

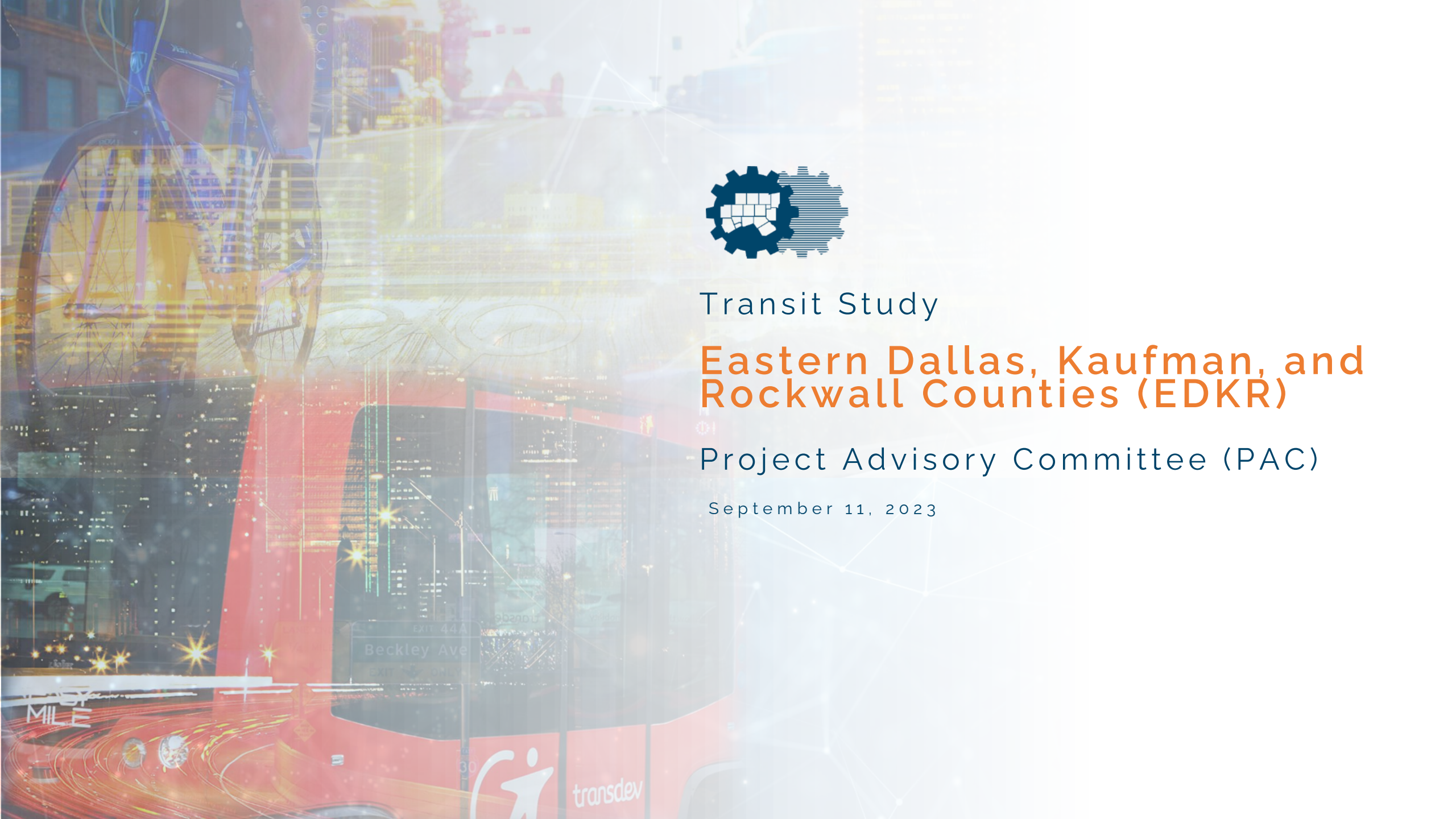


Transit Study

Eastern Dallas, Kaufman, and Rockwall Counties (EDKR)

Project Advisory Committee (PAC)

September 11, 2023



AGENDA



Welcome and Introductions



Study Background and Progress to Date



Study Area Travel Patterns



Transit Market and Needs Analysis



Phasing & Upcoming Schedule



Next Steps



Q&A



Welcome and Introductions



Introduce yourself
in the chat:

- ✓ Name
- ✓ Affiliation
- ✓ Role



Project Overview and Update



BACKGROUND: TRANSIT STUDIES

Request Received from Mesquite in 2019

- Balancing Transportation Needs
- Addressing Equity
- Member/Non-Member Cities Considerations

Transit Studies Based on Common Framework

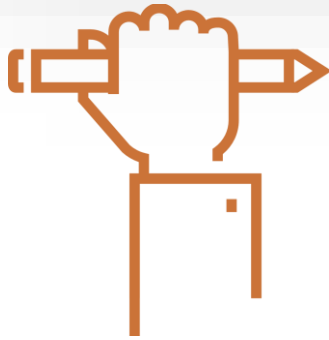
- *Three* Completed (Collin, S. Dallas, Tarrant Counties)
- *Two* Underway (Denton, EDKR Counties)

| Common Elements | EDKR |
|--|------|
| Internal and regional connections | ✓ |
| Strategic implementation | ✓ |
| Near-term horizon (now to 10 years) | ✓ |
| Increase transportation options and innovation | ✓ |
| Funding options | ✓ |
| Private sector involvement | ✓ |

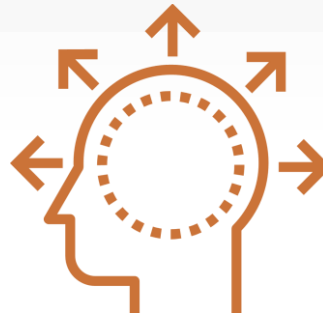


STUDY PURPOSE

Develop a comprehensive approach to planning and implementing transit services outside of transit authority services areas.



**Implement Near-Term
Strategies**



**Review Transportation
Options**



**Identify Funding
Options**



Project Advisory Committee Meeting #3 Objectives

Provide update on project status



Ensure communication with correct stakeholders



Provide overview of study area and regional travel patterns



Share and discuss results of transit market and needs analysis



Lay out next steps in the project timeline



Highlight future opportunities to provide input and public engagement



PROJECT OVERVIEW

Timeline:

- 0-5 Years, up to 10 years

Geography:

- Eastern Dallas, Kaufman, Rockwall Counties (Outside of DART service area)

Audience:

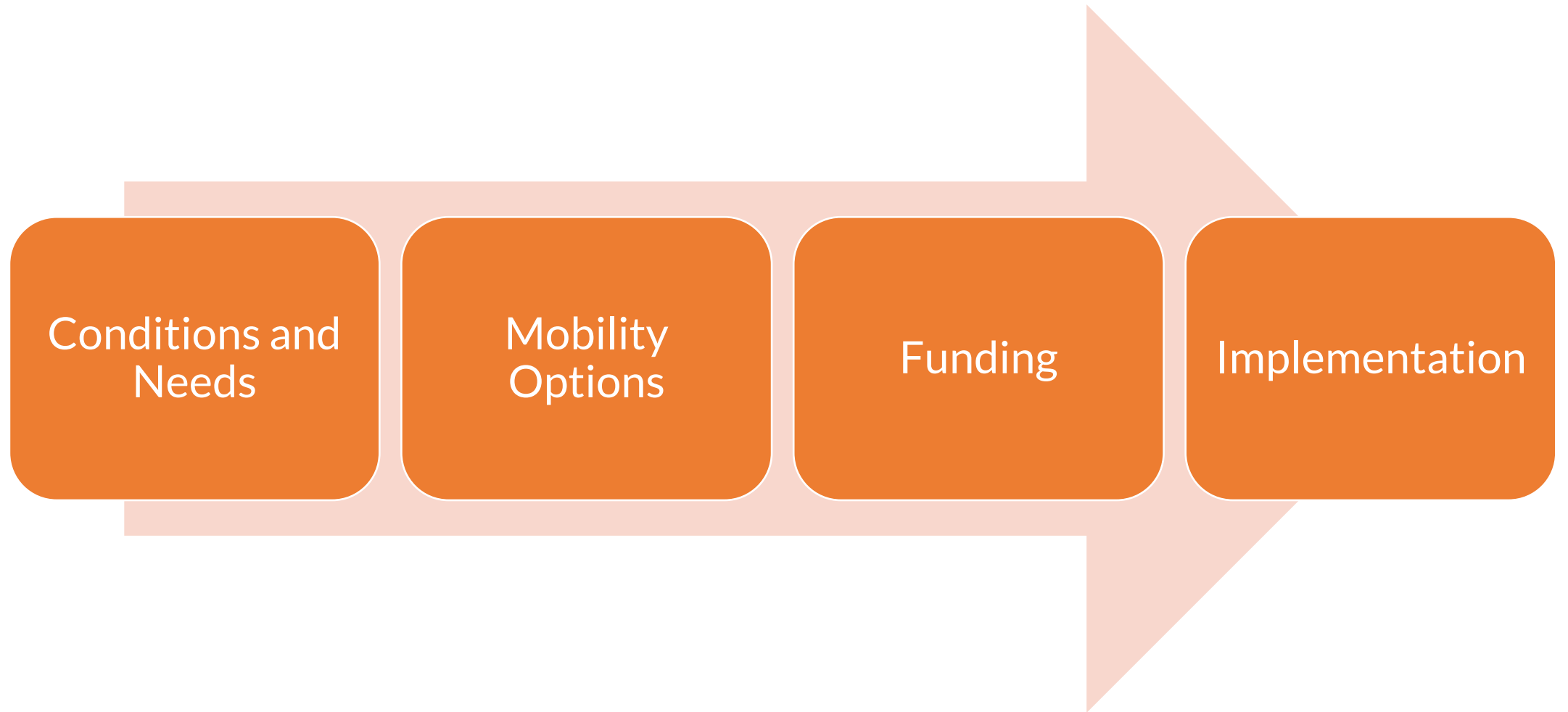
- Municipalities and Transit Agencies

Outcomes:

- Mobility Options and next steps



PROJECT OUTCOMES



Project Timeline

| | |
|-----------------------------|--|
| PAC Meeting #1 (Kickoff) | • June 27th, 2022 |
| Virtual Public Meeting | • September 19th, 2022 |
| PAC Meeting #2 | • January 19th, 2023 |
| In-person Public Meeting #2 | • February 28th, 2023 (Rockwall) |
| PAC Meeting #3 | • September 11 th , 2023 |
| In-person Public Meeting #3 | • September 26 th , 2023 (Mesquite) |
| Project Report-outs | • February 2024 |
| Study Complete | • March 2024 |



Study Area & Regional Travel Patterns



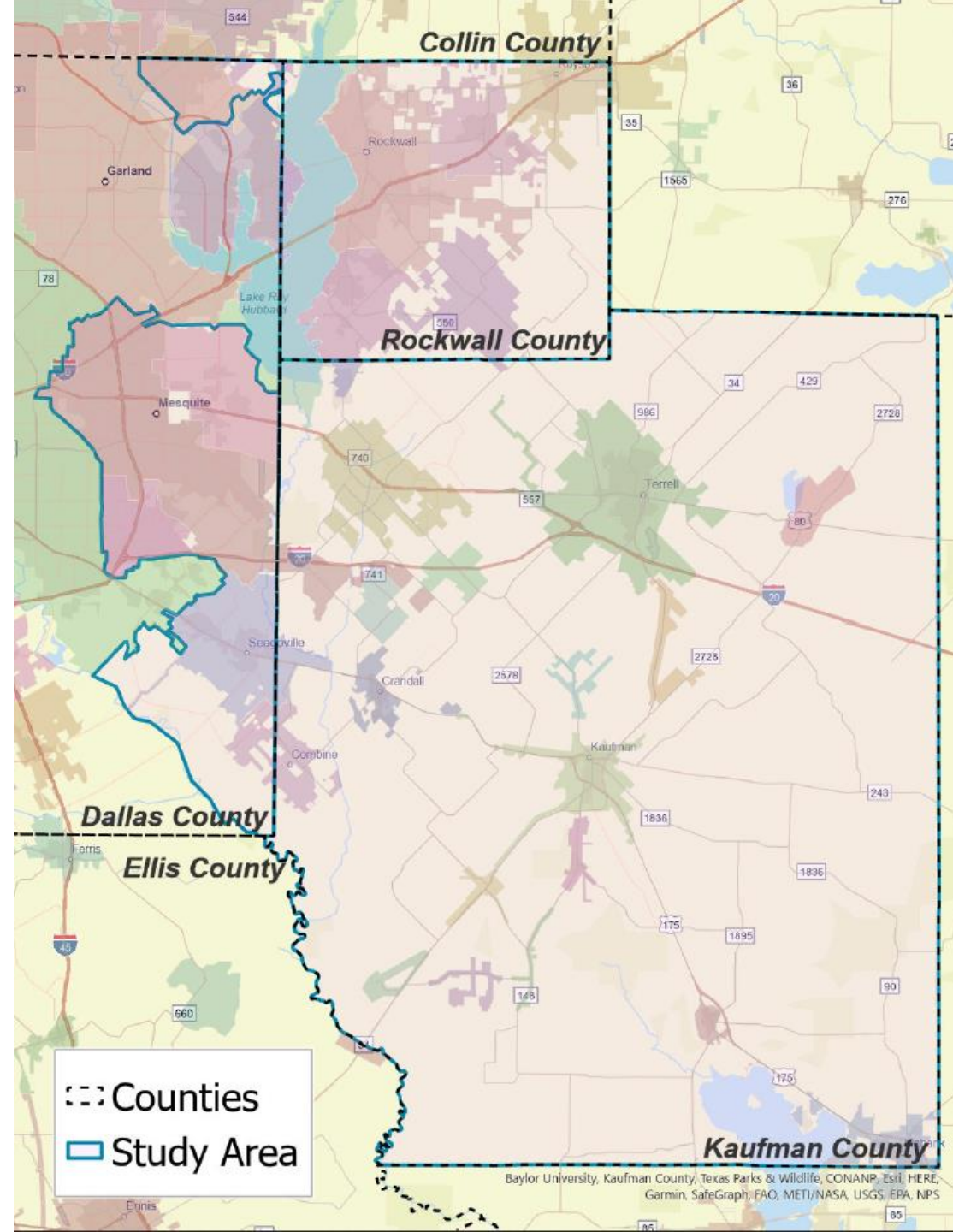
Study Area

Focus Areas

Non-Member Cities

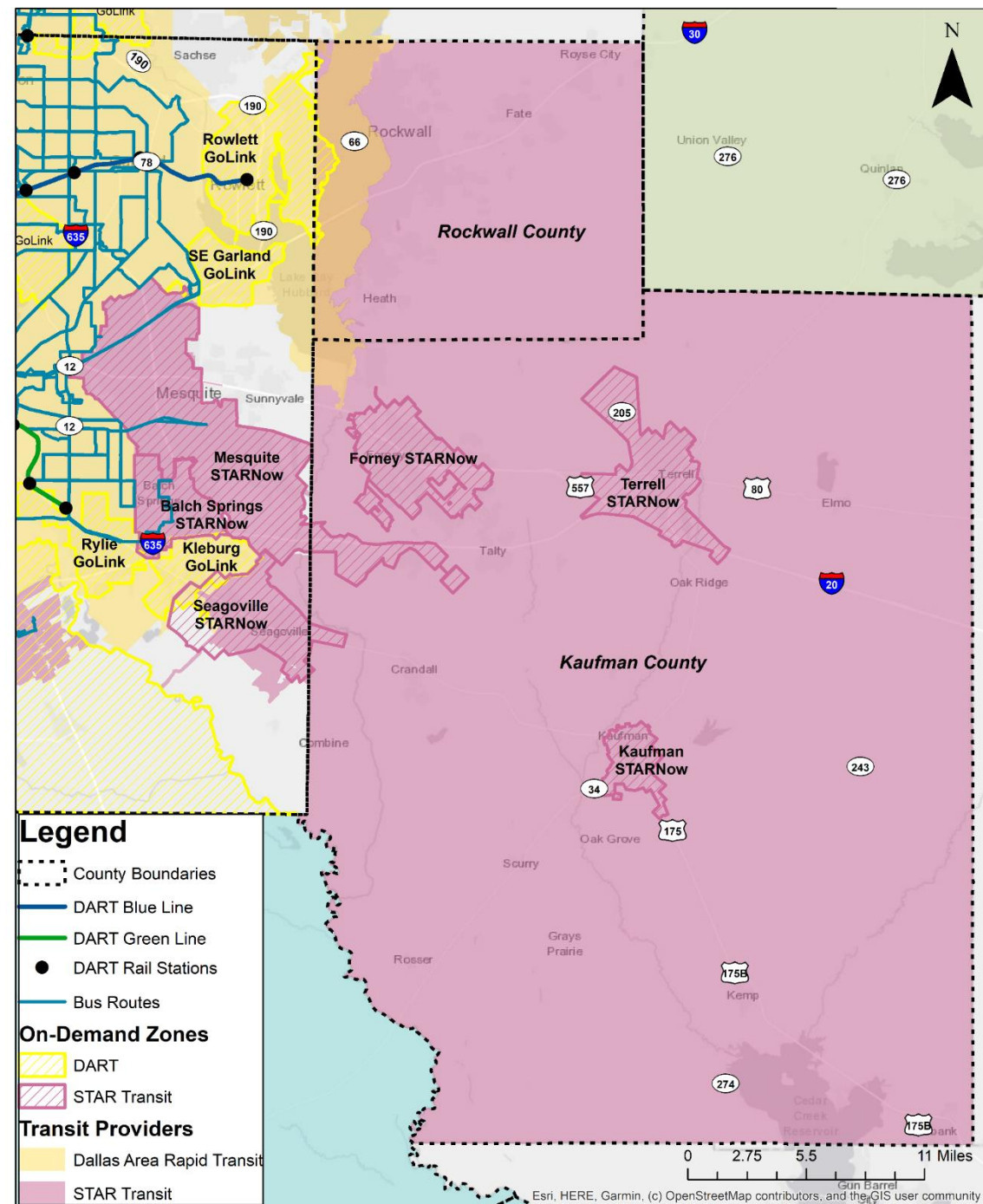
Existing Providers

DART, STAR Transit

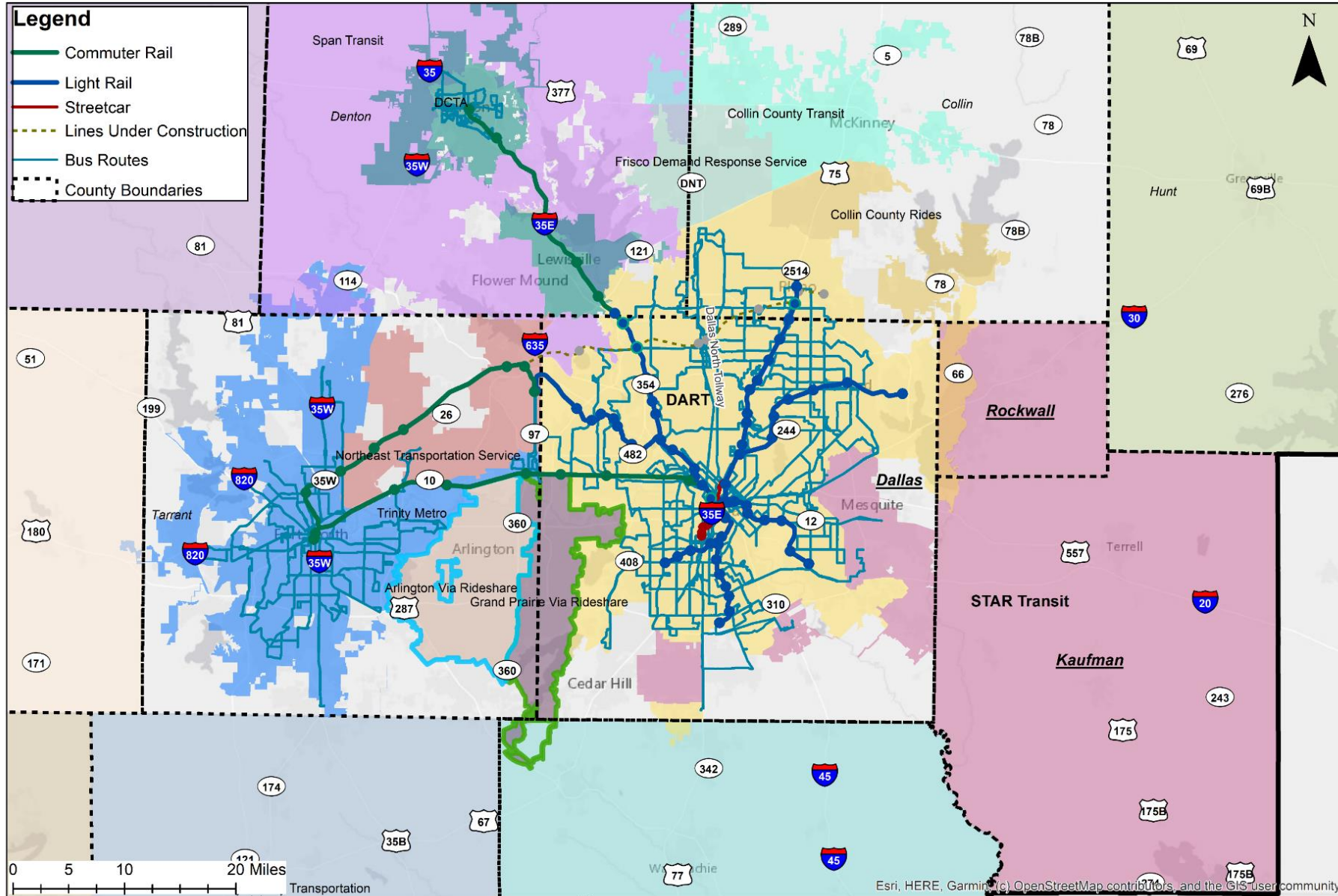


Existing Transit Services

- Fixed-Route Bus
- Light Rail
- On-Demand Transit
- Demand Response
 - Dial-A-Ride/Paratransit offered in most of study area



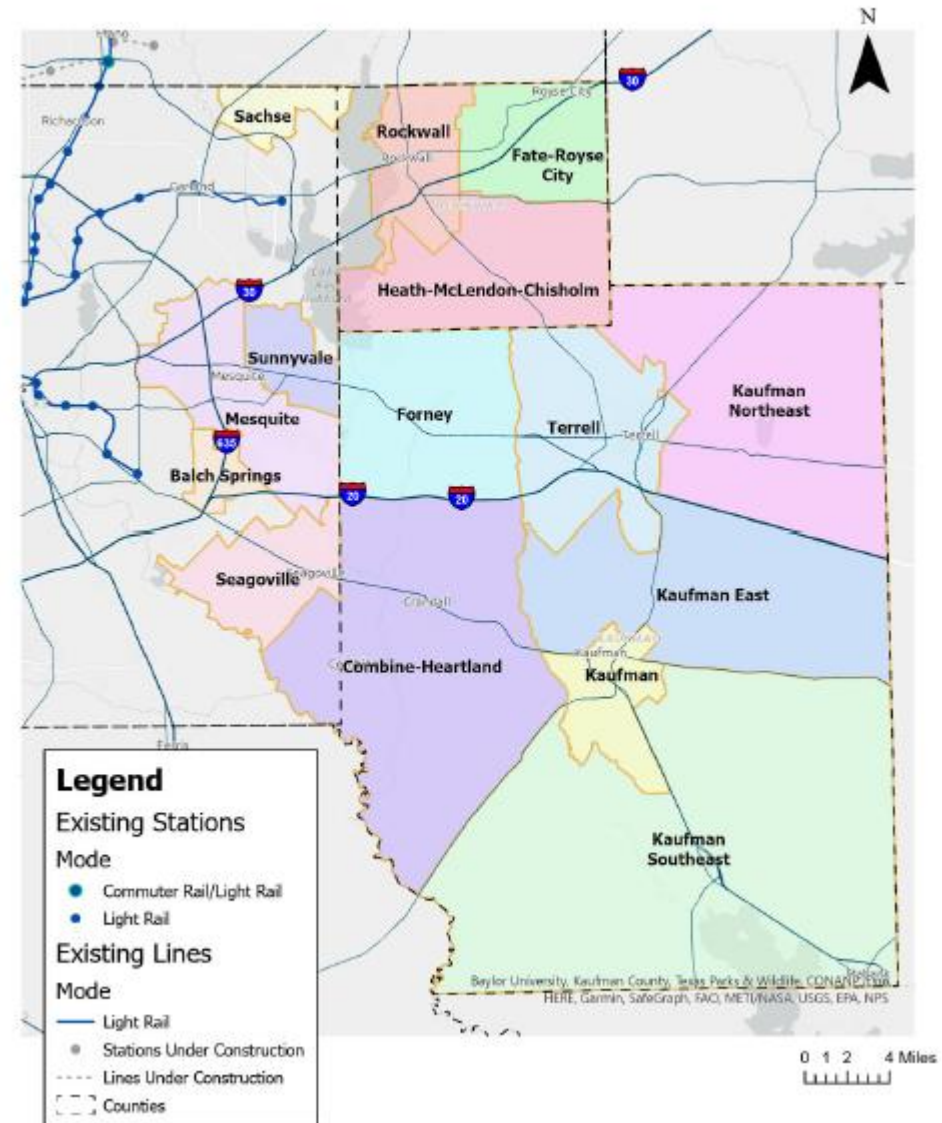
Regional Transit Services



Location Based Data and Analysis Sectors

- Analysis utilizes Transit Analysis Zones (TAZ) as boundaries within the study area
- TAZ boundaries were drawn using Census Block Groups and population clusters
- Analysis utilizes anonymized Location Based Data (LBS)
- LBS data are collected by GPS applications running either in the background or foreground on smartphones, where the device user has opted to allow access to the app to track the device's geographic location. The data are anonymized so that information cannot be tracked to a particular phone number.

EDKR Study Sectors

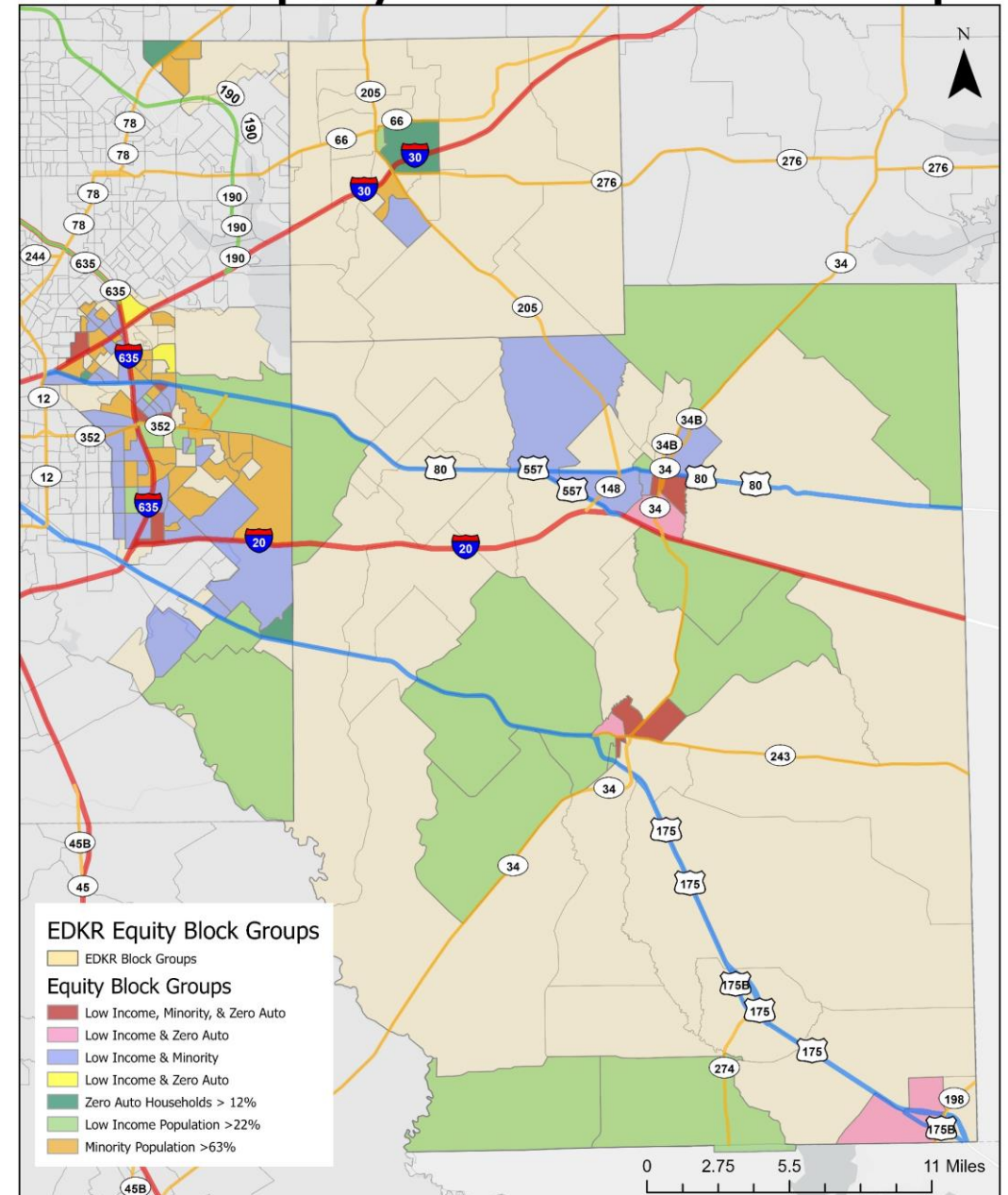


Travel Patterns Analysis Overview

Final report will include the following travel pattern analyses:

- Travel patterns by day, purpose, and distance
- Trip flows by sector
- Equity zone travel patterns
- Intercounty travel patterns

EDKR Equity Zone Block Groups



Regional Weekday Trip Patterns

Destination

Origin

| Sectors vs Counties | Study Area | Rest of Dallas | Collin | Denton | Ellis | Hill | Hood | Hunt | Johnson | Parker | Tarrant | Wise | Rest of Rockwall |
|-------------------------|------------|----------------|-----------|-----------|---------|--------|---------|---------|---------|---------|-----------|---------|------------------|
| Study Area | 931,339 | 361,357 | 54,448 | 9,027 | 5,849 | 394 | 149 | 17,649 | 678 | 483 | 22,626 | 168 | 5,660 |
| Rest of Dallas | 299,817 | 6,765,129 | 388,020 | 195,959 | 53,360 | 1,656 | 1,252 | 8,292 | 7,559 | 4,008 | 474,328 | 1,901 | 7,679 |
| Collin | 39,690 | 537,711 | 2,667,675 | 154,814 | 2,595 | 348 | 230 | 9,025 | 678 | 650 | 56,786 | 539 | 1,063 |
| Denton | 7,954 | 396,033 | 282,142 | 2,030,951 | 1,936 | 306 | 339 | 941 | 1,354 | 1,675 | 164,591 | 8,946 | 120 |
| Ellis | 6,154 | 90,509 | 3,738 | 2,312 | 419,109 | 2,355 | 162 | 308 | 5,915 | 506 | 32,490 | 141 | 37 |
| Hill | 188 | 1,957 | 228 | 192 | 2,529 | 76,281 | 183 | 19 | 7,239 | 278 | 3,749 | 44 | 0 |
| Hood | 169 | 2,075 | 340 | 484 | 322 | 195 | 149,103 | 15 | 4,299 | 6,587 | 16,589 | 165 | 0 |
| Hunt | 29,750 | 17,293 | 14,658 | 1,197 | 340 | 48 | 7 | 236,901 | 73 | 89 | 2,178 | 55 | 442 |
| Johnson | 819 | 14,950 | 1,047 | 2,119 | 8,420 | 3,924 | 3,707 | 104 | 356,938 | 2,812 | 133,709 | 374 | 5 |
| Parker | 378 | 6,910 | 724 | 2,542 | 440 | 217 | 4,926 | 42 | 2,551 | 305,591 | 97,269 | 6,260 | 4 |
| Tarrant | 17,218 | 566,512 | 46,901 | 133,846 | 20,574 | 2,361 | 8,312 | 1,337 | 83,464 | 53,096 | 6,115,282 | 14,640 | 158 |
| Wise | 181 | 4,469 | 706 | 14,527 | 181 | 56 | 212 | 21 | 467 | 8,829 | 28,963 | 151,009 | 2 |
| Rest of Rockwall | 8,300 | 10,038 | 1,525 | 153 | 28 | 2 | 1 | 271 | 7 | 7 | 305 | 2 | 3,392 |



Overall Weekday Trip Flows by Sector

Destination

| Travel Analysis Zones | Rest of MPA | Balch Springs | Combine-Heartland | Fate-Royse City | Forney | Heath-McLendon-Chisholm | Kaufman | Kaufman East | Kaufman Northeast | Kaufman Southeast | Mesquite | Rockwall | Sachse | Seagoville | Sunnyvale | Terrell |
|-------------------------|-------------|---------------|-------------------|-----------------|--------|-------------------------|---------|--------------|-------------------|-------------------|----------|----------|--------|------------|-----------|---------|
| Rest of MPA | 23,561,570 | 33,656 | 4,658 | 17,550 | 14,432 | 11,245 | 2,848 | 2,377 | 2,235 | 2,982 | 192,793 | 56,039 | 32,907 | 17,768 | 6,202 | 12,925 |
| Balch Springs | 35,148 | 21,578 | 286 | 89 | 764 | 80 | 103 | 96 | 13 | 71 | 17,255 | 392 | 64 | 2,112 | 320 | 371 |
| Combine-Heartland | 14,916 | 726 | 17,490 | 86 | 7,441 | 162 | 2,220 | 571 | 115 | 1,954 | 3,740 | 578 | 51 | 3,893 | 196 | 2,023 |
| Fate-Royse City | 26,324 | 74 | 55 | 18,445 | 412 | 2,670 | 20 | 58 | 63 | 18 | 1,904 | 18,116 | 171 | 38 | 61 | 540 |
| Forney | 29,370 | 1,014 | 2,682 | 319 | 63,225 | 1,447 | 587 | 647 | 297 | 286 | 8,143 | 3,501 | 95 | 616 | 1,004 | 4,941 |
| Heath-McLendon-Chisholm | 16,235 | 133 | 70 | 2,620 | 1,543 | 21,953 | 29 | 64 | 87 | 37 | 1,741 | 21,583 | 169 | 56 | 198 | 994 |
| Kaufman | 4,135 | 91 | 794 | 50 | 662 | 63 | 16,167 | 1,250 | 141 | 3,178 | 960 | 211 | 7 | 440 | 101 | 1,665 |
| Kaufman East | 5,167 | 152 | 568 | 85 | 1,303 | 108 | 7,163 | 5,551 | 533 | 1,349 | 857 | 302 | 11 | 244 | 128 | 5,441 |
| Kaufman Northeast | 2,980 | 54 | 92 | 99 | 674 | 137 | 292 | 593 | 3,410 | 161 | 538 | 348 | 11 | 58 | 45 | 5,742 |
| Kaufman Southeast | 7,402 | 135 | 982 | 21 | 716 | 51 | 6,137 | 947 | 186 | 26,475 | 1,029 | 214 | 9 | 477 | 64 | 1,177 |
| Mesquite | 201,768 | 13,711 | 1,088 | 854 | 5,260 | 1,067 | 434 | 333 | 205 | 327 | 257,823 | 5,370 | 838 | 3,150 | 5,545 | 2,088 |
| Rockwall | 45,651 | 160 | 118 | 4,939 | 1,294 | 15,031 | 78 | 129 | 162 | 54 | 4,346 | 107,559 | 594 | 150 | 350 | 1,091 |
| Sachse | 45,636 | 63 | 12 | 92 | 95 | 114 | 24 | 7 | 9 | 4 | 766 | 1,205 | 12,073 | 22 | 22 | 91 |
| Seagoville | 23,712 | 2,374 | 1,444 | 48 | 786 | 98 | 322 | 120 | 24 | 233 | 5,823 | 202 | 29 | 19,799 | 106 | 470 |
| Sunnyvale | 8,581 | 140 | 75 | 42 | 804 | 121 | 53 | 31 | 16 | 31 | 7,849 | 533 | 47 | 71 | 5,949 | 270 |
| Terrell | 11,466 | 311 | 579 | 443 | 4,186 | 772 | 1,203 | 2,604 | 1,812 | 469 | 2,565 | 1,943 | 25 | 312 | 293 | 49,153 |

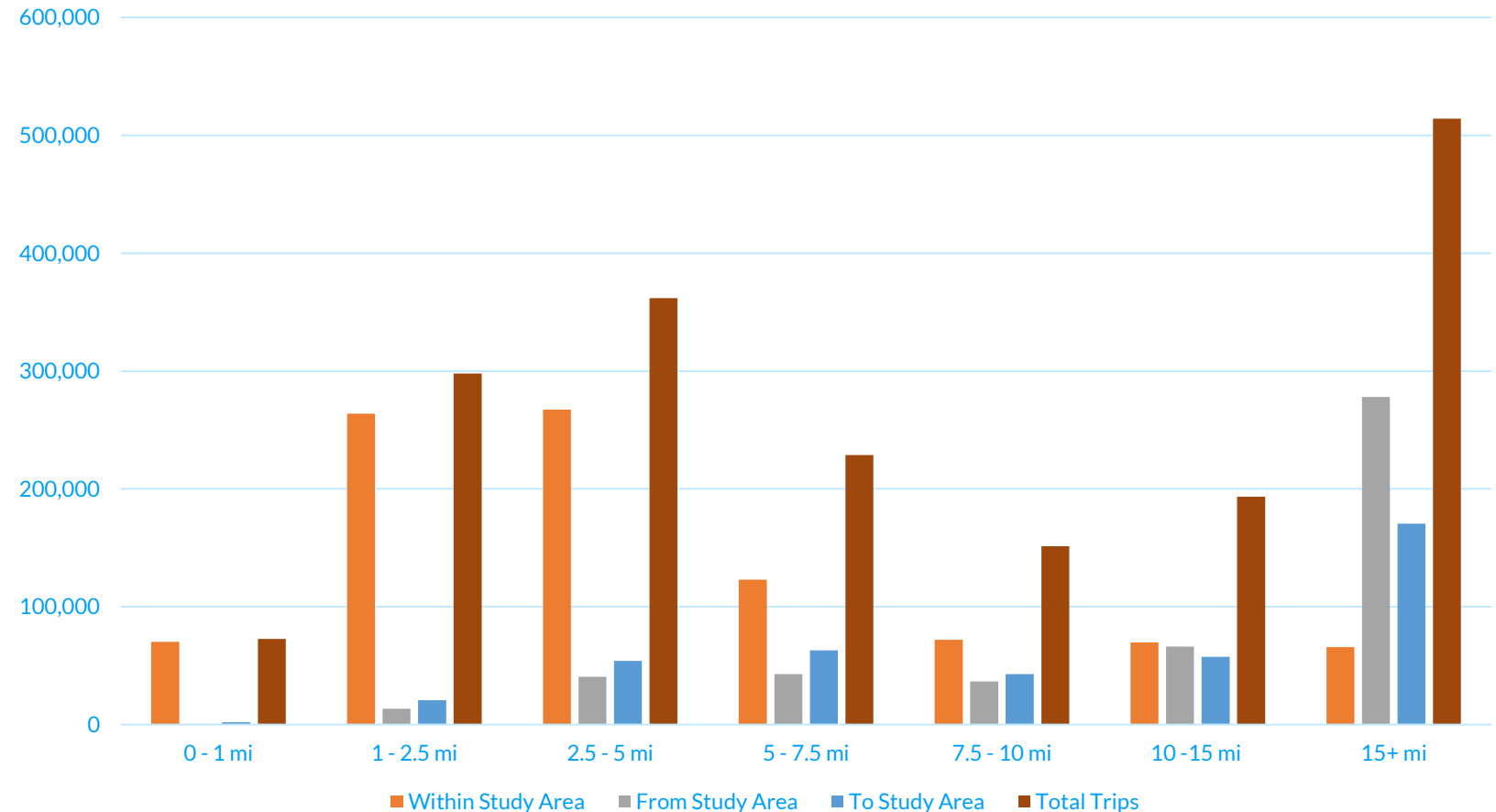
Top 20 Trip Flows



Weekday Trip Distance Distribution

Weekday Trips By Distance

- Approximately 888,000 1-7.5-mile trips occur within study area daily
- Large portion of trips are to and from the study area and are over 15 miles



Eastern Dallas, Kaufman, and Rockwall Counties Transit Market and Needs



Transit Service Types

| EDKR Transit Study Service Type | Purpose | Local Examples |
|---------------------------------|--|--|
| Demand Response | Connects lower-density areas with no fixed-route service; Origin to destination connections | STAR Dial-a-Ride |
| Mobility on Demand | Connects lower-density areas; First-mile/Last-mile connections | STARNow On-demand |
| Light Rail | Connects large distances on exclusive right of ways | DART Blue Line and Green Line |
| Local Fixed-route Bus | Connects medium-density areas for all trip types | STAR Route 101: Balch Springs Midtown Express |
| Regional Fixed-route Bus | Connects distant destinations and job centers | DART Route 383: Lake Ray Hubbard Express |



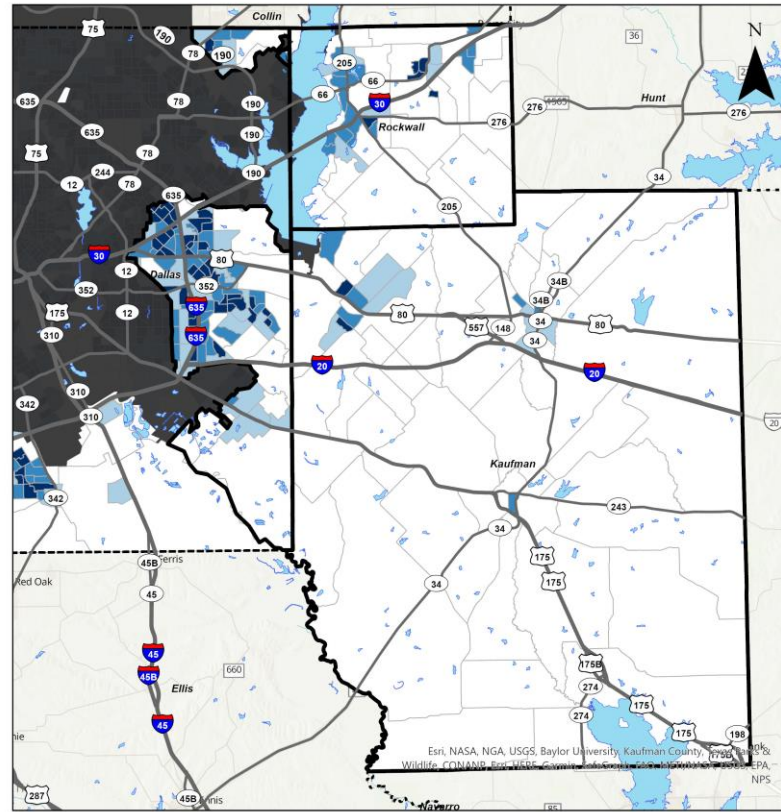
Transit Market And Needs Overview

Understanding existing needs and the potential market for transit is key to developing transit implementation scenarios

Combines travel pattern analyses with data on key population attributes

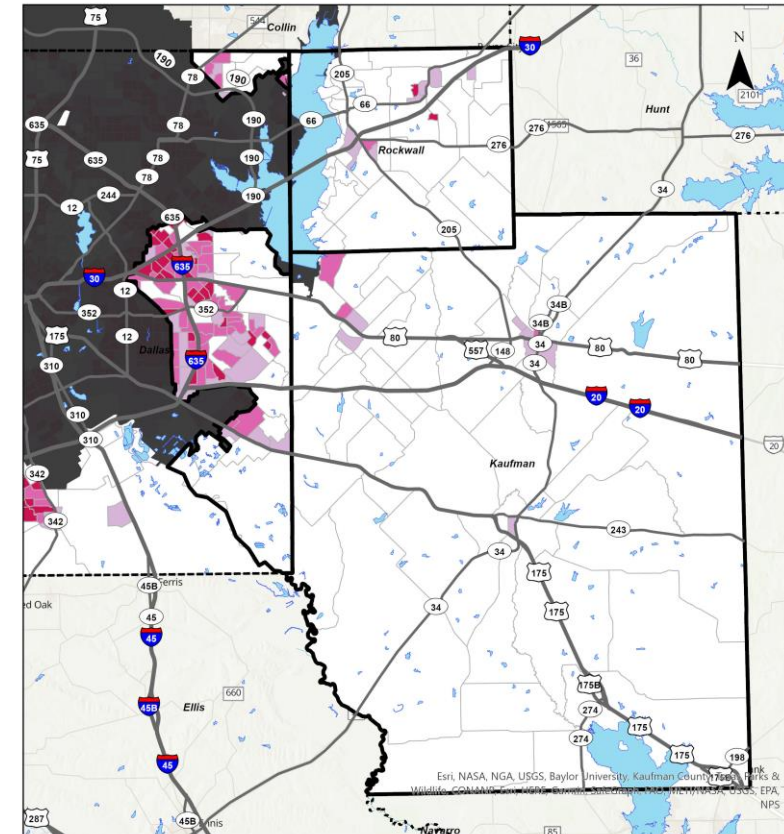
Sets a baseline for further assessment of transit modes, funding, and service delivery

Population and Employment Density



- 2 or Fewer People + Jobs Per Acre
- 2 to 4 People + Jobs Per Acre
- 4 to 8 People + Jobs Per Acre
- Over 8 People + Jobs Per Acre
- ▭ EDKR Study Area
- ⋯ County Boundaries

Equity Population Density



- 2 or Fewer People Per Acre
- 2 to 4 People Per Acre
- 4 to 8 People Per Acre
- Over 8 People Per Acre
- ▭ EDKR Study Area
- ⋯ County Boundaries

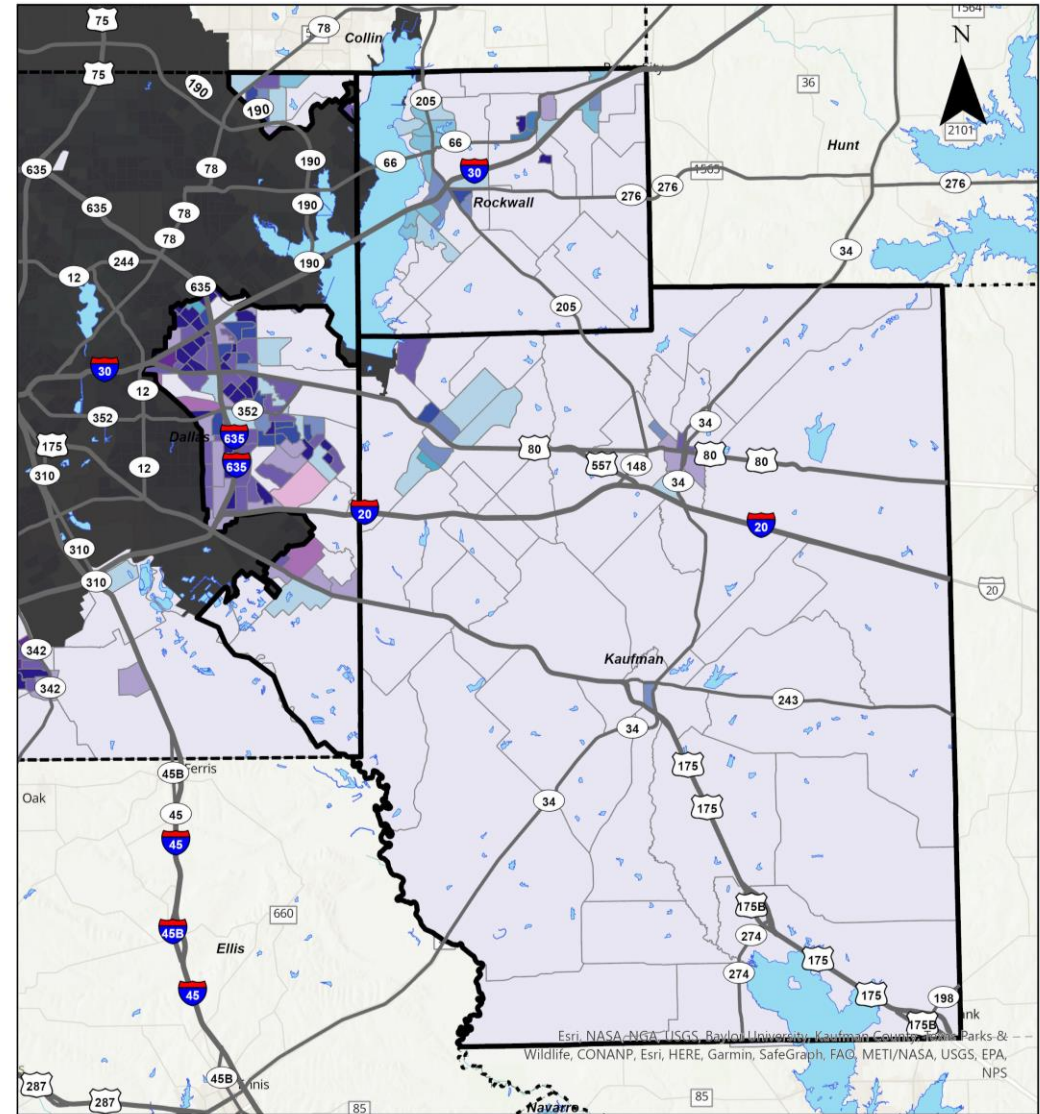


Composite Needs Assessment

Composite Needs Assessment is generated by combining population and jobs density with equity population density

Provides an indicator for the transit propensity of an area

Highlights the existing market for transit in the overall study area and specific cities and sectors

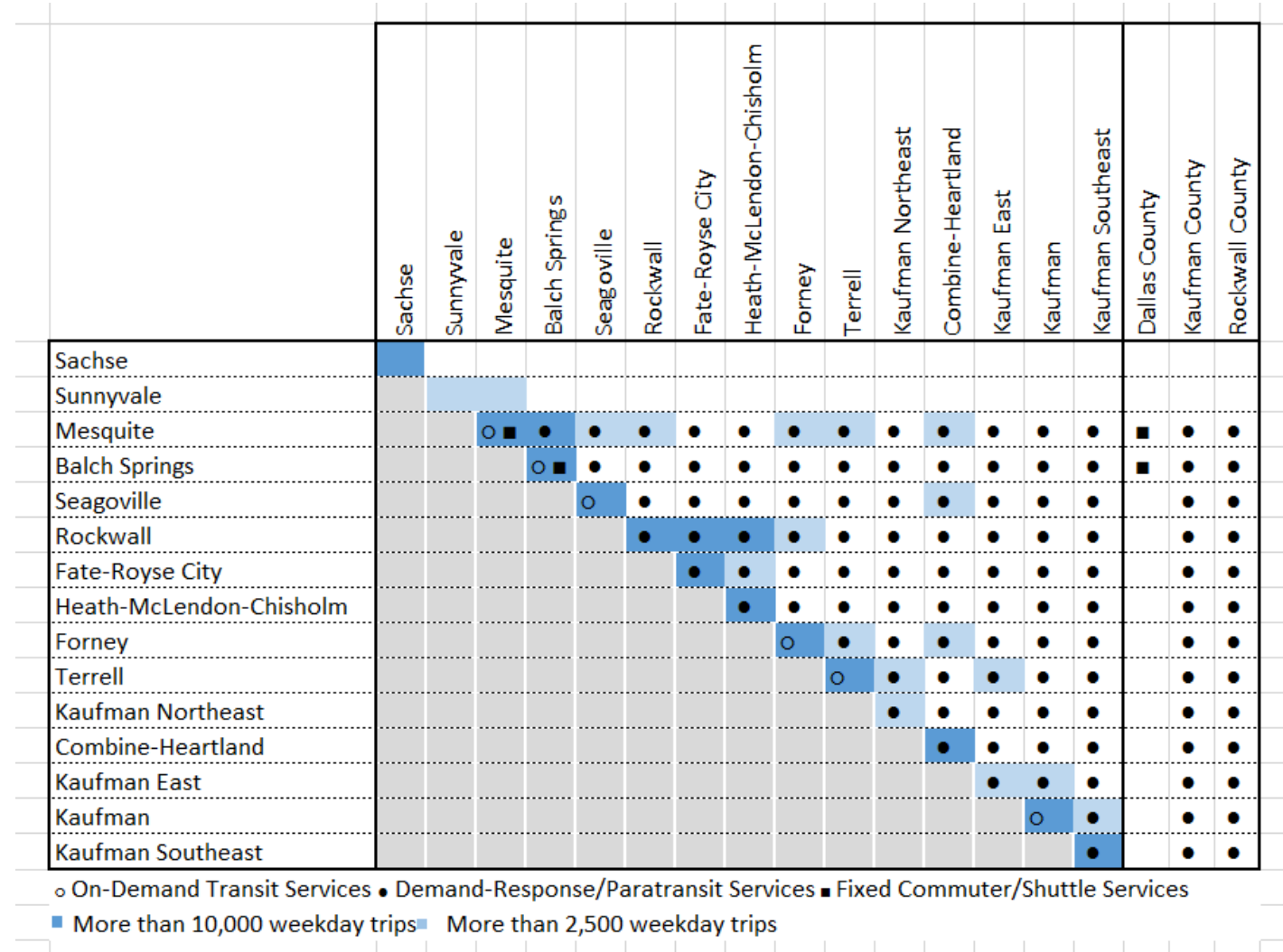


Transit Service Gaps

This chart shows the existing transit connections between the analysis sectors and highlights connections with high travel demand

Helps in identifying potential gaps in the context of travel demand

Preliminary analysis shows gaps in both local and regional transit access



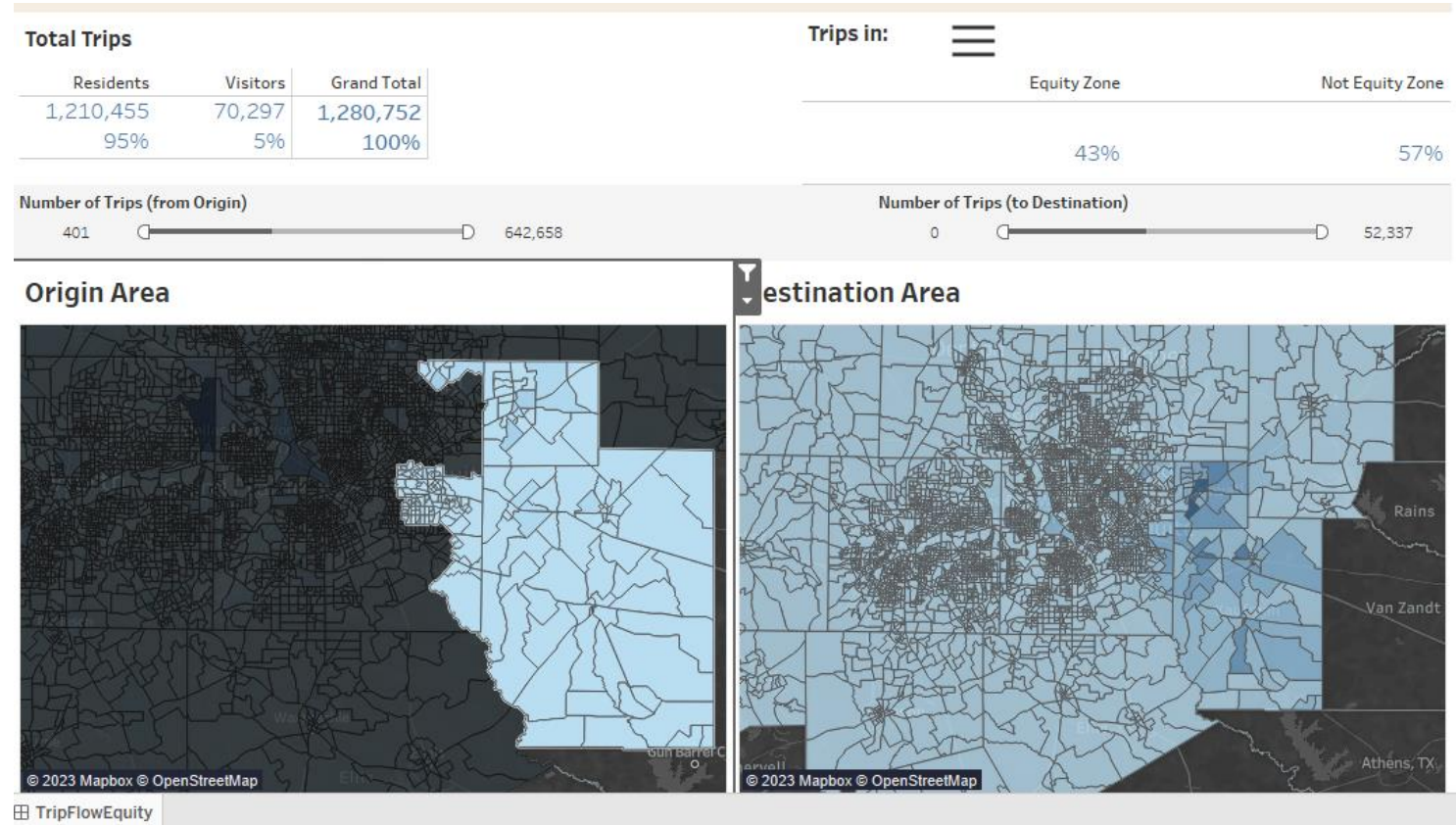
Regional Transit Needs



Specific regional transit needs can be assessed with the LOCUS dataset

The LOCUS dashboard allows for travel patterns analysis to/from specific destinations

Assessed destinations will include downtown Dallas, DFW Airport, and other regional activity hubs



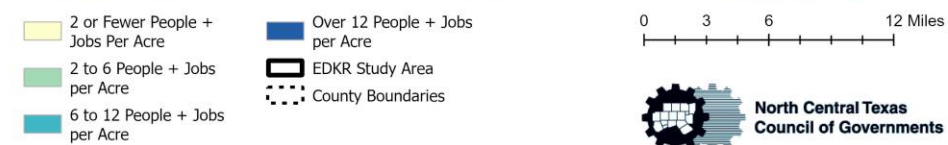
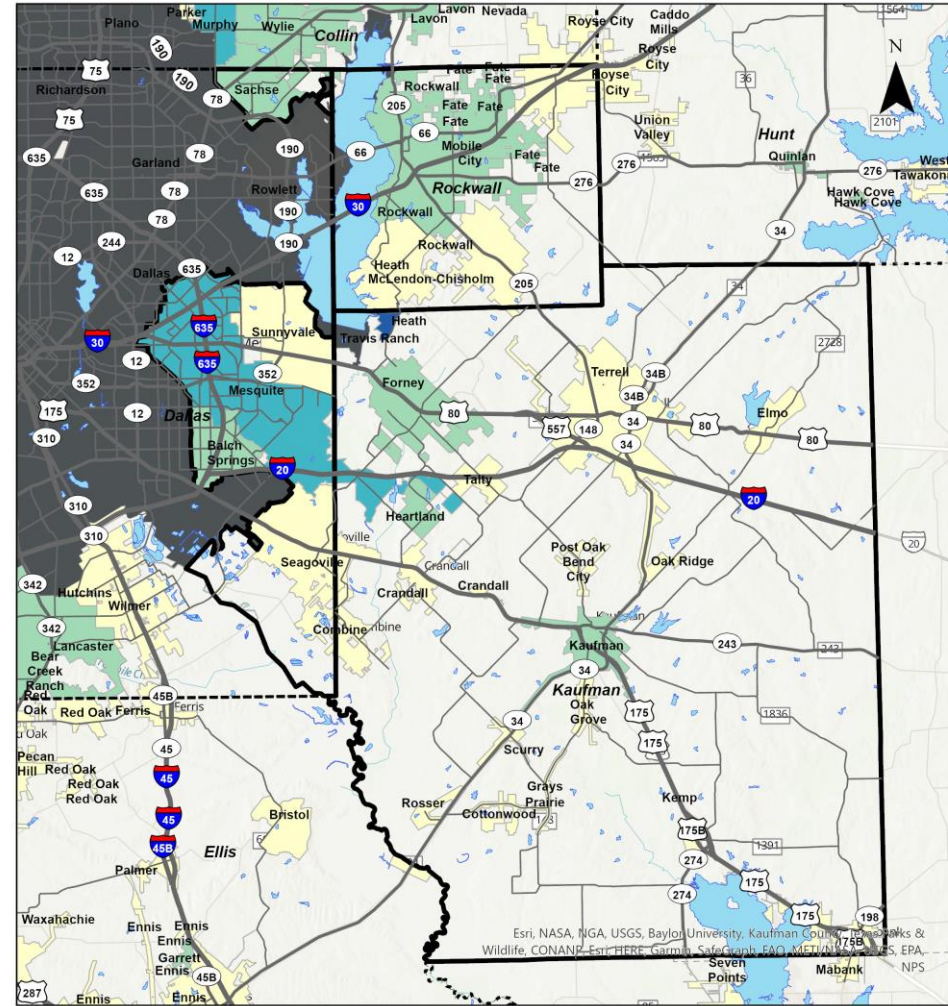
Local Transit Service Needs

Local transit needs at the city or sector level can be determined by aggregating these analyses

These local transit need areas can then be categorized in High, Medium, and Low need

These local transit need areas will be the foundation for the scenario development process

Population and Employment Density by Municipality



Phasing and Next Steps



PROJECT PHASING

PHASE 1



Comprehensive Needs & Market Assessment



Understand baseline conditions to inform scenario development and subsequent tasks (Phase 2)

PHASE 2



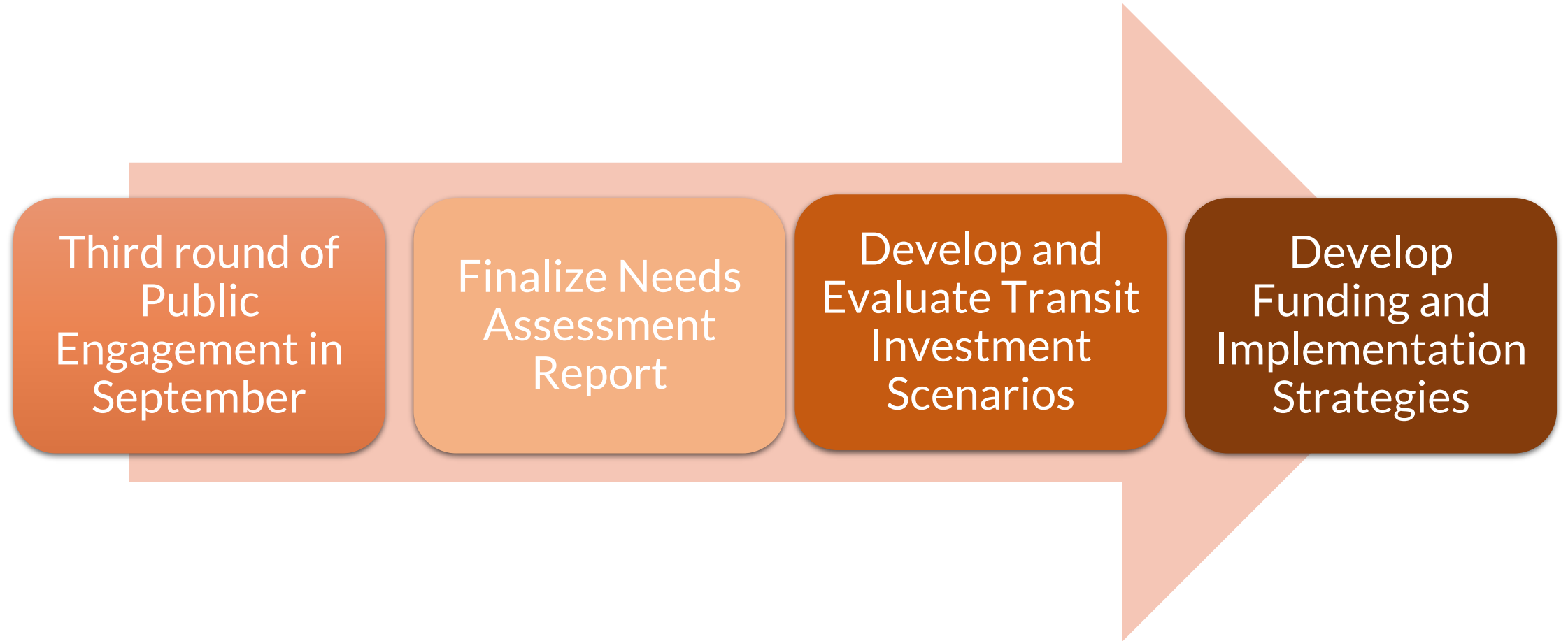
Potential Solutions & Implementation Strategies



Develop potential service scenarios based on key findings identified in Phase 1



NEXT STEPS



Discussion and Q & A



TRANSPORTATION PUBLIC MEETING

**EAST DALLAS, KAUFMAN, AND ROCKWALL COUNTIES
REGIONAL TRANSIT STUDY**

SEPT. 26 · 6 PM · Mesquite Arts Center · 1527 N Galloway Ave.

   
@nctcogtrans

Fill out our survey at:
publicinput.com/edkrsurvey



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