

# Survey of Plant Capacity: 2001

Issued February 2003

MQ-C1(01)

## Current Industrial Reports



U S C E N S U S B U R E A U

*Helping You Make Informed Decisions*

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU



## ACKNOWLEDGMENTS

This report was prepared under the direction of **Kimberly P. Moore**, Assistant Chief for Special Studies and Program Support, Manufacturing and Construction Division. Within the Manufacturing and Construction Division, the preparation of this report was performed under the supervision of **Julius Smith Jr.**, Chief, Special Studies Branch and **Dave Gromos**.

Review and analysis of the MQ-C1, Survey of Plant Capacity data were performed by **Micah Hartman**.

The sampling and methodology of the Survey of Plant Capacity were developed under the supervision of **Stacey Cole**, Chief, Manufacturing Programs Methodology Branch. The sample design, estimation, and quality measures were developed by **Gary Kusch** and **Daniel Tulp Jr.**

The computer programs used to collect, tabulate and impute the Survey of Plant Capacity data were developed under the direction of **Deborah Tasky**, Assistant Chief for Annual Surveys and Related Programs, Economic Statistical Methods and Programming Division. The programs were developed by **Steven Potemkin** and **Alan Bolin** under the supervision of **Edward Bates**, Chief, Manufacturing and Company Statistics Annuals Branch.

**Lillie M. Skinner** coordinated the various phases of the publication process.

**Kim D. Ottenstein**, **Margaret A. Smith**, and **Crystal M. Pate** of the Administrative and Customer Services Division, **Walter C. Odom**, Chief, provided publications and printing management, graphics design and composition, and editorial review for print and electronic media. General direction and production management were provided by **James R. Clark**, Assistant Division Chief, Publications Services Branch.

A special acknowledgment is due to the many businesses whose cooperation was essential to the success of this report.

# Survey of Plant Capacity: 2001

Issued February 2003

MQ-C1(01)

## Current Industrial Reports



**U.S. Department of Commerce**  
**Donald L. Evans,**  
Secretary

**Samuel W. Bodman,**  
Deputy Secretary

**Economics and Statistics Administration**  
**Kathleen B. Cooper,**  
Under Secretary  
for Economic Affairs

**U.S. CENSUS BUREAU**  
**Charles Louis Kincannon,**  
Director

SUGGESTED CITATION

U.S. Census Bureau,  
*Survey of Plant Capacity: 2001*,  
MQ-C1 (01),  
U.S. Government Printing Office,  
Washington, DC, 2001.



**Economics  
and Statistics  
Administration**

**Kathleen B. Cooper,**  
Under Secretary  
for Economic Affairs



**U.S. CENSUS BUREAU**  
**Charles Louis Kincannon,**  
Director

**Hermann Habermann,**  
Deputy Director and  
Chief Operating Officer

**Vacant,**  
Principal Associate  
Director for Programs

**Frederick T. Knickerbocker,**  
Associate Director  
for Economic Programs

**Thomas L. Mesenbourg,**  
Assistant Director  
for Economic Programs

**William G. Bostic, Jr.,**  
Chief, Manufacturing  
and Construction Division

## CONTENTS

---

Introduction .....	v
Tables	
1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 .....	1
1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 .....	10
2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000 .....	19
Appendixes	
A. MQ-C1 Report Form and Instructions .....	A-1
B. Qualifications of the Data .....	B-1
C. Description of Survey Sample and Estimating Procedure .....	C-1

# Introduction

---

## SUMMARY OF 2001 SURVEY RESULTS

U.S. domestic manufacturing plants used an estimated 64 percent ( $\pm 1$  percentage point) of their full production capacity for the fourth quarter of 2001 and 71 percent ( $\pm 1$  percentage point) for the fourth quarter of 2000. The durable goods industries fourth quarter 2001 rate of 61 percent ( $\pm 1$  percentage point) was significantly lower than the rate of 70 percent ( $\pm 1$  percentage point) estimated for nondurable goods industries. Durable goods industries are manufacturing industries in which products have a normal life expectancy of 3 years or more. North American Industry Classification System (NAICS) subsectors 321, 327, 331, 332, 333, 334, 335, 336, 337, and 339 are considered durable goods industries. Nondurable goods industries are manufacturing industries in which products generally have a life expectancy of less than 3 years. NAICS subsectors 311, 312, 313, 314, 315, 316, 322, 323, 324, 325, and 326 are nondurable goods industries.

The advanced processing industries fourth quarter rate of 63 percent ( $\pm 1$  percentage point) was significantly lower than the rate of 66 percent ( $\pm 1$  percentage point) estimated for primary processing industries. Primary processing industries are industries in which products are generally the first processed output of raw materials in the manufacturing process. NAICS subsectors 313, 314, 321, 322, 324, 326, 327, 331, and 323 are classified as the primary processing industries. Advanced processing industries are industries in which products are considered finished manufactured items. NAICS subsectors 311, 312, 315, 316, 323, 333, 334, 335, 336, 337, and 339 are advanced processing industries.

Among the major industries with the lowest utilization rates of their full production capacity in the fourth quarter of 2001 were machinery manufacturing (NAICS 333) at 54 percent and leather and allied product manufacturing (NAICS 316) at 56 percent. Among the industries with the highest utilization rates for 2001 were paper manufacturing (NAICS 322) at 76 percent and petroleum and coal products manufacturing (NAICS 324) at 80 percent. Full production capacity is broadly defined as the maximum level of production an establishment could attain under normal operating conditions. In this report, the full production utilization rate is a ratio of the actual level of operations to the full production level.

Industries with the lowest utilization rates of their national emergency production capacity in the fourth quarter of 2001 were leather and allied product manufacturing

(NAICS 316) at 27 percent and machinery manufacturing (NAICS 333) at 29 percent. Among the industries with the highest utilization rates of 2001 were paper manufacturing (NAICS 322) and petroleum and coal products manufacturing (NAICS 324), both at 67 percent. National emergency production is broadly defined as the greatest level of production an establishment can expect to sustain for 1 year or more under national emergency conditions. The national emergency production utilization rate is a ratio of the actual level of operations to the national emergency production level.

Table 1a summarizes full production utilization rates and table 1b summarizes emergency production utilization rates, at three-, four-, five-, and six-digit NAICS industry levels, for fourth quarters 1997 through 2001. Table 2 shows both full and emergency production utilization rates, standard errors, and the standard error of the change in utilization rates from 2000 to 2001 at the three-, four-, five-, and six-digit NAICS industry levels, for fourth quarters 2000 and 2001. Estimates are subject to sampling variability and nonsampling error. The range at which estimates are tested in this report is at the 90-percent confidence level. Appendix A contains reproductions of the survey form and instructions; Appendix B describes the qualification of the data; and Appendix C contains a description of the survey sample and estimating procedure.

## INDUSTRIAL CLASSIFICATION

The industrial classification definitions are based on the 1997 edition of the North American Industry Classification System (NAICS) Manual published by the Office of Management and Budget. Prior to 1999, industrial classification definitions were based on the 1987 Standard Industrial Classification (SIC) Manual.

## SURVEY DESCRIPTION

Data are obtained from manufacturing establishments by means of a mailed questionnaire. Respondents are asked to report their actual production, full production, and national emergency production levels of operation for the fourth quarter of the year in terms of value of production. From these reported dollar values, utilization rates for full production and national emergency production are derived. Year-to-year changes in these rates are affected by changes in the estimated capacity of industrial plants

---

due to factors such as capital expenditures, capital retirements, changes in the workforce, changes in prices, changes in product mix, and changes in respondents' estimates of productivity.

Final estimates are based on information collected from a sample of approximately 17,000 manufacturing establishments. Estimates in this release are based on response from approximately 77 percent of the survey panel.

### **LIMITATIONS OF THE DATA**

For the following reasons, caution should be used when comparing 1997 and 1998 rates with the 1999 through 2001 rates:

- The sample of plants used for 1997 and 1998 was originally selected to represent SIC industries. These plants were tabulated on a NAICS basis.
- A new sampling methodology was used in 1999. See Appendix C.

- A new imputation methodology was used in 1999. See Appendix C.
- Plants used to create 1997 and 1998 SIC estimates in prior publications were classified based on the 1992 Economic Census. For this publication, those plants have been reclassified using the more current 1997 Economic Census.

### **ABBREVIATIONS AND SYMBOLS**

The following abbreviations and symbols appear frequently in the tables:

- Represents zero.
- (D) Withheld to avoid disclosing data for individual companies.
- (NA) Not available.
- NAICS North American Industry Classification System.
- <sup>a</sup> Data cells with a level of imputation exceeding 50 percent.

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
<b>31-33</b>	<b>Manufacturing</b> .....	<b>64</b>	<b>71</b>	<b>74</b>	<b>73</b>	<b>76</b>
	<b>Durable goods industries</b> .....	<b>61</b>	<b>70</b>	<b>72</b>	<b>72</b>	<b>75</b>
	<b>Nondurable goods industries</b> .....	<b>70</b>	<b>73</b>	<b>76</b>	<b>73</b>	<b>76</b>
	<b>Advanced processing industries</b> .....	<b>63</b>	<b>70</b>	<b>72</b>	<b>71</b>	<b>74</b>
	<b>Primary processing industries</b> .....	<b>68</b>	<b>73</b>	<b>77</b>	<b>76</b>	<b>79</b>
311	Food mfg .....	72	73	74	74	74
3111	Animal food mfg .....	69	76	79	71	73
31111	Animal food mfg .....	69	76	79	71	73
311111	Dog & cat food mfg .....	75	76	77	77	81
311119	Other animal food mfg .....	63	76	80	67	66
3112	Grain & oilseed milling .....	79	76	76	83	84
31121	Flour milling & malt mfg .....	77	77	78	77	82
311211	Flour milling .....	75	72	75	75	82
311212	Rice milling .....	89	95	92	80	81
311213	Malt mfg .....	75	82	74	87	86
31122	Starch & vegetable fats & oils mfg .....	89	87	84	84	90
311221	Wet corn milling .....	94	91	91	86	92
311222	Soybean processing .....	92	96	85	90	95
311223	Other oilseed processing .....	80	69	80	86	90
311225	Fats & oils refining & blending .....	81	<sup>a75</sup> 72	75	75	83
31123	Breakfast cereal mfg .....	73	69	70	85	80
311230	Breakfast cereal mfg .....	73	69	70	85	80
3113	Sugar & confectionery product mfg .....	71	74	72	71	69
31131	Sugar mfg .....	90	91	92	84	90
311311	Sugarcane mills .....	98	97	98	84	95
311312	Cane sugar refining .....	<sup>a76</sup> 80	80	85	77	83
311313	Beet sugar mfg .....	97	95	92	90	91
31132	Chocolate & confectionery mfg from cacao beans .....	76	78	75	74	75
311320	Chocolate & confectionery mfg from cacao beans .....	76	78	75	74	75
31133	Confectionery mfg from purchased chocolate .....	65	66	64	67	58
311330	Confectionery mfg from purchased chocolate .....	65	66	64	67	58
31134	Nonchocolate confectionery mfg .....	70	77	74	67	76
311340	Nonchocolate confectionery mfg .....	70	77	74	67	76
3114	Fruit & vegetable preserving & specialty food mfg .....	63	65	69	76	73
31141	Frozen food mfg .....	77	82	82	83	82
311411	Frozen fruit, juice, & vegetable mfg .....	81	79	82	83	83
311412	Frozen specialty food mfg .....	74	84	82	83	80
31142	Fruit & vegetable canning, pickling, & drying .....	55	57	61	72	68
311421	Fruit & vegetable canning .....	52	54	59	66	62
311422	Specialty canning .....	63	<sup>a60</sup> 61	61	82	78
311423	Dried & dehydrated food mfg .....	50	60	74	69	71
3115	Dairy product mfg .....	78	77	78	78	78
31151	Dairy product (except frozen) mfg .....	78	78	79	81	80
311511	Fluid milk mfg .....	82	81	82	76	78
311512	Creamery butter mfg .....	71	79	81	89	85
311513	Cheese mfg .....	80	77	78	90	89
311514	Dry, condensed, & evaporated dairy product mfg .....	71	74	75	78	77
31152	Ice cream & frozen dessert mfg .....	79	72	69	65	65
311520	Ice cream & frozen dessert mfg .....	79	72	69	65	65
3116	Meat product mfg .....	83	85	85	83	84
31161	Animal slaughtering & processing .....	83	85	85	83	84
311611	Animal (except poultry) slaughtering .....	88	87	88	79	81
311612	Meat processed from carcasses .....	77	76	78	79	84
311613	Rendering & meat byproduct processing .....	75	<sup>a77</sup> 77	<sup>a82</sup> 86	86	79
311615	Poultry processing .....	86	91	90	88	87
3117	Seafood product preparation & packaging .....	60	61	62	51	57
31171	Seafood product preparation & packaging .....	60	61	62	51	57
311711	Seafood canning .....	64	79	66	<sup>a56</sup> 64	64
311712	Fresh & frozen seafood processing .....	60	58	61	51	56
3118	Bakeries & tortilla mfg .....	69	71	73	74	75
31181	Bread & bakery product mfg .....	68	71	76	75	76
311811	Retail bakeries .....	66	64	74	81	(NA)
311812	Commercial bakeries .....	68	72	76	74	76
311813	Frozen cakes, pies, & other pastries mfg .....	79	73	76	76	80
31182	Cookie, cracker, & pasta mfg .....	69	69	67	71	73
311821	Cookie & cracker mfg .....	69	67	63	70	71
311822	Flour mixes & dough mfg from purchased flour .....	72	76	80	79	78
311823	Dry pasta mfg .....	68	67	70	<sup>a64</sup> 76	<sup>a76</sup> 76
31183	Tortilla mfg .....	76	77	78	(NA)	(NA)
311830	Tortilla mfg .....	76	77	78	(NA)	(NA)
3119	Other food mfg .....	71	68	68	63	64
31191	Snack food mfg .....	77	78	<sup>a76</sup> 72	72	78
311911	Roasted nuts & peanut butter mfg .....	71	70	82	72	73
311919	Other snack food mfg .....	78	80	<sup>a74</sup> 72	72	79
31192	Coffee & tea mfg .....	71	77	77	59	68
311920	Coffee & tea mfg .....	71	77	77	59	68
31193	Flavoring syrup & concentrate mfg .....	69	63	61	53	49
311930	Flavoring syrup & concentrate mfg .....	69	63	61	53	49
31194	Seasoning & dressing mfg .....	64	58	61	67	68
311941	Mayonnaise, dressing, & other prepared sauce mfg .....	69	61	58	70	74
311942	Spice & extract mfg .....	59	56	65	64	61
31199	All other food mfg .....	71	68	68	63	60
311991	Perishable prepared food mfg .....	66	67	67	51	51
311999	All other miscellaneous food mfg .....	73	69	68	68	65



Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
312	Beverage & tobacco product mfg .....	68	71	75	71	71
3121	Beverage mfg .....	66	68	70	68	68
31211	Soft drink & ice mfg .....	56	61	63	59	64
312111	Soft drink mfg .....	58	62	64	61	66
312112	Bottled water mfg .....	51	49	56	45	56
312113	Ice mfg .....	27	40	<sup>a40</sup>	43	31
31212	Breweries .....	82	82	85	82	71
312120	Breweries .....	82	82	85	82	<sup>a71</sup>
31213	Wineries .....	69	65	71	79	80
312130	Wineries .....	69	65	71	79	80
31214	Distilleries .....	68	65	55	63	65
312140	Distilleries .....	68	65	55	63	65
3122	Tobacco mfg .....	69	73	81	73	74
31221	Tobacco stemming & redrying .....	75	81	77	77	79
312210	Tobacco stemming & redrying .....	75	81	77	77	79
31222	Tobacco product mfg .....	69	73	81	73	74
312221	Cigarette mfg .....	70	73	82	71	72
312229	Other tobacco product mfg .....	60	66	73	92	94
313	Textile mills .....	68	77	80	74	82
3131	Fiber, yarn, & thread mills .....	69	80	82	79	85
31311	Fiber, yarn, & thread mills .....	69	80	82	79	85
313111	Yarn spinning mills .....	70	82	83	80	85
313112	Yarn texturing, throwing, & twisting mills .....	68	74	79	76	83
313113	Thread mills .....	69	82	85	(D)	(D)
3132	Fabric mills .....	70	78	81	76	82
31321	Broadwoven fabric mills .....	72	84	85	80	89
313210	Broadwoven fabric mills .....	72	84	85	80	89
31322	Narrow fabric mills & schiffli machine embroidery .....	63	70	75	74	66
313221	Narrow fabric mills .....	63	70	77	74	66
313222	Schiffli machine embroidery .....	62	71	69	73	64
31323	Nonwoven fabric mills .....	74	74	83	79	77
313230	Nonwoven fabric mills .....	74	74	83	79	77
31324	Knit fabric mills .....	61	68	71	63	74
313241	Weft knit fabric mills .....	60	69	73	55	69
313249	Other knit fabric & lace mills .....	63	67	69	73	78
3133	Textile & fabric finishing & fabric coating mills .....	64	72	76	69	82
31331	Textile & fabric finishing mills .....	65	74	77	69	82
313311	Broadwoven fabric finishing mills .....	67	74	79	68	82
313312	Textile & fabric finishing mills .....	<sup>a59</sup>	74	74	74	82
31332	Fabric coating mills .....	58	62	67	64	81
313320	Fabric coating mills .....	58	62	67	64	81
314	Textile product mills .....	70	71	76	76	78
3141	Textile furnishings mills .....	78	79	83	76	80
31411	Carpet & rug mills .....	77	79	83	71	80
314110	Carpet & rug mills .....	77	79	83	71	80
31412	Curtain & linen mills .....	79	79	82	84	80
314121	Curtain & drapery mills .....	76	74	74	76	71
314129	Other household textile product mills .....	80	81	87	88	83
3149	Other textile product mills .....	61	62	66	75	75
31491	Textile bag & canvas mills .....	61	60	60	62	64
314911	Textile bag mills .....	60	54	53	58	62
314912	Canvas & related product mills .....	61	65	65	65	65
31499	All other textile product mills .....	61	62	69	82	80
314991	Rope, cordage, & twine mills .....	<sup>a56</sup>	<sup>a66</sup>	61	69	74
314992	Tire cord & tire fabric mills .....	80	83	89	85	80
314999	All other miscellaneous textile product mills .....	60	60	68	83	81
315	Apparel mfg .....	69	75	77	69	77
3151	Apparel knitting mills .....	78	78	84	73	82
31511	Hosiery & sock mills .....	77	78	81	78	87
315111	Sheer hosiery mills .....	67	69	78	78	80
315119	Other hosiery & sock mills .....	81	83	83	78	91
31519	Other apparel knitting mills .....	80	77	86	69	78
315191	Outerwear knitting mills .....	78	76	90	68	78
315192	Underwear & nightwear knitting mills .....	<sup>a88</sup>	82	72	73	84
3152	Cut & sew apparel mfg .....	<sup>a68</sup>	<sup>a75</sup>	<sup>a76</sup>	68	<sup>a76</sup>
31521	Cut & sew apparel contractors .....	71	<sup>a66</sup>	78	75	76
315211	Men's & boys' cut & sew apparel contractors .....	<sup>a77</sup>	<sup>a76</sup>	75	89	<sup>a71</sup>
315212	Women's, girls', & infants' cut & sew apparel contractors .....	68	<sup>a63</sup>	<sup>a79</sup>	70	<sup>a78</sup>
31522	Men's & boys' cut & sew apparel mfg .....	71	<sup>a80</sup>	<sup>a81</sup>	74	74
315221	Men's & boys' cut & sew underwear & nightwear mfg .....	<sup>a54</sup>	<sup>a70</sup>	<sup>a69</sup>	<sup>a72</sup>	76
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg .....	71	<sup>a76</sup>	83	72	78
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg .....	65	<sup>a72</sup>	69	<sup>a73</sup>	79
315224	Men's & boys' cut & sew trouser, slack, & jean mfg .....	76	<sup>a91</sup>	<sup>a91</sup>	72	67
315225	Men's & boys' cut & sew work clothing mfg .....	89	88	86	86	77
315228	Men's & boys' cut & sew other outerwear mfg .....	<sup>a75</sup>	<sup>a76</sup>	79	74	81
31523	Women's & girls' cut & sew apparel mfg .....	<sup>a63</sup>	<sup>a73</sup>	<sup>a73</sup>	<sup>a63</sup>	<sup>a77</sup>
315231	Women's & girls' cut/ sew lingerie & nightwear mfg .....	53	73	73	66	87
315232	Women's & girls' cut & sew blouse & shirt mfg .....	<sup>a78</sup>	<sup>a82</sup>	<sup>a97</sup>	62	<sup>a74</sup>
315233	Women's & girls' cut & sew dress mfg .....	<sup>a49</sup>	<sup>a64</sup>	<sup>a68</sup>	<sup>a55</sup>	<sup>a81</sup>
315234	Women's & girls' cut & sew suit, coat, skirt mfg .....	<sup>a75</sup>	<sup>a73</sup>	<sup>a40</sup>	<sup>a65</sup>	71
315239	Women's & girls' cut & sew other outerwear mfg .....	<sup>a76</sup>	<sup>a76</sup>	<sup>a98</sup>	66	76
31529	Other cut & sew apparel mfg .....	74	75	68	61	83
315291	Infants' cut & sew apparel mfg .....	<sup>a85</sup>	<sup>a85</sup>	79	72	89
315292	Fur & leather apparel mfg .....	<sup>a68</sup>	<sup>a68</sup>	<sup>a71</sup>	66	79
315299	All other cut & sew apparel mfg .....	68	69	61	55	78
3159	Apparel accessories & other apparel mfg .....	<sup>a62</sup>	70	72	69	76
31599	Apparel accessories & other apparel mfg .....	<sup>a62</sup>	70	72	69	76
315991	Hat, cap, & millinery mfg .....	<sup>a59</sup>	72	71	68	77
315992	Glove & mitten mfg .....	56	77	73	64	68
315993	Men's & boys' neckwear mfg .....	70	69	77	74	79
315999	Other apparel accessories & other apparel mfg .....	64	68	71	71	78

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
316	Leather & allied product mfg .....	56	65	72	69	71
3161	Leather & hide tanning & finishing .....	<sup>a57</sup>	70	74	72	72
31611	Leather & hide tanning & finishing .....	<sup>a57</sup>	70	74	72	72
316110	Leather & hide tanning & finishing .....	<sup>a57</sup>	70	74	72	72
3162	Footwear mfg .....	<sup>a56</sup>	64	67	70	75
31621	Footwear mfg .....	<sup>a56</sup>	64	67	70	75
316211	Rubber & plastics footwear mfg .....	<sup>a55</sup>	65	72	74	75
316212	House slipper mfg .....	62	69	64	61	77
316213	Men's footwear (except athletic) mfg .....	61	59	67	67	75
316214	Women's footwear (except athletic) mfg .....	<sup>a37</sup>	<sup>a70</sup>	54	72	73
316219	Other footwear mfg .....	<sup>a69</sup>	<sup>a74</sup>	83	74	<sup>a78</sup>
3169	Other leather & allied product mfg .....	54	63	<sup>a76</sup>	<sup>a66</sup>	67
31699	Other leather & allied product mfg .....	54	63	<sup>a76</sup>	<sup>a66</sup>	67
316991	Luggage mfg .....	45	53	<sup>a71</sup>	<sup>a68</sup>	66
316992	Women's handbag & purse mfg .....	<sup>a77</sup>	80	<sup>a80</sup>	<sup>a68</sup>	<sup>a70</sup>
316993	Personal leather good (except women's handbag & purse) mfg .....	<sup>a53</sup>	86	79	<sup>a66</sup>	63
316999	All other leather good mfg .....	79	81	84	63	68
321	Wood product mfg .....	66	69	75	74	74
3211	Sawmills & wood preservation .....	69	74	81	71	75
32111	Sawmills & wood preservation .....	69	74	81	71	75
321113	Sawmills .....	70	75	81	72	77
321114	Wood preservation .....	64	64	73	60	60
3212	Veneer, plywood, & engineered wood product mfg .....	66	75	81	83	79
32121	Veneer, plywood, & engineered wood product mfg .....	66	75	81	83	79
321211	Hardwood veneer & plywood mfg .....	62	75	83	80	74
321212	Softwood veneer & plywood mfg .....	81	81	83	97	92
321213	Engineered wood member (except truss) mfg .....	63	73	73	81	60
321214	Truss mfg .....	55	71	84	74	74
321219	Reconstituted wood product mfg .....	69	76	79	84	81
3219	Other wood product mfg .....	65	64	70	72	72
32191	Millwork .....	73	70	73	72	68
321911	Wood window & door mfg .....	74	76	78	78	75
321912	Cut stock, resawing lumber, & planing .....	77	70	70	88	78
321918	Other millwork (including flooring) .....	68	60	67	53	52
32192	Wood container & pallet mfg .....	57	67	69	79	81
321920	Wood container & pallet mfg .....	57	67	69	79	81
32199	All other wood product mfg .....	59	59	68	70	75
321991	Manufactured home (mobile home) mfg .....	58	54	69	73	77
321992	Prefabricated wood building mfg .....	56	61	59	70	74
321999	All other miscellaneous wood product mfg .....	64	70	72	64	71
322	Paper mfg .....	76	79	83	83	85
3221	Pulp, paper, & paperboard mills .....	83	87	91	92	95
32211	Pulp mills .....	90	88	91	91	92
322110	Pulp mills .....	90	88	91	91	92
32212	Paper mills .....	81	87	90	93	95
322121	Paper (except newsprint) mills .....	80	86	89	92	94
322122	Newsprint mills .....	88	96	97	(D)	99
32213	Paperboard mills .....	87	87	93	90	95
322130	Paperboard mills .....	87	87	93	90	95
3222	Converted paper product mfg .....	70	73	76	76	78
32221	Paperboard container mfg .....	69	73	75	78	76
322211	Corrugated & solid fiber box mfg .....	70	75	77	80	77
322212	Folding paperboard box mfg .....	73	70	72	79	76
322213	Setup paperboard box mfg .....	69	74	72	66	69
322214	Fiber can, tube, drum, & similar products mfg .....	51	63	71	67	73
322215	Nonfolding sanitary food container mfg .....	71	78	77	72	75
32222	Paper bag & coated & treated paper mfg .....	73	74	76	74	80
322221	Coated & laminated packaging paper & plastics film mfg .....	63	64	68	74	77
322222	Coated & laminated paper mfg .....	72	73	78	73	80
322223	Plastics, foil, & coated paper bag mfg .....	71	69	56	(D)	96
322224	Uncoated paper & multiwall bag mfg .....	79	82	77	73	77
322225	Laminated aluminum foil mfg for flexible packaging uses .....	82	81	82	76	83
322226	Surface-coated paperboard mfg .....	82	75	74	79	83
32223	Stationery product mfg .....	66	65	68	69	74
322231	Die-cut paper & paperboard office supplies mfg .....	76	75	77	75	74
322232	Envelope mfg .....	69	76	79	77	80
322233	Stationery, tablet, & related product mfg .....	55	<sup>a47</sup>	49	54	63
32229	Other converted paper product mfg .....	70	77	83	80	82
322291	Sanitary paper product mfg .....	76	85	88	85	84
322299	All other converted paper product mfg .....	63	65	72	67	76
323	Printing & related support activities .....	71	75	76	74	75
3231	Printing & related support activities .....	71	75	76	74	75
32311	Printing .....	71	75	76	74	75
323110	Commercial lithographic printing .....	76	81	80	76	76
323111	Commercial gravure printing .....	78	83	82	82	83
323112	Commercial flexographic printing .....	75	79	82	75	75
323113	Commercial screen printing .....	63	63	69	70	74
323114	Quick printing .....	66	68	73	84	80
323115	Digital printing .....	70	63	65	77	70
323116	Manifold business form printing .....	68	68	67	71	67
323117	Book printing .....	69	69	72	66	77
323118	Blankbook, looseleaf binder, & device mfg .....	52	56	75	71	78
323119	Other commercial printing .....	71	68	77	68	75
32312	Support activities for printing .....	68	72	76	71	70
323121	Tradebinding & related work .....	65	72	74	68	65
323122	Prepress services .....	69	72	77	73	72
324	Petroleum & coal products mfg .....	80	83	81	78	83
3241	Petroleum & coal products mfg .....	80	83	81	78	83
32411	Petroleum refineries .....	91	94	93	91	91
324110	Petroleum refineries .....	91	94	93	91	91
32412	Asphalt paving, roofing, & saturated materials mfg .....	44	48	55	49	55
324121	Asphalt paving mixture & block mfg .....	31	36	44	39	48
324122	Asphalt shingle & coating materials mfg .....	72	<sup>a69</sup>	<sup>a73</sup>	72	66
32419	Other petroleum & coal products mfg .....	57	67	67	65	66
324191	Petroleum lubricating oil & grease mfg .....	57	63	64	61	61
324199	All other petroleum & coal products mfg .....	58	85	86	81	86

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
325	Chemical mfg .....	68	71	76	70	75
3251	Basic chemical mfg .....	69	76	82	80	83
32511	Petrochemical mfg .....	77	92	92	96	95
325110	Petrochemical mfg .....	77	92	92	96	95
32512	Industrial gas mfg .....	67	<sup>a</sup> 79	79	82	84
325120	Industrial gas mfg .....	67	<sup>a</sup> 79	79	82	84
32513	Dye & pigment mfg .....	71	78	81	85	89
325131	Inorganic dye & pigment mfg .....	78	87	90	90	95
325132	Synthetic organic dye & pigment mfg .....	64	69	70	79	81
32518	Other basic inorganic chemical mfg .....	66	68	74	73	79
325181	Alkalies & chlorine mfg .....	70	78	85	79	87
325182	Carbon black mfg .....	74	84	92	92	94
325188	All other basic inorganic chemical mfg .....	65	67	72	72	77
32519	Other basic organic chemical mfg .....	69	81	87	82	81
325191	Gum & wood chemical mfg .....	78	81	74	86	87
325192	Cyclic crude & intermediate mfg .....	<sup>a</sup> 72	77	77	66	<sup>a</sup> 80
325193	Ethyl alcohol mfg .....	90	85	85	(D)	(D)
325199	All other basic organic chemical mfg .....	67	81	88	84	81
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg .....	72	79	87	80	89
32521	Resin & synthetic rubber mfg .....	72	79	87	80	88
325211	Plastics material & resin mfg .....	77	82	89	81	89
325212	Synthetic rubber mfg .....	51	65	72	73	84
32522	Artificial & synthetic fibers & filaments mfg .....	72	81	88	82	92
325221	Cellulosic organic fiber mfg .....	78	<sup>a</sup> 80	<sup>a</sup> 70	71	87
325222	Noncellulosic organic fiber mfg .....	72	81	90	83	92
3253	Pesticide, fertilizer, & other agricultural chemical mfg .....	69	76	72	77	87
32531	Fertilizer mfg .....	74	77	85	87	83
325311	Nitrogenous fertilizer mfg .....	89	81	93	95	93
325312	Phosphatic fertilizer mfg .....	94	89	89	94	91
325314	Fertilizer (mixing only) mfg .....	51	<sup>a</sup> 62	67	67	60
32532	Pesticide & other agricultural chemical mfg .....	66	76	65	72	90
325320	Pesticide & other agricultural chemical mfg .....	66	76	65	72	90
3254	Pharmaceutical & medicine mfg .....	70	69	77	64	69
32541	Pharmaceutical & medicine mfg .....	70	69	77	64	69
325411	Medicinal & botanical mfg .....	88	<sup>a</sup> 85	<sup>a</sup> 85	71	79
325412	Pharmaceutical preparation mfg .....	66	66	75	63	68
325413	In-vitro diagnostic substance mfg .....	<sup>a</sup> 85	<sup>a</sup> 81	<sup>a</sup> 89	<sup>a</sup> 66	<sup>a</sup> 72
325414	Biological product (except diagnostic) mfg .....	86	76	77	66	<sup>a</sup> 72
3255	Paint, coating, & adhesive mfg .....	56	63	66	60	66
32551	Paint & coating mfg .....	55	64	69	59	67
325510	Paint & coating mfg .....	55	64	69	59	67
32552	Adhesive mfg .....	57	61	59	63	66
325520	Adhesive mfg .....	57	61	59	63	66
3256	Soap, cleaning compound, & toilet preparation mfg .....	64	62	68	61	67
32561	Soap & cleaning compound mfg .....	67	64	71	59	67
325611	Soap & other detergent mfg .....	66	68	69	56	66
325612	Polish & other sanitation good mfg .....	66	53	66	56	61
325613	Surface active agent mfg .....	75	76	84	73	79
32562	Toilet preparation mfg .....	62	61	64	63	68
325620	Toilet preparation mfg .....	62	61	64	63	68
3259	Other chemical product mfg .....	64	71	75	76	79
32591	Printing ink mfg .....	60	<sup>a</sup> 59	64	71	67
325910	Printing ink mfg .....	60	<sup>a</sup> 59	64	71	67
32592	Explosives mfg .....	71	68	63	63	70
325920	Explosives mfg .....	71	68	63	63	70
32599	All other chemical product & preparation mfg .....	65	72	77	77	81
325991	Custom compounding of purchased resin .....	66	73	80	64	69
325992	Photographic film, paper, plate, & chemical mfg .....	65	80	85	81	88
325998	All other miscellaneous chemical product & preparation mfg .....	64	66	70	81	79
326	Plastics & rubber products mfg .....	66	71	76	76	76
3261	Plastics product mfg .....	65	69	74	74	74
32611	Unsupported plastics film, sheet, & bag mfg .....	67	74	78	78	78
326111	Unsupported plastics bag mfg .....	69	<sup>a</sup> 70	78	83	83
326112	Unsupported plastics packaging film & sheet mfg .....	70	73	78	82	78
326113	Unsupported plastics film & sheet (except packaging) mfg .....	66	77	79	75	76
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg .....	66	74	81	81	83
326121	Unsupported plastics profile shape mfg .....	69	75	76	82	84
326122	Plastics pipe & pipe fitting mfg .....	64	72	88	80	81
32613	Laminated plastics plate, sheet, & shape mfg .....	64	59	63	83	84
326130	Laminated plastics plate, sheet, & shape mfg .....	64	59	63	83	84
32614	Polystyrene foam product mfg .....	76	80	79	77	71
326140	Polystyrene foam product mfg .....	76	80	79	77	71
32615	Urethane & other foam product (except polystyrene) mfg .....	66	67	68	68	65
326150	Urethane & other foam product (except polystyrene) mfg .....	66	67	68	68	65
32616	Plastics bottle mfg .....	67	75	77	73	81
326160	Plastics bottle mfg .....	67	75	77	73	81
32619	Other plastics product mfg .....	63	66	73	73	72
326191	Plastics plumbing fixture mfg .....	57	61	63	73	73
326192	Resilient floor covering mfg .....	69	71	73	68	71
326199	All other plastics product mfg .....	64	66	73	73	72
3262	Rubber product mfg .....	72	79	84	81	82
32621	Tire mfg .....	81	87	93	89	90
326211	Tire mfg (except retreading) .....	82	88	95	90	90
326212	Tire retreading .....	67	67	68	72	(NA)
32622	Rubber & plastics hoses & belting mfg .....	66	72	75	76	77
326220	Rubber & plastics hoses & belting mfg .....	66	72	75	76	77
32629	Other rubber product mfg .....	67	75	79	76	76
326291	Rubber product mfg for mechanical use .....	68	77	81	78	80
326299	All other rubber product mfg .....	67	73	78	75	73

Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
327	Nonmetallic mineral product mfg . . . . .	66	70	76	75	77
3271	Clay product & refractory mfg . . . . .	69	74	75	73	74
32711	Pottery, ceramics, & plumbing fixture mfg . . . . .	68	78	76	71	76
327111	Vitreous china plumbing fixture & bathroom accessories mfg . . . . .	82	89	90	89	82
327112	Vitreous china, fine earthenware, & other pottery product mfg . . . . .	64	74	71	73	77
327113	Porcelain electrical supply mfg . . . . .	60	73	71	57	70
32712	Clay building material & refractories mfg . . . . .	70	71	73	74	73
327121	Brick & structural clay tile mfg . . . . .	88	89	89	94	92
327122	Ceramic wall & floor tile mfg . . . . .	62	63	70	76	75
327123	Other structural clay product mfg . . . . .	77	79	70	73	64
327124	Clay refractory mfg . . . . .	52	53	66	55	<sup>a</sup> 49
327125	Nonclay refractory mfg . . . . .	69	70	66	71	79
3272	Glass & glass product mfg . . . . .	65	80	85	79	84
32721	Glass & glass product mfg . . . . .	65	80	85	79	84
327211	Flat glass mfg . . . . .	76	82	89	88	93
327212	Other pressed & blown glass & glassware mfg . . . . .	57	78	82	84	86
327213	Glass container mfg . . . . .	94	92	91	95	94
327215	Glass product mfg made of purchased glass . . . . .	59	76	84	67	75
3273	Cement & concrete product mfg . . . . .	63	62	70	73	72
32731	Cement mfg . . . . .	83	84	87	95	93
327310	Cement mfg . . . . .	83	84	87	95	93
32732	Ready-mix concrete mfg . . . . .	52	50	62	65	63
327320	Ready-mix concrete mfg . . . . .	52	50	62	65	63
32733	Concrete pipe, brick, & block mfg . . . . .	71	72	71	73	75
327331	Concrete block & brick mfg . . . . .	73	75	75	69	71
327332	Concrete pipe mfg . . . . .	70	68	66	77	81
32739	Other concrete product mfg . . . . .	71	73	75	73	74
327390	Other concrete product mfg . . . . .	71	73	75	73	74
3274	Lime & gypsum product mfg . . . . .	76	83	87	89	92
32741	Lime mfg . . . . .	71	72	74	71	84
327410	Lime mfg . . . . .	71	72	74	71	84
32742	Gypsum product mfg . . . . .	77	86	92	96	95
327420	Gypsum product mfg . . . . .	77	86	92	96	95
3279	Other nonmetallic mineral product mfg . . . . .	71	71	76	74	76
32791	Abrasive product mfg . . . . .	66	62	67	67	71
327910	Abrasive product mfg . . . . .	66	62	67	67	71
32799	All other nonmetallic mineral product mfg . . . . .	74	77	82	77	79
327991	Cut stone & stone product mfg . . . . .	76	60	67	<sup>a</sup> 68	74
327992	Ground or treated mineral & earth mfg . . . . .	59	82	88	70	74
327993	Mineral wool mfg . . . . .	86	83	88	93	87
327999	All other miscellaneous nonmetallic mineral product mfg . . . . .	70	73	73	66	71
331	Primary metal mfg . . . . .	70	74	81	78	84
3311	Iron & steel mills & ferroalloy mfg . . . . .	79	74	89	79	89
33111	Iron & steel mills & ferroalloy mfg . . . . .	79	74	89	79	89
331111	Iron & steel mills . . . . .	79	74	90	79	89
331112	Electrometallurgical ferroalloy product mfg . . . . .	68	71	85	76	78
3312	Steel product mfg from purchased steel . . . . .	61	70	78	74	78
33121	Iron & steel pipes & tubes mfg from purchased steel . . . . .	63	69	76	71	75
331210	Iron & steel pipes & tubes mfg from purchased steel . . . . .	63	69	76	71	75
33122	Rolling & drawing of purchased steel . . . . .	59	72	79	77	81
331221	Cold-rolled steel shape mfg . . . . .	53	68	76	71	82
331222	Steel wire drawing . . . . .	66	75	82	83	79
3313	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 70	79	85	84	87
33131	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 70	79	85	84	87
331311	Alumina refining . . . . .	<sup>a</sup> 84	<sup>a</sup> 72	71	83	83
331312	Primary aluminum production . . . . .	<sup>a</sup> 64	79	86	87	87
331314	Secondary smelting & alloying of aluminum . . . . .	74	74	85	89	87
331315	Aluminum sheet, plate, & foil mfg . . . . .	<sup>a</sup> 75	83	89	85	89
331316	Aluminum extruded product mfg . . . . .	67	76	81	82	84
331319	Other aluminum rolling & drawing . . . . .	59	74	80	71	83
3314	Nonferrous metal (except aluminum) production & processing . . . . .	71	79	77	76	84
33141	Nonferrous metal (except aluminum) smelting & refining . . . . .	73	81	78	74	88
331411	Primary smelting & refining of copper . . . . .	73	77	81	93	97
331419	Other nonferrous metal primary smelting & refining . . . . .	73	83	76	66	82
33142	Copper rolling, drawing, extruding, & alloying . . . . .	74	86	89	86	87
331421	Copper rolling, drawing, & extruding . . . . .	73	86	91	88	91
331422	Copper wire (except mechanical) drawing . . . . .	82	83	93	84	85
331423	Secondary smelting, refining, & alloying of copper . . . . .	67	79	72	<sup>a</sup> 77	64
33149	Other nonferrous metal rolling, drawing, extruding, & alloying . . . . .	69	73	70	70	79
331491	Other nonferrous metal rolling, drawing, & extruding . . . . .	71	74	70	70	79
331492	Other nonferrous metal secondary smelting, refining, & alloying . . . . .	64	71	69	72	80
3315	Foundries . . . . .	64	72	74	76	79
33151	Ferrous metal foundries . . . . .	65	72	72	77	80
331511	Iron foundries . . . . .	68	75	76	79	82
331512	Steel investment foundries . . . . .	64	68	66	74	73
331513	Steel foundries (except investment) . . . . .	55	66	66	76	81
33152	Nonferrous metal foundries . . . . .	62	71	76	73	77
331521	Aluminum die-casting foundries . . . . .	65	74	81	73	76
331522	Nonferrous (except aluminum) die-casting foundries . . . . .	59	69	73	71	71
331524	Aluminum foundries (except die-casting) . . . . .	62	70	75	74	78
331525	Copper foundries (except die-casting) . . . . .	56	64	69	69	73
331528	Other nonferrous foundries (except die-casting) . . . . .	<sup>a</sup> 75	78	79	76	89
332	Fabricated metal product mfg . . . . .	60	68	70	70	74
3321	Forging & stamping . . . . .	57	65	68	68	72
33211	Forging & stamping . . . . .	57	65	68	68	72
332111	Iron & steel forging . . . . .	57	66	67	73	82
332112	Nonferrous forging . . . . .	65	65	72	75	84
332114	Custom roll forming . . . . .	54	60	64	67	73
332115	Crown & closure mfg . . . . .	57	67	69	73	76
332116	Metal stamping . . . . .	57	64	67	66	67
332117	Powder metallurgy part mfg . . . . .	66	77	81	61	76
3322	Cutlery & handtool mfg . . . . .	63	71	73	71	73
33221	Cutlery & handtool mfg . . . . .	63	71	73	71	73
332211	Cutlery & flatware (except precious) mfg . . . . .	57	72	74	88	86
332212	Hand & edge tool mfg . . . . .	63	71	72	68	70
332213	Saw blade & handsaw mfg . . . . .	69	75	75	70	78
332214	Kitchen utensil, pot, & pan mfg . . . . .	63	64	71	64	62

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
332	Fabricated metal product mfg—Con.					
3323	Architectural & structural metals mfg	60	65	67	67	71
33231	Plate work & fabricated structural product mfg	65	68	73	70	77
332311	Prefabricated metal building & component mfg	64	69	71	71	77
332312	Fabricated structural metal mfg	67	69	76	70	78
332313	Plate work mfg	58	64	63	69	73
33232	Ornamental & architectural metal products mfg	58	63	64	66	67
332321	Metal window & door mfg	58	60	63	65	68
332322	Sheet metal work mfg	56	65	64	65	65
332323	Ornamental & architectural metal work mfg	61	66	65	74	76
3324	Boiler, tank, & shipping container mfg	66	70	71	73	77
33241	Power boiler & heat exchanger mfg	60	60	63	73	74
332410	Power boiler & heat exchanger mfg	60	60	63	73	74
33242	Metal tank (heavy gauge) mfg	57	63	66	68	74
332420	Metal tank (heavy gauge) mfg	57	63	66	68	74
33243	Metal can, box, & other metal container (light gauge) mfg	74	79	79	76	80
332431	Metal can mfg	76	84	84	82	86
332439	Other metal container mfg	68	65	66	62	65
3325	Hardware mfg	69	73	74	69	72
33251	Hardware mfg	69	73	74	69	72
332510	Hardware mfg	69	73	74	69	72
3326	Spring & wire product mfg	62	69	73	72	74
33261	Spring & wire product mfg	62	69	73	72	74
332611	Spring (heavy gauge) mfg	66	67	70	61	70
332612	Spring (light gauge) mfg	62	67	72	76	80
332618	Other fabricated wire product mfg	61	70	74	73	72
3327	Machine shops, turned product, & screw, nut, & bolt mfg	53	66	70	73	75
33271	Machine shops	51	66	71	72	75
332710	Machine shops	51	66	71	72	75
33272	Turned product & screw, nut, & bolt mfg	59	67	70	73	74
332721	Precision turned product mfg	55	64	67	69	73
332722	Bolt, nut, screw, rivet, & washer mfg	65	70	73	78	77
3328	Coating, engraving, heat treating, & allied activities	63	71	74	71	74
33281	Coating, engraving, heat treating, & allied activities	63	71	74	71	74
332811	Metal heat treating	65	87	80	74	79
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	71	69	73	74	77
332813	Electroplating, plating, polishing, anodizing, & coloring	55	66	71	67	70
3329	Other fabricated metal product mfg	65	70	71	72	75
33291	Metal valve mfg	64	68	68	71	75
332911	Industrial valve mfg	63	65	67	72	74
332912	Fluid power valve & hose fitting mfg	65	71	68	72	78
332913	Plumbing fixture fitting & trim mfg	67	69	69	68	70
332919	Other metal valve & pipe fitting mfg	62	70	74	69	74
33299	All other fabricated metal product mfg	66	71	74	72	76
332991	Ball & roller bearing mfg	69	73	80	78	83
332992	Small arms ammunition mfg	66	64	69	58	66
332993	Ammunition (except small arms) mfg	65	55	59	45	46
332994	Small arms mfg	66	76	77	74	75
332995	Other ordnance & accessories mfg	69	66	66	58	75
332996	Fabricated pipe & pipe fitting mfg	67	70	69	71	74
332997	Industrial pattern mfg	61	71	77	72	80
332998	Enameled iron & metal sanitary ware mfg	81	88	90	82	76
332999	All other miscellaneous fabricated metal product mfg	62	72	73	77	81
333	Machinery mfg	54	66	66	69	72
3331	Agriculture, construction, & mining machinery mfg	58	64	62	71	76
33311	Agricultural implement mfg	53	66	59	65	75
333111	Farm machinery & equipment mfg	54	66	56	66	81
333112	Lawn & garden tractor & home lawn & garden equipment mfg	51	65	71	63	63
33312	Construction machinery mfg	62	66	66	78	77
333120	Construction machinery mfg	62	66	66	78	77
33313	Mining & oil & gas field machinery mfg	61	59	60	72	77
333131	Mining machinery & equipment mfg	59	57	64	70	78
333132	Oil & gas field machinery & equipment mfg	62	60	59	72	76
3332	Industrial machinery mfg	45	71	65	66	70
33321	Sawmill & woodworking machinery mfg	53	63	68	68	74
333210	Sawmill & woodworking machinery mfg	53	63	68	68	74
33322	Plastics & rubber industry machinery mfg	60	72	75	71	75
333220	Plastics & rubber industry machinery mfg	60	72	75	71	75
33329	Other industrial machinery mfg	44	71	63	66	70
333291	Paper industry machinery mfg	58	64	60	67	77
333292	Textile machinery mfg	<sup>a51</sup>	<sup>a62</sup>	56	62	65
333293	Printing machinery & equipment mfg	55	69	67	69	72
333294	Food product machinery mfg	62	67	72	70	72
333295	Semiconductor machinery mfg	36	<sup>a80</sup>	<sup>a59</sup>	<sup>a58</sup>	65
333298	All other industrial machinery mfg	58	66	68	72	73
3333	Commercial & service industry machinery mfg	54	62	66	69	71
33331	Commercial & service industry machinery mfg	54	62	66	69	71
333311	Automatic vending machine mfg	<sup>a40</sup>	60	64	72	72
333312	Commercial laundry, drycleaning, & pressing machine mfg	33	62	69	70	81
333313	Office machinery mfg	<sup>a51</sup>	70	65	60	69
333314	Optical instrument & lens mfg	64	70	69	59	69
333315	Photographic & photocopying equipment mfg	54	53	62	76	74
333319	Other commercial & service industry machinery mfg	56	69	69	71	69
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	59	66	67	65	66
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	59	66	67	65	66
333411	Air purification equipment mfg	60	67	62	60	63
333412	Industrial & commercial fan & blower mfg	57	65	65	60	61
333414	Heating equipment (except warm air furnaces) mfg	58	64	67	63	71
333415	AC & warm air heating & commercial/industrial refig equip mfg	59	66	67	67	66
3335	Metalworking machinery mfg	51	68	70	71	74
33351	Metalworking machinery mfg	51	68	70	71	74
333511	Industrial mold mfg	38	72	74	73	72
333512	Machine tool (metal cutting types) mfg	47	61	68	71	74
333513	Machine tool (metal forming types) mfg	50	66	68	77	83
333514	Special die & tool, die set, jig, & fixture mfg	58	67	71	70	72
333515	Cutting tool & machine tool accessory mfg	60	72	68	74	78
333516	Rolling mill machinery & equipment mfg	55	65	68	63	84
333518	Other metalworking machinery mfg	58	70	66	61	72

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
333	Machinery mfg—Con.					
3336	Engine, turbine, & power transmission equipment mfg . . . . .	59	66	67	68	70
33361	Engine, turbine, & power transmission equipment mfg . . . . .	59	66	67	68	70
333611	Turbine & turbine generator set unit mfg . . . . .	88	75	53	60	56
333612	Speed changer, industrial high-speed drive, & gear mfg . . . . .	53	63	64	67	76
333613	Mechanical power transmission equipment mfg . . . . .	51	54	61	69	76
333618	Other engine equipment mfg . . . . .	55	67	77	72	73
3339	Other general-purpose machinery mfg . . . . .	60	66	67	69	74
33391	Pump & compressor mfg . . . . .	62	61	62	67	73
333911	Pump & pumping equipment mfg . . . . .	62	58	60	68	73
333912	Air & gas compressor mfg . . . . .	62	66	64	66	73
333913	Measuring & dispensing pump mfg . . . . .	<sup>a63</sup>	<sup>a58</sup>	67	69	74
33392	Material handling equipment mfg . . . . .	55	67	71	70	74
333921	Elevator & moving stairway mfg . . . . .	73	75	78	82	74
333922	Conveyor & conveying equipment mfg . . . . .	57	69	71	66	73
333923	Overhead traveling crane, hoist, & monorail system mfg . . . . .	50	65	73	73	75
333924	Industrial truck, tractor, trailer, & stacker machinery mfg . . . . .	51	64	67	69	75
33399	All other general-purpose machinery mfg . . . . .	61	68	68	70	74
333991	Power-driven handtool mfg . . . . .	75	79	80	78	80
333992	Welding & soldering equipment mfg . . . . .	57	69	72	75	75
333993	Packaging machinery mfg . . . . .	60	62	67	72	75
333994	Industrial process furnace & oven mfg . . . . .	51	67	63	66	72
333995	Fluid power cylinder & actuator mfg . . . . .	66	69	67	71	76
333996	Fluid power pump & motor mfg . . . . .	63	67	76	72	78
333997	Scale & balance (except laboratory) mfg . . . . .	49	56	66	60	62
333999	All other miscellaneous general-purpose machinery mfg . . . . .	61	66	62	65	70
334	Computer & electronic product mfg . . . . .	57	73	73	71	74
3341	Computer & peripheral equipment mfg . . . . .	<sup>a62</sup>	66	69	<sup>a70</sup>	75
33411	Computer & peripheral equipment mfg . . . . .	<sup>a62</sup>	66	69	<sup>a70</sup>	75
334111	Electronic computer mfg . . . . .	<sup>a66</sup>	<sup>a64</sup>	66	<sup>a66</sup>	75
334112	Computer storage device mfg . . . . .	<sup>a49</sup>	65	82	79	80
334113	Computer terminal mfg . . . . .	<sup>a38</sup>	44	<sup>a45</sup>	<sup>a70</sup>	80
334119	Other computer peripheral equipment mfg . . . . .	69	77	78	77	72
3342	Communications equipment mfg . . . . .	<sup>a52</sup>	75	77	73	71
33421	Telephone apparatus mfg . . . . .	<sup>a46</sup>	77	82	78	70
334210	Telephone apparatus mfg . . . . .	<sup>a46</sup>	77	82	78	70
33422	Radio & TV broadcasting & wireless communications equipment mfg . . . . .	<sup>a65</sup>	<sup>a73</sup>	71	69	72
334220	Radio & TV broadcasting & wireless communications equipment mfg . . . . .	<sup>a65</sup>	<sup>a73</sup>	71	69	72
33429	Other communications equipment mfg . . . . .	66	71	78	66	69
334290	Other communications equipment mfg . . . . .	66	71	78	66	69
3343	Audio & video equipment mfg . . . . .	58	57	58	64	58
33431	Audio & video equipment mfg . . . . .	58	57	58	64	58
334310	Audio & video equipment mfg . . . . .	58	57	58	64	58
3344	Semiconductor & other electronic component mfg . . . . .	<sup>a56</sup>	82	81	<sup>a72</sup>	79
33441	Semiconductor & other electronic component mfg . . . . .	<sup>a56</sup>	82	81	<sup>a72</sup>	79
334411	Electron tube mfg . . . . .	64	80	77	76	79
334412	Bare printed circuit board mfg . . . . .	<sup>a49</sup>	77	78	73	74
334413	Semiconductor & related device mfg . . . . .	<sup>a57</sup>	<sup>a87</sup>	<sup>a86</sup>	<sup>a73</sup>	<sup>a84</sup>
334414	Electronic capacitor mfg . . . . .	<sup>a44</sup>	86	83	75	79
334415	Electronic resistor mfg . . . . .	45	67	63	61	68
334416	Electronic coil, transformer, & other inductor mfg . . . . .	51	67	67	61	64
334417	Electronic connector mfg . . . . .	64	75	67	<sup>a68</sup>	<sup>a70</sup>
334418	Printed circuit assembly (electronic assembly) mfg . . . . .	<sup>a62</sup>	75	69	<sup>a70</sup>	70
334419	Other electronic component mfg . . . . .	48	72	68	76	72
3345	Navigational, measuring, medical, & control instruments mfg . . . . .	61	65	64	67	69
33451	Navigational, measuring, medical, & control instruments mfg . . . . .	61	65	64	67	69
334510	Electromedical & electrotherapeutic apparatus mfg . . . . .	75	75	70	79	79
334511	Search, detection, navigation, & guidance instrument mfg . . . . .	59	59	61	66	67
334512	Automatic environmental control mfg . . . . .	67	71	74	69	71
334513	Industrial process control instrument mfg . . . . .	58	66	62	64	65
334514	Totalizing fluid meter & counting device mfg . . . . .	70	70	74	63	70
334515	Electricity measuring & testing instrument mfg . . . . .	55	69	68	(NA)	(NA)
334516	Analytical laboratory instrument mfg . . . . .	63	66	61	64	66
334517	Irradiation apparatus mfg . . . . .	71	75	72	77	73
334518	Watch, clock, & part mfg . . . . .	<sup>a55</sup>	61	62	46	59
334519	Other measuring & controlling device mfg . . . . .	57	64	61	65	71
3346	Mfg & reproducing magnetic & optical media . . . . .	79	76	73	83	78
33461	Mfg & reproducing magnetic & optical media . . . . .	79	76	73	83	78
334611	Software reproducing . . . . .	75	70	<sup>a77</sup>	87	(NA)
334612	Prerecorded CD (except software), tape, & record reproducing . . . . .	78	84	72	84	78
334613	Magnetic & optical recording media mfg . . . . .	80	69	73	80	78
335	Electrical equipment, appliance, & component mfg . . . . .	62	70	72	72	74
3351	Electric lighting equipment mfg . . . . .	59	66	68	70	73
33511	Electric lamp bulb & part mfg . . . . .	63	75	74	70	71
335110	Electric lamp bulb & part mfg . . . . .	63	75	74	70	71
33512	Lighting fixture mfg . . . . .	57	64	66	70	74
335121	Residential electric lighting fixture mfg . . . . .	46	59	58	63	65
335122	Commercial/industrial/institutional electric lighting fixture mfg . . . . .	58	63	66	70	76
335129	Other lighting equipment mfg . . . . .	66	69	73	76	78
3352	Household appliance mfg . . . . .	70	70	75	73	73
33521	Small electrical appliance mfg . . . . .	69	68	70	65	72
335211	Electric housewares & household fan mfg . . . . .	64	61	66	59	69
335212	Household vacuum cleaner mfg . . . . .	74	77	73	73	76
33522	Major appliance mfg . . . . .	71	71	77	76	74
335221	Household cooking appliance mfg . . . . .	50	55	59	66	61
335222	Household refrigerator & home freezer mfg . . . . .	83	75	81	79	73
335224	Household laundry equipment mfg . . . . .	90	88	87	75	80
335228	Other major household appliance mfg . . . . .	71	71	83	87	84
3353	Electrical equipment mfg . . . . .	61	67	70	69	72
33531	Electrical equipment mfg . . . . .	61	67	70	69	72
335311	Power, distribution, & specialty transformer mfg . . . . .	71	75	78	73	79
335312	Motor & generator mfg . . . . .	61	63	70	67	71
335313	Switchgear & switchboard apparatus mfg . . . . .	66	77	74	77	77
335314	Relay & industrial control mfg . . . . .	54	62	64	64	68

**Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
335	Electrical equipment, appliance, & component mfg—Con.					
3359	Other electrical equipment & component mfg	62	74	75	74	77
33591	Battery mfg	64	71	81	80	81
335911	Storage battery mfg	62	76	80	79	81
335912	Primary battery mfg	67	65	81	82	83
33592	Communication & energy wire & cable mfg	62	83	80	82	83
335921	Fiber optic cable mfg	60	84	81	83	79
335929	Other communication & energy wire mfg	63	83	80	82	84
33593	Wiring device mfg	68	73	74	71	72
335931	Current-carrying wiring device mfg	68	71	72	72	68
335932	Noncurrent-carrying wiring device mfg	67	75	77	70	78
33599	All other electrical equipment & component mfg	54	69	68	66	74
335991	Carbon & graphite product mfg	54	64	72	76	85
335999	All other miscellaneous electrical equipment & component mfg	54	70	67	63	71
336	Transportation equipment mfg	64	68	73	74	76
3361	Motor vehicle mfg	76	79	86	83	82
33611	Automobile & light duty motor vehicle mfg	81	80	86	85	82
336111	Automobile mfg	78	84	85	89	85
336112	Light truck & utility vehicle mfg	84	78	87	81	79
33612	Heavy duty truck mfg	43	66	92	70	85
336120	Heavy duty truck mfg	43	66	92	70	85
3362	Motor vehicle body & trailer mfg	54	60	71	68	65
33621	Motor vehicle body & trailer mfg	64	60	71	68	65
336211	Motor vehicle body mfg	58	70	72	67	67
336212	Truck trailer mfg	39	61	77	75	70
336213	Motor home mfg	71	51	65	65	60
336214	Travel trailer & camper mfg	50	54	67	66	63
3363	Motor vehicle parts mfg	71	75	81	76	79
33631	Motor vehicle gasoline engine & engine parts mfg	73	78	85	78	78
336311	Carburetor, piston, piston ring, & valve mfg	76	79	88	88	86
336312	Gasoline engine & engine parts mfg	73	78	85	77	77
33632	Motor vehicle electrical & electronic equipment mfg	59	73	79	78	81
336321	Vehicular lighting equipment mfg	66	68	79	75	81
336322	Other motor vehicle electrical & electronic equipment mfg	58	73	79	78	81
33633	Motor vehicle steering & suspension component (except spring) mfg	69	70	82	83	83
336330	Motor vehicle steering & suspension component (except spring) mfg	69	70	82	83	83
33634	Motor vehicle brake system mfg	70	66	72	58	57
336340	Motor vehicle brake system mfg	70	66	72	58	57
33635	Motor vehicle transmission & power train parts mfg	76	74	86	85	86
336350	Motor vehicle transmission & power train parts mfg	76	74	86	85	86
33636	Motor vehicle seating & interior trim mfg	80	84	79	72	80
336360	Motor vehicle seating & interior trim mfg	80	84	79	72	80
33637	Motor vehicle metal stamping	73	74	82	79	80
336370	Motor vehicle metal stamping	73	74	82	79	80
33639	Other motor vehicle parts mfg	70	76	80	72	77
336391	Motor vehicle air-conditioning mfg	76	68	80	68	78
336399	All other motor vehicle parts mfg	70	77	80	72	77
3364	Aerospace product & parts mfg	54	56	61	69	71
33641	Aerospace product & parts mfg	54	56	61	69	71
336411	Aircraft mfg	64	61	68	68	67
336412	Aircraft engine & engine parts mfg	63	66	70	75	77
336413	Other aircraft part & auxiliary equipment mfg	64	69	68	72	73
336414	Guided missile & space vehicle mfg	25	33	37	66	73
336415	Guided missile & space vehicle propulsion unit & parts mfg	36	45	48	43	54
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	47	73	65	74	70
3365	Railroad rolling stock mfg	54	69	76	87	84
33651	Railroad rolling stock mfg	54	69	76	87	84
336510	Railroad rolling stock mfg	54	69	76	87	84
3366	Ship & boat building	52	56	55	62	67
33661	Ship & boat building	52	56	55	62	67
336611	Ship building & repairing	49	53	53	62	66
336612	Boat building	56	62	63	63	68
3369	Other transportation equipment mfg	57	65	68	73	74
33699	Other transportation equipment mfg	57	65	68	73	74
336991	Motorcycle, bicycle, & parts mfg	54	76	79	90	86
336992	Military armored vehicle, tank, & tank component mfg	42	39	42	53	58
336999	All other transportation equipment mfg	70	74	78	71	71
337	Furniture & related product mfg	62	68	73	74	76
3371	Household & institutional furniture & kitchen cabinet mfg	67	69	76	74	75
33711	Wood kitchen cabinet & counter top mfg	72	65	72	77	72
337110	Wood kitchen cabinet & counter top mfg	72	65	72	77	72
33712	Household & institutional furniture mfg	66	70	77	73	76
337121	Upholstered household furniture mfg	74	81	87	78	79
337122	Nonupholstered wood household furniture mfg	67	73	80	74	79
337124	Metal household furniture mfg	50	54	58	61	68
337125	Household furniture (except wood & metal) mfg	48	72	73	70	76
337127	Institutional furniture mfg	64	62	71	70	69
337129	Wood television, radio, & sewing machine cabinet mfg	69	71	73	61	67
3372	Office furniture (including fixtures) mfg	55	68	69	76	77
33721	Office furniture (including fixtures) mfg	55	68	69	76	77
337211	Wood office furniture mfg	46	76	70	81	79
337212	Custom architectural woodwork & millwork mfg	69	71	78	87	81
337214	Office furniture (except wood) mfg	59	73	71	75	79
337215	Showcase, partition, shelving, & locker mfg	56	59	64	72	74
3379	Other furniture related product mfg	57	66	73	72	75
33791	Mattress mfg	58	69	75	67	70
337910	Mattress mfg	58	69	75	67	70
33792	Blind & shade mfg	56	60	70	83	86
337920	Blind & shade mfg	56	60	70	83	86

Table 1a. Full Production Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production rate				
		2001	2000	1999	1998	1997
339	Miscellaneous mfg .....	65	69	70	69	73
3391	Medical equipment & supplies mfg .....	67	71	71	71	73
33911	Medical equipment & supplies mfg .....	67	71	71	71	73
339111	Laboratory apparatus & furniture mfg .....	66	72	70	73	77
339112	Surgical & medical instrument mfg .....	67	68	66	67	69
339113	Surgical appliance & supplies mfg .....	65	72	76	71	72
339114	Dental equipment & supplies mfg .....	74	74	79	72	77
339115	Ophthalmic goods mfg .....	63	67	73	85	84
339116	Dental laboratories .....	85	86	87	78	84
3399	Other miscellaneous mfg .....	63	67	69	67	73
33991	Jewelry & silverware mfg .....	63	69	69	71	77
339911	Jewelry (except costume) mfg .....	64	73	74	74	77
339912	Silverware & plated ware mfg .....	64	63	64	66	81
339913	Jewelers' material & lapidary work mfg .....	60	67	80	72	76
339914	Costume jewelry & novelty mfg .....	*60	60	58	65	74
33992	Sporting & athletic goods mfg .....	64	61	65	58	67
339920	Sporting & athletic goods mfg .....	64	61	65	58	67
33993	Doll, toy, & game mfg .....	59	63	72	63	74
339931	Doll & stuffed toy mfg .....	*57	*59	62	42	69
339932	Game, toy, & children's vehicle mfg .....	59	64	73	66	75
33994	Office supplies (except paper) mfg .....	63	65	69	68	72
339941	Pen & mechanical pencil mfg .....	58	70	67	67	72
339942	Lead pencil & art good mfg .....	78	75	74	65	71
339943	Marking device mfg .....	55	52	62	77	78
339944	Carbon paper & inked ribbon mfg .....	68	60	71	65	69
33995	Sign mfg .....	65	74	81	72	74
339950	Sign mfg .....	65	74	81	72	74
33999	All other miscellaneous mfg .....	63	68	67	69	75
339991	Gasket, packing, & sealing device mfg .....	68	73	75	75	75
339992	Musical instrument mfg .....	59	60	58	67	74
339993	Fastener, button, needle, & pin mfg .....	60	72	75	75	73
339994	Broom, brush, & mop mfg .....	62	66	68	76	71
339995	Burial casket mfg .....	69	71	71	69	79
339999	All other miscellaneous mfg .....	*61	65	63	65	75



**Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
<b>31-33</b>	<b>Manufacturing</b> .....	<b>45</b>	<b>52</b>	<b>56</b>	<b>53</b>	<b>56</b>
	<b>Durable goods industries</b> .....	<b>40</b>	<b>49</b>	<b>52</b>	<b>51</b>	<b>53</b>
	<b>Nondurable goods industries</b> .....	<b>55</b>	<b>58</b>	<b>62</b>	<b>56</b>	<b>60</b>
	<b>Advanced processing industries</b> .....	<b>43</b>	<b>51</b>	<b>54</b>	<b>51</b>	<b>54</b>
	<b>Primary processing industries</b> .....	<b>52</b>	<b>57</b>	<b>62</b>	<b>59</b>	<b>61</b>
311	Food mfg .....	55	57	61	58	60
3111	Animal food mfg .....	59	66	64	60	62
31111	Animal food mfg .....	59	66	64	60	62
311111	Dog & cat food mfg .....	68	70	59	75	78
311119	Other animal food mfg .....	50	62	69	51	52
3112	Grain & oilseed milling .....	73	69	69	75	76
31121	Flour milling & malt mfg .....	68	69	70	70	67
311211	Flour milling .....	67	65	71	68	74
311212	Rice milling .....	81	89	86	73	52
311213	Malt mfg .....	45	50	45	82	72
31122	Starch & vegetable fats & oils mfg .....	88	85	82	77	89
311221	Wet corn milling .....	94	90	88	81	92
311222	Soybean processing .....	91	95	84	89	94
311223	Other oilseed processing .....	73	64	74	77	84
311225	Fats & oils refining & blending .....	78	<sup>a</sup> 73	71	65	81
31123	Breakfast cereal mfg .....	66	62	61	74	69
311230	Breakfast cereal mfg .....	66	62	61	74	69
3113	Sugar & confectionery product mfg .....	58	59	60	59	58
31131	Sugar mfg .....	78	79	82	71	79
311311	Sugarcane mills .....	94	93	97	80	92
311312	Cane sugar refining .....	<sup>a</sup> 53	56	57	52	59
311313	Beet sugar mfg .....	97	92	96	85	86
31132	Chocolate & confectionery mfg from cacao beans .....	71	73	70	65	71
311320	Chocolate & confectionery mfg from cacao beans .....	71	73	70	65	71
31133	Confectionery mfg from purchased chocolate .....	48	48	50	53	49
311330	Confectionery mfg from purchased chocolate .....	48	48	50	53	49
31134	Nonchocolate confectionery mfg .....	61	63	60	57	59
311340	Nonchocolate confectionery mfg .....	61	63	60	57	59
3114	Fruit & vegetable preserving & specialty food mfg .....	46	44	59	60	61
31141	Frozen food mfg .....	68	69	73	72	70
311411	Frozen fruit, juice, & vegetable mfg .....	73	69	76	76	74
311412	Frozen specialty food mfg .....	64	69	70	69	66
31142	Fruit & vegetable canning, pickling, & drying .....	37	35	52	54	56
311421	Fruit & vegetable canning .....	30	27	47	46	48
311422	Specialty canning .....	58	<sup>a</sup> 56	58	69	70
311423	Dried & dehydrated food mfg .....	36	39	58	55	58
3115	Dairy product mfg .....	69	68	68	67	69
31151	Dairy product (except frozen) mfg .....	70	69	69	70	73
311511	Fluid milk mfg .....	71	72	73	65	71
311512	Creamery butter mfg .....	57	72	75	84	81
311513	Cheese mfg .....	77	71	74	87	85
311514	Dry, condensed, & evaporated dairy product mfg .....	64	64	58	62	64
31152	Ice cream & frozen dessert mfg .....	64	61	58	49	53
311520	Ice cream & frozen dessert mfg .....	64	61	58	49	53
3116	Meat product mfg .....	59	64	61	60	65
31161	Animal slaughtering & processing .....	59	64	61	60	65
311611	Animal (except poultry) slaughtering .....	53	71	72	51	59
311612	Meat processed from carcasses .....	60	56	43	59	69
311613	Rendering & meat byproduct processing .....	59	<sup>a</sup> 45	<sup>a</sup> 44	47	57
311615	Poultry processing .....	63	67	77	70	69
3117	Seafood product preparation & packaging .....	37	34	33	30	44
31171	Seafood product preparation & packaging .....	37	34	33	30	44
311711	Seafood canning .....	53	58	42	<sup>a</sup> 43	53
311712	Fresh & frozen seafood processing .....	36	32	32	29	42
3118	Bakeries & tortilla mfg .....	44	55	62	53	55
31181	Bread & bakery product mfg .....	55	53	65	52	54
311811	Retail bakeries .....	25	23	52	50	(NA)
311812	Commercial bakeries .....	62	60	67	52	53
311813	Frozen cakes, pies, & other pastries mfg .....	61	60	64	47	57
31182	Cookie, cracker, & pasta mfg .....	30	58	58	56	58
311821	Cookie & cracker mfg .....	25	55	55	59	54
311822	Flour mixes & dough mfg from purchased flour .....	60	68	64	62	65
311823	Dry pasta mfg .....	66	62	71	<sup>a</sup> 36	<sup>a</sup> 64
31183	Tortilla mfg .....	63	64	66	(NA)	(NA)
311830	Tortilla mfg .....	63	64	66	(NA)	(NA)
3119	Other food mfg .....	57	57	58	52	51
31191	Snack food mfg .....	64	63	<sup>a</sup> 64	56	61
311911	Roasted nuts & peanut butter mfg .....	60	51	63	61	61
311919	Other snack food mfg .....	65	67	<sup>a</sup> 64	55	62
31192	Coffee & tea mfg .....	57	67	64	51	53
311920	Coffee & tea mfg .....	57	67	64	51	53
31193	Flavoring syrup & concentrate mfg .....	55	55	52	43	37
311930	Flavoring syrup & concentrate mfg .....	55	55	52	43	37
31194	Seasoning & dressing mfg .....	55	50	53	58	58
311941	Mayonnaise, dressing, & other prepared sauce mfg .....	58	52	52	61	64
311942	Spice & extract mfg .....	51	48	53	55	50
31199	All other food mfg .....	53	54	58	53	50
311991	Perishable prepared food mfg .....	57	56	53	43	40
311999	All other miscellaneous food mfg .....	52	53	60	57	55

Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
312	Beverage & tobacco product mfg .....	58	56	62	58	50
3121	Beverage mfg .....	57	52	59	52	50
31211	Soft drink & ice mfg .....	48	42	53	45	44
312111	Soft drink mfg .....	51	43	54	47	50
312112	Bottled water mfg .....	31	38	36	34	15
312113	Ice mfg .....	23	29	<sup>a33</sup> 19	19	16
31212	Breweries .....	82	82	86	82	57
312120	Breweries .....	82	82	86	82	<sup>a57</sup> 57
31213	Wineries .....	59	48	49	39	63
312130	Wineries .....	59	48	49	39	63
31214	Distilleries .....	45	42	41	37	44
312140	Distilleries .....	45	42	41	37	44
3122	Tobacco mfg .....	59	60	65	64	51
31221	Tobacco stemming & redrying .....	64	70	65	66	62
312210	Tobacco stemming & redrying .....	64	70	65	66	62
31222	Tobacco product mfg .....	59	60	65	64	50
312221	Cigarette mfg .....	60	61	67	64	52
312229	Other tobacco product mfg .....	49	49	55	61	39
313	Textile mills .....	58	68	70	64	70
3131	Fiber, yarn, & thread mills .....	61	70	77	70	80
31311	Fiber, yarn, & thread mills .....	61	70	77	70	80
313111	Yarn spinning mills .....	62	72	79	69	80
313112	Yarn texturing, throwing, & twisting mills .....	61	65	71	69	77
313113	Thread mills .....	55	78	82	(D)	(D)
3132	Fabric mills .....	63	71	72	64	68
31321	Broadwoven fabric mills .....	70	79	79	77	84
313210	Broadwoven fabric mills .....	70	79	79	77	84
31322	Narrow fabric mills & schiffli machine embroidery .....	49	57	60	49	46
313221	Narrow fabric mills .....	51	58	64	49	46
313222	Schiffli machine embroidery .....	41	48	45	50	45
31323	Nonwoven fabric mills .....	63	68	73	70	70
313230	Nonwoven fabric mills .....	63	68	73	70	70
31324	Knit fabric mills .....	53	57	56	42	48
313241	Weft knit fabric mills .....	51	59	64	33	37
313249	Other knit fabric & lace mills .....	55	54	50	58	67
3133	Textile & fabric finishing & fabric coating mills .....	50	62	65	60	70
31331	Textile & fabric finishing mills .....	50	63	66	62	70
313311	Broadwoven fabric finishing mills .....	50	62	67	62	72
313312	Textile & fabric finishing mills .....	<sup>a50</sup> 50	64	65	62	67
31332	Fabric coating mills .....	52	54	59	53	66
313320	Fabric coating mills .....	52	54	59	53	66
314	Textile product mills .....	50	51	53	54	53
3141	Textile furnishings mills .....	54	55	58	56	55
31411	Carpet & rug mills .....	62	65	69	64	76
314110	Carpet & rug mills .....	62	65	69	64	76
31412	Curtain & linen mills .....	49	48	48	49	42
314121	Curtain & drapery mills .....	38	37	37	35	28
314129	Other household textile product mills .....	55	53	55	58	49
3149	Other textile product mills .....	45	46	47	49	51
31491	Textile bag & canvas mills .....	39	33	35	42	34
314911	Textile bag mills .....	34	28	29	42	33
314912	Canvas & related product mills .....	43	37	40	42	34
31499	All other textile product mills .....	47	53	54	52	61
314991	Rope, cordage, & twine mills .....	<sup>a47</sup> 47	<sup>a50</sup> 50	46	51	58
314992	Tire cord & tire fabric mills .....	79	83	88	64	70
314999	All other miscellaneous textile product mills .....	44	51	53	51	61
315	Apparel mfg .....	36	45	47	28	38
3151	Apparel knitting mills .....	52	49	59	50	70
31511	Hosiery & sock mills .....	49	64	65	63	74
315111	Sheer hosiery mills .....	46	60	64	54	64
315119	Other hosiery & sock mills .....	50	66	65	69	82
31519	Other apparel knitting mills .....	57	37	54	43	67
315191	Outerwear knitting mills .....	54	35	54	41	68
315192	Underwear & nightwear knitting mills .....	<sup>a76</sup> 76	51	55	56	59
3152	Cut & sew apparel mfg .....	<sup>a35</sup> 35	<sup>a46</sup> 46	<sup>a47</sup> 47	26	<sup>a34</sup> 34
31521	Cut & sew apparel contractors .....	40	<sup>a37</sup> 37	40	27	35
315211	Men's & boys' cut & sew apparel contractors .....	<sup>a51</sup> 51	<sup>a40</sup> 40	40	25	<sup>a27</sup> 27
315212	Women's, girls', & infants' cut & sew apparel contractors .....	36	<sup>a36</sup> 36	<sup>a40</sup> 40	28	<sup>a40</sup> 40
31522	Men's & boys' cut & sew apparel mfg .....	47	<sup>a54</sup> 54	<sup>a51</sup> 51	25	28
315221	Men's & boys' cut & sew underwear & nightwear mfg .....	<sup>a38</sup> 38	<sup>a50</sup> 50	<sup>a50</sup> 50	<sup>a28</sup> 28	33
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg .....	41	<sup>a47</sup> 47	61	38	52
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg .....	45	<sup>a52</sup> 52	60	<sup>a28</sup> 28	39
315224	Men's & boys' cut & sew trouser, slack, & jean mfg .....	69	<sup>a82</sup> 82	<sup>a63</sup> 63	20	18
315225	Men's & boys' cut & sew work clothing mfg .....	36	45	38	32	37
315228	Men's & boys' cut & sew other outerwear mfg .....	<sup>a30</sup> 30	<sup>a25</sup> 25	24	33	47
31523	Women's & girls' cut & sew apparel mfg .....	<sup>a29</sup> 29	<sup>a43</sup> 43	<sup>a51</sup> 51	<sup>a25</sup> 25	<sup>a41</sup> 41
315231	Women's & girls' cut/ sew lingerie & nightwear mfg .....	27	41	39	37	41
315232	Women's & girls' cut & sew blouse & shirt mfg .....	<sup>a58</sup> 58	<sup>a48</sup> 48	<sup>a57</sup> 57	29	<sup>a41</sup> 41
315233	Women's & girls' cut & sew dress mfg .....	<sup>a45</sup> 45	<sup>a61</sup> 61	<sup>a65</sup> 65	<sup>a21</sup> 21	<sup>a48</sup> 48
315234	Women's & girls' cut & sew suit, coat, skirt mfg .....	<sup>a30</sup> 30	<sup>a37</sup> 37	<sup>a26</sup> 26	<sup>a30</sup> 30	44
315239	Women's & girls' cut & sew other outerwear mfg .....	<sup>a19</sup> 19	<sup>a38</sup> 38	<sup>a78</sup> 78	22	37
31529	Other cut & sew apparel mfg .....	39	39	29	26	37
315291	Infants' cut & sew apparel mfg .....	<sup>a43</sup> 43	41	42	45	45
315292	Fur & leather apparel mfg .....	<sup>a40</sup> 40	50	<sup>a50</sup> 50	40	49
315299	All other cut & sew apparel mfg .....	35	34	23	19	30
3159	Apparel accessories & other apparel mfg .....	<sup>a31</sup> 31	35	37	37	42
31599	Apparel accessories & other apparel mfg .....	<sup>a31</sup> 31	35	37	37	42
315991	Hat, cap, & millinery mfg .....	<sup>a30</sup> 30	42	40	40	48
315992	Glove & mitten mfg .....	22	36	38	30	34
315993	Men's & boys' neckwear mfg .....	39	40	38	30	32
315999	Other apparel accessories & other apparel mfg .....	32	31	35	39	46

Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
316	Leather & allied product mfg .....	27	35	41	38	38
3161	Leather & hide tanning & finishing .....	<sup>a50</sup>	58	59	57	57
31611	Leather & hide tanning & finishing .....	<sup>a50</sup>	58	59	57	57
316110	Leather & hide tanning & finishing .....	<sup>a50</sup>	58	59	57	57
3162	Footwear mfg .....	<sup>a25</sup>	30	34	33	37
31621	Footwear mfg .....	<sup>a25</sup>	30	34	33	37
316211	Rubber & plastics footwear mfg .....	<sup>a29</sup>	33	36	37	39
316212	House slipper mfg .....	27	36	33	28	43
316213	Men's footwear (except athletic) mfg .....	37	29	34	30	34
316214	Women's footwear (except athletic) mfg .....	<sup>a8</sup>	<sup>a25</sup>	27	37	40
316219	Other footwear mfg .....	<sup>a50</sup>	<sup>a43</sup>	44	38	<sup>a39</sup>
3169	Other leather & allied product mfg .....	22	33	<sup>a43</sup>	<sup>a36</sup>	34
31699	Other leather & allied product mfg .....	22	33	<sup>a43</sup>	<sup>a36</sup>	34
316991	Luggage mfg .....	24	33	<sup>a42</sup>	<sup>a34</sup>	30
316992	Women's handbag & purse mfg .....	<sup>a47</sup>	50	<sup>a53</sup>	<sup>a35</sup>	<sup>a39</sup>
316993	Personal leather good (except women's handbag & purse) mfg .....	<sup>a9</sup>	19	34	<sup>a36</sup>	37
316999	All other leather good mfg .....	33	42	46	40	39
321	Wood product mfg .....	41	41	48	49	47
3211	Sawmills & wood preservation .....	46	42	52	50	48
32111	Sawmills & wood preservation .....	46	42	52	50	48
321113	Sawmills .....	46	42	52	50	48
321114	Wood preservation .....	44	47	57	43	41
3212	Veneer, plywood, & engineered wood product mfg .....	46	52	62	67	64
32121	Veneer, plywood, & engineered wood product mfg .....	46	52	62	67	64
321211	Hardwood veneer & plywood mfg .....	44	61	73	52	52
321212	Softwood veneer & plywood mfg .....	79	66	74	92	87
321213	Engineered wood member (except truss) mfg .....	53	57	60	72	50
321214	Truss mfg .....	39	48	55	53	49
321219	Reconstituted wood product mfg .....	42	45	59	79	77
3219	Other wood product mfg .....	38	37	42	43	41
32191	Millwork .....	47	50	54	53	44
321911	Wood window & door mfg .....	61	59	59	55	47
321912	Cut stock, resawing lumber, & planing .....	46	48	51	66	49
321918	Other millwork (including flooring) .....	32	40	48	41	35
32192	Wood container & pallet mfg .....	35	45	45	47	44
321920	Wood container & pallet mfg .....	35	45	45	47	44
32199	All other wood product mfg .....	30	28	34	36	38
321991	Manufactured home (mobile home) mfg .....	26	22	29	34	36
321992	Prefabricated wood building mfg .....	31	35	35	39	42
321999	All other miscellaneous wood product mfg .....	39	50	52	40	43
322	Paper mfg .....	67	71	74	74	74
3221	Pulp, paper, & paperboard mills .....	78	84	89	90	94
32211	Pulp mills .....	88	86	90	90	90
322110	Pulp mills .....	88	86	90	90	90
32212	Paper mills .....	75	84	89	93	94
322121	Paper (except newsprint) mills .....	75	83	88	92	94
322122	Newsprint mills .....	85	96	97	(D)	99
32213	Paperboard mills .....	81	84	91	84	93
322130	Paperboard mills .....	81	84	91	84	93
3222	Converted paper product mfg .....	59	61	64	63	62
32221	Paperboard container mfg .....	57	59	62	62	60
322211	Corrugated & solid fiber box mfg .....	57	59	62	67	61
322212	Folding paperboard box mfg .....	62	62	66	61	63
322213	Setup paperboard box mfg .....	45	48	51	34	35
322214	Fiber can, tube, drum, & similar products mfg .....	39	46	54	52	55
322215	Nonfolding sanitary food container mfg .....	62	61	62	60	65
32222	Paper bag & coated & treated paper mfg .....	61	62	63	64	66
322221	Coated & laminated packaging paper & plastics film mfg .....	50	55	58	60	62
322222	Coated & laminated paper mfg .....	62	64	66	62	66
322223	Plastics, foil, & coated paper bag mfg .....	43	55	44	(D)	66
322224	Uncoated paper & multiwall bag mfg .....	61	65	62	68	64
322225	Laminated aluminum foil mfg for flexible packaging uses .....	70	69	70	68	73
322226	Surface-coated paperboard mfg .....	55	44	44	74	72
32223	Stationery product mfg .....	56	55	57	55	55
322231	Die-cut paper & paperboard office supplies mfg .....	58	54	56	70	60
322232	Envelope mfg .....	62	66	66	60	62
322233	Stationery, tablet, & related product mfg .....	46	<sup>a43</sup>	46	39	43
32229	Other converted paper product mfg .....	64	71	74	69	67
322291	Sanitary paper product mfg .....	74	84	87	78	77
322299	All other converted paper product mfg .....	52	55	52	53	50
323	Printing & related support activities .....	50	54	58	57	57
3231	Printing & related support activities .....	50	54	58	57	57
32311	Printing .....	51	55	59	57	57
323110	Commercial lithographic printing .....	59	66	64	59	57
323111	Commercial gravure printing .....	72	63	76	66	67
323112	Commercial flexographic printing .....	54	59	64	55	54
323113	Commercial screen printing .....	38	37	44	50	50
323114	Quick printing .....	26	33	48	54	61
323115	Digital printing .....	50	43	48	59	44
323116	Manifold business form printing .....	57	52	50	54	56
323117	Book printing .....	44	55	54	70	70
323118	Blankbook, looseleaf binder, & device mfg .....	39	39	49	60	58
323119	Other commercial printing .....	52	50	59	51	49
32312	Support activities for printing .....	40	46	56	56	52
323121	Tradebinding & related work .....	32	39	55	48	50
323122	Prepress services .....	45	50	57	59	53
324	Petroleum & coal products mfg .....	67	71	68	61	70
3241	Petroleum & coal products mfg .....	67	71	68	61	70
32411	Petroleum refineries .....	89	92	91	85	88
324110	Petroleum refineries .....	89	92	91	85	88
32412	Asphalt paving, roofing, & saturated materials mfg .....	24	29	33	28	32
324121	Asphalt paving mixture & block mfg .....	16	18	24	19	22
324122	Asphalt shingle & coating materials mfg .....	54	<sup>a63</sup>	<sup>a59</sup>	63	56
32419	Other petroleum & coal products mfg .....	41	50	51	45	48
324191	Petroleum lubricating oil & grease mfg .....	41	45	47	41	42
324199	All other petroleum & coal products mfg .....	43	79	79	75	81

Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
325	Chemical mfg .....	55	58	62	57	63
3251	Basic chemical mfg .....	65	73	77	75	78
32511	Petrochemical mfg .....	77	92	92	88	88
325110	Petrochemical mfg .....	77	92	92	88	88
32512	Industrial gas mfg .....	57	<sup>a65</sup> 64	64	79	78
325120	Industrial gas mfg .....	57	<sup>a65</sup> 64	64	79	78
32513	Dye & pigment mfg .....	61	69	75	77	81
325131	Inorganic dye & pigment mfg .....	71	83	86	89	94
325132	Synthetic organic dye & pigment mfg .....	53	57	63	64	68
32518	Other basic inorganic chemical mfg .....	61	64	68	68	74
325181	Alkalies & chlorine mfg .....	70	78	85	74	85
325182	Carbon black mfg .....	67	75	83	87	93
325188	All other basic inorganic chemical mfg .....	59	63	66	67	72
32519	Other basic organic chemical mfg .....	66	80	86	78	78
325191	Gum & wood chemical mfg .....	74	77	72	81	87
325192	Cyclic crude & intermediate mfg .....	<sup>a65</sup> 64	76	76	65	<sup>a77</sup> 77
325193	Ethyl alcohol mfg .....	64	84	85	(D)	(D)
325199	All other basic organic chemical mfg .....	66	81	88	80	77
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg .....	68	76	85	77	86
32521	Resin & synthetic rubber mfg .....	68	75	85	77	85
325211	Plastics material & resin mfg .....	73	77	88	79	88
325212	Synthetic rubber mfg .....	48	62	70	62	70
32522	Artificial & synthetic fibers & filaments mfg .....	68	78	86	78	88
325221	Cellulosic organic fiber mfg .....	76	<sup>a77</sup> 78	<sup>a70</sup> 70	70	86
325222	Noncellulosic organic fiber mfg .....	68	78	87	78	88
3253	Pesticide, fertilizer, & other agricultural chemical mfg .....	48	56	57	69	74
32531	Fertilizer mfg .....	59	65	73	73	71
325311	Nitrogenous fertilizer mfg .....	87	80	93	91	93
325312	Phosphatic fertilizer mfg .....	91	87	87	91	90
325314	Fertilizer (mixing only) mfg .....	34	<sup>a42</sup> 34	<sup>a45</sup> 44	44	38
32532	Pesticide & other agricultural chemical mfg .....	44	52	50	66	76
325320	Pesticide & other agricultural chemical mfg .....	44	52	50	66	76
3254	Pharmaceutical & medicine mfg .....	56	53	60	47	54
32541	Pharmaceutical & medicine mfg .....	56	53	60	47	54
325411	Medicinal & botanical mfg .....	68	<sup>a56</sup> 68	<sup>a61</sup> 61	53	62
325412	Pharmaceutical preparation mfg .....	53	52	58	45	52
325413	In-vitro diagnostic substance mfg .....	<sup>a63</sup> 63	<sup>a63</sup> 63	<sup>a69</sup> 69	<sup>a52</sup> 52	<sup>a54</sup> 54
325414	Biological product (except diagnostic) mfg .....	75	64	65	53	<sup>a58</sup> 58
3255	Paint, coating, & adhesive mfg .....	40	51	44	42	51
32551	Paint & coating mfg .....	40	52	48	45	54
325510	Paint & coating mfg .....	40	52	48	45	54
32552	Adhesive mfg .....	41	48	36	37	43
325520	Adhesive mfg .....	41	48	36	37	43
3256	Soap, cleaning compound, & toilet preparation mfg .....	49	51	54	49	56
32561	Soap & cleaning compound mfg .....	50	53	58	49	55
325611	Soap & other detergent mfg .....	50	59	55	45	56
325612	Polish & other sanitation good mfg .....	44	41	52	48	49
325613	Surface active agent mfg .....	71	72	81	60	63
32562	Toilet preparation mfg .....	49	48	50	50	56
325620	Toilet preparation mfg .....	49	48	50	50	56
3259	Other chemical product mfg .....	44	49	52	59	60
32591	Printing ink mfg .....	27	<sup>a29</sup> 27	33	34	45
325910	Printing ink mfg .....	27	<sup>a29</sup> 27	33	34	45
32592	Explosives mfg .....	36	30	32	41	38
325920	Explosives mfg .....	36	30	32	41	38
32599	All other chemical product & preparation mfg .....	47	54	57	65	64
325991	Custom compounding of purchased resin .....	51	69	73	57	50
325992	Photographic film, paper, plate, & chemical mfg .....	58	70	75	72	71
325998	All other miscellaneous chemical product & preparation mfg .....	38	40	43	65	65
326	Plastics & rubber products mfg .....	53	59	65	60	59
3261	Plastics product mfg .....	52	58	63	58	57
32611	Unsupported plastics film, sheet, & bag mfg .....	62	67	74	66	66
326111	Unsupported plastics bag mfg .....	66	<sup>a66</sup> 66	74	77	76
326112	Unsupported plastics packaging film & sht mfg .....	61	63	65	77	71
326113	Unsupported plastics film & sheet (except packaging) mfg .....	60	69	75	59	61
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg .....	58	61	65	58	68
326121	Unsupported plastics profile shape mfg .....	63	62	56	66	65
326122	Plastics pipe & pipe fitting mfg .....	52	60	81	51	74
32613	Laminated plastics plate, sheet, & shape mfg .....	44	48	50	64	65
326130	Laminated plastics plate, sheet, & shape mfg .....	44	48	50	64	65
32614	Polystyrene foam product mfg .....	47	76	74	50	61
326140	Polystyrene foam product mfg .....	47	76	74	50	61
32615	Urethane & other foam product (except polystyrene) mfg .....	50	52	51	61	58
326150	Urethane & other foam product (except polystyrene) mfg .....	50	52	51	61	58
32616	Plastics bottle mfg .....	62	74	77	72	70
326160	Plastics bottle mfg .....	62	74	77	72	70
32619	Other plastics product mfg .....	49	54	61	56	53
326191	Plastics plumbing fixture mfg .....	34	35	51	19	44
326192	Resilient floor covering mfg .....	63	65	64	63	57
326199	All other plastics product mfg .....	49	55	61	60	53
3262	Rubber product mfg .....	60	65	70	70	71
32621	Tire mfg .....	73	78	82	76	84
326211	Tire mfg (except retreading) .....	77	83	88	83	84
326212	Tire retreading .....	35	36	38	32	(NA)
32622	Rubber & plastics hoses & belting mfg .....	53	55	62	66	66
326220	Rubber & plastics hoses & belting mfg .....	53	55	62	66	66
32629	Other rubber product mfg .....	62	60	64	66	63
326291	Rubber product mfg for mechanical use .....	56	67	71	68	71
326299	All other rubber product mfg .....	49	54	58	64	57

Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
327	Nonmetallic mineral product mfg . . . . .	45	48	57	46	46
3271	Clay product & refractory mfg . . . . .	57	60	62	61	62
32711	Pottery, ceramics, & plumbing fixture mfg . . . . .	60	64	63	60	61
327111	Vitreous china plumbing fixture & bathroom accessories mfg . . . . .	80	89	90	89	82
327112	Vitreous china, fine earthenware, & other pottery product mfg . . . . .	54	53	53	56	56
327113	Porcelain electrical supply mfg . . . . .	55	65	61	49	55
32712	Clay building material & refractories mfg . . . . .	55	57	61	62	62
327121	Brick & structural clay tile mfg . . . . .	84	88	90	92	82
327122	Ceramic wall & floor tile mfg . . . . .	38	42	47	70	63
327123	Other structural clay product mfg . . . . .	60	63	57	67	42
327124	Clay refractory mfg . . . . .	37	39	49	39	<sup>a</sup> 46
327125	Nonclay refractory mfg . . . . .	56	58	59	55	62
3272	Glass & glass product mfg . . . . .	56	68	78	73	73
32721	Glass & glass product mfg . . . . .	56	68	78	73	73
327211	Flat glass mfg . . . . .	72	77	85	83	86
327212	Other pressed & blown glass & glassware mfg . . . . .	52	72	78	83	85
327213	Glass container mfg . . . . .	91	88	87	91	91
327215	Glass product mfg made of purchased glass . . . . .	48	58	72	59	58
3273	Cement & concrete product mfg . . . . .	34	35	44	31	30
32731	Cement mfg . . . . .	64	66	74	81	85
327310	Cement mfg . . . . .	64	66	74	81	85
32732	Ready-mix concrete mfg . . . . .	24	24	33	20	19
327320	Ready-mix concrete mfg . . . . .	24	24	33	20	19
32733	Concrete pipe, brick, & block mfg . . . . .	49	48	47	42	43
327331	Concrete block & brick mfg . . . . .	51	50	44	50	42
327332	Concrete pipe mfg . . . . .	47	46	50	36	43
32739	Other concrete product mfg . . . . .	44	51	60	48	49
327390	Other concrete product mfg . . . . .	44	51	60	48	49
3274	Lime & gypsum product mfg . . . . .	70	75	82	83	80
32741	Lime mfg . . . . .	69	69	71	69	82
327410	Lime mfg . . . . .	69	69	71	69	82
32742	Gypsum product mfg . . . . .	71	77	85	87	79
327420	Gypsum product mfg . . . . .	71	77	85	87	79
3279	Other nonmetallic mineral product mfg . . . . .	51	57	60	63	58
32791	Abrasive product mfg . . . . .	37	45	48	55	57
327910	Abrasive product mfg . . . . .	37	45	48	55	57
32799	All other nonmetallic mineral product mfg . . . . .	61	66	69	67	59
327991	Cut stone & stone product mfg . . . . .	44	45	46	<sup>a</sup> 53	54
327992	Ground or treated mineral & earth mfg . . . . .	54	54	77	61	57
327993	Mineral wool mfg . . . . .	80	76	77	88	64
327999	All other miscellaneous nonmetallic mineral product mfg . . . . .	56	60	59	54	55
331	Primary metal mfg . . . . .	59	61	70	68	74
3311	Iron & steel mills & ferroalloy mfg . . . . .	76	64	86	76	87
33111	Iron & steel mills & ferroalloy mfg . . . . .	76	64	86	76	87
331111	Iron & steel mills . . . . .	77	64	87	76	88
331112	Electrometallurgical ferroalloy product mfg . . . . .	56	68	73	69	64
3312	Steel product mfg from purchased steel . . . . .	54	62	70	65	67
33121	Iron & steel pipes & tubes mfg from purchased steel . . . . .	54	58	65	59	61
331210	Iron & steel pipes & tubes mfg from purchased steel . . . . .	54	58	65	59	61
33122	Rolling & drawing of purchased steel . . . . .	54	66	75	70	73
331221	Cold-rolled steel shape mfg . . . . .	50	64	73	67	76
331222	Steel wire drawing . . . . .	58	68	76	72	70
3313	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 63	73	78	79	82
33131	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 63	73	78	79	82
331311	Alumina refining . . . . .	<sup>a</sup> 84	<sup>a</sup> 72	71	80	81
331312	Primary aluminum production . . . . .	<sup>a</sup> 64	79	86	87	87
331314	Secondary smelting & alloying of aluminum . . . . .	65	69	83	81	77
331315	Aluminum sheet, plate, & foil mfg . . . . .	<sup>a</sup> 67	77	85	78	83
331316	Aluminum extruded product mfg . . . . .	55	64	63	75	77
331319	Other aluminum rolling & drawing . . . . .	55	70	77	69	82
3314	Nonferrous metal (except aluminum) production & processing . . . . .	61	64	68	66	74
33141	Nonferrous metal (except aluminum) smelting & refining . . . . .	58	54	70	64	78
331411	Primary smelting & refining of copper . . . . .	70	41	75	89	97
331419	Other nonferrous metal primary smelting & refining . . . . .	51	66	66	55	69
33142	Copper rolling, drawing, extruding, & alloying . . . . .	66	80	84	80	82
331421	Copper rolling, drawing, & extruding . . . . .	68	83	89	84	87
331422	Copper rolling (except mechanical) drawing . . . . .	69	72	81	74	77
331423	Secondary wire (except mechanical) drawing . . . . .	46	64	62	<sup>a</sup> 62	58
33149	Other nonferrous metal rolling, drawing, extruding, & alloying . . . . .	59	62	59	60	67
331491	Other nonferrous metal rolling, drawing, extruding, & alloying . . . . .	61	64	59	58	66
331492	Other nonferrous metal secondary smelting, refining, & alloying . . . . .	54	56	59	63	69
3315	Foundries . . . . .	46	51	54	58	60
33151	Ferrous metal foundries . . . . .	45	52	52	59	61
331511	Iron foundries . . . . .	45	51	53	60	64
331512	Steel investment foundries . . . . .	52	56	50	52	49
331513	Steel foundries (except investment) . . . . .	39	51	49	63	67
33152	Nonferrous metal foundries . . . . .	47	50	57	57	58
331521	Aluminum die-casting foundries . . . . .	50	56	72	65	64
331522	Nonferrous (except aluminum) die-casting foundries . . . . .	49	46	58	56	55
331524	Aluminum foundries (except die-casting) . . . . .	40	47	50	54	60
331525	Copper foundries (except die-casting) . . . . .	36	40	43	43	44
331528	Other nonferrous foundries (except die-casting) . . . . .	<sup>a</sup> 65	70	70	61	63
332	Fabricated metal product mfg . . . . .	40	48	50	49	51
3321	Forging & stamping . . . . .	43	50	52	41	45
33211	Forging & stamping . . . . .	43	50	52	41	45
332111	Iron & steel forging . . . . .	37	48	51	54	60
332112	Nonferrous forging . . . . .	54	54	57	61	61
332114	Custom roll forming . . . . .	44	46	47	40	45
332115	Crown & closure mfg . . . . .	41	49	37	49	61
332116	Metal stamping . . . . .	43	49	53	36	39
332117	Powder metallurgy part mfg . . . . .	54	65	70	37	59
3322	Cutlery & handtool mfg . . . . .	49	56	56	49	52
33221	Cutlery & handtool mfg . . . . .	49	56	56	49	52
332211	Cutlery & flatware (except precious) mfg . . . . .	46	61	62	66	59
332212	Hand & edge tool mfg . . . . .	48	54	53	47	47
332213	Saw blade & handsaw mfg . . . . .	53	61	66	57	69
332214	Kitchen utensil, pot, & pan mfg . . . . .	57	56	56	31	50

**Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
332	Fabricated metal product mfg—Con.					
3323	Architectural & structural metals mfg	38	44	45	45	48
33231	Plate work & fabricated structural product mfg	37	45	46	44	54
332311	Prefabricated metal building & component mfg	50	53	52	40	53
332312	Fabricated structural metal mfg	36	44	47	48	54
332313	Plate work mfg	32	39	38	36	56
33232	Ornamental & architectural metal products mfg	38	43	44	45	45
332321	Metal window & door mfg	40	44	49	44	46
332322	Sheet metal work mfg	37	43	42	46	44
332323	Ornamental & architectural metal work mfg	38	44	46	45	46
3324	Boiler, tank, & shipping container mfg	51	52	53	56	58
33241	Power boiler & heat exchanger mfg	46	43	42	48	53
332410	Power boiler & heat exchanger mfg	46	43	42	48	53
33242	Metal tank (heavy gauge) mfg	42	44	49	51	50
332420	Metal tank (heavy gauge) mfg	42	44	49	51	50
33243	Metal can, box, & other metal container (light gauge) mfg	61	63	63	63	66
332431	Metal can mfg	68	72	73	73	77
332439	Other metal container mfg	45	43	45	45	43
3325	Hardware mfg	47	49	47	50	51
33251	Hardware mfg	47	49	47	50	51
332510	Hardware mfg	47	49	47	50	51
3326	Spring & wire product mfg	45	53	54	57	60
33261	Spring & wire product mfg	45	53	54	57	60
332611	Spring (heavy gauge) mfg	50	50	52	53	58
332612	Spring (light gauge) mfg	41	56	61	55	63
332618	Other fabricated wire product mfg	48	53	51	59	60
3327	Machine shops, turned product, & screw, nut, & bolt mfg	31	43	46	51	47
33271	Machine shops	29	44	47	52	45
332710	Machine shops	29	44	47	52	45
33272	Turned product & screw, nut, & bolt mfg	36	42	45	50	51
332721	Precision turned product mfg	31	40	41	44	47
332722	Bolt, nut, screw, rivet, & washer mfg	44	45	50	57	57
3328	Coating, engraving, heat treating, & allied activities	46	51	57	56	60
33281	Coating, engraving, heat treating, & allied activities	46	51	57	56	60
332811	Metal heat treating	53	52	62	63	69
332812	Metal coating/engraving (exc jewelry/silverware)/allied services	56	55	60	64	65
332813	Electroplating, plating, polishing, anodizing, & coloring	38	46	53	47	52
3329	Other fabricated metal product mfg	47	53	54	48	53
33291	Metal valve mfg	46	51	53	53	56
332911	Industrial valve mfg	44	49	48	54	56
332912	Fluid power valve & hose fitting mfg	44	51	55	53	58
332913	Plumbing fixture fitting & trim mfg	52	53	55	50	50
332919	Other metal valve & pipe fitting mfg	50	58	62	53	59
33299	All other fabricated metal product mfg	49	54	55	45	50
332991	Ball & roller bearing mfg	58	61	75	68	73
332992	Small arms ammunition mfg	46	51	56	45	52
332993	Ammunition (except small arms) mfg	36	29	31	17	17
332994	Small arms mfg	44	55	56	49	44
332995	Other ordnance & accessories mfg	57	56	59	38	47
332996	Fabricated pipe & pipe fitting mfg	52	56	41	38	55
332997	Industrial pattern mfg	38	49	52	50	55
332998	Enameled iron & metal sanitary ware mfg	54	59	64	39	58
332999	All other miscellaneous fabricated metal product mfg	45	56	57	51	54
333	Machinery mfg	29	45	46	47	51
3331	Agriculture, construction, & mining machinery mfg	41	46	46	51	56
33311	Agricultural implement mfg	36	46	42	48	53
333111	Farm machinery & equipment mfg	36	48	42	52	59
333112	Lawn & garden tractor & home lawn & garden equipment mfg	34	43	42	39	42
33312	Construction machinery mfg	45	47	50	56	58
333120	Construction machinery mfg	45	47	50	56	58
33313	Mining & oil & gas field machinery mfg	46	45	47	49	57
333131	Mining machinery & equipment mfg	44	39	47	31	52
333132	Oil & gas field machinery & equipment mfg	47	49	47	63	60
3332	Industrial machinery mfg	14	46	39	41	45
33321	Sawmill & woodworking machinery mfg	32	32	35	46	49
333210	Sawmill & woodworking machinery mfg	32	32	35	46	49
33322	Plastics & rubber industry machinery mfg	33	51	53	44	45
333220	Plastics & rubber industry machinery mfg	33	51	53	44	45
33329	Other industrial machinery mfg	13	46	38	41	45
333291	Paper industry machinery mfg	35	43	38	48	46
333292	Textile machinery mfg	*25	*35	29	34	44
333293	Printing machinery & equipment mfg	30	41	42	41	45
333294	Food product machinery mfg	40	41	43	46	38
333295	Semiconductor machinery mfg	18	*60	*36	*37	47
333298	All other industrial machinery mfg	6	39	38	42	46
3333	Commercial & service industry machinery mfg	34	41	45	46	45
33331	Commercial & service industry machinery mfg	34	41	45	46	45
333311	Automatic vending machine mfg	*26	34	36	71	61
333312	Commercial laundry, drycleaning, & pressing machine mfg	29	50	59	51	47
333313	Office machinery mfg	*30	44	47	42	35
333314	Optical instrument & lens mfg	32	42	45	28	34
333315	Photographic & photocopying equipment mfg	41	38	43	62	58
333319	Other commercial & service industry machinery mfg	30	45	47	46	45
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg	37	44	46	47	48
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg	37	44	46	47	48
333411	Air purification equipment mfg	34	40	42	43	44
333412	Industrial & commercial fan & blower mfg	39	44	43	40	36
333414	Heating equipment (except warm air furnaces) mfg	45	48	49	44	49
333415	AC & warm air heating & commercial/industrial refig equip mfg	36	43	47	49	49
3335	Metalworking machinery mfg	32	45	49	49	51
33351	Metalworking machinery mfg	32	45	49	49	51
333511	Industrial mold mfg	26	40	46	47	49
333512	Machine tool (metal cutting types) mfg	33	43	49	50	53
333513	Machine tool (metal forming types) mfg	30	45	48	57	60
333514	Special die & tool, die set, jig, & fixture mfg	34	44	47	48	50
333515	Cutting tool & machine tool accessory mfg	41	59	57	55	56
333516	Rolling mill machinery & equipment mfg	30	35	45	52	70
333518	Other metalworking machinery mfg	31	46	48	37	42

**Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
333	Machinery mfg—Con.					
3336	Engine, turbine, & power transmission equipment mfg . . . . .	46	52	53	54	57
33361	Engine, turbine, & power transmission equipment mfg . . . . .	46	52	53	54	57
333611	Turbine & turbine generator set unit mfg . . . . .	70	61	49	55	53
333612	Speed changer, industrial high-speed drive, & gear mfg . . . . .	41	50	53	50	54
333613	Mechanical power transmission equipment mfg . . . . .	41	43	45	55	60
333618	Other engine equipment mfg . . . . .	43	52	57	54	58
3339	Other general-purpose machinery mfg . . . . .	38	43	45	45	52
33391	Pump & compressor mfg . . . . .	42	44	46	52	54
333911	Pump & pumping equipment mfg . . . . .	42	44	47	55	52
333912	Air & gas compressor mfg . . . . .	42	44	44	47	55
333913	Measuring & dispensing pump mfg . . . . .	<sup>a45</sup>	<sup>a44</sup>	50	57	56
33392	Material handling equipment mfg . . . . .	33	43	45	45	48
333921	Elevator & moving stairway mfg . . . . .	53	51	56	62	52
333922	Conveyor & conveying equipment mfg . . . . .	29	41	42	43	47
333923	Overhead traveling crane, hoist, & monorail system mfg . . . . .	34	40	44	49	51
333924	Industrial truck, tractor, trailer, & stacker machinery mfg . . . . .	35	46	45	42	47
33399	All other general-purpose machinery mfg . . . . .	39	43	45	43	53
333991	Power-driven handtool mfg . . . . .	52	59	68	65	67
333992	Welding & soldering equipment mfg . . . . .	40	46	47	52	57
333993	Packaging machinery mfg . . . . .	34	34	41	49	49
333994	Industrial process furnace & oven mfg . . . . .	34	46	42	39	42
333995	Fluid power cylinder & actuator mfg . . . . .	41	40	43	51	55
333996	Fluid power pump & motor mfg . . . . .	42	47	46	60	66
333997	Scale & balance (except laboratory) mfg . . . . .	20	22	44	44	44
333999	All other miscellaneous general-purpose machinery mfg . . . . .	39	44	43	31	49
334	Computer & electronic product mfg . . . . .	40	53	56	54	58
3341	Computer & peripheral equipment mfg . . . . .	<sup>a40</sup>	47	50	<sup>a51</sup>	57
33411	Computer & peripheral equipment mfg . . . . .	<sup>a40</sup>	47	50	<sup>a51</sup>	57
334111	Electronic computer mfg . . . . .	<sup>a42</sup>	<sup>a48</sup>	49	<sup>a50</sup>	62
334112	Computer storage device mfg . . . . .	<sup>a29</sup>	36	43	51	55
334113	Computer terminal mfg . . . . .	<sup>a30</sup>	29	<sup>a33</sup>	<sup>a51</sup>	64
334119	Other computer peripheral equipment mfg . . . . .	50	61	59	53	49
3342	Communications equipment mfg . . . . .	<sup>a39</sup>	56	61	60	55
33421	Telephone apparatus mfg . . . . .	<sup>a36</sup>	59	70	65	54
334210	Telephone apparatus mfg . . . . .	<sup>a36</sup>	59	70	65	54
33422	Radio & TV broadcasting & wireless communications equipment mfg . . . . .	<sup>a42</sup>	<sup>a54</sup>	54	57	59
334220	Radio & TV broadcasting & wireless communications equipment mfg . . . . .	<sup>a42</sup>	<sup>a54</sup>	54	57	59
33429	Other communications equipment mfg . . . . .	43	47	53	45	42
334290	Other communications equipment mfg . . . . .	43	47	53	45	42
3343	Audio & video equipment mfg . . . . .	42	37	39	44	41
33431	Audio & video equipment mfg . . . . .	42	37	39	44	41
334310	Audio & video equipment mfg . . . . .	42	37	39	44	41
3344	Semiconductor & other electronic component mfg . . . . .	<sup>a40</sup>	64	69	<sup>a57</sup>	70
33441	Semiconductor & other electronic component mfg . . . . .	<sup>a40</sup>	64	69	<sup>a57</sup>	70
334411	Electron tube mfg . . . . .	58	70	63	69	70
334412	Bare printed circuit board mfg . . . . .	<sup>a34</sup>	53	60	48	61
334413	Semiconductor & related device mfg . . . . .	<sup>a41</sup>	<sup>a69</sup>	<sup>a84</sup>	<sup>a58</sup>	<sup>a77</sup>
334414	Electronic capacitor mfg . . . . .	<sup>a35</sup>	78	77	67	70
334415	Electronic resistor mfg . . . . .	28	45	40	44	52
334416	Electronic coil, transformer, & other inductor mfg . . . . .	34	47	46	42	42
334417	Electronic connector mfg . . . . .	47	54	50	<sup>a55</sup>	<sup>a59</sup>
334418	Printed circuit assembly (electronic assembly) mfg . . . . .	<sup>a51</sup>	64	54	<sup>a56</sup>	58
334419	Other electronic component mfg . . . . .	27	42	37	65	54
3345	Navigational, measuring, medical, & control instruments mfg . . . . .	40	42	45	45	46
33451	Navigational, measuring, medical, & control instruments mfg . . . . .	40	42	45	45	46
334510	Electromedical & electrotherapeutic apparatus mfg . . . . .	49	54	54	49	52
334511	Search, detection, navigation, & guidance instrument mfg . . . . .	43	40	46	46	45
334512	Automatic environmental control mfg . . . . .	47	51	56	51	55
334513	Industrial process control instrument mfg . . . . .	31	38	42	37	37
334514	Totalizing fluid meter & counting device mfg . . . . .	52	52	53	42	51
334515	Electricity measuring & testing instrument mfg . . . . .	35	47	45	(NA)	(NA)
334516	Analytical laboratory instrument mfg . . . . .	33	33	34	38	41
334517	Irradiation apparatus mfg . . . . .	49	47	44	54	57
334518	Watch, clock, & part mfg . . . . .	<sup>a24</sup>	30	31	33	36
334519	Other measuring & controlling device mfg . . . . .	36	43	37	43	49
3346	Mfg & reproducing magnetic & optical media . . . . .	64	58	62	78	74
33461	Mfg & reproducing magnetic & optical media . . . . .	64	58	62	78	74
334611	Software reproducing . . . . .	68	48	<sup>a47</sup>	82	(NA)
334612	Prerecorded CD (except software), tape, & record reproducing . . . . .	58	59	63	80	74
334613	Magnetic & optical recording media mfg . . . . .	77	64	71	73	74
335	Electrical equipment, appliance, & component mfg . . . . .	45	53	56	53	54
3351	Electric lighting equipment mfg . . . . .	39	47	49	48	50
33511	Electric lamp bulb & part mfg . . . . .	53	62	59	52	55
335110	Electric lamp bulb & part mfg . . . . .	53	62	59	52	55
33512	Lighting fixture mfg . . . . .	36	43	45	46	48
335121	Residential electric lighting fixture mfg . . . . .	27	35	39	42	42
335122	Commercial/industrial/institutional electric lighting fixture mfg . . . . .	38	46	47	50	52
335129	Other lighting equipment mfg . . . . .	40	46	49	45	48
3352	Household appliance mfg . . . . .	51	52	57	57	53
33521	Small electrical appliance mfg . . . . .	47	47	51	51	54
335211	Electric housewares & household fan mfg . . . . .	44	43	55	45	48
335212	Household vacuum cleaner mfg . . . . .	49	51	48	60	65
33522	Major appliance mfg . . . . .	53	54	59	60	53
335221	Household cooking appliance mfg . . . . .	38	41	43	51	38
335222	Household refrigerator & home freezer mfg . . . . .	58	53	59	56	52
335224	Household laundry equipment mfg . . . . .	77	75	75	68	74
335228	Other major household appliance mfg . . . . .	54	54	64	67	61
3353	Electrical equipment mfg . . . . .	42	51	54	48	51
33531	Electrical equipment mfg . . . . .	42	51	54	48	51
335311	Power, distribution, & specialty transformer mfg . . . . .	52	61	63	55	60
335312	Motor & generator mfg . . . . .	45	49	61	45	50
335313	Switchgear & switchboard apparatus mfg . . . . .	41	59	58	58	51
335314	Relay & industrial control mfg . . . . .	38	45	44	44	48

**Table 1b. National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001 — Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
335	Electrical equipment, appliance, & component mfg—Con.					
3359	Other electrical equipment & component mfg	47	57	61	57	59
33591	Battery mfg	52	59	68	69	62
335911	Storage battery mfg	51	63	67	68	57
335912	Primary battery mfg	54	54	69	70	70
33592	Communication & energy wire & cable mfg	53	67	73	72	75
335921	Fiber optic cable mfg	54	78	73	73	74
335929	Other communication & energy wire mfg	53	64	72	72	76
33593	Wiring device mfg	51	56	58	55	59
335931	Current-carrying wiring device mfg	51	55	55	57	56
335932	Noncurrent-carrying wiring device mfg	51	57	63	54	63
33599	All other electrical equipment & component mfg	36	48	50	44	46
335991	Carbon & graphite product mfg	44	54	63	70	73
335999	All other miscellaneous electrical equipment & component mfg	35	47	47	40	40
336	Transportation equipment mfg	45	48	54	55	55
3361	Motor vehicle mfg	51	55	62	58	56
33611	Automobile & light duty motor vehicle mfg	54	55	61	59	55
336111	Automobile mfg	49	55	57	54	56
336112	Light truck & utility vehicle mfg	61	56	64	63	55
33612	Heavy duty truck mfg	29	44	70	49	71
336120	Heavy duty truck mfg	29	44	70	49	71
3362	Motor vehicle body & trailer mfg	30	34	43	44	39
33621	Motor vehicle body & trailer mfg	30	34	43	44	39
336211	Motor vehicle body mfg	37	43	46	42	36
336212	Truck trailer mfg	26	36	54	56	55
336213	Motor home mfg	26	27	34	38	30
336214	Travel trailer & camper mfg	28	29	38	41	39
3363	Motor vehicle parts mfg	52	57	64	58	63
33631	Motor vehicle gasoline engine & engine parts mfg	56	59	66	58	61
336311	Carburetor, piston, piston ring, & valve mfg	50	61	64	80	77
336312	Gasoline engine & engine parts mfg	57	59	66	56	58
33632	Motor vehicle electrical & electronic equipment mfg	44	55	65	60	62
336321	Vehicular lighting equipment mfg	56	56	66	56	68
336322	Other motor vehicle electrical & electronic equipment mfg	43	55	64	60	60
33633	Motor vehicle steering & suspension component (except spring) mfg	57	60	69	74	74
336330	Motor vehicle steering & suspension component (except spring) mfg	57	60	69	74	74
33634	Motor vehicle brake system mfg	48	50	59	47	49
336340	Motor vehicle brake system mfg	48	50	59	47	49
33635	Motor vehicle transmission & power train parts mfg	63	60	75	49	73
336350	Motor vehicle transmission & power train parts mfg	63	60	75	49	73
33636	Motor vehicle seating & interior trim mfg	51	55	58	49	49
336360	Motor vehicle seating & interior trim mfg	51	55	58	49	49
33637	Motor vehicle metal stamping	56	58	65	67	66
336370	Motor vehicle metal stamping	56	58	65	67	66
33639	Other motor vehicle parts mfg	46	56	59	64	61
336391	Motor vehicle air-conditioning mfg	60	53	61	64	73
336399	All other motor vehicle parts mfg	45	56	59	64	60
3364	Aerospace product & parts mfg	39	40	45	53	52
33641	Aerospace product & parts mfg	39	40	45	53	52
336411	Aircraft mfg	47	44	51	54	56
336412	Aircraft engine & engine parts mfg	39	42	41	52	56
336413	Other aircraft part & auxiliary equipment mfg	47	51	53	57	50
336414	Guided missile & space vehicle mfg	21	27	32	53	35
336415	Guided missile & space vehicle propulsion unit & parts mfg	22	23	25	28	33
336419	Other guided missile & space vehicle parts & auxiliary equip mfg	36	50	45	53	37
3365	Railroad rolling stock mfg	44	57	64	66	60
33651	Railroad rolling stock mfg	44	57	64	66	60
336510	Railroad rolling stock mfg	44	57	64	66	60
3366	Ship & boat building	36	39	40	43	47
33661	Ship & boat building	36	39	40	43	47
336611	Ship building & repairing	38	40	42	46	49
336612	Boat building	33	37	38	38	42
3369	Other transportation equipment mfg	34	40	48	42	43
33699	Other transportation equipment mfg	34	40	48	42	43
336991	Motorcycle, bicycle, & parts mfg	24	40	54	59	54
336992	Military armored vehicle, tank, & tank component mfg	36	26	37	34	34
336999	All other transportation equipment mfg	47	50	49	36	38
337	Furniture & related product mfg	36	41	46	45	42
3371	Household & institutional furniture & kitchen cabinet mfg	35	40	49	41	38
33711	Wood kitchen cabinet & counter top mfg	48	48	56	48	44
337110	Wood kitchen cabinet & counter top mfg	48	48	56	48	44
33712	Household & institutional furniture mfg	31	38	47	39	36
337121	Upholstered household furniture mfg	44	45	48	38	36
337122	Nonupholstered wood household furniture mfg	30	35	50	39	32
337124	Metal household furniture mfg	27	35	40	36	38
337125	Household furniture (except wood & metal) mfg	35	42	46	40	50
337127	Institutional furniture mfg	24	37	41	45	45
337129	Wood television, radio, & sewing machine cabinet mfg	46	46	46	38	51
3372	Office furniture (including fixtures) mfg	38	43	45	54	50
33721	Office furniture (including fixtures) mfg	38	43	45	54	50
337211	Wood office furniture mfg	34	37	41	60	53
337212	Custom architectural woodwork & millwork mfg	34	35	39	67	50
337214	Office furniture (except wood) mfg	43	53	50	52	54
337215	Showcase, partition, shelving, & locker mfg	37	40	42	50	47
3379	Other furniture related product mfg	36	38	42	44	43
33791	Mattress mfg	37	43	40	41	39
337910	Mattress mfg	37	43	40	41	39
33792	Blind & shade mfg	35	32	46	50	52
337920	Blind & shade mfg	35	32	46	50	52



Table 1b. **National Emergency Capacity Utilization Rates by Industry: Fourth Quarters 1997 Through 2001** — Con.

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	National emergency rate				
		2001	2000	1999	1998	1997
339	Miscellaneous mfg .....	43	47	44	43	47
3391	Medical equipment & supplies mfg .....	49	53	45	46	50
33911	Medical equipment & supplies mfg .....	49	53	45	46	50
339111	Laboratory apparatus & furniture mfg .....	43	43	39	48	51
339112	Surgical & medical instrument mfg .....	46	51	46	51	55
339113	Surgical appliance & supplies mfg .....	51	60	63	36	43
339114	Dental equipment & supplies mfg .....	49	50	53	53	57
339115	Ophthalmic goods mfg .....	53	49	17	74	68
339116	Dental laboratories .....	55	56	61	45	43
3399	Other miscellaneous mfg .....	37	42	43	40	45
33991	Jewelry & silverware mfg .....	34	39	41	49	43
339911	Jewelry (except costume) mfg .....	35	42	42	52	47
339912	Silverware & plated ware mfg .....	30	45	51	50	47
339913	Jewelers' material & lapidary work mfg .....	46	30	40	49	33
339914	Costume jewelry & novelty mfg .....	30	31	33	40	37
33992	Sporting & athletic goods mfg .....	34	35	39	26	39
339920	Sporting & athletic goods mfg .....	34	35	39	26	39
33993	Doll, toy, & game mfg .....	34	40	47	45	49
339931	Doll & stuffed toy mfg .....	35	44	56	20	27
339932	Game, toy, & children's vehicle mfg .....	33	40	46	51	52
33994	Office supplies (except paper) mfg .....	45	48	49	48	48
339941	Pen & mechanical pencil mfg .....	38	48	53	50	53
339942	Lead pencil & art good mfg .....	75	68	53	50	49
339943	Marking device mfg .....	32	33	46	41	36
339944	Carbon paper & inked ribbon mfg .....	55	52	42	46	49
33995	Sign mfg .....	41	48	53	46	44
339950	Sign mfg .....	41	48	53	46	44
33999	All other miscellaneous mfg .....	38	43	42	46	48
339991	Gasket, packing, & sealing device mfg .....	49	57	49	62	62
339992	Musical instrument mfg .....	17	31	29	37	36
339993	Fastener, button, needle, & pin mfg .....	39	48	60	55	52
339994	Broom, brush, & mop mfg .....	36	39	38	52	44
339995	Burial casket mfg .....	50	53	49	42	39
339999	All other miscellaneous mfg .....	43	38	40	41	46

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>						
		2001	2000	2001	2000	Full production			National emergency production			
						Level		2000 to 2001 change	Level		2000 to 2001 change	
						2001	2000		2001	2000		
<b>31-33</b>	<b>Manufacturing</b> .....	<b>64</b>	<b>71</b>	<b>45</b>	<b>52</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
	<b>Durable goods industries</b> .....	<b>61</b>	<b>70</b>	<b>40</b>	<b>49</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
	<b>Nondurable goods industries</b> .....	<b>70</b>	<b>73</b>	<b>55</b>	<b>58</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
	<b>Advanced processing industries</b> .....	<b>63</b>	<b>70</b>	<b>43</b>	<b>51</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
	<b>Primary processing industries</b> .....	<b>68</b>	<b>73</b>	<b>52</b>	<b>57</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
311	Food mfg .....	72	73	55	57	2	1	2	2	2	2	3
3111	Animal food mfg .....	69	76	59	66	4	3	3	4	2	7	7
31111	Animal food mfg .....	69	76	59	66	4	3	3	4	2	7	7
311111	Dog & cat food mfg .....	75	76	68	70	2	2	2	2	2	2	2
311119	Other animal food mfg .....	63	76	50	62	7	5	7	6	4	6	6
3112	Grain & oilseed milling .....	79	76	73	69	2	2	2	2	1	2	2
31121	Flour milling & malt mfg .....	77	77	68	69	4	3	4	6	5	7	7
311211	Flour milling .....	75	72	67	65	5	4	3	7	5	3	3
311212	Rice milling .....	89	95	81	89	2	2	2	3	3	2	2
311213	Malt mfg .....	75	82	45	50	12	8	4	20	20	1	1
31122	Starch & vegetable fats & oils mfg .....	89	87	88	85	2	2	3	2	2	2	3
311221	Wet corn milling .....	94	91	94	90	2	2	2	2	2	2	2
311222	Soybean processing .....	92	96	91	95	2	1	2	2	1	2	2
311223	Other oilseed processing .....	80	69	73	64	6	9	7	8	9	6	6
311225	Fats & oils refining & blending .....	81	<sup>a75</sup> 76	78	<sup>a73</sup> 64	5	<sup>a6</sup> 7	3	5	<sup>a5</sup> 3	3	3
31123	Breakfast cereal mfg .....	73	69	66	62	3	2	3	2	1	2	2
311230	Breakfast cereal mfg .....	73	69	66	62	3	2	3	2	1	2	2
3113	Sugar & confectionery product mfg .....	71	74	58	59	2	2	2	3	3	3	3
31131	Sugar mfg .....	90	91	78	79	1	1	2	1	1	2	2
311311	Sugarcane mills .....	98	97	94	93	2	2	3	2	2	3	3
311312	Cane sugar refining .....	<sup>a76</sup> 80	80	<sup>a53</sup> 56	56	<sup>a1</sup> 1	1	<sup>a1</sup> 1	<sup>a1</sup> 1	1	<sup>a1</sup> 1	<sup>a1</sup> 1
311313	Beet sugar mfg .....	97	95	97	92	2	2	1	2	2	2	1
31132	Chocolate & confectionery mfg from cacao beans .....	76	78	71	73	1	1	1	1	1	1	1
311320	Chocolate & confectionery mfg from cacao beans .....	76	78	71	73	1	1	1	1	1	1	1
31133	Confectionery mfg from purchased chocolate .....	65	66	48	48	2	3	4	4	5	5	5
311330	Confectionery mfg from purchased chocolate .....	65	66	48	48	2	3	2	4	5	1	1
31134	Nonchocolate confectionery mfg .....	70	77	61	63	5	2	3	5	2	3	3
311340	Nonchocolate confectionery mfg .....	70	77	61	63	5	2	4	5	2	4	4
3114	Fruit & vegetable preserving & specialty food mfg .....	63	65	46	44	5	5	6	7	7	9	9
31141	Frozen food mfg .....	77	82	68	69	4	3	4	4	3	4	4
311411	Frozen fruit, juice, & vegetable mfg .....	81	79	73	69	3	2	3	3	4	5	5
311412	Frozen specialty food mfg .....	74	84	64	69	7	4	5	6	4	6	6
31142	Fruit & vegetable canning, pickling, & drying .....	55	57	37	35	6	6	8	8	8	10	10
311421	Fruit & vegetable canning .....	52	54	30	27	8	9	5	9	9	3	3
311422	Specialty canning .....	63	<sup>a60</sup> 60	58	<sup>a56</sup> 39	9	<sup>a8</sup> 9	1	7	<sup>a7</sup> 7	1	1
311423	Dried & dehydrated food mfg .....	50	60	36	39	7	9	4	7	8	4	4
3115	Dairy product mfg .....	78	77	69	68	2	2	3	3	2	3	3
31151	Dairy product (except frozen) mfg .....	78	78	70	69	3	2	3	3	2	3	3
311511	Fluid milk mfg .....	82	81	71	72	3	3	2	5	4	3	3
311512	Creamery butter mfg .....	71	79	57	72	4	2	4	6	2	6	6
311513	Cheese mfg .....	80	77	77	71	3	3	2	3	3	3	3
311514	Dry, condensed, & evaporated dairy product mfg .....	71	74	64	64	6	6	1	5	4	2	2
31152	Ice cream & frozen dessert mfg .....	79	72	64	61	4	4	5	4	3	4	4
311520	Ice cream & frozen dessert mfg .....	79	72	64	61	4	4	4	4	3	3	3
3116	Meat product mfg .....	83	85	59	64	2	2	2	6	3	6	6
31161	Animal slaughtering & processing .....	83	85	59	64	2	2	2	6	3	6	6
311611	Animal (except poultry) slaughtering .....	88	87	53	71	2	2	2	14	4	13	13
311612	Meat processed from carcasses .....	77	76	60	56	3	3	2	4	6	5	5
311613	Rendering & meat byproduct processing .....	75	<sup>a77</sup> 91	59	<sup>a45</sup> 67	5	<sup>a5</sup> 2	4	9	<sup>a6</sup> 4	6	6
311615	Poultry processing .....	86	91	63	67	4	2	4	6	4	5	5
3117	Seafood product preparation & packaging .....	60	61	37	34	7	8	10	6	7	9	9
31171	Seafood product preparation & packaging .....	60	61	37	34	7	8	10	6	7	9	9
311711	Seafood canning .....	64	79	53	58	5	4	3	4	3	3	3
311712	Fresh & frozen seafood processing .....	60	58	36	32	8	8	4	6	7	7	7
3118	Bakeries & tortilla mfg .....	69	71	44	55	3	2	4	2	3	4	4
31181	Bread & bakery product mfg .....	68	71	55	53	4	3	4	4	4	4	4
311811	Retail bakeries .....	66	64	25	23	4	5	5	6	6	1	1
311812	Commercial bakeries .....	68	72	62	60	5	3	5	4	4	5	5
311813	Frozen cakes, pies, & other pastries mfg .....	79	73	61	60	5	3	5	4	5	3	3
31182	Cookie, cracker, & pasta mfg .....	69	69	30	58	3	3	6	2	3	5	5
311821	Cookie & cracker mfg .....	69	67	25	55	4	3	4	2	3	3	3
311822	Flour mixes & dough mfg from purchased flour .....	72	76	60	68	5	4	4	6	5	4	4
311823	Dry pasta mfg .....	68	67	66	62	5	4	3	5	5	3	3
31183	Tortilla mfg .....	76	77	63	64	3	3	4	3	4	4	4
311830	Tortilla mfg .....	76	77	63	64	3	3	2	3	4	2	2

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>							
		2001	2000	2001	2000	Full production			National emergency production				
						Level		2000 to 2001 change	Level		2000 to 2001 change		
						2001	2000		2001	2000			
311	Food mfg—Con.												
3119	Other food mfg .....	71	68	57	57	2	2	3	2	2	3	3	
31191	Snack food mfg .....	77	78	64	63	2	3	5	2	3	5	5	
311911	Roasted nuts & peanut butter mfg...	71	70	60	51	6	6	2	6	5	2	2	
311919	Other snack food mfg .....	78	80	65	67	2	4	3	3	3	2	2	
31192	Coffee & tea mfg .....	71	77	57	67	3	3	4	2	3	4	4	
311920	Coffee & tea mfg .....	71	77	57	67	3	3	3	2	3	3	3	
31193	Flavoring syrup & concentrate mfg .....	69	63	55	55	3	6	9	3	4	6	6	
311930	Flavoring syrup & concentrate mfg ..	69	63	55	55	3	6	5	3	4	2	2	
31194	Seasoning & dressing mfg .....	64	58	55	50	4	4	5	4	4	5	5	
311941	Mayonnaise, dressing, & other prepared sauce mfg .....	69	61	58	52	6	5	3	5	4	3	3	
311942	Spice & extract mfg .....	59	56	51	48	6	5	4	6	5	3	3	
31199	All other food mfg .....	71	68	53	54	4	3	4	5	5	5	5	
311991	Perishable prepared food mfg .....	66	67	57	56	7	3	7	6	3	6	6	
311999	All other miscellaneous food mfg .....	73	69	52	53	4	4	3	6	6	2	2	
312	Beverage & tobacco product mfg .....	68	71	58	56	1	1	2	1	2	3	3	
3121	Beverage mfg .....	66	68	57	52	2	2	3	2	4	5	5	
31211	Soft drink & ice mfg .....	56	61	48	42	3	3	5	3	5	6	6	
312111	Soft drink mfg .....	58	62	51	43	4	4	3	3	6	6	6	
312112	Bottled water mfg .....	51	49	31	38	7	6	1	3	5	3	3	
312113	Ice mfg .....	27	40	23	29	5	4	6	4	4	4	4	
31212	Breweries .....	82	82	82	82	2	2	3	2	2	4	4	
312120	Breweries .....	82	82	82	82	2	2	2	2	2	2	2	
31213	Wineries .....	69	65	59	48	7	9	12	6	10	13	13	
312130	Wineries .....	69	65	59	48	7	9	8	6	10	9	9	
31214	Distilleries .....	68	65	45	42	4	5	7	6	6	7	7	
312140	Distilleries .....	68	65	45	42	4	5	3	6	6	2	2	
3122	Tobacco mfg .....	69	73	59	60	1	1	1	1	1	1	1	
31221	Tobacco stemming & redrying .....	75	81	64	70	1	1	1	1	1	1	1	
312210	Tobacco stemming & redrying .....	75	81	64	70	1	1	1	1	1	1	1	
31222	Tobacco product mfg .....	69	73	59	60	1	1	1	1	1	1	1	
312221	Cigarette mfg .....	70	73	60	61	1	1	1	1	1	1	1	
312229	Other tobacco product mfg .....	60	66	49	49	8	7	2	9	7	3	3	
313	Textile mills .....	68	77	58	68	2	2	2	2	2	2	2	
3131	Fiber, yarn, & thread mills .....	69	80	61	70	4	3	3	4	4	5	5	
31311	Fiber, yarn, & thread mills .....	69	80	61	70	4	3	3	4	4	5	5	
313111	Yarn spinning mills .....	70	82	62	72	5	3	5	4	4	4	4	
313112	Yarn texturing, throwing, & twisting mills .....	68	74	61	65	6	5	3	8	8	3	3	
313113	Thread mills .....	69	82	55	78	3	3	3	3	4	8	8	
3132	Fabric mills .....	70	78	63	71	2	2	3	2	2	3	3	
31321	Broadwoven fabric mills .....	72	84	70	79	3	3	4	3	3	4	4	
313210	Broadwoven fabric mills .....	72	84	70	79	3	3	4	3	3	3	3	
31322	Narrow fabric mills & schiffli machine embroidery .....	63	70	49	57	3	3	4	2	3	4	4	
313221	Narrow fabric mills .....	63	70	51	58	3	3	3	2	3	3	3	
313222	Schiffli machine embroidery .....	62	71	41	48	3	5	4	5	5	6	6	
31323	Nonwoven fabric mills .....	74	74	63	68	5	5	6	7	6	9	9	
313230	Nonwoven fabric mills .....	74	74	63	68	5	5	4	7	6	3	3	
31324	Knit fabric mills .....	61	68	53	57	5	3	3	4	2	3	3	
313241	Weft knit fabric mills .....	60	69	51	59	9	5	8	7	3	7	7	
313249	Other knit fabric & lace mills .....	63	67	55	54	2	2	2	2	2	2	2	
3133	Textile & fabric finishing & fabric coating mills .....	64	72	50	62	2	2	3	3	3	4	4	
31331	Textile & fabric finishing mills .....	65	74	50	63	3	3	3	3	3	5	5	
313311	Broadwoven fabric finishing mills .....	67	74	50	62	4	3	2	4	5	5	5	
313312	Textile & fabric finishing mills .....	69	74	50	64	3	3	4	3	4	4	4	
31332	Fabric coating mills .....	58	62	52	54	4	4	5	3	4	5	5	
313320	Fabric coating mills .....	58	62	52	54	4	4	2	3	4	3	3	
314	Textile product mills .....	70	71	50	51	2	3	4	2	3	3	3	
3141	Textile furnishings mills .....	78	79	54	55	2	2	2	3	3	4	4	
31411	Carpet & rug mills .....	77	79	62	65	3	3	4	3	3	5	5	
314110	Carpet & rug mills .....	77	79	62	65	3	3	2	3	3	3	3	
31412	Curtain & linen mills .....	79	79	49	48	2	1	2	4	4	5	5	
314121	Curtain & drapery mills .....	76	74	38	37	3	3	3	5	4	5	5	
314129	Other household textile product mills .....	80	81	55	53	1	1	1	6	6	3	3	
3149	Other textile product mills .....	61	62	45	46	2	6	8	3	4	5	5	
31491	Textile bag & canvas mills .....	61	60	39	33	4	3	5	4	3	4	4	
314911	Textile bag mills .....	60	54	34	28	6	5	4	5	3	3	3	
314912	Canvas & related product mills .....	61	65	43	37	5	4	5	5	5	4	4	
31499	All other textile product mills .....	61	62	47	53	2	7	10	3	6	8	8	
314991	Rope, cordage, & twine mills .....	<sup>a56</sup>	<sup>a66</sup>	<sup>a47</sup>	<sup>a50</sup>	<sup>a5</sup>	<sup>a6</sup>	<sup>a3</sup>	<sup>a4</sup>	<sup>a4</sup>	<sup>a2</sup>	<sup>a2</sup>	
314992	Tire cord & tire fabric mills .....	80	83	79	83	2	2	2	2	2	2	2	
314999	All other miscellaneous textile product mills .....	60	60	44	51	3	8	8	3	7	7	7	
315	Apparel mfg .....	69	75	36	45	2	2	2	2	3	3	3	
3151	Apparel knitting mills .....	78	78	52	49	2	3	4	4	4	4	4	
31511	Hosiery & sock mills .....	77	78	49	64	2	2	3	4	3	4	4	
315111	Sheer hosiery mills .....	67	69	46	60	4	5	4	4	5	5	5	
315119	Other hosiery & sock mills .....	81	83	50	66	2	2	2	5	3	5	5	
31519	Other apparel knitting mills .....	80	77	57	37	4	7	7	6	5	5	5	
315191	Outerwear knitting mills .....	78	76	54	35	4	8	5	7	6	4	4	
315192	Underwear & nightwear knitting mills .....	<sup>a88</sup>	82	<sup>a76</sup>	51	<sup>a1</sup>	1	<sup>a1</sup>	<sup>a3</sup>	8	<sup>a8</sup>	<sup>a8</sup>	

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>							
		2001	2000	2001	2000	Full production			National emergency production				
						Level		2000 to 2001 change	Level		2000 to 2001 change		
						2001	2000		2001	2000			
315	Apparel mfg—Con.												
3152	Cut & sew apparel mfg .....	<sup>a</sup> 68	<sup>a</sup> 75	<sup>a</sup> 35	<sup>a</sup> 46	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3
31521	Cut & sew apparel contractors .....	71	<sup>a</sup> 66	40	<sup>a</sup> 37	2	<sup>a</sup> 4	4	3	<sup>a</sup> 2	3	3	
315211	Men's & boys' cut & sew apparel contractors .....	<sup>a</sup> 77	<sup>a</sup> 76	<sup>a</sup> 51	<sup>a</sup> 40	<sup>a</sup> 5	<sup>a</sup> 4	<sup>a</sup> 4	<sup>a</sup> 5	<sup>a</sup> 4	<sup>a</sup> 4	<sup>a</sup> 6	
315212	Women's, girls', & infants' cut & sew apparel contractors .....	68	<sup>a</sup> 63	36	<sup>a</sup> 36	3	<sup>a</sup> 3	3	3	<sup>a</sup> 2	2	2	
31522	Men's & boys' cut & sew apparel mfg ..	71	<sup>a</sup> 80	47	<sup>a</sup> 54	3	<sup>a</sup> 3	4	3	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3	
315221	Men's & boys' cut & sew underwear & nightwear mfg .....	<sup>a</sup> 54	<sup>a</sup> 70	<sup>a</sup> 38	<sup>a</sup> 50	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	
315222	Men's & boys' cut & sew suit, coat, & overcoat mfg .....	71	<sup>a</sup> 76	41	<sup>a</sup> 47	6	<sup>a</sup> 3	6	5	<sup>a</sup> 5	3	3	
315223	Men's & boys' cut & sew shirt (exc work shirt) mfg .....	65	<sup>a</sup> 72	45	<sup>a</sup> 52	7	<sup>a</sup> 7	5	6	<sup>a</sup> 5	3	3	
315224	Men's & boys' cut & sew trouser, slack, & jean mfg .....	76	<sup>a</sup> 91	69	<sup>a</sup> 82	6	<sup>a</sup> 3	3	6	<sup>a</sup> 7	5	5	
315225	Men's & boys' cut & sew work clothing mfg .....	89	88	36	45	2	2	2	6	8	5	5	
315228	Men's & boys' cut & sew other outerwear mfg .....	<sup>a</sup> 75	<sup>a</sup> 76	<sup>a</sup> 30	<sup>a</sup> 25	<sup>a</sup> 5	<sup>a</sup> 5	<sup>a</sup> 2	<sup>a</sup> 4	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	
31523	Women's & girls' cut & sew apparel mfg .....	<sup>a</sup> 65	<sup>a</sup> 73	<sup>a</sup> 27	<sup>a</sup> 43	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 2	<sup>a</sup> 6	<sup>a</sup> 6	<sup>a</sup> 6	
315231	Women's & girls' cut/sew lingerie & nightwear mfg .....	53	73	29	41	6	8	13	6	9	4	4	
315232	Women's & girls' cut & sew blouse & shirt mfg .....	<sup>a</sup> 78	<sup>a</sup> 82	<sup>a</sup> 58	<sup>a</sup> 48	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2	
315233	Women's & girls' cut & sew dress mfg .....	<sup>a</sup> 49	<sup>a</sup> 64	<sup>a</sup> 45	<sup>a</sup> 61	<sup>a</sup> 3	<sup>a</sup> 4	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3	
315234	Women's & girls' cut & sew suit, coat, skirt mfg .....	<sup>a</sup> 75	<sup>a</sup> 73	<sup>a</sup> 30	<sup>a</sup> 37	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 1	<sup>a</sup> 1	
315239	Women's & girls' cut & sew other outerwear mfg .....	<sup>a</sup> 76	<sup>a</sup> 76	<sup>a</sup> 19	<sup>a</sup> 38	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 4	<sup>a</sup> 2	<sup>a</sup> 10	<sup>a</sup> 10	<sup>a</sup> 10	
31529	Other cut & sew apparel mfg .....	74	75	39	39	4	4	6	4	4	5	5	
315291	Infants' cut & sew apparel mfg .....	<sup>a</sup> 91	<sup>a</sup> 85	<sup>a</sup> 49	<sup>a</sup> 43	<sup>a</sup> 1	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3	
315292	Fur & leather apparel mfg .....	<sup>a</sup> 68	68	<sup>a</sup> 40	50	<sup>a</sup> 3	4	<sup>a</sup> 2	<sup>a</sup> 3	2	<sup>a</sup> 2	<sup>a</sup> 2	
315299	All other cut & sew apparel mfg .....	68	69	35	34	5	7	2	6	7	2	2	
3159	Apparel accessories & other apparel mfg .....	<sup>a</sup> 62	70	<sup>a</sup> 31	35	<sup>a</sup> 3	3	<sup>a</sup> 3	<sup>a</sup> 3	3	3	<sup>a</sup> 4	
31599	Apparel accessories & other apparel mfg .....	<sup>a</sup> 62	70	<sup>a</sup> 31	35	<sup>a</sup> 3	3	<sup>a</sup> 3	<sup>a</sup> 3	3	3	<sup>a</sup> 4	
315991	Hat, cap, & millinery mfg .....	<sup>a</sup> 59	72	<sup>a</sup> 30	42	<sup>a</sup> 4	4	<sup>a</sup> 3	<sup>a</sup> 2	3	<sup>a</sup> 3	<sup>a</sup> 3	
315992	Glove & mitten mfg .....	56	77	22	36	3	3	4	5	9	5	5	
315993	Men's & boys' neckwear mfg .....	70	69	39	40	6	5	4	6	5	5	5	
315999	Other apparel accessories & other apparel mfg .....	64	68	32	31	4	5	3	4	4	4	2	
316	Leather & allied product mfg .....	56	65	27	35	2	2	2	2	2	3	3	
3161	Leather & hide tanning & finishing .....	<sup>a</sup> 57	70	<sup>a</sup> 50	58	<sup>a</sup> 4	4	<sup>a</sup> 5	<sup>a</sup> 4	4	<sup>a</sup> 5	<sup>a</sup> 5	
31611	Leather & hide tanning & finishing .....	<sup>a</sup> 57	70	<sup>a</sup> 50	58	<sup>a</sup> 4	4	<sup>a</sup> 5	<sup>a</sup> 4	4	<sup>a</sup> 5	<sup>a</sup> 5	
316110	Leather & hide tanning & finishing .....	<sup>a</sup> 57	70	<sup>a</sup> 50	58	<sup>a</sup> 4	4	<sup>a</sup> 3	<sup>a</sup> 4	4	<sup>a</sup> 4	<sup>a</sup> 4	
3162	Footwear mfg .....	<sup>a</sup> 56	64	<sup>a</sup> 25	30	<sup>a</sup> 2	3	<sup>a</sup> 3	<sup>a</sup> 2	2	<sup>a</sup> 4	<sup>a</sup> 4	
31621	Footwear mfg .....	<sup>a</sup> 56	64	<sup>a</sup> 25	30	<sup>a</sup> 2	3	<sup>a</sup> 3	<sup>a</sup> 2	2	<sup>a</sup> 4	<sup>a</sup> 4	
316211	Rubber & plastics footwear mfg .....	<sup>a</sup> 55	65	<sup>a</sup> 29	33	<sup>a</sup> 5	5	<sup>a</sup> 2	<sup>a</sup> 3	4	<sup>a</sup> 1	<sup>a</sup> 1	
316212	House slipper mfg .....	62	69	27	36	2	1	2	1	1	1	1	
316213	Men's footwear (except athletic) mfg .....	61	59	37	29	2	3	3	3	4	4	4	
316214	Women's footwear (except athletic) mfg .....	<sup>a</sup> 37	<sup>a</sup> 70	<sup>a</sup> 8	<sup>a</sup> 25	<sup>a</sup> 3	<sup>a</sup> 7	<sup>a</sup> 9	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 3	
316219	Other footwear mfg .....	<sup>a</sup> 69	<sup>a</sup> 74	<sup>a</sup> 50	<sup>a</sup> 43	<sup>a</sup> 3	<sup>a</sup> 4	<sup>a</sup> 3	<sup>a</sup> 4	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 3	
3169	Other leather & allied product mfg .....	54	63	22	33	3	4	5	2	2	3	3	
31699	Other leather & allied product mfg .....	54	63	22	33	3	4	5	2	2	3	3	
316991	Luggage mfg .....	45	53	24	33	4	5	5	3	3	3	3	
316992	Women's handbag & purse mfg .....	<sup>a</sup> 77	80	<sup>a</sup> 47	50	<sup>a</sup> 4	4	<sup>a</sup> 3	<sup>a</sup> 7	8	<sup>a</sup> 4	<sup>a</sup> 4	
316993	Personal leather good (except women's handbag & purse) mfg .....	<sup>a</sup> 53	86	<sup>a</sup> 9	19	<sup>a</sup> 2	5	<sup>a</sup> 4	<sup>a</sup> 2	1	<sup>a</sup> 2	<sup>a</sup> 2	
316999	All other leather good mfg .....	79	81	33	42	3	3	3	3	5	3	3	
321	Wood product mfg .....	66	69	41	41	2	2	2	2	2	3	3	
3211	Sawmills & wood preservation .....	69	74	46	42	4	3	4	4	5	7	7	
32111	Sawmills & wood preservation .....	69	74	46	42	4	3	4	4	5	7	7	
321113	Sawmills .....	70	75	46	42	4	3	3	5	5	6	6	
321114	Wood preservation .....	64	64	44	47	5	4	5	5	5	4	4	
3212	Veneer, plywood, & engineered wood product mfg .....	66	75	46	52	3	2	3	5	6	8	8	
32121	Veneer, plywood, & engineered wood product mfg .....	66	75	46	52	3	2	3	5	6	8	8	
321211	Hardwood veneer & plywood mfg .....	62	75	44	61	4	5	3	4	6	4	4	
321212	Softwood veneer & plywood mfg .....	84	81	79	66	5	5	6	5	7	8	8	
321213	Engineered wood member (except truss) mfg .....	63	73	53	57	5	4	2	5	5	3	3	
321214	Truss mfg .....	55	71	39	45	5	4	6	3	3	3	3	
321219	Reconstituted wood product mfg .....	69	76	42	45	5	4	3	12	12	4	4	
3219	Other wood product mfg .....	65	64	38	37	2	2	3	2	2	3	3	
32191	Millwork .....	73	70	47	50	3	4	4	3	3	4	4	
321911	Wood window & door mfg .....	74	76	61	59	3	3	3	3	3	3	3	
321912	Cut stock, resawing lumber, & planing .....	77	70	46	48	3	4	4	4	5	3	3	
321918	Other millwork (including flooring) ..	68	60	32	40	5	8	10	5	6	3	3	
32192	Wood container & pallet mfg .....	57	67	35	45	7	6	7	4	4	5	5	
321920	Wood container & pallet mfg .....	57	67	35	45	7	6	6	4	4	5	5	
32199	All other wood product mfg .....	59	59	30	28	2	2	3	2	2	3	3	
321991	Manufactured home (mobile home) mfg .....	58	54	26	22	3	3	2	3	2	2	2	
321992	Prefabricated wood building mfg .....	56	61	31	35	6	6	3	4	3	2	2	
321999	All other miscellaneous wood product mfg .....	64	70	39	50	3	4	3	3	2	3	3	

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>						
		2001	2000	2001	2000	Full production			National emergency production			
						Level		2000 to 2001 change	Level		2000 to 2001 change	
						2001	2000		2001	2000		
322	Paper mfg .....	76	79	67	71	2	2	2	2	2	2	2
3221	Pulp, paper, & paperboard mills .....	83	87	78	84	3	2	3	4	3	3	3
32211	Pulp mills .....	90	88	88	86	2	3	4	2	4	4	4
322110	Pulp mills .....	90	88	88	86	2	3	3	2	4	3	3
32212	Paper mills .....	81	87	75	84	4	3	4	5	3	4	4
322121	Paper (except newsprint) mills .....	80	86	75	83	4	4	3	5	4	5	5
322122	Newsprint mills .....	88	96	85	96	2	1	2	3	1	2	2
32213	Paperboard mills .....	87	87	81	84	4	2	3	3	3	3	3
322130	Paperboard mills .....	87	87	81	84	4	2	3	3	3	3	2
3222	Converted paper product mfg .....	70	73	59	61	2	2	2	2	2	2	3
32221	Paperboard container mfg .....	69	73	57	59	4	3	4	3	3	4	4
322211	Corrugated & solid fiber box mfg ....	70	75	57	59	5	4	3	5	4	3	3
322212	Folding paperboard box mfg .....	73	70	62	62	4	4	3	3	4	3	3
322213	Setup paperboard box mfg .....	69	74	45	48	6	7	4	4	4	4	2
322214	Fiber can, tube, drum, & similar products mfg .....	51	63	39	46	6	5	6	4	5	4	4
322215	Nonfolding sanitary food container mfg .....	71	78	62	61	5	3	5	4	4	3	3
32222	Paper bag & coated & treated paper mfg .....	73	74	61	62	3	3	5	3	4	5	5
322221	Coated & laminated packaging paper & plastics film mfg .....	63	64	50	55	4	4	2	6	6	4	4
322222	Coated & laminated paper mfg .....	72	73	62	64	4	5	2	4	5	2	2
322223	Plastics, foil, & coated paper bag mfg .....	71	69	43	55	9	8	6	2	10	10	10
322224	Uncoated paper & multiwall bag mfg .....	79	82	61	65	4	4	2	5	5	2	2
322225	Laminated aluminum foil mfg for flexible packaging uses .....	82	81	70	69	2	2	1	1	1	1	1
322226	Surface-coated paperboard mfg ....	82	75	55	44	2	4	4	4	11	7	7
32223	Stationery product mfg .....	66	65	56	55	3	3	4	4	3	5	5
322231	Die-cut paper & paperboard office supplies mfg .....	76	75	58	54	3	4	4	10	8	5	5
322232	Envelope mfg .....	69	76	62	66	5	3	3	4	4	6	6
322233	Stationery, tablet, & related product mfg .....	55	<sup>a</sup> 47	46	<sup>a</sup> 43	6	<sup>a</sup> 4	3	6	<sup>a</sup> 4	3	3
32229	Other converted paper product mfg ...	70	77	64	71	4	4	4	3	4	5	5
322291	Sanitary paper product mfg .....	76	85	74	84	5	3	6	5	3	5	5
322299	All other converted paper product mfg .....	63	65	52	55	5	6	3	4	5	4	4
323	Printing & related support activities .....	71	75	50	54	2	2	2	2	2	2	3
3231	Printing & related support activities .....	71	75	50	54	2	2	2	2	2	2	3
32311	Printing .....	71	75	51	55	2	2	2	3	3	3	3
323110	Commercial lithographic printing ....	76	81	59	66	4	2	3	2	3	3	3
323111	Commercial gravure printing .....	78	83	72	63	6	4	4	6	11	11	11
323112	Commercial flexographic printing ....	70	75	54	59	4	5	3	4	6	3	3
323113	Commercial screen printing .....	63	63	38	37	3	6	5	4	5	3	3
323114	Quick printing .....	66	68	26	33	3	3	3	7	11	5	5
323115	Digital printing .....	70	63	50	43	4	6	5	4	5	4	4
323116	Manifold business form printing .....	68	68	57	52	3	3	3	3	3	3	3
323117	Book printing .....	58	69	44	55	4	5	3	4	6	3	3
323118	Blankbook, looseleaf binder, & device mfg .....	52	56	34	39	3	3	2	3	3	2	2
323119	Other commercial printing .....	71	68	52	50	3	4	5	4	4	4	4
32312	Support activities for printing .....	68	72	40	46	3	3	3	4	4	5	5
323121	Tradebinding & related work .....	65	72	32	39	4	4	3	6	7	3	3
323122	Prepress services .....	69	72	45	50	3	3	3	4	4	3	3
324	Petroleum & coal products mfg .....	80	83	67	71	2	2	2	3	2	3	3
3241	Petroleum & coal products mfg .....	80	83	67	71	2	2	2	3	2	3	3
32411	Petroleum refineries .....	91	94	89	92	2	2	3	2	2	3	3
324110	Petroleum refineries .....	91	94	89	92	2	2	2	2	2	2	2
32412	Asphalt paving, roofing, & saturated materials mfg .....	44	48	24	29	4	3	4	3	3	4	4
324121	Asphalt paving mixture & block mfg ..	31	36	16	18	4	4	2	2	2	2	2
324122	Asphalt shingle & coating materials mfg .....	72	<sup>a</sup> 69	54	<sup>a</sup> 63	3	<sup>a</sup> 3	3	6	<sup>a</sup> 3	6	6
32419	Other petroleum & coal products mfg ..	57	67	41	50	2	3	4	2	3	4	4
324191	Petroleum lubricating oil & grease mfg .....	57	63	41	45	2	3	3	2	3	2	2
324199	All other petroleum & coal products mfg .....	58	85	43	79	5	3	6	6	3	7	7
325	Chemical mfg .....	68	71	55	58	2	2	2	2	2	2	2
3251	Basic chemical mfg .....	69	76	65	73	2	3	3	2	3	3	3
32511	Petrochemical mfg .....	77	92	77	92	5	2	3	5	2	3	3
325110	Petrochemical mfg .....	77	92	77	92	5	2	3	5	2	3	3
32512	Industrial gas mfg .....	67	<sup>a</sup> 79	57	<sup>a</sup> 65	3	<sup>a</sup> 4	5	6	<sup>a</sup> 7	9	9
325120	Industrial gas mfg .....	67	<sup>a</sup> 79	57	<sup>a</sup> 65	3	<sup>a</sup> 4	4	6	<sup>a</sup> 7	4	4
32513	Dye & pigment mfg .....	71	78	69	69	4	3	4	5	5	6	6
325131	Inorganic dye & pigment mfg .....	78	87	71	83	3	2	4	4	3	4	4
325132	Synthetic organic dye & pigment mfg .....	64	69	53	57	5	5	3	7	7	3	3
32518	Other basic inorganic chemical mfg ...	66	68	61	64	4	5	6	3	5	5	5
325181	Alkalies & chlorine mfg .....	70	78	70	78	2	3	2	2	3	3	3
325182	Carbon black mfg .....	74	84	67	75	2	2	2	1	2	2	2
325188	All other basic inorganic chemical mfg .....	65	67	59	63	4	5	4	3	5	4	4
32519	Other basic organic chemical mfg .....	69	81	66	80	3	2	3	3	2	3	3
325191	Gum & wood chemical mfg .....	78	81	74	77	2	1	2	2	2	2	2
325192	Cyclic crude & intermediate mfg ....	<sup>a</sup> 72	77	<sup>a</sup> 65	76	<sup>a</sup> 2	3	<sup>a</sup> 4	<sup>a</sup> 4	3	<sup>a</sup> 5	<sup>a</sup> 5
325193	Ethyl alcohol mfg .....	90	85	64	84	2	2	1	9	2	8	8
325199	All other basic organic chemical mfg ..	67	81	66	81	3	2	3	3	2	3	3

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>						
		2001	2000	2001	2000	Full production		2000 to 2001 change	National emergency production		2000 to 2001 change	
						Level			2001	2000		
						2001	2000					
325	Chemical mfg—Con.											
3252	Resin, syn rubber, & artificial & syn fibers & filaments mfg . . . . .	72	79	68	76	2	2	2	3	3	3	3
32521	Resin & synthetic rubber mfg . . . . .	72	79	68	75	3	2	3	3	3	4	4
325211	Plastics material & resin mfg . . . . .	77	82	73	77	3	2	2	3	4	3	3
325212	Synthetic rubber mfg . . . . .	51	65	48	62	6	5	2	5	4	4	2
32522	Artificial & synthetic fibers & filaments mfg . . . . .	72	81	68	78	3	1	2	2	1	2	2
325221	Cellulosic organic fiber mfg . . . . .	78	<sup>a80</sup>	76	<sup>a77</sup>	1	<sup>a1</sup>	2	1	<sup>a1</sup>	2	2
325222	Noncellulosic organic fiber mfg . . . . .	72	81	68	78	3	1	3	3	1	3	3
3253	Pesticide, fertilizer, & other agricultural chemical mfg . . . . .	69	76	48	56	4	3	5	7	3	4	4
32531	Fertilizer mfg . . . . .	74	77	59	65	5	3	3	5	4	5	5
325311	Nitrogenous fertilizer mfg . . . . .	89	81	87	80	4	4	5	4	5	5	5
325312	Phosphatic fertilizer mfg . . . . .	94	89	91	87	2	2	2	1	1	2	2
325314	Fertilizer (mixing only) mfg . . . . .	51	<sup>a62</sup>	34	<sup>a42</sup>	7	<sup>a6</sup>	6	5	<sup>a6</sup>	2	2
32532	Pesticide & other agricultural chemical mfg . . . . .	66	76	44	52	5	4	7	8	4	5	5
325320	Pesticide & other agricultural chemical mfg . . . . .	66	76	44	52	5	4	4	8	4	7	7
3254	Pharmaceutical & medicine mfg . . . . .	70	69	56	53	3	4	5	3	3	4	4
32541	Pharmaceutical & medicine mfg . . . . .	70	69	56	53	3	4	5	3	3	4	4
325411	Medicinal & botanical mfg . . . . .	88	<sup>a85</sup>	68	<sup>a56</sup>	3	<sup>a3</sup>	2	7	<sup>a4</sup>	5	5
325412	Pharmaceutical preparation mfg . . . . .	66	66	53	52	4	4	3	3	4	3	3
325413	In-vitro diagnostic substance mfg . . . . .	<sup>a85</sup>	<sup>a81</sup>	<sup>a63</sup>	<sup>a62</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a1</sup>	<sup>a1</sup>	<sup>a1</sup>	<sup>a1</sup>
325414	Biological product (except diagnostic) mfg . . . . .	86	76	75	64	3	4	2	7	7	3	3
3255	Paint, coating, & adhesive mfg . . . . .	56	63	40	51	3	3	5	3	4	6	6
32551	Paint & coating mfg . . . . .	55	64	40	52	3	4	6	4	5	6	6
325510	Paint & coating mfg . . . . .	55	64	40	52	3	4	3	4	5	3	3
32552	Adhesive mfg . . . . .	57	61	41	48	4	5	7	6	5	9	9
325520	Adhesive mfg . . . . .	57	61	41	48	4	5	2	6	5	3	3
3256	Soap, cleaning compound, & toilet preparation mfg . . . . .	64	62	49	51	2	3	3	2	3	4	4
32561	Soap & cleaning compound mfg . . . . .	67	64	50	53	2	2	3	4	3	5	5
325611	Soap & other detergent mfg . . . . .	66	68	50	59	3	2	3	4	2	5	5
325612	Polish & other sanitation good mfg . . . . .	66	53	44	41	4	4	2	7	4	4	4
325613	Surface active agent mfg . . . . .	75	76	71	72	3	6	6	3	6	5	5
32562	Toilet preparation mfg . . . . .	62	61	49	48	3	4	5	3	4	6	6
325620	Toilet preparation mfg . . . . .	62	61	49	48	3	4	3	3	4	3	3
3259	Other chemical product mfg . . . . .	64	71	44	49	2	2	2	4	4	6	6
32591	Printing ink mfg . . . . .	60	<sup>a59</sup>	27	<sup>a29</sup>	6	<sup>a5</sup>	7	9	<sup>a9</sup>	13	13
325910	Printing ink mfg . . . . .	60	<sup>a59</sup>	27	<sup>a29</sup>	6	<sup>a5</sup>	5	9	<sup>a9</sup>	3	3
32592	Explosives mfg . . . . .	71	68	36	30	3	3	4	2	2	2	2
325920	Explosives mfg . . . . .	71	68	36	30	3	3	2	2	2	1	1
32599	All other chemical product & preparation mfg . . . . .	65	72	47	54	3	2	3	3	4	7	7
325991	Custom compounding of purchased resin . . . . .	66	73	51	69	4	3	5	6	3	6	6
325992	Photographic film, paper, plate, & chemical mfg . . . . .	65	80	58	70	5	3	3	4	3	3	3
325998	All other miscellaneous chemical product & preparation mfg . . . . .	64	66	38	40	3	3	2	4	6	4	4
326	Plastics & rubber products mfg . . . . .	66	71	53	59	2	3	3	3	2	3	3
3261	Plastics product mfg . . . . .	65	69	52	58	2	3	4	3	3	3	3
32611	Unsupported plastics film, sheet, & bag mfg . . . . .	67	74	62	67	3	3	4	4	4	5	5
326111	Unsupported plastics bag mfg . . . . .	69	<sup>a70</sup>	66	<sup>a66</sup>	3	<sup>a3</sup>	4	3	<sup>a3</sup>	4	4
326112	Unsupported plastics packaging film & sheet mfg . . . . .	70	73	61	63	6	6	3	8	8	3	3
326113	Unsupported plastics film & sheet (except packaging) mfg . . . . .	66	77	60	69	4	4	4	5	6	4	4
32612	Plastics pipe, pipe fitting, & unsupported profile shape mfg . . . . .	66	74	58	61	2	3	4	3	6	10	10
326121	Unsupported plastics profile shape mfg . . . . .	69	75	63	62	2	4	3	3	11	11	11
326122	Plastics pipe & pipe fitting mfg . . . . .	64	72	52	60	4	4	4	5	5	4	4
32613	Laminated plastics plate, sheet, & shape mfg . . . . .	64	59	44	48	5	13	17	5	10	12	12
326130	Laminated plastics plate, sheet, & shape mfg . . . . .	64	59	44	48	5	13	13	5	10	9	9
32614	Polystyrene foam product mfg . . . . .	76	80	47	76	3	4	4	13	4	4	4
326140	Polystyrene foam product mfg . . . . .	76	80	47	76	3	4	2	13	4	13	13
32615	Urethane & other foam product (except polystyrene) mfg . . . . .	66	67	50	52	6	7	9	5	5	8	8
326150	Urethane & other foam product (except polystyrene) mfg . . . . .	66	67	50	52	6	7	2	5	5	2	2
32616	Plastics bottle mfg . . . . .	67	75	62	74	5	4	5	7	4	5	5
326160	Plastics bottle mfg . . . . .	67	75	62	74	5	4	5	7	4	7	7
32619	Other plastics product mfg . . . . .	63	66	49	54	4	4	5	4	4	5	5
326191	Plastics plumbing fixture mfg . . . . .	57	61	34	35	4	5	4	9	10	2	2
326192	Resilient floor covering mfg . . . . .	69	71	63	65	1	1	1	2	2	1	1
326199	All other plastics product mfg . . . . .	64	66	49	55	4	5	3	5	4	3	3
3262	Rubber product mfg . . . . .	72	79	60	65	2	2	2	2	2	3	3
32621	Tire mfg . . . . .	81	87	73	78	2	3	3	2	3	3	3
326211	Tire mfg (except retreading) . . . . .	82	88	77	83	2	3	2	2	2	2	2
326212	Tire retreading . . . . .	67	67	35	36	3	2	4	2	3	2	2
32622	Rubber & plastics hoses & belting mfg . . . . .	66	72	53	55	4	3	5	5	5	7	7
326220	Rubber & plastics hoses & belting mfg . . . . .	66	72	53	55	4	3	3	5	5	2	2
32629	Other rubber product mfg . . . . .	67	75	52	60	2	2	3	3	3	4	4
326291	Rubber product mfg for mechanical use . . . . .	68	77	56	67	3	2	2	2	3	2	2
326299	All other rubber product mfg . . . . .	67	73	49	54	4	3	3	4	4	2	2

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>					
		2001	2000	2001	2000	Full production		2000 to 2001 change	National emergency production		
						Level			2001	2000	2000 to 2001 change
						2001	2000				
327	Nonmetallic mineral product mfg . . . . .	66	70	45	48	2	2	2	2	3	4
3271	Clay product & refractory mfg . . . . .	69	74	57	60	2	2	3	4	5	6
32711	Pottery, ceramics, & plumbing fixture mfg . . . . .	68	78	60	64	3	3	4	3	6	8
327111	Vitreous china plumbing fixture & bathroom accessories mfg . . . . .	82	89	80	89	5	2	4	4	2	3
327112	Vitreous china, fine earthenware, & other pottery product mfg . . . . .	64	74	54	53	5	5	4	4	9	8
327113	Porcelain electrical supply mfg . . . . .	60	73	55	65	3	4	5	3	4	5
32712	Clay building material & refractories mfg . . . . .	70	71	55	57	2	3	4	6	7	8
327121	Brick & structural clay tile mfg . . . . .	88	89	84	88	3	3	3	4	2	4
327122	Ceramic wall & floor tile mfg . . . . .	62	63	38	42	5	5	4	13	16	4
327123	Other structural clay product mfg . . . . .	77	79	60	63	4	4	1	8	8	2
327124	Clay refractory mfg . . . . .	52	53	37	39	3	4	4	3	4	3
327125	Nonclay refractory mfg . . . . .	69	70	56	58	6	6	2	5	5	2
3272	Glass & glass product mfg . . . . .	65	80	56	68	3	2	3	3	3	4
32721	Glass & glass product mfg . . . . .	65	80	56	68	3	2	3	3	3	4
327211	Flat glass mfg . . . . .	76	82	72	77	3	5	4	4	5	3
327212	Other pressed & blown glass & glassware mfg . . . . .	57	78	52	72	5	4	3	5	5	3
327213	Glass container mfg . . . . .	94	92	91	88	1	2	2	1	2	2
327215	Glass product mfg made of purchased glass . . . . .	59	76	48	58	4	3	3	5	4	2
3273	Cement & concrete product mfg . . . . .	63	62	34	35	2	3	3	2	3	5
32731	Cement mfg . . . . .	83	84	64	66	5	4	6	11	8	13
327310	Cement mfg . . . . .	83	84	64	66	5	4	2	11	8	4
32732	Ready-mix concrete mfg . . . . .	52	50	24	24	3	3	5	3	5	3
327320	Ready-mix concrete mfg . . . . .	52	50	24	24	3	3	3	2	3	4
32733	Concrete pipe, brick, & block mfg . . . . .	71	72	49	48	4	4	5	4	4	6
327331	Concrete block & brick mfg . . . . .	73	75	51	50	6	6	4	5	6	5
327332	Concrete pipe mfg . . . . .	70	68	47	46	4	4	4	5	6	3
32739	Other concrete product mfg . . . . .	71	73	44	51	3	4	6	5	5	7
327390	Other concrete product mfg . . . . .	71	73	44	51	3	4	4	5	5	6
3274	Lime & gypsum product mfg . . . . .	76	83	70	75	4	3	4	4	5	7
32741	Lime mfg . . . . .	71	72	69	69	3	3	5	4	4	5
327410	Lime mfg . . . . .	71	72	69	69	3	3	2	4	4	2
32742	Gypsum product mfg . . . . .	77	86	71	77	5	4	4	5	6	9
327420	Gypsum product mfg . . . . .	77	86	71	77	5	4	4	5	6	7
3279	Other nonmetallic mineral product mfg . . . . .	71	71	51	57	3	3	4	4	4	6
32791	Abrasive product mfg . . . . .	66	62	37	45	4	4	6	6	7	10
327910	Abrasive product mfg . . . . .	66	62	37	45	4	4	5	6	7	5
32799	All other nonmetallic mineral product mfg . . . . .	74	77	61	66	3	3	4	3	3	4
327991	Cut stone & stone product mfg . . . . .	76	60	44	45	4	10	10	6	6	3
327992	Ground or treated mineral & earth mfg . . . . .	59	82	54	77	7	6	7	5	6	6
327993	Mineral wool mfg . . . . .	86	83	80	76	3	3	2	3	6	3
327999	All other miscellaneous nonmetallic mineral product mfg . . . . .	70	73	56	60	4	5	4	4	5	3
331	Primary metal mfg . . . . .	70	74	59	61	1	2	2	2	3	3
3311	Iron & steel mills & ferroalloy mfg . . . . .	79	74	76	64	4	4	4	4	7	8
33111	Iron & steel mills & ferroalloy mfg . . . . .	79	74	76	64	4	4	4	4	7	8
331111	Iron & steel mills . . . . .	79	74	77	64	4	4	4	4	7	8
331112	Electrometallurgical ferroalloy product mfg . . . . .	68	71	56	68	2	7	6	4	6	3
3312	Steel product mfg from purchased steel . . . . .	61	70	54	62	2	2	2	2	2	3
33121	Iron & steel pipes & tubes mfg from purchased steel . . . . .	63	69	54	58	3	2	3	2	2	3
331210	Iron & steel pipes & tubes mfg from purchased steel . . . . .	63	69	54	58	3	2	2	2	2	2
33122	Rolling & drawing of purchased steel . . . . .	59	72	54	66	2	2	3	2	3	4
331221	Cold-rolled steel shape mfg . . . . .	53	68	50	64	2	3	2	2	4	3
331222	Steel wire drawing . . . . .	66	75	58	68	3	2	3	3	3	3
3313	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 70	79	<sup>a</sup> 63	73	<sup>a</sup> 2	1	<sup>a</sup> 2	<sup>a</sup> 2	2	<sup>a</sup> 2
33131	Alumina & aluminum production & processing . . . . .	<sup>a</sup> 70	79	<sup>a</sup> 63	73	<sup>a</sup> 2	1	<sup>a</sup> 2	<sup>a</sup> 2	2	<sup>a</sup> 2
331311	Alumina refining . . . . .	<sup>a</sup> 84	<sup>a</sup> 72	<sup>a</sup> 84	<sup>a</sup> 72	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 2
331312	Primary aluminum production . . . . .	<sup>a</sup> 64	79	<sup>a</sup> 64	79	<sup>a</sup> 4	3	<sup>a</sup> 3	<sup>a</sup> 4	3	<sup>a</sup> 3
331314	Secondary smelting & alloying of aluminum . . . . .	74	74	65	69	2	2	2	3	2	3
331315	Aluminum sheet, plate, & foil mfg . . . . .	<sup>a</sup> 75	83	<sup>a</sup> 67	77	<sup>a</sup> 2	2	<sup>a</sup> 3	<sup>a</sup> 2	2	<sup>a</sup> 3
331316	Aluminum extruded product mfg . . . . .	67	76	55	64	2	2	2	3	3	2
331319	Other aluminum rolling & drawing . . . . .	59	74	55	70	1	2	1	2	2	1
3314	Nonferrous metal (except aluminum) production & processing . . . . .	71	79	61	64	1	1	2	2	2	2
33141	Nonferrous metal (except aluminum) smelting & refining . . . . .	73	81	58	54	2	2	2	2	2	2
331411	Primary smelting & refining of copper . . . . .	73	77	70	41	1	1	1	1	1	1
331419	Other nonferrous metal primary smelting & refining . . . . .	73	83	51	66	3	2	3	2	3	3
33142	Copper rolling, drawing, extruding, & alloying . . . . .	74	86	66	80	2	2	3	2	2	3
331421	Copper rolling, drawing, & extruding . . . . .	73	86	68	83	2	3	4	3	3	5
331422	Copper wire (except mechanical) drawing . . . . .	82	89	69	72	2	3	3	2	3	3
331423	Secondary smelting, refining, & alloying of copper . . . . .	67	79	46	64	3	5	4	4	7	7

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>						
		2001	2000	2001	2000	Full production			National emergency production			
						Level		2000 to 2001 change	Level		2000 to 2001 change	
						2001	2000		2001	2000		
331	Primary metal mfg—Con.											
3314	Nonferrous metal (except aluminum) production & processing—Con.											
33149	Other nonferrous metal rolling, drawing, extruding, & alloying .....	69	73	59	62	2	2	2	3	3	4	
331491	Other nonferrous metal rolling, drawing, & extruding .....	71	74	61	64	2	2	2	4	4	2	
331492	Other nonferrous metal secondary smelting, refining, & alloying .....	64	71	54	56	3	3	2	4	2	3	
3315	Foundries .....	64	72	46	51	1	1	2	2	2	3	
33151	Ferrous metal foundries .....	65	72	45	52	2	2	3	3	3	4	
331511	Iron foundries .....	68	75	45	51	2	2	2	4	4	3	
331512	Steel investment foundries .....	64	68	52	56	1	2	2	3	3	1	
331513	Steel foundries (except investment) .....	55	66	39	51	2	2	2	4	3	3	
33152	Nonferrous metal foundries .....	62	71	47	50	2	2	2	2	3	4	
331521	Aluminum die-casting foundries .....	65	74	50	56	3	3	2	3	5	3	
331522	Nonferrous (except aluminum) die-casting foundries .....	59	69	40	46	3	3	3	4	5	3	
331524	Aluminum foundries (except die-casting) .....	62	70	49	47	4	3	3	3	5	5	
331525	Copper foundries (except die-casting) .....	56	64	36	40	2	3	2	3	3	2	
331528	Other nonferrous foundries (except die-casting) .....	<sup>a</sup> 75	78	<sup>a</sup> 65	70	<sup>a</sup> 2	3	<sup>a</sup> 1	<sup>a</sup> 3	4	<sup>a</sup> 1	
332	Fabricated metal product mfg .....	60	68	40	48	1	1	1	1	1	1	
3321	Forging & stamping .....	57	65	43	50	2	2	2	2	2	2	
33211	Forging & stamping .....	57	65	43	50	2	2	2	2	2	2	
332111	Iron & steel forging .....	57	66	37	48	2	2	2	3	2	3	
332112	Nonferrous forging .....	65	65	54	54	3	3	2	3	2	2	
332114	Custom roll forming .....	54	60	44	46	2	2	2	2	3	3	
332115	Crown & closure mfg .....	57	67	41	49	2	2	2	2	3	2	
332116	Metal stamping .....	57	64	43	49	3	3	3	3	3	3	
332117	Powder metallurgy part mfg .....	66	77	54	65	2	2	2	2	3	2	
3322	Cutlery & handtool mfg .....	63	71	49	56	2	3	3	2	2	3	
33221	Cutlery & handtool mfg .....	63	71	49	56	2	3	3	2	2	3	
332211	Cutlery & flatware (except precious) mfg .....	57	72	46	61	5	5	4	3	4	3	
332212	Hand & edge tool mfg .....	63	71	48	54	2	4	4	2	3	3	
332213	Saw blade & handsaw mfg .....	69	75	53	61	2	3	2	3	3	1	
332214	Kitchen utensil, pot, & pan mfg .....	63	64	57	56	3	3	2	3	3	2	
3323	Architectural & structural metals mfg .....	60	65	38	44	2	2	2	1	2	2	
33231	Plate work & fabricated structural product mfg .....	65	68	37	45	3	2	3	2	2	3	
332311	Prefabricated metal building & component mfg .....	64	69	50	53	2	3	2	3	2	3	
332312	Fabricated structural metal mfg .....	67	69	36	44	4	3	6	2	3	2	
332313	Plate work mfg .....	58	64	32	39	2	3	2	3	3	3	
33232	Ornamental & architectural metal products mfg .....	58	63	38	43	2	2	3	2	2	2	
332321	Metal window & door mfg .....	58	60	40	44	3	3	2	3	3	2	
332322	Sheet metal work mfg .....	56	65	37	43	2	3	2	2	3	2	
332323	Ornamental & architectural metal work mfg .....	61	66	38	44	3	2	3	2	3	3	
3324	Boiler, tank, & shipping container mfg .....	66	70	51	52	2	1	2	2	2	2	
33241	Power boiler & heat exchanger mfg .....	60	60	46	43	2	2	2	2	3	5	
332410	Power boiler & heat exchanger mfg .....	60	60	46	43	2	2	2	2	3	3	
33242	Metal tank (heavy gauge) mfg .....	57	63	42	44	3	2	3	3	2	3	
332420	Metal tank (heavy gauge) mfg .....	57	63	42	44	3	2	3	3	2	2	
33243	Metal can, box, & other metal container (light gauge) mfg .....	74	79	61	63	2	2	3	2	2	3	
332431	Metal can mfg .....	76	84	68	72	3	2	2	3	3	2	
332439	Other metal container mfg .....	68	65	45	43	3	3	3	3	2	2	
3325	Hardware mfg .....	69	73	47	49	3	3	3	4	4	6	
33251	Hardware mfg .....	69	73	47	49	3	3	3	4	4	6	
332510	Hardware mfg .....	69	73	47	49	3	3	1	4	4	2	
3326	Spring & wire product mfg .....	62	69	45	53	2	2	3	3	2	3	
33261	Spring & wire product mfg .....	62	69	45	53	2	2	3	3	2	3	
332611	Spring (heavy gauge) mfg .....	66	67	50	50	2	2	1	4	3	1	
332612	Spring (light gauge) mfg .....	61	67	41	56	3	3	1	6	3	5	
332618	Other fabricated wire product mfg .....	62	70	48	53	3	3	2	3	3	2	
3327	Machine shops, turned product, & screw, nut, & bolt mfg .....	53	66	31	43	2	2	2	2	2	3	
33271	Machine shops .....	51	66	29	44	2	2	3	2	3	4	
332710	Machine shops .....	51	66	29	44	2	2	3	2	3	3	
33272	Turned product & screw, nut, & bolt mfg .....	59	67	36	42	2	2	3	2	3	4	
332721	Precision turned product mfg .....	55	64	31	40	3	3	3	3	3	4	
332722	Bolt, nut, screw, rivet, & washer mfg .....	65	70	44	45	2	2	2	3	4	4	
3328	Coating, engraving, heat treating, & allied activities .....	63	71	46	51	2	2	3	2	3	3	
33281	Coating, engraving, heat treating, & allied activities .....	63	71	46	51	2	2	3	2	3	3	
332811	Metal heat treating .....	65	87	53	52	3	2	4	3	1	3	
332812	Metal coating/engraving (exc jewelry/silverware)/allied services .....	71	69	58	55	4	3	4	4	4	4	
332813	Electroplating, plating, polishing, anodizing, & coloring .....	55	66	36	46	2	3	2	3	4	2	

See footnotes at end of table.



**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>							
		2001	2000	2001	2000	Full production			National emergency production				
						Level		2000 to 2001 change	Level		2000 to 2001 change		
						2001	2000		2001	2000			
332	Fabricated metal product mfg—Con.												
3329	Other fabricated metal product mfg . . . . .	65	70	47	53	1	1	2	1	1	2	2	2
33291	Metal valve mfg . . . . .	64	68	46	51	2	2	2	2	2	2	2	2
332911	Industrial valve mfg . . . . .	63	65	44	49	2	3	2	2	2	2	2	2
332912	Fluid power valve & hose fitting mfg . . . . .	65	71	44	51	2	2	2	2	3	3	3	3
332913	Plumbing fixture fitting & trim mfg . . . . .	67	69	52	53	4	4	2	3	3	2	2	2
332919	Other metal valve & pipe fitting mfg . . . . .	62	70	50	58	4	5	3	3	5	3	3	3
33299	All other fabricated metal product mfg . . . . .	66	71	49	54	1	1	2	2	2	2	2	2
332991	Ball & roller bearing mfg . . . . .	69	73	58	61	3	2	2	4	3	2	2	2
332992	Small arms ammunition mfg . . . . .	66	64	46	51	1	3	3	3	3	2	2	2
332993	Ammunition (except small arms) mfg . . . . .	65	55	36	29	2	3	3	5	4	3	3	3
332994	Small arms mfg . . . . .	66	76	44	55	4	3	3	5	4	2	2	2
332995	Other ordnance & accessories mfg . . . . .	69	66	57	56	2	3	2	1	1	1	1	1
332996	Fabricated pipe & pipe fitting mfg . . . . .	67	70	52	56	3	2	3	2	2	2	2	2
332997	Industrial pattern mfg . . . . .	61	71	38	49	3	2	3	2	3	2	2	2
332998	Enameled iron & metal sanitary ware mfg . . . . .	81	88	54	59	5	2	5	5	5	2	2	2
332999	All other miscellaneous fabricated metal product mfg . . . . .	62	72	45	56	2	2	2	3	4	3	3	3
333	Machinery mfg . . . . .	54	66	29	45	1	1	1	3	1	1	1	1
3331	Agriculture, construction, & mining machinery mfg . . . . .	58	64	41	46	2	2	2	2	2	2	2	2
33311	Agricultural implement mfg . . . . .	53	66	36	46	2	2	3	2	2	2	2	2
333111	Farm machinery & equipment mfg . . . . .	54	66	36	48	3	2	3	3	2	3	3	3
333112	Lawn & garden tractor & home lawn & garden equipment mfg . . . . .	51	65	34	43	3	2	2	2	3	2	2	2
33312	Construction machinery mfg . . . . .	62	66	45	47	5	3	3	5	4	4	4	4
333120	Construction machinery mfg . . . . .	62	66	45	47	5	3	3	5	4	3	3	3
33313	Mining & oil & gas field machinery mfg . . . . .	61	59	46	45	2	2	2	2	2	2	2	2
333131	Mining machinery & equipment mfg . . . . .	59	57	44	39	3	3	3	3	3	2	2	2
333132	Oil & gas field machinery & equipment mfg . . . . .	62	60	47	49	2	2	2	2	2	1	1	1
3332	Industrial machinery mfg . . . . .	45	71	14	46	2	1	2	4	2	2	2	2
33321	Sawmill & woodworking machinery mfg . . . . .	53	63	32	32	3	4	5	2	6	8	8	8
333210	Sawmill & woodworking machinery mfg . . . . .	53	63	32	32	3	4	2	2	6	6	6	6
33322	Plastics & rubber industry machinery mfg . . . . .	60	72	33	51	2	2	3	3	5	6	6	6
333220	Plastics & rubber industry machinery mfg . . . . .	60	72	33	51	2	2	2	3	5	3	3	3
33329	Other industrial machinery mfg . . . . .	44	71	13	46	2	1	2	3	2	2	2	2
333291	Paper industry machinery mfg . . . . .	58	64	35	43	6	5	4	4	4	2	2	2
333292	Textile machinery mfg . . . . .	<sup>a</sup> 51	<sup>a</sup> 62	<sup>a</sup> 25	<sup>a</sup> 35	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1
333293	Printing machinery & equipment mfg . . . . .	55	69	30	41	3	3	3	3	3	3	3	3
333294	Food product machinery mfg . . . . .	62	67	40	41	5	4	4	3	2	3	3	3
333295	Semiconductor machinery mfg . . . . .	36	<sup>a</sup> 80	18	<sup>a</sup> 60	2	<sup>a</sup> 1	3	1	<sup>a</sup> 2	2	2	2
333298	All other industrial machinery mfg . . . . .	58	66	6	39	3	2	3	3	4	5	5	5
3333	Commercial & service industry machinery mfg . . . . .	54	62	34	41	1	1	2	1	2	2	2	2
33331	Commercial & service industry machinery mfg . . . . .	54	62	34	41	1	1	2	1	2	2	2	2
333311	Automatic vending machine mfg . . . . .	<sup>a</sup> 40	60	<sup>a</sup> 26	34	<sup>a</sup> 1	1	<sup>a</sup> 2	<sup>a</sup> 1	2	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 2
333312	Commercial laundry, drycleaning, & pressing machine mfg . . . . .	33	62	29	50	4	1	4	3	3	4	4	4
333313	Office machinery mfg . . . . .	<sup>a</sup> 51	70	<sup>a</sup> 30	44	<sup>a</sup> 3	2	<sup>a</sup> 3	<sup>a</sup> 2	3	<sup>a</sup> 3	<sup>a</sup> 3	<sup>a</sup> 3
333314	Optical instrument & lens mfg . . . . .	64	70	32	42	3	2	4	3	3	3	3	3
333315	Photographic & photocopying equipment mfg . . . . .	54	53	41	38	2	2	2	2	3	3	3	3
333319	Other commercial & service industry machinery mfg . . . . .	56	69	30	45	2	3	4	2	3	3	3	3
3334	Ventilation, heating, AC, & commercial refrigeration equip mfg . . . . .	59	66	37	44	3	4	5	3	3	4	4	4
33341	Ventilation, heating, AC, & commercial refrigeration equip mfg . . . . .	59	66	37	44	3	4	5	3	3	4	4	4
333411	Air purification equipment mfg . . . . .	60	67	34	40	3	2	3	2	3	2	2	2
333412	Industrial & commercial fan & blower mfg . . . . .	57	65	39	44	3	2	3	2	3	2	2	2
333414	Heating equipment (except warm air furnaces) mfg . . . . .	58	64	45	48	2	2	2	2	2	2	2	2
333415	AC & warm air heating & commercial/industrial refrig equip mfg . . . . .	59	66	36	43	4	5	4	4	4	4	4	4
3335	Metalworking machinery mfg . . . . .	51	68	32	45	4	2	2	3	2	3	3	3
33351	Metalworking machinery mfg . . . . .	51	68	32	45	4	2	2	3	2	3	3	3
333511	Industrial mold mfg . . . . .	38	72	26	40	11	3	11	7	5	8	8	8
333512	Machine tool (metal cutting types) mfg . . . . .	47	61	33	43	2	2	2	2	2	2	2	2
333513	Machine tool (metal forming types) mfg . . . . .	50	66	30	45	1	2	2	3	5	2	2	2
333514	Special die & tool, die set, jig, & fixture mfg . . . . .	58	67	34	44	2	2	2	2	2	2	2	2
333515	Cutting tool & machine tool accessory mfg . . . . .	60	72	41	59	3	5	6	5	6	5	5	5
333516	Rolling mill machinery & equipment mfg . . . . .	55	65	30	35	13	14	2	16	17	2	2	2
333518	Other metalworking machinery mfg . . . . .	58	70	31	46	3	3	3	2	3	2	2	2

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>						
		2001	2000	2001	2000	Full production		2000 to 2001 change	National emergency production			
						Level			2001	2000	2000 to 2001 change	
						2001	2000					
333	Machinery mfg—Con.											
3336	Engine, turbine, & power transmission equipment mfg	59	66	46	52	2	2	3	2	2	2	2
33361	Engine, turbine, & power transmission equipment mfg	59	66	46	52	2	2	3	2	2	2	2
333611	Turbine & turbine generator set unit mfg	88	75	70	61	2	2	1	2	2	2	1
333612	Speed changer, industrial high-speed drive, & gear mfg	53	63	41	50	2	2	1	3	2	2	2
333613	Mechanical power transmission equipment mfg	51	54	41	43	5	5	2	4	4	2	2
333618	Other engine equipment mfg	55	67	43	52	2	3	3	2	2	2	2
3339	Other general-purpose machinery mfg	60	66	38	43	1	1	2	1	2	2	2
33391	Pump & compressor mfg	62	61	42	44	2	2	3	3	3	4	4
333911	Pump & pumping equipment mfg	62	58	42	44	2	4	3	4	4	2	2
333912	Air & gas compressor mfg	62	66	42	44	3	3	2	4	4	1	1
333913	Measuring & dispensing pump mfg	<sup>a63</sup>	<sup>a58</sup>	<sup>a45</sup>	<sup>a44</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>
33392	Material handling equipment mfg	55	67	33	43	2	1	2	2	2	3	3
333921	Elevator & moving stairway mfg	73	75	53	51	2	2	2	2	2	2	2
333922	Conveyor & conveying equipment mfg	57	69	29	41	2	2	2	3	3	3	3
333923	Overhead traveling crane, hoist, & monorail system mfg	50	65	34	40	4	2	3	2	4	4	3
333924	Industrial truck, tractor, trailer, & stacker machinery mfg	51	64	35	46	2	2	1	2	3	1	1
33399	All other general-purpose machinery mfg	61	68	39	43	1	2	2	2	2	2	2
333991	Power-driven handtool mfg	75	79	52	59	2	2	1	7	8	2	2
333992	Welding & soldering equipment mfg	57	69	40	46	4	4	4	5	5	3	3
333993	Packaging machinery mfg	60	62	34	34	3	7	6	2	4	3	3
333994	Industrial process furnace & oven mfg	51	67	34	46	2	3	3	2	3	2	2
333995	Fluid power cylinder & actuator mfg	66	69	41	40	2	2	2	3	3	2	2
333996	Fluid power pump & motor mfg	63	67	42	47	3	3	2	4	4	1	1
333997	Scale & balance (except laboratory) mfg	49	56	20	22	3	3	2	9	9	2	2
333999	All other miscellaneous general-purpose machinery mfg	61	66	39	44	2	2	2	2	3	2	2
334	Computer & electronic product mfg	57	73	40	53	2	1	1	3	2	3	3
3341	Computer & peripheral equipment mfg	<sup>a62</sup>	66	<sup>a40</sup>	47	<sup>a2</sup>	2	<sup>a2</sup>	<sup>a2</sup>	2	<sup>a3</sup>	<sup>a3</sup>
33411	Computer & peripheral equipment mfg	<sup>a62</sup>	66	<sup>a40</sup>	47	<sup>a2</sup>	2	<sup>a2</sup>	<sup>a2</sup>	2	<sup>a3</sup>	<sup>a3</sup>
334111	Electronic computer mfg	<sup>a66</sup>	<sup>a64</sup>	<sup>a42</sup>	<sup>a48</sup>	<sup>a1</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a1</sup>	8	<sup>a1</sup>	<sup>a1</sup>
334112	Computer storage device mfg	<sup>a49</sup>	65	<sup>a29</sup>	36	<sup>a4</sup>	3	<sup>a4</sup>	<sup>a5</sup>	6	<sup>a3</sup>	<sup>a3</sup>
334113	Computer terminal mfg	<sup>a38</sup>	44	<sup>a30</sup>	29	<sup>a1</sup>	4	<sup>a4</sup>	<sup>a1</sup>	8	<sup>a7</sup>	<sup>a7</sup>
334119	Other computer peripheral equipment mfg	69	77	50	61	3	3	2	2	3	2	2
3342	Communications equipment mfg	<sup>a52</sup>	75	<sup>a39</sup>	56	<sup>a4</sup>	2	<sup>a2</sup>	<sup>a2</sup>	2	<sup>a2</sup>	<sup>a2</sup>
33421	Telephone apparatus mfg	<sup>a46</sup>	77	<sup>a36</sup>	59	<sup>a5</sup>	3	<sup>a3</sup>	<sup>a3</sup>	2	<sup>a2</sup>	<sup>a2</sup>
334210	Telephone apparatus mfg	<sup>a46</sup>	77	<sup>a36</sup>	59	<sup>a5</sup>	3	<sup>a3</sup>	<sup>a3</sup>	2	<sup>a3</sup>	<sup>a3</sup>
33422	Radio & TV broadcasting & wireless communications equipment mfg	<sup>a65</sup>	<sup>a73</sup>	<sup>a42</sup>	<sup>a54</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a4</sup>
334220	Radio & TV broadcasting & wireless communications equipment mfg	<sup>a65</sup>	<sup>a73</sup>	<sup>a42</sup>	<sup>a54</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a2</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a3</sup>
33429	Other communications equipment mfg	66	71	43	47	2	2	3	1	2	3	3
334290	Other communications equipment mfg	66	71	43	47	2	2	3	1	2	2	2
3343	Audio & video equipment mfg	58	57	42	37	5	4	6	4	4	5	5
33431	Audio & video equipment mfg	58	57	42	37	5	4	6	4	4	5	5
334310	Audio & video equipment mfg	58	57	42	37	5	4	5	4	4	4	4
3344	Semiconductor & other electronic component mfg	<sup>a56</sup>	82	<sup>a40</sup>	64	<sup>a2</sup>	2	<sup>a3</sup>	<sup>a6</sup>	7	<sup>a7</sup>	<sup>a7</sup>
33441	Semiconductor & other electronic component mfg	<sup>a56</sup>	82	<sup>a40</sup>	64	<sup>a2</sup>	2	<sup>a3</sup>	<sup>a6</sup>	7	<sup>a7</sup>	<sup>a7</sup>
334411	Electron tube mfg	64	80	58	70	1	2	2	1	4	4	4
334412	Bare printed circuit board mfg	<sup>a49</sup>	77	<sup>a34</sup>	53	<sup>a2</sup>	2	<sup>a3</sup>	<sup>a2</sup>	3	<sup>a3</sup>	<sup>a3</sup>
334413	Semiconductor & related device mfg	<sup>a57</sup>	<sup>a87</sup>	<sup>a41</sup>	<sup>a69</sup>	<sup>a2</sup>	<sup>a3</sup>	<sup>a3</sup>	<sup>a9</sup>	<sup>a12</sup>	<sup>a4</sup>	<sup>a4</sup>
334414	Electronic capacitor mfg	<sup>a44</sup>	86	<sup>a35</sup>	78	<sup>a5</sup>	2	<sup>a4</sup>	<sup>a4</sup>	4	<sup>a4</sup>	<sup>a4</sup>
334415	Electronic resistor mfg	45	67	28	45	3	2	3	3	3	2	2
334416	Electronic coil, transformer, & other inductor mfg	51	67	34	47	2	3	3	1	2	2	2
334417	Electronic connector mfg	64	75	47	54	2	3	2	3	3	2	2
334418	Printed circuit assembly (electronic assembly) mfg	<sup>a62</sup>	75	<sup>a51</sup>	64	<sup>a6</sup>	2	<sup>a5</sup>	<sup>a6</sup>	2	<sup>a5</sup>	<sup>a5</sup>
334419	Other electronic component mfg	48	72	27	42	3	4	3	3	4	4	4
3345	Navigational, measuring, medical, & control instruments mfg	61	65	40	42	2	2	3	2	3	3	3
33451	Navigational, measuring, medical, & control instruments mfg	61	65	40	42	2	2	3	2	3	3	3
334510	Electromedical & electrotherapeutic apparatus mfg	75	75	49	54	3	4	2	6	4	4	4
334511	Search, detection, navigation, & guidance instrument mfg	59	59	43	40	4	4	1	4	6	3	3
334512	Automatic environmental control mfg	67	71	47	51	2	2	2	2	2	2	2
334513	Industrial process control instrument mfg	58	66	31	38	2	2	2	3	4	2	2
334514	Totalizing fluid meter & counting device mfg	70	70	52	52	2	2	2	2	3	2	2
334515	Electricity measuring & testing instrument mfg	55	69	35	47	2	3	3	2	3	3	3
334516	Analytical laboratory instrument mfg	63	66	33	31	8	8	2	3	3	3	3
334517	Irradiation apparatus mfg	71	75	49	47	3	2	2	6	5	3	3
334518	Watch, clock, & part mfg	<sup>a55</sup>	61	<sup>a24</sup>	30	<sup>a2</sup>	2	<sup>a2</sup>	<sup>a1</sup>	2	<sup>a2</sup>	<sup>a2</sup>

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>					
		2001	2000	2001	2000	Full production		2000 to 2001 change	National emergency production		2000 to 2001 change
						Level			2001	2000	
						2001	2000				
334	Computer & electronic product mfg—Con.										
3345	Navigational, measuring, medical, & control instruments mfg—Con.										
33451	Navigational, measuring, medical, & control instruments mfg—Con.										
334519	Other measuring & controlling device mfg .....	57	64	36	43	2	3	2	2	3	2
3346	Mfg & reproducing magnetic & optical media .....	79	76	64	58	3	4	5	3	5	6
33461	Mfg & reproducing magnetic & optical media .....	79	76	64	58	3	4	5	3	5	6
334611	Software reproducing .....	75	70	68	48	10	9	7	8	15	15
334612	Prerecorded CD (except software), tape, & record reproducing .....	78	84	58	59	3	2	2	4	4	4
334613	Magnetic & optical recording media mfg .....	80	69	77	64	8	8	3	8	7	3
335	Electrical equipment, appliance, & component mfg .....	62	70	45	53	1	1	1	1	1	2
3351	Electric lighting equipment mfg .....	59	66	39	47	2	1	2	2	3	4
33511	Electric lamp bulb & part mfg .....	63	75	53	62	1	2	3	1	3	4
335110	Electric lamp bulb & part mfg .....	63	75	53	62	1	2	2	1	3	3
33512	Lighting fixture mfg .....	57	64	36	43	2	2	2	3	3	4
335121	Residential electric lighting fixture mfg .....	46	59	27	35	2	2	2	2	3	2
335122	Commercial/industrial/institutional electric lighting fixture mfg .....	58	63	38	46	4	2	3	5	7	3
335129	Other lighting equipment mfg .....	66	69	40	46	2	3	2	5	3	2
3352	Household appliance mfg .....	70	70	51	52	2	2	2	2	2	2
33521	Small electrical appliance mfg .....	69	68	47	47	3	4	5	3	3	4
335211	Electric housewares & household fan mfg .....	64	61	44	43	5	7	4	4	5	3
335212	Household vacuum cleaner mfg .....	74	77	49	51	1	1	1	2	3	1
33522	Major appliance mfg .....	71	71	53	54	2	2	3	2	2	2
335221	Household cooking appliance mfg .....	50	55	38	41	2	3	2	3	2	1
335222	Household refrigerator & home freezer mfg .....	83	75	58	53	2	2	1	3	3	1
335224	Household laundry equipment mfg ..	90	88	77	75	1	1	1	1	1	1
335228	Other major household appliance mfg .....	71	71	54	54	8	8	1	4	4	1
3353	Electrical equipment mfg .....	61	67	42	51	2	2	2	2	2	2
33531	Electrical equipment mfg .....	61	67	42	51	2	2	2	2	2	2
335311	Power, distribution, & specialty transformer mfg .....	71	75	52	61	2	2	1	2	3	1
335312	Motor & generator mfg .....	61	63	45	49	2	2	1	2	3	3
335313	Switchgear & switchboard apparatus mfg .....	66	77	41	59	2	2	2	5	3	5
335314	Relay & industrial control mfg .....	54	62	38	45	3	3	2	3	3	2
3359	Other electrical equipment & component mfg .....	62	74	47	57	1	1	1	1	2	2
33591	Battery mfg .....	64	71	52	59	2	2	3	2	2	2
335911	Storage battery mfg .....	<sup>a</sup> 62	76	<sup>a</sup> 51	63	<sup>a</sup> 3	4	<sup>a</sup> 2	<sup>a</sup> 2	3	<sup>a</sup> 2
335912	Primary battery mfg .....	67	65	54	54	1	1	1	1	1	1
33592	Communication & energy wire & cable mfg .....	62	83	53	67	2	2	2	2	2	2
335921	Fiber optic cable mfg .....	<sup>a</sup> 60	84	<sup>a</sup> 54	78	<sup>a</sup> 1	1	<sup>a</sup> 1	<sup>a</sup> 1	2	<sup>a</sup> 1
335929	Other communication & energy wire mfg .....	63	83	53	64	3	2	4	3	2	3
33593	Wiring device mfg .....	68	73	51	56	2	2	3	2	3	4
335931	Current-carrying wiring device mfg ..	68	71	51	55	3	3	2	3	4	3
335932	Noncurrent-carrying wiring device mfg .....	67	75	51	57	3	2	1	3	3	1
33599	All other electrical equipment & component mfg .....	54	69	36	48	2	2	2	2	3	3
335991	Carbon & graphite product mfg .....	54	64	44	54	4	4	3	4	5	3
335999	All other miscellaneous electrical equipment & component mfg .....	<sup>a</sup> 54	70	<sup>a</sup> 35	47	<sup>a</sup> 2	1	<sup>a</sup> 2	<sup>a</sup> 2	3	<sup>a</sup> 2
336	Transportation equipment mfg .....	64	68	45	48	1	1	1	1	1	1
3361	Motor vehicle mfg .....	76	79	51	55	1	1	2	1	2	3
33611	Automobile & light duty motor vehicle mfg .....	81	80	54	55	2	2	2	2	2	3
336111	Automobile mfg .....	78	84	49	55	2	1	1	2	1	2
336112	Light truck & utility vehicle mfg .....	84	78	61	56	2	2	2	2	3	2
33612	Heavy duty truck mfg .....	43	66	29	44	2	2	2	1	2	2
336120	Heavy duty truck mfg .....	43	66	29	44	2	2	2	1	2	2
3362	Motor vehicle body & trailer mfg .....	54	60	30	34	2	2	2	1	2	2
33621	Motor vehicle body & trailer mfg .....	54	60	30	34	2	2	2	1	2	2
336211	Motor vehicle body mfg .....	68	70	37	43	3	3	2	3	3	4
336212	Truck trailer mfg .....	39	61	26	36	2	3	2	1	4	4
336213	Motor home mfg .....	71	51	26	27	10	2	10	2	2	2
336214	Travel trailer & camper mfg .....	50	54	28	29	3	3	2	1	2	3
3363	Motor vehicle parts mfg .....	71	75	52	57	2	1	1	2	1	2
33631	Motor vehicle gasoline engine & engine parts mfg .....	73	78	56	59	2	2	2	2	2	3
336311	Carburetor, piston, piston ring, & valve mfg .....	76	79	50	61	4	4	1	8	10	3
336312	Gasoline engine & engine parts mfg ..	73	78	57	59	2	2	1	2	2	1
33632	Motor vehicle electrical & electronic equipment mfg .....	59	73	44	55	5	1	2	4	3	3
336321	Vehicle lighting equipment mfg .....	66	68	56	56	3	3	1	3	3	1
336322	Other motor vehicle electrical & electronic equipment mfg .....	58	73	43	55	5	1	5	4	4	5

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>					
		2001	2000	2001	2000	Full production		2000 to 2001 change	National emergency production		2000 to 2001 change
						Level			2001	2000	
						2001	2000				
336	Transportation equipment mfg—Con.										
3363	Motor vehicle parts mfg—Con.										
33633	Motor vehicle steering & suspension component (except spring) mfg .....	69	70	57	60	4	3	4	4	4	5
336330	Motor vehicle steering & suspension component (except spring) mfg .....	69	70	57	60	4	3	2	4	4	1
33634	Motor vehicle brake system mfg .....	70	66	48	50	2	2	2	3	3	4
336340	Motor vehicle brake system mfg .....	70	66	48	50	2	2	1	3	3	2
33635	Motor vehicle transmission & power train parts mfg .....	76	74	63	60	3	2	3	3	2	2
336350	Motor vehicle transmission & power train parts mfg .....	76	74	63	60	3	2	3	3	2	3
33636	Motor vehicle seating & interior trim mfg .....	80	84	51	55	3	2	3	3	3	4
336360	Motor vehicle seating & interior trim mfg .....	80	84	51	55	3	2	2	3	3	1
33637	Motor vehicle metal stamping .....	73	74	56	58	2	2	3	3	2	3
336370	Motor vehicle metal stamping .....	73	74	56	58	2	2	2	3	2	2
33639	Other motor vehicle parts mfg .....	70	76	46	56	2	2	2	3	4	5
336391	Motor vehicle air-conditioning mfg .....	76	68	60	53	1	1	1	3	1	3
336399	All other motor vehicle parts mfg .....	70	77	45	56	2	2	2	3	4	2
3364	Aerospace product & parts mfg .....	54	56	39	40	1	1	1	1	1	1
33641	Aerospace product & parts mfg .....	54	56	39	40	1	1	1	1	1	1
336411	Aircraft mfg .....	64	61	47	44	2	1	1	1	1	1
336412	Aircraft engine & engine parts mfg ..	63	66	39	42	2	2	1	2	3	2
336413	Other aircraft part & auxiliary equipment mfg .....	64	69	47	51	2	2	2	2	2	2
336414	Guided missile & space vehicle mfg .	<sup>a</sup> 25	<sup>a</sup> 33	<sup>a</sup> 21	<sup>a</sup> 27	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1	<sup>a</sup> 1
336415	Guided missile & space vehicle propulsion unit & parts mfg .....	36	45	22	23	1	2	1	1	1	1
336419	Other guided missile & space vehicle parts & auxiliary equip mfg .....	47	73	36	50	1	1	2	2	3	2
3365	Railroad rolling stock mfg .....	<sup>a</sup> 54	69	<sup>a</sup> 44	57	<sup>a</sup> 2	2	<sup>a</sup> 3	<sup>a</sup> 2	2	<sup>a</sup> 3
33651	Railroad rolling stock mfg .....	<sup>a</sup> 54	69	<sup>a</sup> 44	57	<sup>a</sup> 2	2	<sup>a</sup> 3	<sup>a</sup> 2	2	<sup>a</sup> 3
336510	Railroad rolling stock mfg .....	<sup>a</sup> 54	69	<sup>a</sup> 44	57	<sup>a</sup> 2	2	<sup>a</sup> 2	<sup>a</sup> 2	2	<sup>a</sup> 2
3366	Ship & boat building .....	52	56	36	39	1	2	2	2	2	2
33661	Ship & boat building .....	52	56	36	39	1	2	2	2	2	2
336611	Ship building & repairing .....	49	53	38	40	1	1	1	2	2	1
336612	Boat building .....	<sup>a</sup> 56	62	<sup>a</sup> 33	37	<sup>a</sup> 2	4	<sup>a</sup> 3	<sup>a</sup> 3	4	<sup>a</sup> 2
3369	Other transportation equipment mfg .....	57	65	34	40	1	2	2	1	2	3
33699	Other transportation equipment mfg .....	57	65	34	40	1	2	2	1	2	3
336991	Motorcycle, bicycle, & parts mfg .....	<sup>a</sup> 54	<sup>a</sup> 76	<sup>a</sup> 24	<sup>a</sup> 40	<sup>a</sup> 3	<sup>a</sup> 4	<sup>a</sup> 3	<sup>a</sup> 2	<sup>a</sup> 3	<sup>a</sup> 2
336992	Military armored vehicle, tank, & tank component mfg .....	42	39	36	26	1	2	1	1	2	2
336999	All other transportation equipment mfg .....	70	74	47	50	1	2	1	2	2	2
337	Furniture & related product mfg .....	62	68	36	41	2	2	3	2	2	3
3371	Household & institutional furniture & kitchen cabinet mfg .....	67	69	35	40	2	2	3	3	3	4
33711	Wood kitchen cabinet & counter top mfg .....	72	65	48	48	5	4	6	4	4	6
337110	Wood kitchen cabinet & counter top mfg .....	72	65	48	48	5	4	3	4	4	4
33712	Household & institutional furniture mfg .	66	70	31	38	2	2	3	3	4	5
337121	Upholstered household furniture mfg .....	74	81	44	45	6	4	5	6	6	2
337122	Nonupholstered wood household furniture mfg .....	67	73	30	35	4	4	3	6	7	2
337124	Metal household furniture mfg .....	50	54	27	35	3	4	3	3	4	4
337125	Household furniture (except wood & metal) mfg .....	48	72	35	42	10	7	11	6	5	5
337127	Institutional furniture mfg .....	64	62	24	37	4	3	3	4	3	5
337129	Wood television, radio, & sewing machine cabinet mfg .....	69	71	46	46	2	4	3	5	6	2
3372	Office furniture (including fixtures) mfg ...	55	68	38	43	2	4	5	2	2	3
33721	Office furniture (including fixtures) mfg .	55	68	38	43	2	4	5	2	2	3
337211	Wood office furniture mfg .....	46	76	34	37	3	5	5	4	3	5
337212	Custom architectural woodwork & millwork mfg .....	69	71	34	35	4	4	5	7	6	4
337214	Office furniture (except wood) mfg ..	56	73	43	53	2	3	3	2	2	3
337215	Showcase, partition, shelving, & locker mfg .....	56	59	37	40	4	8	8	3	4	3
3379	Other furniture related product mfg .....	57	66	36	38	4	3	3	3	5	6
33791	Mattress mfg .....	58	69	37	43	6	3	4	4	4	6
337910	Mattress mfg .....	58	69	37	43	6	3	6	4	4	4
33792	Blind & shade mfg .....	56	60	35	32	3	4	5	5	8	9
337920	Blind & shade mfg .....	56	60	35	32	3	4	2	5	8	4
339	Miscellaneous mfg .....	65	69	43	47	2	2	2	2	2	2
3391	Medical equipment & supplies mfg .....	67	71	49	53	2	2	2	2	2	2
33911	Medical equipment & supplies mfg .....	67	71	49	53	2	2	2	2	2	2
339111	Laboratory apparatus & furniture mfg .....	66	72	43	43	5	3	4	3	3	3
339112	Surgical & medical instrument mfg ..	67	68	46	51	3	3	2	4	3	3
339113	Surgical appliance & supplies mfg ..	65	72	51	60	3	4	3	3	3	3
339114	Dental equipment & supplies mfg .....	74	74	49	50	5	4	2	3	3	2
339115	Ophthalmic goods mfg .....	63	67	53	49	5	6	5	5	4	5
339116	Dental laboratories .....	85	86	55	56	3	2	1	3	3	2

See footnotes at end of table.

**Table 2. Capacity Utilization Rates by Industry: Fourth Quarters 2001 and 2000—Con.**

[For meaning of abbreviations and symbols, see introductory text]

NAICS code	Industry	Full production		National emergency production		Standard errors <sup>1</sup>							
		2001	2000	2001	2000	Full production			National emergency production				
						Level		2000 to 2001 change	Level		2000 to 2001 change		
						2001	2000		2001	2000			
339	Miscellaneous mfg—Con.												
3399	Other miscellaneous mfg .....	63	67	37	42	2	2	3	2	2	3	2	3
33991	Jewelry & silverware mfg .....	63	69	34	39	4	3	4	3	2	3	2	3
339911	Jewelry (except costume) mfg .....	64	73	35	42	5	5	4	3	3	2	3	2
339912	Silverware & plated ware mfg .....	64	63	30	45	4	4	2	4	3	4	3	4
339913	Jewelers' material & lapidary work mfg .....	60	67	46	30	6	6	3	4	3	4	3	4
339914	Costume jewelry & novelty mfg .....	<sup>a</sup> 60	60	<sup>a</sup> 30	31	<sup>a</sup> 4	2	<sup>a</sup> 3	<sup>a</sup> 5	4	4	4	<sup>a</sup> 3
33992	Sporting & athletic goods mfg .....	64	61	34	35	4	6	8	6	6	8	6	8
339920	Sporting & athletic goods mfg .....	64	61	34	35	4	6	6	6	6	7	6	7
33993	Doll, toy, & game mfg .....	59	63	34	40	6	6	7	6	5	7	6	7
339931	Doll & stuffed toy mfg .....	<sup>a</sup> 57	<sup>a</sup> 59	<sup>a</sup> 51	<sup>a</sup> 44	<sup>a</sup> 3	<sup>a</sup> 1	<sup>a</sup> 2	<sup>a</sup> 2	<sup>a</sup> 1	<sup>a</sup> 3	<sup>a</sup> 1	<sup>a</sup> 3
339932	Game, toy, & children's vehicle mfg ..	59	64	33	40	6	6	3	6	5	5	5	5
33994	Office supplies (except paper) mfg .....	63	65	45	48	2	2	2	2	3	5	3	5
339941	Pen & mechanical pencil mfg .....	58	70	38	48	1	2	1	3	7	5	7	5
339942	Lead pencil & art good mfg .....	78	75	75	68	2	6	6	2	7	7	7	7
339943	Marking device mfg .....	55	52	32	33	3	3	3	2	2	2	2	2
339944	Carbon paper & inked ribbon mfg ...	68	60	55	52	8	5	6	3	4	4	4	4
33995	Sign mfg .....	65	74	41	48	4	3	5	4	5	8	4	8
339950	Sign mfg .....	65	74	41	48	4	3	3	4	5	3	4	3
33999	All other miscellaneous mfg .....	63	68	38	43	2	2	3	2	4	6	4	6
339991	Gasket, packing, & sealing device mfg .....	68	73	49	57	3	3	2	5	4	3	4	3
339992	Musical instrument mfg .....	59	60	17	31	3	3	2	1	3	2	3	2
339993	Fastener, button, needle, & pin mfg ..	60	72	39	48	3	4	2	8	10	3	8	3
339994	Broom, brush, & mop mfg .....	62	66	36	39	5	5	4	5	6	3	5	3
339995	Burial casket mfg .....	69	71	50	53	5	5	1	3	4	1	3	1
339999	All other miscellaneous mfg .....	<sup>a</sup> 61	65	<sup>a</sup> 43	38	<sup>a</sup> 4	4	<sup>a</sup> 3	<sup>a</sup> 3	7	<sup>a</sup> 7	<sup>a</sup> 3	<sup>a</sup> 7

<sup>1</sup>A description of the standard error is given in Appendix B, "Qualifications of the Data" of the report.

# Appendix A. MQ-C1 Report Form and Instructions

---

The MQ-C1 form and instructions are shown on the following pages.

FORM **MO-C1**  
(10-10-2001)

U.S. DEPARTMENT OF COMMERCE  
Economics and Statistics Administration  
U.S. CENSUS BUREAU

**SURVEY OF PLANT CAPACITY UTILIZATION  
FOURTH QUARTER 2001 (October-December)**

In correspondence pertaining to this report refer to the ID NUMBER (ID) (11 digits)

**NOTICE** – Response to this inquiry is required by law (title 13, United States Code). By section 9 of the same law, your report to the Census Bureau is confidential. Only persons sworn to uphold confidentiality of Title 13 will see your information, and it will be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

**IMPORTANT**

**PLEASE READ INSTRUCTIONS AND DEFINITIONS BEFORE COMPLETING FORM**

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

**NOTE** — If you need a copy of the instructions, please visit [www.census.gov/cir/www/mqc1pag2.html](http://www.census.gov/cir/www/mqc1pag2.html)

**Item 1 OPERATIONAL STATUS**

Mark (X) ONE box which best describes this establishment at the end of 2001. See instructions for reporting.

- 12  In operation – Complete items 2 through 6.
- 13  Temporarily idle – See instruction sheet – Complete items 2-6.

- 14  Sold or leased to another company  
See instruction sheet . . . . .
- 15  Permanently ceased operations –  
See instruction sheet. . . . .

Give date sold or closed <sup>16</sup>

Month	Year

**Item 2 VALUE OF PRODUCTION**

**ACTUAL PRODUCTION**

4th QTR. 2001      4th QTR. 2000

\$	4th QTR. 2001		4th QTR. 2000	
	Mil.	Thou.	Mil.	Thou.
23				

- a. Report market value of **actual production** for the 4th quarter of 2001 . . . . .
- b. Estimate the market value of production of this plant as if it had been operating at **full production capability** in the 4th quarter of 2001. . . . .

**FULL PRODUCTION CAPABILITY**

4th QTR. 2001      4th QTR. 2000

\$	4th QTR. 2001		4th QTR. 2000	
	Mil.	Thou.	Mil.	Thou.
34				

- Assume:
- only machinery and equipment **in place and ready to operate.**
  - **normal** downtime.
  - Labor, materials, utilities, etc. **ARE FULLY AVAILABLE.**
  - the number of shifts, hours of operation, and overtime pay that can be **sustained** under **normal** conditions and a **realistic** work schedule in the long run.
  - the **same product mix** as in the fourth quarter.

- c. Divide your **actual production estimate** by your **full production estimate**. Multiply this ratio by 100 to get a percentage. Enter this percentage in the box.

**Capacity Utilization:**

Is this a reasonable estimate of your sustainable capacity use in the 4th quarter?

- Yes       No – Please review your full production estimate

- d. If your estimate of 2001 fourth quarter **full production capability** has changed compared to 2000, mark (X) the primary reasons.

- 35  Building capital expenditures
- 36  Machinery capital expenditures – Include new, replaced, or enhanced machinery
- 37  Building retirements
- 38  Machinery retirements
- 39  Price changed but product mix is the same
- 40  Revised estimation assumption with no change in plant or operations
- 41  Change in method of operation
- 42  Change in product mix or product specifications
- 43  Change in material input
- 44  Other – Specify
- 49 \_\_\_\_\_

**Item 3 WORK PATTERNS OF FOURTH QUARTER OPERATIONS 2001**

Column (1-3) – Report work patterns for **each shift of actual operations** in the **4th quarter of 2001**.  
If the plant did not operate a second or third shift, do not complete the corresponding columns.

Column (4) – Report work patterns as if the plant operated at **full production capability** as defined in item 2b.

	Actual Operations									Full Production Capability			
	Shift one			Shift two			Shift three			Number of shifts per day			
	(1)	(2)	(3)	(4)			L						
<b>90</b>													
<b>a. Days per week in operation</b> . . . . .	<b>91</b>												
<b>b. Plant hours per week in operation</b> . . . . .	<b>92</b>												
<b>c. Weeks in operation in the quarter</b> . . . . .	<b>93</b>												
<b>d. Total number of production workers</b> . . . . .	<b>94</b>												
<b>e. Temporary production workers included</b> in line d (not on the payroll and hired through temporary agencies or as their own agent; see instructions) . . . . .	<b>95</b>												
<b>f. Total hours worked by production workers</b> . . . . .	<b>96</b>	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.
<b>g. Hours worked by temporary production workers (included in line f)</b>	<b>97</b>												
<b>h. Overtime hours worked by production workers (included in line f)</b>	<b>98</b>												

**Item 4 FOURTH QUARTER ACTUAL OPERATIONS VS FULL PRODUCTION CAPABILITY FOR 2001**

**a.** If this plant's **actual** production in the 4th quarter was **less** than **full production capability**, mark (X) the primary reasons:

- |  |  |  |
|--|--|--|
| 51 <input type="checkbox"/> Not most profitable to operate at full production capability | 55 <input type="checkbox"/> Lack of sufficient fuel or electric energy     | 60 <input type="checkbox"/> Strike or work stoppage    |
| 52 <input type="checkbox"/> Insufficient supply of materials                             | 56 <input type="checkbox"/> Equipment limitations                          | 61 <input type="checkbox"/> Seasonal operations        |
| 53 <input type="checkbox"/> Insufficient orders  | 57 <input type="checkbox"/> Storage limitations                            | 62 <input type="checkbox"/> Environmental restrictions |
| 54 <input type="checkbox"/> Insufficient supply of local labor force/skills              | 58 <input type="checkbox"/> Logistics/transportation constraints           | 68 <input type="checkbox"/> Other – <i>Specify</i> ↗   |
|  | 59 <input type="checkbox"/> Sufficient inventory of finished goods on hand | 69 _____   |

**b.** If **actual** operations in the 4th quarter were **less** than **full production capability**, how quickly could you increase to that level, if necessary? Assume sufficient demand for your product. Mark (X) the shortest amount of time you would require.

- 71  Less than 3 months    72  3 to 6 months    73  7 to 12 months    74  More than one year

**Item 5 NATIONAL EMERGENCY PRODUCTION**

	NATIONAL EMERGENCY PRODUCTION			
	4th QTR. 2001		4th QTR. 2000	
\$	Mil.	Thou.	Mil.	Thou.
<b>99</b>				

**a.** Estimate the value of production for this plant as if it had been operating under **national emergency** conditions in the 4th quarter of 2001. . . . .

Assume:

- full use of **all** your machinery and equipment, including that requiring reconditioning.
- plant production **as close to 168 hours per week as possible**, including extra shifts.
- **minimal** downtime.
- funding, labor, materials, components, utilities, etc., **are fully available to you and your suppliers.**
- your product mix **is** permitted to change.
- you can sell **all** of your output

*See the instruction sheet for additional guidance.*

**b.** If **actual** operations in the 4th quarter were **less** than **national emergency production**, how quickly could you increase to the national emergency production level if given emergency priority by the government? Mark (X) the shortest amount of time you would require.

- 82  Less than 3 months    83  3 to 6 months    84  7 to 12 months    85  More than one year

911 Remarks

**Item 6 PERSON TO BE CONTACTED REGARDING THIS REPORT – Print name and telephone number.**

Name	Telephone →	Area code	Number
	( )		

**RETURN COMPLETED FORM TO**

**U.S. CENSUS BUREAU  
1201 EAST 10TH STREET  
JEFFERSONVILLE, IN 47132-0001**



**INSTRUCTIONS FOR THE SURVEY OF PLANT CAPACITY UTILIZATION  
DURING THE FOURTH QUARTER 2001**

	Page
General Instructions . . . . .	2
Item by Item Instructions . . . . .	2
Item 1 – Operational Status . . . . .	2
Item 2 – Value of Production . . . . .	3
Item 3 – Work Patterns of Fourth Quarter Operations . . . . .	4
Item 4 – Fourth Quarter Actual Operations vs. Full Production Capability . . . . .	5
Item 5 – National Emergency Production . . . . .	5
Examples . . . . .	6

**AUTHORITY AND CONFIDENTIALITY** – Response to this inquiry is required by law (Title 13, U.S. Code). By section 9, of Title 13, U.S. Code, your report to the Census Bureau is confidential. Only persons sworn to uphold confidentiality of Title 13 will see your information, and it will be used only for statistical purposes. Copies of your report retained in your files are immune from legal process. Response is not required to any information collection form unless it displays a valid approval number from the Office of Management and Budget. This 8-digit number appears in the upper right corner of the form.

## PUBLIC REPORTING

Public reporting burden for this collection of information is estimated to average 2.25 hours per response, 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 the Associate Director for Administration/ Comptroller, Attn: Paperwork Reduction Project 0607-0175, Room 3104, FB-3, Bureau of the Census, Washington, DC 20233.

## WHO SHOULD REPORT?

This report covers the manufacturing plant named in the address box of the form. If your company operates more than one location, **REPORT ONLY FOR THOSE PLANTS SELECTED FOR THIS SAMPLE SURVEY**. A report form and instruction sheet are enclosed for each plant selected.

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

## WHAT TO REPORT?

This survey form primarily asks for 3 levels of operating capability of this plant in the fourth quarter of 2001:

- (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 in the fourth quarter; and
- (3)** the value of products that could have been produced if required in a national emergency.

If 2000 data are NOT printed on the form, you do not need to enter data for that period.

## WHEN TO REPORT

Complete the survey form and return it in the enclosed return envelope by the date printed on the top of the form. If you have misplaced the return envelope, mail the completed form to:

U.S. Census Bureau  
1201 East 10th Street  
Jeffersonville, IN 47132-0001

## HOW TO REPORT

Answer all questions on the report form. 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

For information concerning the possible use of reporting formats other than the form provided, such as computer diskettes or printouts, contact Mr. Ron Taylor at (301) 457-4683.

## NAME AND ADDRESS

Review the name and address of this plant printed in the top right corner of the report form. Line out any errors and make any necessary corrections or additions in the address box.

## Item 1 – OPERATIONAL STATUS

Report the status of operations at this plant at the end of 2001 by marking the appropriate box. If:

**In Operation** – Complete items 2 through 6.

**Idle Plants** – Complete items 2 through 6.

- a.** If this plant was temporarily idle during the **entire fourth quarter** report actual operations as zero where appropriate.
- b.** If this plant was temporarily idle during **only part of the fourth quarter** report the actual operations for the time the plant was in operation.

## Item 1 – OPERATIONAL STATUS – Continued

For both cases, report full production and emergency production capabilities based on the plant's **peak** quarterly production during 2001.

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

- a. If you still maintain records for this plant, complete items 2 through 6.
- b. If you do not have 4th quarter information about this plant, complete item 6 only and return the form.

**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 fourth quarter of 2001, complete items 2 through 6. Report full production and emergency production capabilities, as if the plant operated the **entire** quarter.

SPECIAL NOTE:

### Seasonal Operations

- a. If this plant is usually temporarily idle during the fourth quarter *due to seasonal factors*, report as instructed for idle plants.
- b. If this plant was not temporarily idle during the fourth quarter, but its operations vary substantially from quarter to quarter, *due to seasonal factors*, complete items 2 through 6, and report full production and national emergency production capabilities based on the plant's **peak** quarterly production during the year.

For both types of seasonal operations, check "Seasonal Operations" in item 4a if actual operations are less than full production capability.

## Item 2 – VALUE OF PRODUCTION

### Item 2a – MARKET VALUE OF PRODUCTION

Report the value of production based on estimated sales price(s) of what was produced during the fourth quarter, not fourth 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 fourth 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 fourth quarter.
- (2) Use book figures of actual production costs plus an estimate of markup to cover overhead and profit.

- (3) Use fourth 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 fourth 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, complete item 6, and return the form.

**Job shops and custom orders:** For actual production, report value of work done in the fourth quarter of 2001.

**Publishing/printing plants:** For actual production, report your printing sales only (NOT advertising sales) for the location named in the address box of the form. Do not include any printing that is contracted out.

### Item 2b – 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 in the fourth 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 fourth quarter. If your plant is subject to short-run variation assume the product mix of the current period.

**Item 2b – FULL PRODUCTION CAPABILITY – Continued**

- 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 fourth 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 (item 2c) by your current **rate of capacity** utilization (in decimal form). For example, if your value of actual operations for the fourth 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.

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

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 fourth 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 in item 2b.

**Item 2c – CAPACITY UTILIZATION**

- (1) Divide your estimate for actual production (Item 2a) by full production (Item 2b) capability. Multiply this number by 100. Enter this percentage in the box.
- (2) **Is this a reasonable percentage of your sustainable capacity use in the 4th quarter of 2001?** Mark (X) yes or no. If no, please review your full production capability estimate. If yes, continue with the next item.

**Item 2d – Comparing full production capability between fourth quarters of 2000 and 2001**

If the value of full production for the fourth quarter of 2001 differs from 2000, mark (X) the primary reasons for the change.

**Item 3 – WORK PATTERNS OF FOURTH QUARTER OPERATIONS**

**Actual Operations – In columns 1 through 3,** report work patterns for the following characteristics covering each *production shift* of actual operations in the 4th quarter of 2001. Report based on the average number of shifts per day in the fourth 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.

**a. Days per week in operation –** For each shift, report the typical number of days per week in operation for the fourth 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 –** For each shift, report the typical number of **hours the plant was in production** 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 (see below).**

**c. Weeks in operation in the quarter –** For each shift, report the total number of weeks the plant operated during the fourth quarter. NOTE: The fourth quarter of the year covers 13 weeks.

**d. Total number of production workers –** For each shift, report the total number of production workers at this establishment, including both permanent (payroll) and temporary employees who were paid during the pay period which included November 12. 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.

### Item 3 – WORK PATTERNS OF FOURTH QUARTER OPERATIONS – Continued

**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 –** For each shift, 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 pay period including November 12. Include temporary production workers who perform the same tasks as listed above. **Do not include part-time workers.**

**f. Total hours worked by production workers –** For each shift, report number of hours worked by all production workers in the fourth quarters (both those on the payroll and temporary production workers). Include overtime hours, but excluded paid vacations, holidays, and sick leave.

**g. Hours worked by temporary production workers –** For each shift, report number of hours worked by temporary production workers included in the total hours worked by production workers (line f). Include overtime hours worked by temporary production workers.

**h. Overtime hours worked by production workers –** For each shift, report number of overtime hours included in the total hours worked by production workers (line f).

**Full production capability – In column 4,** report work patterns for each characteristic as if the plant operated at full production capability in the 4th quarter of 2001. Use the criteria defined for Full Production Capability in item 2b.

Enter the number of shifts per day at full capacity in the box provided in the upper right hand corner. **See examples of responses to item 3 on page 6.**

### Item 4 – FOURTH QUARTER ACTUAL OPERATIONS VS. FULL PRODUCTION CAPABILITY

Compare the actual value of production in the fourth quarter of 2001 to the estimated value of full production.

**Item 4a –** Mark (X) reasons why your actual operations were less than the estimated value of full production capability, if appropriate.

**Item 4b –** Select a time period that would have been reasonable to increase output to full production level.

### Item 5 – NATIONAL EMERGENCY PRODUCTION

Read the definition and assumptions regarding national emergency production. Estimate your value of production under national emergency conditions for the fourth quarter of 2001. 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 fourth 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.

**Item 5b –** Select a time period that would have been reasonable to increase output to emergency production level, if required.

**If you have any questions concerning the definitions or instructions, please contact the Special Studies Branch of the Manufacturing and Construction Division on (301) 457-4667.**

**Example 1. A plant with one 8-hour shift operating 5 days/week**

- a. Days per week in operation . . . . .
- b. Plant hours per week in operation . . . . .
- c. Weeks in operation in the quarter . . . . .
- d. **Total number of production workers** . . . . .
- e. **Temporary** production workers **included** in line d (not on the payroll and hired through temporary agencies or as their own agent; see instructions) . . . . .
- f. **Total hours worked by production workers** . . . . .
- g. Hours worked by temporary production workers (**included** in line f) . . . . .
- h. Overtime hours worked by production workers (**included** in line f) . . . . .

Actual Operations									Full Production Capability		
Shift one (1)			Shift two (2)			Shift three (3)			Number of shifts (4)		
5									7		
40									56		
13									13		
32									44		
2									4		
Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.
	15	880								17	680
		240									600
		0									0

**Example 2. A plant with Two Production Shifts and One Maintenance Shift**

- a. Days per week in operation . . . . .
- b. Plant hours per week in operation . . . . .
- c. Weeks in operation in the quarter . . . . .
- d. **Total number of production workers** . . . . .
- e. **Temporary** production workers **included** in line d (not on the payroll and hired through temporary agencies or as their own agent; see instructions) . . . . .
- f. **Total hours worked by production workers** . . . . .
- g. Hours worked by temporary production workers (**included** in line f) . . . . .
- h. Overtime hours worked by production workers (**included** in line f) . . . . .

Actual Operations									Full Production Capability		
Shift one (1)			Shift two (2)			Shift three (3)			Number of shifts (4)		
7			5						7		
56			40						112		
13			13						13		
110			50						210		
10			0						0		
Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.
	53	200		24	800					117	000
	1	200			0						0
		0			0						0

**Example 3. A plant in Continuous Operation**

- a. Days per week in operation . . . . .
- b. Plant hours per week in operation . . . . .
- c. Weeks in operation in the quarter . . . . .
- d. **Total number of production workers** . . . . .
- e. **Temporary** production workers **included** in line d (not on the payroll and hired through temporary agencies or as their own agent; see instructions) . . . . .
- f. **Total hours worked by production workers** . . . . .
- g. Hours worked by temporary production workers (**included** in line f) . . . . .
- h. Overtime hours worked by production workers (**included** in line f) . . . . .

Actual Operations									Full Production Capability		
Shift one (1)			Shift two (2)			Shift three (3)			Number of shifts (4)		
7			7			7			7		
56			56			56			168		
13			13			13			13		
360			360			200			1080		
0			0			0			0		
Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.	Mil.	Thou.	Hrs.
	168	480		168	480		104	000		505	440
		0			0			0			0
		200			200			0			0

# Appendix B.

## Qualifications of the Data

---

### DEFINITIONS AND CONCEPTS

Although survey respondents were provided detailed instructions for estimating full production capacity and national emergency production capacity (see Appendix A), it is extremely difficult to translate the concept of plant capacity into a working definition which is applicable to all industries and situations. A host of problems are inherent in any attempt to measure capacity. Following are some of the more significant:

1. Telephone conversations with respondents have revealed that there are a variety of methods by which plants can measure their capacity. For example, it is customary for petroleum refineries to use an engineering concept of capacity based on maximum throughput during around-the-clock operations, with allowance made for maintenance or other necessary downtime. Other industries use different methods. They might base capacity on the maximum number of work hours of their labor force, on a past peak performance period, or on any number of other methods.

In order to improve the consistency of reporting across industries, the Census Bureau made an attempt to prescribe a standardized method for calculating levels of capacity and capacity utilization. Respondents across industries were asked to report production by the plant for actual, full production, and national emergency levels of production, in terms of market value of production, and given specific assumptions to follow in estimating each level of production (see Appendix A). The capacity utilization rates estimates produced in this report are calculated as a ratio of actual value of production to full production and national emergency values of production.

2. Full production limitations. Respondents were instructed as follows when estimating full production capacity: "Do not consider overtime pay, availability of labor, materials, utilities, etc., to be limiting factors." However, some respondents appear to be unrealistic in reporting their full production operations. For example, some establishments defined full production capacity as continuous operations (7 days a week, 24 hours a day) even though they were currently operating a single shift and admitted they could not expect realistically to operate continuously with their present plant and equipment or within their industry or locality. Census Bureau staff have discussed the most questionable estimates with respondents and adjusted the

reports where appropriate; however, there is a distinct element of subjectivity, and it is apparent that not all plants have defined full production capacity in realistic terms.

3. National emergency production limitations. Some individual plants do not differentiate between their full production capacity and national emergency capacity. Therefore, for some individual plants, the levels of capacity and capacity utilization rates calculated for full production and national emergency are the same. For these plants, no measurable difference between full production and national emergency capacity levels or capacity utilization can be obtained.

Census Bureau staff have discussed the most questionable estimates with respondents and adjusted the reports where appropriate; however, there is a distinct element of subjectivity, and it is apparent that not all plants have defined national emergency capacity in realistic terms.

4. Year-to-year variations in reported data. There is considerable year-to-year change in reported capacity and capacity utilization for individual plants. Some of this reflects real change in capacity due to additions or retirements of plant and equipment, change in product mix, or change in productivity. Other changes, however, are the result of response variations which are part of the nonsampling errors described in the following section on sampling and nonsampling errors. These variations, which often result from different personnel completing the form, include different judgmental decisions about work patterns and what plant and equipment to include in estimating capacity. At the summary levels, the individual establishment changes (either up or down) have a tendency to cancel each other.

### SAMPLING AND NONSAMPLING ERRORS

The survey estimates presented in this report are subject to both sampling and nonsampling errors. Nonsampling errors include various response and operational errors; errors of collection, reporting, transcription, and bias due to nonresponse, etc. These errors would also occur if a complete canvass were conducted under the same conditions as this survey. Most of the important operational errors were detected and corrected in the course of the review of the data for reasonableness and consistency.

---

However, because of the definitional and conceptual problems associated with this survey, it is likely that the response errors are greater in magnitude than for other manufacturing surveys in which respondents are asked to report data that are generally kept as a matter of record. Explicit measures of the nonsampling errors are not available. As derived, the estimated standard error provides a measure of sampling error only. The total error will most likely exceed the standard errors shown.

The panel selected for this survey was sampled using probabilities proportionate to size (pps). Independent samples were chosen for each NAICS industry. Probabilities were assigned to control sampling variation by industry subject to the constraint that the specified total sample size could not be exceeded. These probabilities determined an expected sample size for each industry. The sampling procedure used ensured that this expected sample size was exactly realized. The particular sample selected was but one of the many probability samples of this size that could have resulted using this sampling methodology. Each of the possible samples would yield somewhat different sets of results. The sampling errors—the differences between the estimates obtained from the sample actually selected and the results theoretically obtainable from a comparable complete canvass of the same target universe—are unknown. However, the estimated standard errors of the utilization rates and the year-to-year changes are guides to the potential sizes of these sampling errors.

The estimated standard error of a utilization rate, or of a year-to-year change in a utilization rate, may be used to

define a confidence interval about that rate or change such that the complete coverage result will be included within that interval with known probability. As examples:

1. The interval defined by one standard error below the estimates rate or change to one standard error above contains the complete coverage result with approximately 67 percent confidence.
2. The interval defined by two standard errors below and above the estimates rate or change contains the complete coverage result with approximately 95 percent confidence.
3. The interval defined by three standard errors below and above the estimates rate or change contains the complete coverage result with approximately 99 percent confidence.

Thus, an inference that the complete coverage result lies within the indicated intervals would, with the prescribed confidences, be correct. For example, if an estimated utilization rate is shown as 80 percent, with an associated standard error of 3 percent, there is approximately 67-percent confidence that the interval 77 percent to 83 percent includes the complete coverage rate, about 95-percent confidence that the interval 74 percent to 86 percent would include the complete coverage rate, and approximately 99 percent confidence that the interval 71 percent to 89 percent would include the complete coverage rate.

Note that the estimates of the standard errors are derived from the sample and are also subject to sampling error.



# Appendix C.

## Description of Survey Sample and Estimating Procedure

### SURVEY SAMPLE

The 2001 estimates presented in this report are derived from a probability sample of about 17,000 manufacturing establishments. The 2001 panel is a continuation of a primary panel first selected in 1999. In each of the years subsequent to 1999, this primary panel was updated with a representative sample of births for those years. The births for a given year were selected from plants that had come into existence in the year following the most recent survey. As with the primary panel, selected births in a given year that remained active continued into subsequent panels. The 1999 panel was a newly selected panel and was the first panel to be wholly selected using the North American Industry Classification System (NAICS).<sup>1</sup> Previous panels were designed to provide estimates by Standard Industrial Classifications (SIC). The sampling frame for the 1999 panel was created from the Manufacturing sector of the 1997 Economic Census and from the universe of new businesses starting after 1997, which were identified subsequent to the census. The economic census manufacturing sector, which was also on a NAICS basis for the first time, contained almost 400,000 establishments. However, only about 230,000 establishments were mailed a census form; the remainder were imputed based on administrative data obtained from Internal Revenue Service and/or Social Security Administrative records. These small administrative record cases were not part of the sampling frame for the Survey of Plant Capacity Utilization. Thus, including new businesses starting after 1997, the final frame for the 1999 survey consisted of nearly 232,000 establishments. The birth frames for survey years 2000 and 2001 were approximately 7,100 and 5,900 establishments, respectively. For both frames, most of these establishments were “true” births, meaning they came into existence subsequent to the most recent survey. A small number from each frame, however, were existing plants that in earlier frame creation operations could not be coded to a NAICS-6 manufacturing code. These uncoded plants were

not included in the original sampling frame. Approximately 1,600 births were sampled for the 2000 survey, and about 600 were sampled for the 2001 survey.

The conversion to NAICS in 1999 resulted in two major differences from previous survey frames. Some activities were newly classified as manufacturing under NAICS and were in the scope of the survey for the first time. Similarly, some SIC manufacturing activities became nonmanufacturing under NAICS and were no longer in scope. The logging industry fell into the latter category. However, because of a special request to collect logging statistics for the 1999 survey, the panel cases from the previous survey panel were included with the 1999 mailing. In the years subsequent to 1999, however, logging statistics have not been collected.

For the 1999 sample operation, probabilities of selection were assigned to each sampling unit proportionate to its total value of shipments. For new businesses that started after 1997 total value of shipments (either reported or imputed) was obtained from the 1998 Annual Survey of Manufactures (ASM) and was used to assign probabilities of selection. Selected units were assigned sampling weights equal to the inverse of their probability of selection.

Sampling was conducted independently for each NAICS industry, so actual probabilities of selection were dependent on the final sample size determined for each industry. This determination was based upon a priority assigned to a given industry and the constraint that the total sample size was limited to about 17,000 establishments. Industry priority was based upon the grouping of SIC industries provided by the Department of Defense (DOD) prior to the sampling operation for the 1994 survey.

The DOD identified 188 SIC industries as primary industries and the remainder as nonpriority. The Census Bureau further split each of these groups into five priority categories and allocated the sample accordingly. For the 1996 sampling operation these same categorical breaks were maintained, but the sampling allocation was modified based on the survey results observed for the 1994 panel. For 1999, the DOD partition and the categorical breaks within were again maintained to the extent possible by mapping the SIC-4 codes to NAICS-6 codes. However, this was not a one-to-one mapping, so the final allocation of the sample was modified to remain within the total sample size constraint. For the incoming (new) manufacturing

<sup>1</sup>In 1997 dental labs (SIC 8072) were sampled, and this panel was canvassed in both the 1997 and 1998 survey years. At the time, dental labs were the only new manufacturing activity under NAICS that could be completely identified by a unique SIC industry code. In 1998 the remaining 20 new manufacturing industries (under NAICS) were sampled and mailed as part of the 1998 survey. Data were collected for these respective industries in anticipation of the 1999 publication, which was the first to present NAICS-based estimates.

industries (see footnote 1), the allocation parameters used in 1997 and 1998, respectively, were maintained.

The 1999 panel selection was accomplished using a probability proportionate to size (pps) sampling methodology that insured that the sample size desired for each industry was realized. In previous panel selections, sampling was conducted independently by unit, which meant that over repeated applications, the resultant sample size would vary about the expected size. This property results in larger variances for the survey estimates. The fixed sample size methodology was used in 1998 to select the incoming NAICS manufacturing industries but was not used for the overall sample selection that year. Prior to sampling, an adjustment was made to all assigned probabilities that fell below a certain minimum value. This adjustment, which reset the original probabilities to this minimum value, guarded against exceedingly-large sample weights (the inverse of the probability of selection) being assigned for selected establishments. If sample establishments with large sample weights reported data in excess of what was anticipated based on the unit of measure of size, the survey estimates could be adversely affected. For the priority industries, the minimum probability value was set to 0.02 (maximum weight 50); for the nonpriority industries, the minimum probability was set to 0.01 (maximum weight 100). These minimum probability rules resulted in a slight increase in the originally-allocated industry sample sizes.

The birth frames in 2000 and 2001 were sampled in similar fashion. Probabilities of selection in both years were assigned based on total value of shipments obtained from the ASM. For year 2000, the birth universe was partitioned into three strata. The first stratum consisted of the births in the 48 highest priority industries. The second stratum consisted of jobbers, while the third contained the remainder of the birth cases. For 2001, the birth universe was treated as a unique stratum. In each year, the total number of births selected was a function of the total number of plants identified in the previous panel as no longer in operation, and the desire to maintain the overall panel size at approximately 17,000 establishments.

The 1998 and 1997 NAICS estimates presented in this report are based on the previous survey panel first selected for survey year 1996. That panel was designed to produce SIC-based estimates. In order to produce NAICS estimates, it was necessary to recode the sample establishments to NAICS industry codes. Since there is not a one-to-one correspondence between SIC and NAICS industry codes, this meant there was no control on the allocation of the sample by NAICS industry. Each industry sample is representative, but some of the resulting estimates may be of low reliability. Also, 20 NAICS industries new to manufacturing were not independently selected for 1997, and therefore no 1997 estimates are available for them.

## ESTIMATING PROCEDURE

The estimated full production rates shown in this report for the six-digit NAICS industries in Table 1a were computed in the following manner:

$$R_j = \frac{\sum_i WT_{ij} VPA_{ij}}{\sum_i WT_{ij} VPF_{ij}}$$

where  $R_j$  is the utilization rate for the  $j$ th six-digit NAICS industry,  $WT_{ij}$  is the sampling weight for establishment  $i$  in six-digit industry  $j$ ;  $VPA_{ij}$  is the actual value of production for establishment  $i$  in six-digit industry  $j$ ;  $VPF_{ij}$  is the value of production at the full production level; and the summations are for those establishments with reported or imputed value of production at both actual and full production level. (National emergency production rates in Table 1b are computed similarly, by substituting national emergency production (VPE) for VPF in the above formula.) Imputed nonrespondent data were included because the utilization rates for nonrespondents were not necessarily imputed at the average rate for respondents.

The estimated utilization rates for the higher level industry groupings (total manufacturing, five-, four-, and three-digit NAICS, durable goods industries, nondurable goods industries, advance processing industries, and primary processing industries) were computed in the following manner:

$$R_{(K)} = \frac{\sum_j VA_j}{\sum_j \left( \frac{VA_j}{R_j} \right)}$$

where  $R_{(K)}$  is the utilization rate for the  $K$ th industry group,  $VA_j$  is the value added for the  $j$ th six-digit industry as published in the most recent ASM or economic census and  $VA_j/R_j$  represents the value added for the  $j$ th six-digit industry adjusted to full production or national emergency production levels of operation.

Value added is defined as the difference between sales values and the cost of merchandise sold without further manufacture, processing, or assembly.

Value added is used when aggregating to higher levels to avoid duplication in figures of production that result when products of some establishments are also input materials for other establishments.

Most users of industrial data consider value added to be the best value measure available for comparing the relative economic importance of manufacturing among industries and geographic areas. Therefore, using value added in the methodology to derive utilization rate measures should provide better estimates.

The estimated variances for the 1999 sample estimates where the fixed sample size methodology was used is shown below. The equations shown refer to full production utilization rate variances. Similar calculations for

emergency utilization rate variances are computed by substituting VPE for VPf. The variable  $\gamma_i$  is an establishment variable that arises from the use of the fixed sample size method. For the six-digit NAICS industries, the rates were computed as:

$$\sigma^2(R_j) = \sigma^2(A_j/B_j) = \frac{1}{B_j^2} [\sigma^2(A_j) + R_j^2 \sigma^2(B_j) - 2R_j \sigma(A_j B_j)] \quad (1)$$

where  $A_j = \sum_i WT_{ij} VPA_{ij}$

$B_j = \sum_i WT_{ij} VPf_{ij}$

$$\sigma^2(A_j) = \sum_i \gamma_i \left( i \sum_{l=1}^i (WT_{lj} VPA_{lj})^2 - \left( \sum_{l=1}^i WT_{lj} VPA_{lj} \right)^2 \right)$$

$$\sigma^2(B_j) = \sum_i \gamma_i \left( i \sum_{l=1}^i (WT_{lj} VPf_{lj})^2 - \left( \sum_{l=1}^i WT_{lj} VPf_{lj} \right)^2 \right)$$

$$\sigma^2(A_j B_j) = \sum_i \gamma_i \left( i \sum_{l=1}^i WT_{lj}^2 VPA_{lj} VPf_{lj} - \left( \sum_{l=1}^i WT_{lj} VPA_{lj} \right) \left( \sum_{l=1}^i WT_{lj} VPf_{lj} \right) \right)$$

Estimates of variances of higher level aggregates  $R_{(K)}$  were computed as follows:

$$\sigma^2(R_{(K)}) = \frac{1}{\left[ \sum_j \left( \frac{VA_j}{R_j} \right)^2 \right]} \left[ \sum_j \sigma^2(VA_j) + R_{(K)}^2 \left[ \sum_j \left( \frac{VA_j^2}{R_j^4} \right) (\sigma^2(R_j)) \right] - 2R_{(K)} \sum_j \left( \frac{1}{R_j} \sigma^2(VA_j) \right) \right] \quad (2)$$

where  $\sigma^2(VA_j)$  is the ASM estimate of variance for value added in industry  $j$ , and where the summations range over the set of six-digit industries comprising the higher level industry group  $K$ . When census year value added data are utilized, then the variance terms  $\sigma^2(VA_j)$  reduce to zero.

Table 2 shows standard errors of the utilization rates. Standard errors are the square root of the corresponding variances. Estimated standard errors of the changes in utilization rates from 2000 to 2001 are also presented in Table 2. For more information regarding these estimates, contact the Special Studies Branch at 301-763-7657.

## IMPUTATION

A new imputation methodology was implemented beginning with the 1999 survey. The intention of the new methodology was to utilize reported data from a plant in the previous survey to impute data for the current year if the plant's response was not received in time to meet publication deadlines. Prior to 1999, the estimates for these cases were derived using industry averages and, therefore, were treated as if they had the same characteristics as plants with reported data.

U.S. Department of Commerce  
Economics and Statistics Administration  
U.S. CENSUS BUREAU  
Washington, DC 20233

FIRST-CLASS MAIL  
POSTAGE & FEES PAID  
U.S. Census Bureau  
Permit No. G-58

**OFFICIAL BUSINESS**  
Penalty for Private Use \$300

---

