* Abstract
  + Write last
  + Basic of the project and the findings
* Introduction
  + Traffic in dc is a problem
  + What has been done to combat the traffic
  + Want to see if this change has changed traffic patterns
  + Inrix Data
    - What it is
    - How it is collected
    - What it contains
  + The general problem we are looking at
    - Path analysis based on Origin and Destination
    - Three month period in two years
* Literature Review
  + Use the OD data TRB paper?
  + Have to research
* Methodology
  + Date filtering
    - Only looking at weekdays during three month period that will have normal traffic
    - Holidays not included
  + Origin and Destination Mapping and filtering
    - Grid put over DC and nova to capture traffic
      * Describe grid
    - OD Nodes were created for each possible pair
      * Each grid point was both an origin and destination
      * Capture in-bound and out-bound traffic
    - Trip data contains start and end coordinates
      * Error in the fact that we do not know if these are the actual start and end points, or just where the device was picked up (or turned on)
    - Use the start and end coordinates to map to OD
      * Belong to a certain OD if within a certain radius of the center
        + The center is the definition of the node
        + map to both origin and destination
    - Possibly show heat map of OD node usage
  + Time Mapping
    - Trip data contains the start time of the trip
    - Have buckets for each time slot
      * Time slots are in 30 min intervals throughout the entire day
    - Capture every possible time segment, for post processing later
  + Path
    - If a person took a certain path
    - Using waypoint data
    - Simona
    - Path node
      * Smallest data object used
  + HashTable
    - Custom hash table to store all of the data
    - Could not use built in hash table because we are not mapping coordinates one to one
  + Overall breakdown and hierarchy of data
    - UML?
  + Program
    - Path Mapping
      * Simona code
      * Identified possible paths that involve I-66
        + Inbound and outbound
        + Used Arcgis

The inrix data is linked to xd segments

* + - * If Simona was able to map the trip to a path then path was created for time slot
    - Run on Rivanna super computer at UVa
      * Allows for processing of files simultaneously
    - Files broken into smaller sections
      * Speed up process
      * Basics of original files
        + Count and size
      * Basics of resulting files
        + Count and size
    - Each file analyzed on its own with same constraints
      * Constraints
        + OD Grid, trips with paths, days looked at
      * If this is a day of interest
      * If the trip can be mapped to our grid
      * Put the trip in the proper time slot
      * If the trip can be mapped to a path
      * Output the information to a file
        + Show example output of od node
    - Output files are combined
      * This is the file that is used for analysis
* Findings
  + Basics
    - Mapping counts and percentages
  + Filter
    - Was a filter applied
    - What was the filter
      * Only looking at paths with a certain count
      * Only looking at od nodes with a certain volume
  + OD spread
    - Hopefully about the same
  + Time slot spread
    - Hopefully about the same
  + What data was actually being looked at
    - Path counts per od, time, date, day of week, etc
  + What tests were used
    - Why were these test chosen
    - Basic outline of the test and the samples
      * chart
  + Actual statistical findings
* Conclusion
  + The data collection as a whole
    - Very dense
    - Good preservation until try to map to paths
      * If rigorous definition of path, then low count
      * If non rigorous definition of path, then high count but meaningless
  + Have people changed their paths based on the change to I-66