

# INSTRUCTIONS FOR THE QUARTERLY SURVEY OF PLANT CAPACITY UTILIZATION

	Page
General Instructions . . . . .	2
Survey Item Instructions . . . . .	2
Operational Status . . . . .	2
Value of Production . . . . .	3
Actual and Full Production Comparisons . . . . .	4
Work Patterns for The Quarter . . . . .	4
National Emergency Production . . . . .	5

## AUTHORITY AND CONFIDENTIALITY

Title 13, United States Code, Section 8(b); Title 50, United States Code, Section 98, et seq; and Title 12, United States Code, Section 244, authorize the Census Bureau to conduct this collection and to request your voluntary assistance. The Census Bureau is required by Title 13, United States Code, Section 9, to keep your information confidential and can use your responses only to produce statistics. The Census Bureau is not permitted to publicly release your responses in a way that could identify your business, organization, or institution. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

## PUBLIC REPORTING

We estimate this survey to take 20 to 40 minutes, with an average of 30 minutes, to complete, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: ERD Survey Comments 0607-0175, U.S. Census Bureau, 4600 Silver Hill Road, Washington, DC 20233. You may email comments to [erd.survey.comments@census.gov](mailto:erd.survey.comments@census.gov); use "ERD Survey Comments 0607-0175" as the subject.

This collection has been approved by the Office of Management and Budget (OMB). The eight-digit OMB approval number is 0607-0175 and appears at the upper right of the login screen. Without this approval we could not conduct the survey.

## WHO SHOULD REPORT?

This report covers the manufacturing plant or publishing facility named in the cover letter and in the physical address box in our online application. If your company operates more than one location, REPORT ONLY FOR THOSE PLANTS SELECTED FOR THIS SAMPLE SURVEY. A letter is enclosed for each plant selected. If the location on the letter is not a manufacturing plant or publishing facility, indicate this in the remarks section. If you are in the publishing industry, please check the box that you outsource all printing activity on the Outsource Printing screen which follows the Physical Address and Mailing Information screen.

Since some of the information necessary to complete this survey may not be in your records, CONSULT THE PLANT MANAGER on questions regarding full production capability and emergency production.

## WHAT TO REPORT?

This survey primarily asks for 2 levels of operating capability of this plant for the quarter:

MQ-E-C2-I (02-2018)

- (1) the market value of actual goods produced;
- (2) the value of products that could have been produced if the plant was operating at full capacity during the quarter.

## WHEN TO REPORT

Complete the survey online at <https://portal.census.gov> by the date printed on the letter.

## HOW TO REPORT

### INTERNET REPORTING

You can complete this survey online at: <https://portal.census.gov>. We have provided your Authentication Code on the front of the letter.

Answer all questions and follow the instructions for each item given on this sheet.

Report market value of production figures in **thousands of dollars**. For example, if value of production is 1,125,788 dollars, enter the figure as follows:

Mil.	Thou.
1	126

### MAILING INFORMATION

Review the name and address of this plant and make any necessary corrections to the mailing information.

### OPERATIONAL STATUS

Report the status of operations at this plant at the end of the quarter by marking the appropriate box. If:

**In Operation** – Complete all items.

**Idle Plants** – Complete all items.

a. If this plant was temporarily idle during the **entire quarter** report actual operations as zero where appropriate.

b. If this plant was temporarily idle during **only part of the quarter** report the actual operations for the time the plant was in operation.

For both cases, report full production capabilities based on the plant's **peak** quarterly production during the year.

**Permanently Ceased Operations** – Indicate the month and year when operations ceased at this plant. If the plant was in operation at ANY time during the quarter, complete all items. Report full production capabilities as if the plant operated the **entire** quarter.

## OPERATIONAL STATUS – Continued

**Sold or Leased Plant** – If this plant was sold or leased to another company, indicate the month and year this action took place, and the name and address of the new owner.

- a. If you still maintain records for this plant, complete all items.
- b. If you do not have information about this plant, complete contact info and submit.

### SPECIAL NOTE:

#### Seasonal Operations

- a. If this plant is usually temporarily idle during the quarter *due to seasonal factors*, report as instructed for idle plants.
- b. If this plant was not temporarily idle during the quarter, but its operations vary substantially from quarter to quarter, *due to seasonal factors*, complete all items and report full production capabilities based on the plant's **peak** quarterly production during the year.

## VALUE OF PRODUCTION

### Market Value of Actual Production

Report the value of production based on estimated sales price(s) of what was **produced** during the quarter, not quarter sales. If production at this plant consists of only interplant transfers, use method (2) below to calculate market value of production.

**Three methods** – to estimate market value of goods produced during the quarter:

- (1) Estimate the sales price(s) of item(s) produced, then multiply the sales price(s) by the total number of items produced during the quarter.
- (2) Use book figures of actual production costs plus an estimate of markup to cover overhead and profit.
- (3) Use quarter value of shipments f.o.b. (freight on board) from the plant (including the value of interplant transfers within a company, in addition to direct costs of production, but excluding resales and miscellaneous receipts) plus any additions or subtractions to the finished stock of inventories present before the current quarter (excluding materials and supplies).  
[Value of production = value of shipments + value of ending inventory - value of beginning inventory].

### SPECIAL NOTE:

Do **not** include manufacturing contracted to others. If you contract out all of your manufacturing, please state this in the "Remarks" section.

**Job shops and custom orders:** For actual production, report value of work done during the current quarter.

**Publishing/printing plants:** For actual production, report your printing sales only (NOT advertising sales) for the location named in the physical address box.

Do not include any printing that is contracted out. **If you do not perform any printing activities, please check the box that you outsource all printing activities on the Outsource Printing screen which follows the Physical Address and Mailing Information screen.**

### Full Production Capability

Read the definition and assumptions regarding full production capability. Estimate your market value of products that would have been produced if the plant was operating at full capacity during the quarter. Use one of the two methods suggested below or your own computations.

**Full Production Capability** – The maximum level of production that this establishment could reasonably expect to attain under **normal** and **realistic** operating conditions fully utilizing the machinery and equipment in place. In estimating market value at full production capability, consider the following:

- Assume **only** the machinery and equipment in place and ready to operate will be utilized. Do not include facilities or equipment that would require extensive reconditioning before they can be made operable.
- Assume **normal** downtime, maintenance, repair, and cleanup. If full production requires additional shifts or hours of operation, then appropriate downtime should be considered in the estimate.
- Assume number of shifts, hours of plant operations, and overtime pay that can be sustained under **normal** conditions and a **realistic** work schedule.
- Assume labor, materials, utilities, etc. are fully available.
- Assume a product mix that was **typical** or representative of your production during the quarter. If your plant is subject to short-run variation assume the same product mix as the actual production.
- Do not assume increased use of productive facilities outside the plant for services (such as contracting out subassembly work) in excess of the proportion that would be normal during the quarter.

### SPECIAL NOTE:

**Job shops and custom orders:** For full production, estimate the market value of work that you could have accomplished under sustainable operating conditions and if you had sufficient orders.

**Publishing/printing plants:** For full production, report printing sales for this location as if it were running at peak circulation.

**Two Methods** to estimate market value of production when operating at full production capability:

- (1) If you have a reliable or accurate estimate of your plant's sustainable capacity utilization rate: **Divide** your market value of production at **actual** operations by your current **rate of capacity** utilization (in decimal form). For example, if your value of actual operations during the quarter is \$1,200,000 and your plant is currently at 80% capacity, divide \$1,200,000 by 0.80 for a full production capability of \$1,500,000.

## Full Production Capability – Continued

$$\text{Actual Value of Production} / \text{Capacity Utilization Rate} = \text{Market value of production at Full Capacity}$$

Your plant's capacity utilization rate should be based on a capacity output measure that your plant could have sustained under **normal**, not emergency, conditions.

- (2) For each product, estimate the number of items that could have been produced if operating at full production, as defined by the assumptions given. Multiply the number of items produced by its sales price (or market value). For example, if you can produce 25,000 items in the quarter, under full production criteria, and the sales price (market value) for each item is \$4.50, then multiply 25,000 times \$4.50 for a full production capability of \$112,500.

$$\text{Number of items produced} \times \text{Sales Price (Market Value)} = \text{Market value of production at Full Capacity}$$

If producing **more than one product**, **sum** the market values of production at full production estimated for each product (assuming the same product mix) for a **total** value of full production for the plant.

Enter your estimate for value of full production.

## Full Utilization Rate

- (1) Your full utilization rate is calculated by dividing your estimate for actual production by full production capability and multiplying this number by 100.
- (2) **Is this a reasonable estimate of your utilization rate for this quarter?** Mark (X) yes or no. If no, please review your full production capability estimate. If yes, continue with the next item.

## ACTUAL AND FULL PRODUCTION COMPARISONS

### Full Production Capability: Current Quarter vs. Previous Quarter

If the value of full production for the current quarter differs from the previous quarter, mark (X) the primary reasons for the change.

### Actual Operations vs. Full Production Capability

Compare the actual value of production to the estimated value of full production in the quarter. Mark (X) reasons why your actual operations were less than the estimated value of full production capability, if appropriate.

## WORK PATTERNS FOR THE QUARTER

Report work patterns for the following characteristics covering each *production shift* of **actual operations** during the quarter. Report based on the average number of shifts per day during the quarter. Do not consider maintenance, administrative, or support

operations as additional shifts. Do not consider overtime hours as additional shifts. If the plant did not operate a second or third shift, do not complete the corresponding columns. Complete ALL items for each shift reported.

- a. **Days per week-in-operation** – For each shift, report the typical number of days per week-in-operation for the quarter. If your plant has departments or assembly lines that operate varied number of days *within a shift*, report days per week-in-operation for the department operating the greatest number of days per week for that shift. For example, if one production line operates 7 days per week during the first shift and a second production line operates 5 days per week during the first shift, report that the first shift operates 7 days per week.
- b. **Plant hours per week-in-operation** – For each shift, report the typical number of **hours the plant was in operation** during a single week. If your plant has departments or assembly lines that operate at varied periods of time within a shift, report hours per week-in-operation for the production department operating the greatest number of hours per week for that shift. **Do not report the number of person hours worked.**
- c. **Weeks-in-operation in the quarter** – For each shift, report the total number of weeks the plant operated during the quarter. NOTE: The quarter covers 13 weeks.
- d. **Number of production workers (including temporary workers)** – For each shift, report the number of production workers at this establishment, including both permanent (payroll) and temporary employees who were paid during the second week of the second month of the quarter. Include all persons on paid sick leave, paid holidays, paid vacation during this pay period.  
NOTE: **Include** workers (up through the line-supervisor level) engaged in fabricating, processing, assembling, inspecting, receiving, packing, warehousing, shipping (but not delivering), maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (e.g., power plant), record keeping, and other closely associated services. Include truck drivers delivering ready-mixed concrete.
- Exclude** nonproduction personnel, including those engaged in supervision above line-supervisor level, sales, sales delivery (truck drivers and helpers), advertising, credit, collection, installation and servicing of own product, clerical and routine office functions, executive, purchasing, finance, legal, personnel (including cafeteria, etc.), professional and technical.
- e. **Number of temporary production workers** – Report the number of *temporary production workers* **not** on the payroll (hired through temporary help agencies or as their own agent) and working during the second week of the second month of the quarter. Include temporary production workers who perform the same tasks as listed above. **Do not include part-time workers.**

## NATIONAL EMERGENCY PRODUCTION

Read the definition and assumptions regarding national emergency production. Estimate your value of production under national emergency conditions for the quarter. Use your own computations or methods similar to those described for estimating full production capability.

SPECIAL NOTE: Your value of production at national emergency levels should be **greater than or equal** to your value of full production capability. If it is less than your full production capability, please review your computations.

**National Emergency Production** – The maximum level of production that this plant could expect to attain and sustain for one year or more under national emergency conditions.

National emergency conditions are situations, such as a military mobilization or natural disaster, which are likely to create widespread excess demand requiring additional work shifts.

For example, military mobilization may require increased production of food, clothing, building supplies, and conversion of plants to produce alternative products in addition to traditional defense hardware. Devastation from natural disasters, such as hurricanes, floods, earthquakes, or fire, may require increased production of similar goods as well as increased production to compensate for plants damaged or destroyed.

In estimating national emergency production, consider the following:

- Assume full use of **all** machinery and equipment in place (including machinery and equipment that would require extensive reconditioning before they could be made operable).
- Assume minimal downtime and **multi-work shift** operations.
- Assume plant production as close to 168 hours per week as possible, including extra shifts (e.g., operating 7 days per week, 24 hours per day less minimal downtime).
- Assume overtime pay, availability of labor, materials, utilities, etc., are **fully available** to you and your suppliers.
- Assume you can sell all your output.
- Assume your product mix can change.
- Assume increased use of productive facilities outside the plant for services (such as contracting out subassembly work) in excess of the proportion that would be normal during the quarter.

## SPECIAL NOTE:

**Jobs shops and custom orders:** For national emergency production, estimate the market value of work that could have been done if you received additional orders assuming maximum number of employees working multiple shifts that the facility can accommodate.

**Publishing/printing plants:** For national emergency production, report value of printing if operating machinery as close to 168 hours/week as possible.

**Actual Operations vs. National Emergency Production Capabilities** – Select a time period that would have been reasonable to increase output to emergency production level. Include time to hire and train labor force.

**If you have any questions concerning the definitions or instructions, please contact the Special Reimbursable Surveys Branch of the Economic Reimbursable Surveys Division on 1-800-201-4647 or visit our help site at <https://econhelp.census.gov/pcu> .**