

Team effort: Supporting the collaborative and logistical needs of respondent groups in the Economic Census

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May 4, 2016

Any views expressed are those of the author and not necessarily those of the U.S. Census Bureau.

Outline

- Economic Census
- Business survey response processes
- Tools to support business survey response

Economic Census

- Every 5 years, ending in -2 and -7
- ~4 million non-farm employer businesses
- Maintains the Business Register frame
- Benchmark for sample surveys
- Inputs to national accounts, gross domestic product, etc.
- County Business Patterns and other data products

Economic Census

Reporting unit – "Establishment"

- Discrete physical locations with records
- Industry classification according to primary activity

Single-establishment businesses

Manufacturer

Pharmacy

Construction

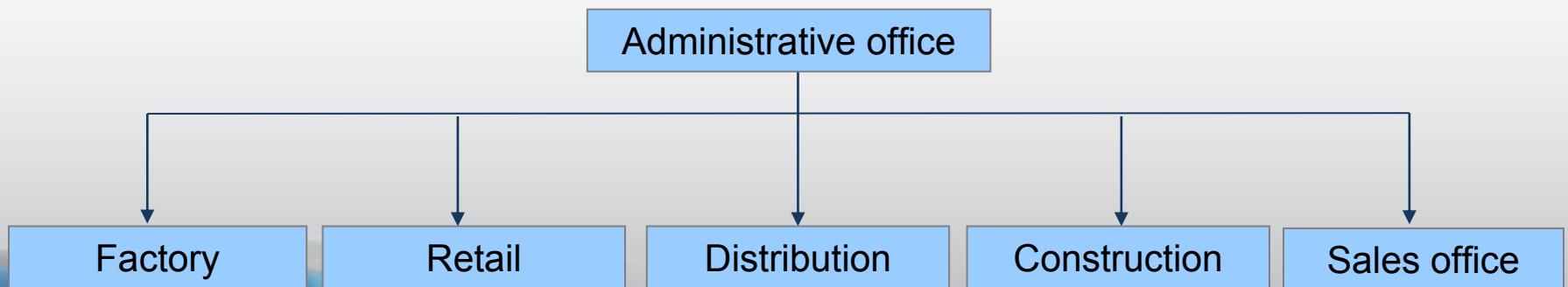
Restaurant

Economic Census

Reporting unit – "Establishment"

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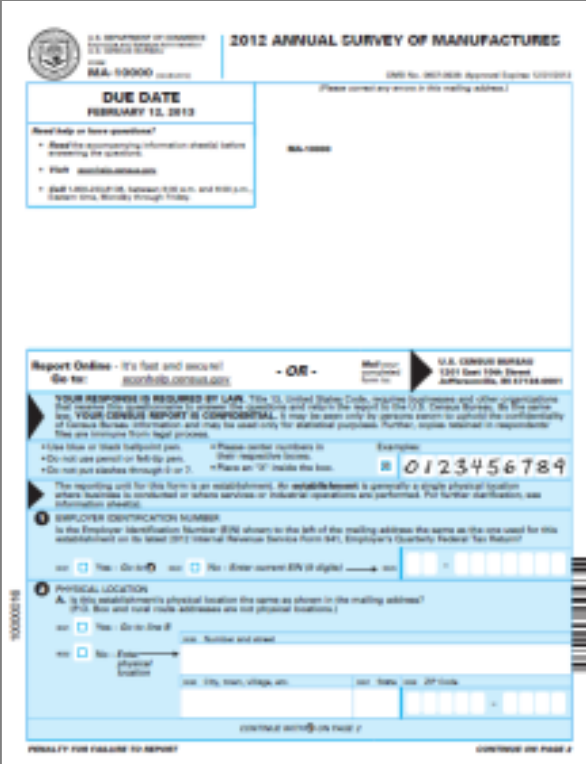
Multiple-establishment businesses



Economic Census

For every establishment, report:

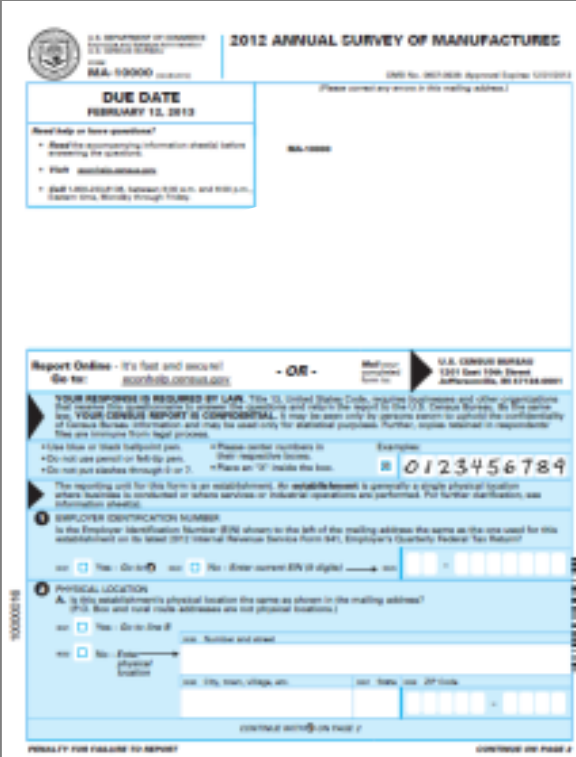
- Payroll and employment
- Sales
- Expenses
- Industry-specific inquiries
- Etc.



The image shows a sample of the 2012 Annual Survey of Manufactures form. The form is titled "2012 ANNUAL SURVEY OF MANUFACTURES" and is issued by the U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. The form is for the year 2012 and is due on February 12, 2013. It includes a section for "Need help or have questions?" with instructions on how to get help. The form also includes a section for "Report Online - It's fast and secure!" with a link to www.census.gov. The form includes a section for "YOUR RESPONSE IS REQUIRED BY LAW" and a section for "EMPLOYER IDENTIFICATION NUMBER" (EIN) with a sample number 0123456789. The form also includes a section for "PHYSICAL LOCATION" with a sample address. The form is labeled "U.S. CENSUS BUREAU" and "2012 Form 1000 Series".

2017 Economic Census

- New electronic reporting system
- New metadata repository
- No more paper forms



The image shows a sample of the 2012 Annual Survey of Manufactures form. At the top, it features the U.S. Department of Commerce logo and the title "2012 ANNUAL SURVEY OF MANUFACTURES". Below this, there is a "DUE DATE" section indicating "FEBRUARY 12, 2013". A "Need help or have questions?" section provides instructions on how to access the information and lists the reporting period as "All establishments, except for gov. and non-pro. except orgs. Monday through Friday".

The form also includes a "Report Online" section with the URL "econhelp.com/survey" and a "U.S. CENSUS BUREAU" logo. A prominent section titled "YOUR RESPONSE IS REQUIRED BY LAW" contains instructions on how to fill out the form, including a warning that the information is confidential and may be used for statistical purposes. It also includes a sample identification number "0123456789".

Below this, there are sections for "EMPLOYER IDENTIFICATION NUMBER" and "PHYSICAL LOCATION". The "PHYSICAL LOCATION" section asks if the establishment's physical location is the same as shown in the mailing address. The form includes various checkboxes and input fields for these sections.

At the bottom, there is a "CONTINUE ON PAGE 2" instruction and a "PENALTY FOR FAILURE TO REPORT" notice.

Research for new reporting system

- Post-collection debriefings with respondents (n=66)
- Requirements-gathering and usability testing (n=51)
- Focus group with survey analysts
- Analysis of paradata from current electronic reporting systems

Cognitive survey response process

- Understand
- Retrieve
- Judge
- Report

Tourangeau 1984

Business survey response processes

- *A priori* – Desired information are encoded in records
 - Organize response tasks
 - Understand
 - Retrieve
 - Judge
 - Review and release data
 - Report
 - Document
- Edwards and Cantor 1991
- Sudman et al. 2000
- Willimack and Snijkers 2013

Business survey response processes

- *A priori* – Desired information are encoded in records
- Organize response tasks
 - Identify and assign respondent
 - Transmit request to data providers
- Understand
- Retrieve
 - Query databases, format the output
 - Compile data from various sources
- Judge
- Review and release data
 - Review data for completeness and accuracy
 - Authorize release of data
- Report
 - Enter into reporting system
 - Review and correct errors
- Document
 - Keep records of responses, methodology and proof of compliance

Business survey response processes

- *A priori* – Desired information are encoded in records
- Organize response tasks
 - **Identify and assign respondent**
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Business survey response processes

Organizational dimensions of survey response

1. Distribution of response tasks
2. Retrieval from information systems
3. Review
4. Authorize response
5. Document

Organizational dimensions of survey response

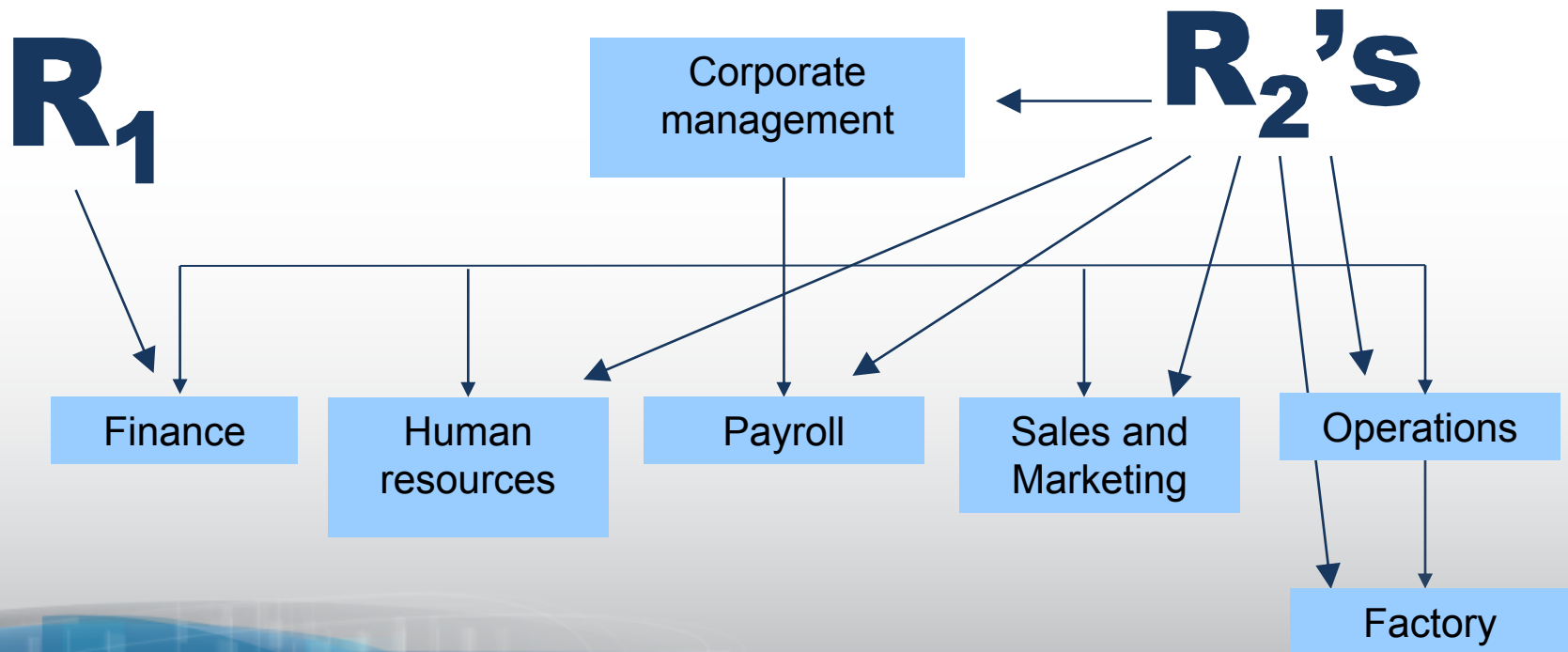
1. Distribution of response tasks

- Multiple respondents and data sources
 - Functional – Subject matter experts
 - Structural – Organizational units, information systems, etc.

Organizational dimensions of survey response

1. Distribution of response tasks

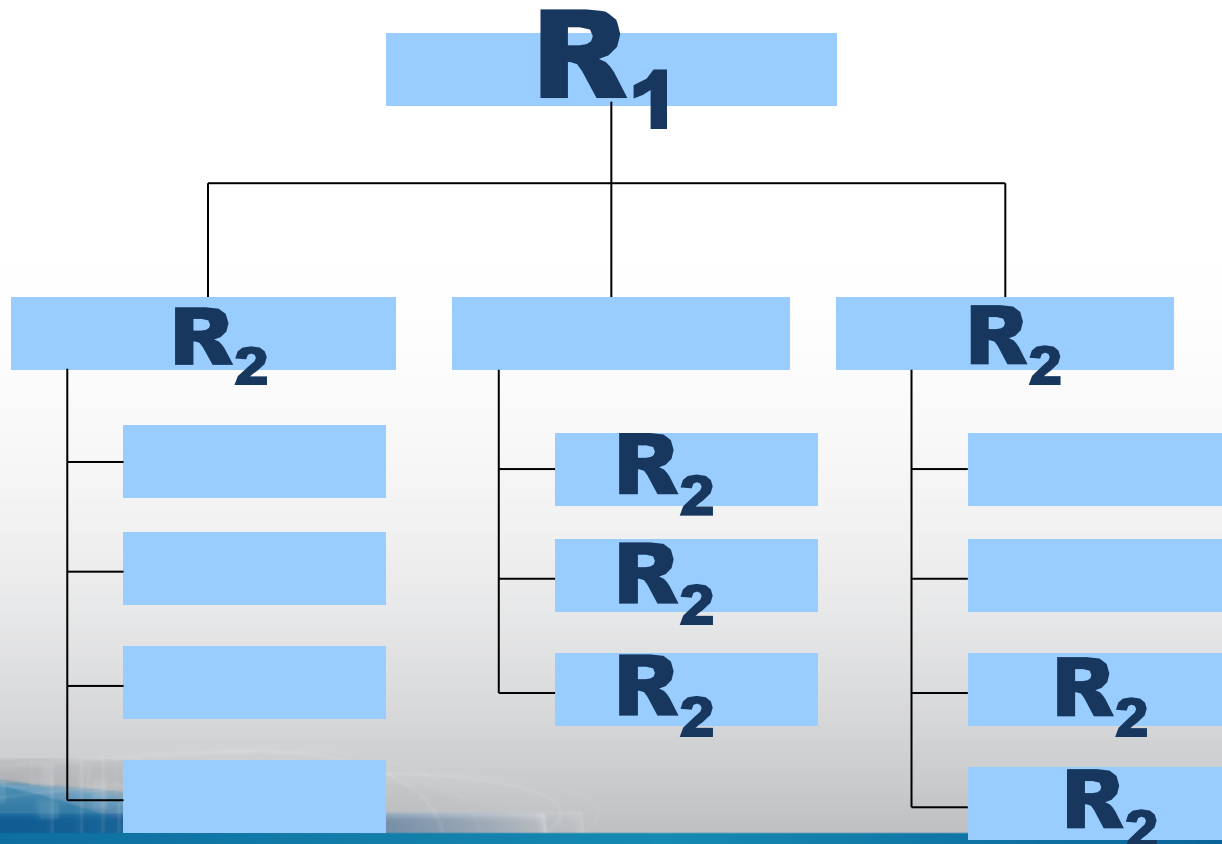
- Subject matter experts



Organizational dimensions of survey response

1. Distribution of response tasks

- Structural divisions



Organizational dimensions of survey response

1. Distribution of response tasks



Organizational dimensions of survey response

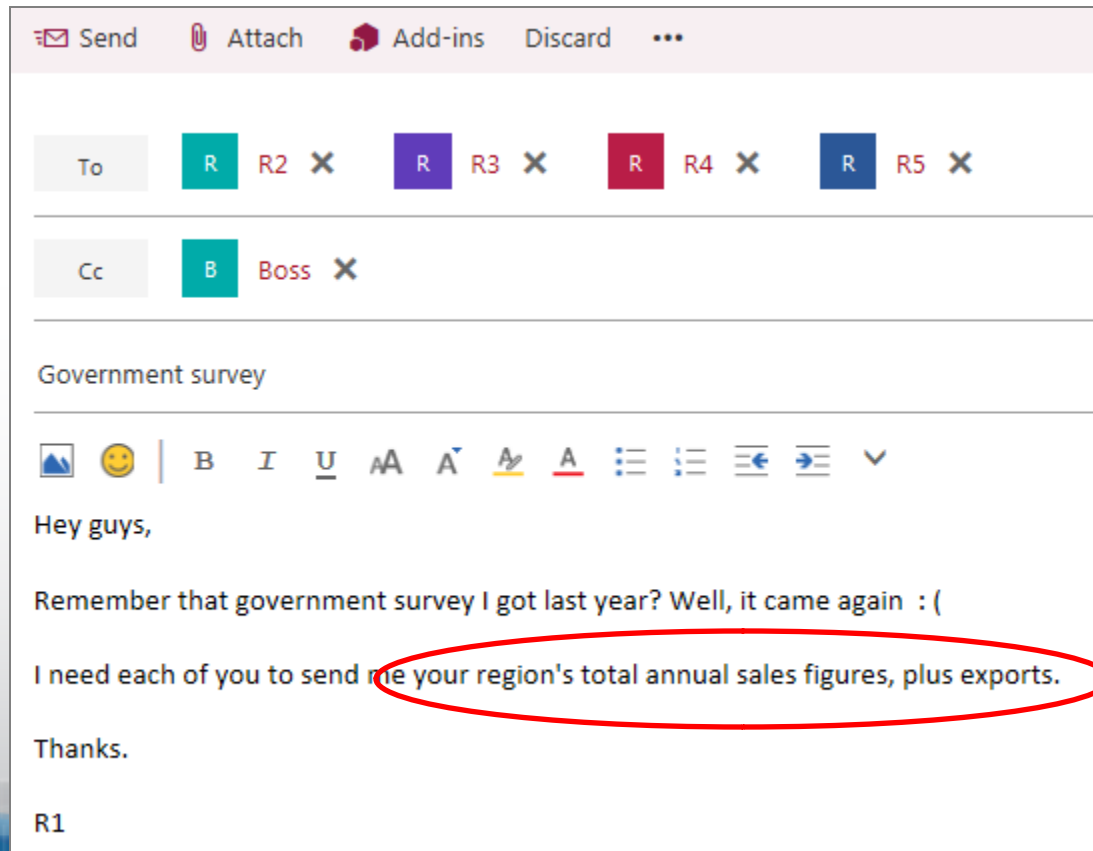
1. Distribution of response tasks

Problem:

- R1's develop work-arounds for sending requests and receiving data

Workarounds to distribute response tasks

- R1 paraphrases survey questions in email text



Workarounds to distribute response tasks

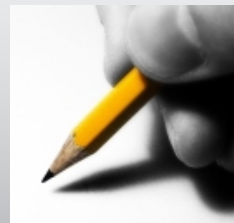
- R1 creates their own spreadsheet

The screenshot shows an Excel spreadsheet with the following data:

	A	B	C	D	E	F
1	Plants	Total Sales	Exports	Service charges	Sales by state	Non-op revenues
2	Portland					
3	Seattle					
4	Walla Walla					
5	Issaquah					
6	Spokane					
7	Boise					
8	Coeur d'Alene					
9	LA					
10	San Fran.					
11	Humboldt					
12	Denver					
13	Ft. Collins					
14	Bolder					
15	LV					
16	Phoenix					
17	Flagstaff					

Workarounds to distribute response tasks

- R1 scans paper form/makes screenshots, creates PDF's, emails to R2's.
- R2's print, write responses, re-scan, email back to R1.
- R1 transcribes data into reporting system.



Workarounds to distribute response tasks

Problem:

- Do work-arounds communicate...
 - Reporting unit?
 - Reference period?
 - Survey definitions?
 - Format of appropriate responses?
- Implications for data quality and burden

Organizational dimensions of survey response

2. Retrieval from information systems

Problem:

- Volume of data collected

Economic Census collects

- Payroll and employment
- Sales
- Expenses
- Industry-specific inquiries
- Etc.

For EVERY
establishment
- Some companies
have thousands

Online questionnaire not always feasible

Organizational dimensions of survey response

3. Review

- Ensure accuracy, completeness, consistency with other external reporting

4. Authorize response

- Data reviewed and release approved by company authority

5. Document

- Audit trail
- Retrieval methodology
- Back-up copy

Organizational dimensions of survey response

1. Distribution of response tasks
2. Retrieval from information systems
3. Review
4. Authorize response
5. Document



**Tools to assist
respondents?**

1. Replace survey forms with downloadable worksheets

- PDF format
- Downloadable
- Printable
- Can share via email
- URLs



2015 Annual Survey of Manufactures Worksheet for Preparing Responses

Do not mail this worksheet. This worksheet is for preparation purposes only, to assist you in gathering information for Annual Survey of Manufactures. It cannot be used to submit data to the Census Bureau.

Please submit your data using our electronic reporting system at <https://www.census.gov/asm>. Your User ID and Password are found in the letter we mailed to you.

Your completed response is due by [month/day], 2016.

Your response is required by law. Title 13, United States Code, requires businesses and other organizations that receive this questionnaire to answer the questions and return the report to the U.S. Census Bureau. By the same law, your report is confidential. It may be seen only by persons sworn to uphold the confidentiality of Census Bureau information and may be used only for statistical purposes. Further, copies retained in respondents' files are immune from legal process.

If you need assistance, visit our website (<https://www.census.gov/asm>), or call us at 1-800-233-6136 Monday through Friday, 8:00 a.m. to 4:30 p.m. Eastern Time. When calling, please refer to the name of the survey and the User ID provided on your letter.

Contents

Overview – Page 2-3

- Who should report
- Activities in-scope for the survey
- Concept of "economic value"
- Reporting period
- Special instructions for ownership changes
- Special instructions for establishments involved in assets leasing arrangements
- Prior-year data
- How to report dollar figures
- Electronic reporting system and non-applicable questions

Item-specific instructions – Page 4-8

- Establishment location information and Employer Identification Number (EIN)
- Sales, revenues, receipts, and shipments
- Employment and payroll

SALES, SHIPMENTS, RECEIPTS, OR REVENUE

SALES, SHIPMENTS, RECEIPTS, OR REVENUE

What was the total value of products shipped and other receipts?

Exclude:

- Freight charges
- Excise Taxes

Check if None

2015

\$ 1,375, ,000.00

114

*From general ledger –
Location code 001-061,
Gross shipments*

Worksheets facilitate:

- Understanding and retrieval of requested data
- Documentation of response processes
- Reviewing data

2. User-friendly spreadsheets

Spreadsheets facilitate:

- Gathering data from multiple respondents

	B	C	D	E	F	G	H
1	@RECORD_CFN	@RECORD_STORENUM	@RECORD_NAME1	@RECORD_NAME2	@ADDR_STREET	@ADDR_CITY	@ADDR_ST
	*CFN (census file number) - Unique identifier used for exporting and importing data	*Store/Plant - Enter corrections to prelisted store/plant number	Name 1 - Enter corrections to prelisted Name 1	Name 2 - Enter corrections to prelisted Name 2	Street - Enter corrections to prelisted street address	City - Enter corrections to prelisted city	State - Enter correct prelisted state
2	*Do not modify prelisted CFN	*Maximum length is 12 characters	Maximum length is 36 characters	Maximum length is 36 characters	Maximum length is 36 characters	Maximum length is 20 characters	Use 2-letter state abbreviation
3							
4	720000001	1	Test Example 1		Street Address 1	Pierre	SD
5	720000002	2	Test Example 2		Street Address 2	Cincinnati	OH
6	720000036	36	Test Example 36		Street Address 36	Akron	OH
7	720000037	37	Test Example 37		Street Address 37	Kitty Hawk	NC
8	720000038	38	Test Example 38		Street Address 38	Culpepper	VA
9	720000039	39	Test Example 39		Street Address 39	NYC	NY
10	720000003	3	Test Example 3		TEST STREET 3	Suitland	MD
11	720000004	4	Test Example 4		TEST STREET 4	New York City	NY
12	720000005	5	Test Example 5		TEST STREET 5	Bellevue	WA
13	720000006	6	Test Example 6		TEST STREET 6	Boston	MA
14	720000007	7	Test Example 7		TEST STREET 7	Arkadelphia	AR
15	720000008	8	Test Example 8		TEST STREET 8	Pierre	SD
16	720000009	9	Test Example 9		TEST STREET 9	Cincinnati	OH
17	720000010	10	Test Example 10		TEST STREET 10	Akron	OH
18	720000011	11	Test Example 11		TEST STREET 11	Kitty Hawk	NC

@RECORD_CFN	@RECORD_STORENUM	@RECORD_NAME1
*CFN (census file number) - Unique identifier used for exporting and importing data	*Store/Plant - Enter corrections to prelisted store/plant number	Name 1 - Enter corrections to prelisted Name 1
*Do not modify prelisted CFN	*Maximum characters	
7200000001	1	
7200000002	2	
7200000036	36	

Function Arguments [?] [X]

VLOOKUP

Lookup_value = any

Table_array = number

Col_index_num = number

Range_lookup = logical

=

Looks for a value in the leftmost column of a table, and then returns a value in the same row from a column you specify. By default, the table must be sorted in an ascending order.

Lookup_value is the value to be found in the first column of the table, and can be a value, a reference, or a text string.

Formula result =

[Help on this function](#)

Spreadsheets facilitate:

- Retrieval from information systems

User-friendly spreadsheets facilitate:

- Understanding of requested data

@OPSTAT	@OPSTAT_DATE	@OPSTAT_NAME
Item 3: Which best describes this establishment's operational status at the end of 2017?	Item 3: Date - Enter date for ceased or sold/leased establishments	Item 3: Name of new owner or operator - Enter new owner name for sold/leased establishments
1=In operation; 2=Temporarily inactive; 3=Ceased operation; 4=Sold/Leased to another operator; 5=Other or under construction	Use MMDDYYYY format	Maximum length is 36 characters

3. Summaries of reported data

Responses to-date		Global Widgets Inc.		
Federal Tax ID	Employment	Annual Payroll	Payroll Q1	Receipts
		(\$ thousands)	(\$ thousands)	(\$ thousands)
99-9999991	251	5587	22905	11076
99-9999992	522	12075	50791	32443
99-9999993	77	2119	8255	9546
99-9999994	1013	26914	110310	211489
99-9999995	801	22876	90413	178543
....
Total Establishments Reported	Total Employment	Total Annual Payroll	Total Payroll Q1	Total Receipts
122	7911	896152	2756891	4876952

Summary facilitates reviewing data

4. MyCensus communication portal

The screenshot displays the MyCensus Survey Dashboard interface. At the top, the United States Census Bureau logo is on the left, and navigation links for 'U.S. Department of Commerce | Blogs | Index A-Z | Glossary | FAQs | Customer Support | Login' are on the right. Below the logo, three main menu items are visible: 'Survey Dashboard' (Active, Add New, Complete), 'Support Requests' (Add New, Ticket Status), and 'Account Settings' (Personal, Business). The page title is 'Census.gov · MyCensus Survey Dashboard' and the main heading is 'myCensus Survey Dashboard' with a 'HELP' button on the right.

The dashboard content is partially obscured by a large 'Surveys' modal window. This modal has a dark blue header with the word 'Surveys' and a menu icon. The main content of the modal reads: 'New Survey Request' followed by 'Received a new survey request? Add it with your Solicitation ID to get started.' and a large teal 'ADD SURVEY' button with a plus icon. To the right of the modal, a smaller 'New Survey Request' notification box is visible, containing the text 'Received a new survey request? Add it with your Solicitation ID to get started.' and an 'ADD SURVEY' button.

In the background, several survey cards are visible. One card is titled 'Report of Organizational & Annual Survey Manufactures (A)' with a due date of 'February 19 2016 - March 13 2016' and company 'Galactic Widgets Inc. LLC'. Another card is titled 'Economic Census' with a due date of 'February 19 2016' and company 'Galactic Widgets Inc. LLC'. Each card has a 'START' button and an 'OPTIONS' button.

4. MyCensus communication portal

MyCensus will facilitate assigning surveys to respondents and coordinating response tasks







DELEGATE MY SURVEY ✕

EMAIL OF DELEGATE

+ Add more delegates

[Cancel Request](#) **SUBMIT REQUEST**

CURRENT DELEGATES

Date	Description	Status	Options
12/10/2015	Judy Lancaster	Deligated	 
12/11/2015	Suzanne Taylor	Request Sent	 
01/20/2016	Frank Gates	Pending	 

Summary

- Businesses are good at doing work
- Surveys are *work*
- Survey organizations need to adapt to the processes by which business respondents get their work done:
 - Collaboration
 - Electronic communication
 - Data processing
 - Data validation and authorization
 - Documentation

Thanks!

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