

# STATISTICS AND THEIR USES

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## *MR WRIGHT'S LECTURE TO THE SCHOOL OF SOCIAL ECONOMICS.*

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### **How Figures May Be Misused—Needs of Statistical Study—Classification and Definition.**

Carroll D. Wright, United States Commissioner of Labor, and one of the most experienced statisticians in this country, talked to a large audience at the School of Social Economics last evening about statistics, their use and misuse, and their value as a science. It was the first of a series of lectures on the subject which he will deliver Friday evenings throughout February and part of March.

“Dr. Gottfried Achewall, Professor of Philosophy at Göttingen, Germany, in 1750,” he said, “is represented as having been the originator of modern statistical methods. Statistics is understood as a collection of facts relating to a part or whole of a country or people, or classes of individuals or interests; and especially facts which illustrate social, moral, political, and industrial conditions or changes of conditions. But these facts, to come under the general term of statistics, must be of that nature to admit of numerical statement and tabular arrangement.

“Statistics may also be called that part of political science which classifies, arranges, and discusses statistical data. One of the most essential primary objects of the method is to secure a simply concrete statement of a mass of facts to express that which could not be otherwise expressed, except through long, tedious descriptive language.

“The German historian, Schlözzer, has said that history is statistics ever advancing, and statistics is stationary history. Statistics, it may be said truly, writes history, and writes it in the most crystalized form which can be adopted. It uses symbols, it is true, but with them it unlocks the facts of a period so that they may be made plain to all students coming after it.

“The use of statistics in a scientific way is entirely modern. In ancient times there were counts of people, but no scientific use made of the results. Censuses were taken in ancient times to assess the military strength. David undertook to enumerate the people, and it got him into great difficulty. Every man who has taken a census since that time has had sympathy for David.”

Mr. Wright then referred to the dishonest uses sometimes made of statistics, especially for partisan purposes, and quoted the remarks of a recent President of Harvard, who said: “There are three kinds of lies—lies, damned lies, and statistics.” Mr. Wright thought a better law would be that figures would not lie, but liars will figure. He pointed out the fallacy in quoting partial statistics, and the possibility of one showing the exact reverse of a truth by doing this. Speaking of the subject as understood to-day, he said:

“There are three kinds of statistics: first, those secured by the continuous record of official acts, such as custom house and school statistics; second, enu-

meration, like a census where aggregations are essential to the integrity of the results, and third, investigation giving a representation of facts. The practical work of a statistician is divided into collection, which involves the preparation, tabulation, and analysis of results, and analysis. No statistical table should ever be used without consulting the textual treatment and the accompanying notes.”

Mr. Wright then gave some amusing illustrations of misuses of statistical tables, and urged the necessity of statistical study in order that students might be able to use the methods, either the tabular or graphic, with greater force, and by more legitimate processes.

*New York Times*, 25 January 1896, p. 15.

Carroll Davidson Wright lived from 1840 to 1909.