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Jacques Bertillon (1851–1922) was one of the most prolific and influential quantitative social scientists in France near the turn of the century. His work grew out of a tradition pioneered by [Adolphe Quetelet](#) and developed by Bertillon's grandfather, Achille Guillard, and father, Louis-Adolphe Bertillon. Two biographies of his brother, Alphonse—popularly known for developing ingenious methods of identifying criminals—show that the entire Bertillon household was preoccupied with quantification (S. Bertillon 1941; Rhodes 1956). Like his father, Jacques Bertillon received his formal training in medicine, but he soon turned to the young science of statistics, at that time broadly defined by its proponents as the “numerical study of social facts” (1895, p. 1).

In the 1870s, Bertillon began to publish articles on such topics as international comparisons of suicide and divorce rates in the *Annales de démographie Internationale*; he became the editor of this journal in 1882.

Bertillon's lifelong association with organizations connected with social research began in 1883, when he succeeded his father as director of the statistical bureau of the city of Paris. During his thirty years as director, Bertillon's influence was reflected in the increasingly lengthy annual reports—the increase being due both to a greater quantity of data collected and to the application of more elaborate types of analysis. Drawing principally on data collected by his bureau, Bertillon published numerous articles on those aspects of the Parisian population for which quantitative information was available: the incidence of births, deaths, diseases, marriages, divorces, and so on, generally analyzed by sex, age, geographical district, and occupation.

Bertillon served as representative of the Paris statistical bureau on the Conseil Supérieur de la Statistique, an organization advising the government on statistical matters. One of the most active members on the council, he suggested new types of data to collect, innovations in data analysis, and broader applications of statistical knowledge in general. Through the council he attempted to persuade the various ministries to require statistical training of some of their employees; to facilitate this task, he prepared a treatise, the *Cours élémentaire de Statistique administrative* (1895), on the organization of statistical bureaus, questionnaire construction, interviewing procedures, data-processing techniques, and types of statistical analysis.

Further recognition in statistical circles came in 1897, when Bertillon was elected president of the Société de Statistique de Paris, having been a member since 1879. The society's journal contains articles by Bertillon on topics such as the social origins and mortality rates of different occupational groups.

In addition to his activity in France, Bertillon played a leading role in the congresses of the International Statistical Institute, which he helped organize in 1885. He thereby revived the international statistical congresses initiated by Quetelet, which had been discontinued after 1876. Bertillon published constantly in the institute's bulletin, particularly on the standardization of the types of data collected and the different classifications employed by the various national statistical bureaus. Perhaps his best-known contribution in this area is his standardized classification of the causes of death—consisting of an abridged, an intermediate length, and a more detailed account of the factors leading to death—which combined the most widely used factors employed by national statistical bureaus. The “Bertillon classification,” adopted by a large number of countries in 1900, was revised in 1909 and again in 1920.

In addition to his purely statistical work, Bertillon had ties with a broad variety of social scientists: at the Collège Libre des Sciences Sociales, which he helped found in 1895 and where he taught demography; at the École d'Anthropologie, where he was also professor of demography; and as a collaborator on the *Revue Internationale de sociologie*, edited by René Worms. He did not, however, collaborate with Durkheim and his associates on the *Année sociologique*.

Bertillon was a deeply patriotic Frenchman with strong social convictions. Through his statistical work, he became aware of the extent of two phenomena which he came to consider as the most serious social problems that France had to face: alcoholism and “depopulation.” Attempting to develop a more thorough understanding of each of these phenomena, he undertook careful analyses of the statistics available on them. In addition to his more scholarly works (1904; 1911), he also published numbers of articles in the popular journals and newspapers, expounding the dangers of these problems for the entire French nation.

Concerning alcoholism, Bertillon demonstrated that the per capita consumption of alcohol had increased rapidly over the course of the nineteenth century in France, while Sweden and Norway, of all the European countries, showed the largest decreases during the same period. Attempting to explain these differences, he examined with a broad variety of quantitative materials the relative importance of 15 different measures suggested or employed to reduce alcoholic consumption. He found that the size of the tax on alcohol had no effect on consumption; the elimination of small distilleries did reduce consumption; and a monopoly on the distribution and sale of beverages was highly effective, with the Norwegian monopoly system the most successful of all.

“Depopulation”—the decrease in the size of the French population relative to that of other more rapidly expanding European powers, particularly Germany—was sapping French economic and military strength, Bertillon argued. He presented five principal interrelated causes of the declining birth rate: poorly conceived inheritance laws, exaggerated frugality, a weakened entrepreneurial spirit, the burdens imposed by large families, and the strong desire for upward social mobility (1911, pp. 62–209).

Bertillon's efforts at publicizing the dangers of depopulation were unceasing—he founded the Alliance Nationale pour l'Accroissement de la Population Française in 1896 and a popular magazine, *La femme et l'enfant*, in 1918; he was also an active member of the Conseil Supérieur de la Natalité following its establishment in 1920. Although his efforts, along with those of a small number of other persons, helped to attract public attention to the problem, it was not until many years later that the government undertook any systematic action to increase the birth rate.

Bertillon's general impact was probably most significant in areas where he reanalyzed and synthesized large-scale statistical data to bring them to bear on a broad variety of social questions. His ability to demonstrate the utility of quantitative materials for general social analysis helped lead to their increasing acceptance by social scientists. Bertillon's work was one of the most important foundations for Durkheim's analyses of suicide and divorce. J. Bourdon (1922) was more or less a disciple of Bertillon, and W. F. Willcox (1891) at Columbia was, thanks to Bertillon, an enthusiastic convert to quantification. Virtually every writer on depopulation in France since Bertillon has had somehow to come to grips with his work on this subject.

Terry N. Clark

[For the historical context of Bertillon's work, see [Sociology](#); [Vital statistics](#); and the biography of [Quetelet](#); for discussion of the subsequent development of Bertillon's ideas, see the biographies of [Durkheim](#); [Willcox](#).]

works by bertillon

1880 *La statistique humaine de la France: Naissance, manage, mort*. Paris: Baillière.

1883 *étude démographique du divorce et de la séparation de corps dans les différents pays de l'Europe*. Paris: Masson.

1892 *Compte rendu sommaire des travaux scientifiques du Dr. Jacques Bertillon*. Paris: Imprimerie de Chaix. → An annotated bibliography, compiled by Bertillon, of his works prior to 1892.

1895 *Cours élémentaire de statistique administrative*. Paris: Société des Éditions Scientifiques.

1897 *Le problème de la dépopulation*. Paris: Colin.

(1904) 1913 *L'alcoolisme et les moyens de le combattre jugés par l'expérience*. 3d ed. Paris: Gabalda.

1906 *De la fréquence des principales causes de décès à Paris pendant la seconde moitié du XIXe siècle et notamment pendant la période 1886–1905*. Paris: Imprimerie Municipale.

1911 *La dépopulation de la France*. Paris: Alcan.

SUPPLEMENTARY BIBLIOGRAPHY

Barriol, A. 1922 Jacques Bertillon. *Journal de la Société de Statistique de Paris* 63:267–269.

Bertillon, Suzanne 1941 *Vie d'Alphonse Bertillon*. Paris: Gallimard.

Bourdon, Jean 1922 L'oeuvre démographique de Jacques Bertillon. *Revue d'économie politique* 36:638–642.

Clark, Terry N. 1964 Empirical Social Research by Contributors to the *Année sociologique* and the *Revue Internationale de sociologie*. Unpublished manuscript, Columbia Univ., Bureau of Applied Social Research. → Contains a discussion of Bertillon's contributions to the development of empirical social research.

Durkheim, émile 1906 Le divorce par consentement mutuel. *Revue bleue* 5th Series 5:549–554. → A criticism and reinterpretation of the “Bertillon law” concerning suicide and divorce rates.

March, Lucien 1923 Dr. Bertillon, Jacques. Institut International de Statistique, *Bulletin* 21:300–302.

Moricourt, C. 1962 Bibliographie analytique des oeuvres de la famille Bertillon (y compris Guillard), médecins et démographes, de Jean-Claude-Achille Guillard (1799–1876), à Georges Bertillon (1859–1917). Unpublished manuscript, Institut National des Techniques de la Documentation, Conservatoire National des Arts et Métiers. → Includes publications by Bertillon up to the time of his death.

Rhodes, Henry T. F. 1956 [Alphonse Bertillon: Father of Scientific Detection](#). [New York](#): Abelard-Schuman.

Willcox, Walter F. 1891 The Divorce Problem: A Study in Statistics. *Columbia Studies in History, Economics and Public Law* 1:1–74. → The preface contains a testimonial to the influence of Bertillon.