Lecture 2a: Tuesday, January 22, Lorlene Hoyt

Part I of Lecture 2: INTRODUCTION TO DATABASE MANAGEMENT TOOLS

Crime Case Study

Overview

The Philadelphia Police Department (as an example)
Too Much Data?
Business Improvement Districts
Research Design (that relies on MS Access and ArcView)
Spatio-temporal Method of Crime Analysis
Findings

Spatial Analyses

Questions (hypotheses)
GIS to conduct an analysis of crime patterns in business improvement districts (BIDs)
GIS to create a new spatio-temporal method of analysis
Regression to control for socio-economic variation (U.S. Census Data)
Findings that support the effectiveness of BID security patrols

Professional Skill & Information Infrastructure

Importance of running queries in large databases
Advantages (and disadvantages) of combining data from different sources
A GIS depends on the data “behind the scenes”
The value of analyzing the spatio-temporal nature of data