on the CPS revisions currently proposed by BLS. From these perspectives, I support the agency’s request to add three questions on certification and licensure and the remove three questions on educational attainment.

U.S. economic competitiveness depends on the nation’s capacity to provide the skilled labor that businesses require to be successful. For this reason, the Lumina Foundation, the nation’s largest philanthropic foundation with a sole focus on increasing higher education attainment, has set a goal of increasing the proportion of Americans with a postsecondary credential valued by the market—including degrees, industry-recognized certifications, and licenses—to 60 percent by 2025.¹ Educators, policy analysts, business leaders, and elected officials are placing increasing emphasis on the importance of teaching workers the particular competencies sought by businesses and verifying through industry-recognized certifications and government licenses that workers indeed have the competencies for which they were trained.² Recent research indicates that occupations with industry-recognized certifications are less likely to experience “credential inflation” than occupations without such certifications.³

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¹ Lumina Foundation, “Lumina Foundation Strategic Plan 2013-2016.”
² See for instance, Robert Mendenhall, “What is Competency-Based Education,” Huffington Post, September 5, 2012; the Competency Model Clearinghouse hosted by the U.S. Employment and Training Administration; the efforts of the National Network of Business and Industry Associations, working through the ACT Foundation; and The White House, “Ready to Work: Job-Driven Training and American Opportunity,” July 2014.
³ “Jobs resist credential inflation when there are good alternatives for identifying skill proficiency. Many health care and engineering technician jobs, such as Respiratory Therapists, show little sign of upcredentialing. That is likely because those positions are governed by strict licensing or certification standards, well-developed training
However, at present, data sources do not exist that allow:

- the Department of Labor, the Department of Education, philanthropic foundations, and policy researchers to see the prevalence of non-degree credentials in the adult population and the economic value of those credentials;
- businesses to more clearly see the utility of competency-based training for competitiveness;
- educators and trainers to identify the workforce outcomes of graduates with competency-based credentials compared to graduates without such credentials;
- students and workers to make informed decisions about competency-based career paths and education and training programs; and
- federal, state, and local workforce and education agencies to make investments in competency-based education and training activities with a high likelihood of success.

The proposed addition of the three questions on certification and licensure to the CPS would make a substantial contribution to filling this data gap and enabling labor market participants to make more informed and effective decisions. The new questions also would provide a valuable baseline complement to the far more detailed household data on competency-based credentials and experience that the National Center for Education Statistics plans to collect in 2015.

I support creating room on the CPS instrument for the new questions by removing the three questions on graduate education, which I don’t find useful for the purposes of competitiveness policy.

I appreciate the opportunity to comment on the proposed CPS revisions and hope you find these thoughts helpful.

Sincerely,

Andrew Reamer
Research Professor
December 30, 2014

Ms. Jennifer Jessup, Departmental Paperwork Clearance Officer
Department of Commerce, Room 6616
14th St. and Constitution Ave., NW
Washington, DC 20230

Via email: jjessup@doc.gov

Dear Ms. Jessup,

I appreciate the opportunity to respond to the Census Bureau’s request for comments regarding the results of the American Community Survey (ACS) Content Review results, as published in the *Federal Register* on October 31, 2014. As a research professor at the George Washington Institute of Public Policy, George Washington University, I focus on federal policies that support U.S. economic competitiveness. From that perspective, I believe that the ACS is an essential resource for enabling the nation’s economic well-being. My research indicates that the structured use of ACS data is very deeply embedded in the operations of the public and private sectors and, as a result, substantially improves the functioning of the nation’s economic markets.

Regarding the Census Bureau’s proposal to eliminate seven questions from the 2016 ACS, I support the elimination of question H6 and the continuation of questions P12 (field of bachelor’s degree), P21 (recent marital activity), and P23 (year of marriage). I have no opinion on the retention of P22 (number of times married).

In particular, I believe that the availability of P12 data facilitates significantly improved government and private sector decision-making with regards to education, workforce development, and science and technology development. In the short time that P12 has been in existence, it has made a significant, highly noticeable contribution to the quality and value of statistical analyses of U.S. workforce dynamics, for example, in many of the publications of the Georgetown University Center on Education and the Workforce.¹ As I believe you have received a large volume of comments testifying to the value of P12 for research and policy, I won’t cover that point any further. My comments in support of retaining P12, P21, and P23 instead primarily will address the process by which the Census Bureau came to its decision to remove these questions.

¹ See [https://cew.georgetown.edu/publications](https://cew.georgetown.edu/publications).
I will say in advance that my comments are informed in part by research I recently completed under contract with the Census Bureau’s ACS Office identifying federal and non-federal uses of ACS data. That said, the opinions I express are entirely my own.

According to the ACS Content Review final report, the Census Bureau has structured its content review on the basis of the following understanding:

• Historically, the Census Bureau has periodically reviewed the justification for questions on the ACS (or census long form), solicited external comment, communicated the results and recommended implementation.
• As required by Title 13 of the U.S. Code, in preparation for each decennial census, the Census Bureau has provided to Congress two key deliverables that outline proposed long form/ACS content: a listing of the planned topics and their statutory uses three years prior to the census, and the specific planned question wording two years prior to the census. The Census Bureau provided these to Congress most recently for the 2010 Census and the ACS in March 2007 and March 2008.
• In the 2000 census, content for the long form was constrained by only including questions for which there was either:
  1) a current federal law that explicitly called for the use of the decennial census data for a particular federal program;
  2) a federal law or implementing regulation that required the use of specific data, and the decennial census was the historical or only source of data; or,
  3) the data were necessary for Census Bureau operational needs.
• In 2006, the Office of Management and Budget (OMB), in consultation with the Census Bureau, adopted a more flexible policy for content determinations for the ACS.
  o The policy provides for OMB, in consultation with the Census Bureau, to consider issues such as frequency of data collection, the level of geography needed to meet the required need, and other sources of data that could meet a requestor’s need in lieu of ACS data.
  o In some cases, legislation may justify the inclusion of a topic in the ACS.
  o In other cases, OMB may approve a new topic based on an agency’s justification and program needs.
• The Census Bureau recognizes and appreciates the interests of federal partners and stakeholders in the collection of data for the ACS.
• Because participation in the ACS is mandatory, only necessary questions will be approved by OMB.
• The OMB’s responsibility under the Paperwork Reduction Act requires that the practical utility of the data be demonstrated and that respondent burden be minimized (especially for mandatory collections).
• In August 2012, OMB and the Census Bureau chartered the Interagency Council on Statistical Policy (ICSP) Subcommittee on the American Community Survey (ACS) to
“provide advice to the Director of the Census Bureau and the Chief Statistician at OMB on how the ACS can best fulfill its role in the portfolio of federal household surveys and provide the most useful information with the least amount of burden.”

The subcommittee charter also states:
- "It is expected that the subcommittee would conduct regular, periodic reviews of the ACS content. These periodic reviews should be designed to ensure that there is clear and specific authority and justification for each question to be on the ACS, the ACS is the appropriate vehicle for collecting the information, respondent burden is being minimized, and the quality of the data from ACS is appropriate for its intended use. Each year there will be an annual review of questions to consider any deletion or addition of questions."

- The ICSP Subcommittee on the ACS established 19 decision criteria . . ., which include 13 survey benefits associated with usefulness and six survey costs associated with respondent burden.

- Of the 19 decision criteria, nine rely on the following categorization of a use of the ACS question by a federal agency:
  - Mandatory – a federal law explicitly calls for use of decennial census or ACS data on that question.
  - Required – a federal law (or implementing regulation) explicitly requires the use of data and the decennial census or the ACS is the historical source; or the data are needed for case law requirements imposed by the U.S. federal court system.
  - Programmatic – the data are needed for program planning, implementation, or evaluation and there is no explicit mandate or requirement.2

My reading of federal law and regulation suggests to me that the Census Bureau’s understanding is not consistent with the former, in the following ways.

While the Census Bureau appears to suggest that it is legally bound to give precedence to questions that have uses that are statutorily mandated or required, my understanding is that is not the case.

- Title 13, Section 141(a) of the U.S. Code gives the Secretary of Commerce complete latitude in selecting questions to include in the ACS:
  - The Secretary shall, in the year 1980 and every 10 years thereafter, take a decennial census of population as of the first day of April of such year, which date shall be known as the “decennial census date,” in such form and content as he may determine, including the use of sampling procedures and special surveys. In connection with any such census, the Secretary is authorized to obtain such other census information as necessary. (italics added)

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• Per Title 13, Section 141(f) of the U.S. Code, the Secretary is not required to indicate the statutory uses of the various questions to Congress:
  o With respect to each decennial and mid-decade census . . . , the Secretary shall submit to the committees of Congress having legislative jurisdiction over the census—
    1) not later than 3 years before the appropriate census date, a report containing the Secretary’s determination of the subjects proposed to be included, and the types of information to be compiled, in such census;
    2) not later than 2 years before the appropriate census date, a report containing the Secretary’s determination of the questions proposed to be included in such census; and
    3) after submission of a report under paragraph (1) or (2) of this subsection and before the appropriate census date, if the Secretary finds new circumstances exist which necessitate that the subjects, types of information, or questions contained in reports so submitted be modified, a report containing the Secretary’s determination of the subjects, types of information, or questions as proposed to be modified.

While the Census Bureau indicates that “Because participation in the ACS is mandatory, only necessary questions will be approved by OMB,” I cannot find in law or regulation any such bound on ACS questions. My review includes the Title 13 of the U.S. Code, the Paperwork Reduction Act and associated regulations (5 CFR Part 1320), and OMB Information Quality Guidelines.

History and practice suggest that the origin of the mandatory/required/programmatic decision criteria laid down by the ICSP-SACS is itself programmatic, i.e., it is voluntary and not mandatory or required.

• The ACS Content Review decision criteria approved by the ICSP-SACS in 2013 differ somewhat from the five ACS decision criteria in Section 6.1 of the August 2012 ICSP-SACS charter.
• A third set, and again somewhat different, set of ACS decision criteria are in the Census Bureau’s “Policy on New Content for the American Community Survey” signed by Director Kincannon in March 2006.

As the criteria in the ICSP-SACS charter and the 2006 policy statement have not been modified, it appears that three sets of somewhat different ACS decision criteria currently exist and have not been reconciled.

The criteria in Director Kincannon’s 2006 policy statement were in turn based on those used to justify the long-form questions in Census 2000. It notes:
Historically, the content of the "Long Form" was constrained by only including questions for which:

1) There was a current federal law that explicitly called for the use of decennial census data for a particular federal program (mandatory).
2) It was unequivocally clear that a federal law (or implementing regulation) required the use of specific data and the decennial census was the historical or only source of data (required).
3) The data were necessary for Census Bureau operational needs (programmatic).

Constraining the content of the ACS is just as critical as it had been for the "Long Form" in the past. The Census Bureau's goal is to limit the size of the ACS so that data quality, measured by survey and item response rates, remains at or above the current levels.

According to the Census Bureau’s *History: 2000 Census of Population and Housing*:

- All of the questions included in the Census 2000 questionnaires were subjected to a rigorous review to ascertain whether they were necessary. Between December 1992 and the summer of 1994, the U.S. Office of Management and Budget and the Census Bureau worked together to identify federal agencies’ data needs for Census 2000, according to the degree to which these subjects were required by law and the lowest geographic level needed.
- Only those questions with a strong legislative or judicial justification were included in Census 2000, meaning only those subjects where the assessment identified needs as either mandatory or required. Programmatic needs were insufficient by themselves to justify inclusion. All items on the 100 percent questionnaire (short form) were classified as mandatory: name, relationship to Person 1, sex, age, Hispanic origin, race, and tenure (home owner or renter). On the sample questionnaire (long form), the Census Bureau classified another 18 of the sample questions as mandatory (for a total of 24) and 28 as required. Individual questions or parts of questions could provide data for more than one category of use and for more than one federal agency or department.3

However, contrary to Director Kincannon’s assertion about the historical nature of the ACS decision criteria, the National Research Council’s assessment of Census 2000 seems to suggest the original form of these criteria made their first appearance in the construction of the Census 2000 long form in response to problems with the 1990 Census (italics added):

- Questionnaire research had high priority in the early 1990s because of the perception that the format and length of the 1990 questionnaires, particularly the long form, had adversely affected response. Mail response rates fell slightly

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between 1970 and 1980 (78 to 75 percent) and dropped sharply between 1980 and 1990 (75 to 65 percent).

- **To control the number of questions, the Census Bureau decided that items could not be asked of everyone unless block-level counts for the items were mandated in legislation or federal regulations and should not be asked of those in the long-form sample unless legal or regulatory authority could be cited for those data for census tracts or larger geographic areas.**

- Consequently, most housing items that were complete-count items in 1990 were relegated to the 2000 long-form sample or dropped; marital status was also moved to the long form. Ultimately, the 2000 short form had only five population items and one housing item, compared with six population items and seven housing items in 1990.4

Also, it’s interesting to note that Director Kincannon justifies limiting ACS survey length on the basis of data quality, not respondent burden.

In any case, an examination of the history of the 1990 Census suggests that the content of the long form was not constrained by only including questions that met the Census 2000 criteria. While legally mandated federal uses were given priority, they were not given exclusivity. In fact, the Census Bureau actively sought out and sought to address requests for questions from within and without the federal government (italics added).

- In planning the 1990 Census of Population and Housing, the Census Bureau consulted a broad spectrum of data users.
  - A series of local public meetings throughout the country (and territories) obtained information about the data needs of local civic, business, and professional organizations.
  - State planning agency officials were invited to respond to the Bureau’s preliminary data-collection and tabulation plans.
  - Representatives of more than 90 Federal agencies met periodically over several years to outline Federal data needs based on existing legislation, provide ideas on census content, and review other matters related to the census.
  - Eight public advisory committees, including four representing minority populations, commented on most aspects and phases of the census.
  - The Bureau also organized a series of conferences where experienced data users and staff examined and made recommendations concerning such issues as the concept of enumeration and questionnaire content.
  - Throughout the decennial cycle, numerous contacts with other data users, not included in the programs discussed here, generated additional suggestions on census planning and procedures.

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In October 1984, the Census Bureau sent letters to the heads of all Federal departments and agencies informing them of the establishment of 10 interagency working groups (IWG's) organized along questionnaire content lines and chaired by Bureau staff. The purpose of the IWG's was to discuss the Federal requirements for data from the 1990 census and the geographic levels for which the data were needed, based on current legislative requirements. The response was extremely positive; more than 335 representatives from 35 departments, agencies, and independent commissions took part.

An IWG was formed for each of the following topics: housing, race and ethnicity, American Indians and Alaska natives, institutional populations, education, health and disability, transportation, labor force and occupation, and income and poverty. Collectively, the IWG's requested 200 questions.

An important source of advice on the content of the 1990 census questionnaires and on other aspects of the census program, including the data tabulations, was the Federal Agency Council on the 1990 Census of Population and Housing (FAC—originally called the Federal Agency Council for Demographic Censuses). Such councils were organized for the 1960, 1970, and 1980 censuses and, at the request of the Census Bureau, the Office of Management and Budget (OMB) established the council again for 1990 and devised procedures to ascertain Federal departments' and agencies' census data needs.

The major FAC objectives were to advise OMB about Federal requirements for census data and to act as a forum for the exchange of information about 1990 census plans. The FAC focused on broad aspects of the census, such as questionnaire content, census design, operational tests, data products, and media proposals. Specifically, the OMB asked each department and agency to describe its statutory requirements for census data, the frequency and types of use, and the geographic level (Nation, State, metropolitan area, county, block, etc.) for which data were needed. This was vital to the questionnaire development process. While the Bureau considered numerous data needs for all levels of government, legally mandated uses became the deciding factors when weighing conflicting requests.

The council held its first meeting in November 1984. Focusing on questionnaire content, it reviewed in depth the issues, analyses, and recommendations in the 10 IWG's reports. FAC members questioned the chairperson of each group after listening to a summary of its recommendations. Based on their examination of this material, council members voted on whether they agreed with the plan to test or remove from consideration each of approximately 200 questions recommended by the IWG's.

On June 17, 1987, the Census Bureau submitted to the OMB, for its approval, the proposed 1990 census questionnaires. The OMB disapproved the Bureau's submission, saying that it did not meet the [Paperwork Reduction] Act's criteria of practical utility and minimization of burden.
• The Census Bureau had received substantial support from the data user community in disagreeing with the proposed OMB guidelines. The OMB, however, continued to hold firm, insisting on the major changes.

• Action on the issue then moved to the Congress. In several hearings, OMB representatives were asked to explain their position. The consensus in the user community was to proceed with the original plan submitted by the Bureau to the OMB, with minor exceptions. The Bureau received final approval for the short and long-form dress rehearsal questionnaires on October 15 and October 28, 1987, respectively.

• Following months of discussion, research, and public comment, the OMB and the Census Bureau announced their agreement on the 1990 census content and sample design on March 29, 1988. The goals of the agreement were to minimize the paperwork burden on the Nation's households, to maintain or improve data quality, and to meet the data needs of the 1990's. The 1990 census retained the full sample size requested by the Census Bureau and most of the questions. Two sample questions (on types of heating equipment and fuel used for heating water) were dropped, and three questions (plumbing facilities, whether the housing unit was a condominium, and whether the housing unit had a telephone) were moved from the short form to the long form.\(^5\)

Recognizing that the ICSP-SACS decision criteria are programmatic, not mandated or required, and are based on an earlier version primarily developed to improve response rates and data quality, not reduce respondent burden, the next question is a reverse one: Are these criteria consistent with existing law and regulation? Again, based on my reading, I don’t think so.

The ICSP-SACS criteria and the Census Bureau’s resulting proposal to remove several questions are based solely on an assessment of the federal uses of each ACS question and do not take into account the value to non-federal users. However, OMB’s Paperwork Reduction Act (PRA) regulations, OMB and Census Bureau Information Quality Guidelines, and the ICSP-SACS charter require that value to non-federal users be considered.

The OMB regulations (5 CFR 1320) indicate (italics added):

• The PRA is designed to reduce, minimize and control burdens and maximize the practical utility and public benefit of the information created, collected, disclosed, maintained, used, shared and disseminated by or for the Federal government.

• Practical utility means the actual, not merely the theoretical or potential, usefulness of information to or for an agency, taking into account its accuracy, validity, adequacy, and reliability, and the agency’s ability to process the information it collects (or a person’s ability to receive and process that which is disclosed, in the case of a third-party or public disclosure) in a useful and timely fashion.

• In determining whether information will have “practical utility,” OMB will take into account whether the agency demonstrates actual timely use for the information either to carry out its functions or make it available to third-parties or the public, either directly or by means of a third-party or public posting, notification, labeling, or similar disclosure requirement, for the use of persons who have an interest in entities or transactions over which the agency has jurisdiction.

OMB’s Information Quality Guidelines state (italics added):

• Section 515 of the Treasury and General Government Appropriations Act for FY2001 directs agencies subject to the PRA to issue their own information quality guidelines ensuring and maximizing the quality, objectivity, utility, and integrity of information, including statistical information, disseminated by the agency.
• “Utility” refers to the usefulness of the information to its intended users, including the public. In assessing the usefulness of information that the agency disseminates to the public, the agency needs to consider the uses of the information not only from the perspective of the agency but also from the perspective of the public.
• “Influential”, when used in the phrase “influential scientific, financial, or statistical information”, means that the agency can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions.6

The Census Bureau’s Information Quality Guidelines say (italics added):

• The Census Bureau considers its published statistical information to be "influential," and does not distinguish among the many data it releases annually those which are more or less influential.
• In implementing these guidelines, the Census Bureau acknowledges that ensuring the quality of information is an important management objective that takes its place alongside other Census Bureau objectives, such as ensuring the success of Census Bureau missions, observing budget and resource priorities and restraints, and providing useful information to the public.
• The Census Bureau shall ensure that information disseminated to the public shall be useful to its intended users.
• In establishing its priorities for statistical programs for the purpose of providing objective information that is relevant to policy and program needs, the Census Bureau works closely with the users of information in the executive branch, the Congress, interested nongovernmental people and groups, advisory committees, advisory committees,

and the sponsors of its reimbursable surveys, as well as conducting ongoing surveys of data users and product reviews.

- The Census Bureau maintains ongoing contact with a broad spectrum of users to ensure that its information continues to remain relevant. Information collected by the Census Bureau is designed to provide measures that are relevant. These measures are released to the public as official statistics. Relevance is the degree to which information products provide useful information for both current needs and anticipated future needs.


Finally, Section 6.4 of the ICSP-SACS charter states (italics added):

- The decision to delete a question or set of questions from the ACS should be considered whenever there is a legal, regulatory, or administrative change to a program that results in a questions or set of questions no longer being needed, including cases when a substitute question or questions may be required. In addition, regular reviews and analysis should examine the use of each question on the ACS, and questions should be considered for deletion if there is not evidence of regular use of estimates at small areas by any Federal Government program or by other users.

I see a substantial difference between the ACS Content Review decision criteria focused solely on federal uses and the above sources’ requirement to consider the needs of non-federal users.

I also see a difference between the current approach and the aggressive outreach to data users that the Census Bureau undertook before the 1990 Census. And even though it significantly tightened up its decision criteria for Census 2000:

- As part of the content development process for Census 2000, the Census Bureau assessed the needs of nonfederal data users by conducting the “Survey of Census Needs of Non-Federal Data Users” (NFDU). The NFDU survey, mailed to approximately 18,000 participants between November 1994 and March 1995, collected information on the subject needs, uses of specific items (including the statutory citation where applicable), and the level of geographic detail that nonfederal data users needed for the 43 topics that appeared on the 1990 census questionnaires.

- Survey respondents were asked whether they used each of the required or programmatic topics for any of the following six uses:

7 Census Bureau, "Information Quality Guidelines," webpage.
Compliance with federal statute
Application for federal funds and/or grants
Meeting requirements of state or local legislation
Program and/or policy development
Analysis and/or program/policy evaluation
Other (court rulings/orders, marketing, etc.)

Having concluded that the ACS decision criteria are voluntary/programmatic and are too narrow in that they exclude consideration of utility to non-federal users, I also suggest that the value of the decision criteria in assessing even only the federal uses of the ACS is constrained by their:

- not distinguishing among the breadth of federal uses, and
- not including mandatory, required, and programmatic uses of federal statistical products that are derived from ACS data, of which there are many.

Regarding the first point, the criteria mention only “use of ACS data” and “use to select sampling frame.” However, in my recent work for the ACS Office, I identify a variety of distinct types of federal uses of ACS questions:

- Estimation
  - Input to estimation formula (arithmetic)
  - Input to modeled estimates (regression)
  - Weights or controls
  - Adjustment factors
  - Validation
- Sampling
  - Sampling frame
  - Sampling stratification
  - Sampling weights
- Special tabulations of ACS data
- Adoption of ACS questions
- Development of occupational profiles
- Contextual variables

While the ACS Content Review found “The only survey that uses the ACS as a sampling frame on an ongoing basis is the National Survey of College Graduates,” my research indicates that the Current Population Survey (monthly and ASEC) uses the ACS for the same purpose. The ACS

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provides the housing unit sampling frame within the Primary Sampling Units. Sample housing units are selected from that frame on the basis of specific ACS characteristic microdata.9

Regarding the second point, there are a multitude of federal statistical products that rely in whole or in part on ACS-derived data and are widely used across the federal government. Examples of such products include the Current Population Survey, Population Estimates, OMB’s metropolitan area delineations, Small Area Income and Poverty Estimates, and Local Area Unemployment Statistics. For the purposes of a thorough ACS Content Review, it seems appropriate to include mandatory, required, and programmatic federal uses of ACS-derived products. I imagine that most federal agencies that rely on ACS-derived products are not aware that these products are based on the ACS.

Now I wish to address the Census Bureau’s conclusion that the use of P12 data by the National Center for Science and Engineering Statistics as a sampling frame for the National Survey of College Graduates (NCSG) is “programmatic,” not “required.”

The Census Bureau indicates that, for the purposes of the ACS Content Review: “required” means “a federal law (or implementing regulation) explicitly requires the use of data and the decennial census or the ACS is the historical source . . . .”

However, I believe that the NCSES authorizing legislation (America COMPETES Act of 2010, Section 505) gives the agency a mandate it can only satisfy through using P12 (italics added):

SEC. 505. NATIONAL CENTER FOR SCIENCE AND ENGINEERING STATISTICS.
(a) ESTABLISHMENT.—There is established within the Foundation a National Center for Science and Engineering Statistics that shall serve as a central Federal clearinghouse for the collection, interpretation, analysis, and dissemination of objective data on science, engineering, technology, and research and development.
(b) DUTIES.—In carrying out subsection (a) of this section, the Director, acting through the Center shall—

(1) **collect, acquire, analyze, report, and disseminate statistical data related to the science and engineering enterprise in the United States** and other nations that is relevant and useful to practitioners, researchers, policymakers, and the public, **including statistical data** on—
   (A) research and development trends;
   (B) **the science and engineering workforce**;
   (C) United States competitiveness in science, engineering, technology, and research and development; and
   (D) the condition and progress of United States STEM education;
(2) support research using the data it collects, and on methodologies in areas related to the work of the Center; and

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(3) support the education and training of researchers in the use of large-scale, nationally representative data sets.

Question P12 was in place at the time NCSES was authorized by Congress. This fact, I believe, strengthens the assertion that the agency’s reliance on P12 to fulfill “a federal law [that] explicitly requires the use of data” is “historical” and so should be considered “required.”

Further, in requesting OMB permission in 2008 to add P12 to the ACS, the Census Bureau made the following lengthy positive arguments, ones that seem contrary to its current conclusion:

- The 2007 ACS Content Test resulted in a Census Bureau recommendation to OMB to add a new question on field of degree (FOD).
- The addition of a FOD of a person’s bachelor’s degree is proposed for the ACS beginning in 2009. It will be Question 12 on the printed questionnaire. Two versions of such a FOD item were tested in the 2007 ACS Content Test, and the open-ended version performed better than the categorical version.
- The addition of such an item would yield substantial benefits to a wide variety of users. First, it would greatly increase the efficiency of sampling for the National Survey of College Graduates (NSCG) in several respects. It would eliminate the need for a very large screener sample to identify individuals in the science and engineering (S&E) workforce. The availability of a current national sample frame with the FOD question will substantially improve the ability of the NSCG to track the impact of new immigrants on the S&E workforce and reduce the severe attrition in the NSCG panel experienced when the panel was refreshed only once a decade. Second, it would provide crucial and timely data for program planning, analysis and monitoring for the critical S&E component of the U.S. workforce.
- The FOD item would also meet a variety of analytical needs for NSF and other agencies. For NSF, because the ACS would have information on both FOD and occupation, it will provide annual estimates on the critical S&E component of the workforce. Such data will provide a means to identify and monitor new and emerging trends in the size and composition of the S&E workforce, including new immigrants to the U.S. Such issues are crucial for the American Competitiveness Initiative.
- More generally it will be a valuable resource for analyzing the outcomes of college education for individuals majoring in all fields, not just in science and engineering. The geographic detail and the annual and timely availability of FOD data, in conjunction with all the other rich data available from the ACS, will enhance the analytical uses of ACS data for the NSF, other agencies, policymakers, researchers, and the general public. College administrators, educators, and professional societies will use these data to assess how graduates in various fields are faring in the job market as well as informing them about the kinds of training graduates should be receiving to be prepared for the jobs that are likely to be available. It will also
provide useful, timely information for prospective students and their parents about employment possibilities for those majoring in a particular field in college. It will tell users about the kinds of occupations those majoring in the social sciences or the humanities go into and how their earnings compare to those who major in other fields.

- Congress has mandated the NSF “to provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the Federal Government” (NSF Act of 1950, as amended; 42 U.S.C. 1862 (a)(6)). A critical component of this mission is information on the U.S. science and engineering (S&E) workforce, which NSF collects through several surveys. NSF disseminates information on the number, characteristics, and employment derived from its workforce surveys in a variety of reports and other formats.
- The Science and Engineering Equal Opportunities Act (42 U.S.C. 1885a(6) and 1885d) gave NSF a further mandate to collect and report information on women, minority group members and persons with disabilities in the S&E workforce and to report such information to Congress and Executive Department officials biennially (Women, Minorities, and Persons with Disabilities in Science and Engineering (WMPD)). The NSF Act of 1950 as amended also requires the National Science Board to report to Congress and the President biennially “a report on indicators of the state of science and engineering in the United States (42 U.S.C. 1863 (j)(1)). Science and Engineering Indicators (SEI) fulfills this mandate and a crucial component of the report is information on the S&E workforce.\textsuperscript{10}

In addition, a case can be made, I think, that the NSCG is itself highly valuable for federal agency purposes, including those of the White House and the Census Bureau. See, for instance:

- White House statements on immigration policy
  - The Economic Benefits of Fixing Our Broken Immigration System (issue report)
  - The Economics of Commonsense Immigration Reform (Economic Report of the President)
  - The Economic Case for Commonsense Immigration Reform (blog)
- Census Bureau and the National Science Foundation
  - Leveraging the American Community Survey (ACS) in Current Estimation for the National Survey of College Graduates (NSCG)
  - Implementing Adaptive Design for the National Survey of College Graduates
- National Institutes of Health
  - Market Penalties for Foreign Degrees Among College Educated Immigrants

In the Content Review final report, the Census Bureau indicates the following limitation of its effort (italics added):

- Decision criteria did not include a benefit factor for small population groups. To mitigate the risks associated with this limitation, we will consider all public comments received in response to the Content Review 60-day Federal Register notice on small population uses in making our final recommendations.

In light of the Census Bureau’s observation and invitation, I believe that among the above uses of the NCSG, particularly supportive to the retention of P12 is Michael Larsen’s 2013 paper, for the Census Bureau, ascertaining the value of using NCSG and ACS variables in combination to improve the accuracy of statistical modeling for small population groups and areas. In a 2013 presentation, Larsen, a statistics professor at George Washington University, frames the study and its findings:

- Topic of the present study: SAE [Small Area Estimation]
  - The NSCG is designed to give sufficient accuracy at the national level and at the level of large regions of the country.
  - There is an interest in estimation in small areas (e.g., states) and small domains (e.g., subgroups by demographics, including female/male, race/ethnicity, age, and other factors).
  - Estimation methods that “borrow strength” across areas/domains could produce reductions in mean square error (MSE)
  - Estimation methods that utilize information from multiple surveys (NCSG, ACS) could also produce gains in MSE
- Conclusion and future work
  - Small area estimation: conditions seem right for trying small area estimation – many domains, large data set but small in some places/subgroups.
  - Models: Bayesian log linear models can be one approach to try, others can be compared
  - Plan for near future: continue research on SAE for NSCG 2010 using the subset of NSCG 2010 drawn from the 2009 ACS

It should be noted that P12 ranked quite low in terms of respondent burden.

Moving on to the marriage questions, I believe that the Census Bureau may be misreading, and so underplaying, the use to which the Social Security Administration (SSA) puts data from P21 (and P23 for confirmation). Its content review states (italics and underline added):

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• “The Social Security Administration has a required legal basis for using the question at the state level only to develop actuarial tables for benefits projections.”

However, documentation of the SSA methodology seems to indicate that the agency’s use of ACS data to forecast the solvency of Social Security trust funds is more essential than suggested by the Census Bureau. Further, I could not find mention of SSA use of data at the state level. While SSA uses the ACS Public Use Microdata Sample (PUMS), which only offers geographic identifiers for Census region and state, geography is not relevant to the SSA analysis.12

Thank you for the opportunity to provide comments in support of the ACS and the retention of particular questions. I hope you find them helpful and look forward to the Census Bureau’s response.

Sincerely,

Andrew Reamer
Research Professor

12 See Office of the Chief Actuary, Social Security Administration, “Long-Range OASDI Projection Methodology: Intermediate Assumptions of the 2014 Trustees Report,” June 2014, pp. 4, 30, 33, 37, 40, 42, and 52. For instance, on p. 40: “The NCHS stopped collecting data on the annual number of new marriages in the MRA in 1989. Less detailed data on new marriages from a subset of the MRA were obtained for the years 1989-1995. The American Community Survey (ACS) public use microdata samples (PUMS) started asking if a person was married in the last 12 months in 2008. Using this question along with ages of spouses, new marriages grids by age-group-of-husband crossed with age-group-of-wife were developed. For the years in between the NCHS and ACS data, the marriage grids were linearly interpolated. These NCHS and ACS data are used to adjust the more detailed age-of-husband crossed with age-of-wife rates from the earlier years.”
August 29, 2014

Office of Information and Regulatory Affairs
Office of Management and Budget
725 17th St., NW, Room 10235
Washington, DC 20503
Attn: Desk Officer for National Science Foundation

To whom it may concern,

I am pleased to provide comments on the information collection request (ICR) submitted to OMB on July 30, 2014 by the National Center for Science and Engineering Statistics (NCSES), National Science Foundation (NSF), regarding a test of the Microbusiness, Innovation, Science and Technology (MIST) Survey. As a research professor at the George Washington Institute of Public Policy, George Washington University, I focus on federal policies that promote competitiveness and innovation. From that perspective, I support the proposed MIST survey test. I believe that MIST has the potential to fill a knowledge gap regarding the extent and nature of the role of microbusinesses in innovation. The proposed test will aid NSF is seeing that MIST fulfills that potential.

That said, I wish to offer several suggestions and requests for the consideration of OMB and NCSES—on the topics of the survey instrument, respondent incentives, the sampling frame, and the purposes of MIST.

Survey Instrument (Long Form)

- Question 5 directs the respondent to not count anyone enumerated in Question 4. As Question 4 covers those paid on salary, paid as a contractor, and unpaid individuals, I cannot think of any category of the experts listed in Question 5 that is not covered in Question 4. I also am unclear about the value of excluding people enumerated in Question 4. Consequently, I suggest dropping the text “Not counting those listed in question 4” from Question 5.
- In Question 6, I suggest inserting “new” before “full-time” so that the respondent has no doubt about the intent of the question.
- To improve data value and reduce questionnaire length, processing time, potential errors, and respondent burden, I suggest two adjustments in Questions 28-31.
  o Combine Questions 28-30 into a new Question 28: “Of the total R&D amount you reported in Question 27, what percent was for each of the following types of costs?”
    a. R&D services purchased from others %
    b. R&D services performed by you %
       ▪ Salaries, wages, . . %
In Question 29, change “Question 29” to “Question 27.” In this way, the funding sources of all R&D, not just R&D performed internally, would be identified. As currently worded, the question would not give NCES a full, clear picture of R&D funding sources.

**Sampling Frame Source**

- NCES has several options for a MIST survey sampling frame source, including the IRS Compliance Data Warehouse (selected for MIST), the Census Bureau’s Business Register (the source for the NCES Business R&D and Innovation Survey), and the databases of the University of Wisconsin’s Institute of Exception Growth Companies (http://exceptionalgrowth.org/our-databases.iegc).
- The ICR does not indicate the reason NCES chose the IRS database as the source for the MIST sampling frame. I think it would be helpful if NCES were able to make a clear case to OMB and the public regarding the superiority of its choice.
- Consequently, I suggest that OMB indicate a condition of clearance for approving the MIST ICR—in any future ICR for a full MIST survey, NCES should provide the rationale for its choice of data frame sampling source.

**Respondent Incentives**

- Understandably in light of the relatively low response rate to the previous MIST test, NCES proposes to research the potential benefits of offering survey recipients small monetary incentives.
- As an additional dimension of the test, I suggest adding as an incentive to some proportion of the sample the opportunity for respondents to participate in a web-based conversation hosted by NCES on the MIST survey findings and the potential usefulness of those findings for microbusinesses. Confidentiality could be maintained if done electronically.
- My testable hypothesis is that survey recipients will be more likely to participate in MIST if they think that, as a result, they will have a private audience with NCES to receive information that could be helpful to their business success.

**Value of MIST to Federal Policy**

- While the ICR indicates that MIST will contribute to improved public policies, these potential benefits are not spelled out in any detail other than with regard to the Bureau of Economic Analysis. Interestingly, it doesn’t mention the Small Business Administration or the Small Business Innovation Research program.
An effort by NCSES to more fully understand MIST’s potential benefits in some detail would, I believe, lead to a more useful survey. Consequently, I suggest that OMB indicate a condition of clearance for approving the MIST ICR—in any future ICR for a full MIST survey, NCSES should identify federal policies and programs that would likely benefit from the availability of MIST data, how, and why.

I appreciate the opportunity to comment on the MIST ICR and hope you find these thoughts helpful.

Sincerely,

Andrew Reamer
Research Professor