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THE HISTORY  
OF STATISTICS  
**PREHISTORIC  
TIMES AND  
ANTIQUITY**



# PREHISTORIC TIMES AND ANTIQUITY

## DID STATISTICS ALREADY EXIST AT THIS TIME?



↑ *Listings of livestock were taken every other year in ancient Egypt.*



One of the oldest pieces of evidence of the use of the tally for numerical records comes from the Palaeolithic Age and it was found in Dolní Věstonice, Moravia in 1937. It is a bone from a young wolf, about 18 cm long, with 55 deep notches. The first 25 notches are in groups of five. Then there is a notch that is double length that ends the row. A new row of 30 notches starts with another double-length notch.

Standard statistics did not exist in prehistoric times, however the development of thinking and language in the Neolithic period facilitated the formation and use of abstract terms – numbers. Numeric reports were kept by various means: as notches on bones or sticks (the tally), as knots on ropes, pebbles or even by seashells grouped most often in sets of five.

The first true beginnings of any kind of records, i.e. statistics, may be found in the records describing the economic and social lives of the oldest civilizations. This is supported by various landmarks and sources from Sumer, Mesopotamia, Crete and Greece as well as from old Egypt and China. Ancient rulers wanted to keep track of whom they ruled, how much they collected in taxes, how many soldiers they might have to send to war or how many persons might be able to work for them.

The oldest written documents of a statistical nature come from ancient Sumer. They were records pertaining to population, the harvest and the number of livestock. In ancient Egypt, a listing of livestock was carried out every other year. The introduction of a capitation tax required a listing of the people that was continuously updated. There was also a land tax. Its level was derived not only from the size of the plot of land, but also from the level of floods that fertilized it.



↑ *A tally from Věstonice. A wolf's bone with notches is among the oldest evidence of the use of numbers.*





↑ Pieter Bruegel the Elder: *The Census at Bethlehem* (section).

## ANCIENT ROME A SOPHISTICATED CENSUS

In ancient Rome, special officers – censors – were in charge of population censuses. A census was mandatory for all Roman citizens. This obligation was later expanded to all persons living under the governance of Rome. Only persons under paternal power (married women and children – they were registered by the husband or father, as the case may be), widows and orphans who were registered by their guardian were exempted from this obligation. Those who failed to report to the census without stating any serious cause were subject to property confiscation and loss of life. The value of property was reported by the person themselves, but the censor had the final say. The tax was then calculated based on the value of assets.



The most famous account of a statistical finding is undoubtedly the report on a population census as described by Luke in his Gospel. “In those days Caesar Augustus issued a decree that a census should be taken of the entire Roman world. This was the first census that took place while Quirinius was governor of Syria. And everyone went to their own town to register. So Joseph also went up from the town of Nazareth in Galilee to Judea, to Bethlehem the town of David, because he belonged to the house and line of David. He went there to register with Mary, who was pledged to be married to him and was expecting a child. While they were there, the time came for the baby to be born, and she gave birth to her firstborn, a son...”

