## DATA APPENDIX

In this appendix the basic sources of data are given and the adjustments which were made in the data are described. First, the data sources and adjustments which were common to nearly all of the seventeen industries are discussed, and then each industry is discussed individually.

All of the data which were used in this study were monthly data, seasonally unadjusted. The basic time period considered was 1947-1965.

For all of the industries the data on the number of production workers employed during the second week of month $t, M_{2 w t}$, on the average number of hours paid-for per production worker during the second week of month $t, H P_{2 w t}$, and on the number of non-production workers (all employees minus production workers) employed during the second week of month $t$, $N_{2 w t}$, were taken from the Bureau of Labor Statistics (bls) publication, Employment and Earnings Statistics for the United States 1909-65. No adjustments were made in any of these data.

The data on the unemployment rate during the second week of month $t$, $U_{2 w t}$, for both the durable goods and non-durable goods industries were unpublished and were obtained directly from the bls for the 1948-1965 period. The mean of $U_{2 w t}$ for the 1948-1965 period, denoted as $\bar{U}$ in the text, was 5.30 for the durable goods industry and 5.42 for the non-durable goods industry.

The dummy variable $D_{i}$, which was set equal to one during contractions and zero otherwise, was constructed using the monthly peaks and troughs as defined by the National Bureau of Economic Research (nber). The nBer peak and trough months were taken from the July 1967 issue of Business Cycle Developments of the Department of Commerce.

For all of the industries except 301 and 324, the data on the average daily rate of output for month $t, Y_{d t}$, were taken from the Federal Reserve Board (FRB) publication, Industrial Production 1957-59 Base, and the November 1966 supplement. These data were in index number form, with base period 1957-1959. For industry 331, Blast furnace and basic steel products, there were two relevant frb indices, the index for Blast furnaces and steel works and the index for Steel mill products. The total index for industry 331 was
obtained by computing a weighted average of these two indices, the weights corresponding to the relative 1957-1959 proportions (by value added) of the two indices in the over-all frb index of industrial production. The weights were .658 for the Blast furnaces and steel works index and .342 for the Steel mill products index. For the Tires and inner tubes industry 301 the output data were taken from publications of the Rubber Manufacturers Association (RMA), and for the Cement industry 324 the output data were taken from publications of the Bureau of Mines. These data are discussed under the relevant industry headings below.

For eight of the industries there were strikes involving 10,000 or more workers during the 1947-1965 period, and as mentioned in § 4.2, adjustments were made in the frb output series for three of these industries, 242, 271, and 341 . These adjustments are presented under the industry headings below.

The output per paid-for man-hour interpolations discussed in ch. 3 and the output per non-production worker interpolations discussed in ch. 10 were unavoidably somewhat subjective in nature, and for reference purposes the months which were used as "peak" months in the interpolations are listed below for each industry. As mentioned in $\S 3.6$, for the beginning of each period the interpolation line was taken to be a horizontal line from the first month to the first peak, and for the end of each period the interpolation line was taken to be a horizontal line from the last peak to the last month.

For industries 301 and 324 data on the stock of inventories at the end of the month were available from publications of the RMA and the Bureau of Mines respectively, and from these data and the above mentioned data on production, data on shipments were constructed. (Actually, independent shipments data were available from the rma and Bureau of Mines. These data did not exactly agree with the constructed shipments data because of such things as reshipments not being netted out of the shipments series. The two shipments series did not differ by much, however, and for each industry the constructed shipments series was taken to be the better measure of net shipments.) For industries 211 and 212 data on production and shipments were available from publications of the Internal Revenue Service (IRS), and from these data, data on the stock of inventories were constructed in the manner discussed in § 6.3. For industries 201, 301, 331, and 332 unpublished data on the value of shipments and value of inventories at the end of the month were obtained directly from the Bureau of Census. From these data, data on the value of production were constructed. The rma and Bureau of Mines data on production and inventories and the IRS data on production and shipments are not available in a convenient summary any-
where, and so these data are presented in tabular form below. The Bureau of Census data are not published because of the questionable reliability of some of the figures.

The production and shipments data which were obtained or constructed from sources other than the FRB referred to the amount (or value) of goods produced or shipped during the month rather than to the average daily rate for the month. All of these figures were converted to average daily rates for the month by dividing them by $d_{t}$, the number of working days in the month. For each of the industries $d_{t}$ was constructed using the Frb estimate of the number of working days in the week for the industry. The frb estimates were taken from Industrial Production 1957-59 Base. If, for example, the number of working days in the week was $5 \frac{1}{2}, d_{t}$ was taken to be the number of weekdays in month $t$ plus one-half the number of Saturdays in the month. For industry $331 d_{t}$ was computed by taking the above men.

Table A-1

Indtstries for which data were converted to average daily rates

Industry | Number of |
| :---: |
| working days |
| in the week |$\quad$ Data which were converted to average daily rates

| 201 | 51/2 | Census data on the value shipped and the constructed data on the value produced. |
| :---: | :---: | :---: |
| 211 | 5 | irs data on the amount produced and the amount shipped. |
| 212 | 5 | irs data on the amount produced and the amount shipped. |
| 301 | 51/2 | RMA data on the amount produced and the constructed data on the amount shipped. <br> Census data on the value shipped and the constructed data on the value produced. |
| 324 | 7 | Bureau of Mines data on the amount produced and the constructed data on the amount shipped. |
| 331 | 7 for $65.8 \%$ of industry <br> $5 \frac{1}{2}$ for $34.2 \%$ of industry | Census data on the value shipped and the constructed data on the value produced. |
| 332 | 5 | Census data on the value shipped and the constructed data on the value produced. |

tioned weighted average of the $d_{t}$ for the Blast furnaces and steel works industry and the $d_{t}$ for the Steel mill products industry. In table A-1 the data which were converted to average daily rates are presented for each industry, along with the FRB estimates of the number of working days in the week.

With respect to the periods of estimation presented below, usually two or three observations before and after a strike were omitted in addition to the actual strike observations. When more than one period of estimation was used for an industry, all of the periods which were used are presented below.

In the discussion which follows 4701 refers to January 1947, 4702 to February 1947, and so on.

## Industry 201: Meat products

Months used as peaks in the output per paid-for man-hour interpolation: 4711, 4901, 5101, 5201, 5501, 5601, 5902, 6001, 6203, 6303, 6404.
Months used as peaks in the output per non-production worker interpolation: $4701,4812,4912,5012,5601,5910,6010,6310,6410$.
Period of estimation: 4809-6506, excluding 5906-6003; 192 obs.
Data used for the estimates presented in ch. 6: Data on value of shipments and value of inventories at the end of the month were unpublished and were obtained directly from the Bureau of Census for the 4801-6512 period.
Months used as peaks in the output per paid-for man-hour interpolation when Census data were used: $4902,5104,5402,5702,5803,5811,6104,6302$, 6502, 6510.
Period of estimation when Census data were used: 4907-6506, excluding 5906-6003; 182 obs.

## Industry 207: Confectionery and related products

Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4710,4909,5009,5109,5509,5609,5909,6009,6109,6209,6309,6409$.
Months used as peaks in the output per non-production worker interpolation: $4710,4810,5609,5709,6009,6109,6209,6309,6509$.
Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

## Industry 211: Cigarettes

Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4905,5008,5110,6102,6304,6506$.
Months used as peaks in the output per non-production worker interpolation:

4701, 4710, 4804, 5106, 5302, 5408, 5506, 5608, 5808, 6008, 6110, 6405, 6506. Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

## Table A-2

Internal Revenue Service data on the number of cigarettes produced and shipped

Number of small cigarettes produced per month in millions of cigarettes ${ }^{\text {a }}$
Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.

Number of small cigarettes (taxable and tax-exempt) shipped per month in millions of cigarettes $^{\text {a }}$

Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.

| 37273 | 32282 | 32985 | 34662 | 36268 | 36876 | 36670 | 40338 | 39275 | 41666 | 33794 | 33925 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| 1953 | 35147 | 34605 | 37961 | 34310 | 33245 | 36434 | 33253 | 37428 | 37183 | 37673 | 33873 | 32675 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



[^0]Data used for the estimates presented in ch. 6: Data on the number of small cigarettes produced per month and on the number of small cigarettes (taxable and tax-exempt) shipped per month were obtained for the 5201-6512 period from the annual IRS publication, Alcohol and Tobacco Summary Statistics. The data are presented in table A-2. (Note: The frb index of production for industry 211 is computed using the irs data.)
Period of estimation when IRS data were used: 5309-6506, excluding all July, August, December, and January observations; 96 obs.

## Industry 212: Cigars

Months used as peaks in the output per paid-for man-hour interpolation: 4705, $4710,5010,5510,5610,5710,5810,6110,6302,6310,6410,6508$.
Months used as peaks in the output per non-production worker interpolation: $4710,4810,5511,5609,5810,5904,5910,6302,6306,6308,6310,6410$.
Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.
Data used for the estimates presented in ch. 6: Data on the number of cigars (small and large) produced per month and on the number of cigars (small and large, taxable and tax-exempt) shipped per month were obtained for the 5201-6512 period from the annual IRS publication, Alcohol and Tobacco Summary Statistics. The data are presented in table A-3. (Note: The frb index of production for industry 212 is computed using the irs data.)
Period of estimation when IRS data were used: 5204-6506, excluding all July, August, December, and January observations; 107 obs.

## Industry 231: Men's and boys' suits and coats

Months used as peaks in the output per paid-for man-hour interpolation: 4708, $4908,5008,5405,5505,5904,6004,6108,6410$.
Months used as peaks in the output per non-production worker interpolation: $4703,4708,5010,5305,5508,5608,5908,6504$.
Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

## Industry 232: Men's and boys' furnishings

Months used as peaks in the output per paid-for man-hour interpolation: $4702,4804,5202,5303,5404,5504,5605,5702,5803,6004,6303,6402$, 6502, 6510.
Months used as peaks in the output per non-production worker interpolation: $4702,4804,5103,5303,5602,5904,6004,6108,6303,6402,6408,6502,6504$.

Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

Table A-3

Internal Revenue Service data on the number of cigars produced and shipped

Number of cigars (small and large) produced per month in millions of cigars ${ }^{\text {a }}$

1952
1953
1954 1955
1956
1957
1958
1959
1960 1961 1962 1963 1964 1965

Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec. $\begin{array}{llllllllllll}502.1 & 484.2 & 495.5 & 485.9 & 503.9 & 476.7 & 434.9 & 484.6 & 519.9 & 585.5 & 490.2 & 428.6\end{array}$ $\begin{array}{llllllllllll}479.1 & 524.9 & 513.9 & 499.2 & 506.1 & 509.8 & 435.9 & 498.0 & 518.3 & 565.0 & 514.0 & 439.3\end{array}$ $\begin{array}{llllllllllll}468.7 & 476.9 & 524.3 & 468.6 & 472.2 & 523.2 & 393.9 & 531.2 & 533.9 & 548.2 & 532.8 & 404.4\end{array}$ $\begin{array}{llllllllllll}445.1 & 461.1 & 524.5 & 446.6 & 496.4 & 530.3 & 368.4 & 542.1 & 526.5 & 532.4 & 536.5 & 412.9\end{array}$ $\begin{array}{llllllllllll}488.8 & 491.9 & 491.7 & 474.6 & 510.6 & 488.0 & 390.0 & 544.0 & 468.3 & 575.4 & 533.7 & 375.0\end{array}$ $\begin{array}{llllllllllll}498.0 & 482.5 & 497.7 & 484.4 & 511.7 & 477.3 & 399.2 & 544.8 & 521.3 & 598.6 & 524.1 & 406.9\end{array}$ $\begin{array}{llllllllllll}520.5 & 477.9 & 490.2 & 490.3 & 518.4 & 513.3 & 456.0 & 553.3 & 588.4 & 677.8 & 603.9 & 503.7\end{array}$ $\begin{array}{llllllllllll}610.9 & 645.2 & 626.4 & 663.0 & 584.2 & 596.7 & 506.0 & 584.2 & 608.7 & 660.6 & 591.2 & 461.6\end{array}$ $\begin{array}{llllllllllll}557.1 & 576.7 & 629.8 & 549.7 & 602.3 & 609.5 & 430.7 & 655.0 & 619.4 & 632.5 & 632.0 & 422.2\end{array}$ $\begin{array}{llllllllllll}534.1 & 519.9 & 569.1 & 499.7 & 557.3 & 575.6 & 388.9 & 643.0 & 583.1 & 657.6 & 629.3 & 454.9\end{array}$ $\begin{array}{lllllllllllll}583.8 & 551.6 & 543.3 & 555.0 & 617.2 & 572.2 & 416.4 & 648.3 & 552.8 & 674.2 & 607.4 & 376.5\end{array}$ $\begin{array}{llllllllllll}574.6 & 541.9 & 560.8 & 536.1 & 608.3 & 559.6 & 479.4 & 657.6 & 611.3 & 714.6 & 600.1 & 489.6\end{array}$ $\begin{array}{lllllllllll}640.0 & 819.5 & 890.4 & 911.7 & 1047.8 & 786.4 & 710.2 & 818.0 & 824.4 & 900.5 & 773.8 \\ 579.5\end{array}$ $\begin{array}{lllllllllllll}732.7 & 693.5 & 1084.6 & 670.9 & 673.1 & 736.3 & 541.0 & 788.0 & 744.7 & 760.1 & 692.4 & 537.7\end{array}$

Number of cigars (small and large, taxable and tax-exempt) shipped per month in millions of cigars ${ }^{\text {a }}$

Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.

1952

| 1965 | 661.3 | 601.7 | 697.7 | 680.8 | 765.5 | 701.9 | 662.6 | 764.5 | 715.3 | 734.4 | 743.6 | 488.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

[^1]
## Industry 233: Women's, misses', and juniors' outerwear

Months used as peaks in the output per paid-for man-hour interpolation: 4702, 4707, 4807, 4907, 5006, 5206, 5703, 6102, 6402.
Months used as peaks in the output per non-production worker interpolation: 4702, 5403, 5703, 5902, 6004, 6203, 6502.
Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

## Industry 242: Sawmills and planing mills

Adjustments made in the FRB output series because of strikes:
5205: 103.5 changed to 113.2 .
5406: 108.5 changed to 122.1 .
5407: 93.0 changed to 113.7 .
5408: 100.5 changed to 128.2 .
5409: 112.9 changed to 123.6 .
5410: 122.1 changed to 125.9 .
Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4805,5004,5304,5402,5405,5609,5703,5706,5808,6003,6104,6202$, 6303, 6402.
Months used as peaks in the output per non-production worker interpolation: $4705,4806,5008,5506,5808,6209,6309,6402,6503,6509$.
Period of estimation: 4809-6506, excluding 5203-5208, 5404-5412, 6304. 6310, and all July and August observations; 154 obs.

## Industry 271: Newspaper publishing and printing

Adjustments made in the FRB output series because of strikes:
6212: 100.0 changed to 109.5 .
6301: 86.6 changed to 101.9 .
6302: 90.3 changed to 107.3 .
6303: 92.5 changed to 112.9 .
6509: 120.9 changed to 127.9 .
Months used as peaks in the output per paid-for man-hour interpolation: 4704, $4711,4810,5011,5404,5510,5903,5911,6111,6305,6311,6505,6512$.
Months used as peaks in the output per non-production worker interpolation: $4704,4711,4810,4910,5004,5010,5511,5611,5911,6011,6111,6311,6404$, 6411, 6511.
Period of estimation: 4805-6506, excluding 6210-6305 and all December and January observations; 166 obs.

Number of automobile pneumatic tires produced per month in thousands of tires ${ }^{\text {a }}$
Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.
1947
1948
1949
1950
$\begin{array}{llllll}1951 & 6748 & 5874 & 6678 & 6531 & 7106\end{array}$
1952
$\begin{array}{llll}1953 & 8230 & 8228 & 9397\end{array}$
$\begin{array}{lllll}1954 & 6298 & 7040 & 7978 & 8065\end{array}$
$\begin{array}{llll}1955 & 9036 & 8741 & 10078\end{array}$
$\begin{array}{llll}1956 & 8974 & 8893 & 9189\end{array}$
$\begin{array}{lllll}1957 & 9503 & 9169 & 9765 & 8946\end{array}$
$\begin{array}{lllllllllllll}1958 & 7816 & 7314 & 7571 & 7478 & 7656 & 8297 & 7295 & 7768 & 8282 & 9349 & 8394 & 9377\end{array}$ $\begin{array}{llllllllllllll}1959 & 10192 & 10278 & 11360 & 8036 & 7805 & 10377 & 11229 & 9689 & 10108 & 10893 & 8353 & 9649\end{array}$ $\begin{array}{lllllllllllll}1960 & 10325 & 10774 & 11115 & 10518 & 10756 & 10864 & 9778 & 9137 & 9174 & 9530 & 9044 & 8804\end{array}$ $\begin{array}{lllllllllllll}1961 & 9253 & 8623 & 9249 & 8920 & 9645 & 9963 & 8880 & 10345 & 9893 & 11164 & 10342 & 10497\end{array}$ $\begin{array}{lllllllllllll}1962 & 11500 & 10369 & 11277 & 10928 & 11711 & 11974 & 10410 & 10721 & 10651 & 12857 & 10844 & 10622\end{array}$ $\begin{array}{llllllllllllll}1963 & 12430 & 11709 & 12541 & 12547 & 12123 & 11186 & 10182 & 9368 & 10540 & 13442 & 11503 & 11497\end{array}$ $\begin{array}{llllllllllllll}1964 & 12684 & 11838 & 12566 & 13333 & 13215 & 14042 & 11510 & 13235 & 14356 & 14894 & 12799 & 13634\end{array}$ $\begin{array}{llllllllllllllll}1965 & 13884 & 14126 & 15242 & 14632 & 13228 & 13460 & 12174 & 12821 & 13920 & 15330 & 14194 & 14838\end{array}$

Number of automobile pneumatic tires held in inventory at the end of the month in thousands of tires ${ }^{s}$

Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec.
$\begin{array}{lllllllllllll}1947 & 3322 & 3864 & 4515 & 5608 & 6425 & 6571 & 5838 & 5464 & 5189 & 5513 & 5277 & 6949\end{array}$ $\begin{array}{lllllllllllll}1948 & 8805 & 10171 & 11357 & 10940 & 11611 & 11435 & 10206 & 9352 & 9802 & 9905 & 10477 & 10698\end{array}$ $\begin{array}{lllllllllllll}1949 & 11339 & 12385 & 13071 & 13190 & 13301 & 13135 & 11716 & 9969 & 8930 & 8697 & 9541 & 10638\end{array}$ $\begin{array}{lllllllllllllll}1950 & 11366 & 11796 & 12320 & 12337 & 12367 & 10791 & 7004 & 4794 & 4374 & 4382 & 4810 & 3793\end{array}$ $\begin{array}{lllllllllllll}1951 & 3551 & 3307 & 2803 & 3046 & 2992 & 3507 & 3585 & 4032 & 4739 & 5513 & 6887 & 8764\end{array}$ $\begin{array}{llllllllllllll}1952 & 10038 & 11370 & 13035 & 13295 & 13263 & 11650 & 11647 & 10636 & 9963 & 10821 & 12271 & 14110\end{array}$ $\begin{array}{llllllllllllll}1953 & 14117 & 15295 & 16468 & 16872 & 16973 & 16305 & 14882 & 13549 & 13279 & 13446 & 14854 & 15705\end{array}$ $\begin{array}{llllllllllllll}1954 & 14976 & 15708 & 16077 & 15905 & 15503 & 15252 & 12640 & 9984 & 11192 & 12799 & 13675 & 14761\end{array}$ $\begin{array}{llllllllllllllll}1955 & 14949 & 15367 & 15596 & 14889 & 14935 & 15454 & 14683 & 13907 & 14677 & 16163 & 17726 & 17746\end{array}$ $\begin{array}{llllllllllllll}1956 & 19516 & 20933 & 21563 & 21131 & 21296 & 19961 & 17393 & 16794 & 17693 & 18774 & 18802 & 19903\end{array}$ $\begin{array}{lllllllllllllllllll}1957 & 20489 & 21008 & 21743 & 21307 & 21629 & 20797 & 19316 & 18477 & 19420 & 20984 & 22170 & 23236\end{array}$ $\begin{array}{llllllllllllllll}1958 & 22785 & 23408 & 23461 & 22669 & 21845 & 20942 & 18629 & 18535 & 18948 & 19931 & 20422 & 21025\end{array}$ $\begin{array}{llllllllllllllllll}1959 & 21416 & 23042 & 23890 & 20893 & 18744 & 19109 & 19890 & 21745 & 22567 & 23169 & 25154 & 26964\end{array}$ $\begin{array}{llllllllllllllllllll}1960 & 25943 & 26473 & 27932 & 27401 & 26966 & 26380 & 26107 & 26297 & 25935 & 25498 & 26290 & 27576\end{array}$ $\begin{array}{llllllllllllllllllll}1961 & 27681 & 29337 & 29382 & 25047 & 26502 & 24800 & 24098 & 24126 & 24096 & 24195 & 24915 & 26365\end{array}$ $\begin{array}{lllllllllllllllllllll}1962 & 26799 & 28108 & 28527 & 27837 & 27506 & 27617 & 26030 & 26533 & 26072 & 26050 & 26039 & 27865\end{array}$ $\begin{array}{llllllllllllllll}1963 & 29054 & 31692 & 33189 & 32137 & 31919 & 31326 & 28829 & 28651 & 27820 & 27468 & 28271 & 29451\end{array}$ $\begin{array}{llllllllllllllllll}1964 & 29544 & 31089 & 31777 & 31091 & 31011 & 30645 & 29968 & 31979 & 32499 & 34731 & 36607 & 37552\end{array}$ $\begin{array}{lllllllllllllllllllll}1965 & 38253 & 40531 & 41467 & 40600 & 39514 & 37206 & 35035 & 36094 & 35110 & 34441 & 35082 & 37059\end{array}$

[^2]
## Industry 301: Tires and inner tubes

Data used for the output variable: Data on the number of automobile pneumatic tires produced per month were obtained for the period 4701-6512 from past reports and bulletins of the rMA. The data are presented in table A-4. (Note: The Frb index of production for industry 301 is computed using the RMA data.)
Months used as peaks in the output per paid-for man-hour interpolation: $4703,4710,4906,5010,5305,5406,5506,5806,5902,6004,6202,6302,6502$. Months used as peaks in the output per non-production worker interpolation: $4703,4710,5005,5506,5910,6002,6206,6303,6406,6410,6502$.
Basic peried of estimation: 4809-6503, excluding 4906-4912, 5403-5412, 5607-5708, 5805-5808, 5812-5909, and all July and August observations; 134 obs. (Note: 5805 and 5806 were omitted from the period of estimation by accident.)
Period of estimation used when testing the "non-perfect" expectational hypothesis: 4809-6503, excluding 4906-5011, 5403-5511, 5607-5808, 5812-6008, and all July and August observations; 99 obs.
Data used for the estimates presented in ch. 6: Data on the number of automobile pneumatic tires held in inventory at the end of the month were obtained for the period 4701-6512 from past reports and bulletins of the rma. The data are presented in table A-4.
Data on the value of shipments and value of inventories at the end of the month were unpublished and were obtained directly from the Bureau of Census for the 4801-6512 period.
Months used as peaks in the output per paid-for man-hour interpolation when Census data were used: $4902,5010,5103,5502,5706,5802,5806$, 6004, 6104, 6304, 6504.

## Industry 311: Leather tanning and finishing

Months used as peaks in the output per paid-for man-hour interpolation: 4702, $5305,5502,5602,5702,5905,6104,6405$.
Months used as peaks in the output per non-production worker interpolation: 4704, 4711, 4902, 5102, 5602, 5811, 6210.
Period of estimation: 4809-6506, excluding all July and August observations; 170 obs.

## Table A-5

Bureau of Mines data on the amount of cement produced and held in inventory

Amount of portland cement produced per month in thousands of 376 pound barrels
Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec. $\begin{array}{lllllllllllll}1947 & 13406 & 12618 & 14205 & 14566 & 13389 & 15971 & 16342 & 17480 & 17319 & 18300 & 16814 & 16123\end{array}$ $\begin{array}{llllllllllllll}1948 & 14541 & 13347 & 14502 & 16041 & 17740 & 17757 & 18721 & 18961 & 18605 & 19349 & 18435 & 17425\end{array}$ $\begin{array}{lllllllllllll}1949 & 15261 & 13751 & 15439 & 17682 & 18622 & 18279 & 18856 & 18715 & 19181 & 19070 & 18040 & 16967\end{array}$ $\begin{array}{llllllllllllllllll}1950 & 15174 & 13070 & 14238 & 18088 & 19950 & 20007 & 20709 & 21884 & 20945 & 22488 & 20226 & 19116\end{array}$ $\begin{array}{lllllllllllllllllll}1951 & 17434 & 15201 & 18708 & 20184 & 21924 & 21984 & 22439 & 22514 & 22269 & 22997 & 20737 & 19874\end{array}$ $\begin{array}{llllllllllllll}1952 & 17039 & 16545 & 18095 & 19817 & 21829 & 20748 & 21342 & 23573 & 23010 & 24164 & 22048 & 20881\end{array}$ $\begin{array}{llllllllllllllllllllllllll}1953 & 18856 & 17325 & 20215 & 21802 & 23399 & 22698 & 24134 & 24289 & 23795 & 24738 & 22529 & 20243\end{array}$ $\begin{array}{lllllllllllllll}1954 & 17769 & 16895 & 20097 & 21730 & 23279 & 22802 & 25482 & 25698 & 25522 & 25887 & 23826 & 22290\end{array}$ $\begin{array}{llllllllllllllllllll}1955 & 20223 & 17611 & 22340 & 24818 & 27031 & 26762 & 27332 & 27861 & 26958 & 27924 & 24894 & 23075\end{array}$ $\begin{array}{llllllllllllllll}1956 & 21440 & 19578 & 23386 & 26134 & 29606 & 28771 & 29498 & 30055 & 28643 & 29051 & 25869 & 24429\end{array}$ $\begin{array}{llllllllllllllllllll}1957 & 19320 & 17827 & 22642 & 23967 & 27485 & 26462 & 20287 & 31406 & 30884 & 30121 & 25014 & 22386\end{array}$ $\begin{array}{llllllllllllllll}1958 & 18320 & 14125 & 18038 & 24001 & 29274 & 30078 & 29833 & 31675 & 31597 & 32847 & 28031 & 23590\end{array}$ $1959 \quad 1860416710 \quad 24337 \quad 29093 \quad 33428 \quad 33455 \quad 34180 \quad 34800 \quad 32590 \quad 31127 \quad 26100 \quad 24111$
 $\begin{array}{lllllllllllllllllll}1961 & 16744 & 15038 & 21851 & 26463 & 31102 & 31594 & 32511 & 33262 & 31474 & 32348 & 27625 & 23393\end{array}$ $\begin{array}{llllllllllllllll}1962 & 17051 & 15309 & 20454 & 28089 & 33719 & 32304 & 33388 & 36132 & 33669 & 33926 & 29339 & 22940\end{array}$ $\begin{array}{lllllllllllllllllllll}1963 & 18289 & 14750 & 21525 & 29314 & 34497 & 34992 & 36802 & 37452 & 34682 & 36624 & 30377 & 23993\end{array}$ $\begin{array}{llllllllllllllllll}1964 & 18931 & 19729 & 24697 & 29493 & 34417 & 36185 & 37220 & 37700 & 35834 & 36333 & 31100 & 25968\end{array}$

Amount of portland cement held in inventory at the end of the month in thousands of of 376 pound barrels

Jan. Feb. March April May June July Aug. Sept. Oct. Nov. Dec. $\begin{array}{llllllllllllll}1947 & 15931 & 20112 & 22178 & 21331 & 19388 & 17095 & 13337 & 10452 & 7921 & 5688 & 6209 & 9975\end{array}$ $\begin{array}{lllllllllllll}1948 & 15336 & 20340 & 20886 & 17880 & 16086 & 12422 & 10149 & 8355 & 7061 & 6094 & 6399 & 11084\end{array}$ $\begin{array}{llllllllllllll}1949 & 17591 & 22206 & 23104 & 22977 & 22170 & 19785 & 19313 & 14381 & 10797 & 8569 & 9352 & 14706\end{array}$ $\begin{array}{lllllllllllll}1950 & 20267 & 23562 & 23204 & 22918 & 20043 & 15302 & 12840 & 9588 & 7643 & 5958 & 6380 & 13021\end{array}$ $\begin{array}{llllllllllllll}1951 & 18222 & 22234 & 23250 & 22511 & 19566 & 16630 & 14812 & 11491 & 10499 & 7162 & 9910 & 17993\end{array}$ $\begin{array}{llllllllllllll}1952 & 22336 & 24519 & 26622 & 24672 & 23220 & 18896 & 15158 & 12819 & 9602 & 6546 & 8823 & 15957\end{array}$ $\begin{array}{llllllllllllll}1953 & 21294 & 24464 & 23865 & 24773 & 25247 & 21542 & 19204 & 16445 & 12859 & 10049 & 13083 & 19231\end{array}$ $\begin{array}{lllllllllllllllll}1954 & 25869 & 27562 & 28905 & 27045 & 25412 & 19674 & 17524 & 14408 & 10909 & 9667 & 10732 & 16731\end{array}$ $\begin{array}{llllllllllllll}1955 & 23437 & 27087 & 26516 & 26106 & 23672 & 18855 & 16727 & 12731 & 9779 & 8754 & 11664 & 17516\end{array}$ $\begin{array}{lllllllllllll}1956 & 25454 & 28939 & 29868 & 28679 & 26204 & 22685 & 20598 & 17068 & 15532 & 13007 & 15973 & 22440\end{array}$ $\begin{array}{llllllllllllllll}1957 & 29828 & 32382 & 34277 & 34893 & 33176 & 29885 & 24345 & 20018 & 20250 & 19213 & 23187 & 28729\end{array}$ $\begin{array}{llllllllllllllllllllll}1958 & 33235 & 36383 & 36734 & 35170 & 33673 & 33350 & 30646 & 27883 & 24449 & 20415 & 23686 & 30800\end{array}$
 $\begin{array}{lllllllllllllllll}1960 & 37284 & 38553 & 39165 & 38554 & 40101 & 37667 & 36611 & 33244 & 30505 & 28841 & 30095 & 35525\end{array}$ $\begin{array}{llllllllllllllll}1961 & 37939 & 38531 & 38237 & 39999 & 39789 & 37346 & 37889 & 33768 & 31785 & 28437 & 30382 & 36343\end{array}$ $\begin{array}{lllllllllllllllllllll}1962 & 39725 & 40624 & 39811 & 39916 & 40000 & 38684 & 36461 & 31964 & 32522 & 29901 & 32324 & 38531\end{array}$
 $\begin{array}{llllllllllllllllllllll}1964 & 41062 & 43180 & 45156 & 45468 & 44368 & 41860 & 38436 & 36671 & 34631 & 30352 & 33492 & 39585\end{array}$

## Industry 314: Footwear, except rubber

Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4710,4910,5004,5204,5404,5410,5604,5703,5803,6303,6502$.
Months used as peaks in the output per non-production worker interpolation: 4703, 4710, 5103, 5208, 5602, 5902, 6202, 6502, 6508.
Period of estimation: 4809-6506, excluding all July, August, December, and January observations; 136 obs.

## Industry 324: Cement, hydraulic

Data used for the output variable: Data on the amount of portland cement produced per month were obtained for the period 4701-6412 from past publications of the Bureau of Mines. (The Bureau of Mines ended its collection of these data in 1964.) The data are presented in table A-5. (Note: the frb index of production for industry 324 before 1965 was computed using the Bureau of Mines data on production; since 1965 the frb index has been computed using a Bureau of Mines series on shipments.)
Months used as peaks in the output per paid-for man-hour interpolation: 4710, $4809,4909,5010,5109,5209,5310,5409,5505,5605,5708,5810,5906$, 6008, 6108, 6208, 6310, 6410.
Months used as peaks in the output per non-production worker interpolation: 4709, 4807, 5010, 5106, 5506, 5605, 5810, 5908, 6208.
Period of estimation: 4805-6408, excluding 5703-5711; 187 obs.
Data used for the estimates presented in ch. 6: Data on the amount of portland cement held in inventory at the end of the month were obtained for the period 4701-6412 from past publications of the Bureau of Mines. The data are presented in table A-5.

## Industry 331: Blast furnace and basic steel products

Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4903,5004,5108,5303,5503,5603,5703,5903,6202,6305,6503$.
Months used as peaks in the output per non-production worker interpolation: $4704,4902,5111,5505,5905,6305,6504$.
Period of estimation: 4809-6506, excluding 4907-5004, 5106-5108, 51115301, 5604-5701, 5903-6004, and all July and August observations; 128 obs. Data used for the estimates presented in ch. 6: Data on the value of shipments and value of inventories at the end of the month were unpublished and were obtained directly from the Bureau of Census for the 4901-6512 period.
Months used as peaks in the output per paid-for man-hour interpolation
when Census data were used: $4902,5109,5211,5306,5308,5511,5611$, 5904, 6306.
Period of estimation when Census data were used: 5005-6506, excluding 5106-5108, 5111-5301, 5604-5701, 5903-6004, and all July and August observations; 118 obs.

## Industry 332: Iron and steel foundries

Months used as peaks in the output per paid-for man-hour interpolation: 4703, $4810,4904,5004,5402,5504,5810,5905,6306$.
Months used as peaks in the output per non-production worker interpolation: $4703,4810,5010,5510,5905,6405,6505$.
Period of estimation: 4809-6506, excluding all July and August observations; 170 obs.
Data used for the estimates presented in ch. 6: Data on value of shipments and value of inventories at the end of the month were unpublished and were obtained directly from the Bureau of Census for the 5301-6512 period. Months used as peaks in the output per paid-for man-hour interpolation when Census data were used: $5302,5402,5502,5606,5609,5706,5905$, 6002, 6204, 6405.
Period of estimation when Census data were used: 5309-6506, excluding all July and August observations; 120 obs.

## Industry 336: Non-ferrous foundries

Months used as peaks in the output per paid-for man-hour interpolation: 4702, $4802,4810,5004,5410,5504,5902,6402$.
Months used as peaks in the output per non-production worker interpolation: 4703, 5012, 5503, 5602, 5905, 6503.
Period of estimation: 4809-6506, excluding all July and August observations; 170 obs.

## Industry 341: Metal cans

Adjustments made in the FRB output series because of strikes: 5312: 45.8 changed to 74.6 .
Months used as peaks in the output per paid-for man-hour interpolation: 4708, 4908, 5510, 5609, 5808, 5908, 6108, 6209.
Months used as peaks in the output per non-production worker interpolation: $4708,4809,5208,5308,5609,5909,6108,6408,6508$.
Period of estimation: 4805-6410, excluding 5309-5403; 191 obs.


[^0]:    ${ }^{\text {a }}$ Figures are rounded to the nearest million.

[^1]:    ${ }^{2}$ Figures are rounded to the nearest million.

[^2]:    ${ }^{\text {a }}$ The figures are not rounded to the nearest thousand; the last three digits of the figures published by the RMA were merely truncated.

