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NATIONAL BUREAU OF STANDARDS
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LC-772

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(Supersedes
LC-666)

WEIGHTS AND MEASURES
A SELECTED LIST OF PUBLICATIONS
of the
NATIONAL BUREAU OF STANDARDS

On the following pages are listed some of the weights and measures publications of the National Bureau of Standards selected for their general interest and for their usefulness to teachers and students in pursuing weights and measures studies. Where the price is stated in the extreme right-hand column, the publication can be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain foreign countries which extend the franking privilege. In the case of all other countries, one-third the cost of the publication should be added to cover postage. Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for \$1.00 and good until used) or by check or money order payable to the "Superintendent of Documents, Government Printing Office" and sent to him with order. Letter Circulars are obtainable, without charge, from the Bureau. Publications marked "OP" are out of print.

Copies of the Bureau's publications are available in many public libraries in large cities and in the libraries of universities and colleges throughout the country, which, as Government depositories, receive copies with the understanding that they will be kept available for consultation by the public. Most of these Government depositories also have on file a complete list of the National Bureau of Standards' publications (Circular C24 and supplements).

Letters are used to designate the several series of Bureau publications:

S = "Scientific Paper"

H = "Handbook"

C = "Circular"

M = "Miscellaneous
Publication"

LC = "Letter Circular"

<u>Title</u>	<u>Series</u>	<u>Price</u>
A fundamental basis for measurements of length. H. W. Bearce. Sci. Pap. BS <u>21</u> , 395 (1926-27). Discusses the relation between the units of length of the United States and Great Britain and suggests that the yard and meter be defined in terms of light waves in such a way that a simple relation will result.	S535	5¢
Standard density and volumetric tables. (6th ed.) (1924). Contains tables of standard densities for various common liquids, such as water, alcohol, petroleum oils, milk, and sugar solutions.	C19	15¢
Rules and regulations promulgated under authority of the Federal standard barrel law. (1917). Relating to the standard barrel for fruits, vegetables, and other dry commodities, with text of the law.	C71	5¢
Testing of measuring tapes at the Bureau of Standards. (1927)	C328	10¢
Testing of line standards of length. (1927)	C332	10¢
Sundials. Ralph E. Gould. (1933). Gives directions for the construction of a horizontal sundial, with equation of time, and bibliography.	C402	5¢
Standard time throughout the world. Ralph E. Gould. (1935). Gives a brief historical sketch of the development of the standard time system, time zone maps of the United States and of the world, a list of stations transmitting radio time signals, and other general information regarding standard time.	C406	5¢
Legal weights per bushel for various commodities. Ralph W. Smith. (1940). A revision of the bushel-weight information originally contained in Circular C10.	C425	5¢
Testing of timepieces. Ralph E. Gould. (1941) Describes the four standard tests for pocket watches - "Class A", "Class B", "Railroad Precision", and "Business Precision" - an improved test for stop watches, and a test for chronometers. Includes information on use and care of a watch and on standard time and time signals.	C432	15¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
Testing of glass volumetric apparatus. Elmer L. Peffer and Grace C. Mulligan. (1941) Describes tests as conducted at National Bureau of Standards.	C434	10¢
Weights and measures administration. Ralph W. Smith. (1941). Discusses the subject of weights and measures supervision. Includes model State law on weights and measures; Federal weights and measures laws, and regulations issued thereunder; and recommendations for standards and equipment. (Bound in cloth)	H26	75¢
Screw-thread standards for Federal services 1944. (1945). The Interdepartmental Screw Thread Committee, established by the War, Navy, and Commerce Departments, promotes uniformity in screw-thread standards which, when approved, are to be mandatory on these departments. The present volume is a revision of H25 issued in 1939 and H28 issued in 1941. It contains several new sections to bring it in line with present practice in the manufacture of threaded products.	H28(1944)	In press
Specifications, tolerances, and regulations for commercial weighing and measuring devices. (Correction Sheets for Handbook H29 are regularly issued to keep the material up to date; these are available without cost upon application to the National Bureau of Standards.)	H29	60¢
Testing of weighing equipment. Ralph W. Smith. A manual for State and local weights and measures officials, describing various types of commercial weighing equipment, the principles of their operation, and methods for their inspection and test.	H37	In press.
The international metric system. (1936). Chart giving graphic comparisons between the units of the metric system and the customary system of weights and measures. (Size, 28 1/2 by 44 inches, printed in colors.)	M3	40¢
Graphic comparison of screw thread pitches. H. W. Bearce. (1922). Gives a graphic and also a tabular comparison of common screw thread pitches - threads per inch and corresponding pitch in millimeters, and common metric pitches and corresponding threads per inch. A wall chart, printed on heavy paper, for shop use.	M49	5¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
History of the standard weights and measures of the United States. Louis A. Fischer. (1925). (Illustrated)	M64	15¢
Standard time conversion chart. Ralph E. Gould. (1931). Time at any other part of the earth may be read directly from the chart. (Heavy cardboard with movable disk; size, 8 by 10 1/2 inches.)	M84	OP
Weights and measures references. Ralph W. Smith. (1930). Contains references to published material relating to weights and measures standards and administration, including an index to the reports of the National Conference on Weights and Measures, from the first to the twenty-first, inclusive.	M103	10¢
Testing equipment for large capacity scales for the use of weights and measures officials. Ralph W. Smith. (1930).	M104	10¢
Units of weight and measure - definitions and tables of equivalents. (1936). Contains tables of interrelation of units of measurement in the customary and metric systems; also shows graphic comparison of screw thread pitches.	M121	15¢
Weights and measures in Congress. Sarah Ann Jones. (1936). Presents a chronological account up to 1838 of the steps taken to secure uniformity in weights and measures in the United States, including an historical summary of proposals made in or to Congress on the subject.	M122	OP
International metric system of weights and measures. (1932). Gives a synopsis of the system showing the derivation of the primary units, their interrelation, the method of forming the multiples and submultiples, the abbreviations used, comparisons of the units with those of our customary system of weights and measures, and tables of equivalents from 1 through 9. The status of the metric system in the United States is shown by Congressional enactments and departmental orders.	M135	5¢
Time zone map of the United States and adjacent parts of Canada and Mexico. (Revised 1936). Printed in light blue on white background; the locations of the cities are indicated in black lettering and the time-zone boundary lines appear in red. (Size, 20 by 30 inches.)	M155	10¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
Index to the reports of the National Conference on Weights and Measures from the first (1905) to the thirty-first (1941), inclusive. Ralph W. Smith and William T. McCormac. This publication supersedes M103 insofar as the index to the Reports of the National Conference on Weights and Measures is concerned, but does not contain the other material described in connection with that publication.	M172	10¢

The following listed Miscellaneous Publications, representing the available reports of the National Conference on Weights and Measures, attended by representatives of the various States, and held at the National Bureau of Standards in the years indicated, may be obtained from the Superintendent of Documents. For further information see Miscellaneous Publication M172.

<u>Series</u>	<u>Year</u>	<u>Price</u>	<u>Series</u>	<u>Year</u>	<u>Price</u>
M8	1910	OP	M80	1927	45¢
M12	1914	OP	M87	1928	35¢
M14	1916	35¢	M101	1929	30¢
M41	1919	20¢	M116	1930	35¢
M43	1920	20¢	M129	1931	50¢
M48	1921	20¢	M157	1936	20¢
M51	1922	15¢	M159	1937	15¢
M55	1923	30¢	M161	1938	30¢
M59	1924	35¢	M164	1939	25¢
M70	1925	50¢	M167	1940	55¢
M74	1926	60¢	M170	1941	35¢

Metric and English distance equivalents for athletic events (track and field). (1933). This letter circular gives the yard distances of the principal track events. It also gives metric equivalents of yards, feet, inches, and fractions of an inch which may be used in converting distances attained in field events from one system of measurement to the other.	LC376	Free
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Standards of length, mass and time. (1935). Contains general information on the units and standards of length, mass and time.	LC449	Free
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Motorists' manual of weights and measures. (1938) Contains conversion tables (other than for money) useful to motorists touring in foreign countries with notes on brake performance, minimum passing distances, and rules of the road.	LC517	Free
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<u>Title</u>	<u>Series</u>	<u>Price</u>
Policy of the National Bureau of Standards with regard to tests for agencies outside the Bureau. (1939). States conditions under which tests can and cannot be made for private firms or individuals.	LC544	Free
Timekeeping through the ages. (1940). Describes in simple language the development of time measuring instruments from the primitive sundial to the electric clock.	LC600	Free
Weights of coal. (1940). Gives space occupied by a given weight of coal.	LC623	Free
Losses of gasoline in storage and handling. (1941). Discusses losses from evaporation, thermal expansion, and the use of faulty measuring devices.	LC637	Free
List of weights and measures offices of the States and District of Columbia. (1941). Gives the official designation of each office supervising weights and measures matters.	LC650	Free
Specifications for the manufacture and installation of four-section and of two-section, knife-edge railway track scales. An engineering purchase specification covering the types of scales mentioned in the title. (1941).	LC662	Free
Specifications for the manufacture and installation of motor-trucks, built-in, self-contained, and portable scales. An engineering purchase specification covering the types of scales mentioned in the title. (1941).	LC663	Free
Units and systems of weights and measures. Presents in simple language some of the many aspects of the general subject of weights and measures that should be considered whenever specific questions in this field are under consideration. (1942).	LC681	Free
General tables of weights and measures. Gives tables of United States customary weights and measures, metric weights and measures, interrelation of units of measurement, and tables of equivalents. (1942).	LC682	Free

<u>Title</u>	<u>Series</u>	<u>Price</u>
Gages (dimensional): Publications by the staff of the National Bureau of Standards. (1943).	LC723	Free
Bibliography on the measurement and gaging of gears. (1943).	LC728	Free
Report on railway track scale testing service of the National Bureau of Standards, fiscal year 1943.(1943).	LC729	Free
Modern books on horology. A list of references to books on watches, clocks, and time-measuring instruments. (1944).	LC766	Free
Expanded table of weights per U. S. gallon and weights per cubic foot of sugar (sucrose) solutions at 20°C.	LC770	Free

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes direct observation, interviews with key personnel, and the use of specialized software tools. Each method is described in detail, highlighting its strengths and potential limitations.

The third section presents the results of the study. It shows a clear trend of increasing activity over the period observed. The data indicates that the most significant changes occurred in the middle of the study, which may be related to the implementation of a new policy or procedure.

Finally, the document concludes with a series of recommendations for future research and practice. It suggests that further investigation into the underlying causes of the observed trends would be beneficial. Additionally, it offers practical advice on how to optimize the processes based on the findings.