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Introduction

- Almost everything we understand about the way the world works is based on some sort of data. And that data, by its nature is incomplete and imperfect. Incompleteness comes from our inability to study every single element of a situation under study. Imperfection includes things such as errors in measurement. Therefore, we must make inferences about the whole by only seeing a fuzzy picture of a part of the whole.
- All data must be analyzed and interpreted. Statistics is the science of doing this well.

Module 2.1

Automatic and the second statistics of the second statistics of the second statistics as a drunken man uses lamp-posts – for support rather than illumination. Andrew Lang (1844-1912), Scottish author. Quoted in: Alan L. Mackay, The Harvest of a Quiet Eye (1977)
Fact: All statistical methods rely on some set of assumptions, some more difficult to meet than others. Often those who try to prove a preconceived point using statistics don't understand the foundation of the techniques, when they apply, and how to appropriately interpret the results. Or, worse, they knowingly misapply techniques to achieve a particular result.















