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Appendix A: Evaluating Success Through Performance Measures
Across the years, our agency’s core mission—providing timely, accurate data needed to understand the U.S. economy—has stood tested and true. Yet even as this mission endures, accomplishing it requires constant change, especially in today’s fast-paced, technology-driven society.

In that spirit, I believe it is crucial that the Bureau of Economic Analysis seeks out the changes that will keep our economic data on the cutting edge and make our public service even stronger.

This strategic plan—based on input from our customers, stakeholders, and employees—lays out many of the ways we will harness innovation in the coming years, including better measuring the digital economy and the impacts of globalization, modernizing data collection, and getting more people the information they need, faster.

Our plan focuses on four main goals:

**Accuracy and reliability**
BEA will use new methods and collaborations to keep improving the accuracy of our statistics. That includes leveraging “big data” and alternative data sources, as well as working more closely with other statistical agencies.

**Relevance**
BEA will develop new ways to capture a dynamic economy. We will provide more detail on the economic health of regions and industries; find better ways to measure the digital economy, describe the impacts of globalization, and analyze the evolving financial sector; and put new spotlights on key economic sectors, such as health care and tourism.

**Customer service**
BEA will do a better job educating customers about the information we offer and where to find it. We will expand outreach to teach our existing data users and seek new ones; improve the dissemination of BEA’s statistics; and ask for feedback to help us reach diverse audiences and improve our products and services.

**Operational excellence**
To ensure the success of our mission, BEA will recruit and retain a high-caliber, diverse workforce. And we will give them the right tools for the job: efficient, modern information technology; a high level of IT security; and continuation of operations in case of an emergency.

To help reach these goals, I fully endorse the “OneBEA” approach, with employees from different work areas coordinating through each stage of data research, production, and publication. This systematic teamwork keeps the Bureau more flexible and nimble, able to respond to a rapidly evolving global economy.

BEA uses both long- and short-term performance measures to gauge how well we are accomplishing our goals and objectives. Ongoing monitoring and reporting provide accountability and help keep us on track.

With these strategic goals to guide us through change, I am confident the Bureau will continue to accomplish its bedrock mission and deliver innovative, new products in an ever-shifting economy.

Thank you,

Brian C. Moyer
Director, Bureau of Economic Analysis
About BEA

Mission
The Bureau of Economic Analysis (BEA) promotes a better understanding of the U.S. economy by providing the most timely, relevant, and accurate economic accounts data in an objective and cost-effective manner.

Vision
To be the world’s most respected producer of economic accounts.

BEA’s Role as a Federal Statistical Agency
BEA is the world’s trusted, impartial source of comprehensive data about the U.S. economy. BEA’s statistics, free and accessible to all, support economic growth and well-being by informing the decisions of businesses, entrepreneurs, households, and governments.

The roots of BEA’s statistics can be traced to the major events of the first half of the 20th century. The lack of information to drive the recovery process for the Great Depression and to plot the course for the wartime economy in the early 1940s highlighted the need for comprehensive economic measures. As a result, today, BEA’s national, regional, industry, and international statistics present valuable information on national economic growth, regional economic development, interindustry relationships, and the Nation’s position in the world economy. The cornerstone of BEA’s statistics, gross domestic product, was recognized by the Department of Commerce as its greatest achievement of the 20th century and has been ranked as one of the three most influential measures affecting U.S. financial markets.

BEA’s commitment to excellence and innovative thinking enables the Bureau to provide a detailed and timely picture of the $18 trillion U.S. economy, the world’s largest economy. BEA continuously explores new ways to ensure that its economic measures capture the dynamic nature of the globally interconnected U.S. economy.

In the last few years, BEA has produced new sets of statistics that deepen the public’s understanding of key parts of the economy. From BEA’s new health care statistics that break down spending by disease and track changes in the costs of treating different medical conditions to new statistics that highlight the economic impact of arts and culture in the United States, these statistics provide rich, new detail on different segments of the U.S. economy.

Both new and existing sets of BEA data figure prominently in critical decisions that affect monetary and trade policy, tax and budget projections, and businesses’ plans to invest and hire.

BEA works collaboratively with other government agencies and private businesses to vet and collect data that are used to produce its economic measures. BEA also conducts its own surveys that feed its international investment and foreign trade in services statistics. In addition, BEA engages in research and analysis and develops and implements economic estimation methods.

BEA disseminates its economic statistics free to the public, using numerous communications platforms and harnessing new technologies. Both BEA and the Census Bureau, the source of much of the economic data used by BEA are organizationally located within the U.S. Department of Commerce’s Economics and Statistics Administration. Delivering more data and making those data more easily accessible to the public are key components of the Department of Commerce’s strategic plan.
This strategic plan outlines a series of mission goals—built on the themes of accuracy and reliability, relevance, customer service, and operational excellence—and guides the Bureau’s progress toward accomplishing its mission by connecting:

- **Out** to address the needs of BEA’s customers,
- **Up** to the Department of Commerce’s strategic goals and objectives, and
- **In** to the Bureau’s operational plans.

**Out.** BEA’s strategic plan is solidified around anticipating and responding to the needs of changing customer bases in a fast-paced, technology-driven society. Customers increasingly expect quicker turnaround in producing statistics that reflect the rapidly changing economy, increasing amounts of geographic and industry detail, and easier access to data through multiple channels. This plan identifies cross-cutting objectives that are relevant to today’s customers and positions the Bureau to readily respond to customers’ future desires and expectations.

**Up.** BEA’s strategic plan connects directly to the Department of Commerce’s goals and objectives. As a statistical agency, the majority of BEA’s efforts link to the Department’s “data” priority; however, the Bureau’s objectives are designed to support the Department’s other priorities as well. As noted in the Department’s strategic plan:

*The foundation to all of the Department’s goal areas is data. Data is the fuel that powers the 21st century economy, and Commerce data enables the Department to set the conditions for economic growth.*

Connections to the Department’s objectives—referred to as “Commerce links”—are noted throughout this plan. For more information on the organizational framework of the plan, see “How is This Plan Organized?” on page 4.

**In.** BEA’s strategic plan frames the life of the Bureau. BEA’s goals and objectives flow to the operational plans of the program areas and to the performance plans of individual employees. By directly linking employees’ responsibilities to the plan and by weaving language from the plan into regular reports and internal documents, every staff member is personally connected to the Bureau’s goals and is an integral participant in the Bureau’s success.

Achieving BEA’s mission goals and objectives requires ongoing input and collaboration from work groups throughout the Bureau. To support these efforts, BEA has instituted “OneBEA” as the foundational approach for integrating the processes and products of its national, regional, industry, and international directorates (see box).

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### About This Plan

**What Is OneBEA?**

“OneBEA” is a proactive, holistic approach to managing the Bureau’s operations. OneBEA mirrors the interconnectedness of today’s economy—as economic activities become increasingly entwined, so does the work of BEA’s program areas. By integrating OneBEA into the rhythm of life at the Bureau, BEA will be increasingly poised to respond to customers’ needs in the face of ever-changing economic tides.

Under OneBEA, employees from different work areas coordinate through each stage of the research, production, and publication processes. This stands in contrast to the old way of doing business, in which the work of the Bureau was “stove-piped” under BEA’s four program areas, and coordination among work areas was only one part of the process instead of serving as an organizing principle for the entire process.

To operationalize the OneBEA approach, BEA will:

- Create a formal structure to achieve OneBEA,
- Reorganize www.bea.gov around the Bureau’s products instead of its organizational structure, and
- Harmonize and improve statistics across the Bureau’s data products.

While all the strategies outlined in this plan are guided by OneBEA, specific projects that highlight this approach—that is, “OneBEA key strategies”—are noted throughout the plan.
How Is This Plan Organized?

This strategic plan is organized around BEA’s four mission goals—accuracy and reliability, relevance, customer service, and operational excellence. The first two goals focus on enriching BEA’s data products. Next, customer service describes the Bureau’s plans to enhance the ways in which those products are delivered to and used by BEA’s customers. Finally, operational excellence outlines improvements to BEA’s processes and procedures to ensure the ongoing fulfillment of the Bureau’s mission.

For each of BEA’s mission goals, the plan outlines a number of outcome-driven objectives, key strategies for accomplishing these objectives, and performance indicators for gauging progress. This framework closely mirrors that of the Department of Commerce’s strategic plan and is in line with guidance from the Office of Management and Budget. Key terms for this plan, and related definitions, are provided below.

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Key Terms

**Mission goal**: Broad, long-term outcome that BEA strives to achieve by executing its mission.

**Strategic objective**: Specific approach that BEA implements to forward its mission goals.

**Key strategy**: Specific projects or programs the Bureau undertakes to accomplish its strategic objectives.

**OneBEA key strategy**: Project or program that exemplifies the OneBEA operational approach (see box above).

**Strategy in focus**: Strategy for which additional detail is given in order to promote a better understanding of that strategy.

**Commerce link**: Quotation from the Department’s strategic plan that highlights connections to BEA’s plan.

Legend

Symbols are used throughout the plan to denote the following:

- Commerce link
- OneBEA key strategy
- Key strategy with corresponding “strategy in focus” box

The colors of the symbols will vary depending on the sections in which they appear.
Mission Goals and Objectives

1 **Accuracy and Reliability:** Improve the accuracy of existing statistics through improved data, collaboration with data partners, and methods.

- Leverage “big data” and alternative data sources to produce more timely, relevant, and comprehensive statistics.
- Increase collaboration with BEA’s statistical agency partners through joint efforts to improve data quality and to achieve earlier incorporation of source data.
- Modernize survey data collection and processing to ensure high-quality statistics while minimizing respondent burden.
- Improve methodologies and presentation of economic data consistent with international guidelines.

2 **Relevance:** Develop new and expanded products to measure a dynamic economy.

- Develop new and expanded statistics to better capture regional and industry trends.
- Develop tools and techniques to better measure the digital economy and to further capture technology’s role in economic growth.
- Develop new and expanded statistics to understand and describe the impact of globalization on the U.S. economy.
- Increase detail and coverage of the rapidly changing global financial sector and improve estimation methods.
- Expand the use of satellite accounts to highlight and provide more information on specific activities or sectors of the economy.

3 **Customer Service:** Improve customer understanding, access, and use of BEA’s products.

- Expand outreach to educate new and existing customers about BEA’s statistics and to promote the Bureau’s data to a diverse audience.
- Improve and enhance the dissemination of BEA’s statistics to respond to expanding communication channels and customer bases.
- Solicit customer feedback to target outreach efforts and to improve BEA’s data products and services.

4 **Operational Excellence:** Strive for operational excellence to meet mission-critical goals in a cost-effective and efficient manner.

- Recruit, retain, and engage a high-caliber workforce.
- Manage and modernize BEA’s information technology (IT) infrastructure for maximum efficiency in the production of BEA’s statistics.
- Maintain a high level of IT security to protect the integrity of BEA’s statistics.
- Ensure the continuation of mission-essential functions in an emergency.
BEA’s statistics are widely accepted as the world’s gold standard in economic measurement and are absolutely essential for business executives, government officials, academic researchers, and consumers to make informed economic decisions. BEA’s data have the potential to fuel improvements in how the economy works and increases in economic and social well-being. To maintain this high level of integrity, BEA must continuously improve its statistical products. This includes exploring new data sources, partnering with other statistical agencies, modernizing data collection and processing, and bringing BEA’s accounts into greater alignment with international standards.

Objectives:

- Leverage “big data” and alternative data sources to produce more timely, relevant, and comprehensive statistics.
- Increase collaboration with BEA’s statistical agency partners through joint efforts to improve data quality and to achieve earlier incorporation of source data.
- Modernize survey data collection and processing to ensure high-quality statistics while minimizing respondent burden.
- Improve methodologies and presentation of economic data consistent with international guidelines.

Accuracy and Reliability

Improve the accuracy of existing statistics through improved data, collaboration with data partners, and methods.
**Objective:** Leverage “big data” and alternative data sources to produce more timely, relevant, and comprehensive statistics.

BEA will continue to explore applications for big data, in light of shrinking budgets, increasing demands for timely and detailed data, and declining response rates on traditional government surveys. Big data promise to impact fundamentally how BEA collects, compiles, reviews, and analyzes data across all of its products. Potential big data applications include:

- **Extending:** Provide more timely statistics, fill real-time data gaps, and expand geographic detail.
- **Enhancing:** Construct detailed indicators, provide information on product quality, and improve survey design.
- **Verifying:** Confirm trends and validate findings from direct survey collection.
- **Supplementing:** Facilitate passive data collection.

**Key strategies**

- Test the feasibility of using health care claims data to improve estimates of consumer spending on health care services and the Health Care Satellite Account.
- Research the use of debit and credit card transactions data to improve and extend consumer spending statistics, including developing estimates by metropolitan area.
- Use data from the Department of Transportation to improve estimates of international trade in air passenger transport services.
- Review private sector data on housing prices and Census Bureau data on rents to improve estimates of housing services in GDP.
- Investigate the use of automobile registrations data to improve regional statistics on motor vehicle purchases.

**Commerce Link**

*The world is at the forefront of a data revolution. The explosion of Big Data and the increasing prevalence of Open Data present enormous opportunities and challenges.*

BEA will explore the use of medical claims data to enrich its health care statistics, including extending estimates of consumer spending on health care services and improving the Health Care Satellite Account (HCSA).

**Consumer spending on health care.** BEA is assessing whether real-time data on claims processed by physicians’ offices could be used to improve the early estimates of GDP. Currently, BEA estimates consumer spending on physician services using data from the Census Bureau’s quarterly services survey. However, because these data are not available until the third estimate of GDP for the quarter, BEA relies on alternative indicators for the first two estimates. Using real-time claims data to fill this gap may provide timelier and more accurate early estimates of consumer spending.

**HCSA.** To compile the HCSA, BEA currently blends data on billions of medical claims from both government and private sources to determine spending on over 250 diseases. BEA is exploring ways of incorporating even more private data to improve these statistics. (For information on other improvements to the HCSA, see “Strategy in Focus: Improve Health Care Satellite Account Statistics” on page 25.)

**Timeline**

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<tr>
<th>2016</th>
<th>2017</th>
<th>2018 and beyond</th>
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<tr>
<td>Test feasibility</td>
<td>Develop and test methods</td>
<td>Implement improvements</td>
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BEA, in collaboration with the Census Bureau, is exploring the use of private sector data to enhance and extend estimates of consumer spending. These data offer the potential for creating timely economic indicators at geographic levels customers demand but are not currently available or achievable through traditional survey methods.

BEA and the Census Bureau have initiated a pilot project using data on debit and credit card transactions to verify and improve consumer spending statistics. Initial results of this project show close correlations between the transactions data and Census Bureau retail sales data, creating the possibility of enhancing the early estimates of consumer spending and of producing estimates of consumer spending by metropolitan area.

**Timeline**

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<thead>
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<th>Year</th>
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<tr>
<td>2016</td>
<td>Complete pilot project</td>
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<tr>
<td>2017</td>
<td>Develop and test methods</td>
</tr>
<tr>
<td>2018 and beyond</td>
<td>Implement improvements</td>
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Collaboration for Better Source Data

Objective: Increase collaboration with BEA’s statistical agency partners through joint efforts to improve data quality and to achieve earlier incorporation of source data.

BEA will collaborate with statistical agency partners to produce more timely and comprehensive statistics. Additionally, BEA will work with agency partners to harmonize definitions, methodologies, and analytical techniques to support greater consistency among the accounts provided by the U.S. statistical system.

Key strategies
- Collaborate on technical issues that impact economic statistics, such as seasonal adjustment.
- Accelerate and expand source data to improve statistics and to reduce revisions to early GDP estimates.
- Establish access to partner agency microdata. Access to microdata, following existing confidentiality requirements, will allow BEA economists to coordinate with data partners to analyze patterns and variations in survey data and to investigate reporting issues.
- Coordinate to improve surveys, including aligning data classifications and definitions.
- Harmonize joint products and releases.
- Continue and expand joint research initiatives.
- Strengthen BEA’s relationships with agency partners. BEA will pilot this initiative by focusing on relationships within the Commerce family—with the Census Bureau.

Commerce Link

Data from different agencies can be better shared or combined to make government programs more informed and more efficient.

Strategy in Focus: Improve Seasonal Adjustment Techniques

BEA has initiated a three-phase, comprehensive strategy to improve its seasonal adjustment techniques. The first phase of the process, completed in the summer of 2015, was to update seasonal adjustment factors and to begin adjusting several components that previously had not been adjusted.

The remaining two phases are:
- Performing a detailed review of the GDP estimates to identify potential sources of “residual” seasonality—that is, the presence of seasonal patterns in statistics that have already been adjusted—and to remove these patterns. BEA has completed its review of the GDP estimates and published a working paper on the results in early June 2016. Now, the Bureau, in coordination with its source data agencies, will use the results of this analysis to improve seasonal adjustment techniques and estimation methods.
- Working with source data agencies to develop series for GDP and its major components that have not been adjusted to remove seasonality. These “not seasonally adjusted” series, which will be released in parallel with the quarterly GDP estimates, will facilitate analyses of the seasonally adjusted GDP estimates and may provide earlier indications of changes in seasonal patterns.

Timeline

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<th>2016</th>
<th>2017</th>
<th>2018</th>
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<tr>
<td>Publish results of GDP component review</td>
<td>Work with other agencies to remove residual seasonality in source data</td>
<td>Publish revised historical GDP estimates that have been adjusted to remove residual seasonality</td>
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<tr>
<td>Remove residual seasonality for 2013–2015 in series adjusted by BEA</td>
<td>Continue work on removing residual seasonality in series adjusted by BEA</td>
<td>Begin publishing not seasonally adjusted GDP</td>
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<tr>
<td></td>
<td>Develop not seasonally adjusted GDP</td>
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BEA has a rich history of coordinating with its agency partners to improve the source data that serve as the foundation of the Bureau’s statistics. BEA will leverage these successes to further improve its statistics and to reduce revisions to early GDP estimates.

BEA and the Census Bureau have initiated a joint effort to accelerate the release of Census Bureau business inventory data for use in the advance GDP estimates—available 30 days after the end of the quarter. Currently, for several key industries, only 2 months of data are available for the advance estimate, and BEA makes assumptions for the third month. The earlier incorporation of third-month data is expected to reduce revisions to GDP by $10 billion, or 0.2 to 0.3 percentage point in growth-rate terms.

In 2015, BEA collaborated with the Census Bureau to accelerate the release of international trade data to improve the advance GDP estimates. BEA is now able to incorporate 3 months of Census Bureau data at the time of the advance estimate rather than using 2 months of source data and an assumption for the third month, reducing revisions to GDP by about $6 billion, or 0.1 to 0.2 percentage point. BEA will further improve the early GDP estimates by working with the Census Bureau to incorporate more detailed commodity-level international trade data that are better aligned with the level of detail of BEA’s published estimates. Currently, for advance estimates, BEA must use aggregate commodity data to indicate the movements in the more detailed statistics.

BEA and the Census Bureau are also investigating the possibility of accelerating the release of Census Bureau quarterly services survey (QSS) data to improve the early estimates of consumer spending and other key components of GDP. Currently, because the QSS data are only available for the third GDP estimate, BEA must make assumptions for the advance and second estimates. In the spring of 2016, BEA and the Census Bureau will assess the impact that the earlier incorporation of services data may have on revisions to GDP. Based on this assessment, the agencies will develop and implement a formal method for releasing early vintage services data and incorporating them into the second GDP estimates.

In addition, the Census Bureau is investigating the expansion of the geographic and product detail of its wholesale and retail trade surveys. These efforts may allow BEA to improve state-level statistics on GDP and consumer spending and the GDP by industry statistics.

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**Strategy in Focus: Improve and Accelerate Statistics**

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<tr>
<td>Assess the impact of incorporating early vintage services data</td>
<td>If feasible, incorporate early vintage services data into official statistics</td>
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Strategy in Focus: Carry Out Joint Data Link Projects

BEA is currently working with the Census Bureau and the Bureau of Labor Statistics (BLS) to combine datasets in ways that support groundbreaking research on topics such as globalization and the measurement of high-tech goods and services.

BEA will continue to coordinate with the Census Bureau to link multiple datasets, including BEA data on multinational enterprises, data on international trade in goods and services, and establishment-level Census Bureau data, to develop new international trade statistics that support the analysis of globalization.

BEA will also continue to collaborate with BLS to combine BEA data on multinational enterprises with BLS data on employment and wages. Results of this initiative, expected in 2018, will allow BEA to publish geographic, industry, and occupational detail on foreign direct investment in the United States.

In addition, BEA and its data agency partners will share institutional knowledge and expertise to expand joint research initiatives, including establishing cross-agency working groups to investigate topics such as improving measures of high-tech goods and services and refining BEA statistics by incorporating BLS microdata.

Strategy in Focus: Harmonize Releases

The U.S. international trade in goods and services release currently presents aggregate statistics on international trade in goods on a balance-of-payments basis and commodity, country, and chained-dollar statistics on a Census basis. BEA will work with the Census Bureau to publish these statistics on a single basis in order to streamline the content of the news release, alleviate confusion for customers, and harmonize the data in the trade release with data presented in BEA’s economic accounts.

To support this effort, BEA and the Census Bureau will form a joint news release team charged with publishing statistics on a single basis, integrating processing systems, and streamlining release review procedures. The first task of the joint team, which will begin its work in 2016, will be to replace the news release highlights with an “infographic” that illustrates the major monthly developments in international trade and provides links to the various statistics published in conjunction with the release.

Strategy in Focus: Strengthen BEA-Census Relationships

The co-location of BEA and the Census Bureau at the Suitland Federal Center will allow the two agencies to better share resources, best practices, and institutional and technical knowledge. Closer professional relationships between BEA and Census Bureau staff will enhance collaboration aimed at improving the products of both bureaus. To build relationships and enhance communication, BEA and the Census Bureau will employ new and existing mechanisms, including:

- Increasing access to training by providing formal opportunities for employees from both agencies to share information about their data products and work processes and by inviting Census Bureau employees to briefings on BEA releases.

- Utilizing the newly formed Economic Statistics Board, with representatives from BEA and the Census Bureau, to address key collection and measurement challenges. The Board will foster a regular dialogue and closer relationship between the two bureaus to improve the accuracy, timeliness, and relevance of the economic statistics produced by each agency.

- Holding more regular meetings between BEA and Census Bureau staff to discuss topics such as the specifics of BEA’s data needs and the constraints of survey design and data collection. Closer physical proximity will also allow for better coordination when BEA has questions about irregularities in Census Bureau datasets.
Data Collection

Objective: Modernize survey data collection and processing to ensure high-quality statistics while minimizing respondent burden.

BEA will boost response rates and ease the burden for respondents and BEA survey editors by streamlining data collection, editing, and analysis.

Strategy in Focus: 

Update Instruments

The Office of Management and Budget recently authorized changes in the way private funds report direct investment and portfolio investment. BEA will partner with the Department of the Treasury, the Federal Reserve Board, and the Treasury International Capital User Group to update collection instruments to reflect these changes.

Key strategies

- Update data collection instruments to reflect regulatory changes.
- Modernize survey processing systems.
- Educate survey respondents in order to reduce respondent burden, boost response rates, and inform survey design. BEA will continue to send representatives across the country to visit respondents, address questions or issues they have about surveys, explain methods, and test new survey instruments.

Timeline

<table>
<thead>
<tr>
<th>2016</th>
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<tr>
<td>Planning</td>
<td>Implementation</td>
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Commerce Link

In order to meet the real-time demands of its customers, the Department must explore alternative ways to collect the information needed for current and future economic datasets.

Strategy in Focus: Modernize Systems

BEA will modernize survey data systems by:

- Overhauling the primary systems that BEA uses to edit and aggregate survey data, apply adjustments, and prepare data for publication.
- Expanding and improving the electronic filing system to make it easier for companies to report data and for survey editors and respondents to communicate securely.
- Integrating human and programmed editing of survey forms by using third-party software to automate the editing or the adjustment of specific survey items.
- Collaborating with the Census Bureau to test the feasibility of using passive data collection—that is, automatically extracting data from a company’s system and transmitting those data to BEA. This would greatly diminish respondent burden and boost response rates.

Timeline

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<thead>
<tr>
<th>2016</th>
<th>2017</th>
<th>2018 and beyond</th>
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<tbody>
<tr>
<td>Complete major milestones for foreign direct investment in the United States surveys</td>
<td>Begin improving electronic filing</td>
<td>Complete major milestones for primary processing system of U.S. direct investment abroad surveys</td>
</tr>
<tr>
<td>Develop BEA auto-editing system for BE-10A short form and BE-10D survey data</td>
<td>Use software to edit other surveys</td>
<td>Continue improving electronic filing</td>
</tr>
<tr>
<td>Complete major milestones for primary processing system of international trade in services surveys</td>
<td>Explore passive data collection</td>
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<th>2016</th>
<th>2017</th>
<th>2018 and beyond</th>
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<td>Planning</td>
<td>Implementation</td>
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</table>
**International Guidelines**

**Objective:** Improve methodologies and presentation of economic data consistent with international guidelines.

The international statistical community has established a comprehensive set of guidelines to facilitate cross-country comparisons of economic statistics and to serve as a guide for countries establishing or maintaining economic accounting systems. BEA will work to conform to these guidelines in order to foster data comparisons with other countries and to support the analysis of international economic developments.

**Key strategies**

- Expand statistics on international trade in services.
- Align the national accounts with the structure and terminology recommended by international guidelines.
- Improve submissions to international organizations, including preparing quarterly versions of annual submissions and posting submission data-sets to the BEA Web site.

**Strategy in Focus: Expand International Trade in Services Statistics**

Services exports are increasingly important to the U.S. economy and to the trade balance. In 2015, exports of services represented 33 percent of total U.S. exports and led to a $262 billion surplus in international trade in services.

To improve and expand its trade in services statistics, BEA will:

- Provide greater geographic detail regarding the destination of U.S. services exports and the source of U.S. services imports, starting with Free Trade Agreement countries and other countries of interest to BEA’s customers.
- Expand the data it publishes on some of the most dynamic industries with high-value jobs, including research and development, intellectual property, medical services, financial services, and information and communications technology.
- Provide more frequent data on traded services by publishing additional detail on a quarterly, rather than an annual, basis.
- Update surveys to ensure that coverage is keeping pace with the growing number of U.S. businesses engaged in international trade and to obtain timely responses with minimal respondent burden.
- Improve access to services trade statistics through user-friendly tables, charts, and downloadable data.

Enhanced information on U.S. trade in services will inform trade negotiations, which are increasingly focused on issues related to intellectual property and information and communications technology, and will support U.S. trade promotion efforts by identifying overseas markets with potential for increased U.S. services exports.

**Timeline**

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<th><strong>2016</strong></th>
<th><strong>2017</strong></th>
<th><strong>2018 and beyond</strong></th>
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<tbody>
<tr>
<td>Expand annual geographic detail on services exports and imports from 49 countries and country groups to 90 countries and groups. Research data and methods for expanding services detail by type.</td>
<td>Develop quarterly services statistics for additional countries and country groups. Redesign BEA surveys.</td>
<td>If feasible, publish expanded services detail by type. Expand quarterly geographic detail on services exports and imports.</td>
</tr>
</tbody>
</table>
The growing importance of multi-country production arrangements and of globally synchronized business cycles highlights the urgent need to improve the international comparability of economic statistics. While BEA has instituted many changes over the last two decades to enhance the international comparability of its GDP accounts, differences still remain in:

- Sector definitions and boundaries throughout BEA’s accounts.
- Definitions and accounting conventions between the GDP accounts and international guidelines.
- Frameworks. The GDP accounts use a framework that is less comprehensive than what is recommended because they do not include financial accounts or balance sheets, which are produced by the Federal Reserve Board (FRB).

BEA prepares two sets of alternative estimates that address some of these issues: (1) To support comparisons with other countries, BEA adjusts its published estimates according to international standards and submits the data to the Organisation for Economic Co-operation and Development, and (2) BEA and FRB prepare the integrated macroeconomic accounts by combining their data in a framework similar to what is recommended by international guidelines.

While these alternative statistics fall short of complete compliance with international standards, they provide an important foundation for future work. BEA will build on this foundation to develop alternative data sources, methods, and presentations that move the GDP accounts toward the international guidelines for sectors, definitions, accounting conventions, and frameworks.

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**Timeline**

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<tr>
<th>2016–2018</th>
<th>2019–2022</th>
<th>2023</th>
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<tbody>
<tr>
<td>Research data and methods</td>
<td>Develop and test prototypes</td>
<td>Implement improvements</td>
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<td>Gather feedback</td>
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</table>
The economy is ever-changing, as evidenced by the world’s increasing reliance on rapidly evolving technologies, the growing importance of global supply chains, and the expanding complexity of financial relationships. BEA is committed to the continual development of new and more detailed statistics that heighten customers’ understanding of key sectors of the economy and inform decision-making by businesses, entrepreneurs, households, and government officials.

Objectives:

- Develop new and expanded statistics to better capture regional and industry trends.
- Develop tools and techniques to better measure the digital economy and to further capture technology’s role in economic growth.
- Develop new and expanded statistics to understand and describe the impact of globalization on the U.S. economy.
- Increase detail and coverage of the rapidly changing global financial sector and improve estimation methods.
- Expand the use of satellite accounts to highlight and provide more information on specific activities or sectors of the economy.
Objective: Develop new and expanded statistics to better capture regional and industry trends.

Investors, policy-makers, and consumers are demanding increasing amounts of data at more detailed levels to guide their economic decisions. BEA will respond to this demand by offering new and expanded regional and industry data products to further enlighten users’ analyses.

Key strategies

✱ Develop and publish statistics that highlight the economic performance of local areas.
✱ Expand the published level of industry detail.
• Harmonize statistics across data products by sharing source data, streamlining estimation methods, and leveraging insights from one set of statistics to inform other statistics. Projects include aligning the treatments of nonprofit institutions, harmonizing estimates of motor vehicle output, and using regional information to improve national statistics.

Strategy in Focus: Improve Local Area Statistics

To answer the call for richer economic data at the local area level, BEA has launched an initiative to develop a new Regional Economic Dashboard featuring county-level GDP and income data. Under this initiative, BEA will expand the scope of geographic detail in its regional statistics and will present the full set of regional data in an innovative and interactive format that allows users to easily manipulate, interpret, and incorporate these data into their decision-making processes. The Dashboard will present a new GDP by county series (including select industry detail by county), regional price information, and state-level measures of consumer spending.

Information from the Dashboard will help local governments target resources to attract investment, will guide businesses in identifying favorable markets for their products or areas where residents have the particular skills needed for their operations, and will inform households’ relocation decisions by highlighting areas with high demand for their skills or with lower costs of living.

Timeline

2016
Publish working paper outlining proposed method and research agenda for GDP by county

2017
Research methods for GDP by county
Develop Regional Economic Dashboard

2018
Release prototype GDP by county statistics
Introduce Dashboard

2019 and beyond
Finalize and release official GDP by county statistics
Update Dashboard
BEA will expand the published level of detail of its industry statistics from 71 industries to approximately 120 industries. These statistics will allow for more in-depth analyses of economic trends by highlighting movements in the detailed industries that may be masked at the more aggregated level of detail.

For example, additional information will be provided for computer and electronic products manufacturing—a key driver of U.S. innovation. Breakouts will include computer equipment manufacturing, semiconductor manufacturing, and audiovisual and communications equipment manufacturing.

**Timeline**

- **2016**: Research
- **2017**: Finalize methods
- **2018**: Develop and test prototype statistics
- **2019**: Publish expanded statistics
Objective: Develop tools and techniques to better measure the digital economy and to further capture technology’s role in economic growth.

In an era when business is increasingly conducted in virtual environments enabled by rapidly evolving technologies, BEA is committed to capturing and measuring the digital economy more accurately.

Key strategies
* Define the digital economy and capture its contribution to U.S. economic growth.
* Improve the measures of high-tech goods and services.

Commerce Link

*Strategy in Focus: Define and Measure the Digital Economy*

BEA will publish a roadmap for better capturing real growth in the digital economy, including identifying the building blocks needed to assess this dynamic sector. Using this roadmap, BEA will embark on research to measure more accurately the contribution of information technology to economic growth and to improve the measurement of digitally enabled commerce. BEA is also committed to better understanding the impact of technology-enabled, peer-to-peer access of goods and services, typically referred to as the “sharing economy.”

Timeline

2016
- Publish plan
- Begin research

2017–2018
- Conduct research
- Publish initial results

*Update and improve information on the digital economy.*

*Update the treatment of advertising-supported media.*

- Provide a more complete picture of foreign trade in computer, audio-visual media, and research and development services by including associated intellectual property transactions. To accomplish this, BEA will separately collect, measure, and report additional detail on cross-border transactions in intellectual property and will use this information to refine the classification of these transactions.

- Improve consumer spending estimates to reflect the growing importance of e-commerce. As online purchases represent an increasing share of consumer spending, BEA will update its data sources and methods to capture more information about these purchases.

*Strategy in Focus: Improve Measures of High-Tech Goods and Services*

BEA will research ways to improve its statistics on high-tech goods and services.

**ICT goods and services.** BEA will develop measures of the total value of information-communications-technology (ICT) goods and services in the U.S. economy. This work will enable users to track the growth in and relative importance of “digital” services.

**Prices.** Through collaborative efforts with the Bureau’s statistical agency partners, BEA will research methods to improve the prices of high-tech goods and services by exploring alternative data sources that may more accurately account for technological innovation, focusing on sectors with rapid rates of product innovation, such as information technology, telecommunications, and health care.

Timeline

2016–2018
- Research data and methods
- Develop and test prototypes
- Gather feedback

2019 and beyond
**Strategy in Focus: Update Information**

BEA will improve the information it provides users on aspects of the digital economy.

**Digitally enabled services.** In 2016, BEA will begin publishing a report annually that utilizes international trade statistics to examine trends in services for which digital technologies are thought to play an important role in facilitating trade, such as telecommunications and insurance and financial services. The report explores whether improvements in information and communications technology and reductions in the related costs continue to drive growth in trade in services. The last such report was released in 2012.

**Industry classifications.** To assist users with accessing and applying data on the digital economy, BEA will provide additional resources that clarify where technology companies are classified in BEA data. For instance, many users expect the services provided through ride-hailing apps to be classified in information when, in fact, the services provided by the drivers are classified in transportation services.

**Timeline**

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<th>2016–2018</th>
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<tr>
<td>Research data and methods</td>
<td>Develop and test prototypes</td>
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<td>Gather feedback</td>
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**Strategy in Focus: Update Treatment of Advertising-Supported Media**

BEA will continue to research ways to improve the treatment of advertising-supported media, acknowledging that the Internet has fundamentally changed the way households consume entertainment. Since 2000, consumers have downloaded increasing amounts of “free” entertainment, such as Facebook apps and Internet games, which are largely supported by advertising revenue. Currently, the value consumers get from watching broadcast television or playing games online is not directly included in GDP. Instead, media is considered to be an input to the advertising industry, and advertising, in turn, is considered to be an input to other types of goods and services. This method assumes that the costs of these inputs are embedded in the market prices of the goods and services being advertised; however, the additional value of the entertainment to consumers is not captured.
Objective: Develop new and expanded statistics to understand and describe the impact of globalization on the U.S. economy.

The world’s economies are becoming increasingly interconnected, as more and more businesses utilize highly complex global networks to produce and distribute their products. BEA will develop new and improved statistics to provide a consistent and up-to-date view of the evolving global economy.

Key strategies

✱ Update statistics on international trade in manufacturing services (including goods for processing).

✱ Measure global value chains.

• Serve on international working groups and technical teams to develop and implement guidelines for producing extended supply-use tables and trade in value added statistics.

• Revise and expand the Integrated Industry-Level Production Account by developing and publishing historical statistics and fully incorporating the production of these statistics into existing systems. This account provides a consistent framework for linking outputs to inputs that facilitates the analysis of international growth and productivity trends.

Strategy in Focus:

Update Treatment of International Trade in Manufacturing Services

According to international guidelines, goods sent abroad for processing without a change in ownership should be excluded from statistics on international trade in goods, rather than including the value of the goods before processing in exports and the value of goods returned after processing in imports. Instead, the processing fee charged by the foreign manufacturer should be recorded as imported services.

For example, a U.S. manufacturer sends parts to China, where they are assembled into a smartphone, and then the smartphone is sent back to the United States. With the existing treatment, the value of the parts sent to China would be counted in exports of goods, and the value of the smartphone would be counted in imports of goods. According to international guidelines, however, because the U.S. manufacturer owned the parts and the finished smartphone, only the costs associated with assembling the phone should be counted as international trade and recorded in imports of manufacturing services; nothing should be recorded in exports or imports of goods.

Successful implementation of the recommended treatment of manufacturing services requires detailed information on manufacturing processing fees and on the underlying goods transactions. Data for these transactions are either not available or are so new that their validity has not been thoroughly tested.

Despite these data challenges, BEA will continue to investigate options for implementing the new treatment of manufacturing services, including analyzing responses to new survey questions on the value of manufacturing services and on the destination of goods for processing and conducting research with the Census Bureau to produce estimates of manufacturing services.

Timeline

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<th>2016</th>
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<th>2018 and beyond</th>
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<tbody>
<tr>
<td>Research</td>
<td>Continue research</td>
<td>Continue to test methods</td>
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<tr>
<td></td>
<td>Test methods</td>
<td>and develop prototypes</td>
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<td></td>
<td>Develop prototype statistics</td>
<td>Implement new methods</td>
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<td>If feasible, release updated statistics</td>
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The goods and services that consumers and businesses purchase are increasingly composed of intellectual property, labor, materials, and other inputs from various countries around the world. However, the value that is created at each step in these global value chains (GVCs) is not always apparent from conventional measures of international trade, which capture the gross flows of goods and services as they move around the globe. In an effort to measure GVCs through trade in value added (TiVA) statistics, BEA has embarked on a series of inter-related projects.

In 2015, BEA began publishing supply-use tables using the framework recommended by international guidelines to provide an integrated presentation of the total supply of goods and services from both domestic and foreign producers and the use of this supply across the U.S. economy. These tables are an essential building block in analyzing GVCs. Next, BEA will update the industry classification structures of the supply-use tables and refine their valuations to bring them into closer alignment with international guidelines to increase international comparability.

To support the further analysis of global production arrangements, BEA will improve its import use tables by incorporating country of origin data, starting with the major trading partners of the United States.

BEA is also collaborating with Canada and Mexico to produce North American Regional supply-use tables and TiVA statistics by linking supply-use tables for each country through bilateral international trade statistics.

Finally, BEA will publish extended supply-use tables for the United States that refine the analysis of GVCs by introducing firm-level characteristics such as ownership type and multinational status within each industry.

Synthesizing information from across these projects will allow users to assess more easily the impacts of globalization on the U.S. economy.

### Timeline: Improve U.S. Supply-Use Tables

<table>
<thead>
<tr>
<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2016</td>
<td>Develop methods</td>
</tr>
<tr>
<td>2017</td>
<td>Publish “basic” value tables</td>
</tr>
<tr>
<td>2018</td>
<td>Publish tables on the international standard industry classification</td>
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### Timeline: Improve Import Use Tables

<table>
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<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2016</td>
<td>Research</td>
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<tr>
<td>2017</td>
<td>Test feasibility</td>
</tr>
<tr>
<td>2018</td>
<td>Prepare methods</td>
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<tr>
<td>2019</td>
<td>Publish tables by major trading partner</td>
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### Timeline: Publish North American Regional Tables

<table>
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<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2016</td>
<td>Continue collaboration</td>
</tr>
<tr>
<td>2017–2018</td>
<td>Develop methods</td>
</tr>
<tr>
<td>2019</td>
<td>Publish regional tables and TiVA statistics</td>
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<tr>
<td>2020</td>
<td>Integrate preliminary extended supply-use tables</td>
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### Timeline: Publish Extended Supply-Use Tables

<table>
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<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2016</td>
<td>Produce proof-of-concept paper</td>
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<tr>
<td>2017–2018</td>
<td>Prepare “case studies” based on firm types</td>
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<tr>
<td>2019</td>
<td>Develop firm-level tabulations by industry</td>
</tr>
<tr>
<td>2020</td>
<td>Publish preliminary extended supply-use tables</td>
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</tbody>
</table>
**Objective:** Increase detail and coverage of the rapidly changing global financial sector and improve estimation methods.

The explosion of new financial instruments and the subsequent financial crisis that began in 2008 exposed the need for improved economic statistics for the financial sector. More detailed breakdowns of financial subsectors and of the composition, ownership, and valuation of assets and liabilities could have more clearly highlighted the bubbles in housing and in equity prices. With this in mind, BEA will continue to expand and improve its measurement and presentation of domestic and international financial transactions to better serve the public and to aid analysts in the earlier identification of emerging trends.

**Key strategies**

✱ Expand the financial sector detail published in the integrated macroeconomic accounts.

✱ Improve the calculation of current-cost estimates of direct investment positions and income.

✱ Improve and expand the measurement of implicit financial services. (bea)

• Update the treatment of holding companies. Domestic and foreign businesses are increasingly routing investment through offshore holding companies, complicating the analysis of international investment. A better understanding of this practice will allow BEA to reclassify data according to who ultimately bears the risk and reaps the rewards of the transactions and will provide a new perspective on the impacts of globalization.

**Strategy in Focus:**

**Expand Integrated Macroeconomic Accounts (IMAs)**

The IMAs harmonize data from BEA’s GDP accounts with data from the Federal Reserve Board’s (FRB) financial accounts to link production and income to changes in net worth for the U.S. economy.

In December 2015, BEA published statistics for several subsectors within the financial business sector—depository institutions, Federal Reserve banks, pension plans, and property and casualty and life insurance carriers—using the framework of the IMAs.

BEA will collaborate with FRB to further expand the financial sector detail presented in the IMAs. This expanded presentation will shed additional light on the impacts of the recent financial crisis and will offer new ways to analyze trends in the financial sector.

**Timeline**

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<tr>
<td>2016</td>
<td>Research</td>
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<tr>
<td>2017</td>
<td>Develop methods</td>
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<td></td>
<td>Release prototype statistics</td>
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<tr>
<td>2018</td>
<td>Publish expanded statistics</td>
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**Strategy in Focus:**

**Streamline the Production of International Current-Cost Estimates**

There are various methods of valuing the assets of companies owned through direct investment relationships and the depreciation of those assets. The method that most closely aligns with BEA’s measures of fixed assets and production is the current (or replacement) cost basis. Under this method, tangible assets of direct investment affiliates (and the associated direct investment positions) are revalued to current prices, and depreciation reported for financial accounting purposes is converted to a measure more consistent with economic accounting principles.

Currently, the method for producing current-cost estimates of direct investment positions and income involves a complicated and time-consuming set of calculations. BEA will utilize a more efficient technique for preparing these estimates by tying them to the national current-cost estimates.

**Timeline**

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<thead>
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<th>Year</th>
<th>Activity</th>
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<tbody>
<tr>
<td>2016</td>
<td>Research new technique</td>
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<tr>
<td>2017</td>
<td>Implement new technique</td>
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<tr>
<td></td>
<td>Release updated statistics</td>
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Instead of charging explicit fees, many financial institutions are compensated through margins built into the interest rates or spreads on the financial products they offer. For instance, commercial banks may boost the interest rates they charge on loans or reduce the interest rates they pay on deposits rather than charging customers explicitly for services like loan underwriting or check clearing. Security brokers may also reduce customers’ earnings by a certain percentage instead of charging an explicit management fee. BEA refers to these services as “implicit financial services.”

While BEA has long recognized that various types of financial institutions provide implicit financial services, in the past, it has concentrated much of its effort in this area on improving the measures of implicit services of commercial banks. BEA will now expand and improve the measures of implicit services provided by other types of institutions by:

- Incorporating the methods used to calculate commercial bank implicit services into the estimates of implicit services provided by credit unions and savings institutions.
- Recognizing, for the first time, implicit services of non-bank financial intermediaries (sometimes called “shadow banks”), which engage in financial activities similar to those of traditional banks but are not subject to the same regulatory oversight.
- Preparing and implementing new methods for measuring cross-border transactions in implicit financial services, including banking services and brokerage services.

Expanding and improving these measures of implicit financial services will bring BEA’s economic accounts into closer alignment with international guidelines and will more accurately portray the impacts of domestic and international financial transactions.

### Strategy in Focus: Improve Measures of Implicit Financial Services

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<th>Timeline</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019 and beyond</th>
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<tbody>
<tr>
<td></td>
<td>Research data sources and estimation methods</td>
<td>Prepare and test methods</td>
<td>Release updated statistics for credit unions, savings institutions, and cross-border transactions</td>
<td>Develop and test prototypes for shadow banks</td>
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<td></td>
<td></td>
<td>Release updated statistics for shadow banks</td>
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</table>
**Objective:** Expand the use of satellite accounts to highlight and provide more information on specific activities or sectors of the economy.

Satellite accounts fuel the expansion and development of BEA’s core set of economic accounts and provide alternative economic perspectives, which are of keen interest to the user community.

BEA will expand the use of satellite accounts to provide a framework for testing experimental measures and for offering alternative packaging of existing data to evaluate a specific sector or commodity.

**Key strategies**

✱ Release Arts and Cultural Production Satellite Account statistics by state.

✱ Introduce statistics to measure the economic impact of small businesses.

✱ Prepare Health Care Satellite Account statistics in the input-output framework.

✱ Formalize the process for producing satellite accounts by integrating satellite account production into existing systems and developing a mechanism that encourages staff from all BEA program areas to collaborate on satellite account development. [bea](https://www.bea.gov)

**Strategy in Focus:**

**Expand the Arts and Cultural Production Satellite Account (ACPSA)**

BEA will release statistics showing the role of arts and culture in the economies of all 50 states, including state-by-state employment and compensation for people engaged in the arts. Currently, BEA produces arts and cultural statistics only on a nationwide basis.

| **Timeline** |
|-----------------|-----------------|-----------------|-----------------|
| 2016            | 2017            | 2018            |
| Develop methods | Release state-level compensation and employment | Release full state-level ACPSA |

**Strategy in Focus:**

**Release Data on Small Businesses**

Small businesses are often at the leading edge of risk-taking, entrepreneurship, and economic growth in the United States. BEA will develop a Small Business Satellite Account (SBSA) to measure the economic activity generated by small businesses and to track the overall growth and health of America’s small business sector.

| **Timeline** |
|-----------------|-----------------|-----------------|-----------------|
| 2016            | 2017            | 2018            | 2019            |
| Research        | Develop prototype | Release prototype | Release official SBSA |
The health care sector represents a significant and growing share of the U.S. economy. In 2015, BEA introduced a Health Care Satellite Account (HCSA) that, for the first time, presented health care statistics by type of disease rather than by type of medical service, fostering a greater understanding of the health care sector and the services it provides. For instance, the HCSA can be used to track the costs of treating cancer or heart disease rather than simply presenting spending on visits to a doctor or hospital.

BEA will provide additional perspectives on health care spending by offering three new products based on the input-output (I-O) framework.

First, BEA will use standard health care products and prices to construct a detailed, I-O based account. This new account will provide a lens for analyzing the production of goods and services by health care industries. Then, BEA will incorporate prices that reflect the costs of treating diseases into the I-O framework to create an account that aligns with the HCSA.

BEA will also prepare new statistics using the “coordinator of care” approach, in which physicians are seen as coordinating all medical care services—all other health care products are treated as inputs to these services. For example, if a physician diagnoses a patient with a digestive disease, then the diagnosis and treatment of the disease are treated as physician services, and the lab tests, medications, and procedures ordered by the physician are inputs to the physician’s treatment of the disease. This approach streamlines the integration of disease-based health care services with standard I-O estimation methods.

Looking to the future, BEA will move forward with research linking changes in the costs of treating diseases to improvements in the quality of treatment, including advances that lead to better health outcomes. Without methods to adjust for quality and to attribute changes in quality to specific medical interventions, the value of spending on medical care cannot be accurately measured.

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<td><strong>2019 and beyond</strong></td>
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In today’s rapidly shifting, digitally interconnected world, investors, policy-makers, and consumers demand faster and more in-depth data to guide their economic decisions and expect better ways to extract, analyze, and visualize those data. BEA’s effectiveness as a statistical agency is inexorably tied to its ability to provide timely, meaningful information to customers in user-friendly formats. To meet this challenge, BEA is developing new tools that make its data more accessible and easier to use. In addition, the Bureau is employing innovative mechanisms to reach new and diverse audiences and is gathering user feedback to inform ongoing improvement efforts.

**Objectives:**

- Expand outreach to educate new and existing customers about BEA’s statistics and to promote the Bureau’s data to a diverse audience.
- Improve and enhance the dissemination of BEA’s statistics to respond to expanding communication channels and customer bases.
- Solicit customer feedback to target outreach efforts and to improve BEA’s data products and services.
Objective: Expand outreach to educate new and existing customers about BEA’s statistics and to promote the Bureau’s data to a diverse audience.

BEA will take an even more proactive approach to ensuring that customers understand the Bureau’s products and are able to access and use its data readily, acknowledging that BEA’s statistics are only as useful as customers’ ability to use, access, and understand them. BEA will strive to identify the needs of users and to tailor outreach accordingly, ensuring that the Bureau’s products reach new audiences with varying levels of knowledge.

Key strategies

✱ Leverage the BEA Web site to connect with and educate data users. [bea]

• Connect to customers through in-person interactions. Even as technology presents new ways to interact with data users, BEA will continue to engage directly with customers to enhance information sharing and to build relationships. This includes holding BEA user conferences and data workshops, attending professional conferences and delivering presentations, and visiting universities to share information on BEA’s products with the next generation of economists and data users.

Strategy in Focus: Leverage the BEA Web Site

The BEA Web site is one of the most powerful and wide-reaching tools that BEA has at its disposal to connect with and educate data users.

BEA will leverage its Web site to enhance communication with the public, including:

• Hosting Webinars and releasing videos that help users and survey respondents better understand BEA’s data products and surveys, coordinating with partner organizations as appropriate.

• Developing and expanding interactive fact sheet applications to educate users on specific topics related to BEA’s data.

• Publishing articles that describe BEA’s data products and explain how its data can enhance economic perspectives. This includes describing how different data products can be used in unison to provide a richer story and to facilitate more detailed analyses.

• Expanding the methodology documentation available through the Web site and delivering the documentation in alternative formats.

Timeline

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<tr>
<td>Finalize framework for Industry Fact Sheet applications</td>
<td>Deploy Industry Fact Sheet applications</td>
<td>Continue exploring ways to enhance communications through the BEA Web site</td>
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<td>Host Webinars</td>
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<td>Release videos</td>
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Dissemination

Objective: Improve and enhance the dissemination of BEA’s statistics to respond to expanding communication channels and customer bases.

BEA will leverage the latest available technologies to ensure that data are disseminated effectively and efficiently to a wide array of customers. BEA will strive to push increasing amounts of data through the Web site in ways that are easily accessible and user friendly. BEA will also standardize and streamline its products to help users more seamlessly navigate BEA’s offerings.

Key strategies

✱ Modernize the BEA Web site, including launching a new Web site framework and introducing new and improved Web site functionality.

✱ Harmonize the content, format, and timing of the Bureau’s releases, including accelerating the release of GDP by industry and GDP by state to improve consistency with the release of quarterly GDP.

✱ Standardize the naming conventions and classification structures across BEA’s data products (for example, harmonizing industry codes and series descriptions) to unify data comparisons and to streamline research.

✱ Move the Bureau beyond traditional data presentations by integrating data visualization techniques and cutting-edge graphics as regular features of publications and releases.

Strategy in Focus: Modernize the BEA Web Site

The BEA Web site is the primary mechanism by which customers access BEA data and information on estimation methods and the underlying economic theory. BEA will enhance and modernize the Web site to ensure that content is available in easily accessible and user-friendly formats.

As the first step in updating the BEA Web site, BEA is developing a more intuitive user experience and information architecture centered on the Bureau’s products, in contrast to the existing framework that mirrors the Bureau’s organizational structure. For example, currently, to gather information on national, industry, and regional GDP, a data user must visit three separate areas of the Web site. With the new framework, information from the different GDP perspectives will be accessible through one main page.

BEA will also introduce new and improved functionality to the Web site by:

• Updating BEA’s interactive data tables to make them more user friendly.

• Expanding data retrieval capabilities to allow users to customize data pulls, including specifying and storing special aggregations.

• Introducing new customer support features and content to provide a user experience that is on par with private sector Web sites.

Timeline

2016
Test new Web site framework with users and incorporate feedback
Develop customer support features

2017
Launch new Web site framework
Deploy customer support features

2018 and beyond
Update interactive tables
Expand data retrieval capabilities

Commerce Link

The world is changing and data are an increasingly important driver of that change. The Department’s approach to data services must change accordingly.
The early estimates of GDP are published in a series of releases—advance, second, and third—approximately 30, 60, and 90 days, respectively, after the end of the quarter. Quarterly GDP by industry statistics are released about a month after the third GDP estimate, and quarterly GDP by state statistics are released another month or so after that (see example). This means that, for any given quarter, GDP by industry and GDP by state statistics lag behind the corresponding GDP estimates by a quarter or more.

BEA will accelerate the release of the quarterly GDP by industry and GDP by state statistics to improve consistency with the release of quarterly GDP. Harmonizing the timing of these releases will ensure data consistency across products and will allow users to synthesize the information offered by the different sets of statistics in a timelier manner.

Example: 2015Q3 Releases

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<td>Third</td>
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<tr>
<td>GDP by industry</td>
<td>January 21, 2016</td>
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<td>GDP by state</td>
<td>March 2, 2016</td>
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Feedback

**Objective:** Solicit customer feedback to target outreach efforts and to improve BEA’s data products and services.

In order to improve the Bureau’s products and to optimize the delivery of information to its customers, BEA will use feedback from users to inform its data production, dissemination, and communication practices.

The strategies employed to achieve this objective complement those used to accomplish the “Outreach” objective. Outreach opportunities provide an efficient avenue for gathering customer feedback.

**Key strategies**

- Leverage feedback from the Web site, including analyzing usage statistics, to target communication improvements and outreach efforts.
- Continue to hold semi-annual Advisory Committee meetings to draw on outside expertise to improve BEA’s existing and future products as well as gain insight into the needs of BEA’s expert users.
- Gather feedback from users at data workshops. BEA regularly conducts data workshops with the media, students, businesses, and other customers. In these workshops, BEA will continue to solicit feedback on data products and ask users about data needs that may not be met currently.
- Use educational Webinars as a mechanism for soliciting feedback from a wide swath of customers. BEA will utilize Webinars not only to provide useful information to users on BEA’s data products but also to give participants the opportunity to ask questions and provide BEA staff with a forum for collecting customer feedback.
- Meet with customers to request feedback on specific topics. For instance, BEA may put together special data packets to hand out at a conference. Prior to the conference, BEA will solicit feedback on the packets from a targeted group of customers and adjust the materials accordingly. BEA will use this model to gather feedback on new data products and changes to the BEA Web site.
- Implement a customer relationship management (CRM) system to track and analyze customer feedback consistently across the Bureau. The CRM system is critical for gathering the data necessary to develop the full picture of BEA’s diverse customer bases in order to connect with customers better and to target BEA’s statistical products to meet their needs.

Commerce Link

*Feedback from customers provides a map to operational excellence.*
In order for BEA to successfully carry out its statistical mission, the Bureau must build its human capital and technological capacities. From a personnel standpoint, this means recruiting the specific talent and skills needed to address emerging data issues, training staff in a diverse range of topics—from foundational economic theories and statistical approaches to cutting-edge data management and analytics techniques, and bolstering employee engagement and satisfaction to retain BEA’s internal knowledge base. In addition, maintaining an innovative and agile IT infrastructure and establishing appropriate security and operational safeguards ensures that BEA is poised to readily predict and respond to customers’ evolving needs.

**Objectives:**

- Recruit, retain, and engage a high-caliber workforce.
- Manage and modernize BEA’s information technology (IT) infrastructure for maximum efficiency in the production of BEA’s statistics.
- Maintain a high level of IT security to protect the integrity of BEA’s statistics.
- Ensure the continuation of mission-essential functions in an emergency.
Recruit, Retain, and Engage Staff

Objective: Recruit, retain, and engage a high-caliber workforce.

BEA will uphold its reputation as one of the world’s leading statistical agencies only if it continues to attract, develop, and retain a talented, diverse workforce that is driven to innovate and improve BEA’s statistics. BEA’s greatest strength is its employees. To increase employee satisfaction, BEA will build on the existing foundation of what employees value about BEA, while regularly checking in with staff to gauge satisfaction and engagement.

Key strategies
- Convene “change committees” annually, based on feedback from the previous year’s Federal Employee Viewpoint Survey, to engage staff in the process of instituting bureau-wide improvements.
- Establish working groups at the directorate level to empower employees to guide and implement change within their work units.
- Expand training efforts and foster information sharing.  
- Support and expand telework and alternative work schedule policies.
- Improve human capital strategies.

Commerce Link

Employees who are committed to the Department’s mission, their colleagues, and their personal development will find a way to evolve processes, acquire skills, and devise solutions that advance the cause.

* Strategy in Focus: Promote Training and Information Sharing

Based on recommendations of the 2015 Change Committee, BEA established a new training structure, led by a BEA Training Council with representatives from all organizational units, to harmonize training operations across the Bureau. Through this new structure, BEA will continue to offer a wide array of training opportunities, including:
- New employee “on-boarding” training, starting with a pilot program in the national accounts area.
- Management and leadership training, including annual training for new supervisors.
- Communication skills training, including training on generational differences and accommodating different work styles.
- Cross-estimate training to ensure that the Bureau is poised to handle attrition and emergencies.
- Bureau-wide training on BEA’s products, including using the BEA Intranet to launch a national accounts basics training program and to host training modules on the international guidelines for national accounts.
- Training on advanced data analysis and programming skills.

In addition, BEA will promote the free exchange of information among its staff by encouraging analyst-to-analyst communications, holding inter-directorate forums to discuss cross-cutting issues, and expanding meetings between work groups who share data. BEA will also increase the number of formal opportunities for employees to share their accomplishments with the entire Bureau.
**Strategy in Focus:**

**Support Telework and Alternative Work Schedule (AWS) Policies**

In 2015, BEA updated its telework and AWS policies, acknowledging that workplace and schedule flexibility is a key element in the work-life balance of employees. BEA will continue to support telework and AWS by:

- Fully implementing alternative work schedules, including setting clear expectations for staff at all levels.
- Identifying infrastructure and software needs to enable a seamless telework experience and investing in IT resources and tools accordingly.
- Using the capabilities of the existing time and attendance system and other technologies to accommodate the new policies and to make it easier to manage employees’ schedules and work locations.
- Developing a strategy for improving telework and AWS policies, based on recommendations of the 2016 Change Committee, whose focus is broadening programs that foster a healthy work-life balance. BEA management is committed to the ongoing evaluation and update of these policies as a mechanism for easing the transition to BEA’s new headquarters in Suitland and for supporting employee retention and recruitment more broadly.

**Strategy in Focus:**

**Improve Human Capital Strategies**

BEA will refine its human capital planning to more effectively support mission-critical functions. BEA is engaged in the Department’s endeavor to implement a shared services model, which will transform how select mission-enabling services, including human resources, are delivered. By realizing efficiency gains and eliminating redundancies, this model is focused on improving overall customer satisfaction.

The ability to attract talent is the foundation of a diverse and productive workforce. BEA will evaluate and improve its hiring practices to ensure that vacancies are filled with highly qualified candidates as quickly as possible.

BEA will manage knowledge transfer and succession planning. As staff members near retirement and as attrition rates increase due to the move to the Suitland Federal Center, BEA will develop a new generation of agile, innovative experts and leaders who will not only maintain, but also improve, BEA’s statistics. As part of this initiative, BEA will expand its mentoring program and boost participation in cross-agency employee development programs.
Information Technology (IT) Modernization

Objective: Manage and modernize BEA’s IT infrastructure for maximum efficiency in the production of BEA’s statistics.

BEA will maintain highly flexible, adaptive, and cost-effective IT systems that can respond quickly to changing data processing and dissemination needs. BEA will also continue to modernize processing systems to realize efficiency gains that will allow staff to dedicate more time to analyzing and improving BEA’s products.

Key strategies

✱ Update and expand the Bureau’s data processing systems. 

• Utilize the IT Steering Committee to more efficiently manage bureau-wide IT modernization efforts and to foster clear communication about projects and processes. Responsibilities of the committee include establishing clear timelines and goals, serving as the point-of-contact for addressing staff concerns, and increasing engagement between in-house experts and statistical staff to develop custom IT solutions.

• Identify and evaluate opportunities to implement cloud computing within the framework of the Bureau’s requirements for maintaining the integrity and timeliness of its economic data and the confidentiality of company-level source data. As part of this initiative, BEA will investigate the use of “private cloud” technology to share data with the Census Bureau.

Commerce Link
The Department requires a 21st century work environment and information technology (IT) infrastructure that supports collaborative problem solving and superior customer service, and provides capabilities to share and transform data for decision-making.

✱ Strategy in Focus: Modernize Processing Systems

BEA will continue to update and expand the systems it uses to process and store economic data, including:

• Integrating the production of the fixed assets accounts and the integrated macroeconomic accounts into the main national accounts processing system. Currently, these products are prepared using a variety of decentralized methods.

• Updating and enhancing the international accounts processing systems, including harmonizing underlying calculations and modifying tables used for internal review and analysis, to reflect fully the 2014 comprehensive restructuring of the international accounts.

• Completing the modernization of the regional estimation and dissemination systems to improve review and analysis, enhance efficiency, support integration with other program areas, and promote the development of new regional statistics.

In addition, BEA will expand the use of its internal “data hub” to transfer data quickly and accurately between program areas and will leverage the data hub to perform data transformations and analyses more efficiently. In addition to continuously expanding the use of the data hub for internal data transfers, BEA will integrate a source data module into the data hub and will build vintage histories for the data stored in the hub. Ultimately, analysts will pull all of their source data from this single, centralized location and will be equipped to run revision analyses readily and easily.

Timeline

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<td>Continue updates to processing systems</td>
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<tr>
<td>Develop pilot source data module to feed data hub</td>
<td>Begin storing vintage histories in data hub</td>
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Objective: Maintain a high level of IT security to protect the integrity of BEA’s statistics.

BEA will protect the confidentiality, integrity, and availability of the Bureau’s IT systems and of the data it processes, transmits, and stores by maintaining appropriate security controls.

Key strategies

✱ Maintain an effective IT security program, including continuously assessing systems for risk, periodically monitoring the effectiveness of security controls, tracking the completion of corrective actions, and regularly updating security policies and plans.

✱ Participate in the Department of Homeland Security’s Continuous Diagnostics and Mitigation initiative to improve situational awareness by streamlining security assessments and strengthening the security for each device on BEA’s network.

✱ Conduct IT security awareness training, including training for new employees, annual refresher training, periodic simulated phishing tests, and role-based training for staff with significant security responsibilities.

Strategy in Focus: Continuously Evaluate and Enhance BEA’s IT Security

Threats, and the resulting risks, to the confidentiality and integrity of BEA’s data are constantly evolving. To meet this challenge, BEA has developed an IT security strategy based on ongoing risk assessments and management.

In the past several years, BEA has leveraged cutting-edge technology services to enhance its security protocols, including:

✱ Intrusion prevention security services to detect and avert cyber attacks. BEA was the first federal statistical agency to implement these safeguards.

✱ Malware protection to keep malicious code off the BEA network.

✱ “Whitelisting” of applications in order to prevent staff from installing non-approved software, including blocking malware and restricted programs from running off flash drives.

BEA will build on these successes to continue improving its IT security measures by:

✱ Upgrading security operations that support BEA’s network infrastructure.

✱ Implementing new controls of the Department of Homeland Security’s Continuous Diagnostics and Mitigation (CDM) initiative to ensure that unauthorized devices do not connect to BEA’s network.

✱ Coordinating information flows between BEA and the Department of Commerce’s (DOC) Security Operations Center.

✱ Conducting ongoing security reviews of the Bureau’s high-value IT assets.

✱ Continuing to evaluate and enhance BEA’s IT security controls in response to new threats and new federal laws and regulations.

Timeline

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<td>Upgrade infrastructure</td>
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<td>security controls</td>
<td>as part of CDM initiative</td>
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<td>Coordinate information flows</td>
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**Emergency Planning**

**Objective:** Ensure the continuation of mission-essential functions in an emergency.

To accomplish its mission, BEA will ensure that its operations are performed efficiently with minimal disruption, especially during an emergency. While the severity and consequences of an emergency cannot be predicted, effective contingency planning minimizes the impact on BEA missions, personnel, and facilities.

**Key strategies**
* Execute a continuity of operations program.  
  - Maintain and upgrade disaster recovery systems, including expanding LAN backup capabilities, as needed, to keep pace with data storage needs.

**Strategy in Focus: Execute a Continuity of Operations Program**

BEA's continuity of operations program (COOP) provides planning and program guidance to ensure that the Bureau is capable of conducting essential missions and functions under adverse conditions. In the event that BEA’s primary facility is unusable for any reason, the plan provides the roadmap for deploying critical employees to remote locations, maintaining communication between BEA and key leaders at the Department of Commerce, and facilitating the return of employees to either the primary location or to a new site when the emergency conditions have been resolved.

To successfully execute this program, each year, BEA will:
  - Conduct training sessions for employees who would relocate to remote sites in the case of an emergency.
  - Plan, execute, and evaluate COOP simulations.
  - Evaluate the effectiveness of COOP-related strategies and implement identified improvements.
  - Review all COOP-related plans and related documents and update them, as needed. In 2016, BEA will update the COOP to reflect BEA’s new location at the Suitland Federal Center.

BEA will also participate in emergency preparedness meetings with the Department of Commerce and in national disaster recovery exercises, as appropriate.
Appendix A: Evaluating Success Through Performance Measures

BEA’s progress toward achieving its mission is determined through the use of both long- and short-term performance measures that track the improvement and expansion of the Bureau’s economic accounts, customer satisfaction with BEA’s statistical products, recruitment and development of a skilled and satisfied workforce, and the efficient management of information technology (IT) resources. BEA’s performance measures are described below.

**Improve the accuracy and reliability of existing statistics:** Percent of annual milestones completed. Continuously improving BEA’s data products by providing more timely, relevant, and comprehensive statistics is essential for supporting private and public economic analysis and decision-making.

**Modernize survey data collection and processing:** Combined response rate for the quarterly direct investment surveys and percent of electronic filing of international investment and services surveys. These measures monitor BEA’s ability to collect accurate international transactions data in an efficient and cost-effective manner.

**Develop new and expanded products:** Percent of annual milestones completed. BEA is committed to maintaining the relevance of its accounts by providing additional regional and industry detail and developing statistics to better measure the digital economy, describe the impacts of globalization, and analyze the evolving financial sector.

**Expand outreach and promote BEA’s data products—Customer outreach:** Number of major market news citations and number of retweets from BEA’s Twitter feed. Coverage of BEA’s data—through both traditional media sources and nontraditional channels like Twitter—makes the Bureau’s statistics more accessible to the public.

**Improve and enhance the dissemination of BEA’s statistics and solicit customer feedback—Customer satisfaction:** Number of above-average responses on BEA’s Web site Customer Satisfaction Survey. BEA seeks to deliver its economic statistics to the public in a timely, efficient, and transparent manner using cutting-edge access and visualization tools.

**Transition BEA’s operations to the Suitland Federal Center—BEA-Census relationships:** Number of BEA attendees at cross-agency training sessions and number of Census Bureau attendees at briefings for BEA releases. Increased opportunities to share information and to build closer professional relationships foster collaboration that leads to improvements to the data products of both agencies.

**Recruit, retain, and engage a high-caliber workforce—Hiring practices and timelines:** Average time to fill federal career positions. Efficient hiring practices are essential to attracting a talented, diverse workforce.

**Recruit, retain, and engage a high-caliber workforce—Change committees:** Annual progress toward addressing employee engagement issues highlighted by annual change committees. Employee engagement and satisfaction are critical to BEA’s success in providing accurate data.

**Recruit, retain, and engage a high-caliber workforce—Telework:** Quarterly number of teleworked hours. Telework is an innovative tool for managing an organization more efficiently and increasing the productivity, morale, and retention of employees. BEA endeavors to expand the use of telework for its workforce.

**Manage and modernize BEA’s IT infrastructure—Processing systems:** Percent of annual milestones completed. Modernizing processing systems leads to efficiency gains that allow staff to dedicate more time to analyzing and improving BEA’s products.

**Maintain a high level of IT security:** Percent of high impact systems with essential controls fully implemented and successful annual completion of IT portfolio management schedule. Security of IT systems is critical to the timeliness and integrity of BEA’s economic statistics.

**Ensure the continuation of mission-essential functions in an emergency—Continuity of Operations Program:** Percent of annual milestones completed. Effective contingency planning minimizes the impact of an emergency on BEA’s mission, personnel, and facilities.