

Francis Amasa WALKER

b. 2 July 1840 - d. 5 January 1897

Summary. Walker, United States Civil War general and President of the Massachusetts Institute of Technology, contributed to statistics through service¹ as Director of the U.S. Census Office and president of the American Statistical Association.

Francis A. Walker (1840-97) made significant contributions in advancing the discipline of statistics during his relatively short life. Walker was born into a prominent Massachusetts family, graduated from Amherst College in 1860, and like many of his generation, entered the military at 21 to fight in the Civil War. He left the military in 1865 as an Adjutant General. In later life, he became a major Gilded Age intellectual. He became Superintendent of the Census in 1869 at the age of 29; was appointed President of the Massachusetts Institute of Technology in 1881; and served as President of the American Statistical Association from 1883-97. His contributions to the field of statistics derive from his positions as Census Superintendent, ASA President, and public intellectual.

Walker entered federal service in the Treasury Department in early 1869 as plans for the 1870 census were being developed. He prepared a report for Congress on reforming census legislation; Congress rejected the legislation. He was formally appointed Superintendent in January 1870, and oversaw the field enumeration and data processing and publications for the 1870 count. A temporary Census Office housed in the Department of Interior took the decennial census. Walker oversaw the work of about 6,500 enumerators and 400 officer workers who collected and tabulated (by hand) population, agriculture, mortality and manufacturing data on 39 million Americans. He published five main volumes of census results and a statistical atlas, and disbanded the office, as required, in 1873. His main accomplishments of running an efficient operation in 1870 made it possible for the census reform legislation, which had failed in Congress in 1869-70, to be passed in the late 1870s. Walker returned to direct the 1880 count. In that year, the American population topped 50 million. Walker made significant changes in field enumeration methods. He enlarged the scope of inquiries, instituted civil service examinations for office staff, expanded the publications of the census to 22 volumes, and quadrupled the size of the clerical staff to 1500 people. The enumerator force grew to over 31,000 to speed the field operations portion

of the count. He also made numerous less dramatic changes in organization. Walker became only the second census superintendent in the U.S. history to oversee more than one decennial count, and only one in three in the 200 year history of the census.

He left the Superintendency in 1881 and never returned to federal office. But he did continue to have a significant advisory role to federal statistical officials. In particular, he recognized that the growing size of the American population, and the concomitant growth in the demand for data, made hand tabulation increasingly problematic. He encouraged the system of machine tabulation developed by Herman Hollerith – which was put in place for the 1890 census. That system became the foundation of IBM.

Walker's second major role was as president of the American Statistical Association. He took over the position in 1883 at Edward Jarvis' death and continued in the position until his death in 1897. He oversaw the development of ASA from a small Boston learned society of less than 75 members, to a national professional association with a respected journal, and national meetings. Walker hired and charged a young instructor at M.I.T., Davis R. Dewey, to undertake the tasks of what he called "expanding the influence of the statistical association." The *Journal of the American Statistical Association*, then called the *Publications of ASA*, began in 1888; membership grew to around 500 at his death in early 1897.

Throughout the 1870s, 1880s and 1890s, Walker also remained an influential economic and social writer and observer. As the first President of the American Economic Association, he played a major role in the development of modern economics in the United States. He contributed a plethora of books and articles on demography, political economy, immigration, and social policy. Nevertheless, from the perspective of the late twentieth century, some of his work is marred by the increasingly strident nativism which gripped the writings of late nineteenth century elite intellectuals. He became the intellectual founder of the immigration restriction movement in the United States, publicizing the supposed racial differences between old and new immigrants – and proclaiming the decided inferiority of the new immigrants from Southern and Eastern Europe. These "beaten men from beaten races," he claimed, were lowering the American standard of living and threatened the future of the polity. Much of his thought was taken up by a later generation of intellectuals and written into the now discredited National Origins Act of 1924, which ended the three century American commitment to unfettered immigration.

Walker died rather suddenly at the age of 56, just days after giving the address opening the first meeting of ASA outside Boston –in Washington, DC in December 1896. That meeting led to the founding of the Washington Statistical Society. His achievements in developing major federal data systems, in promoting the organizational development of statistics, and of bringing statistical ideas to a wide audience, left the field much the richer than he found it –and prepared for the great innovations in inferential statistics which were about to transform the discipline.

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Margo J. Anderson