FMTF Data/GIS Committee Meeting Minutes

Date: **Tuesday, December 17, 2019**

Time: **10:30 A.M. – 11:30 A.M. EST**

Where: **Web Conference**

Attendee	Agency
Terry Corkery	FDOT Central Office
Thomas Hill	FDOT Central Office
Gabe Matthews	FDOT Central Office
Frank Tabatabaee	FDOT Central Office
Soliman Salem	City of Jacksonville
Bob Crawley	Highlands County
Steve Kollar	Manatee County
Denise Bunnewith	North Florida TPO
Alvimarie Corales-Cuadrado	Sarasota/Manatee MPO
David Hutchinson	Sarasota/Manatee MPO
Gary Kramer	West Florida RPC
Xia Jin	Florida International University
Ilir Bejleri	University of Florida
Heather Lupton	Cambridge Systematics
Srin Varanasi	Corradino Group
Patricia Tice	CREWS, LLC
Rob Schiffer	FuturePlan
Makarand Gawade	HDR
David Sherman	HDR
Dan Beaty	HNTB
Jongson Won	PTV Group
Dawn Carlson	RK&K
Daniel Miller	RK&K
Dan Macmurphy	Traf-O-Data
Steve Infanti	Tindale Oliver

Meeting began at 10:30am

Item 1: Introductions

- Gary welcomed attendees to the MTF Data/GIS Committee meeting and set forth with the following agenda items.

Item 2: Turning Movement

- In the last MTF held in late July/early August there was a recommendation to go forward with a research project on the topic of turning movement counts.
- Considering funding the project through the traditional research process which is funded through the Florida Department of Transportation (FDOT) Research Office.
- Looking to create a universal count database(s) that can be accessed across the State, in FDOT Districts and Offices.
- North Florida TPO has built a similar, but smaller scale, data exchange structure via their planning work program at the following link:
    - http://webcache.googleusercontent.com/search?q=cache:http://smartnorthflorida.com/data-exchange
- Available shapefiles identified by Florida Traffic Online (FTO)
    - FTO database
        - Average Annual Daily Traffic (AADT) layer
        - Intersections
        - Portable Traffic Monitoring Site (PTMS) & Telemetered Traffic Monitoring Site (TTMS) historical data
    - Are there any other shapefiles we need to think about?
        - Signal locations
        - Reach out to Daniel Miller if you have any items for consideration.
- AADT Shapefiles
    - FTO key IDs
        - Count site number (COSITE)
        - Roadway ID (ROADWAY)
        - Roadway descriptions (DESC_FRM, DESC_TO)
- Available shapefiles
    - NavTeq/HERE Database
        - All streets
            - Higher resolution of roadways
        - No intersection information
        - Proprietary link ID system
            - Changes from time to time
- Approaches to data joins and management
    - Intersection vs. roadway
    - Direct join to FTO database AADT
        - Similar to AADT process using PTMS and TTMS
    - Point shapefile with references to FTO database IDs

        - State Safety Office GIS' (SSOGIS) approach with points, referenced to maps
- Count variety
    - Turning Movement Count (TMC)
        - TMC structure will look different.
        - Ideally, would be stored in in Excel spreadsheet or PDF file that is in reference to a count where the FTO synopsis would be available.
        - Would also include available turns (i.e. right turn on red vs. no right turn on red).
    - Lane Counts
        - Generalized count for lanes in regards to a general version.
        - Looked out of state to investigate whether another agency had done something similar.
- Geodatabase would include:
    - Count locations layer –
        - Point locations where counts have been taken. Fields include: ID_LOC, STATE, COUNTY, MAJORRD, MINORRD, LAT, LONG
    - Related counts table –
        - Traffic count details linked to count locations by ID_LOC. Fields include: ID_COUNT, ID_LOC, Count_Type, CommNo?, Start_Date, End_Date, Weekdays, Weekend, Volume, Class, Speed, Duration, Peds, O_Type?, Company, Links to attached data files
    - This structure allows for multiple counts at one location.
        - Perhaps counts were taken one year and then repeated the next year.

Action Item:

- **Contact Daniel Miller (dmiller@rkk.com) if you have any ideas outside of those mentioned above regarding shapefiles/files to be considered for a universal count database.**

Item 3: Automated/Connected Vehicle (AV/CV) Update

- Conducted a stated-preference survey to determine individuals' potential travel behavior around AV/CV technology.
    - Attitudes are a major focus of this study.
        - Ex. Driving assistance and safety features of AVs
            - Highly desired by:
                - Frequent passengers (1-3 times a week)
                - Those with long travel times (regularly above 30 minutes)
                - Employment type: retired
                - Education: college or bachelor degree
                - Medium household size (4 members)
            - Less desired by:
                - Those regularly paying parking fees.
                - Middle-aged adults (40-49)
                - Hispanics, African Americans
                - Large households (6 members)
- AV Adoption and Willingness to Pay (WTP)
    - Contributing factors to Adoption and WTP

        - Positive influence
            - Technology savviness
            - Choice reasoning
            - Belief in on-demand services
            - Interest in mobility for non-drivers
            - Education: college or bachelor degree
            - Regular trip distance (miles): 15-30
            - Regular trip parking fee (dollars): > 30
        - Negative influence
            - Unwillingness to share travel with strangers
            - Trust and data privacy concerns
            - Joy of driving
            - Employment type: unemployed
            - Education: graduate
            - Income: $0-$50k
            - Online shopping: never
            - Regular trip distance (miles): 5 or less
- Ridesourcing Adoption
    - Older millennials (below 40) with higher educational status were more likely to use ridesourcing services than other groups.
    - Individuals with high parking fare and parking time were associated with higher usage of ridesourcing.
    - Technology savviness and choice reasoning positively affects the usage of ridesourcing; while trust issue showed negative influence.
- Switch to Ridesourcing
    - Lower incentives
        - Younger than 25, or between 55 and 59
        - Low income (less than $50k)
        - Low education
        - Asian
        - Mobility choice reasoning
        - Financial concerns of private vehicle ownership
        - Non-financial concerns of private vehicle ownership (prefer other modes, lack of parking, etc.)
    - Higher incentives
        - Between ages 30 and 39
        - Male
        - Associate degree
        - Self-employed
        - High income ($125-150k)
        - Highly auto-dependent individuals
        - Utility of private vehicle
        - Trust issues with traveling with others
        - Multi-tasking and new technology
- Mode Choice: Stated Preference Scenarios
    - Conventional modes
        - Low education (less than BS)

        - White
        - Retired
        - Habit with private vehicle
        - Short parking time
        - Habit with transit
    - Exclusive ride
        - Age 30-34
        - Hispanic, Black
        - Full time employment
        - High income ($175-$200k)
        - Social and school trips
        - High parking fare
        - High parking time
    - Shared ride
        - Younger than 55
        - Mid-income ($50-$100k)
        - High parking fee
- Transit vs. Ridesourcing
    - Transit
        - Prefer alternative modes
        - Private vehicle utility
        - Male
        - Low income (< $50k)
    - Exclusive ride
        - Tech savvy
        - Time sensitive
        - On-demand
        - Mobility for non-drivers
        - Full time employment
        - High household income ($100k +)
    - Shared ride
        - Efficiency and technology
        - Automation
        - Ownership cost
        - Mid-income
        - Lower education
- One outcome of this study will be determining how to incorporate these findings into the modeling framework via coefficients and an approach of how to create and test coefficients for different scenarios
    - There are different levels of market penetration, etc.

Item 4: Metadata Questions from 2019 Full Model Task Force Meeting

- A small working group within the Committee generated a list of items to be included in a metadata file for newly uploaded models.
- Dan Macmurphy put the metadata list to the test with the District 1 Regional Planning Model.
    - Wanted to distill the key pieces of information to a couple of pages, to avoid having model users sift through 20-30 page documents to find the information.
        - However, once filled out, it became lengthy.

        - The full list could potentially be used as an appendix in the model documentation.
    - Frank Tabatabaee proposed making some fields Required and rest Optional where the optional fields can be entered at later dates.
- North Florida TPO has a Wiki page with the information, could the same be done for FSUTMS?
    - http://northfloridatpo.com/modelwiki/NFTPO_Model
    - Users can access any and all information.
- A Wiki page would be more accessible than a separate metadata file.
    - Terry Corkery to work with Dan Macmurphy and Denise Bunnewith to condense the list and explore the option of a Wiki page for Florida models.

Action Item:

- **Terry Corkery to work with Dan Macmurphy and Denise Bunnewith to condense the list and explore the option of a Wiki page for Florida models.**

Item 5: Priority List Review from Past Meeting

- Need to revisit our priority rankings for the upcoming year(s).
- Items 1, 2, and 5 from the current priority ranking list have been complete.
- Item 4, smart phone data for household travel survey, is ongoing and the data changes daily.
    - Would like to focus on this item and continue to have it as a priority
- Would like to address origin-destination (O-D) data with a new a subcommittee on Big Data.
    - Need to discuss how we can get O-D data, but O-D household travel survey data is very difficult to get due to the cost of their implementation and response rates.
    - Need to find a supplement or surrogate for our traditional household travel surveys.
        - Unsure if probe data is the right resource, but it's something that the Committee needs to take a look at as either a primary or supplementary source.
    - Will begin with O-D data and move forward from there with four to five volunteers to head the cause:
        - Patricia Tice
        - Denise Bunnewith
        - Rob Schiffer
        - Xia Jin
        - Dan Macmurphy
        - Daniel Miller
- Theoretically, we should be able to get O-D data for multiple modes (scooters, shared rides, etc.) within Transportation Network Companies (TNCs).
    - Currently, it's a small portion of O-D data, but it's going to be increasing over time, making it more difficult to capture O-D data.
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Action Item:

- **After the new year, Gary Kramer will gather the subcommittee volunteers to begin work on examining household travel surveys and O-D data mentioned above.**

Item 6: Origin/Destination Study, Statewide Research Needs Assessment

- Covered within Item 5

Item 7: Comments

- If there could be some standardization of turning movement counts, it might make it easier to catalog and utilize this data.

Meeting adjourned at 11:59am