# Access to Trauma Care Workflow

Provided below are the major tasks required to analyze state-wide access to trauma care utilizing both air and ground EMS infrastructure. Each state's trauma system size, and availability of required data is different. The effort listed represents time required for the average state.

1. ***Data Collection*** – Collect address/GPS information for the following locations:
   30 hours
   a. Air EMS – Atlas & Database of Air Medical Services (ADAMS)
   b. Ground EMS – State Department of Health or State EMS Agency
   c. Trauma centers (TCs) – State Department of Health or State EMS Agency
   d. Block group centroids – US Census Bureau

2. ***Geocoding*** – Convert addresses into geographic coordinates to place markers within ArcGIS.
   20 hours
   a. Air EMS
   b. Ground EMS
   c. Trauma Centers

3. ***Travel Calculations*** – Use street network and geocoded data to calculate distances/times (ArcGIS – Network Analyst)
   20 hours
   a. Calculate nearest ground EMS to block group centroid (Closest Facility tool)
   b. Calculate block group centroid to nearest TC 1-2, 1-4, etc. (Closest Facility tool)
   (Steps a-b replicated for air EMS using Near Tool)

4. ***Finalize Calculations***
   10 hours
   a. Incorporate on-scene and dispatch times into analysis based on rurality
   b. Convert air EMS distances to times using average cruising speeds

5. ***Statistical Analysis***
   10 Hours
   a. Complete descriptive statistical analysis for state-wide accessibility

6. ***Reporting Results***
   10 hours
   a. Build statistics tables and maps to display results

**Total Project Effort = 100 hours**