Deciding on the Final Project:

It all starts with a question:

The first challenge to tackle when confronting the final project is deciding on a good question. Attempting to answer this question will guide the subsequent research design, and ultimately what you choose to display for your final maps. Below I will try to give some advice about how to go about choosing a project;

1) It should interest you. You should attempt to choose a question that you personally find interesting, as it will be easier to invest the time necessary in the project as the semester progresses. You may be interested in a particular city or state or neighborhood that you want to examine. You may be interested in a specific topic. Ultimately the question has to have some relevant geographic component (this is a mapping class), but that isn't very restrictive. Everything happens somewhere, and frequently they happen at particular locations for a reason!

2) When you formulate a research question, ultimately to attempt to answer that question you make some type of comparison. Try to think what exactly you are comparing. For example if my question is, do halfway houses cause more crime, I would probably compare crime around areas where halfway houses are located to areas where there are no halfway houses. I might also compare crime in an area before a halfway house was instated to crime in that same area after a halfway house was instated. When you identify what you are comparing exactly, it helps refine the research question.

3) The question should be a real, non-trivial question. By non-trivial, I mean a question that has a very likely answer before you even start the analysis (or something that is answered very easily). For example, asking the question "what time of day do the most traffic accidents occur", is fairly trivial (guess rush hour and you would be correct for most any metropolitan area). If the question were, "what areas have the highest number of traffic accidents", this would be trivially easy to answer. But frequently, these type of questions could be further refined to be more interesting. Say you had a question of whether in the winter time accidents tended to occur more frequently in different places than the summertime. Other examples might be if traffic accidents tended to be in different places after highly attended sporting events, or on weekends versus weekdays.

Practical Constraints:

Ultimately other factors (such as available data sources, time constraints, and knowledge of the software and statistics) limit our ability to adequately answer certain questions. I expect the process to be iterative, and since I have a better understanding of what data is available, how long particular projects may take, and what skills you will have acquired by the end of the course, I am in a position to help guide the research into a feasible project. If you have questions about the project don’t wait until the last minute when a proposal is due.

Below I have listed several data sets that are publicly available. If your having trouble deciding on a topic, peruse the different data sets I have listed below to see if you can think of a topic that could be addressed given the data listed below. If you already have a topic in mind, see if any of the datasets have data that have information related to your question. If they don't, begin looking online to see if any other datasets exist. If you have an idea, feel free to shoot me an email asking about the project feasibility in terms of either data accessibility or whether the scope is reasonable to get it done by the end of the semester.

Example Data Sources:

Below these data examples have a brief description of where they apply to and what information is contained within the datasets. You are not limited to these datasets (and ultimately you could find more through general internet searches), but they will be representative of what type of data is available publicly in general.

New York City

Various potential datasets exist for examining crime and Criminal Justice related topics in New York City. The NYPD has placed the *Stop, Question, and Frisk* data online for the years 2003 through 2014 (http://www.nyc.gov/html/nypd/html/analysis_and_planning/stop_question_and_frisk_report.shtml). Some of the older years only have the associated precinct attached, but many of the newer years have X,Y coordinates. The full listing of information is contained in the File Documentation, but besides having the X,Y coordinates of the stop, they also include some interesting characteristics such as if the stop resulted in an arrest, or if a gun was found on the individual stopped, and the race of the individual stopped.

The *NYC Data Mine* (http://www.nyc.gov/html/datamine/html/data/data.shtml) provides many different data sets, a few of which could have relevance to crime (such as the location of reported Graffiti incidents). This would be useful information to combine with the stop question and frisk data as well.

Washington, D.C.

D.C. has an extensive geographic datasets at, http://data.octo.dc.gov/, and these include Crime Incidents. The Crime Incidents are geocoded already, but are only available in fairly generic categories (i.e. main UCR index crimes). The D.C. data has a host of other information on the built environment or other aspects of the city.

This is the data I used for my dissertation, so I have a convenient dataset of various aspects of crime at the built environment located at https://dl.dropboxusercontent.com/s/jxg2mjss6pvjam3/OutlierMap.html, geocoded to the street unit (street midpoint and intersection).

DEA National Clandestine Laboratory Register

This dataset lists the registered Meth labs beginning around 2004 in every state. The data could be compiled into county level statistics or geocoded to actual addresses. It contains temporal data on the date a lab was included in the registrar. (http://www.dea.gov/clan-lab/clan-lab.shtml)

Other cities that have publicly available data geocoded to *addresses or street segments* are

- Chicago (http://data.cityofchicago.org/),
- Houston (http://www.houstontx.gov/police/cs/stats2.htm),
- Baltimore (http://data.baltimorecity.gov/),
- San Francisco (https://data.sfgov.org/),
- Boston (https://data.cityofboston.gov/)

- Dallas (https://www.dallasopendata.com/)

Many police departments publish crime statistics, so if you're interested in any particular location you should look up the local police department's website. If you're interested in a particular type of crime (say commercial versus residential burglary) it varies between data sets whether you can identify this information (e.g. Chicago you can do this, but most places just publish generic burglary). Most places only publish the reported incident, but Dallas for example publishes arrest information and the home addresses of victims and arrested individuals (allowing for analysis of the journey to crime).

This website, https://www.opendatasoft.com/a-comprehensive-list-of-all-open-data-portals-around-the-world/, currently links to over 1,600 open data websites across the world.

Other sources of aggregate data

UCR crimes by county or state (http://www.ucrdatatool.gov/) or examining *NIBRS* related data (http://www.icpsr.umich.edu/icpsrweb/NACJD/NIBRS/concepts.jsp). NIBRS has individual level incidents, but is only geocoded to the level of the police jurisdiction and has spotty coverage throughout the US.

Searching the *National Archive of Criminal Justice Data* (http://www.icpsr.umich.edu/icpsrweb/NACJD/gis/data.jsp) on ICPSR might be fruitful, although they have relatively few datasets that have small geographic levels (i.e. geocoded to addresses). Many have geographic contiguous datasets at the Census Tract or Census Block Group level, see below for several examples (they have many more than this, but most will be similar in nature to those below)

- *Spatial Analysis of Crime in Appalachia*, [Counties for the Appalachian Region] (http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/3260),
- *Drug Offending in Cleveland*, [Census Tracts] (http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/3929),
- *Geographies of Urban Crime in Nashville, Tennessee, Portland, Oregon, and Tucson, Arizona, 1998-2002,* [Block Groups] (http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/4547)
- *National Neighborhood crime study,* [Census Tracts in cities across the US] (http://www.icpsr.umich.edu/icpsrweb/RCMD/studies/27501)