

JANE WORCESTER, Dr.P.H.

Professor of Biostatistics and Epidemiology
Harvard School of Public Health

Born: December 5, 1910, Townsend, Massachusetts

Education

A.B.	Smith College	1931
Dr.P.H.	Harvard School of Public Health	1947
S.D. (Hon.)	Smith College	1968

Professional Appointments

Department of Vital Statistics, Harvard School of Public Health

Computer	1931-38
Instructor in Vital Statistics	1938-41
Associate in Vital Statistics	1941-46

(Name of Department changed to Department of Biostatistics)

Department of Biostatistics, Harvard School of Public Health

Associate in Biostatistics	1946-47
Assistant Professor of Biostatistics	1947-50
Associate Professor of Biostatistics	1950-62
Professor of Biostatistics and Epidemiology	1962-

Other Professional Activities

Consultant on OSRD contract in streptococcal disease held by House of Good Samaritan	1944-45
Consultant to House of Good Samaritan	1947-49
Consultant to Department of Pediatrics, Massachusetts General Hospital	1950-51
Consultant to Veterans Administration	1951-55
Consultant to Gluck's study of juvenile delinquency	1952-60
Consultant to Boston Hospital for Women	1963-
Consultant to Forsyth Dental Center Twin Study	1965-
Editorial Board, New England Journal of Medicine	1967-70
Member of Epidemiology and Biometry Advisory Committee, U.S.P.H.S., N.H.L.I.	1971-

Memberships and Honors

American Statistical Association (Fellow)
American Public Health Association (Fellow)
Massachusetts Public Health Association
Biometrics Society
American Association for Advancement of Science
American Epidemiological Society
Sigma Xi

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Subject to Protective Order in
Ross v. Conoco, Ind. No. 90-4387
14th Judicial District Court
Calcasieu Parish, Louisiana

Publications

- Wilson, E.B. and Worcester, J.: The resolution of four tests.
Proc. Nat. Acad. Sci. 20:189-192, 1934.
- Talbot, F., Wilson, E.B., and Worcester, J.: Standards of basal metabolism of girls (new data) and their use in clinical practice. J. Pediatrics 7, 655, November 1935.
- Wilson, E.B. and Worcester, J.: The resolution of tests into two general factors. Proc. Nat. Acad. Sci. 21:20-25, 1935.
- Talbot, F., Wilson, E.B., and Worcester, J.: Basal metabolism of girls. Am. J. Dis. Children 53:Part II, 275-437, 1937.
- Wilson, E.B., Bennett, C., Allen, M.F., and Worcester, J.: Measles and scarlet fever in Providence, R.I., 1929-34, with respect to age and size of family. Proc. Am. Phil. Soc. 80:357-476, 1939.
- Wilson, E.B. and Worcester, J.: The resolution of sex tests into three general factors. Proc. Nat. Acad. Sci. 25:73-77, 1939.
- Wilson, E.B. and Worcester, J.: Note on factor analysis. Psychometrika 4:133-148, 1939.
- Wilson, E.B. and Worcester, J.: Team tests for generals and specifics. Proc. Nat. Acad. Sci. 25:358-364, 1939.
- Talbot, N., Stewart, A., and Worcester, J.: New creatine standard for basal metabolism and its clinical application. Am. J. Dis. Children 58:506-511, 1939.
- Wilson, E.B. and Worcester, J.: Contact with measles. Proc. Nat. Acad. Sci. 27:7-13, 1941.
- Wilson, E.B. and Worcester, J.: Progressive immunization. Proc. Nat. Acad. Sci. 27:129-135, 1941.
- Wilson, E.B. and Worcester, J.: Note on the t-test. Proc. Nat. Acad. Sci. 28:297-301, 1942.
- Wilson, E.B. and Worcester, J.: Contingency tables. Proc. Nat. Acad. Sci. 28:378-384, 1942.
- Wilson, E.B. and Worcester, J.: Association of 3 attributes. Proc. Nat. Acad. Sci. 28:384-390, 1942.

COMMUNICATIONS SECTION
Subject to Protective Order in
Ross v. Conoco, Inc., No. 90-483Z
14th Judicial District Court
Calcasieu Parish, Louisiana

- Wilson, E.B. and Worcester, J.: Frequency function fitted by moments. Rev. Econ. Stat. 25:97-100, 1943.
- Wilson, E.B. and Worcester, J.: The determination of L.D. 50 and its sampling error in bio-assay. Proc. Nat. Acad. Sci. 29:79-85, 1943.
- Wilson, E.B. and Worcester, J.: The determination of L.D. 50 and its sampling error in bio-assay, II. Proc. Nat. Acad. Sci. 29:114-140, 1943.
- Wilson, E.B. and Worcester, J.: Bic-assay on a general curve. Proc. Nat. Acad. Sci. 29:150-154, 1943.
- Worcester, J. and Wilson, E.B.: A table for determining L.D. 50 on the 50% endpoint. Proc. Nat. Acad. Sci. 29:207-213, 1943.
- Wilson, E.B. and Worcester, J.: The determination of L.D. 50 and its sampling error in bio-assay, III. Proc. Nat. Acad. Sci. 29:257-262, 1943.
- Wilson, E.B. and Worcester, J.: A second approximation to Soper's epidemic curve. Proc. Nat. Acad. Sci. 30:37-44, 1944.
- Wilson, E.B. and Worcester, J.: Note on stability of incidence of the "common cold". Science 99:468-469, 1944.
- Wilson, E.B. and Worcester, J.: The normal logarithmic transform. Rev. Econ. Stat. 37:17-22, 1945.
- Wilson, E.B. and Worcester, J.: The epidemic curve with no accession of susceptibles. Proc. Nat. Acad. Sci. 30:264-269, 1944.
- Wilson, E.B. and Worcester, J.: The law of mass action in epidemiology. Proc. Nat. Acad. Sci. 31:24-34, 1945.
- Wilson, E.B. and Worcester, J.: The law of mass action in epidemiology, II. Proc. Nat. Acad. Sci. 31:109-116, 1945.
- Wilson, E.B. and Worcester, J.: The variation in infectivity. Proc. Nat. Acad. Sci. 31:142-147, 1945.
- Wilson, E.B. and Worcester, J.: The variation in infectivity, II. Proc. Nat. Acad. Sci. 31:203-208, 1945.
- Wilson, E.B. and Worcester, J.: Damping of epidemic waves. Proc. Nat. Acad. Sci. 31:294-298, 1945.

CONFIDENTIAL

Subject to Protective Order in
Ross v. General, No. 90-4837
14th Judicial District Court
Calcasieu Parish, Louisiana

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- Wilson, E.B. and Worcester, J.: The spread of an epidemic.
Proc. Nat. Acad. Sci. 31:327-333, 1945.
- Hegsted, D.M. and Worcester, J.: Study of relationship between protein efficiency and gain in weight on diets of constant protein content. J. Nutrition 33:685-702, 1947.
- Worcester, J. and Lombard, O.M.: Predictability of leg length. Child Development 19:160, 1948.
- Worcester, J. and Cheever, F.S.: The Schick status of 18,000 young adult males. New Eng. J. Med. 240:954, 1949.
- Burke, B.S., Stevenson, S.S., Worcester, J., and Stuart, H.C.: Nutrition studies during pregnancy, V. Relation of maternal nutrition to condition of infant at birth, study of siblings. J. Nutrition 38:453-467, 1949.
- Stevenson, S.S., Worcester, J., and Rice, R.G.: 677 Congenitally malformed infants and associated gestational characteristics, I. general considerations. Pediatrics 6:37-50, 1950.
- Worcester, J., Stevenson, S.S., and Rice, R.G.: 677 Congenitally malformed infants and associated gestational characteristics, II. parental factors. Pediatrics 6:208-222, 1950.
- Locke, W., Talbot, N.B., Jones, H.S., and Worcester, J.: Studies on the combined use of measurements of sweat electrolyte composition and rate of sweating as an index of adrenal cortical activity. J. Clin. Inv. 30:325-337, 1951.
- Mahoney, E.A., Worcester, J., and Massell, B.F.: Correlation of erythrocyte sedimentation rates as determined by the Rourke-Ernstene and by the Wintrobe-Landsberge methods. Am. J. Med. Sci. 221:402-411, 1951.
- Talbot, N.B., Wood, M.S., Worcester, J., Christo, E., Campbell, A.M., and Zygmuntowicz, A.S.: Further observations on the urinary excretion of water-soluble corticosteroids by normal and abnormal subjects. J. Clin. Endocrinology 11:1224-1236, 1951.
- Smith, C.A., Worcester, J., and Burke, B.S.: Maternal-fetal nutritional relationship - effect of maternal diet on size and content of the fetal liver. Obst. & Gyn. 1:46-58, 1953.
- Clifford, S.H., Reid, D.C., and Worcester, J.: Indices of fetal mortality. Chapter in Pregnancy Wastage, Chas. C. Thomas, Springfield, Ill., 1953, p. 208.
- Worcester, J.: How many organisms? Biometrics 10:227-234, 1954.

CMA 00955A

- Worcester, J.: The statistical approach to the study of congenital malformations. Chapter in Prematurity, Congenital Malformations and Birth Injury, Association for the Aid of Crippled Children, 1953, pp. 183-188.
- Baumgartner, L., Gold, E.M., Jacobziner, H., Wallace, H.M., Weiner, L., Schmidt, W.M., and Worcester, J.: Prenatal care in New York City. Pub. Health Rep., 69:937-944, 1954.
- Worcester, J.: Explanation of statistical method. Appendix in Physique and Delinquency, Sheldon and Eleanor Glueck, Harper, 1956.
- McArthur, J.W., Ingersoll, F. and Worcester, J.: Urinary excretion of interstitial-cell stimulating hormone by normal males and females of various ages. J. Clin. End. & Met. 18:460, 1958.
- McArthur, J.W., Worcester, J., and Ingersoll, F.: The urinary excretion of interstitial cell and follicle stimulating hormone activity during the normal menstrual cycle. J. Clin. End. & Met. 18:1186-1201, 1958.
- McArthur, J.W., Ingersoll, F., and Worcester, J.: The urinary excretion of interstitial cell and follicle stimulating hormone activity by women with diseases of the reproductive system. J. Clin. End. & Met. 18:1202-1215, 1958.
- Hegsted, D.M., Gotsis, A., Stare, F.J., and Worcester, J.: Interrelation between kind and amount of dietary fat and cholesterol in experimental hypercholesterolemia. Am. J. Clin. Nutrition 7:5-12, 1959.
- Peyton, M.F. and Worcester, J.: Exposure data and epidemiology of the beryllium case registry - 1958. J. Ind. Hyg. 19:94-99, 1959.
- Notes in Human Pituitary Gonadotropin, edited by A. Albert, Chas. C. Thomas, Springfield, Ill., 1961.
- McArthur, J.W., Worcester, J., and Ingersoll, F.M.: Effect of single dose of estrogen administered at different times during normal menstrual cycle on urinary ICSH excretion and cycle length, pp. 210-214.
- McArthur, J.W., Worcester, J., and Ingersoll, F.M.: Effect of single dose of progesterone administered during follicular phase of menstrual cycle on urinary ICSH excretion and cycle length, pp. 231-233.

RECORDED
SUBJECT NO. 107800
ROSS V. CARROLL, ENG. 107, 93-4807
14th Judicial District Court
Calcasieu Parish, Louisiana

CMA 009555

- Frank, N.R., Amdur, M.O., Worcester, J., and Whittenberger, J.L.:
Effects of acute controlled exposure to SO₂ on respiratory
mechanics in healthy male adults. J. App. Phys. 17:252-258, 1962.
- Salber, E.J. and Worcester, J.: Change in women's smoking patterns.
Cancer 17:32-36, 1964.
- Worcester, J.: Measurement of health and disease. Chapter 15 in
Veterinary Medicine and Human Health, Calvin W. Schwabe,
Williams and Wilkins, Baltimore, Md., 1964.
- Worcester, J.: Matched samples in epidemiologic studies.
Biometrics 20:840-848, 1964.
- Taft, P.D., Dalal, K.P., McArthur, J.W., and Worcester, J.: Sex
chromatin body size and its relation to X chromosome
structure. Cytogenetics 4:87-95, 1965.
- Worcester, J.: The statistical method. New Eng. J. Med. 274:
27-36, 1966.
- MacMahon, B. and Worcester, J.: Age at menopause. Vital
and Health Statistics, Series 11, No. 19, 1966, pp. 1-20.
- Ferris, B.G., Burgess, W.A. and Worcester, J.: Prevalence
of chronic respiratory disease in a pulp mill and a paper
mill in the United States. Brit. J. Med. 24:26-37, 1967.
- Rubenstein, H. and Worcester, J.: Influence of environmental
temperature on resistance to endotoxin. Pro. Soc. for Exp.
Biol. and Med. 124:1201-1204, 1967.
- Shapiro, J., Worcester, J. and Segall, A.: Application of
a personnel monitoring system to population dosimetry of
background radiation. Proc. 1st Int. Congress of Radiation
Protection. Pergamon Press, New York, 1968.
- Ferris, B.G., Burgess, W.A. and Worcester, J.: Chronic non-
specific respiratory disease in a movie projectionist's
union, Boston 1963-64. Arch. Environ. Health 16:886-889,
1968.
- Jick, H., Slone, D., Westerhohn, B., Inman, W., Vessey, M.,
Shapiro, H., Lewis, G. and Worcester, J.: Various thrombo-
embolic diseases and ABO blood type. Lancet, 539-542,
March 15, 1969.
- Worcester, J.: Book Review: Fundamentals of Biostatistics
by S.S. Shor. New Eng. J. Med. 280:965, 1969.

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CONFIDENTIAL

Subject to Protective Order in
Ross v. Conoco, Inc., No. 99-1837
14th Judicial District
Calcasieu Parish, Louisiana

Hegsted, D.M., Neff, R. and Worcester, J.: Determination of the Relative Nutritive Value of Proteins: Factors Affecting Precision and Validity. Agric. and Food Chem. 16:190-195, 1968.

Worcester, J.: The Relative Odds in the 2^3 Contingency Table. Amer. J. Epid. 93:145-149, 1971.

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Subject to Protective Order in
Ross v. Conoco, Inc., No. 90-4837,
14th Judicial District Court
Calcasieu Parish, Louisiana

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