Presented by: Jeffrey Tumlin
March 19, 2018
How do we use transportation performance metrics?

- Improving efficiency of system operations
- Managing a given street or intersection
- Prioritizing funding
- Measuring impact of new development
- Imposing development fees
- Reporting to state agencies
- Reporting to the public
What is transportation for?

- Transportation is not an end in itself
- It is merely a means by which we support individual and collective goals and objectives
- Transportation’s biggest roles:
  - Access to opportunity
  - Land value
  - Public health
Best practice

- Focus on outcomes.
- Use available or easily collectable data.
- Use the shortest list of metrics that reflect all values. Some metrics cover many values.
- Understand metrics used for prediction or reporting.
- Apply extra effort on key differentiators.
- Focus on tensions:
  - Safety versus speed
  - Bikes versus transit
  - Throughput versus economic development
- Game through unintended consequences.
- Don’t let the perfect be the enemy of the good.
<table>
<thead>
<tr>
<th>Corridor</th>
<th>Community</th>
<th>2.1: Supportiveness of Existing Local Land Use</th>
<th>2.2: Local Aspirations</th>
<th>2.3: Planning and Urban Form</th>
<th>2.4: Ridership Generators</th>
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<th>2.6: Integration with Regional Transit System</th>
<th>2.7: Congestion Avoidance</th>
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<th>2.9: Housing + Transportation Affordability Benefit</th>
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<th>Deliverability</th>
<th>Total Funding Potential</th>
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Health and Safety

- TBD – depending from County Health data
- High injury corridor/intersection
- Trail gap closure (missing or dysfunctional connection)
- Sidewalk gap closure
- Sidewalk condition (pavement condition, dimensions, and lighting)
Bike Gaps

Commute Biking Flows & Bike Accessibility
Number of Work Trips per Road Segment

No Bike Facility

Existing Bikeable Trails

Downtown Inset
Collisions
Severe Injury and Fatality Collisions

SEVERE TRAFFIC COLLISIONS

Severe Auto Collisions (2011 - 2015)
- Bicyclist/Pedestrian Fatality
- Bicyclist/Pedestrian Severe Injury
- Other Fatality
- Other Severe Injury

Speed Limits (MPH)
- 81 - 70
- 61 - 60
- 41 - 50
- 31 - 35
- 21 - 25
- 0 - 20

The number of traffic fatalities per 100,000 people dropped from 6.5 in 2012 to 3.7 in 2014—almost half the state average.

41
Severe collisions without fatalities
One involving pedestrians

17
Fatal collisions
Three involving pedestrians

Data Source: Fayetteville GIS
Collision Density – Pedestrians and Cyclists

Density of Traffic Collisions Involving Pedestrians & Cyclists

- 52 collisions involving a bicyclist in Fayetteville were reported from January 2011 through December 2015.

- 121 collisions involving a pedestrian in Fayetteville were reported from January 2011 through December 2015.

Source: City of Fayetteville
Economy

- CityPlan future land use centers and corridors implementation
- Corridor person delay (if available; weight more than vehicle delay)
- Corridor vehicle delay
Environment

- Shade – tree canopy on major walk + bike routes
- Stormwater – for now: mapped service request alignment (later: Stormwater Management Plan alignment)
- Per capita VMT
Equity

- Free and reduced price lunch school proximity (destination)
- School age children in poverty (origin)
- Access to school gap analysis
- Pedestrian access to Razorback/ORT bus stops from major employment
- Proximity to senior population and destinations
- Accessibility for disabled
School Accessibility

Walking Accessibility from Residential Areas to Schools

- Elementary School
- School District Boundary
- Direct Connection from Residential Area to School
- No Direct Connection from Residential Area to School
- Ward Boundary

Data Sources: Fayetteville GIS
Transit Accessibility – walkability to major employment

HOW ACCESSIBLE IS PUBLIC TRANSIT?

Transit Stop Accessibility (2016)
- 5 Min Walkshed from Transit Stops
- 15 Min Walkshed from Transit Stops
- Clark Regional Transit (60 min. Frequency)
- University of Arkansas
- Razorback Transit (30 min. Frequency)

Note: The walkshed has been calculated with the existing sidewalk and crosswalks.

HOME
- 24% Population within five-minute walk of a bus stop

WORK
- 25% Jobs within five-minute walk of a bus stop

- 41% Population within fifteen-minute walk of a bus stop

- 40% Jobs within fifteen-minute walk of a bus stop

Data Source: Portland GIS
Delivery

- Project readiness
- Paving and utility program coordination
- Funding partner opportunity
THANK YOU!

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