BEA API for Data Retrieval

User Guide

Introduction

The Bureau of Economic Analysis (BEA) publishes economic statistics in a variety of formats. This document describes the BEA Data Retrieval Application Programming Interface (API) – including detailed instructions for retrieving data and meta-data published by BEA. The API is intended to provide programmatic access to published economic statistics using industry-standard methods and procedures. The intended audience of this document is programmers who are familiar with the concepts and techniques of retrieving data from Web Services.

The BEA API includes methods for retrieving a subset of BEA statistical data, and meta-data that describes it. As additional datasets are added, the meta-data retrieval methods can be used to discover the current data accessible through the API.

Access to the BEA API

The API is available to registered users on the BEA public web site. Before using the API, users must obtain a unique 36-character UserID by registering at *https:/apps.bea.gov/api/signup/* . To register, API users must provide their name (or organization name), a valid email address (**see note #1 below**) and agree to the published terms of service. After completing the registration form an email is sent containing the assigned UserID, and a link that completes the registration process. Assigned UserIDs are activated when the link has been clicked.

⚠ NOTES:

1. **To prevent abuse, BEA does not permit users to register for an API key with a disposable email address.**
2. **In mid-2018, BEA restructured its website and created a new subdomain, *apps.bea.gov*, to host all dynamic, database-driven web applications referenced from the primary domain, www.bea.gov. While API registration and documentation links remain on the primary domain, the URI for the API is accessed on the *apps.bea.gov* subdomain, as shown below.**

The URI[1] of the API is: *https://apps.bea.gov/api/data*. All API access is through this URI; no other paths are used. Data is retrieved by sending an HTTP GET to the URI with appropriate (querystring) parameters supplied. The minimum parameters for every request include the UserID and the name of the method being invoked. For example:

https://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GETDATASETLIST&

would retrieve a list of the datasets currently offered by the BEA API (if the UserID was valid – it's not).

Statistical data offered by the API is organized into defined "Datasets". An API data retrieval request always specifies one dataset by name. Each dataset has a number of defined parameters, and each parameter has a defined set of valid values. There are four API methods that return meta-data about the API – corresponding to

[1] Uniform Resource Identifier

datasets, parameters, and valid parameter values. There is one method that returns data.

JavaScript Usage

While the API may be used from any language capable of issuing HTTP requests (Java, PHP, Perl, Python, C, etc.), two features are supported that allow JavaScript to issue requests without violating same-origin security checks - CORS and JSONP.

If you're writing a browser-based web application for modern web browsers with support for CORS then you may simply use an XMLHttpRequest as usual, without any changes. All HTTP responses generated by the API will include the necessary CORS headers.

If you're writing a browser-based web application for legacy browsers without support for CORS then your request URL query string may include a *jsonp* argument. If present, this prefix will be wrapped around the response, allowing you to capture the result of the query.

For example:
http://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetData&datasetname=Regional&TableName=CAINC4&LineCode=30&GeoFIPS=COUNTY&Year=2013&ResultFormat=json&jsonp=MY_FUNCTION_NAME

Data Return Format

The API returns data in one of two formats: JSON[2] or XML[3]. The optional *ResultFormat* parameter can be included on any request to specify the format of the results. If *ResultFormat* is not supplied on the request, or an invalid *ResultFormat* is specified, the default format returned is JSON.

The valid values for *ResultFormat* are "JSON" and "XML". For example, the following request would return a list of the available datasets in XML format:
http://apps.bea.gov/api/data?UserID=Your-36Character-Key&method=GETDATASETLIST&ResultFormat=XML

This request would return a list of the available datasets in JSON format:
http://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GETDATASETLIST&ResultFormat=JSON

The data returned from the API always has the following basic structure, with some additional structure depending on the data requested:

```
<BEAAPI>
    <Request>
        <RequestParam ParameterValue="GETDATASETLIST" ParameterName="METHOD"/>
        <RequestParam ParameterValue=" Your-36Character-Key" ParameterName="USERID"/>
        <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
    </Request>
        <Dataset DatasetDescription="Standard NIPA tables" DatasetName="NIPA"/>
        <Dataset DatasetDescription="Standard NI underlying detail tables" DatasetName="NIUnderlyingDetail"/>
        <Dataset DatasetDescription="Multinational Enterprises" DatasetName="MNE"/>
        <Dataset DatasetDescription="Standard Fixed Assets tables" DatasetName="FixedAssets"/>
        <Dataset DatasetDescription="International Transactions Accounts" DatasetName="ITA"/>
        <Dataset DatasetDescription="International Investment Position" DatasetName="IIP"/>
        <Dataset DatasetDescription="GDP by Industry" DatasetName="GDPbyIndustry"/>
        <Dataset DatasetDescription="Regional data sets" DatasetName="Regional"/>
    </Results>
</BEAAPI>
```

[2] Java Script Object Notation
[3] Extensible Markup Language

In XML form, the root node is always <BEAAPI>, followed by the child node <Request>. The <Request> node contains <RequestParam> children that echo the parameters passed in the request. The root node, <BEAAPI>, then has another child node, <Results>, containing the results of the request. The Results content is different depending on the method and parameters passed. In this example, the result of the GetDatasetList method is shown to be a simple list of Dataset names and descriptions.

In JSON form, the example above returns data as follows (white-space and indentation added for clarity):


```
{
    "BEAAPI":{
        "Request"
        :{
            "RequestParam":[
                {
                    "ParameterName":"USERID",
                    "ParameterValue":" Your-
                    36Character-Key "
                },
                {
                    "ParameterName":"RESULTFORMAT",
                    "ParameterValue":"JSON"
                },
                {
                    "ParameterName":"METHOD",
                    "ParameterValue":"GETDATASETLIST
                    "
                }
            ]
        },
        "Results":{
            "Dataset
            ":[
                {
                    "DatasetName":"NIPA",
                    "DatasetDescription":"Standard NIPA
                    tables"
                },
                {
                    "DatasetName":"NIUnderlyingDetail",
                    "DatasetDescription":"Standard NI underlying
                    detail tables"
                },
                {
                    "DatasetName":"MNE",
                    "DatasetDescription":"Multinational
                    Enterprises"
                },
                {
                    "DatasetName":"FixedAssets",
                    "DatasetDescription":"Standard Fixed
                    Assets tables"
                },
                {
                    "DatasetName":"ITA",
                    "DatasetDescription":"International Transactions Accounts"
                },
                {
                    "DatasetName":"IIP",
                    "DatasetDescription":"International Investment Position"
                },
                {
                    "DatasetName":"GDPbyIndustry",
                    "DatasetDescription":"GDP by
                    Industry"
                },
                {
                    "DatasetName":"Regional",
                    "DatasetDescription":"Regional data sets"
                }


            ]
        }
    }
}
```

Error Return Format

When invalid values are supplied for parameters in a request, or required parameters are missing, the results contain an error message – for example:

```
<BEAAPI>
  <Request>
    <RequestParam ParameterName="USERID" ParameterValue="Your-36Character-Key" />
    <RequestParam ParameterName="METHOD" ParameterValue="GETDATASETLIST" />
    <RequestParam ParameterName="ResultFormat" ParameterValue="XML" />
  </Request>
  <Results>
    <Error APIErrorCode="3" APIErrorDescription="The BEA API UserID provided in the request does not exist. " />
  </Results>
</BEAAPI>
```

API Calling Limits (rate limiting)

⚠ NOTE:

These limits have periodically been adjusted since the API's inception and will continue to be evaluated and adjusted as needed to protect BEA's API and webserver infrastructure from extreme and/or abusive activity that may be detrimental to our infrastructure and/or unfairly impede other API users.

The BEA API implements a throttling (rate limiting) mechanism to protect our servers from resource contention, and to promote a fair opportunity for all users to share resources and retrieve data.

Here's how the throttling mechanism works:

There are three standard limits applied for all API user accounts:

- Number of requests per minute (100), and or
- Data volume retrieved per minute (100 MB), and/or
- Errors per minute (30)

When any of these limits are exceeded by an API user in the previous minute, that user will receive an error for any additional requests **for a time-out period of one hour**.

Example Error Response in XML Format:

```
<BEAAPI>
  <Request>
   ...
  </Request>
    <Results>
        <Error APIErrorCode="1" APIErrorDescription="Request Denied - exceeded Volume per minute
quota."/>
    </Results>
</BEAAPI>
```

In addition, each throttling error response will return an **HTTP 429 (too many requests)** status code and include a **RETRY-AFTER** header indicating how long to wait (in seconds) before making a new request.

Example Header Response:

```
HTTP/1.1 429 Requests
Transfer-Encoding: chunked
Content-Type: application/xml;charset=ISO-8859-1
Age: 0
Retry-After: 3600
Server: Microsoft-IIS/10.0
… … …
```

If you make any subsequent API requests during the time-out period, the HTTP 429 response header will decrement the RETRY-AFTER value until the time-out period is over, based on the starting timestamp.

Here are some techniques to minimize or eliminate throttling while using the BEA API:

1. Be informed about published release schedules (https://www.bea.gov/news/schedule). The API data in different datasets is typically published according to schedules that provide monthly data updates (with some exceptions). The release of all updated API data is on the same release schedule as other published sources of BEA data (e.g. Interactive Tables). Automating API retrievals to obtain data that has not been updated is discouraged.
2. Monitor the number of requests and volume of data received by your program. By tracking the actual number of requests submitted, and the actual volume of data received, and pausing request activity when the stated throttling limits are approached, you can eliminate all throttling.
3. Include logic in your client software to recognize when a throttling error is received (based on the HTTP 429 status code, and HTTP RETRY-AFTER header). If a throttling event occurs, pause retrieval activity for the throttle timeout period (1 hour / 3600 seconds) before attempting additional requests. Responding to requests that are throttled requires bandwidth and server resources that contribute to our need for throttling.
4. Develop single-threaded client programs that wait for a result before submitting a new request. While multi-threaded asynchronous requests are allowed, our throttling limits are tuned such that no single request would trigger throttling, and (serial) single-threaded requests would rarely trigger throttling.
5. Do not overuse the special values “ALL” or “X”. Depending on the dataset, some parameters (e.g., YEAR) permit the “ALL” or “X” special value to fetch all data for that given parameter. This can yield extraordinarily large data results, which take longer to prepare and can tax the backend databases. Limiting the use of the “ALL” or “X” special value to just one parameter is an effective method to regulate the size of API result volume.

Meta-Data API Methods

The API contains three methods for retrieving meta-data as follows:

GetDataSetList – retrieves a list of the datasets currently

offered. Required Parameters: UserID, Method
Optional Parameters: ResultFormat

Result: *Dataset* node with *DatasetName* and *DatasetDescription*

attributes. Example Request:

http://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GETDATASETLIST&ResultFormat=XML&ResultFormat=XML&

Example Return:

```
<BEAAPI>
    <Request>
        <RequestParam ParameterValue="GETDATASETLIST" ParameterName="METHOD"/>
        <RequestParam ParameterValue="Your-36Character-Key" ParameterName="USERID"/>
        <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
    </Request>
    <Results>
        <Dataset DatasetDescription="Standard NIPA tables" DatasetName="NIPA"/>
        <Dataset DatasetDescription="Standard NI underlying detail tables" DatasetName="NIUnderlyingDetail"/>
        <Dataset DatasetDescription="Multinational Enterprises" DatasetName="MNE"/>
        <Dataset DatasetDescription="Regional data sets" DatasetName="Regional"/>
        <Dataset DatasetDescription="Standard Fixed Assets tables" DatasetName="FixedAssets"/>
        <Dataset DatasetDescription="International Transactions Accounts" DatasetName="ITA"/>
        <Dataset DatasetDescription="International Investment Position" DatasetName="IIP"/>
        <Dataset DatasetDescription="GDP by Industry" DatasetName="GDPbyIndustry"/>
    </Results>
</BEAAPI>
```

The RegionalData, RegionalIncome, and RegionalProduct data sets are obsolete and API calls using these data sets will no longer function. Users should instead access the dataset Regional, which provides comprehensive detail in statistics, industries, geography, and years. See Appendix N for instructions on how to use the Regional data set. In addition, BEA continues to add new datasets as appropriate, and while any new datasets will be announced on the BEA's website Developers page (https://apps.bea.gov/developers), we also encourage users to periodically call the above GETDATASETLIST discover new datasets.

`GetParameterList` – retrieves a list of the parameters (required and optional) for a particular dataset.

Required Parameters: UserID, Method, DatasetName
Optional Parameters: ResultFormat

Result: *Parameter* node with attributes:

- ParameterName – the name of the parameter as used in a data request
- ParameterDataType – String or Integer
- ParameterDescription – a description of the parameter
- ParameterIsRequired – 0 if the parameter can be omitted from a request, 1 if required
- ParameterDefaultValue – the default value used for the request if the parameter is not supplied
- MultipleAcceptedFlag – 0 if the parameter may only have a single value, 1 if multiple values are permitted. Note that multiple values for a parameter are submitted as a comma-separated string.
- AllValue – the special value for a parameter that means all valid values are used without supplying

them individually.

Example Request 1:

https://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=getparameterlist&datasetname=Regional&ResultFormat=XML

Example Return 1:

```
<BEAAPI>
 <Request>
  <RequestParam ParameterName="USERID" ParameterValue="Your-36Character-Key" />
  <RequestParam ParameterName="METHOD" ParameterValue="GetParameterList" />
  <RequestParam ParameterName="DatasetName" ParameterValue="Regional" />
  <RequestParam ParameterName="ResultFormat" ParameterValue="XML" />
 </Request>
 <Results>
  <Parameter ParameterName="GeoFips" MultipleAcceptedFlag="1" ParameterIsRequiredFlag="1"
    ParameterDataType="string" ParameterDescription="Comma-delimited list of 5-character geographic codes;
    COUNTY for all counties, STATE for all states, MSA for all MSAs, MIC for all Micropolitan Areas, PORT for
    all state metro/nonmetro portions, DIV for all Metropolitan Divisions, CSA for all Combined Statistical
    Areas, state post office abbreviation for all counties in one state (e.g. NY)" />
  <Parameter ParameterName="TableName" MultipleAcceptedFlag="0" ParameterIsRequiredFlag="1" ParameterDataType="string"
    ParameterDescription="Income or employment table to retrieve" />
  <Parameter ParameterName="LineCode" MultipleAcceptedFlag="0" ParameterIsRequiredFlag="1" ParameterDataType="integer"
    ParameterDescription="Line code for a statistic or industry"/>
  <Parameter ParameterName="Year" MultipleAcceptedFlag="1" ParameterIsRequiredFlag="0" ParameterDescription="Comma-delimted
    list of years; LAST5 for latest 5 years; LAST10 for latest 10 years; ALL for all years" ParameterDefaultValue="LAST5"
    ParameterDataType="string" />
 </Results>
</BEAAPI>
```

In this example, the parameters for the "Regional" dataset are being requested. The results indicate that the dataset has four parameters: GeoFips, LineCode, TableName, and Year.

GeoFips is a string typed parameter indicating the geographic codes requested. GeoFIPS is required. Multiple values are accepted, in a comma-delimited list, and there are special values such as COUNTY for all counties.

TableName is a string typed parameter that specifies what table has the statistic requested. We can't tell from this what the valid TableNames are, but we can see that it is required (and therefore has no default value), and that multiple values are not allowed (and therefore there is no special "all" value).

LineCode specifies the requested statistic in the table. This integer is the line code in the table specified in the TableName parameter. We don't know what these line codes are, but we can send another request to find out.

Year is a string typed parameter containing the years requested. It is not required in a request, and if is not included, the default value used is "LAST5". A comma-delimited list of years is accepted, as well as other special values like "LAST10" and "ALL".

Example Request 2:

https://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=getparameterlist&datasetname=IntlServTrade&ResultFormat=XML

Example Return 2:

```
<BEAAPI>
   <Request>
      <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
      <RequestParam ParameterValue="Your-36Character-Key" ParameterName="USERID"/>
```

```
        <RequestParam ParameterValue="INTLSERVTRADE" ParameterName="DATASETNAME"/>
        <RequestParam ParameterValue="GETPARAMETERLIST" ParameterName="METHOD"/>
    </Request>
    <Results>
        <Parameter ParameterName="TypeOfService" AllValue="ALL" MultipleAcceptedFlag="1" ParameterDefaultValue="ALL"
            ParameterIsRequiredFlag="0" ParameterDescription="The type of service requested" ParameterDataType="string"/>
        <Parameter ParameterName="TradeDirection" AllValue="ALL" MultipleAcceptedFlag="1" ParameterDefaultValue="ALL"
            ParameterIsRequiredFlag="0" ParameterDescription="The type of trade direction requested"
            ParameterDataType="string"/>
        <Parameter ParameterName="Affiliation" AllValue="ALL" MultipleAcceptedFlag="1" ParameterDefaultValue="ALL"
            ParameterIsRequiredFlag="0" ParameterDescription="The affiliation requested" ParameterDataType="string"/>
        <Parameter ParameterName="AreaOrCountry" AllValue="ALL" MultipleAcceptedFlag="1" ParameterDefaultValue="AllCountries"
            ParameterIsRequiredFlag="0" ParameterDescription="The area or country requested" ParameterDataType="string"/>
        <Parameter ParameterName="Year" AllValue="ALL" MultipleAcceptedFlag="1" ParameterDefaultValue="ALL"
            ParameterIsRequiredFlag="0" ParameterDescription="The year requested" ParameterDataType="string"/>
    </Results>
</BEAAPI>
```

In this example, the parameters for the “IntlServTrade” dataset are being requested. The results indicate that the dataset has five parameters: TypeOfService, TradeDirection, Affiliation, AreaOrCountry, and Year.

TypeOfService is a string typed parameter described as the type of service. It is not required. Multiple values are accepted, and there is a value to select all types of service, “All”.

The other parameters have characteristics like the first. To get more information about the parameters, “GetParameterValues” should be used.

`GetParameterValues` – retrieves a list of the valid values for a particular

parameter. Required Parameters: UserID, Method, DatasetName, ParameterName
Optional Parameters: ResultFormat

Result: *ParamValue* node with attributes that contain the actual permissible values (and usually a description of the value).

Example Request 1:

https://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GetParameterValues&datasetname=INTLSERVTRADE&ParameterName=TradeDirection&ResultFormat=XML

Example Return 1:

```
<BEAAPI>
 <Request>
  <RequestParam ParameterName="USERID" ParameterValue="Your-36Character-Key" />
  <RequestParam ParameterName="METHOD" ParameterValue="GetParameterValues" />
  <RequestParam ParameterName="DatasetName" ParameterValue=INTLSERVTRADE" />
  <RequestParam ParameterName="ParameterName" ParameterValue="TRADEDIRECTION" />
  <RequestParam ParameterName="ResultFormat" ParameterValue="XML" />
 </Request>
 <Results>
  <ParamValue Desc="Balance" Key="Balance"/>
  <ParamValue Desc="Exports" Key="Exports"/>
  <ParamValue Desc="Imports" Key="Imports"/>
  <ParamValue Desc="Supplemental detail on insurance transactions" Key="SupplementalIns"/>
 </Results>
</BEAAPI>
```

Example Request 2:

https://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GetParameterValues&datasetname=Regional&ParameterName=TableName&ResultFormat=XML

Example Return 2:


```
<BEAAPI>
    <Request>
        <RequestParam ParameterName="USERID" ParameterValue="Your-36-Character-Key"/>
        <RequestParam ParameterName="METHOD" ParameterValue="GETPARAMETERVALUES"/>
        <RequestParam ParameterName="DATASETNAME" ParameterValue="REGIONAL"/>
        <RequestParam ParameterName="PARAMETERNAME" ParameterValue="TABLENAME"/>
        <RequestParam ParameterName="RESULTFORMAT" ParameterValue="XML"/>
    </Request>
    <Results>
        <ParamValue Key="CAGDP1" Desc="County and MSA gross domestic product (GDP) summary"/>
        <ParamValue Key="CAGDP11" Desc="Contributions to percent change in real GDP"/>
        <ParamValue Key="CAGDP2" Desc="Gross domestic product (GDP) by county and metropolitan area"/>
        <ParamValue Key="CAGDP8" Desc="Chain-type quantity indexes for real GDP by county and metropolitan area (2017=100.0)"/>
        <ParamValue Key="CAGDP9" Desc="Real GDP by county and metropolitan area"/>
        <ParamValue Key="CAINC1" Desc="County and MSA personal income summary: personal income, population, per capita personal
        income"/>
        <ParamValue Key="CAINC30" Desc="Economic profile"/>
        <ParamValue Key="CAINC4" Desc="Personal income by major component"/>
        <ParamValue Key="CAINC5N" Desc="Personal income by major component and earnings by NAICS industry"/>
        <ParamValue Key="CAINC5S" Desc="Personal income by major component and earnings by SIC industry"/>
        <ParamValue Key="CAINC6N" Desc="Compensation of employees by NAICS industry"/>
        <ParamValue Key="CAINC6S" Desc="Compensation of employees by SIC industry"/>
        <ParamValue Key="CAINC91" Desc="Gross flow of earnings"/>
        <ParamValue Key="MAIRPD" Desc="Implicit regional price deflators by MSA"/>
        <ParamValue Key="MARPI" Desc="Real personal income by MSA"/>
        <ParamValue Key="MARPP" Desc="Regional price parities by MSA"/>
        <ParamValue Key="PAIRPD" Desc="Implicit regional price deflators by portion"/>
        <ParamValue Key="PARPI" Desc="Real personal income by portion"/>
        <ParamValue Key="PARPP" Desc="Regional price parities by portion"/>
        <ParamValue Key="SAACArtsComp" Desc="ACPSA compensation by ACPSA industry"/>
        <ParamValue Key="SAACArtsEmp" Desc="ACPSA full-time and part-time employment by ACPSA industry"/>
        <ParamValue Key="SAACArtsVA" Desc="ACPSA value added by ACPSA industry"/>
        <ParamValue Key="SAACCompLQ" Desc="Arts compensation location quotient"/>
        <ParamValue Key="SAACCompRatio" Desc="Arts compensation ratio"/>
        <ParamValue Key="SAACEmpLQ" Desc="Arts employment location quotient"/>
        <ParamValue Key="SAACEmpRatio" Desc="Arts employment ratio"/>
        <ParamValue Key="SAACVALQ" Desc="Arts value added location quotient"/>
        <ParamValue Key="SAACVARatio" Desc="Arts value added ratio"/>
        <ParamValue Key="SAGDP1" Desc="State annual gross domestic product (GDP) summary"/>
        <ParamValue Key="SAGDP11N" Desc="Contributions to percent change in real GDP"/>
        <ParamValue Key="SAGDP2N" Desc="Gross domestic product (GDP) by state"/>
        <ParamValue Key="SAGDP3N" Desc="Taxes on production and imports less subsidies"/>
        <ParamValue Key="SAGDP4N" Desc="Compensation of employees"/>
        <ParamValue Key="SAGDP5N" Desc="Subsidies"/>
        <ParamValue Key="SAGDP6N" Desc="Taxes on production and imports"/>
        <ParamValue Key="SAGDP7N" Desc="Gross operating surplus"/>
        <ParamValue Key="SAGDP8N" Desc="Chain-type quantity indexes for real GDP by state (2017=100.0)"/>
        <ParamValue Key="SAGDP9N" Desc="Real GDP by state"/>
        <ParamValue Key="SAINC1" Desc="State annual personal income summary: personal income, population, per capita personal
        income"/>
        <ParamValue Key="SAINC30" Desc="Economic profile"/>
        <ParamValue Key="SAINC35" Desc="Personal current transfer receipts"/>
        <ParamValue Key="SAINC4" Desc="Personal income and employment by major component"/>
        <ParamValue Key="SAINC40" Desc="Property income"/>
        <ParamValue Key="SAINC50" Desc="Personal current taxes"/>
        <ParamValue Key="SAINC51" Desc="State annual disposable personal income summary: disposable personal income, population,
        and per capita disposable personal income"/>
        <ParamValue Key="SAINC5H" Desc="Personal income by major component and earnings by industry (historical)"/>
        <ParamValue Key="SAINC5N" Desc="Personal income by major component and earnings by NAICS industry"/>
        <ParamValue Key="SAINC5S" Desc="Personal income by major component and earnings by SIC industry"/>
        <ParamValue Key="SAINC6N" Desc="Compensation of employees by NAICS industry"/>
        <ParamValue Key="SAINC6S" Desc="Compensation of employees by SIC industry"/>
        <ParamValue Key="SAINC70" Desc="Transactions of state and local government defined benefit pension plans"/>
        <ParamValue Key="SAINC7H" Desc="Wages and salaries by industry (historical)"/>
        <ParamValue Key="SAINC7N" Desc="Wages and salaries by NAICS industry"/>
        <ParamValue Key="SAINC7S" Desc="Wages and salaries by SIC industry"/>
        <ParamValue Key="SAINC91" Desc="Gross flow of earnings"/>
        <ParamValue Key="SAIRPD" Desc="Implicit regional price deflators by state"/>
        <ParamValue Key="SAOACTVA" Desc="Outdoor recreation satellite account activities - value added"/>
        <ParamValue Key="SAOCOMP" Desc="Outdoor recreation satellite account compensation"/>
        <ParamValue Key="SAOEMP" Desc="Outdoor recreation satellite account employment"/>
        <ParamValue Key="SAOVA" Desc="Outdoor recreation satellite account value added"/>
        <ParamValue Key="SAPCE1" Desc="Personal consumption expenditures (PCE) by major type of product"/>
        <ParamValue Key="SAPCE2" Desc="Per capita personal consumption expenditures (PCE) by major type of product"/>
        <ParamValue Key="SAPCE3" Desc="Personal consumption expenditures (PCE) by state by type of product"/>
        <ParamValue Key="SAPCE4" Desc="Personal consumption expenditures (PCE) by state by function"/>
        <ParamValue Key="SARPI" Desc="Real personal income and real personal Consumption Expenditures (PCE) by state"/>
        <ParamValue Key="SARPP" Desc="Regional price parities by state"/>
        <ParamValue Key="SASUMMARY" Desc="State annual summary statistics: personal income, GDP, consumer spending, price
        indexes, and employment"/>
        <ParamValue Key="SQGDP1" Desc="State quarterly gross domestic product (GDP) summary"/>
        <ParamValue Key="SQGDP11" Desc="Contributions to percent change in real GDP"/>
        <ParamValue Key="SQGDP2" Desc="Gross domestic product (GDP) by state"/>
        <ParamValue Key="SQGDP8" Desc="Chain-type quantity indexes for real GDP by state (2017=100.0)"/>
        <ParamValue Key="SQGDP9" Desc="Real GDP by state"/>
        <ParamValue Key="SQINC1" Desc="State quarterly personal income summary: personal income, population, per capita personal
        income"/>
        <ParamValue Key="SQINC35" Desc="Personal current transfer receipts"/>
        <ParamValue Key="SQINC4" Desc="Personal income by major component"/>
        <ParamValue Key="SQINC5H" Desc="Personal income by major component and earnings by industry (historical)"/>
        <ParamValue Key="SQINC5N" Desc="Personal income by major component and earnings by NAICS industry"/>
        <ParamValue Key="SQINC5S" Desc="Personal income by major component and earnings by SIC industry"/>
        <ParamValue Key="SQINC6N" Desc="Compensation of employees by NAICS industry"/>
```

```
        <ParamValue Key="SQINC6S" Desc="Compensation of employees by SIC industry"/>
        <ParamValue Key="SQINC7H" Desc="Wages and salaries by industry (historical)"/>
        <ParamValue Key="SQINC7N" Desc="Wages and salaries by NAICS industry"/>
        <ParamValue Key="SQINC7S" Desc="Wages and salaries by SIC industry"/>
        <ParamValue Key="TASUMMARY1" Desc="Summary of GDP and components for U.S. territories, current dollars"/>
        <ParamValue Key="TASUMMARY2" Desc="Summary of real GDP and components for U.S. territories, chained dollars"/>
        </Results>
</BEAAPI>
```

To summarize, the API includes three methods that retrieve meta-data about the statistics that are available: GetDatasetList, GetParameterList, and GetParameterValues. **There is also a method called GetParameterValuesFiltered.**

GetParameterValuesFiltered – retrieves a list of the valid values for a particular parameter based on other provided parameters.

In our example above with the Regional data set, it is necessary to supply a TableName and LineCode. You will want to discover the LineCode values available for a given TableName. The GetParameterValuesFiltered method is designed to do this.

GetParameterValuesFiltered will return values for one target parameter based on the values of other named parameters.

Example request to retrieve the valid LineCode values for a given TableName:

http://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=LineCode&TableName=SAINC1&ResultFormat=XML

Example return:

```
<BEAAPI>
  <Request>
    <RequestParam ParameterValue="Your-36Character-Key" ParameterName="USERID"/>
    <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
    <RequestParam ParameterValue="LINECODE" ParameterName="TARGETPARAMETER"/>
    <RequestParam ParameterValue="SAINC1" ParameterName="TABLENAME"/>
    <RequestParam ParameterValue="REGIONAL" ParameterName="DATASETNAME"/>
    <RequestParam ParameterValue="GETPARAMETERVALUESFILTERED" ParameterName="METHOD"/>
  </Request>
  <Results>
    <ParamValue Desc="[SAINC1] Personal income (millions of dollars)" Key="1"/>
    <ParamValue Desc="[SAINC1] Population (persons)" Key="2"/>
    <ParamValue Desc="[SAINC1] Per capita personal income (dollars)" Key="3"/>
  </Results>
</BEAAPI>
```

All results from GetParameterValuesFiltered contain “Desc” and “Key”. Key is the value you will want to pass in as a parameter to the data request for the target parameter you specified. In our example, a desired Key will be passed into LineCode.

Although there is only one TargetParameter, mulitiple other parameters may be passed in. For example you may want to know what years are available for a given TableName and GeoFips--

Example request:

http://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=Year&TableName=CAINC5N&GeoFips=01001&ResultFormat=XML

Example return:

```
<BEAAPI>
  <Request>
    <RequestParam ParameterValue="YEAR" ParameterName="TARGETPARAMETER"/>
    <RequestParam ParameterValue="CAINC5N" ParameterName="TABLENAME"/>
    <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
    <RequestParam ParameterValue="REGIONAL" ParameterName="DATASETNAME"/>
    <RequestParam ParameterValue="01001" ParameterName="GEOFIPS"/>
    <RequestParam ParameterValue="GETPARAMETERVALUESFILTERED" ParameterName="METHOD"/>

    <RequestParam ParameterValue="Your-36CharacterKey" ParameterName="USERID"/>
  </Request>
  <Results>
    <ParamValue Desc="2001" Key="2001"/>
    <ParamValue Desc="2002" Key="2002"/>
    <ParamValue Desc="2003" Key="2003"/>
    <ParamValue Desc="2004" Key="2004"/>
    <ParamValue Desc="2005" Key="2005"/>
    <ParamValue Desc="2006" Key="2006"/>
    <ParamValue Desc="2007" Key="2007"/>
    <ParamValue Desc="2008" Key="2008"/>
    <ParamValue Desc="2009" Key="2009"/>
    <ParamValue Desc="2010" Key="2010"/>
    <ParamValue Desc="2011" Key="2011"/>
    <ParamValue Desc="2012" Key="2012"/>
    <ParamValue Desc="2013" Key="2013"/>
    <ParamValue Desc="2014" Key="2014"/>
    <ParamValue Desc="2015" Key="2015"/>
    <ParamValue Desc="2016" Key="2016"/>
    <ParamValue Desc="2017" Key="2017"/>
    <ParamValue Desc="2018" Key="2018"/>
    <ParamValue Desc="2019" Key="2019"/>
    <ParamValue Desc="2020" Key="2020"/>
    <ParamValue Desc="2021" Key="2021"/>
    <ParamValue Desc="2022" Key="2022"/>
  </Results>
</BEAAPI>
```


There are many more examples of using GetParameterValuesFiltered in the Regional appendix N.

Please note that the GetParameterValuesFiltered method does not yet work with all BEA data sets. If you try GetParametersValuesFiltered on a data set that does not yet support it, an error will be returned--


```
<BEAAPI>
  <Request>
    <RequestParam ParameterValue="GETPARAMETERVALUESFILTERED" ParameterName="METHOD"/>
    <RequestParam ParameterValue="Your-36CharacterKey" ParameterName="USERID"/>
    <RequestParam ParameterValue="1" ParameterName="TABLEID"/>
    <RequestParam ParameterValue="NIPA" ParameterName="DATASETNAME"/>
    <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
    <RequestParam ParameterValue="Q" ParameterName="FREQUENCY"/>
    <RequestParam ParameterValue="YEAR" ParameterName="TARGETPARAMETER"/>
  </Request>
  <Results>
    <Error APIErrorDescription="The GetParameterValuesFiltered method has not been implemented on this dataset (coming soon)."
APIErrorCode="34"/>
  </Results>
</BEAAPI>
```


Data Retrieval API Method

The API has one method for retrieving data – *GetData.*

Every data retrieval request requires the UserID, Method, and DatasetName parameters. Each dataset has a defined set of parameters – some required and others optional. Each dataset returns different results that are documented in appendices to this document.

GetData

Required Parameters: UserID, Method, DatasetName, *additional required parameters* (depending on the dataset)

Optional Parameters: ResultFormat, *additional optional parameters* (depending on the dataset)

Result: *Dimensions* nodes with attributes:

- Ordinal – ordinal number indicating a standardized order of returned dimensions – note that attributes in returned data are not guaranteed to be in any particular order. Programmatic usage of attributes should refer to them by name.
- Name – The Name of each data dimension returned
- DataType – *string* or *numeric* – whether the data dimension is purely numeric or should be treated as string data
- IsValue – most datasets have one dimension that represents the statistic of interest, and the other dimensions are descriptive of the statistic. IsValue = 1 for the data dimension that is the statistic of interest, otherwise 0. The statistic of interest is usually numeric so that it can be summarized or aggregated based on the descriptive dimension values.

Each Dataset contains different dimensions. There are a few pre-defined dimensions that are common to most Datasets, including:

- CL_UNIT – a descriptor of the units reported for the data value (e. g. USD for U. S. dollars, and PC for percent)
- UNIT_MULT – a descriptor of the multiplier that applies to the data value. This value is the base-10 exponent that should be applied to the data value (e. g. amounts reported in millions would have a UNIT_MULT of 6; amounts reported in billions would have a UNIT_MULT of 9).

The specific meaning of each dimension is described in the Appendix for each dataset.

The result then includes *Data* nodes containing the actual results specified in the parameters. Each *Data* node contains one attribute for each data dimension (specified in the Dimensions nodes).

Finally, the result may include *Note* nodes. Notes (as in footnotes) further describe or qualify any of the other nodes in the result (or the result node itself). A result node qualified by a *Note* has an attribute named *NoteRef*. If a result node includes the *NoteRef* attribute, the value for it will always be present among the Notes nodes.

Example Request 1:

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&datasetname=Regional&TableName=CAINC1&LineCode=3&GeoFIPS=DE&Year=2014&ResultFormat=XML

In this example, the GetData method is used to return a result from the dataset named Regional. The TableId and LineCode parameters are used to request statistic for "Per Capita personal income (county annual income)". The GeoFIPS parameter value is "DE" – meaning the data for all counties in Delaware are requested. A single year's data is requested – 2014.

Note that the GeoFIPS parameter could have been "COUNTY" for all counties, or a list of individual state or county GeoFIPS codes. Also, multiple years could have been requested by providing them in a comma-separated list, or the special year parameters "LAST5" or "LAST10" could be used.

Example Return 1:


```
<BEAAPI>
 <Request>
  <RequestParam ParameterValue="Your-36Character-Key" ParameterName="USERID"/>
  <RequestParam ParameterValue="REGIONAL" ParameterName="DATASETNAME"/>
  <RequestParam ParameterValue="GETDATA" ParameterName="METHOD"/>
  <RequestParam ParameterValue="DE" ParameterName="GEOFIPS"/>
  <RequestParam ParameterValue="CAINC1" ParameterName="TABLENAME"/>
  <RequestParam ParameterValue="3" ParameterName="LINECODE"/>
  <RequestParam ParameterValue="2014" ParameterName="YEAR"/>
  <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
 </Request>
  <Results NoteRef="2" UTCProductionTime="2017-03-03T14:37:59.443" PublicTable="CAINC1 Personal Income Summary: Personal
   Income, Population, Per Capita Personal Income" UnitOfMeasure="dollars" Statistic="Per capita personal income">
   <Dimensions IsValue="0" DataType="string" Name="Code"/>
   <Dimensions IsValue="0" DataType="string" Name="GeoFips"/>
   <Dimensions IsValue="0" DataType="string" Name="GeoName"/>
   <Dimensions IsValue="0" DataType="string" Name="TimePeriod"/>
   <Dimensions IsValue="1" DataType="numeric" Name="DataValue"/>
   <Dimensions IsValue="0" DataType="string" Name="CL_UNIT"/>
   <Dimensions IsValue="0" DataType="numeric" Name="UNIT_MULT"/>
   <Data DataValue="45284" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2014" GeoName="Delaware" GeoFips="10000" Code="CA1-3"/>
   <Data DataValue="36845" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2014" GeoName="Kent, DE" GeoFips="10001" Code="CA1-3"/>
   <Data DataValue="48503" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2014" GeoName="New Castle, DE" GeoFips="10003"
   Code="CA1-3"/>
   <Data DataValue="43710" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2014" GeoName="Sussex, DE" GeoFips="10005" Code="CA1-
   3"/>
   <Notes NoteRef="2" NoteText="Per capita personal income was computed using Census Bureau midyear population estimates.
   Estimates for 2010-2015 reflect county population estimates available as of March 2016."/>
   <Notes NoteRef="Note--" NoteText="All dollar estimates are in current dollars (not adjusted for inflation)."/>
   <Notes NoteRef=" " NoteText="Last updated: November 17, 2016-- new estimates for 2015; revised estimates for 1998-2014."/>
  </Results>
 </BEAAPI>
```


In this example the *Result* node contains a *NoteRef* attribute having the value "2", and there is a *Notes* node having the NoteRef value of "2". This should be interpreted as meaning that the NoteText attribute for that *Notes* node applies to the whole result.

Example Request 2:

http://apps.bea.gov/api/data?&UserID=Your-36Character-Key&method=GetData&datasetname=Regional&TableName=SAINC1&GeoFIPS=STATE&LineCode=3&Year=2013&ResultFormat=XML

In this example, the GetData method is used to return the dataset named Regional. The TableName and LineCode parameters are used to request statistic for "Per capita personal income (dollars)" – as shown in the result of the first GetParameterValuesFiltered example above. The GeoFIPS parameter value is "STATE" – meaning the data for all states is requested. Finally, a single year's data is requested – 2013.

Note that the GeoFIPS parameter could have been a list of 5-digit geographic codes. Also, multiple years could have been requested by providing them in a comma-separated list.

Example Return 2:


```
<BEAAPI>
  <Request>
    <RequestParam ParameterValue="2013" ParameterName="YEAR"/>
    <RequestParam ParameterValue="3" ParameterName="LINECODE"/>
    <RequestParam ParameterValue="REGIONAL" ParameterName="DATASETNAME"/>
    <RequestParam ParameterValue="STATE" ParameterName="GEOFIPS"/>
    <RequestParam ParameterValue="Your-36Character-Key" ParameterName="USERID"/>
    <RequestParam ParameterValue="GETDATA" ParameterName="METHOD"/>
    <RequestParam ParameterValue="SAINC1" ParameterName="TABLENAME"/>
    <RequestParam ParameterValue="XML" ParameterName="RESULTFORMAT"/>
  </Request>
  <Results NoteRef="2" UTCProductionTime="2015-04-24T14:22:56.983" PublicTable="SA1 Personal Income Summary: Personal Income,
Population, Per Capita Personal Income" UnitOfMeasure="dollars" Statistic="Per capita personal income">
    <Dimensions IsValue="0" DataType="string" Name="Code" Ordinal="1"/>
    <Dimensions IsValue="0" DataType="string" Name="GeoFips" Ordinal="2"/>
```

```
    <Dimensions IsValue="0" DataType="string" Name="GeoName" Ordinal="3"/>
    <Dimensions IsValue="0" DataType="string" Name="TimePeriod" Ordinal="4"/>
    <Dimensions IsValue="1" DataType="numeric" Name="DataValue" Ordinal="5"/>
    <Data DataValue="44,765" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="United States" GeoFips="00000"
Code="SA1-3"/>
    <Data DataValue="36,481" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Alabama" GeoFips="01000" Code="SA1-
3"/>
    <Data NoteRef="*" DataValue="50,150" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Alaska" GeoFips="02000"
    Code="SA1-3"/>
    <Data DataValue="36,983" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Arizona" GeoFips="04000" Code="SA1-
3"/>
    <Data DataValue="36,698" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Arkansas" GeoFips="05000" Code="SA1-
3"/>
    <Data DataValue="48,434" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="California" GeoFips="06000" Code="SA1-
3"/>
    <Data DataValue="46,897" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Colorado" GeoFips="08000" Code="SA1-
3"/>
    <Data DataValue="60,658" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Connecticut" GeoFips="09000" Code="SA1-
3"/>
    <Data DataValue="44,815" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Delaware" GeoFips="10000" Code="SA1-
3"/>
    <Data DataValue="75,329" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="District of Columbia" GeoFips="11000"
Code="SA1-3"/>
    <Data DataValue="41,497" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Florida" GeoFips="12000" Code="SA1-
3"/>
    <Data DataValue="37,845" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Georgia" GeoFips="13000" Code="SA1-3"/>
    <Data NoteRef="*" DataValue="45,204" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Hawaii" GeoFips="15000"
Code="SA1-3"/>
    <Data DataValue="36,146" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Idaho" GeoFips="16000" Code="SA1-3"/>
    <Data DataValue="46,980" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Illinois" GeoFips="17000" Code="SA1-
3"/>
    <Data DataValue="38,622" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Indiana" GeoFips="18000" Code="SA1-
3"/>
    <Data DataValue="44,763" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Iowa" GeoFips="19000" Code="SA1-3"/>
    <Data DataValue="44,417" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Kansas" GeoFips="20000" Code="SA1-
3"/>
    <Data DataValue="36,214" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Kentucky" GeoFips="21000" Code="SA1-
3"/>
    <Data DataValue="41,204" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Louisiana" GeoFips="22000" Code="SA1-
3"/>
    <Data DataValue="40,924" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Maine" GeoFips="23000" Code="SA1-3"/>
    <Data DataValue="53,826" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Maryland" GeoFips="24000" Code="SA1-
3"/>
    <Data DataValue="57,248" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Massachusetts" GeoFips="25000"
Code="SA1-3"/>
    <Data DataValue="39,055" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Michigan" GeoFips="26000" Code="SA1-
3"/>
    <Data DataValue="47,500" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Minnesota" GeoFips="27000" Code="SA1-
3"/>
    <Data DataValue="33,913" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Mississippi" GeoFips="28000" Code="SA1-
3"/>
    <Data DataValue="40,663" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Missouri" GeoFips="29000" Code="SA1-
3"/>
    <Data DataValue="39,366" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Montana" GeoFips="30000" Code="SA1-
3"/>
    <Data DataValue="47,157" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Nebraska" GeoFips="31000" Code="SA1-
3"/>
    <Data DataValue="39,235" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Nevada" GeoFips="32000" Code="SA1-
3"/>
    <Data DataValue="51,013" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="New Hampshire" GeoFips="33000"
Code="SA1-3"/>
    <Data DataValue="55,386" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="New Jersey" GeoFips="34000" Code="SA1-
3"/>
    <Data DataValue="35,965" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="New Mexico" GeoFips="35000" Code="SA1-
3"/>
    <Data DataValue="54,462" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="New York" GeoFips="36000" Code="SA1-
3"/>
    <Data DataValue="38,683" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="North Carolina" GeoFips="37000"
Code="SA1-3"/>
    <Data DataValue="53,182" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="North Dakota" GeoFips="38000"
Code="SA1-3"/>
    <Data DataValue="41,049" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Ohio" GeoFips="39000" Code="SA1-3"/>
    <Data DataValue="41,861" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Oklahoma" GeoFips="40000" Code="SA1-
3"/>
    <Data DataValue="39,848" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Oregon" GeoFips="41000" Code="SA1-
3"/>
    <Data DataValue="46,202" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Pennsylvania" GeoFips="42000"
Code="SA1-3"/>
    <Data DataValue="46,989" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Rhode Island" GeoFips="44000"
Code="SA1-3"/>
    <Data DataValue="35,831" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="South Carolina" GeoFips="45000"
Code="SA1-3"/>
    <Data DataValue="46,039" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="South Dakota" GeoFips="46000"
    Code="SA1-3"/>
    <Data DataValue="39,558" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Tennessee" GeoFips="47000" Code="SA1-
3"/>
    <Data DataValue="43,862" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Texas" GeoFips="48000" Code="SA1-3"/>
    <Data DataValue="36,640" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Utah" GeoFips="49000" Code="SA1-3"/>
    <Data DataValue="45,483" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Vermont" GeoFips="50000" Code="SA1-
3"/>
    <Data DataValue="48,838" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Virginia" GeoFips="51000" Code="SA1-
3"/>
    <Data DataValue="47,717" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Washington" GeoFips="53000" Code="SA1-
3"/>
    <Data DataValue="35,533" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="West Virginia" GeoFips="54000"
Code="SA1-3"/>
    <Data DataValue="43,244" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Wisconsin" GeoFips="55000" Code="SA1-
3"/>
    <Data DataValue="52,826" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Wyoming" GeoFips="56000" Code="SA1-
```

```
3"/>
    <Data DataValue="54,797" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="New England" GeoFips="91000" Code="SA1-
3"/>
    <Data DataValue="52,485" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Mideast" GeoFips="92000" Code="SA1-
3"/>
    <Data DataValue="42,192" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Great Lakes" GeoFips="93000" Code="SA1-
3"/>
    <Data DataValue="44,796" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Plains" GeoFips="94000" Code="SA1-
3"/>
    <Data DataValue="39,760" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Southeast" GeoFips="95000" Code="SA1-
3"/>
    <Data DataValue="42,074" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Southwest" GeoFips="96000" Code="SA1-
3"/>

    <Data DataValue="42,391" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Rocky Mountain" GeoFips="97000"
Code="SA1-3"/>
    <Data DataValue="47,185" UNIT_MULT="0" CL_UNIT="dollars" TimePeriod="2013" GeoName="Far West" GeoFips="98000" Code="SA1-
3"/>
    <Notes NoteRef="2" NoteText="Per capita personal income is total personal income divided by total midyear population."/>
    <Notes NoteRef="*" NoteText="Estimates prior to 1950 are not available for Alaska and Hawaii."/>
    <Notes NoteRef="Note--" NoteText="All dollar estimates are in current dollars (not adjusted for inflation)."/>
    <Notes NoteRef=" " NoteText="Last updated: March 25, 2015-- new estimates for 2014."/>
  </Results>
</BEAAPI>
```


In this example the *Result* node contains a *NoteRef* attribute having the value “2”, and there is a *Notes* node having the NoteRef value of “2”. This should be interpreted as meaning that the NoteText attribute for that *Notes* node applies to the whole result.

There are two *Data* nodes having a NoteRef attribute with the value “*”, and there is one *Notes* nodes having the matching NoteRef attribute (“*”). This should be interpreted to mean that the *Notes* node having NoteRef = “*” apply as a group to the corresponding *Data* nodes.

DataSet Documentation

BEA expects to publish several API Datasets containing a variety of economic statistics. The Datasets that are currently available are each documented separately as appendices here.

Appendix A – RegionalData (DEPRECATED)

The RegionalData dataset is obsolete and API calls using this dataset will no longer function. Users should instead access the dataset Regional, which provides comprehensive detail in statistics, industries, geography, and years. See Appendix N for instructions on how to use the Regional dataset.

Appendix B – NIPA (National Income and Product Accounts)

The DataSetName is NIPA. This dataset contains data from the National Income and Product Accounts which include measures of the value and composition of U.S.production and the incomes generated in producing it. NIPA data is provided on a table basis; individual tables contain between fewer than 10 to more than 200 distinct data series. Three parameters are used to retrieve data from the NIPA dataset, as follows:

Name	Type	Description	Is Required	Multiple Values Accepted	"All" value
TableName	String	The standard NIPA table identifier	No	No	N/A
Frequency	String	List of frequencies to retrieve	Yes	Yes	N/A
Year	String	List of year(s) of data to retrieve	Yes	Yes	X ALL

Example calls

Percent change in Real Gross Domestic Product, Annually and Quarterly for all years

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=NIPA&TableName=T10101&Frequency=A,Q&Year=ALL&ResultFormat=xml

Personal Income, Monthly, for 2015 and 2016

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=NIPA&TableName=T20600&Frequency=M&Year=2015,2016&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TableName	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=NIPA&ParameterName=TableName&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=NIPA&ParameterName=Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=NIPA&ParameterName=Year&ResultFormat=xml

TableName Parameter – (required)
The TableName parameter is a string that identifies a specific NIPA table. Only one NIPA table can be requested in each data request. Requests with an invalid combination of TableName, Frequency or Year values will result in an error. The TableName parameter must be passed or an error will result.

TableID Parameter – (discontinued; February 2018)
The TableID parameter is discontinued. The TableName parameter replaces the TableId parameter. A crosswalk between TableId and TableName values can be found in the appendix to this document.

Frequency Parameter – (required, multiple values allowed)
The Frequency parameter is a string that refers to the time series for the requested NIPA table. Multiple frequencies are requested by specifying them as a comma-delimited string, e. g. "A,Q,M".

When data is requested for frequencies that are not available for the requested NIPA table, only data that is available is returned; if no data is available for the requested frequencies, an error will be returned.

When calling the GetParameterValues method and passing a TableName value the response will identify the valid frequencies for that table.

Accepted parameter values are:

1. A – Annual
2. Q – Quarterly
3. M – Monthly

Year Parameter – (required, multiple values allowed)
The Year parameter specifies the year(s) of the data requested. When quarterly or monthly data are requested all available quarters for the specified year(s) will be returned. Multiple years are requested by specifying them as a comma-delimited string, e. g. "2000,2001,2002".

If the request supplies the special value X or ALL for the Year parameter, all available years of data for that NIPA table returned. Note that using the X or ALL value for all years can return large amounts of data, and should be avoided when the actual required years are known.

When data is requested for years that are not available for the requested NIPA table, only data that is available is returned; if no data is available for the requested year(s), an error will be returned.

When calling the GetParameterValues method and passing a TableName value the response will identify the valid years for that table.

NIPA Dataset Result Data

NIPA (National Income and Product Accounts) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description

TableName	1	String	No	Unique identifier for the NIPA table requested.
SeriesCode	2	String	No	A unique identifier for the time series of the data item.
LineNumber	3	String	No	Sequence of the data item within the table.
LineDescription	4	String	No	A description of the transactions measured in the data item.
TimePeriod	5	String	No	Time period for the data item in the form YYYY for annual data; YYYYQn for quarterly data (where n is the quarter digit); or YYYYMx for monthly data (where x is the month digit).
Metric_Name	6	String	No	String indicating the measurement of the data item. Example values are Current Dollars, Fisher Price Index, etc.
CL_UNIT	7	String	No	The calculation type of the data item.
UNIT_MULT	8	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example "6" refers to millions (DataValue × 10^6).
DataValue	9	Numeric	Yes	Value of the data item, formatted with commas.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. For the NIPA dataset, every data element includes at least one Noteref that corresponds to a Note element containing the title of the table.

Additional Information

Explanation of the estimates can be found in the National section of our website: https://www.bea.gov/national/. Please consult the schedule of releases which impacts data and table availability. Updates and changes to the accounts are detailed at: https://www.bea.gov/national/an1.htm. National Income and Product Account Methodologies can be found in our handbook.

TableName – TableID Mapping

TableName	TableId	TableName	TableId	TableName	TableId	TableName	TableId
T10101	1	T10803	45	T30200	87	T40203	131
T10102	2	T10806	46	T30300	88	T40204	132
T10103	3	T10903	47	T30400	89	T40205	133
T10104	4	T10904	48	T30500	90	T40206	134
T10105	5	T10905	49	T30600	91	T4030A	135
T10106	6	T10906	50	T30700	92	T4030B	136
T10106A	7	T11000	51	T30800	93	T50100	137
T10106B	8	T11100	52	T30901	94	T50203	138
T10106C	9	T11200	53	T30902	95	T50205	139
T10106D	10	T11300	54	T30903	96	T50206	140
T10107	11	T11400	55	T30904	97	T50301	141
T10108	12	T11500	56	T30905	98	T50302	142
T10109	13	T11600	57	T30906	99	T50303	143
T10110	14	T11701	316	T31001	100	T50304	144
T10111	310	T11705	317	T31003	101	T50305	145
T10201	15	T11706	318	T31004	102	T50306	146
T10202	16	T20100	58	T31005	103	T50401	147
T10203	17	T20200A	59	T31006	104	T50402	148
T10204	18	T20200B	60	T31101	105	T50403	149
T10205	19	T20301	61	T31102	326	T50404	150
T10206	20	T20302	62	T31103	106	T50405	151
T10301	21	T20303	63	T31104	107	T50406	152
T10303	22	T20304	64	T31105	108	T50501	153
T10304	23	T20305	65	T31106	109	T50502	154
T10305	24	T20306	66	T31200	110	T50503	155
T10306	25	T20307	67	T31300	111	T50504	156
T10401	26	T20403	68	T31400	112	T50505	157
T10403	27	T20404	69	T31501	113	T50506	158
T10404	28	T20405	70	T31502	114	T50601	327
T10405	29	T20406	71	T31503	115	T50602	328
T10406	30	T20503	72	T31504	116	T50603	329
T10501	31	T20504	73	T31505	117	T50604	330
T10502	32	T20505	74	T31506	118	T50605	331
T10503	33	T20506	75	T31600	119	T50606	332
T10504	34	T20600	76	T31700	120	T50705A	163
T10505	35	T20700A	77	T31800A	121	T50705B	164
T10506	36	T20700B	78	T31800B	122	T50706A	165
T10604	37	T20801	79	T31900	123	T50706B	166
T10607	38	T20803	80	T32000	124	T50805A	173
T10608	39	T20804	81	T32100	125	T50805B	174
T10701	40	T20805	82	T32200	126	T50806A	175
T10703	41	T20806	83	T32300	127	T50806B	176
T10704	42	T20807	84	T40100	128	T50809A	333
T10705	43	T20900	85	T40201	129	T50809B	334
T10706	44	T30100	86	T40202	130	T50903A	335

TableName	TableId	TableName	TableId	TableName	TableId
T50903B	336	T61100A	216	T62200B	261
T50904A	337	T61100B	217	T62200C	262
T50904B	338	T61100C	218	T62200D	263
T50905A	339	T61100D	219	T70100	264
T50905B	340	T61200A	220	T70201A	265
T50906B	342	T61200B	221	T70201B	266
T51000	178	T61200C	222	T70203A	267
T51100	343	T61200D	223	T70203B	268
T60100B	179	T61300A	224	T70204A	269
T60100C	180	T61300B	225	T70204B	270
T60100D	181	T61300C	226	T70205A	271
T60200A	182	T61300D	227	T70205B	272
T60200B	183	T61400A	228	T70206B	273
T60200C	184	T61400B	229	T70303	274
T60200D	185	T61400C	230	T70304	275
T60300A	186	T61400D	231	T70305	276
T60300B	187	T61500A	232	T70306	277
T60300C	188	T61500B	233	T70403	278
T60300D	189	T61500C	234	T70404	279
T60400A	190	T61500D	235	T70405	280
T60400B	191	T61600A	236	T70406	281
T60400C	192	T61600B	237	T70500	282
T60400D	193	T61600C	238	T70600	283
T60500A	194	T61600D	239	T70700	284
T60500B	195	T61700A	240	T70800	285
T60500C	196	T61700B	241	T70900	286
T60500D	197	T61700C	242	T71000	287
T60600A	198	T61700D	243	T71100	288
T60600B	199	T61800A	244	T71200	289
T60600C	200	T61800B	245	T71300	290
T60600D	201	T61800C	246	T71400	291
T60700A	202	T61800D	247	T71500	292
T60700B	203	T61900A	248	T71600	293
T60700C	204	T61900B	249	T71700	294
T60700D	205	T61900C	250	T71800	295
T60800A	206	T61900D	251	T71900	297
T60800B	207	T62000A	252	T72000	296
T60800C	208	T62000B	253	T72100	392
T60800D	209	T62000C	254	T72200	393
T60900B	210	T62000D	255	T72300	394
T60900C	211	T62100A	256	T72400	395
T60900D	212	T62100B	257	T72500	397
T61000B	213	T62100C	258		
T61000C	214	T62100D	259		
T61000D	215	T62200A	260		

Appendix C – NIPA Underlying Detail (National Income and Product Accounts)

The DataSetName is NIUnderlyingDetail. This dataset contains underlying detail data from the National Income and Product Accounts which include measures of the value and composition of U.S.production and the incomes generated in producing it. NIPA Underlying Detail data is provided on a table basis; individual tables contain between fewer than 10 to more than 200 distinct data series. Four parameters are used to retrieve data from the NIPA Underlying Detail dataset, as follows:

Name	Type	Description	Is Required	Multiple Values Accepted	"All" value
TableName	String	The standard NIPA table identifier	No	No	N/A
Frequency	String	List of frequencies to retrieve	Yes	Yes	N/A
Year	String	List of year(s) of data to retrieve	Yes	Yes	X ALL

Example calls

Personal Conumption Expenditures, Current Dollars, Annually, Quarterly and Monthly for all years

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=NIUnderlyingDetail&TableName=U20305&Frequency=A,Q,M&Year=ALL&ResultFormat=xml

Auto and Truck Unit Sales, Production, Inventories, Expenditures and Price, Monthly, for 2015 and 2016

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=NIUnderlyingDetail &TableName=U70205S&Frequency=M&Year=2015,2016&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TableName	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=NIUnderlyingDetail&ParameterName=TableName&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=Your-36Character- Key&method=GetParameterValues&DataSetName=NIUnderlyingDetail&ParameterName= Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character- Key&method=GetParameterValues&DataSetName=NIUnderlyingDetail&ParameterName= Year&ResultFormat=xml

TableName Parameter – (required)
The TableName parameter is a string that identifies a specific NIPA Underlying Detail table. Only one NIPA Underlying Detail table can be requested in each data request. Requests with an invalid combination of TableName, Frequency or Year values will result in an error. The TableName must be passed or an error will result.

TableID Parameter – (discontinued; February 2018)
The TableID parameter is discontinued. The TableName parameter replaces the TableId parameter. A crosswalk between TableId and TableName values can be found in the appendix to this document.

Frequency Parameter – (required, multiple values allowed)
The Frequency parameter is a string that refers to the time series for the requested NIPA Underlying Detail table. Multiple frequencies are requested by specifying them as a comma-delimited string, e. g. "A,Q,M".

When data is requested for frequencies that are not available for the requested NIPA Underlying Detail table, only data that is available is returned; if no data is available for the requested frequencies, an error will be returned.

When calling the GetParameterValues method and passing a TableName value the response will identify the valid frequencies for that table.

Accepted parameter values are:

1. A – Annual
2. Q – Quarterly
3. M – Monthly

Year Parameter – (required, multiple values allowed)
The Year parameter specifies the year(s) of the data requested. When quarterly or monthly data are requested all available quarters for the specified year(s) will be returned. Multiple years are requested by specifying them as a comma-delimited string, e. g. "2000,2001,2002".

If the request supplies the special value X or ALL for the Year parameter, all available years of data for that NIPA Underlying Detail table returned. Note that using the X or ALL value for all years can return large amounts of data, and should be avoided when the actual required years are known.

When data is requested for years that are not available for the requested NIPA Underlying Detail table, only data that is available is returned; if no data is available for the requested year(s), an error will be returned.

When calling the GetParameterValues method and passing a TableName value the response will identify the valid years for that table.

NIPA Underlying Detail Dataset Result Data

NIPA (National Income and Product Accounts) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description
TableName	1	String	No	Unique identifier for the NIPA table requested.
SeriesCode	2	String	No	A unique identifier for the time series of the data item.
LineNumber	3	String	No	Sequence of the data item within the table.
LineDescription	4	String	No	A description of the transactions measured in the data item.
TimePeriod	5	String	No	Time period for the data item in the form YYYY for annual data; YYYYQn for quarterly data (where n is the quarter digit); or YYYYMx for monthly data (where x is the month digit).
Metric_Name	6	String	No	String indicating the measurement of the data item. Example values are Current Dollars, Fisher Price Index, etc.
CL_UNIT	7	String	No	The calculation type of the data item.
UNIT_MULT	8	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example "6" refers to millions (DataValue × 10^6).
DataValue	9	Numeric	Yes	Value of the data item, formatted with commas.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. For the NIPA dataset, every data element includes at least one Noteref that corresponds to a Note element containing the title of the table.

Additional Information

Explanation of the estimates can be found in the National section of our website: https://www.bea.gov/national/. Please consult the schedule of releases which impacts data and table availability. Updates and changes to the accounts are detailed at: https://www.bea.gov/national/an1.htm. National Income and Product Account Methodologies can be found in our handbook.

TableName – TableID Mapping

TableName	TableId	TableName	TableId	TableName	TableId	TableName	TableId
U001A	2001	U20305	2014	U50203	2070	U50705BU3	2092
U001A2	2012	U20306	2015	U50205	2071	U50706AM	2093
U001B	2023	U20403	2074	U50206	2072	U50706AU	2094
U001BC	2034	U20404	2016	U50404	2029	U50706BM	2095
U002AU	2045	U20405	2017	U50405	2030	U50706BU	2096
U002AUI	2056	U20406	2018	U50406	2031	U51100	2053
U002BU	2059	U30400	2019	U50504	2032	U70204	2054
U002BUI	2060	U30500	2020	U50505	2033	U70205	2057
U003AU	2061	U30600	2021	U50506	2035	U70205S	2055
U003BU	2002	U30700	2022	U50705AM1	2081	U70206	2058
U004A1	2003	U30800	2024	U50705AM2	2082	U90100	2075
U004A2	2004	U31200	2025	U50705AM3	2083	U90200	2076
U004A3	2005	U31300	2026	U50705AU1	2084	U90300	2077
U004B1	2006	U32400	2027	U50705AU2	2085	U90400	2078
U004B2	2007	U32500	2028	U50705AU3	2086	U90500	2079
U004B3	2008	U40203	2114	U50705BM1	2087		
U00500	2009	U40204	2111	U50705BM2	2088		
U00600	2010	U40205	2113	U50705BM3	2089		
U00700	2011	U40206	2112	U50705BU1	2090		
U20304	2013	U4030B	2073	U50705BU2	2091		

Appendix D – Fixed Assets

The DataSetName is FixedAssets. This dataset contains data from the standard set of Fixed Assets tables as published online. Two parameters are used to retrieve data from the Fixed Assets dataset, as follows:

Name	Type	Description	Is Required	Multiple Values Accepted	"All" value
TableName	String	The standard NIPA table identifier	Yes	No	N/A
Year	String	List of year(s) of data to retrieve	Yes	Yes	X ALL

Example calls

Current-Cost Net Stock of Private Fixed Assets, Equipment, Structures, and Intellectual Property Products by Type, for all years

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=FixedAssets&TableName=FAAt201&Year=ALL&ResultFormat=xml

Chain-Type Quantity Indexes for Depreciation of Private Nonresidential Fixed Assets by Industry Group and Legal Form of Organization, for 2015 and 2016

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=FixedAssets&TableName=FAAt405&Year=2015,2016&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TableName	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=FixedAssets&ParameterName=TableName&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=FixedAssets&ParameterName=Year&ResultFormat=xml

TableName Parameter – (required)
The TableName parameter is a string that identifies a specific NIPA table. Only one NIPA table can be requested in each data request. Requests with an invalid combination of TableName and Year values will result in an error. The TableName parameter must be passed or an error will result.

TableID Parameter – (discontinued; October 2018)
The TableID parameter is discontinued. The TableName parameter replaces the TableId parameter. A crosswalk between TableId and TableName values can be found in the appendix to this document.

Year Parameter – (required, multiple values allowed)
The Year parameter specifies the year(s) of the data requested. Multiple years are requested by specifying them as a comma-delimited string, e. g. "2000,2001,2002".

If the request supplies the special value X or ALL for the Year parameter, all available years of data for that NIPA table returned. Note that using the X or ALL value for all years can return large amounts of data, and should be avoided when the actual required years are known.

When data is requested for years that are not available for the requested NIPA table, only data that is available is returned; if no data is available for the requested year(s), an error will be returned.

When calling the GetParameterValues method and passing a TableName value the response will identify the valid years for that table.

NIPA Dataset Result Data

NIPA (National Income and Product Accounts) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description
TableName	1	String	No	Unique identifier for the NIPA table requested.
SeriesCode	2	String	No	A unique identifier for the time series of the data item.
LineNumber	3	String	No	Sequence of the data item within the table.
LineDescription	4	String	No	A description of the transactions measured in the data item.
TimePeriod	5	String	No	Time period for the data item in the form YYYY for annual data; YYYYQn for quarterly data (where n is the quarter digit); or YYYYMx for monthly data (where x is the month digit).
Metric_Name	6	String	No	String indicating the measurement of the data item. Example values are Current Dollars, Fisher Price Index, etc.

CL_UNIT	7	String	No	The calculation type of the data item.
UNIT_MULT	8	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example “6” refers to millions (DataValue × 10^6).
DataValue	9	Numeric	Yes	Value of the data item, formatted with commas.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. For the NIPA dataset, every data element includes at least one Noteref that corresponds to a Note element containing the title of the table.

Additional Information

Explanation of the estimates can be found in the Fixed Assets section of our website: https://www.bea.gov/resources/learning-center/what-to-know-fixed-assets. Fixed Assets data is updated once per year, typically between late-August through early October.

TableName – TableID Mapping

TableName	TableId	TableName	TableId	TableName	TableId
FAAt101	16	FAAt307ESI	138	FAAt610	119
FAAt102	17	FAAt307I	139	FAAt701	149
FAAt103	86	FAAt307S	55	FAAt702	150
FAAt104	87	FAAt308E	57	FAAt703	151
FAAt105	96	FAAt308ESI	140	FAAt704	152
FAAt106	97	FAAt308I	141	FAAt705	153
FAAt107	105	FAAt308S	147	FAAt706	154
FAAt108	124	FAAt309E	108	FAAt707	155
FAAt109	125	FAAt309ESI	142	FAAt801	32
FAAt201	18	FAAt309I	143	FAAt802	33
FAAt202	19	FAAt309S	110	FAAt803	50
FAAt203	42	FAAt310E	111	FAAt804	83
FAAt204	65	FAAt310ESI	144	FAAt805	148
FAAt205	66	FAAt310I	145	FAAt806	85
FAAt206	67	FAAt310S	113	FAAt807	63
FAAt207	51	FAAt401	26	FAAt808	64
FAAt208	52	FAAt402	27	FAAt809	122
FAAt209	106	FAAt403	46	FAAt810	123
faaT210	146	FAAt404	77	FAAt901	34
FAAt301E	21	FAAt405	78	FAAt902	95
FAAt301ESI	126	FAAt406	79	FAAt903	104
FAAt301I	127	FAAt407	59		
FAAt301S	22	FAAt408	60		
FAAt302E	24	FAAt409	114		
FAAt302ESI	128	FAAt410	115		

FAAt302I	129	FAAt501	28		
FAAt302S	25	FAAt502	29		
FAAt303E	44	FAAt503	47		
FAAt303ESI	130	FAAt504	88		
FAAt303I	131	FAAt505	89		
FAAt303S	45	FAAt506	90		
FAAt304E	69	FAAt507	98		
FAAt304ESI	132	FAAt508	99		
FAAt304I	133	FAAt509	116		
FAAt304S	70	FAAt510	117		
FAAt305E	72	FAAt601	41		
FAAt305ESI	134	FAAt602	48		
FAAt305I	135	FAAt603	49		
FAAt305S	73	FAAt604	80		
FAAt306E	75	FAAt605	81		
FAAt306ESI	136	FAAt606	82		
FAAt306I	137	FAAt607	61		
FAAt306S	76	FAAt608	62		
FAAt307E	54	FAAt609	118		

Appendix E – Data on Direct Investment and Multinational Enterprises (MNEs)

The DataSetName is MNE. This dataset contains two types of statistics:

1. Direct Investment (DI)—income and financial transactions in direct investment that underlie the U. S. balance of payments statistics, and direct investment positions that underlie the U. S. international investment positions; and
2. Activities of Multinational Enterprises (AMNE)—operations and finances of U. S. parent enterprises and their foreign affiliates and U. S. affiliates of foreign MNEs.

API requests for the two types of statistics share most of the same parameters, though the allowable values for each parameter may be different, depending on the type of statistic desired (e. g. , DI or AMNE).

Type 1: Direct Investment (DI) Data Request

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
DirectionOfInvestment	String	Outward = US direct investment abroad Inward = Foreign investment in the US	Yes	No	Not accepted	
SeriesID	Integer	Data Series Identifier	No	Yes	All	All
Classification	String	Results by country and/or industry	Yes	No	Not accepted	
Year	String	Time Period	Yes	Yes	All	
Country	String	Geographic Area Code	No	Yes	All	All
Industry	String	Industry Code	No	Yes	All	All
GetFootnotes	String	Yes = Include footnotes No = Exclude footnotes	No	No	Not accepted	No

Examples of Direct Investment (DI) Data Requests

U. S. direct investment position in China and Asia for 2011 and 2012

https://apps.bea.gov/api/data/?&SeriesId=30&UserID= Your-36Character-Key&method=GetData&DataSetName=MNE&Year=2012,2011&Country=650,699&DirectionOfInvestment=Outward&Classification=Country&ResultFormat=xml

Foreign direct investment position in the U. S. from Germany in the manufacturing industry for 2011 and 2012

https://apps.bea.gov/api/data/?&SeriesId=22,23,24,25,26,27&UserID= Your-36Character-Key&method=GetData&DataSetName=MNE&Year=2013,2012,2011,2010&Country=308&Industry=3000&DirectionOfInvestment=Inward&Classification=CountryByIndustry&ResultFormat=xml

Type 2: Activities of Multinational Enterprises (AMNE) Data Request

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
DirectionOfInvestment	String	Outward, Inward, State, Parent	Yes	No	Not accepted	
OwnershipLevel	Binary	0 = Majority-Owned Affiliates 1 = All Affiliates	Yes	No	Not accepted	
NonBankAffiliatesOnly	Binary	0 = Both Bank and NonBank Affiliates 1 = Nonbank Affiliates	Yes	No	Not accepted	
SeriesID	Integer	Data Series Identifier	No	Yes	All	All
Classification	String	Results by country and/or industry	Yes	No	Not accepted	
Year	String	Time Period	Yes	Yes	All	
Country	String	Geographic Area Code	No	Yes	All	All
Industry	String	Industry Code	No	Yes	All	All
State	String	Two-digit State FIPS Code	No	No	All	All
GetFootnotes	String	Yes = Include footnotes No = Exclude footnotes	No	No	Not accepted	No

Examples of Activities of Multinational Enterprises (AMNE) Data Requests

Net income and sales for Brazilian affiliates of U. S. parent enterprises, all industries, 2011 and 2012

https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key&method=GetData&DataSetName=MNE&Year=2012,2011&Country=202&Industry=all&DirectionOfInvestment=Outward&Classification=CountryByIndustry&SeriesId=5,4&NonBankAffiliatesOnly=0&OwnershipLevel=0&ResultFormat=xml

Total employment in U. S. affiliates of foreign-owned enterprises, all countries, 2011, include footnotes

https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key&method=GetData&DataSetName=MNE&Year=2011&Country=all&Industry=0000&DirectionOfInvestment=Inward&Classification=Country&SeriesId=8&OwnershipLevel=0&NonbankAffiliatesOnly=0&GetFootnotes=Yes&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
DirectionOfInvestment	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key Y&method=GetParameterValues&DataSetName=MNE&ParameterName=Dir ectionOfInvestment&ResultFormat=xml
OwnershipLevel	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Ow nershipLevel&ResultFormat=xml
NonBankAffiliatesOnly	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Non bankAffiliatesOnly&ResultFormat=xml
SeriesID	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=MNE&ParameterName= SeriesID&ResultFormat=xml
Classification	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Clas sification&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Yea r&ResultFormat=xml
Country	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=cou ntry&ResultFormat=xml
Industry	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Ind ustry&ResultFormat=xml
State	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=stat e&ResultFormat=xml
GetFootnotes	https://apps.bea.gov/api/data/?&UserID= Your-36Character-Key &method=GetParameterValues&DataSetName=MNE&ParameterName=Get Footnotes&ResultFormat=xml

Parameter Details

DirectionOfInvestment Parameter – (Required, single value)
DirectionOfInvestment can take on two values for DI statistics and four for AMNE statistics. The two values shared by DI and AMNE statistics are:

1. 'Outward' – for AMNE statistics, provides data for foreign affiliates; for DI statistics, provides data on transactions and positions between foreign affiliates and their U. S. parent enterprises.
2. 'Inward' – for AMNE statistics, provides data for U. S. affiliates; for DI statistics, provides data on transactions and positions between U. S. affiliates and their foreign parent groups.

For AMNE statistics only there are two additional options:

3. 'State' – provides data on U. S. affiliates of foreign multinational enterprises at the state level. Note that only data on employment (and for 2007 and earlier years, property, plant, and equipment) are available at the state level.
4. 'Parent' – provides data on U. S. parent enterprises.

OwnershipLevel Parameter – (used with AMNE statistics only, required, single value)

1. 1 – Returns data for all affiliates
2. 0 – Returns data for majority-owned affiliates only

If DirectionOfInvestment = "Parent" then OwnershipLevel must be set to 1.

NonBankAffiliatesOnly Parameter – (used with AMNE statistics only, required, single value)

1. 1 – Returns data for nonbank affiliates only
2. 0 – Returns data for both bank and nonbank affiliates only

Select NonBankAffiliatesOnly = 0 for data from 2009 – present for 'outward' AMNE and from 2007 – present for 'inward' AMNE

Select NonBankAffiliatesOnly = 1 for data up to 2008 for 'outward' AMNE and up to 2006 for 'inward AMNE

SeriesID Parameter – (optional, default = 0, multiple values allowed)

Refer to the GETPARAMETERVALUES API call above for the list of SeriesID values and their descriptions. Note that not all series are available for all classes of ownership and years.

A value of 0 will return data for all available series given the other parameters. Separate

multiple values with a comma.

Classification Parameter – (required, single value)

Refer to the GETPARAMETERVALUES API call above for the list of CLASSIFICATION parameter values and their descriptions. Note that not all series are available for all classifications. The CLASSIFICATION parameter is required and must be single-valued.

Year Parameter (required, multiple values allowed)

Use the four-digit year to request data for a specific year. Use 'all' to return data for all available years. Separate multiple values with a comma.

Country Parameter – (optional, default = all, multiple values allowed)

Refer to the GETPARAMETERVALUES API call above for the list of three-digit country and region identification values. Use '000' for the total of all countries and 'all' for all available countries and regions. Separate multiple values with a comma.

Industry Parameter – (optional, default = all, multiple values allowed)

Refer to the GETPARAMETERVALUES API call abovefor the list of four-digit industry identification values. These generally follow the North American Industry Classification System (NAICS). Use '0000' for the all- industries total and 'all' for all available industries. Separate multiple values with a comma.

State Parameter – (optional, default = all, multiple values allowed)

At the state level, data are only available on employment and (for limited years), gross property, plant, and equipment.

Refer to the GETPARAMETERVALUES API call above for the list of the two-digit Federal Information Processing Standards (FIPS) codes, available at: https://www.bls.gov/cew/cewedr10.htm.

Use '70' for "Other U. S. Areas", '75' for "Foreign", '00' for total U. S., and 'all' for all states and areas. Separate multiple values with a comma.

GetFootnotes Parameter – (optional, default=no, single value)

1. 'yes' – Include footnotes with data returned
2. 'no' – Do not include footnotes with data returned

Appendix F – Gross Domestic Product by Industry (GDPbyIndustry)

The gross domestic product by industry data are contained within a dataset called GDPbyIndustry. BEA's industry accounts are used extensively by policymakers and businesses to understand industry interactions, productivity trends, and the changing structure of the U. S. economy. The GDP-by-industry dataset includes data in both current and chained (real) dollars. The dataset contains estimates for value added, gross output, intermediate inputs, KLEMS and employment statistics.

Gross Domestic Product by Industry (GDPbyIndustry) Data Request

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
TableID	Integer	The unique GDP by Industry table identifier (ALL for All)	Yes	Yes	ALL	N/A
Frequency	String	A - Annual, Q-Quarterly	Yes	Yes	A,Q	N/A
Year	Integer	List of year(s) of data to retrieve (ALL for All)	Yes	Yes	ALL	N/A
Industry	String	List of industries to retrieve (ALL for All)	Yes	Yes	ALL	N/A

Examples of GDP by Industry (GDPbyIndustry) Data Requests

Annual Value Added by Industry data for all industries for years 2011 and 2012:

https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key&method=GetData&DataSetName=GDPbyIndustry&Year=2012,2011&Industry=ALL&tableID=1&Frequency=A&ResultFormat=xml

All annual and quarterly data in all tables for the Agriculture industry in 2010.

https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key&method=GetData&DataSetName=GDPbyIndustry&Year=2010&Industry=11&tableID=ALL&Frequency=A,Q&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**

TableID	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=GDPbyIndustry&ParameterName=TableID&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=GDPbyIndustry&ParameterName=Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=GDPbyIndustry&ParameterName=Year&ResultFormat=xml
Industry	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=GDPbyIndustry&ParameterName=Industry&ResultFormat=xml

Parameter Details

TableID Parameter – (Required, multiple values accepted, no default value, 'ALL' for all tables)

- The TableID parameter is a unique table identifier. This parameter is required to query data and does accept multiple comma separated values. If all tables are required, use the 'ALL' keyword.
- All tables are published annually, but only a subset are published quarterly. The Descr in the GetParameterValues result will contain (A) if the table is published annually and (Q) indicating that the table is also published quarterly.

Frequency Parameter – (Required, multiple values accepted, no default value, 'A,Q' for all frequencies)

- The Frequency parameter indicates whether annual or quarterly data are to be returned. This parameter is required to query data and does accept multiple comma separated values.
- All tables are published annually (Frequency = A) but only a subset are published quarterly (Frequency = Q)
- If a data request is submitted for both annual and quarterly data from a table that is only published annually then only the annual data will be returned.
- If a data request is submitted for quarterly data from a table that is only published annually then the user will receive the following error:

```
<Error APIErrorCode="204" APIErrorDescription="Error retrieving GDP by Industry data. ">
   <ErrorDetail Description="This TableID is not published quarterly: 25" />
</Error>
```

Year Parameter – (Required, multiple values accepted, no default value, 'ALL' for all years)

- The Year parameter indicates what periods of data are requested. This parameter is required to query data and does accept multiple comma separated values. Use the keyword 'ALL' to return all periods of data.
- If requesting quarterly frequency data, all available quarters for a year will be returned.
- Annual data publications begin in 1997 for most tables and 1998 for percent change and contributions tables. Quarterly data began publication in 2005.

- If a data request is submitted for quarterly or annual data before the earliest estimate period the user will receive one of the following errors:

```
<Error APIErrorCode="204" APIErrorDescription="Error retrieving GDP by Industry data. ">
  <ErrorDetail Description="Quarterly data begin in 2005. Invalid year: 1997" />
</Error>
```

```
<Error APIErrorCode="204" APIErrorDescription="Error retrieving GDP by Industry data. ">
  <ErrorDetail Description="Annual data begin in 1997 and quarterly data begins in
2005. Invalid year: 1996" />
</Error>
```

Industry Parameter – (Required, multiple values accepted, no default value, 'ALL' for all industries)

- The Industry parameter indicates what periods of data are requested. This parameter is required to query data and does accept multiple comma separated values. Use the keyword 'ALL' to return all industries.
- All industries are published annually, but only a subset are published quarterly. The Descr in the GetParameterValues result will contain (A) if the industry is published annually and (Q) indicating that the industry is also published quarterly.
- If a data request is submitted for an industry that is not published in the requested tables the user will receive the following error:

```
<Error APIErrorCode="204" APIErrorDescription="Error retrieving GDP by Industry data. ">
  <ErrorDetail Description="Invalid industry: 111CA" />
</Error>
```

General Use

- Data will be returned for all data cells that fit the requested criteria. If the request contains parameter values requesting data for which only part of a set is available, only the data matching the criteria will be returned. For example, requesting ALL TableIDs for 1997 will return only annual data because the quarterly publications begin in estimate year 2005. Blanks will not be returned for missing data.
- If no data fit the selected criteria the user will receive the following error:

```
<Error APIErrorCode="204" APIErrorDescription="Error retrieving GDP by Industry data. ">
  <ErrorDetail Description="No data exist for selected criteria" />
</Error>
```

Appendix G – ITA (International Transactions)

The DataSetName is ITA. This dataset contains data on U. S. international transactions. BEA's international transactions (balance of payments) accounts include all transactions between U. S. and foreign residents. Four parameters are used to retrieve data from the ITA dataset, as follows:

ITA (International Transactions) Data Request Parameters

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
Indicator	String	The indicator code for the type of transaction requested	No	Yes	All	All
AreaOrCountry	String	The area or country requested	No	Yes	All	AllCountries
Frequency	String	A - Annual, QSA - Quarterly seasonally adjusted, QNSA - Quarterly not seasonally adjusted	No	Yes	All	All
Year	String	Year requested	No	Yes	All	All

Examples of ITA (International Transactions) Data Requests

Balance on goods with China for 2011 and 2012

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=ITA&Indicator=BalGds&AreaOrCountry=China&Frequency=A&Year=2011,2012&ResultFormat=xml

Net U. S. acquisition of portfolio investment assets (quarterly not seasonally adjusted) for 2013

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=ITA&Indicator=PfInvAssets&AreaOrCountry=AllCountries&Frequency=QNSA&Year=2013&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
Indicator	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=ITA&ParameterName=Indicator&ResultFormat=xml
AreaOrCountry	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=ITA&ParameterName=AreaOrCountry&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=ITA&ParameterName=Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=ITA&ParameterName=Year&ResultFormat=xml

Parameter Details

Indicator Parameter – (optional, multiple values allowed)

The Indicator parameter specifies the type of transaction. The Indicator parameter values usually correspond to lines in ITA tables at https://www.bea.gov/iTable/iTableHtml. cfm?reqid=62&step=2&isuri=1&6210=1.

Exactly one Indicator parameter value must be provided in all data requests unless exactly one AreaOrCountry parameter value other than "ALL" and "AllCountries" is requested. That is, multiple Indicators can only be specified if a single AreaOrCountry is specified.

AreaOrCountry Parameter – (optional, multiple values allowed)

The AreaOrCountry parameter specifies the counterparty area or country of the transactions.

The default parameter value ("AllCountries") returns the total for all countries, while "All" returns all data available by area and country.

Exactly one AreaOrCountry parameter value must be provided in all data requests unless exactly one Indicator parameter value is requested. This single parameter value may not be either "ALL" or "AllCountries. " That is, a list of countries or the grand total for all countries can only be specified if a single Indicator is specified.

For information on geographic area definitions, see
https://www.bea.gov/international/bp_web/geographic_area_definitions. cfm

Frequency Parameter – (optional, multiple values allowed)

3. A – Annual
4. QSA – Quarterly seasonally adjusted
5. QNSA – Quarterly not seasonally adjusted

Year Parameter – (optional, multiple values allowed)

The Year parameter specifies the year of the data requested. When quarterly data are requested, all available quarters for the specified year will be returned.

ITA (International Transactions) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description
Indicator	1	String	No	The Indicator parameter value of the data item.
AreaOrCountry	2	String	No	The AreaOrCountry parameter value of the data item.
Frequency	3	String	No	The Frequency parameter value of the data item.
Year	4	String	No	The Year parameter value of the data item.
TimeSeriesId	5	String	No	A unique identifier for the time series of the data item.
TimeSeriesDescription	6	String	No	A description of the transactions measured in the data item.
TimePeriod	7	String	No	A string containing the time period for the data item in the form YYYY for annual data and YYYYQn for quarterly data (where n is the quarter digit)
CL_UNIT	8	String	No	A string indicating the base unit of measurement of the data item. For example, "USD" is used when the reported statistic is in U. S. dollars.
UNIT_MULT	9	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example "6" refers to millions (DataValue × 10^6).
DataValue	10	Numeric	No	An integer or decimal value of the statistic. May be blank.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. The NoteRef attribute may be blank.

Appendix H – IIP (International Investment Position)

The DataSetName is IIP. This dataset contains data on the U. S. international investment position. BEA's international investment position accounts include the end of period value of accumulated stocks of U. S. financial assets and liabilities. Four parameters are used to retrieve data from the IIP dataset, as follows:

IIP (International Investment Position) Data Request Parameters

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
TypeOfInvestment	String	Type of investment	No	Yes	All	All
Component	String	Component of changes in position	No	Yes	All	All
Frequency	String	A - Annual, QNSA - Quarterly not seasonally adjusted	No	Yes	All	All
Year	String	Year requested	No	Yes	All	All

Examples of IIP (International Investment Position) Data Requests

U. S. assets excluding financial derivatives; change in position attributable to price changes for all available years

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=IIP&TypeOfInvestment=FinAssetsExclFinDeriv&Component=ChgPosPrice&Frequency=A&Year=ALL&ResultFormat=xml

U. S. liabilities to foreign official agencies (quarterly not seasonally adjusted) for 2013

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=IIP&TypeOfInvestment=FinLiabsFoa&Component=Pos&Frequency=QNSA&Year=2013&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TypeOfInvestment	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IIP&ParameterName=TypeOfInvestment&ResultFormat=xml
Component	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IIP&ParameterName=Component&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IIP&ParameterName=Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IIP&ParameterName=Year&ResultFormat=xml

Parameter Details

TypeOfInvestment Parameter – (optional, multiple values allowed)
The TypeOfInvestment parameter specifies the type of investment. The TypeOfInvestment parameter values usually correspond to lines in IIP tables at https://www.bea.gov/iTable/iTableHtml.cfm?reqid=62&step=5&isuri=1&6210=2.

Exactly one TypeOfInvestment parameter value must be provided in all data requests unless exactly one Year parameter value other than "ALL" is requested. That is, more than one TypeOfInvestment can only be specified if a single Year is specified.

Component Parameter – (optional, multiple values allowed)

The Component parameter specifies either the position ("Pos") or a component in the change of position from the previous period. For instance, the parameter value "ChgPosTrans" specifies changes due to financial-account transactions.

Frequency Parameter – (optional, multiple values allowed)

1. A – Annual
2. QNSA – Quarterly not seasonally adjusted

Year Parameter – (optional, multiple values allowed)
The Year parameter specifies the year of the data requested. When quarterly data are requested, all available quarters for the specified year will be returned.

Exactly one Year parameter value must be provided in all data requests unless exactly one TypeOfInvestment parameter value other than "ALL" is requested. That is, more than one Year can only be specified if a single TypeOfInvestment is specified.

IIP (International Investment Position) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description
TypeOfInvestment	1	String	No	The TypeOfInvestment parameter value of the data item.
Component	2	String	No	The Component parameter value of the data item.
Frequency	3	String	No	The Frequency parameter value of the data item.
Year	4	String	No	The Year parameter value of the data item.
TimeSeriesId	5	String	No	A unique identifier for the time series of the data item.
TimeSeriesDescription	6	String	No	A description of the transactions measured in the data item.
TimePeriod	7	String	No	A string containing the time period for the data item in the form YYYY for annual data and YYYYQn for quarterly data (where n is the quarter digit)
CL_UNIT	8	String	No	A string indicating the base unit of measurement of the data item. For example, "USD" is used when the reported statistic is in U. S. dollars.
UNIT_MULT	9	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example "6" refers to millions (DataValue × 10^6).
DataValue	10	Numeric	No	An integer or decimal value of the statistic. May be blank.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. The NoteRef attribute may be blank.

Appendix I – RegionalIncome (DEPRECATED)

NOTE:

The RegionalIncome dataset is obsolete and API calls using this dataset will no longer function. Users should instead access the dataset Regional, which provides comprehensive detail in statistics, industries, geography, and years. See Appendix N for instructions on how to use the Regional dataset.

Appendix J – RegionalProduct (DEPRECATED)

NOTE:

The RegionalProduct dataset is obsolete and API calls using this dataset will no longer function. Users should instead access the dataset Regional, which provides comprehensive detail in statistics, industries, geography, and years. See Appendix N for instructions on how to use the Regional dataset.

Appendix K – Input-Output Statistics (InputOutput)

The Input-Output Statistics are contained within a dataset called InputOutput. BEA's industry accounts are used extensively by policymakers and businesses to understand industry interactions, productivity trends, and the changing structure of the U.S. economy. The input-output accounts provide a detailed view of the interrelationships between U.S. producers and users. The Input-Output dataset contains Make Tables, Use Tables, and Direct and Total Requirements tables.

InputOutput Data Request

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
TableID	Integer	The unique Input Output table identifier	Yes	Yes	N/A	N/A
Year	Integer	List of year(s) of data to retrieve	Yes	Yes	ALL	N/A

Examples of InputOutput Data Requests

NOTE: The example URI's below are valid as of the date of this appendix. However, dataset parameter values sometimes are changed to accommodate changes in data definitions, availability of data, etc. Therefore, the best way to obtain the most current parameter values is to use the "GetParameterValues" method shown in the table below these examples.

Data from Industry-by-Commodity Total Requirements, After Redefinitions (Sector Level) table for years 2010, 2011, and 2012:

https://apps.bea.gov/api/data/?&UserID=%Your-36Character-Key&method=GetData&DataSetName=InputOutput&Year=2010,2011,2012,2013&tableID=56&ResultFormat=xml

Data for Industry-by-Commodity Total Requirements, After Redefinitions sector and summary level tables:

https://apps.bea.gov/api/data/?&UserID=%Your-36Character-Key&method=GetData&DataSetName=InputOutput&Year=2007&tableID=56,57&&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TableID	https://apps.bea.gov/api/data/?&UserID=%Your-36Character-Key&method=GetParameterValues&DataSetName=InputOutput&ParameterName=TableID&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=%Your-36Character-Key&method=GetParameterValues&DataSetName=InputOutput&ParameterName=Year&ResultFormat=xml

Parameter Details

TableID Parameter (Required, multiple values accepted, no default value)

- The TableID parameter is a unique table identifier. This parameter is required to query data and does accept multiple comma separated values.

Year Parameter (Required, multiple values accepted, no default value, 'ALL' for all years)

- The Year parameter indicates what periods of data are requested. This parameter is required to query data and does accept multiple comma separated values. Use the keyword 'ALL' to return all periods of data.

General Use

- Data will be returned for all data cells that fit the requested criteria. If the request contains parameter values requesting data for which only part of a set is available, only the data matching the criteria will be returned. For example, requesting ALL Years Use Tables evaluated in Purchasers Value will return data for only 2007 because these tables are only published in benchmark years. Blanks will not be returned for missing data.
- If no data fit the selected criteria the user will receive the following error:

```
<Error APIErrorCode="205" APIErrorDescription="Error retrieving Input-Output data.">
  <ErrorDetail Description="No data exist for selected criteria" />
</Error>
```

Appendix L – Underlying Gross Domestic Product by Industry (UnderlyingGDPbyIndustry)

The underlying gross domestic product by industry data are contained within a dataset called UnderlyingGDPbyIndustry. BEA's industry accounts are used extensively by policymakers and businesses to understand industry interactions, productivity trends, and the changing structure of the U.S. economy. The underlying GDP-by-industry dataset includes data in both current and chained (real) dollars. The dataset contains estimates for value added, gross output, and intermediate input statistics. This dataset is structurally similar to the GDPbyIndustry dataset (Appendix F), but contains additional industry detail.

Please Note: Cautionary Note on use of underlying detail tables -- The Bureau of Economic Analysis does not include these detailed estimates in the published tables because their quality is significantly less than that of the higher level aggregates in which they are included.

Underlying Gross Domestic Product by Industry (UnderlyingGDPbyIndustry) Data Request

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
TableID	Integer	The unique GDP by Industry table identifier (ALL for All)	Yes	Yes	ALL	N/A
Frequency	String	A-Annual	Yes	Yes	A	N/A
Year	Integer	List of year(s) of data to retrieve (ALL for All)	Yes	Yes	ALL	N/A
Industry	String	List of industries to retrieve (ALL for All)	Yes	Yes	ALL	N/A

Examples of Underlying GDP by Industry (UnderlyingGDPbyIndustry) Data Requests

Value Added by Industry data for all industries for years 2012 and 2013:

https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key&method=GetData&DataSetName=underlyingGDPbyIndustry&Year=2013,2012&Industry=ALL&tableID=210&Frequency=A&ResultFormat=xml

All data in all tables for the Agriculture industry in 2012.

https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key&method=GetData&DataSetName=underlyingGDPbyIndustry&Year=2012&Industry=11&tableID=ALL&Frequency=A&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TableID	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=underlyingGDPbyIndustry&ParameterName=TableID&ResultFormat=xml
Frequency	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=underlyingGDPbyIndustry&ParameterName=Frequency&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=underlyingGDPbyIndustry&ParameterName=Year&ResultFormat=xml
Industry	https://apps.bea.gov/api/data/?&UserID=%20Your-36Character-Key%20Y&method=GetParameterValues&DataSetName=underlyingGDPbyIndustry&ParameterName=Industry&ResultFormat=xml

Parameter Details

TableID Parameter (Required, multiple values accepted, no default value, 'ALL' for all tables)

- The TableID parameter is a unique table identifier. This parameter is required to query data and does accept multiple comma separated values. If all tables are required, use the 'ALL' keyword.
- The Descr in the GetParameterValues result will contain an (A) indicating that the table is published annually. No quarterly data is available in the underlying GDP by industry dataset

Frequency Parameter (Required, multiple values accepted, no default value)

- The Frequency parameter indicates whether annual or quarterly data are to be returned. This parameter is required to query data and does accept multiple comma separated values.
- All tables are published annual only (Frequency = A). No quarterly data is currently available in the underlying GDP by industry dataset
- If a data request is submitted for quarterly data then the user will receive the following error:

```
<Error APIErrorCode="206" APIErrorDescription="Error retrieving GDP by Industry data.">
      <ErrorDetail Description="Invalid frequency: Q" />
</Error>
```

Year Parameter (Required, multiple values accepted, no default value, 'ALL' for all years)

- The Year parameter indicates what periods of data are requested. This parameter is required to query data and does accept multiple comma separated values. Use the keyword 'ALL' to return all periods of data.
- Underlying GDP by industry data publications begin in 1997 to present
- If a data request is submitted for data before the earliest estimate period the user will receive the following errors:

```
<Error APIErrorDescription="Error retrieving GDP by Industry data." APIErrorCode="206">
      <ErrorDetail Description="Invalid year: 1996"/>
</Error>
```

Industry Parameter (Required, multiple values accepted, no default value, 'ALL' for all industries)

- The Industry parameter indicates what periods of data are requested. This parameter is required to query data and does accept multiple comma separated values. Use the keyword 'ALL' to return all industries.
- The Descr in the GetParameterValues result will contain (A) if the industry is published annually.
- If a data request is submitted for an industry that is not published in the requested tables the user will receive the following error:

```
<Error APIErrorCode="206" APIErrorDescription="Error retrieving GDP by Industry data.">
  <ErrorDetail Description="Invalid industry: 11" />
</Error>
```

General Use

- Data will be returned for all data cells that fit the requested criteria. If the request contains parameter values requesting data for which only part of a set is available, only the data matching the criteria will be returned. Blanks will not be returned for missing data.
- If no data fit the selected criteria the user will receive the following error:

```
<Error APIErrorCode="206" APIErrorDescription="Error retrieving GDP by Industry data.">
  <ErrorDetail Description="No data exist for selected criteria" />
</Error>
```

Appendix M – IntlServTrade (International Services Trade)

The DataSetName is IntlServTrade. This dataset contains annual data on U.S. international trade in services. These data are updated each October to reflect the International Transactions Accounts annual update released in June. BEA's statistics on services supplied through affiliates by multinational enterprises are not included in this dataset. Five parameters are used to retrieve data from the IntlServTrade dataset, as follows:

IntlServTrade (International Services Trade) Data Request Parameters

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value	Default
TypeOfService	String	The type of service requested	No	Yes	All	All
TradeDirection	String	The trade direction requested	No	Yes	All	All
Affiliation	String	The affiliation requested	No	Yes	All	All
AreaOrCountry	String	The area or country requested	No	Yes	All	AllCountries
Year	String	The year requested	No	Yes	All	All

Examples of IntlServTrade (International Services Trade) Data Requests

Imports of services from Germany for 2014 and 2015

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=IntlServTrade&TypeOfService=AllServiceTypes&TradeDirection=Imports&Affiliation=AllAffiliations&AreaOrCountry=Germany&Year=2014,2015&ResultFormat=xml

Exports of telecommunications services by U.S. parents to their foreign affiliates for all years

https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetData&DataSetName=IntlServTrade&TypeOfService=Telecom&TradeDirection=Exports&Affiliation=UsParents&AreaOrCountry=AllCountries&Year=All&ResultFormat=xml

API Call [GETPARAMETERVALUES] to Obtain a List of Available Values & Descriptions for Each Parameter *[Details of each are described in the section below.]*	
Parameter Name	**Parameter Value List**
TypeOfService	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IntlServTrade&ParameterName=TypeOfService&ResultFormat=xml
TradeDirection	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IntlServTrade&ParameterName=TradeDirection&ResultFormat=xml
Affiliation	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IntlServTrade&ParameterName=Affiliation&ResultFormat=xml
AreaOrCountry	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IntlServTrade&ParameterName=AreaOrCountry&ResultFormat=xml
Year	https://apps.bea.gov/api/data/?&UserID=Your-36Character-Key&method=GetParameterValues&DataSetName=IntlServTrade&ParameterName=Year&ResultFormat=xml

Parameter Details

TypeOfService *Parameter* (optional, multiple values allowed)
The TypeOfService parameter specifies the type of service being traded (e.g. travel, transport, or insurance services).

Exactly one TypeOfService parameter value other than "All" must be provided in all data requests unless exactly one AreaOrCountry parameter value other than "All" is requested. That is, multiple Indicators can only be specified if a single AreaOrCountry parameter is specified.

TradeDirection *Parameter* (optional, multiple values allowed)
The TradeDirection parameter specifies the trade direction of the services transactions. There are four valid parameter values other than "All":

1. Exports – Exports
2. Imports – Imports
3. Balance – Balance (exports less imports)
4. SupplementalIns – Supplemental detail on insurance transactions

Affiliation *Parameter* (optional, multiple values allowed)
The Affiliation parameter specifies the trade direction for the services transactions. There are five valid parameter values other than "All":

1. AllAffiliations – The total for all trade, whether affiliated or unaffiliated

2. Unaffiliated – Unaffiliated trade
3. Affiliated – Affiliated trade
4. UsParents – U.S. parents' trade with their foreign affiliates
5. UsAffiliates – U.S. affiliates' trade with their foreign parent groups

***AreaOrCountry** Parameter* (optional, multiple values allowed)
The AreaOrCountry parameter specifies the counterparty area or country of the services transactions. The default parameter value ("AllCountries") returns the total for all countries, while "All" returns all data available by area and country.

Exactly one AreaOrCountry parameter value must be provided in all data requests unless exactly one TypeOfService parameter value other than "All" is requested. That is, a list of countries can only be specified if a single TypeOfService is specified.

For information on geographic area definitions, see
https://apps.bea.gov/international/bp_web/geographic_area_definitions.pdf

***Year** Parameter* (optional, multiple values allowed)
The Year parameter specifies the year of the data requested.

IntlServTrade (International Services Trade) Dimensions Elements in Return Data

Parameter Name	Ordinal	Datatype	IsValue	Description
TypeOfService	1	String	No	The TypeOfService parameter value of the data item.
TradeDirection	2	String	No	The TradeDirection parameter value of the data item.
Affiliation	3	String	No	The Affiliation parameter value of the data item.
AreaOrCountry	4	String	No	The AreaOrCountry parameter value of the data item.
Year	5	String	No	The Year parameter value of the data item.
TimeSeriesId	6	String	No	A unique identifier for the time series of the data item.
TimeSeriesDescription	7	String	No	A description of the transactions measured in the data item.
TimePeriod	8	String	No	A string containing the time period for the data item in the form YYYY for annual data
CL_UNIT	9	String	No	A string indicating the base unit of measurement of the data item. For example, "USD" is used when the reported statistic is in U.S. dollars.
UNIT_MULT	10	String	No	An integer representing the base-10 exponent of the multiplier used to interpret the data value. For example "6" refers to millions (DataValue × 10^6).
DataValue	11	Numeric	No	An integer or decimal value of the statistic. May be blank.

A NoteRef attribute is also included in all data elements and acts as a reference to one of the Notes elements in the returned data. The NoteRef attribute may have multiple values represented by a comma-delimited string. Any NoteRef attribute included in the data is guaranteed to have a corresponding Notes element. The NoteRef attribute may be blank.

Appendix N – Regional (income, product, and employment by state and local area)

The Regional dataset contains income and employment estimates from the Regional Economic Accounts by state, county, and metropolitan area. All data accessible through the Regional Interactive Tables on bea.gov are available through this dataset. Additional information may be found at http://apps.bea.gov/regional/pdf/RegionalApi.pdf

Selected state data tables were discontinued Sept. 27, 2024, and selected county tables were discontinued on Nov. 14, 2024, due to budget constraints. Additional information is at https://www.bea.gov/itable/discontinued-data-tables.

Regional Request Parameters

Method=GetData

Parameter Name	Type	Description	Required	Multiple Values Accepted	"All" value*	Default
TableName	String	Published table name	Yes	No		
LineCode	Integer	Line code in table	Yes	No	ALL	
GeoFips	String	The state, county or MSA code	Yes	Yes (unless LineCode=ALL)	STATE COUNTY MSA MIC PORT DIV CSA TERR PO code	
Year	String	Year requested	No	Yes	ALL LAST5 LAST10	LAST5

Parameter Details for GetData method

***TableName** parameter* – (required, single value)

TableName specifies a published table from the regional accounts. Exactly one TableName must be provided.

TableName	Description	Years	Main Areas
SASUMMARY	State annual income and product summary	1998→	States

TASUMMARY	Summary estimates of current dollar GDP for U.S. Territories	2002→	Territories
TASUMMARY2	Summary estimates of real GDP for U.S. Territories	2002→	Territories
CAINC1	Personal Income Summary: Personal Income, Population, Per Capita Personal Income	1969→	Counties, Metros
CAINC30	Economic Profile	1969→	Counties, Metros
CAINC4	Personal Income by Major Component	1969→	Counties, Metros
CAINC5N	Personal Income by Major Component and Earnings by NAICS Industry	2001→	Counties, Metros
CAINC5S	Personal Income by Major Component and Earnings by SIC Industry	1969-2000	Counties, Metros
CAINC6N	Compensation of Employees by NAICS Industry	2001→	Counties, Metros
CAINC6S	Compensation of Employees by SIC Industry	1998-2000	Counties, Metros
CAINC91	Gross Flow of Earnings	1990→	Counties
CAGDP1	Gross domestic product (GDP) summary	2001→	Counties, Metros
CAGDP2	Gross domestic product (GDP) by county and metropolitan area	2001→	Counties, Metros
CAGDP8	Chain-type quantity indexes for real GDP by county and metropolitan area	2001→	Counties, Metros
CAGDP9	Real GDP by county and metropolitan area	2001→	Counties, Metros
CAGDP11	Contributions to percent change in real GDP	2002→	Counties, Metros
MAIRPD	Implicit Price Deflators by MSA	2008→	MSAs
MARPI	Real Personal Income by MSA	2008→	MSAs

MARPP	Regional Price Parities by MSA	2008→	MSAs
PAIRPD	Implicit Price Deflators by Portion	2008→	State portions
PARPI	Real Personal Income by Portion	2008→	State portions
PARPP	Regional Price Parities by Portion	2008→	State portions
SAGDP1	Gross domestic product (GDP) by state summary	1998→	States
SAGDP11N	Contributions to percent change in real GDP	1998→	States
SAGDP2N	Gross domestic product (GDP) by state	1997→	States
SAGDP3N	Taxes on production and imports less subsidies	1997→	States
SAGDP4N	Compensation of employees	1997→	States
SAGDP5N	Subsidies	1997→	States
SAGDP6N	Taxes on production and imports	1997→	States
SAGDP7N	Gross operating surplus	1997→	States
SAGDP8N	Quantity indexes for real GDP by state	1997→	States
SAGDP9N	Real GDP by state	1997→	States
SAINC1	Personal Income Summary: Personal Income, Population, Per Capita Personal Income	1929→	States
SAINC30	Economic Profile	1958→	States
SAINC35	Personal Current Transfer Receipts	1929→	States
SAINC4	Personal Income and Employment by Major Component	1929→	States
SAINC40	Property Income	1958→	States
SAINC50	Personal Current Taxes	1948→	States
SAINC51	Disposable Personal Income Summary: Disposable Personal Income, Population, and Per Capita Disposable Personal Income	1948→	States

SAINC5H	Personal Income by Major Component and Earnings by Industry (Historical)	1929-57	States
SAINC5N	Personal Income by Major Component and Earnings by NAICS Industry	1998→	States
SAINC5S	Personal Income by Major Component and Earnings by SIC Industry	1958-2001	States
SAINC6N	Compensation of Employees by NAICS Industry	1998→	States
SAINC6S	Compensation of Employees by SIC Industry	1958→	States
SAINC7H	Wages and Salaries by Industry (Historical)	1929-57	States
SAINC7N	Wages and Salaries by NAICS Industry	1998→	States
SAINC7S	Wages and Salaries by SIC Industry	1958-2001	States
SAINC91	Gross Flow of Earnings	1990→	States
SAIRPD	Implicit Price Deflators by state	2008→	States
SARPI	Real Personal Income by state	2008→	States
SARPP	Regional Price Parities by state	2008→	States
SAPCE1	Personal consumption expenditures (PCE) by major type of product	1997→	States
SAPCE2	Per capita personal consumption expenditures (PCE) by major type of product	1997→	States
SAPCE3	Personal consumption expenditures (PCE) by state by type of product	1997→	States
SAPCE4	Personal consumption expenditures (PCE) by state by function	1997→	States
SQGDP1	Gross domestic product (GDP) by state summary	2005→	States
SQGDP11	Contributions to percent change in real GDP	2005→	States
SQGDP2	Gross domestic product (GDP) by state	2005→	States
SQGDP8	Quantity indexes for real GDP by state	2005→	States
SQGDP9	Real GDP by state	2005→	States

SQINC1	Personal Income Summary: Personal Income, Population, Per Capita Personal Income	1948→	States
SQINC35	Personal Current Transfer Receipts	1948→	States
SQINC4	Personal Income by Major Component	1948→	States
SQINC5H	Personal Income by Major Component and Earnings by Industry (Historical)	1948-57	States
SQINC5N	Personal Income by Major Component and Earnings by NAICS Industry	1998→	States
SQINC5S	Personal Income by Major Component and Earnings by SIC Industry	1958-2001	States
SQINC6N	Compensation of Employees by NAICS Industry	1998→	States
SQINC6S	Compensation of Employees by SIC Industry	1958-2001	States
SQINC7H	Wages and Salaries by Industry (Historical)	1948-57	States
SQINC7N	Wages and Salaries by NAICS Industry	1998→	States
SQINC7S	Wages and Salaries by SIC Industry	1958-2001	States
SAACEmpRatio	Arts Employment Ratio	2001→	States
SAACCompRatio	Arts Compensation Ratio	2001→	States
SAACArtsEmp	ACPSA Employment	2001→	States
SAACArtsComp	ACPSA Compensation	2001→	States
SAACEmpLQ	Arts Employment Location Quotient	2001→	States
SAACCompLQ	Arts Compensation Location Quotient	2001→	States
SAACVARatio	Arts Value Added Ratio	2001→	States
SAACArtsVA	ACPSA Value Added	2001→	States
SAACVALQ	Arts Value Added Location Quotient	2001→	States
PRGDP1-1	Gross domestic product (GDP)	2012→	GeoFips= 72000

PRGDP1-2	Real GDP	2012→	GeoFips= 72000
PRGDP1-3	Percent change from preceding year in real gross domestic product	2012→	GeoFips= 72000
PRGDP1-4	Contributions to percent change in real GDP	2012→	GeoFips= 72000
PRGDP2-1	Personal consumption expenditures by type	2012→	GeoFips= 72000
PRGDP2-2	Real personal consumption expenditures by type	2012→	GeoFips= 72000
PRGDP2-3	Percent change from preceding year in real personal consumption expenditures by type	2012→	GeoFips= 72000
PRGDP2-4	Contributions to percent change in real PCE	2012→	GeoFips= 72000
PRGDP3-1	Exports and imports of goods and services	2012→	GeoFips= 72000
PRGDP3-2	Real exports and imports of goods and services	2012→	GeoFips= 72000
PRGDP3-3	Percent change from preceding year in real exports and imports of goods and services by type of product	2012→	GeoFips= 72000
PRGDP3-4	Contributions to percent change in real exports and imports	2012→	GeoFips= 72000
PRGDP4-1-1	Gross domestic investment	2012→	GeoFips= 72000
PRGDP4-1-2	Real gross domestic investment	2012→	GeoFips= 72000
PRGDP4-1-3	Percent change from preceding year in real gross domestic investment by type	2012→	GeoFips= 72000
PRGDP4-2-1	Private fixed investment by type	2012→	GeoFips= 72000
PRGDP4-2-2	Real private fixed investment by type	2012→	GeoFips= 72000

PRGDP4-2-3	Percent change from preceding year in real private fixed investment by type	2012→	GeoFips= 72000
PRGDP4-2-4	Contributions to percent change in real private fixed investment by type	2012→	GeoFips= 72000

***LineCode** parameter* – (required, single value)

LineCode corresponds to the statistic in a table. It can either be one value(ie.1,10,11), or 'ALL' to retrieve all the statistics for one GeoFips.

***GeoFips** parameter* – (required, multiple value)

GeoFips specifies geography. It can be all states (STATE), all counties (COUNTY), all Metropolitan Statistical Areas (MSA), all Micropolitan Statistical Areas (MIC), all Metropolitan Divisions (DIV), all Combined Statistical Areas (CSA), all metropolitan/nonmetropolitan portions (PORT), U.S Territories (TERR), or state post office abbreviation for all counties in one state (e.g. NY). It can also be a list of ANSI state-county codes or metropolitan area codes. For example, the counties in Connecticut and Delaware–

09001,09003,09005,09007,09009,09011,09013,09015,10001,10003,10005.

Only one GeoFips is allowed when LineCode parameter value is 'ALL'.

State, county, and metropolitan statistical area FIPS codes can be obtained from Census at https://www.census.gov/geo/www/ansi/ansi.html. A comprehensive list of MSAs and their component counties can be accessed at https://apps.bea.gov/regional/docs/msalist.cfm.

***Year** parameter* – (optional, multiple value)

Year is either a list of comma delimited years, LAST5, LAST10, or ALL. Year will default to LAST5 years if the parameter is not specified.

Errors

An invalid parameter value will result in an error code of 40, "The dataset requested requires parameters that were missing from the request" plus a detailed message that explains the invalid value(s) entered.
Examples:

- For Invalid TableName a detailed message with "TableName entered is invalid" will display.
- When two or more parameter values are incompatible a detailed message will display "TableName entered is incompatible with the entered GeoFips, LineCode and Year".

- In the case of incompatible entries, the error message will tell the user which parameters are incompatible and suggestions of the compatible values will be listed.

Examples of Regional Getdata method Requests

Personal income for 2012 and 2013 for all counties, in JSON format

https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetData&datasetname=Regional&TableName=CAINC1&LineCode=1&Year=2012,2013&GeoFips=COUNTY&ResultFormat=json

Real GDP for all states, all years, in XML format

https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&

method=GetData&datasetname=Regional&TableName=SAGDP9N&LineCode=2&Year=ALL&GeoFips=STATE&ResultFormat=xml

Method=GetParameterValuesFiltered

API Call [GETPARAMETERVALUESFILTERED] to Obtain a List of Available Values & Descriptions for Each Parameter, Filtered by Another Parameter *[Examples below]*			
Target Parameter Name	**Filtered Parameter Names**	**Parameter Value List**	**Explanation**
Year	**TableName**	https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=Year&TableName=CAINC5N,CAINC25N&ResultFormat=xml	List Years for given TableNames
GeoFips	**TableName LineCode**	https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=GeoFips&TableName=CAINC4&LineCode=10&ResultFormat=xml	List of GeoFips for a given TableName and LineCode
TableName	**Year Geofips**	https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=TableName&GeoFips=00000&Year=2014&ResultFormat=xml	List of TableNames for a given Year and GeoFips
LineCode	**TableName**	https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=LineCode&TableName=SAINC4&ResultFormat=json	List of LineCodes for a TableName

Parameter Details for GetParameterValuesFiltered method when used as filtered parameters

TableName parameter

TableName specifies a published table from the regional accounts. Unlike with the GetData method the GetParameterValuesFiltered method allows the user to filter the data by a list of comma-delimited values for TableName.

LineCode parameter

LineCode corresponds to the statistic in a table. Unlike with the GetData method it can be one value or a list of comma-delimited LineCodes.

The available LineCodes are queried using the GetParameterValuesFiltered method. For example:

https://apps.bea.gov/api/data/?UserID=Your-36Character-Key&method=GetParameterValuesFiltered&datasetname=Regional&TargetParameter=LineCode&TableName=SAINC5N&ResultFormat=json

GeoFips parameter

GeoFips specifies geography. It can be all states (STATE), all counties (COUNTY), all Metropolitan Statistical Areas (MSA), or state post office abbreviation for all counties in one state (e.g. NY). It can also be a list of ANSI state-county codes or metropolitan area codes. For example, the counties in Connecticut and Delaware–

09001,09003,09005,09007,09009,09011,09013,09015,10001,10003,10005

State, county, and metropolitan statistical area FIPS codes can be obtained from Census at https://www.census.gov/geo/www/ansi/ansi.html. A comprehensive list of MSAs and their component counties can be accessed at https://apps.bea.gov/regional/docs/msalist.cfm.

Year parameter

Year is either a single value, a list of comma-delimited years, or ALL

Errors

An invalid TableName LineCode, GeoFips or Year will result in an error code of 203, "No parameter values match the filtered list requested" plus a detailed message that explains the invalid value(s) entered.

Examples:

- For Invalid LineCode a detailed message with "LineCode entered is invalid" will display.
- When there are no available GeoFips data for the entered LineCode a detailed message with "Values of GeoFips and LineCode are incompatible" will display, followed by a suggestion of compatible values.

Additional information

Explanation of the estimates, including a schedule of the release of new regional data and Income and Product methodologies can be found on our website: https://www.bea.gov. Definitions of the estimates can be accessed at our glossary of regional definitions, at https://apps.bea.gov/regional/definitions/.