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Preparing Statistical Tables for Publication

A Guide to Usage in the Agricultural Marketing Service

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

Washington, D. C. April 1957

Agriculture Handbook No. 121

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 45 cents

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PREPARING STATISTICAL TABLES FOR PUBLICATION
A Guide to Usage in the Agricultural Marketing Service

by

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The rules given here have been found, over many years, to be helpful in the development of clear, concise, and easily interpreted tabular material. Because of the highly diverse character of the many tables and reports issued by the Agricultural Marketing Service, complete standardization probably would be impossible and, in any case, would be undesirable. However, most tables fall into certain well-defined types and, for these, the general arrangement and important principles of table construction can be standardized. In applying the rules, however, careful attention must be paid to the general character of the publication and to the different purposes of tables within a given publication. Some minor rules of format are arbitrary; these are included because of the general desirability for uniformity in methods of presentation.

Minor modifications in format appear desirable for tables to be used in (1) relatively formal publications, such as technical bulletins, statistical bulletins, agriculture handbooks, and marketing research reports, particularly if they are to be set in type and (2) less formal publications, such as Situation reports and reports issued by the Market News Service or the Crop Reporting Board, that are generally either mimeographed or photographically-reproduced from typewritten material. For the latter, ease and speed of typing may outweigh other considerations, providing the tables are clear to readers. At times, alternative rules are given for these two types of publications. Certain other permissible alternatives also are shown.

In preparing this material, extensive use was made of the Government Printing Office Style Manual and the Manual of Tabular Presentation issued by the Bureau of the Census. Valuable suggestions were received from many people within the Agricultural Marketing Service; the assistance of Richard J. Foote was particularly helpful.

OBJECT OF A TABLE

Tables are used to present a mass of numerical data in an orderly arrangement so that the information can be referred to easily. Some tables also are designed to emphasize significant aspects of the data. Before deciding on the particular make-up of a table, the data should be classified into common groups. It is easier to remember and compare data when closely related items are placed side by side.

1/ Miss Culbertson retired November 30, 1956.

In some reports, an extensive listing of data is included in the text. The following is a typical example:

> In 1950, fire insurance rates, per $100 insured value of commodity stored, were: Cottonseed, $1.430; oil, $0.728; meal, $0.355; linters, $0.278, and hulls, $0.278 and the rates for extended coverage: Cottonseed, $0.22; oil, $0.22; meal, $0.60; linters, $0.20 and hulls, $0.020. Total insurance rates were: Cottonseed, $1.452; oil, $0.750; meal, $0.415; linters, $0.298; and hulls, $0.298.

Much time on the part of the reader could be saved by arranging the items in tabular form, as in table 1.

Table 1.--Insurance rates for stored cottonseed and cottonseed products, by fire and extended coverage, 1950

Insured item	Rate per $100 insured value		
	Fire	Extended coverage	Total
	Dollars	Dollars	Dollars
Cottonseed	1.430	0.022	1.452
Cottonseed products:			
Oil	.728	.022	.750
Meal	.355	.060	.415
Linters	.278	.020	.298
Hulls	.278	.020	.298

In making up tables, every effort should be made to keep them as simple as possible. Simplicity, however, is not necessarily obtained by making them short. Depending on the particular subject being considered, tables may be large or small, but they should contain only those items needed for a particular purpose. As a rule, tables should be constructed to set up vertically and to fit within a single page; exceptions frequently occur, however, particularly in statistical bulletins or in appendices. For tables to be included in the text, it may be better to divide the table or rearrange it than to overcrowd it or turn it horizontally on the page.

TABULAR FORMS

Tables or tabulations may be divided into four general classes: Leaderwork, text tabulations, general tables, and special or derived tables. Within each of the last two classes, we may have parallel, divide, double-up, or broad tables, in addition to standard vertical tables.

Leaderwork

Leaderwork is a form of tabular presentation without boxheads. It is used in the text for short tabulations and has no title. It is referred to by a text statement ending in a colon.

The following tabulation indicates the amounts of several foods distributed during the 4 years:

	Million pounds
Meat and fish	932
Grain products	450
Potatoes and sweetpotatoes	452
Fruits	565

Text Tabulations

Text tabulations, by definition, consist of one or more stub columns followed by a single column of data. They should not be numbered and do not have a title. Text tabulations, in contrast to leaderwork, do include ruled boxheads. Figures in tabulations usually are selected from detailed tables and brought forward into the text to emphasize their importance, although tabulations are used occasionally to present data initially.

Percentage of leaves in alfalfa hay harvested at different stages of growth is shown below:

Stage of growth	Percentage of leaves
	Percent
Bud	53.4
Full bloom	48.4
Seed	41.6

General Tables

General tables normally have a table number, title, and boxheads, as in table 2, and are often used in an appendix as source tables. They contain the raw material used for reference and should show data in actual figures rather than in percentages, averages, or other derived forms.

Table 2.--Corn: Supply and distribution, United States, 1950-52

Year beginning October	Supply				Distribution					Stocks, end of year
	Carry-over, Oct. 1	Production	Imports	Total	Process products	Alcohol and distilled spirits	Seed and feed	Exports	Total	
	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.	Mil. bu.
1950 ..	845	3,058	1	3,904	229	45	2,783	107	3,164	740
1951 ..	739	2,899	1	3,639	219	27	2,831	76	3,153	486
1952 ..	487	3,279	1	3,767	224	17	2,617	140	2,998	769

Special Tables

Special or derived tables have the same form as general tables, as in tables 3 and 4, but are used primarily in text analysis or in specialized studies to call attention to certain relationships. Percentage distributions, averages, or comparisons between related columns frequently are used. Only those items needed for the analysis should be included.

Divide Tables

Divide tables are those in which the boxhead is split because of a lack of space and is continued to the next page, or to a lower deck on the same page. The common form requires two or more pages to complete the boxhead classification, with the title and stub repeated on each continued page. The table may comprise an even or odd number of pages, need not appear on facing pages, and may start on either a right hand or left hand page, but always appears vertically on the page. The example given in table 5 is the less common divide table of this sort, for which the heading is continued on a lower deck of the same page.

Table 3.--Corn: Percentage distribution of supply, United States, 1950-52

Year beginning October	Process products	Alcohol and distilled spirits	Seed and feed	Exports	Stocks, end of year	Total
	Percent	Percent	Percent	Percent	Percent	Percent
1950	5.9	1.2	71.3	2.7	18.9	100.0
1951	6.0	.7	77.8	2.1	13.4	100.0
1952	5.9	.5	69.5	3.7	20.4	100.0

Table 4.--Oats and corn: Average price per bushel received by farmers and supply, 1921-23

Year beginning November	Price (November to May)					Supply		
	Oats		Corn	Percentage oats is of corn		Oats, July 1	Corn, Oct. 1	Percentage oats is of corn
	Actual	Calculated		Actual	Calculated			
	Cents	Cents	Cents	Percent	Percent	Million bushels	Million bushels	Percent
1921	34	---	51	67	---	1,244	3,199	38.89
1922	42	47	73	58	62	1,260	2,870	43.90
1923	44	38	76	58	57	1,301	2,941	44.24

Table 5.--Cottonseed, major products: Yields and values, averages, 1932-46

Year beginning August	Yield per ton of cottonseed processed				Price per pound			
	Oil	Meal	Linters	Hulls	Oil	Meal	Linters	Hulls
	Pounds	Pounds	Pounds	Pounds	Cents	Cents	Cents	Cents
Average:								
1932-36 ..	309	908	127	528	6.8	1.3	3.4	0.33
1937-41 ..	316	894	157	508	7.4	1.4	3.0	.37
1942-46 ..	312	899	182	473	15.2	2.6	5.4	.62
	Value of yield							
	Total				Percentage distribution			
	Oil	Meal	Linters	Hulls	Oil	Meal	Linters	Hulls
	Dollars	Dollars	Dollars	Dollars	Percent	Percent	Percent	Percent
Average:								
1932-36 ..	21.01	11.80	4.32	1.74	54.0	30.4	11.1	4.5
1937-41 ..	23.38	12.52	4.71	1.88	55.0	29.5	11.1	4.4
1942-46 ..	47.42	23.37	9.83	2.93	56.7	28.0	11.8	3.5

Double-up Tables

Double-up tables are used when it appears desirable to split the stub, so that two or more stub columns appear on a single page. This is done when the table otherwise would be too long and narrow to fit well on a page. Here the boxheads over the several columns are repeated after each stub. Table 25, page 30, is a conventional double-up table. In the example shown in table 6, where the data are listed by years, data for one series are not available for the years shown in the first stub. The boxhead for this series is omitted in the first set.

Table 6.--Rosin and glycerine: Wholesale price per pound at specified markets, 1910 to date

Year	Rosin, K grade, Savannah, Ga.	Year	Rosin, K grade, Savannah, Ga.	Glycerine, New York
	Cents		Cents	Cents
1910	2.61	1934	1.98	---
1911	2.97	1935	1.90	9.4
:		:		
:		:		
1933	1.64			

Parallel Tables

A parallel table spreads across two pages, as in table 7, but does not repeat the stub on the second page. It must appear vertically on facing pages and must start on a left hand page and end on a right hand page. The stub appears on the left hand page only. Each line may include "tracer numbers" (defined on p. 9) for convenience in following the line across the two pages.

Broad Tables

Broad tables are used when the table is too wide for the normal width of the page, cannot be transformed into a 1-page double-up table, and is not long enough to make a parallel or 2-page divide table necessary. It is set or typed the long or broad way of the page, and may run over more than one page. In general, only one such table will fit on a page. It must be placed on the page so the title is at the left when the paper is in an upright position.

Page 8 | Page 9

Table 7.--Vegetables: Unloads at 8 markets, by commodities, 1951

	Commodity	Atlanta	Boston	Chicago	New York	Philadelphia	
		Cars	Cars	Cars	Cars	Cars	
1	Beans	1,231					1
2	Cabbage ...	1,616					2
3	Celery	333					3
4	Kale and spinach ..	35					4

DEFINITIONS

1. Tabular presentation.--A means of bringing together and presenting related material or other information in columns or rows.

2. Heading.--The portion of the table appearing above the top rule of the table. It comprises the table number, title, and headnote.

Table 1.--Farm output: Index numbers, by geographic divisions, 1940-54

(1935-39 = 100)

a. Table number.--An indicator of relative position of the table within a series.

Table 1.--

b. Title.--A brief statement indicating the nature, classfication, division or area, and time reference of the data presented.

Farm output: Index numbers, by geographic divisions, 1940-54

c. Headnote.--A means of providing information essential to the understanding of the data when the point cannot be made clear elsewhere in the table or is too general for effective handling in a footnote.

(1935-39 = 100)

3. Boxhead.--The portion of the table in which are located the stubhead and individual column heads or captions describing the data in each vertical row or column, together with needed classifying and qualifying spanner heads.

Commodity	Acreage	Production having value	Farm disposition	
			For farm household use	Sold

a. Spanner head.--A descriptive caption spreading across two or more column heads.

	Farm disposition

4. Stub.--That portion of the table, usually at the left, devoted to a listing of line or row captions or descriptions, together with needed classifying and qualifying subheads.

Commodity
Fruit:
Apples .....
Cherries .....
Peaches .....
Pears .....

a. Stubhead.--The caption of the stub which describes the stub listing as a whole.

Commodity

b. Colon line.--A heading within the detail of the stub ending in a colon. No entries appear opposite it in the field of the table.

Fruit:
Apples .....
Cherries .....

c. Dash line.--An opening word or phrase which, common to several consecutive lines, has been removed and placed on a line by itself and terminated with a dash (--). The dash indicates that it is an integral part of each of its subentries and is to "read in" to each of them.

```
Price for crop of--              :
  1950 ........................:
  1951 ........................:
  1952 ........................:
                                 :
```

d. Stub leaders.--A row of closely placed dashes, or a row of periods when typewritten, extending from the end of the caption to the right hand edge of the stub.

5. Field.--The portion of the table extending from the bottom rule of the boxhead to the bottom rule of the table, and to the right of the stub. The field is the depository of statistical or other information.

6. Horizontal and vertical rules.--A horizontal rule is a line extending across the page to the right hand edge of the table page. A vertical rule is a line, or column of colons for typewritten material, extending down to meet the horizontal bottom rule of the table.

7. Tracer number.--A guide number placed at the beginning, and again at the end, of each data line. These numbers usually appear on parallel tables where the stub is not repeated on the right hand (facing) page. Tracer numbers are placed at the left of the stub on the left hand page and at the right of the last column on the right hand page. They are set off from the rest of the table by vertical rules.

8. Leaders.--Three or more closely placed dashes or periods used in the way described on pages 26 and 34.

CONSTRUCTION OF TABLES

Headings or Titles

1. In compiling tables, it usually is advisable to complete the table form before composing the title.

2. Titles of tables in a series should be preceded by the word "Table" and then the number, a period, and a dash. 2/ In some informal publications, tables are not numbered.

Table 1.--

2/ On the typewriter, the symbol (--) is equivalent to a printed dash.

3. Titles should be brief and clear. Usually they should be in topic rather than sentence form. They should answer the questions what, where, and when. Ordinarily items are listed in the order in which they appear in the table. In some tables, emphasis in the title is placed on one or two columns in the table, as in the first example given below; in other titles, reference is made to a particular phase of the study, as in the second example.

Table 8.--Onions, total crop: Actual and computed average price received by farmers and related variables, 1921-52

Table 9.--Data used in the 6-equation model of the wheat economy, 1921-38 and 1947-53

4. If possible, the title should begin with a key word or phrase followed by a colon. Choice of a key word is influenced by the purpose of the table and by the kind of publication in which the table is found.

a. In a cost of production bulletin:

Potatoes: Cost of production, Ohio, 1930-53

b. In a potato bulletin:

Cost of producing potatoes: Ohio, 1930-53

c. In a bulletin devoted to one commodity for several States:

Ohio: Cost of producing potatoes, 1930-53

5. The words "United States" are not necessary in a title when the publication in which the table appears contains information only for this country. If a number of tables contain data for individual States, the words "United States" may be used to distinguish those that contain totals for the entire country.

6. Lower-case type or letters should be used for table titles, with capitalization only of the beginning word and the word following the colon. Capitalization of other words follows the same rules as in ordinary text. Titles should not be underlined. 3/ Periods are not used at the end of a title of a table or chart, although periods are used after legends and explanatory material. In typewritten material, the indentation of titles is dependent on the number of lines in the title, making use of the following rules:

3/ In tables to be set in type, the title is shown in italics. Here appropriate underlining is inserted by the information editor before sending copy to press.

a. One-line title--Center over table.

b. Two-line title--Run the first line flush to edge of table, both left and right. Center the second line.

c. Three-line title--Run the first line flush, left and right. Indent the second line four typewriter spaces at the left and run flush to the edge of the table at the right. The third line also is given a four space indentation at the left, but is permitted to run short at the right.

These rules may be modified if necessary to provide better balance on the page.

7. The words "by weeks," "by months," and "by years" should be used sparingly in titles. When such designation is essential, these forms are to be used instead of "weekly," "monthly," and "yearly."

8. Dates showing the period covered should appear at the end of the title. No differentiation between "calendar year" and "year beginning--" is necessary in the title, as the stub or boxhead should indicate the period covered if it is not the calendar year. A hyphen between the first and last years is used in the inclusive sense. The following forms are used:

"1936" to indicate a single year.

"1920, 1930, and 1935" to indicate 2 or more nonconsecutive years.

"1920-36" or "1901-10" to indicate a series of years within a given century.

"1895-1935" or "1900-1910" to indicate a series of years cutting across more than one century.

9. Averages may be handled in titles in the following ways:

a. "Average 1935-39, annual 1941-53" to indicate an average for which annual figures are not given, as in the following stub:

Period
Average:
1935-39 .....
1941 .....
1942 .....

b. "Averages 1910-14 and 1935-39, annual 1940-53" to indicate several averages for nonconsecutive periods within a period for which annual figures are not given, as in the following stub:

Period
Average:
1910-14 .....
1935-39 .....
1940 .....
1941 .....

c. "Averages 1932-46, annual 1947-53" to indicate averages for several consecutive or approximately consecutive periods within a period for which annual figures are not given, as in the following stub:

Period
Average:
1932-36 .....
1937-41 .....
1942-46 .....
1947 .....
1948 .....

d. The word "average" for any period within a series for which annual figures are given may be omitted from the title, as in the following:

Table 10.--Rice, rough: Production in specified States, 1909-53

Period
Average:
1910-14 .....
1935-39 .....
1909 .....
1910 .....

10. When a table showing monthly, weekly, or daily figures carries partial data for the first or last years, the month, week or day, and year of the first and last figures should be entered in the title. As in ordinary text, the comma between the month and the year is omitted if no day is shown. The following titles apply to tables that involve data of this nature:

Table 11.--Apples: Carlot shipments by State of origin, September 1928-January 1954

Table 12.--Apples, Western: Average auction price per box, all grades, New York, July 1, 1954-June 30, 1955

11. Sometimes it may be advisable to use "to date" in the title instead of showing the last year, so that new data can be added as they become available. This is done on tables or charts to which data are added regularly and saves the necessity for changing the title, as in the following. When this is done, space should be left in the table or chart for adding additional data.

Table 13.--Butter: Production by States, 1912 to date

12. In general, a footnote is preferred to a long headnote for a title if further explanation is needed.

13. If a table other than a parallel table covers more than one page, this fact is indicated by a dash and the word "Continued," beginning with a capital letter, at the end of the title on all pages except the first. The abbreviation "Con." may be used to prevent an overrun. It is helpful to the reader if the word "Continued" also is written on the lower right hand corner of all pages except the last, although this rule is not followed for tables in Agricultural Statistics. The following show the correct format for titles of continued tables on the first and succeeding pages:

First page:

Table 14.--Wheat: Acreage, yield per acre, and production, United States, 1866-1953

Succeeding pages:

Table 14.--Wheat: Acreage, yield per acre, and production, United States, 1866-1953--Continued

14. Titles over parallel tables are centered over the 2-page spread, as shown in the example on page 7. If the table runs over more than two pages, the word "Continued" is included in the title for each successive pair of pages as in any continued table. If the word "Continued" is written on the lower right hand corner of pages other than the last, it appears only on the right hand page of each pair of pages for parallel tables.

15. If a number of tables in a publication are similar, their titles should follow the same format. To assure this, a list of the titles may be prepared so that any minor discrepancies can be adjusted before going to press. Another method to assure uniformity is to reproduce a set of dummy tables in advance of preparation, including on the dummy tables the title and such stubs and boxheads as are common to most tables. Those stubs and boxheads that are not needed on a particular table can be crossed-out prior to typing.

Stub and Boxhead

1. The stubhead always should contain words descriptive of the stub contents. If the contents vary greatly, the word "Item" may be used.

2. In determining the order of items in a table, consideration should be given to the order of importance, association, or convenience in reading the table. In general, time series should read from left to right or from top to bottom, with the first year appearing at the top or left. Totals or averages of all the data generally are placed at the right or bottom of the page, but averages for subsets of years may be placed at the top or left. Geographic order or association may be important for some series. If a geographic order is used for individual States, it is suggested that the States be arranged in the order used by the Agricultural Estimates Division. This order is shown in the tabulation given below. Sometimes data are arranged in terms of increasing or decreasing order. If no better arrangement suggests itself, an alphabetical listing usually is to be preferred to what would otherwise appear to the reader to be a hodge-podge.

Geographic order of States as used by the Agricultural Estimates Division is shown in the following tabulation:

Maine	Mich.	W. Va.	Texas
N. H.	Wis.	N. C.	Mont.
Vt.	Minn.	S. C.	Idaho
Mass.	Iowa	Ga.	Wyo.
R. I.	Mo.	Fla.	Colo.
Conn.	N. Dak.	Ky.	N. Mex.
N. Y.	S. Dak.	Tenn.	Ariz.
N. J.	Nebr.	Ala.	Utah
Pa.	Kans.	Miss.	Nev.
Ohio	Del.	Ark.	Wash.
Ind.	Md.	La.	Oreg.
Ill.	Va.	Okla.	Calif.

In special or derived tables, columns or rows which are to be compared with one another should be brought as closely together as possible, as in table 4 on page 5. In some tables, the nature of the spanner heads, colon lines, or dash lines may be a major determinant of the order in which columns and rows, respectively, appear (see example on p. 38).

3. Time series in the stub frequently are divided into groups of 10 by leaving a space between the groups. If this is done, the first year in each group other than the first and last should end with a zero and the last year should end with a nine, except where other breaks appear desirable to indicate availability of information from censuses or similar sources. In some tables, data for all years in one or more series may not be strictly comparable. Here a space may be left between the years to call attention to the point of discontinuity, and a footnote should show its nature. Table 15 is of this sort.

Table 15.--Tomatoes, annual crop for fresh market: Season average price per bushel received by farmers and production and imports per capita, 1921-52

Year	Price 1/	Per capita	
		Production 1/	Imports
	Dollars	Pounds	Pounds
1921			
:			
:			
1938			
1939			
:			
:			
1952			

1/ Prior to 1939, excludes quantities produced in market gardens for sale in nearby cities.

4. Headings for comparable columns should be consistent or uniform. Two or more columns with similar descriptive headings should be grouped under a common spanner head to avoid repetition, and two or more rows with similar headings should be grouped under a common colon line or dash line. If a choice is available, in general the longer heading should be included in the spanner head. Thus in a table giving quantity and value for several periods, columns preferably should be grouped together by years for quantity and value, as in the following example, instead of alternating columns of quantities and value under a spanner head for each year.

Quantity			Value		
1951	1952	1953	1951	1952	1953

5. In formal publications, items in stub columns should have leaders to the first vertical rule, although this practice is not always followed. When typing tables that are to be set in type, these leaders may be omitted by the typist, as they can be indicated easily by hand by the information editor before sending copy to press. In informal publications, leaders frequently are omitted. They are shown in all examples in this handbook to indicate the proper format if they are used.

6. In the stub, a colon is used at the end of a colon line and a dash at the end of a dash line. Leaders are not used following such lines. Entries under a colon line or dash line are indented two spaces at the left. If an entry in the stub runs over more than one line, the second and succeeding lines are indented one space at the left, and leaders follow only after the last line. The following stub illustrates these rules:

```
------------------------------------------:
                                          :
Final figure weighted by                  :
 production associated                    :
 with--                                   :
  Simple average price:                   :
    1910-53 .............:
    1930-53 .............:
  Revised December esti-                  :
   mate, 1935-49 ........:
Revised December estimate:
 associated with--                        :
  Preliminary May esti-                   :
   mate, 1940-53 ........:
  Preliminary December                    :
   estimate:                              :
    1935-53 .............:
    1940-52 .............:
                                          :
```

7. When the stub item occupies more than one line, the figures are placed opposite the last line.

8. Items in the stub are not underlined.

9. If tracer numbers are used on the left and right of parallel pages and an entry in the stub runs over more than one line, the tracer number is placed opposite the first line even though the data are placed after the last line (see example on page 7).

10. The wording for each boxhead should be as brief as possible. The first word is capitalized but other words are not capitalized unless they would be in ordinary text. No period is used at the end, and other punctuation should be used only when necessary for clearness. In phrases like "Stocks, first of year" or "Stocks, July 1", use of a comma is preferred. If the phrase in the boxhead reads into the material below, as in the following example, a dash is used at the end:

Effect on price of change of 1 percent in--	
Supply factor	Demand factor

11. Use "Year" in the stubhead or boxhead for calendar year. For other periods use "year beginning ...." or "Season beginning ....". Use the single year, not the hyphenated year, in stub or boxhead.

Year beginning July	Factory production	Net exports	Stocks, June 30	Apparent disappearance
1950				
1951				

State	Season beginning			
	1950	1951	1952	1953

12. If a season covered is less than 12 months the designation "Period" or "Period beginning" may be used in the stubhead with a footnote, as in the following:

Period 1/	
1950	
1951	

1/ April-July crop year.

13. When the periods differ for different columns, footnotes may be used in each boxhead, as in the following:

Period beginning	Price of corn 1/	Supply of feed concentrates 2/	Animal units fed 2/
1950			
1951			

1/ Average November to May.
2/ Year beginning October.

14. Complications may arise in attempting to apply the above rules to tables that combine data from widely separated countries or States where planting or harvesting seasons differ greatly. Here a footnote on the title frequently is required, as in the following:

Table 16.--Cotton: Production in specified countries, 1950-53 1/

1/ Years refer to crop years beginning August 1 in which major portion of crop was harvested.

15. When months are shown, they should usually be placed in the boxheads across the table; the designation "Year" or "Year beginning" is placed in the stubhead if the years are given.

Year	January	February	March	April
	Cents	Cents	Cents	Cents
1950				
1951				

16. When data by quarters are shown in columns, boxheads like those below may be used. If the quarterly data are shown by rows, a comparable designation may be used in the stub.

Item	Quarters					
	1955				1956	
	I	II	III	IV	I	II

17. Headings for columns of years, countries, etc., for which data are distributed, should be singular, as--

Year Country Price State

18. If a table consists of only one item, as "Acreage," it is not necessary to repeat the title item in the boxhead.

19. Boxheads run crosswise wherever practicable; if necessary to run up, they are reduced to the minimum practicable depth. If one head must run up, all heads over figure columns in the same table run up, except years expressed in figures, which run across for better appearance. Running up over date columns is to be avoided. Boxheads need not consistently run up in all parts of divided tables.

State	1939					1949				
	Size of farm	Cropland	Irrigated land	Off-farm income	Cash farm income	Net worth	Size of farm	Cropland	Irrigated land	Off-farm income	Cash farm income	Net worth

20. If a boxhead is divided so that it covers more than one page, the boxhead is repeated on subsequent pages with the word "Continued", as shown in the following example of a parallel table:

Page 12

Year	Delivered to plants		
	Whole milk		
	Quantity	Price per 100 lb.	Value

Page 13

Delivered to plants --Continued			Milk and cream retailed by farmers
Cream			
Quantity	Price per 100 lb.	Value	

21. If desired, the several columns or rows in a table may be numbered. This is particularly useful in a table that involves many columns or rows and for which text references to particular columns or rows are made. Such numbers in boxheads generally are placed in parentheses just above the horizontal rule beneath the boxhead. Row numbers generally are inserted in parentheses at the extreme left of the row, and a vertical rule is used to separate the numbers from the stub.

22. In some cases it is necessary to subdivide the table and repeat the stub for each subdivision. Here three alternatives are permissible:

a. If the description for each subdivision is short, as in the following example, the description can be included in the stub:

1949:	
Australia ...	
Canada	
France	
1950:	
Australia ...	
Canada	
France	

b. If the descriptions of the subdivisions can be shown entirely within boxheads, the format shown for table 5 on p. 5 is used.

c. If the description is too long to be shown entirely in the boxheads, a subheading should be used for each subdivision, as in table 17. Here the first subhead should be above the boxheads, and the remaining subheads should be set off by horizontal rules that run across the entire table. If desired, these subheads may be shown with all letters capitalized. Units need to be repeated only if they differ from those in the preceding subdivision.

23. The word "percentage" is used in titles and boxheadings and the word "percent" as the unit.

Percentage of total

Percent

24. In tables of index numbers or of relative prices for which the base period is the same for all items in the table, as in table 18, the period or year used as the base should be clearly stated in a headnote. Material in headnotes is enclosed in brackets in publications to be set in type or may be in parentheses when typed.

25. In tables where the base period changes for different columns or where index numbers are used in combination with other data, as in table 19, the base period should be given in each boxhead.

26. In general, the phrase "index number" is preferred over "index," although the latter is permissible.

Table 17.--Sheep and lambs: Number slaughtered under Federal inspection and average cost per 100 pounds, 1953-55

NUMBER OF SHEEP SLAUGHTERED

Year beginning May	May	June
	Thousands	Thousands
1953		
1954		
1955		

NUMBER OF LAMBS SLAUGHTERED

1953	
1954	
1955	

AVERAGE COST PER 100 POUNDS OF SHEEP

	Dollars	Dollars
1953		
1954		
1955		

Table 18.--Prices received by farmers: Price relatives for specified commodities, 1913-53

[August 1909-July 1914=100]

Year	Wheat	Corn	Oats	Barley

Table 19.--Index numbers: Taxes payable per acre, farm output per man-hour and consumers' price, 1913-53

Year	Taxes payable per acre 1910-14=100	Farm output per man-hour 1935-39=100	Consumers' price 1947-49=100

27. Ranges in stub or boxhead descriptions are handled as illustrated by the following examples.

0 -24	0 -19	Under 5
25-49	20-39	5 -14
50-74	40-59	15-24

Beef steers		
Under 900 lb.	900-1,199 lb.	1,200 lb. and over

28. In a double money column for which the word "Dollars" does not appear at the head of the column, dollar marks are used in the first group of figures only, as in the following:

$10-$12	0 -$15
16- 20	$16- 18

29. Boxheadings are enclosed in single lines. 4/

30. Tables, in contrast to charts, are not enclosed in vertical lines.

31. In typing, vertical rules 4/ are inserted only to separate the stub from the field, to separate row numbers from the stub, or to separate two parts of a double-up table for which the stub is split. For the latter purpose, a double rule is used.

Units

1. In formal publications, units should appear at the top of each column unless the data relate to index numbers, price relatives, or ratios. In informal publications, if the units for all columns in the table are the same, the unit designation may be included in a headnote. In the past, in some informal publications, if the units in several adjacent columns were the same, a common unit designation of the following form has been used:

---------1,000 bushels---------

To bring about greater uniformity among tables, the above form should be avoided whenever typing time permits the use of a separate unit over each column, or a general headnote can be used.

2. When units appear at the head of the column, the first word should be capitalized, plural forms should be used if the words are spelled, and the last line should be underscored. If a number precedes the first word, however, the word is not capitalized.

4/ In typing, vertical rows of colons are used in place of vertical lines or rules.

The following rules apply when units are used at the head of each column:

3. Abbreviations should be used whenever it is necessary to save space, but units should be given uniformly, either all spelled or all abbreviated. However, if one unit cannot be abbreviated, as "acres" or "tons," the other units in the table may be abbreviated.

1,000 acres	1,000 bu.	1,000 dol.	1,000 dol.

4. If the last three figures of a whole number are omitted, that is, if the figure is expressed in thousands, the following form is used:

Thousands	Thousands	1,000 bushels	1,000 dollars

or, if space is limited:

Thou.	Thou.	1,000 bu.	1,000 dol.

5. If the last six figures of a whole number are omitted, that is, if the figure is expressed in millions, the following form is used:

Millions	Millions	Million pounds	Million dollars

or, if space is limited:

Mil.	Mil.	Mil. lb.	Mil. dol.

6. If not more than two changes in units occur in any column on a page, the units may be inserted in the columns, as shown in either of the following examples. When a new unit is inserted in one or more columns, the units in other columns, if unchanged, need not be repeated.

Fruit and State	Sales	Price per box
	Million boxes	Dollars
Grapefruit:		
Florida		
Texas		
	1,000 boxes	
Lemons		
Oranges		

Table 20.--Apples and grapefruit: Quantity and value of exports, by country of destination, United States, 1950-52

Fruit and country of destination	Year beginning July					
	Quantity			Value		
	1950	1951	1952	1950	1951	1952
	1,000 barrels	1,000 barrels	1,000 barrels	1,000 dollars	1,000 dollars	1,000 dollars
Apples:						
Germany						
Belgium						
France						
Total						
	1,000 boxes	1,000 boxes	1,000 boxes			
Grapefruit:						
Germany						
Belgium						
France						
Total						

The first example is an ordinary vertical table that involves no totals, whereas the second has a total within each subdivision. If no totals were involved, the horizontal rules within the field in the second example would be omitted.

7. When the units for all columns in a table are the same for each row but the units differ among rows, the varying units may be placed in a unit column. Unit designations in unit columns should be in the singular, with the first word capitalized. The designation "do." is used under a unit in a unit column if the unit is spelled; in formal publications, if the unit is abbreviated, the abbreviation is repeated. In informal publications, if some of the units in the unit column consist of two or more words, "do." may be used if the unit is repeated, even though an abbreviation is involved.

Crop	Unit	Average 1940-49	1950	1951
		Thou.	Thou.	Thou.
Artichokes	Box			
Asparagus:				
For market	Crate			
For manufacture	Ton			
Beans, lima:				
For market	Bushel			
For manufacture	Ton			
Cabbage:				
For market	do.			
For sauerkraut	do.			

8. Mixed units of quantity and amounts and words in figure columns are set as follows:

Item	Unit	1950	1951
Capital invested	Dollar	8,000	
Value of stock	do.	3,000	
Land under cultivation	Acre	128.6	
Forest land	do.	50	
Weekly production of butter per milk cow	Pound	$7\frac{1}{2}$	
Loss of hogs from cholera	Number	1/None	

1/ If preferred, a cipher may be used instead of the word "None."

9. Units of quantity and prices per given unit should be consistent for a given commodity. In general, prices per bushel and per pound are stated in cents, and prices for larger units are stated in dollars. However, if prices in cents per bushel are more than 100, the unit may be stated in dollars.

Table 21.--Oats: Average price per bushel received by farmers, United States, by months, 1943-53

Year beginning	July	August	September
	Cents	Cents	Cents
1943	65.6	65.2	69.6
1944			

Table 22.--Flaxseed: Average price per bushel received by farmers, United States, by months, 1943-53

Year beginning	July	August	September
	Dollars	Dollars	Dollars
1943	2.84	2.80	2.84
1944			

10. No unit is used in columns of index numbers, price relatives, or ratios.

11. For unit headings at the top of columns, the word "Dollars" or "Dol." should be used instead of the sign $, and the term "Percent" or "Pct." instead of the sign %, if they appear in a table showing other units expressed in words. If "Dollars" appear alone, the sign $ may be used before the first figure in the column, but the term "Percent" should always be used instead of the sign %.

12. The abbreviation "do." is used only in columns consisting of words or dates and is capitalized in the stub and the last column. It is never used in a column of numbers. In the stub, "Do." is indented two spaces from the left, but in columns it is centered. In formal publications, leaders are used before and after "do." in columns other than the last; in informal publications, such leaders may be omitted, particularly if they are not being used in the stub.

Black River	Act, June 22, 1936	77th Congress	Favorable
Do.	Act, July 30, 1937	.... do.	Do.
Cayuga Creek	..... do.	.... do.	Unfavorable

13. Tons other than short tons (2,000 pounds) should be designated as long or metric. The following weights apply:

Long ton = 2,240 pounds
Metric ton = 2,204.6 pounds

14. Units of foreign weights and measures and foreign prices should be converted to domestic equivalents when practicable. The domestic equivalent should be used in the text and, if necessary, the original unit should be added in parentheses. The method of conversion should be clearly stated in a footnote.

Handling of Totals or Averages

1. Totals normally are placed at the bottom or right of the numbers totaled. If subtotals are used, the items totaled should be clearly indicated by indentation or by a word of description. Uniform indentation of the word "Total" throughout the page is not necessary. These rules are illustrated by the example at the end of this section.

2. For data listed as a time series, averages for a portion of the data shown in the table normally are placed at the top or left of the table, but if the average relates to all data shown it is handled in the same way as a total.

3. When both totals and averages appear in one table, the average generally follows the total from which it is computed. In some cases, however, it may be preferable to group all totals and all averages together.

4. When totals or averages are shown in a separate row, the total or average in formal publications should be set off by a single line above and, when other numerical data follow, by a double line below. These lines should not cross the stub. In informal publications, these lines may be omitted, particularly if time available for typing is short. In tables to be mimeographed, the lines should be broken as otherwise they tend to cause the stencil to break.

5. The years included in an average should be clearly indicated. If an average within a given row or column is computed from an incomplete series, the years included should be given in a footnote.

6. If an average is not a simple arithmetic average of the data shown, the nature of the average should be given in a footnote.

7. At times, certain statistical coefficients may relate to data in the same way as would a total or average, as in table 23. Here stubs and rules are handled in exactly the same way as for an average or total.

Table 23.--Fruits: Factors that affect year-to-year changes in price received by farmers, 1922-41

Commodity or group	Effect on price of 1 percent change in-- Production
	Percent
Fruits:	
Deciduous:	
Apples	-0.79
Peaches	- .67
Cranberries	-1.49
All deciduous	- .68
Citrus:	
Oranges	-1.61
Grapefruit	-1.77
Lemons:	
Shipped fresh:	
Summer	-2.48
Winter	-1.39
All lemons	-1.69
All citrus	-1.32
All fruits	- .94

Footnotes

1. Footnotes to tables or tabulations are numbered independently from footnotes to text.

2. Footnotes for a table or tabulation are placed immediately below the tabular material. If the footnotes to both a table and text fall together at the bottom of a page, the footnotes to the table are placed above the footnotes to the text.

3. Figures are used for footnote references, beginning with 1 in each table or tabulation. The reference is set off with the mark _/, so as to read 1/. If a footnote reference stands alone in a column, it is centered. Two or more footnote references occurring together are separated by a space, not a comma.

4. In some statistical publications, a single or double asterisk is used to indicate, respectively, coefficients that differ from zero by a statistically significant amount at the 5 percent and 1 percent probability levels. As most coefficients used in published results have this property, it seems preferable instead to use a footnote (not an asterisk) to indicate coefficients that do not differ from zero by a statistically significant amount at some stated probability level as in the following example:

1/ The coefficient for A in equation (4) does not differ significantly from zero at the 10-percent probability level, and the sign is not in accord with expectations.

The following coefficients have the expected sign but do not differ significantly from zero at the 10-percent probability level:

The coefficient for M in equations (3.1) and (3.2).
The coefficient for F in equations (6) and (6.1).

---

5. In titles, stubs, and boxheads, a footnote reference is placed at the end rather than immediately following the word to which it refers, as in ordinary text. This is done to avoid breaking up the title or phrase. Footnotes that relate to a single term can be worded in such a way as to indicate that this is true. If a footnote reference appears at the end of the title in a table that is continued, the reference should precede the word "Continued."

6. Within the field of a table, footnote references normally are placed at the left of figures consisting of integers or decimals, but at the right of dates, words, or fractions. With such words as "none", however, the footnote reference is placed at the left. In columns consisting of a mixture of dates or words and numbers, footnote references are consistently placed at the right.

7. Footnote references in compound boxheads are inserted in numerical order from left to right, box by box, and subdivision by subdivision.

State and division 1/	Number 2/					Production 10/		Cash income 13/
	Shipments and local slaughter 3/		Cattle shipped in for feeding and breeding 6/	Farm slaughter 7/		Quantity 11/	Value 12/	
	Cattle 4/	Calves 5/		Cattle 8/	Calves 9/			

8. Within the stub and field of ordinary tables, footnote references are inserted in numerical order from left to right, starting with the first row and continuing down the page. The first number used is that following the last number used in the boxhead.

9. In a parallel table like table 24, references to footnotes are numbered consecutively across the page from left to right and across both pages.

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Table 24.--Apples: Production in specified States, 1948-53 1/

State	1948 2/	1949	1950	1951	1952	1953 3/
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels
New York						4/
Pennsylvania 5/ ..						

10. In a one-page double-up table like table 25, references to footnotes are numbered consecutively across and down the first section, then similarly in the second section. Footnote references are repeated in boxheads.

Table 25.--Cotton: Production and imports, United States, 1950-53 1/

Year	Production	Imports 2/	Year	Production	Imports 2/
	1,000 bales	1,000 bales		1,000 bales	1,000 bales
1950			1952 4/ ...		
1951 3/			1953 5/ ...		

11. For divide or broad tables that extend over more than one page, footnote references are inserted in numerical order according to the above rules, starting with the title and boxheads on the first page, continuing through the stub and field on the first page, then through the boxheads, stub and field on the second page, and so forth. Footnotes that are the same as on a preceding page retain their numbers. Footnotes are placed at the end of the table, but at the bottom of each preceding page a note is inserted reading "See footnotes at end of table, page ___". Occasionally, the makeup of the

tables may be such as to make it advisable to show the footnotes on a separate page. This particularly is apt to be true for broad tables. Such footnotes may be placed on the bottom of a page with a short table of a higher number, or footnotes from one or more tables may be grouped together on a subsequent page. In either case, a note is inserted at the bottom of each page of the original table reading "See footnotes on page ___". Parallel tables follow similar rules, except that each pair of pages is considered in the same way as each single page for a divide or broad table.

12. Footnotes preferably should be written on separate lines and normally should be in the form of complete sentences. Two or more footnotes may be written on one line when necessary to conserve space.

13. In footnotes, numbers are expressed in figures even at the beginning of the sentence. Fractions that stand alone, however, are spelled at the beginning of the footnote.

14. Footnotes should clearly indicate the nature of the data, particularly when they differ from those in the original source. If an exceedingly long footnote would be required, however, reference may be made to explanations in the text. The following are typical explanatory footnotes:

1/ Data for July 1910-June 1923, simple average of daily quotations. Data for July 1923-June 1954, simple average of weekly quotations.
2/ Average of daily prices weighted by carlot sales.
3/ Simple average of daily range.
4/ Totaled from weekly reports.
5/ Yearly totals for each market and the grand total are totals of daily reports.
6/ See text for exact variables used.

---

15. If footnotes appear on figures used in obtaining an average, the following footnote should appear on the average: "See footnotes to figures used in obtaining this average."

16. When computations are based on unrounded data, particularly when the data do not add up exactly, a footnote should be added as in the following:

Million pounds
365
422
374
1/1,160

1/ Computed from unrounded data.

Source

1. In bulletins issued by the Agricultural Marketing Service, if the AMS is the source, this need not be indicated on each table. In general, sources should be given only when it is felt that they are helpful to the reader. If they are used, the sources should be so definitely described that one using the data may retrace every step taken; every citation should be so specific that the particular data may be readily identified.

2. A source for a table, if shown, follows the numbered footnotes and is separated from them by a space. The word "Source" is not used before the citation.

3. Divisions, branches, or sections of the Agricultural Marketing Service should not be listed as a source except for tables to be used chiefly within AMS or in certain other cases, as those prepared by the Crop Reporting Board.

4. In some cases, a complete description of the source may be too long to include as a part of the table. In such cases, the description may be given in the text. Unless the text material appears adjacent to the table, a cross-reference should be used. A cross-reference always should be used when sources are given for most items in a table but an explanation in the text is given for only one or a few. In some statistical compilations, most of the descriptive material will be included at the front of the publication under a heading like "Methods of Obtaining Data." Here a statement can be made that only sources and methods that relate to a single table or to specific years are given in the individual table.

5. When a table has one predominating source of information, cite that source with the words "except as otherwise stated." Use footnote references for other sources cited.

6. If the data in different columns or rows are from different sources, numbered footnotes may be necessary.

7. The original source rather than a secondary source should be used unless the original source is not available. When a secondary source is used, that fact should be stated.

8. Use "Compiled" in the sense of collecting specific data from various sources and assembling them in tabular form or making necessary computations and assembling the resulting data in tabular form.

9. When a table is copied verbatim, the source citation should read: "Reproduced from ----." In such cases, changes in table form to conform to the rules in this handbook should not be made.

10. In citing government departments other than Agriculture give the department, followed by the bureau or service. Exceptions: The following may be cited without reference to the Department:

Bureau of the Census	Internal Revenue Service
Bureau of Engraving and Printing	Bureau of Labor Statistics
Fish and Wildlife Service	Bureau of Mines
Geological Survey	National Bureau of Standards

11. A blanket reference, such as "Agricultural Statistics, 1936-53," should be used only when the table quoted appears in the same form continuously from year to year. Any irregularity should be carefully noted. The following are typical citations:

Compiled as follows:
1840-57, Senate Report No. 1394, pt. 2, 52nd Congress, (Aldrich Report).
Jan. 1858-Oct. 1899, Annual Reports of Chicago Board of Trade.
Nov. 1899-May 1942, Chicago Daily Trade Bulletin.
June 1942 to date, Chicago Wall Street Journal known as Chicago Journal of Commerce prior to 1951.

Compiled as follows:
1885-1930, Journal of Royal Statistical Society, 94:275, Part II, 1931.
(Sauerbeck's index is used for 1885-1912 and Statist index for 1913-30).
1931 to date, London Statist.

Item	
Corn 1/	
Oats 2/	
Barley 2/	

1/ Based on relative size of the regression coefficients given by the fourth approximation for the second analysis shown in table 12.
2/ Based on relative size of the regression coefficients from analyses similar to those used for corn. From an unpublished manuscript by Kenneth W. Meinken.

12. If a Literature Cited list is used, citation numbers should be used in tables as well as in text, preceded by the names of the authors or by an abbreviated title.

Special Rules for Use of Ciphers, Leaders, and Parentheses

1. Within the field, a cipher is used when data are available but the quantity is zero. If preferred, the word "none" may be used. Leaders (---) are used to indicate that no information exists. If a figure has been estimated, this fact is indicated by placing the number in parentheses. Unless a general text statement is included covering methods used to fill in missing data, a footnote should indicate the method of estimation.

2. When all figures in a column are whole numbers, a cipher is placed in the column without a decimal point. If the data are carried to one or more decimal places, then when a cipher is intended, place one cipher in the unit row. It is not followed by a decimal point.

24	2.345	0
0	0	3.45
326	.456	0

3. If the first number in a column is wholly a decimal, a cipher is added at the left of its decimal point.

0.95	0.34
.89	.35
.65	21.20

In the second example shown, writing of the last figure as 21.20 implies that the digit in the second decimal place equals zero. If this digit is not specified, the column should be written as:

0.34
.35
21.2

4. In any column containing sums of money, the decimal and ciphers are omitted if the column consists entirely of whole dollars. In columns that contain both dollars and cents, ciphers are placed on the right of the decimal even though these digits are unspecified. This is an exception to the rule given above.

0	0
25	25.24
1	1.00
425	425.36

5. If the first item or items in a column containing sums of money is a cipher, and the word "Dollars" is not used as a unit designation, the dollar mark is placed on the first non-zero figure appearing in the column.

0
$25

6. In columns of figures under feet and inches, if only feet are given, place a cipher under "Inches." If only inches are given, leave a blank under "Feet." If ciphers are used for none, place a cipher under both "Feet" and "Inches."

Feet	Inches
3	0
	8
0	0

7. In the text or in footnotes, a cipher always is supplied before a decimal if there is no digit in the unit position, as in the following example:

1/ Less than 0.05 percent.

SOME TABLES THAT DO NOT FIT THE RULES

Perhaps the best way to indicate those rare instances in which these rules cannot be applied is to show some examples. These are taken from publications sent to us for editing of tabular material.

Tables Having No Stub

Occasionally, a table will consist of two or more columns but no stub, as in table 26. Here all of the rules of table construction apply except those that concern the stub.

Table 26.--Coffee: First year of increase in cycles of import value per pound and Brazilian exportable production, 1872-1953

Year beginning July		Lag in years
Import value	Production	
		Number
1872	1878	6
1886	1896	10
1910	1913	3
1918	1920	2
1924	1927	3
1941	1945	4
Average		5

Accounting or Bookkeeping Tables

Particularly in publications designed for use by farmers or business men, the author may wish to present tables in a form commonly used by accountants. Here a column may be used for the individual entries, and another column for subtotals and totals. This form of presentation is permissible whenever it is felt that tables in this form are more understandable to the reader than would be those based on the rules given in this handbook. The tables, however, should follow conventional accounting or bookkeeping rules.

This form of presentation is not always desirable. An example for which this is true is shown on p. 39.

Material That Is a Mixture of a Single-column Tabulation and a Multi-column Table

The example shown on p. 37 presents unusual difficulties. The data are designed to show the computations used in obtaining the price of class I milk in Boston for a single month. After some debate, we decided to call this a tabulation, as the bulk of the data is given in a single column. The reader will note that, whereas this resembles neither a table nor an ordinary single-column tabulation, standard rules are followed where possible. For example, totals are preceded by a line and followed by a double line if they precede additional data, and the boxheads, stubs, and units used in all cases follow standard principles.

EXAMPLES OF TABLES BEFORE AND AFTER REVISION

The following examples are given to illustrate the improvement that can be brought about in tables by applying the rules in this handbook and to assist the reader in applying the rules to tables with which he may be working. These examples are taken from tables given us for revision, although most of them were not published in their unrevised form.

First Example

Here we are concerned only with revisions in the boxheads. In the original boxhead, the first and third items relate to supply of corn, the second item relates to supplies of total feed concentrates, the fourth and fifth items relate to prices, and the last three items to some sort of net returns. From the original table, it is not clear whether the latter all relate to cash receipts as such, but a check with the analyst who prepared the table revealed that this was the case. The first step in revising the boxhead is to rearrange the columns into common groups. This example clearly shows the importance of applying the rules before typing or even listing the data in the table, as the second and third columns need to be interchanged.

The following shows the computation of the Class I price of milk for Boston, November 1953:

General economic factors:

Item	Index numbers, 1951=100
Bureau of Labor Statistics wholesale price index, 1947-49=100, for September 111.0, divided by 1.143 to convert to 1951 base	97.11
New England consumer income index: United States per capita disposable income, 3rd quarter 1953, $1,562, divided by $1,527 times 100 to convert to 1951 base, times 1.0671 to make it apply to New England	109.17
New England grain-labor index:	
Average price per ton of dairy ration, for current month, $80.62, divided by $88.40, times 100 to convert to 1951 base times 0.6	54.72
Regional farm wage rate per month, first of preceding month, $166.89, divided by $145.80 times 100 to convert to 1951 base, times 0.4	45.79
Total	100.51
Average economic index	102.26

Supply-demand adjustment:

Year and month	4 markets				
	Class I sales		Supply from producers		
				Current	
	Actual	Normal percentage of supply	Normal (Column 1 divided by column 2)	Actual	As a percentage of normal
	1,000 pounds	Percent	1,000 pounds	1,000 pounds	Percent
1953:					
August	102,786	70.1	146,628	168,877	115.17
September	104,908	70.7	148,385	156,290	105.33
Average	---	---	---	---	110.25

Supply-demand adjustment factor when percentage of normal supply is 110 or 111	.90
Seasonal adjustment factor for November	1.08
Final derivation of Class I price:	
Class I price index equals economic index, 102.26 times 0.90, times 1.08	99.40
Unbracketed Class I average price per hundredweight:	Dollars
1951	5.61
Current month, 5.61 times 0.9940	5.58

Class I price per hundredweight schedule:

Unbracketed	Boston market, 201-210 mile zone	All markets, city plants
Dollars	Dollars	Dollars
5.320 - 5.539	5.43	5.95
5.540 - 5.759	1/5.65	6.17
5.760 - 5.979	5.87	6.39

1/ Price for November.

Once the columns are properly grouped, the spanner heads can be inserted. These help the reader greatly in identifying the data, particularly in telling him that the first two columns in the revised table relate to corn and that each of the last three columns presents cash receipts for the specified items, with the last column being a total of the other two. The second spanner head reads into the material below, so we use a dash (--) at the end. In the columns under this spanner head, the quantity designation for corn is included in the boxhead, as is the notation that the series for livestock and livestock products is an index number with a 1910-14 base. No unit is used with respect to the latter.

Original

Year	Corn production	Total non-loan feed conc. supply	Loan stocks of corn 1st of year	Nov.-May price for: Corn	Nov.-May price for: Livestock and livestock products	Net cash returns to farmers for corn	Cash receipts for livestock and products	Net cash receipts for corn and livestock
	Mil. tons	Mil. tons	Mil. tons	Cents/bu.	Index	Mil. dol.	Mil. dol.	Mil. dol.

Revised

Year	Corn: Production	Corn: Loan stocks, 1st of year	Total supply of non-loan feed concentrates	November-May price for--: Corn per bushel	November-May price for--: Livestock and livestock products, index numbers 1910-14=100	Cash receipts to farmers: Corn	Cash receipts to farmers: Livestock and livestock products	Cash receipts to farmers: Corn and livestock and livestock products
	Mil. tons	Mil. tons	Mil. tons	Ct.		Mil. dol.	Mil. dol.	Mil. dol.

Second Example

This relates to the computation of the Class I price of milk in a second market (see page 39). Here a two-column accounting type form was used in the original, but this appears unneccessary. When a single column is used, this becomes a tabulation rather than a table. Although the revised table takes less vertical space than the original, it contains a considerable amount of information not included in the original, such as that the prices in the butter-powder formula are in terms of dollars per pound and that the powder price is a United States average for nonfat dry milk. This table was designed

Second Example

Original

Table 27.--An illustration of the computation of the Class I price for Detroit, Michigan, January 1954

Alternative basic formula prices		
Method		Prices
(a) Average price paid by 15 Midwest condenseries:		$3.215
(b) Butter-powder formula:		
Chicago price of 92-score butter ($0.65288) - $ .03 = $0.62288		
$0.62288 x 1.2 x 3.5	$2.61611	
Spray and roller powder price ($0.1429) - $ .055 = $0.0879		
$0.0879 x 8.2	.72078	$3.337
(c) Average pay price of 9 local condenseries		$3.08

Final derivation of Class I price		
Basic formula (from (b) above)	$3.337	
Class I differential	1.430	
	4.767	
Supply-demand adjustment	- .450	
Class I price for January 1954		$4.317

Revised

The following shows the computation of the Class I price of milk, Detroit, January 1954:

Item	Price per hundredweight
	Dollars
Alternative basic formula price:	
Average price paid by--	
9 local condenseries	3.08
15 Midwest condenseries	3.215
Butter-powder formula:	
Price per pound of 92-score butter, Chicago, $0.65288, minus 0.03, times 1.2, times 3.5	2.61611
Price per pound of spray and roller nonfat dry milk powder, United States, $0.1429, minus 0.055, times 8.2	.72078
Total, rounded	3.337
Derivation of Class I price:	
Highest of 3 basic formula prices	3.337
Class I differential	1.430
Total	4.767
Supply-demand adjustment	-.450
Final price	4.317

for use among readers well acquainted with the dairy industry, so this information probably was not essential, but it is preferable for tabular material to be understandable to all possible readers.

Third Example

In table 28, data are grouped according to a two-way cross classification, namely for large and small values of factor (1) under both large and small values of factor (2). The method used in the original was a natural way to handle data of this sort, but presented difficulties when an attempt was made to apply standard rules with respect to boxheads. Study of the table suggested the means that was finally adopted, namely the listing of the groups one after the other instead of in pairs. This is a fairly complex table in any case, but we believe the revised form is easier for the reader to grasp than the original. The fact that it requires more space is a slight disadvantage.

Changes in the title, boxheads, and units are fairly obvious applications of the rules in this handbook. In the title, a short key word is preferred to the long phrase used in the original. Also it is important to bring out that the years have been grouped according to the specified criteria, as the reader would not normally expect a grouping of this sort. With grouped data, it is particularly important to show the years in the title, because the reader cannot observe at a glance the period covered. In the boxheads for the first two columns, a verb is used as the initial word rather than an adjective, as in the original. This is desirable when the spanner head consists of a noun. Since the quantities relate to feed grains and the prices to corn, it might have been preferable to include this information in the spanner head rather than in the title, as the difference then would be more apparent to the reader. This table appeared in a publication for which this was consistently true, so it seemed unnecessary to draw attention to it in each table.

COMPUTATIONS RELATING TO TABULAR MATERIAL

Significant Numbers 5/

1. Perfect accuracy is seldom obtained in statistics. Things counted are often not perfectly similar to each other, or are matters of estimate, and an exact and unqualified statement may imply an accuracy that does not exist. Population figures and acreage and production figures, for example, cannot be

---

5/ A detailed discussion of the effects of rounding or grouping data may be found in Eisenhart, Churchill, ed., Selected Techniques of Statistical Analysis for Scientific and Industrial Research and Production and Management Engineering, 473 pp., New York, 1947. See particularly pp. 187-193 and 215-217.

Third Example
Original

Table 28.--Deviation of estimated from market price of corn: Comparison by relative importance of current-crop support quantities, and CCC owned plus old crop resealed loan stocks

A	Years in which quantities of current-crop supported grain are small and CCC owned stocks are small				
	Quantity		Price of corn		
Year	Current crop support grain	CCC owned stocks	Actual	Est.	Diff.
	Mil. tons	Mil. tons	cents		
1934	.3	-	83	90	+7
1935	.7	-	56	59	+3
1936	-	-	106	101	-5
1937	1.2	-	51	49	-2
1946	.7	.3	138	132	-6
1947	.0	-	220	196	-24

B	Years in which quantities of current-crop supported grain are significant and CCC owned stocks are small				
	Quantity		Price of corn		
Year	Current crop support grain	CCC owned stocks	Actual	Est.	Diff.
	Mil. tons	Mil. tons	cents		
1933	5.6	-	45	40	-5
1938	6.4	1.0	44	50	+6
1948	13.5	.2	120	142	+22

C	Years in which quantities of current-crop supported grain are relatively small, and CCC owned stocks are significant.				
1940	2.9	11.5	58	61	+3
1941	3.3	4.8	74	76	+2
1950	3.1	15.9	155	176	+21
1951	1.0	10.8	167	175	+8

D	Years in which quantities of current-crop supported grain are significant, and CCC owned stocks are significant.				
1939	8.3	7.0	55	55	0
1949	12.1	12.4	118	134	+16
1952	10.8	7.0	147	147	0
1953	14.2	13.3	142	148	+6
1954	11.2	20.5	138	122	-16

Revised

Table 28.--Corn: Difference between actual and estimated price per bushel for years grouped according to the relative importance of current-crop quantities of feed grains under support and stocks owned by CCC plus old-crop grain resealed, 1933-41 and 1946-54

Group and year beginning	Quantity		Price		
	Placed under support	Owned by CCC	Actual	Estimated	Difference
	Million tons	Million tons	Cents	Cents	Cents
Stocks owned by CCC are--					
Small and quantities of current-crop grain under support are--					
Small:					
1934	0.3	---	83	90	7
1935	.7	---	56	59	3
1936	---	---	106	101	-5
1937	1.2	---	51	49	-2
1946	.7	0.3	138	132	-6
1947	0	---	220	196	-24
Large:					
1933	5.6	---	45	40	-5
1938	6.4	1.0	44	50	6
1948	13.5	.2	120	142	22
Large and quantities of current-crop grain under support are--					
Small:					
1940	2.9	11.5	58	61	3
1941	3.3	4.8	74	76	2
1950	3.1	15.9	155	176	21
1951	1.0	10.8	167	175	8
Large:					
1939	8.3	7.0	55	55	0
1949	12.1	12.4	118	134	16
1952	10.8	7.0	147	147	0
1953	14.2	13.3	142	148	6
1954	11.2	20.5	138	122	-16

accurate to the last digit and should be used to the last digit only as an exact quotation from a recognized source or as bare numerical results of a calculation. Such figures should be rounded in text in order to avoid implying a false accuracy and to enable the reader to grasp large numbers easily. Rounding in tables is desirable in all cases for which data are presented primarily for illustrative purposes. Trends in a single series and comparisons between data in adjacent columns generally can be studied with greater ease when the data are rounded to 2 to 4 numbers than when shown as originally published. Usually the rounding must be a matter of judgment unless it is possible to determine to how many digits the figure is likely to be correct.

2. Time is often wasted on computations owing to the retention of more figures than the precision of the data warrants or than the problem requires. At each stage of the work all figures which have no influence on the final result should be rejected. Thus, only one or two digits beyond the number that are significant should be retained.

3. A significant figure is any digit which denotes or signifies the amount of the quantity in the place in which it stands. Thus zero may be a significant figure when it is written, not merely to locate the decimal point, but to indicate that the quantity in the place in which it stands is known to be nearer to zero than to any other digit. For example, if a distance is measured to the nearest hundredth of an inch, and found to be 205.46 inches, all five of the figures, including the zero, are significant. Similarly, if the measurement shows the distance to be nearer to 205.40 than to 205.41 or 205.39, the final zero also is significant and should invariably be retained, since its presence serves the useful purpose of showing that this place of figures has been measured as well as the rest.

4. A zero, when used merely to locate the decimal point, is not a significant figure in the above sense; for the position of the decimal point in any measurement is determined solely by the unit in which the quantity in question is expressed. For example, 0.006 has but one significant digit. The number of decimal places in a result has, therefore, in itself no significance in indicating the numeric precision of a measurement; it shows only the order of magnitude of the quantity represented.

5. Two rules are of value in keeping unnecessary computation at a minimum:

(1) In multiplication and division the number of significant digits in the product or quotient is the same as that in the least significant of the two figures used to form the product or quotient. Thus, 37.2 multiplied by 17 is 632.4, but having only two significant digits, is written 630 in text. However, had the 17 been an integer, say a frequency, and hence good to an infinite number of places, the correctly written figure would be 632 because 37.2 has 3 significant digits. An example of significant digits in a quotient is $118.3 \div 12.1 = 9.78$.

(2) In addition and subtraction the result is significant only to the last place of the least accurate figure. An illustration of proper rounding follows:

Original data	Data rounded to 1 decimal
136.421	136.4
28.3	28.3
321.	321.
68.243	68.2
17.482	17.5
---	571.4

Since the least accurate number, 321, is good only to a whole unit, it is proper to set the problem up with each number carried to but one more place. This protects against rounding errors. As the sum has only 3 significant digits, it should be written as 571 in text.

6. When publishing statistical results a broader concept of significance must be recognized. Here we need to be concerned not only with the accuracy of computations, but also with the accuracy of the data entering into the computations. Most published data are subject to a certain amount of error from causes other than computational rounding error. They may be based upon samples or upon reliable but not wholly exact judgment or upon faulty records of originally accurate measurements.

Ideally all published statistical results should reflect to the reader some measure of total possible error. This is rarely possible. It is, however, frequently possible to estimate the possible error due to sampling. For example, it is possible to compute such measures (standard errors) for the coefficients in an estimated regression equation. The rounding rules discussed above apply to the calculation of these measures.

An approximate rule to follow here is that the last digit shown for the coefficient should correspond to the first digit in its standard error. However, in those cases for which this would mean only a single digit, 2 digits are permissible. For uniformity it may be desirable for a regression equation to show the same number of digits to the right of the decimal for all coefficients. Correlation coefficients or coefficients of determination rarely warrant more than 2 decimals.

In the following regression equations, the numbers in parentheses under the coefficients are their respective standard errors.

Case 1 - Direct application of rounding rule

$$X_0' = \underset{(0.001)}{-0.003} - \underset{(0.3)}{1.7X_1} + \underset{(0.7)}{0.7X_2} + \underset{(0.2)}{0.8X_3} \qquad R^2 = 0.76$$

Case 2 - Carrying a minimum of 2 digits or significant figures

$$X_0' = \underset{(0.0011)}{-0.0033} - \underset{(0.3)}{1.7X_1} + \underset{(0.70)}{0.70X_2} + \underset{(0.23)}{0.84X_3}$$

Case 3 - Carrying a minimum of 2 digits and the same number of digits to the right of the decimal for each regression coefficient

$$X_0' = \underset{(0.0011)}{-0.0033} - \underset{(0.34)}{1.69X_1} + \underset{(0.70)}{0.70X_2} + \underset{(0.23)}{0.84X_3}$$

Adjusting Numbers

1. In rounding numbers, both accuracy of results and the impression of the reader must be considered. (See Significant Numbers, page 40.) As readers not trained in statistical methods are often disturbed by failure of columns of figures to total exactly, it is often expedient to adjust items so that figures will total. In doing this, of course, fact must not be significantly misrepresented. As an alternative, a footnote may be used stating that totals and averages are based on unrounded data.

2. In rounding numbers, a digit less than 5 or a fraction less than $\frac{1}{2}$ is discarded, a digit greater than 5 or a fraction greater than $\frac{1}{2}$ adds 1 to the next digit to the left. When an even 5 or the fraction $\frac{1}{2}$ is dropped, the digit next to the left, if even, is unchanged; if odd, is raised. For example, $3\frac{1}{2}$ and $4\frac{1}{2}$ are each rounded to 4. Numbers smaller than one-half of the smallest unit are not rounded to zero. A footnote is used saying "Less than 500" or "Less than 0.05 percent," or whatever the unit may be. Numbers that are exactly one-half of the smallest unit are rounded to 1. These rules do not concern the number of decimal places to which a number is carried.

Original data	Data rounded to thousands
499	1/
500	1
224,403	224
250,509	251
897,500	898
898,500	898

1/ Less than 500.

3. In work tables, it is convenient, when making computations where the last decimal digit has been rounded to 5, to make the 5 with the sign +, -, or . to indicate whether the 5 was lowered (+), raised (-), or an even 5. These signs are taken into account if the data are further rounded.

Original data	Data rounded to thousands with--	
	One place to the right of the decimal	No decimal
250,509	250.5+	251
368,486	368.5-	368
697,500	697.5.	698
724,500	724.5.	724

4. When it is necessary to adjust rounded figures to a fixed total, the unrounded figures should be added to obtain the total. This total then is rounded and, if necessary, the figure or figures which would be least changed from the original data is raised or lowered by 1.

Original data	Total rounded	Individual items rounded and totaled	Rounded items adjusted to rounded total
166.10		166	166
25.62		26	25
40.68		41	41
232.40	232	233	232
925.0		925	925
92.5		92	92
166.5		166	167
666.0		666	666
1,850.0	1,850	1,849	1,850

5. When making up a table of rounded figures, it is sometimes difficult to decide whether to adjust individual items to the grand total and add to obtain subtotals, or to obtain subtotals by adding the unrounded figures and then adjust individual items to the rounded subtotals. The first procedure requires less clerical work but is usually not satisfactory if the subtotals have been published in rounded form. As a general principal it is suggested that when the grand total and subtotals, but not individual items, have been published in rounded figures, the individual items should be adjusted to the rounded subtotals; when the subtotals have not been published, the individual items may be adjusted to the grand total and then added to obtain subtotals.

6. In tables that include an "all other" item, the rounding adjustment should be made on this item, if it is a significant item in the table.

7. Percentage distributions should add to 100. When the usual method of adjusting does not give this total, the number least affected as a whole is arbitrarily adjusted to care for the difference. In the example, 0.343 normally would have been adjusted. As there are three such numbers, adjustment has been made on the largest number to the left of the decimal.

Percentage of total		
Carried three decimal places 1/	Rounded to one decimal	
	Without adjustment	Adjusted
Percent	Percent	Percent
83.676	83.7	83.8
2.920	2.9	2.9
1.374	1.4	1.4
1.718	1.7	1.7
.859	.9	.9
1.374	1.4	1.4
.343	.3	.3
.859	.9	.9
.343	.3	.3
1.374	1.4	1.4
2.061	2.1	2.1
.343	.3	.3
2.577	2.6	2.6
---	99.9	100.0

1/ No adjustment has been made on the last digit.

Computation of Averages

1. When an average percentage is computed in a table of figures, as in table 29, it should be computed from the average of the original figures, not from the average of the percentages. If the original data are not given in the table, an average of the percentages may be used.

2. If a table of figures includes monthly averages for all years shown, as well as yearly averages for all months, as in table 30, the average for the entire period should be obtained from the yearly, not from the monthly, average.

Table 29.--Meat: Production, by types, United States, 1948-52

Year	Production					Percentage of total production				
	Beef	Veal	Lamb and mutton	Pork	Total	Beef	Veal	Lamb and mutton	Pork	Total
	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Mil. lb.	Pct.	Pct.	Pct.	Pct.	Pct.
1948 ..	9,075	1,423	747	10,055	21,300	42.6	6.7	3.5	47.2	100.0
1949 ..	9,439	1,334	603	10,286	21,662	43.6	6.2	2.8	47.4	100.0
1950 ..	9,538	1,230	597	10,714	22,079	43.2	5.6	2.7	48.5	100.0
1951 ..	8,843	1,061	521	11,483	21,908	40.4	4.8	2.4	52.4	100.0
1952 ..	9,667	1,173	648	11,547	23,035	42.0	5.1	2.8	50.1	100.0
Average ..	9,312	1,244	623	10,817	21,996	1/42.3	1/5.7	1/2.8	1/49.2	1/100.0

1/ These percentages are computed from the 5-year averages of the original figures, not from the percentages.

Table 30.--Lard: Average retail price per pound in leading cities, 1948-52

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average
	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.	Ct.
1948.	35.6	29.2	28.6	28.9	29.6	29.6	29.5	29.4	29.6	29.2	28.5	26.8	29.5
1949.	24.3	19.9	19.6	18.6	18.1	18.1	17.9	19.3	20.0	19.5	17.8	17.0	19.2
1950.	16.7	16.4	16.5	16.3	16.8	17.3	17.7	23.5	23.3	21.2	21.2	22.3	19.1
1951.	24.7	25.8	25.9	25.8	24.9	24.7	23.8	24.0	24.2	24.9	23.5	23.1	24.6
1952.	22.2	21.3	19.3	18.5	17.6	18.2	17.9	18.1	17.5	17.0	16.5	16.0	18.3
Average.	24.7	22.5	22.0	21.6	21.4	21.6	21.4	22.9	22.9	22.4	21.5	21.0	1/22.1

1/ This 5-year average is computed from the annual averages, not from the 5-year averages of the months.

3. If a table of figures includes totals for each of several years, as well as averages for each item, the average of the totals should be computed from the totals of each item, not from the averages. No adjustment need be made on the averages to add to this average of the totals.

Market	1950	1951	1952	Average 1950-52
	Cars	Cars	Cars	Cars
Chicago	1,355	1,780	1,697	1,611
New York	2,306	3,030	3,333	2,890
Philadelphia ...	1,906	1,962	2,167	2,012
Total	5,567	6,772	7,197	1/6,512

1/ This figure is the average of the yearly totals, not the sum of the averages by markets.

4. When an average of derived figures is given in a table of figures, the average should be computed in the same manner as the derived figures unless the use to be made of the results requires an average of the derived figures.

Year	Production	Average price per bushel	Farm value
	1,000 bushels	Cents	1,000 dollars
1931	932,221	39.0	363,119
1932	745,788	38.0	283,750
1933	528,975	74.1	391,805
1934	496,929	84.7	420,808
1935	603,199	83.8	505,394
Average	661,422	1/59.4	392,975

1/ This figure is computed from the total farm value ($1,964,876,000) and the total production (3,307,112,000 bushels) for the 5 years. With this degree of rounding, an identical answer is obtained by dividing the average farm value ($392,975,000) by the average production (661,422,000 bushels).

5. In a table of converted foreign prices by months, an annual average should be computed from the converted prices and not by converting the average of the foreign prices.

6. An average should be computed to the same number of decimal places as the figures on which it is based.

SPECIAL RULES OF GRAMMAR RELATING TO TABULAR MATERIAL

Numbers Expressed in Figures or Spelled

1. The following numbers are expressed in figures:

   a. Isolated numbers of 10 or more, as:

   24 horses.

   b. Groups of two or more related numerical expressions, even if each number is less than 10, as:

   8 horses and 6 cows.

   c. Serial numbers, as:

   Republic 7-4142.

   d. Quantities and measurements, such as:

   Age: 52 years 10 months 6 days.
   Time: 8 minutes 20 seconds.
   Dates: June 1935; June 29, 1935.
   Measurements: 9 bushels; 15 yards.
   Money: $3 per 100 pounds.
   Percentage: 12 percent.
   Proportion: 1 to 4.
   Unit modifier: 8-hour day.

   e. Fractions when used as a unit modifier, as:

   $\frac{1}{2}$-inch pipe.

   f. In tables, leaderwork, footnotes to tables and leaderwork, and in sidenotes.

2. The following numbers are spelled:

   a. At the beginning of a sentence, except in footnotes.

   b. In connection with serious and dignified subjects, as:

   The Thirteen Original States.

c. When expressing time, money, or measurement if separated from their unit descriptions by more than two words and if under 10, as:

two or more separate years.

d. Indefinite expressions, as:

the early seventies, but the late 1920's.

e. Isolated numbers of less than 10, as:

six horses.

f. To represent a group of numbers, as:

20 million.

g. Round numbers, as:

a hundred cows.

h. Fractions standing alone, as:

one-half of a farm.

i. When following a related number which is itself spelled, as:

Fifty or sixty miles away.

3. A spelled number is not repeated in figures except in legal documents.

Abbreviations

With a few exceptions, abbreviations are not used in text or in titles to tables. One exception is the abbreviation of the name of a State when it follows a geographic term, as:

Richmond, Va.

Another exception is the word "Continued" in the title of a table to prevent an overrun. Where possible, abbreviations should be avoided in leaderwork or stubs, although space limitations may require their use. Abbreviations frequently are used for units.

Names of the months normally are spelled in text, but in tables, parentheses, and footnotes they are abbreviated when followed by dates. The names of the days of the week are preferably not abbreviated, but may be when

necessary to fit into narrow columns in tables. Units of weight and measure frequently are abbreviated in leaderwork and stubs to save space. In connection with sources in tables, standard rules with respect to abbreviations of citations are used.

As approved forms of abbreviation are given in the Government Printing Office Style Manual and elsewhere, they are not included here.

TYPING OF TABULAR MATERIAL

The professional analyst or his clerk is responsible for furnishing the typist a neat, legible, pencil copy of each table or other tabular material that conforms to the rules given in this handbook. The typist is responsible for transforming this into a typed table that is in proper form for mimeographing or similar processing, photographic reproduction, or to be sent to a printer, depending on the way in which the publication is to be reproduced. In general, tables should be reviewed so far as possible in their handwritten form, as minor changes such as additional rounding of the data, interchanging of columns, or the addition or deletion of rows, columns, or footnotes can have an important effect on the typed copy.

In planning publications that involve a large number of relatively similar tables, the professional worker may find it helpful to discuss alternative dimensions of the final publication with a typing supervisor; frequently dimensions from table to table vary so much as to make this choice largely dependent on other considerations. Close cooperation between the professional worker and the typing supervisor can save time and expense and also result in publications having an improved appearance. Slight rewordings of headings or footnotes or the rearrangement of a table to show the same material in slightly different form may greatly aid the typist in fitting tables on a page. In statistical bulletins, changing the order of certain tables may permit putting two short tables on a page or combining a short table with footnotes from certain prior tables. Some decisions of this sort are a matter of common sense; others are aided materially by a person who is well acquainted with the degrees of reduction required to permit tables of various sizes to fit on pages of a publication.

In this section, we discuss (1) considerations involved in planning for the typing of tables and (2) techniques that are useful in helping the typist turn out neat, legible, well-proportioned final copy.

Planning for the Typing of Tables

Before starting to type tables for a manuscript, a decision should be reached as to whether the tables can be typed immediately in final form or will require preliminary drafts. Typing of tables in any form is an expensive, time-consuming operation; more care, however, is required in typing final copy than rough drafts. Judgment must therefore be used in attempting

to appraise the likelihood that changes in tables will be made in the review process. Minor changes can be indicated in pencil on tables to go to a printer; minor corrections frequently can be made by the methods described on p. 69 in tables to be reproduced photographically. Hence a decision as to the desirability of typing final copy depends on the likelihood of major revisions, such as the interchange, addition, or deletion of rows or columns, or the insertion of additional footnotes. If tables are cleared with the research supervisor and by the AMS editor for tabular materials while in pencil form, they generally can be typed directly in final form. A few tables may need to be retyped, but the effort wasted in having prepared these originally in final form is far less than that required to type all tables twice. In all cases, sufficient carbons of tables should be made to meet review requirements.

Some publications are circulated for review in mimeographed form or are reproduced from direct process masters, though they are to be published in another form. Here the more important text tables probably will need to be typed twice, but appendix or other background tables may be reproduced in final form, with a note inserted in the review drafts that these tables can be inspected at the office of the author. Most reviewers are interested chiefly in the text; they have little interest in detailed statistical material.

In statistical bulletins or other publications that involve many tables, some tables are large enough to fill one or more pages. These should first be typed with allowances for any necessary reduction, but usually table and page numbers should be omitted. Penciled tables can be arranged in what appears to be a logical order; a decision can then be reached as to whether small tables can be grouped together on a page, combined with footnotes from lower-numbered large tables or, at times, combined with text material or charts. Final copy then can be prepared for the small tables, and table numbers inserted on all tables.

Special Instructions Regarding the Form of Copy

As professional workers are responsible for providing tables that are set up according to standard rules, these rules need not be reviewed in detail for the typist. But as certain elements of spacing may not be clear on the pencil draft, these and related matters are covered in the paragraphs that follow.

Page numbers.--Page numbers are centered at the top of the page, using a 1-inch margin. Two spaces are allowed between the page number and the table heading. A dash is generally used before and after the number. On pages of vertical tables, page numbers are placed above the table. For horizontal tables, page numbers are placed on the right side margin--two spaces from the end of the table alinement.

Placement of page number on vertical table:

- 20 -

Table 10.--Title ...

Placement of page number on horizontal table:

- 20 -

Table 10.--Title ...

Page numbers of oversize tables prepared for offset printing should be written lightly with blue pencil. A strip of numbers should be typed and sent with the tables to the printer for him to strip them in. This insures uniform sizes of page numbers in the final publication.

Titles and headnotes.--Methods for typing table titles and headnotes are discussed on pp. 9-14. Initial capitals are used for the beginning word, the word following a colon, and proper nouns. No period is placed at the end. Word division is appropriate at the end of lines if necessary, as in ordinary text. Abbreviations may not be used in table titles, except for the instances mentioned on p. 13.

Boxheads.--Periods are not used after boxhead captions, and other punctuation is used only where required for clearness. The initial word in each box is capitalized.

If boxes contain two lines, the first line should be longer, but good appearance must not be sacrificed by dividing short words or making 2-letter divisions in wide columns. In the following example, the last box is typed incorrectly.

Number	Distribu- tion	Not re- ported

Dashes may be used for typed matter in spanner heads that read into the subordinate boxheads.

Butter and dairy products produced in--	
1949	1956

Abbreviations may be used in boxheads, but should be used consistently.

Incorrect

Indiana	Ill.	Ala.
Percent	Pct.	Percent

Correct

Indiana	Illinois	Alabama
Pct.	Pct.	Pct.

Correct

Ind.	Ill.	Ala.
Percent	Percent	Percent

When referring to quantity or things, the word "number" should be spelled out--not abbreviated.

Number	Acres

"Centering" means placing items into the width and length of space available or required, so that the space is approximately the same on all sides.

Poorly spaced

United States Navy

Well spaced

United States Navy

Centering in boxheads is accomplished by centering the longest word or line, and using that to guide the placement of other items.

Fats and oils consumed in the United States

Good balance is obtained by having the scale of measurement, in length and width, in proportion to each other. The difference should not be so great as to seem too narrow for the length, or too wide.

If several boxheads have similar captions, they should be typed uniformly. Centering and hyphenations should be consistent.

Minimum width of the boxhead is not necessarily controlled by the width of the data column. Boxheads should be at least two spaces wider than the data columns placed below. If it will improve the appearance of the typed table, and space is not limited, boxheads may be made wider.

Captions in boxheads may be a deciding factor when planning the boxes. Boxheads may need to be much wider than the data column in order to fit the captions into the frame. Depth of the boxes may need to be increased by hyphenating words, or other planning, so that captions will fit.

The unit indicator over the data column is a factor in planning, if it is wider than the data column or boxhead caption. In this instance, a decision must be made as to whether the unit indicator should be abbreviated or put on two or three lines.

If a <u>single</u> box exceeds the depth of a double or triple box, the extra space is placed in the lowermost box.

Year	Butter disappearance						
	Military		Civilian (the depth of this box determines the depth of box at left)				
			Total		Per capita		
	From commercial sources	Transfers from CCC 1/	From commercial sources	From CCC supplies or bought with Gov't. funds	From commercial sources	From CCC supplies or bought with Gov't. funds	Total

Do not separate the date from the month. The year can be typed on a separate line.

Not this	(But this)	(or this)
Jan. 1	Jan. 1	Jan. 1, 1956

Footnote references should be placed at the end of the boxhead caption. If desired, they may be shown uniformly on a separate line.

If it is necessary to type some boxes close to adjoining boxes, as on stencils where space is limited, plan to space the material so that the boxes are separated as much as possible. This can be done by dividing long words and using two lines. Incorrect and correct spacings are shown for table 31.

Stubs.--Stub columns should be planned in proportion to other sections of the table. They should be neither too narrow nor too wide. Dimensions can be controlled by planning several different ways, depending on how much width is needed to type the caption lines and, of course, the number of data columns and width of each. The examples on p. 58 relate to this point.

Leaders (rows of periods) normally are supplied at the end of the last line of each stub caption, and are carried to the vertical line separating the stub from the field of the table. Leaders are omitted in some informal publications, at the discretion of the author; they are filled in by the editor on tables for a printer.

Footnote references are placed at the end of the stub caption before typing the leaders.

Stub captions following a colon or dash line are indented two spaces. If stub captions are longer than one line, the overrun is indented one space. Uniform indentation of the word "total" is not required, but it should be spaced in such a way as to indicate clearly the items included.

Captions that involve more than one line should be planned for fairly uniform length. A long line followed by a 1- or 2-word overrun should be avoided.

Units.--Units may be abbreviated or spelled out. Proper format in alternative cases is indicated on pp. 23-24.

Units consisting of different numbers of lines should be typed so that all are aligned at the bottom.

1,000 running bales 1/	1,000 acres

Incorrect

Table 31.--Apples: Unweighted average wholesale price per bushel or average price per box, New York and Chicago, July-August, 1949 and 1950

Market and week ended	Eastern and midwestern varieties, mostly 2½-inch minimum, generally good quality and condition, per bushel										California Gravenstein per box	
	Transparent		Williams Red		Duchess		Twenty Oz.		Starr			
	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.

Correct

Table 31.--Apples: Unweighted average wholesale price per bushel or average price per box, New York and Chicago, July-August, 1949 and 1950

Market and week ended	Eastern and midwestern varieties, mostly 2½-inch minimum, generally good quality and condition, per bushel										California Gravenstein per box	
	Trans-parent		Williams Red		Duchess		Twenty Ounce		Starr			
	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950	1949	1950
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.

Stub too short

Item	1955		1956			Percentage change May 1955 to May 1956
	May	December	March	April	May	
						Percent
Prices paid by farmers, commodities, interest, taxes, and wage rates	282	278	282	284	286	1.4
Parity ratio	86	80	81	83	85	-1.2

Stub made wider by putting less space in boxheads, with boxheads of more uniform width

Item	1955		1956			Percentage change May 1955 to May 1956
	May	Dec.	Mar.	Apr.	May	
						Percent
Prices paid by farmers, commodities, interest, taxes, and wage rates ...	282	278	282	284	286	1.4
Parity ratio	86	80	81	83	85	-1.2

Spaces between words should not be underscored--only the words.

Thousand pounds

not

Thousand pounds

Braces.--Avoid the use of braces; when their use is required, place them on the left side of the first data column, and include any overruns.

Commodity	Total
	Dollars
South America:	
Bananas	1,598,654
Oranges	
Coconuts	

Columns within the field.--The width of columns within the field is determined chiefly by the data and the boxheads or units. The width can be controlled slightly by the closeness of any footnotes to the data; otherwise, little can be done to change the space required. Intercolumn spaces influence the appearance of the finished table and should be as uniform as possible.

Proper ways of handling ciphers and decimals are given on p. 34. Use of dollar signs is shown on p. 22.

If a column includes double and single years, the items should be centered in the column.

1859
1886-99
1900
1901-32

If days of the month are shown, extra space should be left between the month and day.

Oct. 7, 1941
July 23, 1945
do.
do. 2/

In columns that are narrow, the month need not be repeated each time unless it changes.

Jan. 22
Feb. 3
5
17

Fractions.--Most standard typewriters are equipped with keyboard fractions. However, if fractions in the copy are not on the keyboard, made fractions should be used for all. Do not mix them. Made fractions are more easily read on carbon copies or ditto than those of the keyboard.

Do not leave space between number and keyboard fraction ($5\frac{1}{2}$ $6\frac{1}{2}$). Made fractions are typed either with a space or with a dash, but they should be handled uniformly.

5-5/8 6-5/8 or 5 5/8 6 5/8

Fractions appearing in columns should be aligned as shown in the following example:

```
43
10
 9 1/2
 5 1/2
28 15/16
30 1/2
```

If a column contains two groups of figures separated by dashes, the dashes are aligned in columns. If the figures also consist of some fractions, follow the example as shown.

```
55 1/2
63 13/15 - 27 1/2
 3 1/2   - 95 15/32
```

Figure columns.--In typing figure columns, align the figures on the right.

```
1,340        226
2,050      1,501
  239     18,565
1,045         21
```

In figure columns that have a one-line overrun, the figures are typed flush on the right.

```
31, 33, 35, 49, 50,
     51, 53, 55, 59
```

In figure columns that have more than one line that overruns, indent 4 spaces on the left under the first line, and follow with a period.

```
19, 20, 21, 22, 30, 39, 60,
    61, 63, 75, 56, 59, 45,
    34, 44, 56.
```

In a single column that has double rows of figures connected by the word "to," by a plus or minus sign, or by a dash, and in a date like 6-30-56, the words, signs, or dashes are aligned.

```
 6-30-56
12- 6-56

1 -  4 =  3
2 + 21 = 23
```

Minus signs are placed next to the figure or item and no space is left between. Plus signs normally are omitted, but if used are treated in the same way as minus signs.

```
 659
-985        This
 259

 659
- 985       Not this
 259
```

Leaders are placed in figure columns when no data are available. They are made by using 3 small dashes (---). They should be placed uniformly in the column, and may be either centered or aligned at the right.

Footnotes.--An inverted caret (_/) is used to separate and distinguish footnote references from other data. The reference number is placed on the same level as the item to which it pertains, except in boxheads, where the reference numbers may be shown uniformly on a separate line if desired.

Two or more footnote references appearing together are separated by a space. No punctuation is used to separate them.

6/ 7/ 995,671 Foreign markets 9/ 10/

References in boxes should be typed a fraction of space above the horizontal line of the boxhead; they should stand out, not rest directly on the line.

```
Incorrect          Correct

 _________         _________
: Apples,  :      :         :
:  sweet   :      : Apples, :
:   1/     :      :  sweet  :
:_________:       :   1/    :
                  :_________:
(Rests on line)
```

In columns, footnote references should be placed as shown in the following examples:

Like this	Or this
5/	5/
6/ 999,982	6/999,982
10/ 656	10/656
5/	5/

Not like this

4/ 520
5/
6/ 1,320

Footnote references at the end of a line should be placed after periods, colons, or other punctuation--not inside.

Footnotes are typed at the end of the table. Normally, each note is started on a new line. A space is left between the bottom line of the table and the first footnote. If vertical space is limited, this space may be omitted or the notes can be typed in paragraph form, as on table 32. If additional vertical space is needed for correct proportions, a space may be left between each footnote.

The first line of each note is indented two spaces, and overruns are typed flush with the left margin.

Footnotes for text always are typed at the bottom of the page, but for tables they are typed one space below the bottom line of the table. If a table consists of several pages, appropriate footnotes for each page may be typed on that page or all footnotes for the table may be typed on the last page. If the latter procedure is used, the following phrase should be inserted at the bottom of each page other than the last, "See footnotes at end of table." If necessary, it is permissible to type footnotes to a table on a separate page. If this is done, the reference note at the bottom of each page of the table reads, "See page __ for footnotes."

In footnotes, whole numbers are expressed in figures, even at the beginning of the footnote, as in the following:

1/ 1,365 bushels were shipped ...

Fractions standing alone are spelled out at the beginning of footnotes, as in the following:

1/ Three-fourths of the items shipped ...

Source.--If a source is shown, it is typed after the footnotes, leaving one space between it and the last note. Indentation and overruns are handled in the same way as for footnotes.

Abbreviations.--If two abbreviated words are used together, a space is left between them.

Mil. lb. Mil. dol.

Abbreviations consisting of small letters are written with no space after the periods.

f.o.b. c.o.d. a.m. p.m. l.c.l.

Abbreviations consisting of capital letters normally are written with periods after each letter and a space after each period. But letters may be run solid with neither periods nor spaces.

Y. W. C. A. U. S. D. A. U. S. A.

TVA USDA USA GPO

If an abbreviation is used at the beginning of a sentence or footnote, the initial letter is capitalized even though small letters normally are used.

F.o.b. Chicago L.c.l. New York

Mathematical symbols.--In typing mathematical expressions, care should be used to follow the spacing indicated on the original as closely as possible. Such expressions frequently involve subscripts or superscripts and these must be aligned properly to carry the correct meaning. At times, certain columns are aligned vertically in a special way, and this alignment should be maintained in the typed copy. Any questions should be checked with the author before the copy is typed.

If an equation or mathematical expression needs to be divided, the break should come after a plus or minus, or similar sign, but before an equality sign. Frequently several equations are shown one after another; when this occurs it may be desirable to line up the equality signs vertically if the expressions are of nearly uniform length.

Unless a typewriter is equipped with special keys for subscripts and superscripts, items can be aligned best by first typing all of those which are on the normal line level, leaving space where needed for the insertion of subscripts or superscripts. Then return to the left-hand margin, turn the typewriter $\frac{1}{2}$ space up or down, as the case may be, and type all of the superscripts and then all of the subscripts. This gives a more even alignment than that obtained when the roller is turned for each item.

Typing Tables for Photographic Reproduction

The chief way in which tables for photographic or offset reproduction differ from other tables is that oversize tables can be reduced as a part of the reproduction process, provided they are typed initially in proper dimensions. Thus the typist has considerable flexibility in the general set-up of such tables and, by the use of imagination and skill, frequently can bring

about substantial improvement in the general appearance of the final publication. Consistent rules for spacing are not used in connection with the preparation of camera copy; instead, emphasis is placed on obtaining general balance on the page. Extra spaces may be inserted where necessary for increased width or length, or suggested spaces may be eliminated if this can be done without crowding or confusion.

Small tables that take up less than a page need to be divided into three groups: (1) Those that appear in the text. Here, in general, they are combined with some text on the page. Depending on the nature of the table and its relation to the text material, the table may be placed at the top, the bottom, or the center of the page. Small text tables, wherever possible, should be designed to fit vertically on the page. If they are not initially in this form, the typist should ask the author whether they might be redesigned to fit in this direction. (2) Those which the author indicates are to be combined with other tables, charts, or footnotes from earlier tables. Here the entire page is considered as a unit and is treated as though it were a large table so far as spacing is concerned. Frequently some reduction in final copy is required. (3) Appendix tables which cannot be combined with other material or tables that must go across the page in text. Here double spacing between rows may be required in order to achieve a reasonable balance on the page.

The Working Plan.--The first step in typing tables for camera copy is to count the spaces across the page that will be needed, and the rows down the page. Then plans can be made for inserting or deleting spaces, and a decision can be reached on the degree of reduction and the proper dimensions of typing the original copy. Dimensions that can be used for specified types of publications are discussed on p. 66, following an outline of the way in which these counts are made.

Use of a pencil sketch is perhaps the easiest way in which to carry out this count. To provide a concrete example, we consider the necessary planning for table 32.

We first consider the number of vertical lines required. These are as follows:

Item	Number of lines	Item	Number of lines
Page number and spaces	3	Space	1
Heading 1/	2	Rows of data	36
Space	1	Spaces, including bottom line	2
Headnote	1	Footnotes 1/	7
Boxheads	4	Space	1
Space	1	Source if given 1/	1
Unit	1	Total lines	61

1/ Rough copies of these may be required to indicate the necessary number of lines.

Table 32.--Fresh fruit: Unloads at 19 metropolitan markets, by kind of fruit, source, and type of shipment, United States, 1955 1/

(Carlot equivalent)

Commodity	Domestic			Imports			Grand total
	Rail, boat and air	Truck	Total	Rail, boat and air	Truck	Total	
	Cars	Cars	Cars	Cars	Cars	Cars	Cars
Noncitrus:							
Apples	9,811	22,987	32,798	535	105	640	33,438
Apricots	569	557	1,126	---	---	---	1,126
Avocados	362	2,677	3,039	7	28	35	3,074
Bananas	---	---	---	46,868	11,482	58,350	58,350
Blueberries	4	1,101	1,105	34	2	36	1,141
Raspberries	12	156	168	---	---	---	168
Strawberries	1,303	3,539	4,842	---	11	11	4,853
Other berries (includ. mixed) 2/	5	220	225	---	---	---	225
Cherries	1,808	556	2,364	1	6	7	2,371
Cranberries	194	541	735	---	---	---	735
Dates	41	2	43	---	7	7	50
Figs	58	122	180	---	---	---	180
Grapes	14,943	4,441	19,384	115	18	133	19,517
Nectarines	650	625	1,275	45	4	49	1,324
Olives	14	---	14	---	---	---	14
Peaches	2,895	9,578	12,473	38	59	97	12,570
Pears	6,489	2,371	8,860	263	12	275	9,135
Persimmons	35	96	131	---	---	---	131
Pineapples	---	40	40	2,673	735	3,408	3,448
Plums and prunes	4,855	1,621	6,476	29	13	42	6,518
Pomegranates	92	53	145	---	---	---	145
Other noncitrus (includ. mixed) 3/	830	121	951	89	30	119	1,070
Total noncitrus	44,970	51,404	96,374	50,697	12,512	63,209	159,583
Citrus:							
Grapefruit	10,706	9,371	20,077	80	12	92	20,169
Lemons	6,645	1,951	8,596	---	---	---	8,596
Limes	3	441	444	1	31	32	476
Oranges	23,854	15,199	39,053	1	7	8	39,061
Tangerines	1,562	1,770	3,332	---	---	---	3,332
Other citrus (includ. mixed) 4/	3,664	33	3,697	---	---	---	3,697
Total citrus	46,434	28,765	75,199	82	50	132	75,331
Grand total	91,404	80,169	171,573	50,779	12,562	63,341	234,914

1/ These markets are Atlanta, Baltimore, Boston, Chicago, Cleveland, Dallas-Fort Worth, Denver, Pittsburgh, Detroit, Kansas City, Mo., Los Angeles, New Orleans, New York, Oakland, Calif., Philadelphia, St. Louis, San Francisco, Seattle, and Wash., D. C. 2/ Blackberries, loganberries, youngberries, boysenberries, dewberries, gooseberries, currants, and mixed berries. 3/ Mangoes, papayas, prickly pears, quenepas, quinces, crab apples, and other mixed fruits. 4/ Kumquats, loquats, satsumas, tangelos, and other mixed citrus.

Reports of Market News Service.

We next look down the stub column and determine the longest item. This is "(Includ. mixed) 2/", which contains 18 strokes. We add 3 strokes for indentation and 1 for a space at the end, making 22 in all. Thus, 22 strokes are needed for the stub. In the first and fourth columns, the longest item is "and air" in the boxhead. Here 7 strokes are required, plus 2 for spaces, making 9 in all. In the remaining columns, the numbers are longer than the words in the boxhead, so we take the largest in each column, adding a minimum of 1 stroke for spacing between them. The following diagram indicates the count in each column and the total. In some tables, the length of the spanner heads also need to be considered, but it is not important in this instance.

22	9	7	8	9	7	7	= 77 8

We thus have a table that needs a minimum of 61 vertical lines, and 77 strokes across the page, plus necessary margins. We are now ready to consider (1) whether the table should be set up vertically or horizontally, (2) the dimensions, (3) the degree of reduction, and (4) adjustments that should be made in the standard spacings indicated above.

Many Department publications that are photographically reproduced at the Government Printing Office, such as Statistical Bulletins, Agriculture Handbooks, and Marketing Research Reports, are printed on paper that is 7-7/8 by 10-1/4 inches. Publications, such as Situation reports and reports of the Crop Reporting Board and the Market News Service, that are reproduced within the Department are generally run on paper that is approximately 8 by 10-1/2 inches. Forms AMS-126 and AMS-127 have been developed to facilitate the preparation of material to be reproduced on paper of this size. These forms can be obtained from the Administrative Services Division. Their size, the percentage reduction involved in each, and similar information for tables of proportional size are shown in table 33. When form AMS-126 is used, no reduction is involved.

In table 33, noting the relation to the size of our table, we see that if 3 vertical rows (or spaces) can be eliminated and 9 spaces added across the page, form AMS-127 with 10 percent reduction can be used. So we eliminate the space between the boxheads and the unit; the space between the unit and the first row of data, which is not important in this table anyway, because the first row is a colon line; and a space between the footnotes and the bottom line of the table. By using 9 spaces for each of the seven columns and increasing the stub column to 23 spaces, including the colon column, we come out to the right number of horizontal spaces.

Table 34 gives information, similar to that in table 33, that applies to horizontal tables. For example, if our initial count indicated 90 spaces and 40 lines, examination of table 34 shows that form AMS-126 could be used by

Table 33.--Specified dimensions for use in typing oversize vertical tables in elite type and percentage reduction involved in each 1/

Form	Horizontal		Vertical		Percentage reduction
	Inches	Spaces	Inches	Lines	
	Number	Number	Number	Number	Percent
AMS-126	6-1/2	78	8-3/4	53	0
AMS-127	7-1/4	86	9-3/4	58	10
Do.	8-1/4	96	11	66	20
Do.	8-3/4	105	11-3/4	70	25
Proportional to AMS-126	7	84	9-3/8	56	7
Do.	8	96	10-3/4	64	19
Do.	9	108	12-1/8	73	27
Do.	10	120	13-1/2	81	2/35
Do.	11	132	14-3/4	88	2/41
Do.	12	144	16-1/8	97	2/46
Do.	13	156	17-1/2	105	2/50

1/ When printed on paper of size 7-7/8 by 10-1/4 inches or 8 by 10-1/2 inches.
2/ A reduction of this much is not recommended.

Table 34.--Specified dimensions for use in typing oversize horizontal tables in elite type and percentage reduction involved in each 1/

Form	Space in inches	Initial count		Percentage reduction
		Spaces	Lines	
	Number	Number	Number	Percent
AMS-126	6-1/2 by 8-3/4	105	39	0
AMS-127	7-1/4 by 9-3/4	117	43	10
Do.	8-1/4 by 11	132	49	20
Do.	8-3/4 by 11-3/4	140	53	25
Proportional to AMS-126	7 by 9-3/8	112	42	7
Do.	8 by 10-3/4	128	48	19
Do.	9 by 12-1/8	146	54	27
Do.	10 by 13-1/2	162	60	2/35
Do.	11 by 14-3/4	176	66	2/41
Do.	12 by 16-1/8	194	72	2/46
Do.	13 by 17-1/2	210	78	2/50

1/ When printed on paper of size 7-7/8 by 10-1/4 inches or 8 by 10-1/2 inches.
2/ A reduction of this much is not recommended.

adding 15 spaces and eliminating 1 line, and typing the table in a horizontal direction. In typing a horizontal table, allowance for the page number must be included as a part of the space count and be omitted from the line count, unless the pages are numbered at the bottom (see p. 52).

In using forms AMS-126 and 127 for vertical tables, the page number should be entered so that it touches the top horizontal line, and typewritten material at some point should be just inside each of the other enclosing lines of the blue frame. Spacing of this sort comes about automatically if our work plan is used.

In preparing a large number of tables for offset reproduction in a single publication, it is a convenience to the person doing the photographing to have not more than about three sets of dimensions. Thus the typist should select the largest table in the group, the smallest table that will need some reduction, and a medium sized table. The typist can then select three sets of dimensions and plan to type all tables so that they fit within one of the three. At times it may be desirable to have some reduction on small tables to bring about greater uniformity in the final publication, even though they could be typed in a way that would require no reduction. This is another point on which judgment on the part of the typist may result in improved appearance.

Preparation of Copy.--Good quality, heavy bond paper should be used, not sulphite, wrinkled, or soiled paper. If review copies are needed, make the necessary number of carbons. At least one carbon always should be made, as this protects the original and provides a basis for indicating necessary corrections.

Medium inked typewriter ribbon makes the best reproduction in copies. Very dark ribbons produce thick or heavy looking copy.

Keys should be cleaned frequently so the letters do not fill up. It may be desirable to change an old ribbon before starting a large table; otherwise the ribbon may become too light to finish typing, and density in color will vary.

Tabulating facilitates speed. Never type one column at a time. Always tabulate across the page. This prevents paper and carbons from slipping and getting out of line; this often happens when columns are typed separately.

First steps in typing are:

1. Clear margins and tabular stops.
2. Set margins.
3. Set tabulator stops for data columns.

Corrections or revisions on offset camera copy should be made carefully, using a proper technique, so they will not be visible in the reproduced copies. Erasures of any kind (even when applying the lightest pressure) may rough up the fiber of the paper and show up as a dark smudge when copy is photographed.

Several methods can be used for making corrections or revisions in order to save retyping. You may select the one which is most suitable for the job at hand.

1. A white paper with adhesive backing may be used for retyping large-area items, such as changes in footnotes which involve several lines, or changes in columns of data which extend over several inches.

2. A white quick-drying fluid, available at the Central Supply Office, is satisfactory when used according to instructions. This is good for changing small areas, such as a few words, a sentence, or a few figures in a column. It may be used satisfactorily on larger areas too. This fluid can be typed over when it is dry, giving a neat result. This product also can be used to delete smudges or imperfections in the paper if necessary.

3. The most professional way of making revisions and corrections (and one used by technicians such as draftsmen) requires purchase of the following items:

1. Knife set #41.
2. Special adhesive tape (glossy white) from an art supply store.
3. Light stand or table.

If this method is used only occasionally, a sharp razor blade can be substituted for the knife and a piece of glass for the light stand. In either case, an extra piece of white paper is required.

In this approach, you place the extra piece of paper behind the word or item you wish to correct on top of the glass, and cut the two pieces at the same time. This gives an exact pattern of the piece removed from the original. The cut piece of paper is fitted into the space from which the typewritten material was removed, and secured with the tape. The paper then is inserted in the typewriter and the correct material typed on it. This results in a professional-looking job and one that is barely visible if it is done carefully.

Preparing Preprints for Offset Reproduction

Preprints of statistical tables are used by authors in periodical reports where the same format is used for long periods of time. A form is made with items included that remain fixed. When the table is needed, the necessary data are added to the preprint instead of having to type the entire table.

A preprint is set up and typed according to rules that apply to the preparation of camera copy for any table. The typewriter ribbon should be of medium darkness. When filling in data on a preprinted table, the density of ribbon color should be matched in order to have good reproduction.

Preparing Tables to be Set in Type at the Government Printing Office

Tables that are to be set in type need not be typewritten in any standard shape or size, as the printer makes proper adjustments in size when he prepares the version to be printed. But tables that are to be sent to the Government Printing Office for letterpress printing must be typed according to strict rules. Other tables to be set in type, such as those sent to professional journals, can follow the rules used in preparing copy for offset reproduction, although it might be a convenience to the printer if they were typed in accordance with GPO rules.

Good quality bond paper is used in preparing copy for letterpress printing at the Government Printing Office. The number of carbons indicated by the author are made. Use a medium inked ribbon. Typing should be neat and clear so that it can be easily read. Clean typewriter keys often to avoid clogging. Revisions and corrections should be clear and easily read. Minor changes can be indicated in pencil.

Margins of pages should be approximately one inch at top and on each side.

Each table, no matter how small, is placed on a separate page. Leaderwork and text tabulations (see p. 3) are typed on the same page as the text with which they are associated. Large tables are typed on paper of a size needed to include all material and leave appropriate margins.

Table 35 shows a correctly typed table. Note that figures are not centered in the columns but are aligned on the right of the column space. Other rules follow. Some of the rules for letterpress printing are the same as those for photographic reproduction, but they are repeated to avoid confusion.

Although stub leaders are required for all tables to be set in type, they can be indicated easily in pencil by the editor, hence need not be included by the typist.

If the title can be typed on one line, center it. If it requires two lines, type the first line full length, and center the second. If it requires more than two lines, type the first line full length and indent all following lines two spaces.

Table 35.--Wool, Montevideo super 3's (46's, 48's): Price per pound, American yield, duty-paid, Boston, by months, 1950 and 1951 1/

(2 spaces)

Year	Jan.	Feb.	Mar.	Apr.	May	June
	(1 space)					
	Cents	Cents	Cents	Cents	Cents	Cents
1950	24.8	27.4	21.2	86.4	87.6	97.1
1951 2/	85.9	89.1	94.6	33.6	3/99.2	3/11.4
	(1 space)					

(1 space)

1/ U. S. monthly prices are the result of weighting monthly State prices by production.
2/ Preliminary.
3/ Computation of parity prices: Average price in base period (August 1909 to July 1914=88.4 cents).

Compiled from reports of the Bureau of the Census and the Commodity Stabilization Service.

Leave two spaces between title of table and boxhead. Center the items that appear in the box headings, from top to bottom and from side to side.

Quantity	Price per pound	Cash receipts from farm marketings 1/

Leave one space between boxhead and unit. Do not leave a space between the unit and the figure.

Backspace twice from colon in boxhead in order to type last digit of figure.

Jan.	Feb.	Mar.
Cents	Cents	Cents
24.8	25.8	26.8

Underscore all units: Dollars Percent Millions Thousands Bushels and so forth.

Place footnote after item in stub: 1953 1/. Place footnote before figure in all other columns: 1/24.8.

Leave one space between line at the end of the table and beginning of footnotes.

Indent each footnote two spaces, bring second line flush with the margin. If space is limited and there are several footnotes, they may be typed in paragraph form, without starting each one on a separate line.

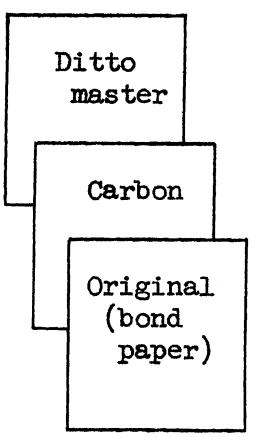
Leave one space between footnote and source.

Indent first line of source two spaces, bring second line flush with margin.

Making Direct Process Masters

1. Typewriter should be in good mechanical condition.
2. Platen should be medium hard for best results.
3. Be sure to use a backing sheet to get better impression.
4. Type with a firm even stroke. Don't try to hurry. Strike all of the keys with the same pressure.

If you wish to make a ribbon copy or final draft of large tables or other material, you can do so at the same time. This is done by using a piece of carbon paper on top of the master copy and placing a piece of bond paper on top. This enables you also to have a typed (carbon) impression on the ditto sheet for identification of copy before it is duplicated.



In general, this process can be used only for tables small enough to fit within a single page. Oversize tables must be handled by an offset process or something equivalent.

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