

Agenda



Knoxville Regional TPO 2050 MTP Update

Technical Advisory Committee (TAC) TAC#2 Meeting

February 13, 2024 @ 9 AM (City County Building, 400 Main Street, Knoxville, TN)

Meeting Agenda

1. **Welcome / Introductions** – *Today's objectives* (TPO) – 5 min
2. **Review of Schedule, Outreach, Data Needs** (Stantec) – 5 min
3. **FHWA Requirements for MTP Update** (Stantec) – 10 min
4. **Growth Trends Discussion** (TPO) – 15+ min
5. **Goal Prioritization** (Stantec + TPO) – 20 min
6. **Funding Trends** (TPO) – 15 min
7. **Action Items / Next Steps** (Stantec) – 10 min

Meeting Notes:

Attendees: 22+ see attachment.

Review of Schedule

- Timeline: approaching the transition from phase 1 (Outreach & Data) to phase 2 (Needs Assessment).
 - Phase 1 will cover a majority of the analysis, draft recommendations, and long range planning.
- Reminder of the varying outreach strategies for different stakeholders (from general/broad, to specific)
- Outreach to date has included:
 - 3,280 recipients of our emails lists / newsletters
 - 690 survey participants: would benefit from more participants who ride transit
 - 330 points of interest added to our ArcGIS Online interactive map
 - 84 focus group participants in 5 sessions (Jan 30th – Feb 1st)
 - Three (3) Community Events for Round #1
 - Monday 2/12 @ KAT: **20+** sign in participants
 - Tuesday 2/13 virtual (lunch): **16+** attendees
 - Tuesday 2/13 @ Blount County Library: **17+** sign in participants
- Reminder of FHWA requirements for an MTP update, citing local vision & goals, and future needs
- Reminder of Stantec's role: Validate – Synthesize – Integrate, with direction from regional staff

Growth Trends – Discussion

- KRTPO staff presented population & employment projections to 2050, including a comparison of data sources (US Census, CBER, and Woods & Poole), and their data variation by county
- Population growth is a function of:
 - Natural change: births – deaths
 - Net migration: people moving into the region – people moving out of the region

Observations & Discussion included the following:

- Woods & Poole projections were higher than CBER, with the exception of Knox County (<1% difference)
- Roane County projections show a decline in population for CBER data (-2k) by 2050
- Projections for Sevier County are both lower than the 2045 estimates due, and likely influenced by current housing market constraints (scarcity of homes; majority are rental units/tourism based)
- Tennessee is experiencing a slower birth rate (since 2007), as with many States



- Tennessee is experiencing a *high* in-migration rate, as with many southeastern States
 - Over the past 5-years, in-migration to Tennessee has been coming from:
 - Florida, Georgia, California, North Carolina, Virginia, Texas, Illinois, New York, & Alabama
- Charts of natural change and net migration by county were presented
- Projected growth by 2050:
 - Population: +195k residents
 - Employment: +223k employees (may double-count some two-job situations)
- Regional employment growth is expected to be largest in the 'Services' industry, followed by 'Retail'

Goal Prioritization – Discussion

- TAC members were asked to complete a brief ranking survey relating to the MTP's 8 goals in December
- Results for Small/Local and Large/Regional projects were compared with respect to previous MTP
- Public Survey (interim) results were also compared

Observations & Discussion included the following:

- Small/Local projects prioritized Safety, and Congestion Reduction higher than previous, though the relative weights (% of 100) varied by 2-3%
- Large/Regional projects prioritized Congestion Reduction, Safety, and Freight higher than previous
 - Maintenance remained highly important, though slipped from #1 to #3 ranking (-4%)
- Public was asked to rank from 1st to 8th, so there are no weighted values
 - Public agrees with the same top 3: Congestion Reduction, Maintenance, and Safety
 - Public valued Freight much lower (similar to Small/Local projects), as anticipated
 - Public valued Health & Environment higher than Preservation or Mode Choice(s), likely influenced by proximity to the Great Smoky Mountains and its tourism influence

Funding Trends – Discussion

- Prior MTP assumptions:
 - project **revenue** growth of **~+2.2% per year**
 - **inflation** cost increase of **~+3.3% per year**
 - TDOT 10-year plan assumes **~+3.8%** per year (more conservative estimate)
- Much has changed since this time: Pandemic, IIJA Federal programs; [TDOT 10-year 'Build with us'](#)

Discussion through presentation slides included the following:

- Nine (9) projects for this TPO within the TDOT 10-year plan
 - ALL would be considered 'committed' and fully funded; must be included in our first Tier/Horizon year of projects

FY2024-2026 – 3-year plan

- (2) Anderson County \$250.6M
- (8) Knox County \$33.3M

Traditional State & Federal Funding

- (R1-4) Knox County \$523M
- (R1-3) Blount County \$338.5M
- (R1-11) Knox County \$70.3M – split into three sections
- (R1-2) Blount County \$123.4M
- (SA-1) Knox County \$32M

TMA Funding

- (R1-5) Loudon County \$97.4M

General Fund Transfer (GTF)

- (GTF-06) Knox County \$61.8M

Action items:

TAC members

- Correct anything that we may have mislabeled, or described above
- Continue to promote the Survey + Interactive map: <http://knoxmobility.org/feedback>

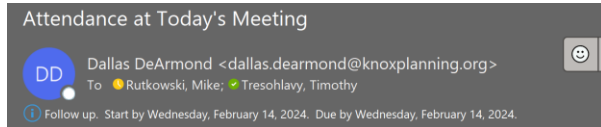
- Compile & share regional photos showing all modes of travel
- Identify and suggest community outreach opportunities in your jurisdiction – request meeting materials

Stantec team

- Facilitate and summary of feedback from Community Events – Round #1
- Summary of existing conditions/performance and synthesis of information for all modes of travel
- TAC#3 – Spring 2024 – virtual meeting

Attachments: Presentation slides

Attendees list



Good afternoon,

Below is the list of attendees at this morning's Technical Advisory Committee meeting.

- Laura Smith, ETDD
- Ekem Amonoo-Lartson, ETDD
- James Temple, Sevier County
- Patrick Berge, City of Oak Ridge
- Brian Boone, City of Maryville
- Darryl Smith, Town of Farragut
- Tom Clabo, City of Knoxville
- Troy Ebbert, TDOT
- Kathryn Baldwin, Anderson County
- Tanner Charles, Knoxville Area Transit
- Beth Collins, Lenoir City
- Karen Estes, CAC
- Dakota Gentry, City of Alcoa
- Michael Hogan, City of Loudon

- Amy Brooks, Knoxville-Knox County Planning
- Dallas DeArmond, Knoxville-Knox County Planning
- Terry Gilhula, Knoxville-Knox County Planning
- Aubrey Weiland, Knoxville-Knox County Planning
- Doug Burton, TPO
- Craig Luebke, TPO
- Mike Conger, TPO
- Emily Jackson, TPO



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Project Team



Knoxville TPO

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Stantec

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General Timeline

21-month time frame
Sept 2023 – May 2025

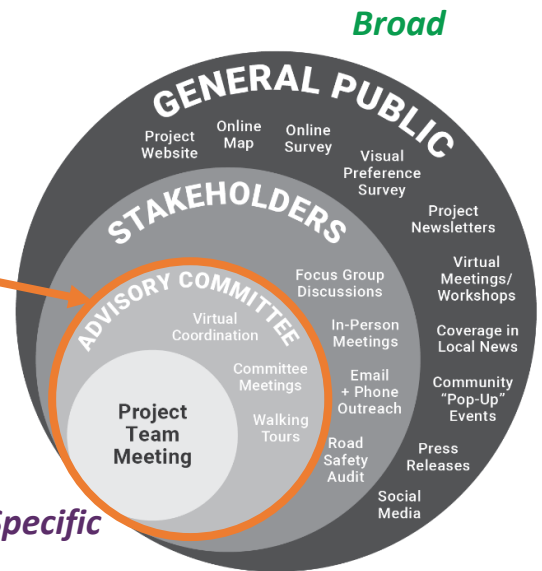
WE ARE HERE!



Outreach Strategy

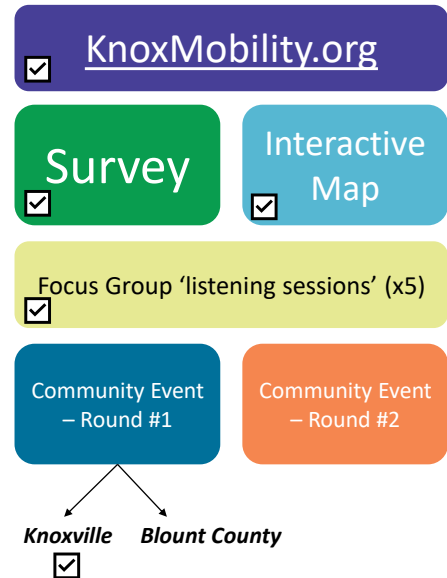
Varying scale & audience...

- Website + Online Survey + Interactive Map**
 - Digital outreach 24-hours / 7-days
- Technical Advisory Committee (TAC)**
 - Total of eight (8) – half virtual
- Community Events: two (2) rounds**
 - Issues & Vision:** citizens provide direction
 - Priorities:* citizens provide feedback
- Focus Groups: up to six (6), virtual "listening"**
 - Topics identified – need help identifying the 'who'



Outreach to date

- **3,280** email list / newsletter recipients
- **690+** survey participants
- **330+** point of interest added
- **84** focus group participants (5 sessions)
- Three (3) Community Events:
 - Monday evening 4-7 pm
 - Tuesday afternoon *virtual* 12-1 pm
 - Tuesday evening 4-7 pm



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Survey – Initial Takeaways

690
respondents

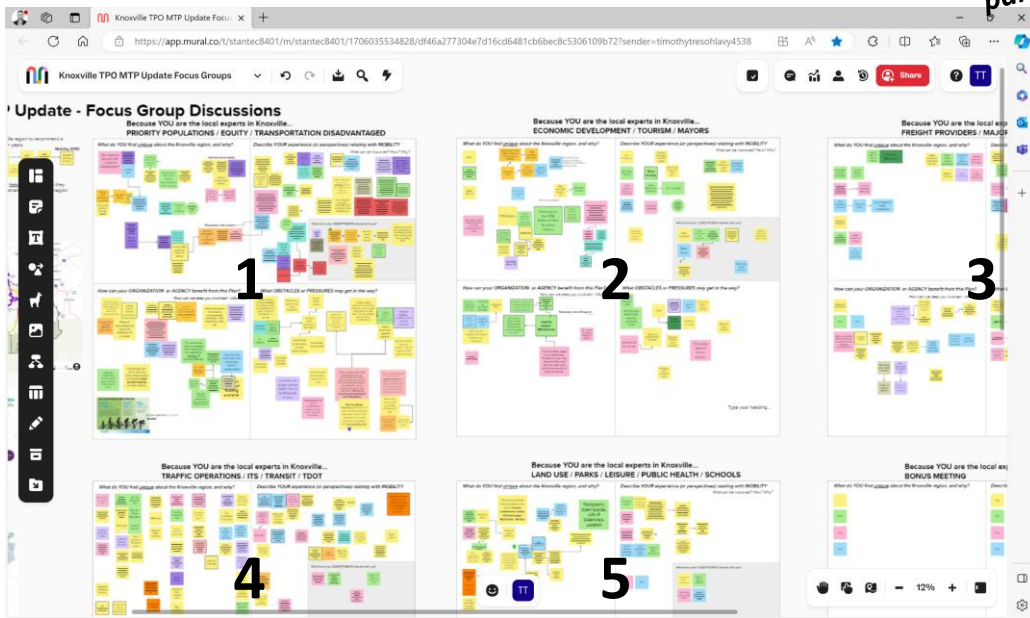
- Good mixture of age categories (30-40-50-60+ years old)
- 74% typical commute under 30-min – though 35% are '*unsatisfied*'
 - Half of respondents experience 'Heavy congestion' & feel the Transportation System in the region is '*Worse*' than 5 years ago
- CRITICAL transportation problems to address:
 1. Congestion (56%)
 2. Lack of sidewalks/bike lanes (22%)
 3. Lack of transit service (9%)
- Prefer funding for:
 - Small (54%); Large (32%); Maintenance (14%) projects

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Focus Groups – Mural Board

84 participants



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FHWA Guidance



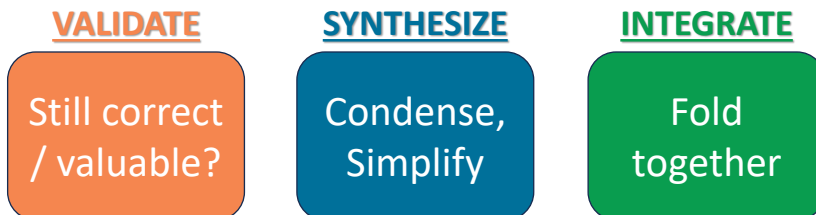
- “... development of a transportation plan addressing **at least 20+ years** horizon, featuring both long-range and short-range strategies to develop an **integrated intermodal** transportation system that facilitates the efficient movement of **people and goods**.”
 - Identify **congestion management** strategies, meeting 23 CFR part 500
 - Demonstrate a systemic approach to address current & future transportation demand
 - Identify SOV projects that result in congestion reduction
 - Identify pedestrian walkways, and bicycle transportation facilities 23 USC 217(g)
 - Include a **financial plan** with historical trends and projected revenue sources

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Good News!

- Much of this work has been accomplished through other projects/plans
 - Vision Zero / Regional Safety Action Plan (2023)
 - Comprehensive Land Use and Transportation Plan (2023)
 - KAT Reimagined (2024)
- Our strategy is to:



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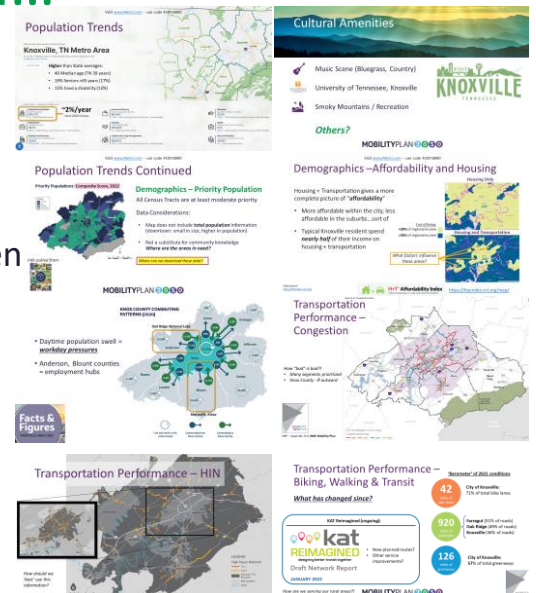
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TAC#1 Mtg we discussed...

- US Census / demographics and trends
- Cultural amenities of the region
- Priority Population trends (equity)
- Housing Affordability + Transportation burden
- Commuter inflow/outflow patterns
 - Congestion Management Process
- Safety / High Injury Network
- KAT Reimagined process



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Growth Trends – Population and Employment Control Total Discussion

Purpose-

- 23 CFR 450.324 – “In updating the transportation plan, the MPO shall base the update on the latest available estimates and assumptions for population, land use, etc...”
- First step of Plan update is to develop demographic projections and obtain agreement on their acceptability for use
- Projections serve as key input to TPO Regional Travel Demand Model



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Projection Data Source Options

- I. “Baseline” Previous Mobility Plan 2045 Projections
 - Used Woods & Poole Economics projections released in 2019
- II. U.T. Center for Business & Economic Research (CBER) – 2022 Release
 - Semi-official source for population projections statewide
- III. Woods & Poole Economics
 - Proprietary, national-level comprehensive economic and demographic projections of more than 900 variables for every county in U.S.

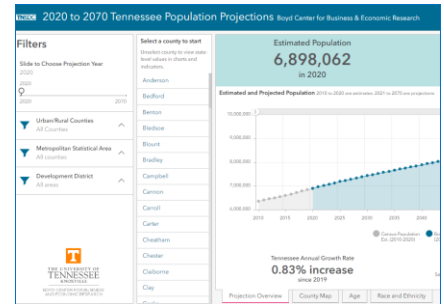


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CBER 2022 Release

- Release Date: March 3, 2022
- Base Year: 2020 (Census Population Estimates Program 2020 Vintage)
- Forecast Period: 2021 – 2070
- Cohort-component methodology using Natural Change (Births – Deaths) + Net Migration estimation based on historical trends
- Demographic forecasts only (no employment forecasts)
 - Population by sex, age, and race
- Disclaimers

“Due to concerns about immediate data imperfections in the 2020 Population Estimates...we recommend using caution when planning with these”



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Woods & Poole 2023 Release

- Base Year: 2020 (Census Population Estimates Program 2022 Vintage)
- Forecast Period: 2021 – 2060
- Population projections are tied to Employment projections
 - Population “Demand” is estimated from the economic model – if demand for labor in a region is increasing then population in-migration assumed to be positive
- Economic and demographic projections
 - Population by sex, age, and race
 - Employment and earnings by major industry
 - Retail sales by kind of business
 - Household number, size, and income



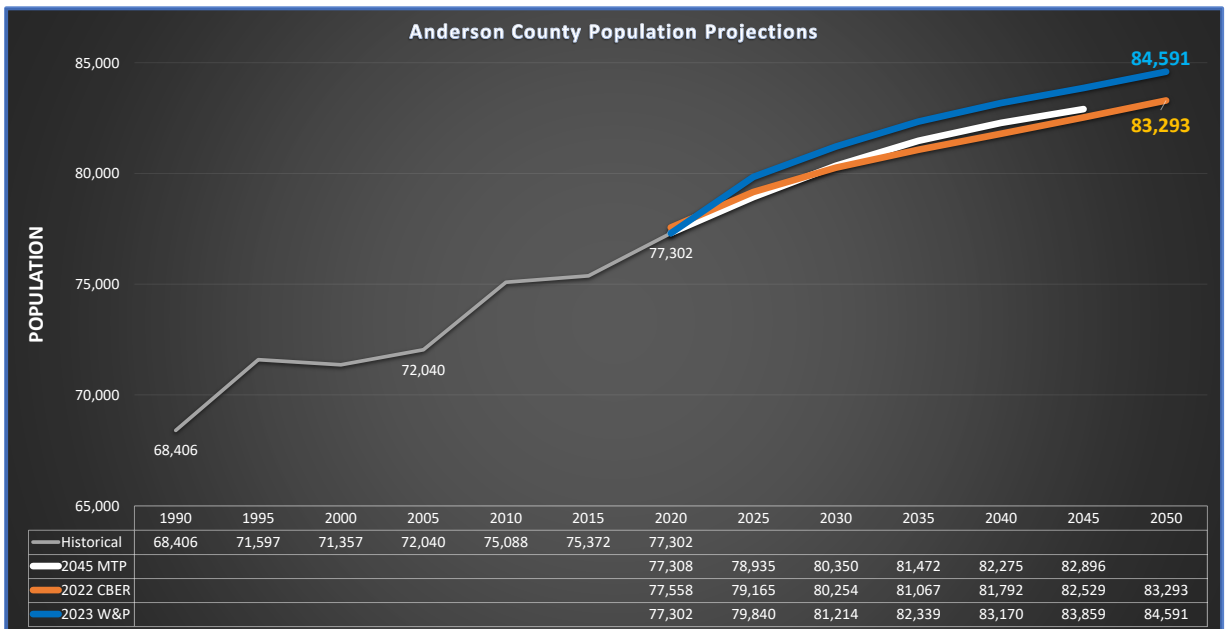
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Comparison of Population Projections for each of the 6 Counties in TPO Region

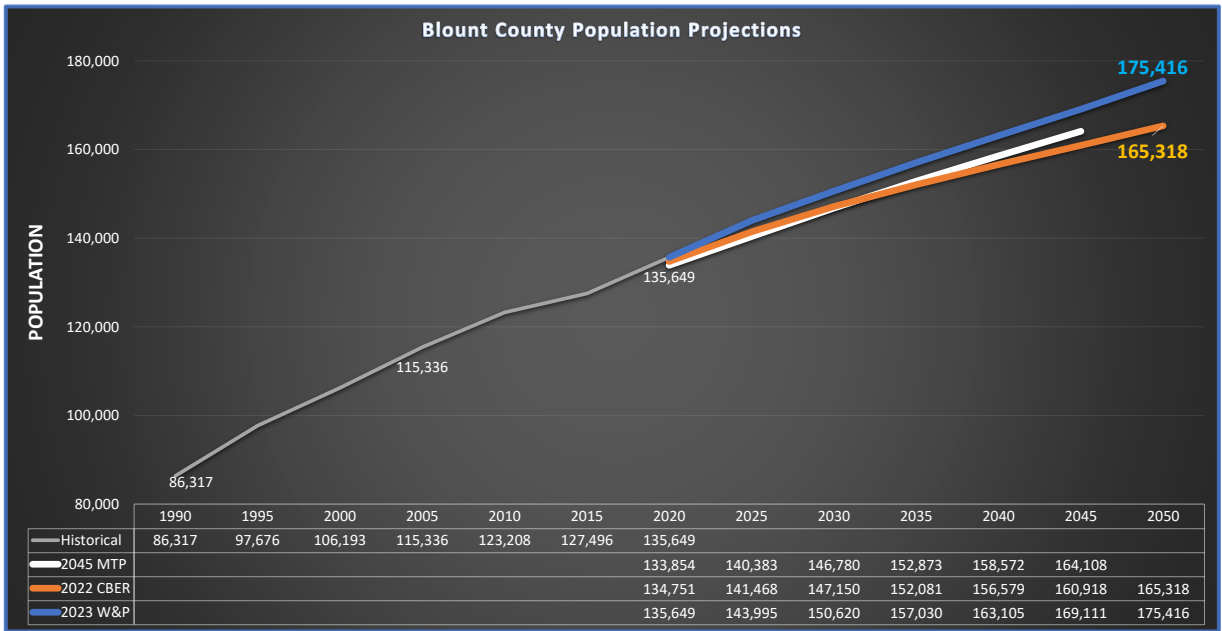
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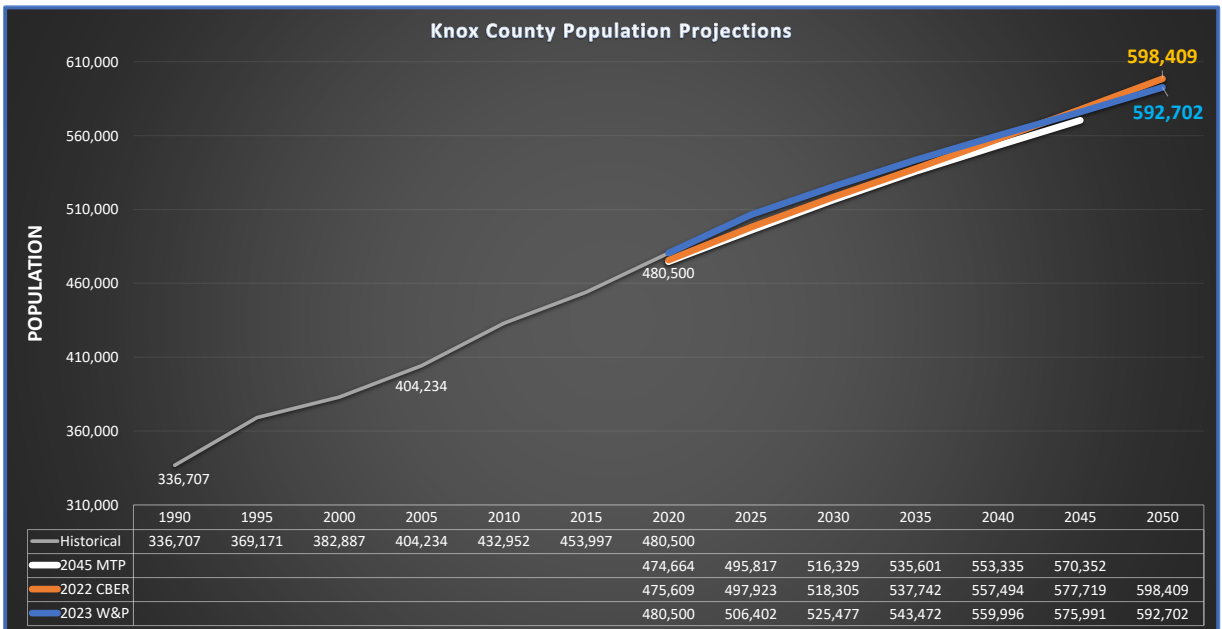
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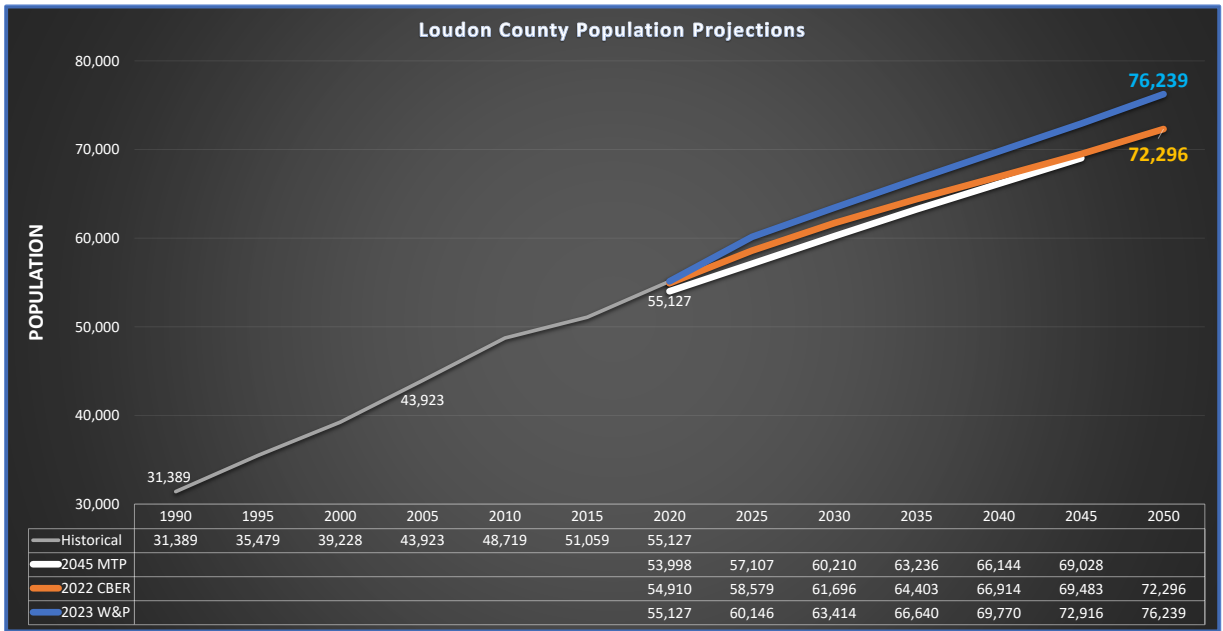
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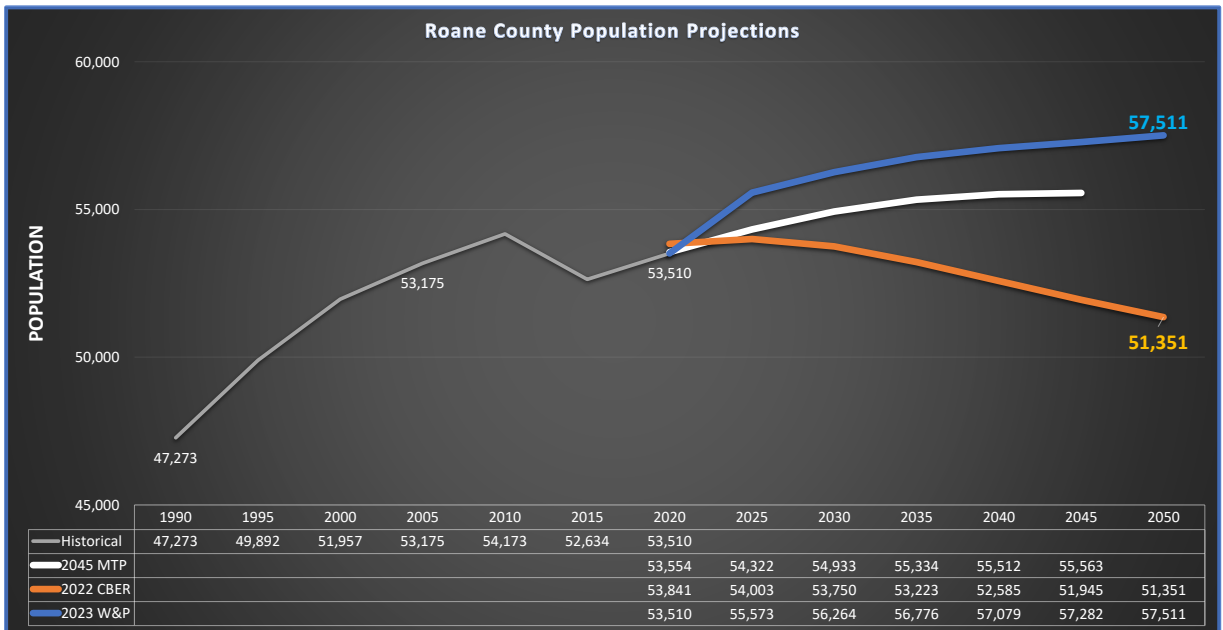
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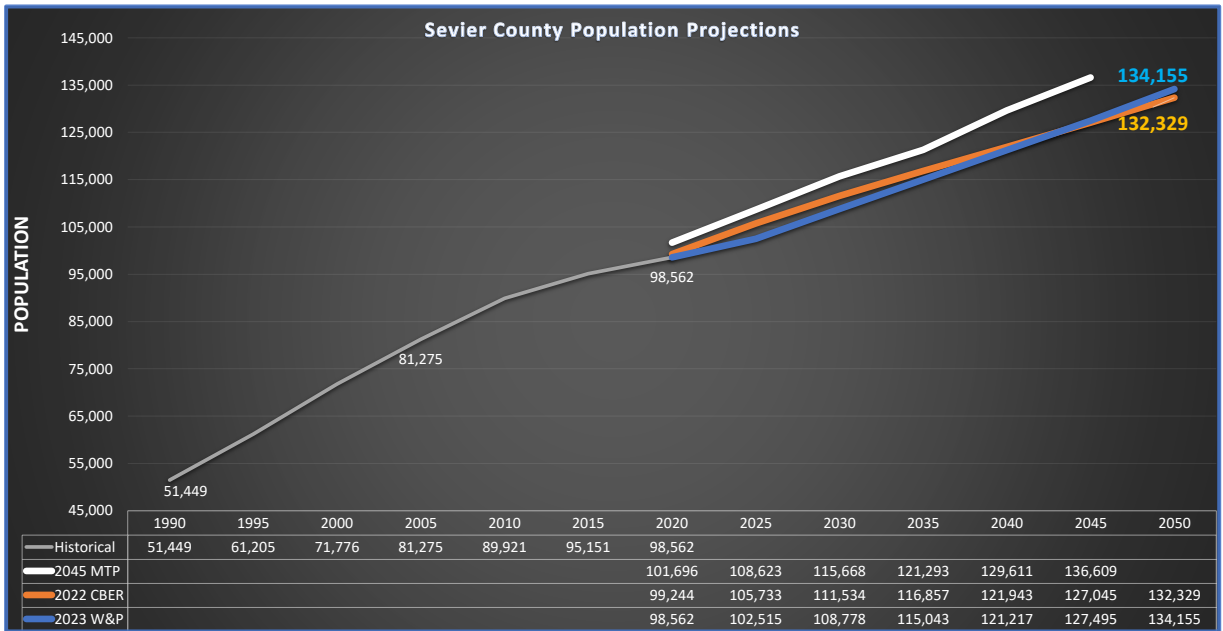
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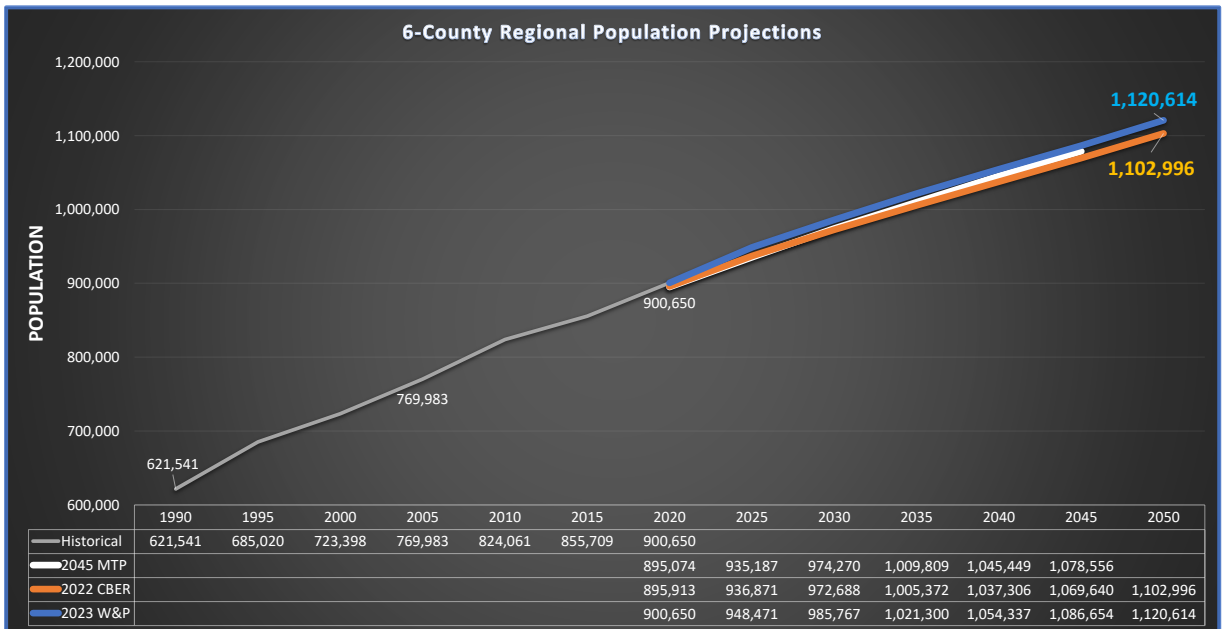
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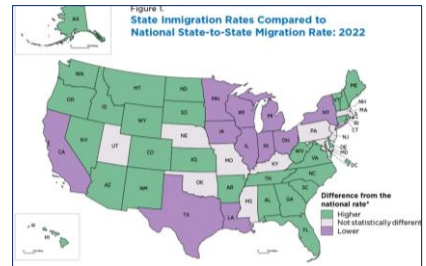
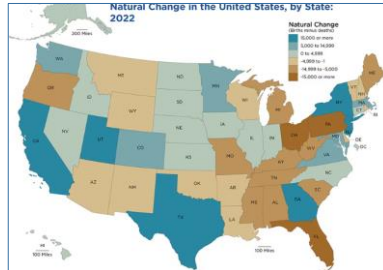
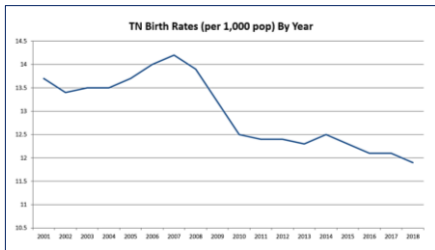


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Major Trends Influencing Population Change

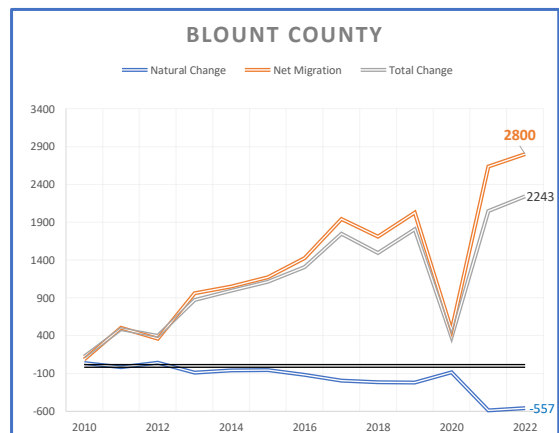
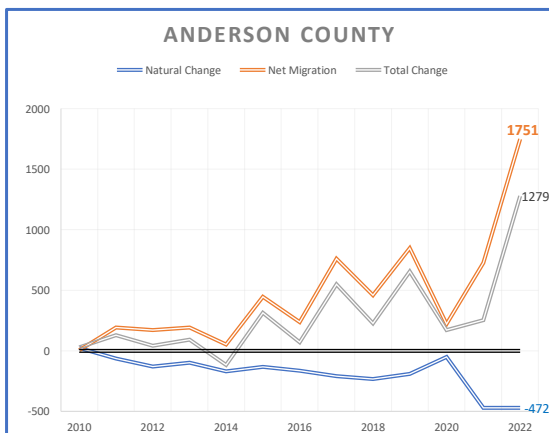
- During the Great Recession (2007-2009), birth rates across the nation dropped
 - For years, assumed birth rates would return to pre-recession levels but this appears to be a foundational change
- Many States including Tennessee experiencing negative Natural Change (births minus deaths) in 2020-2022 likely due to Covid
- Tennessee, including Knoxville Region, seeing much higher In-Migration than previous years



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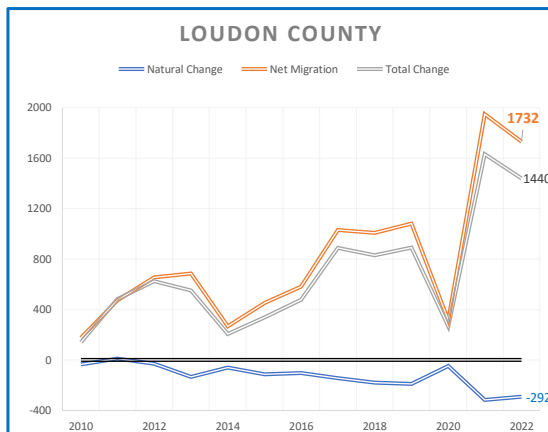
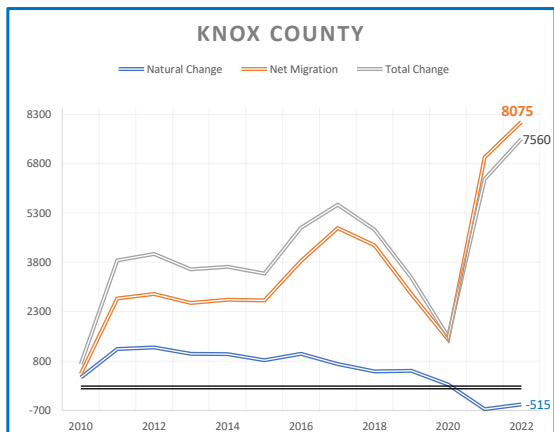
County-by-County Components of Population Change



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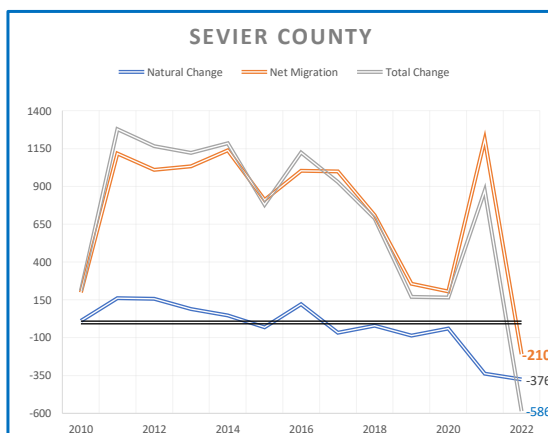
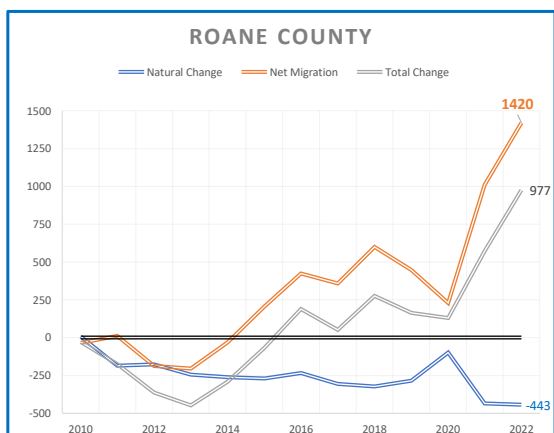
County-by-County Components of Population Change



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County-by-County Components of Population Change



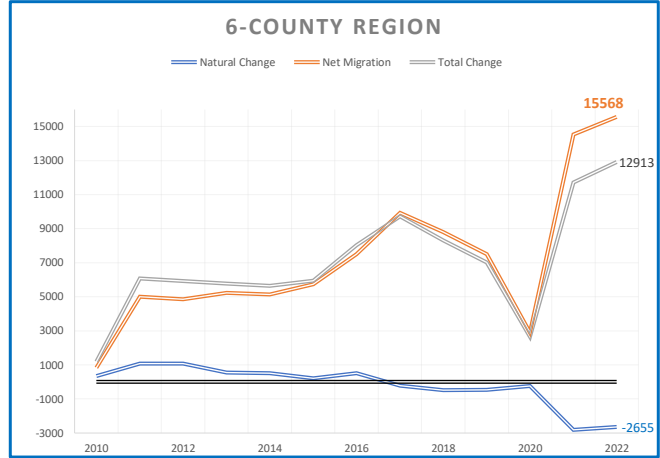
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6-County Region – Summary and Top 10 States Contributing most to our In-Migration

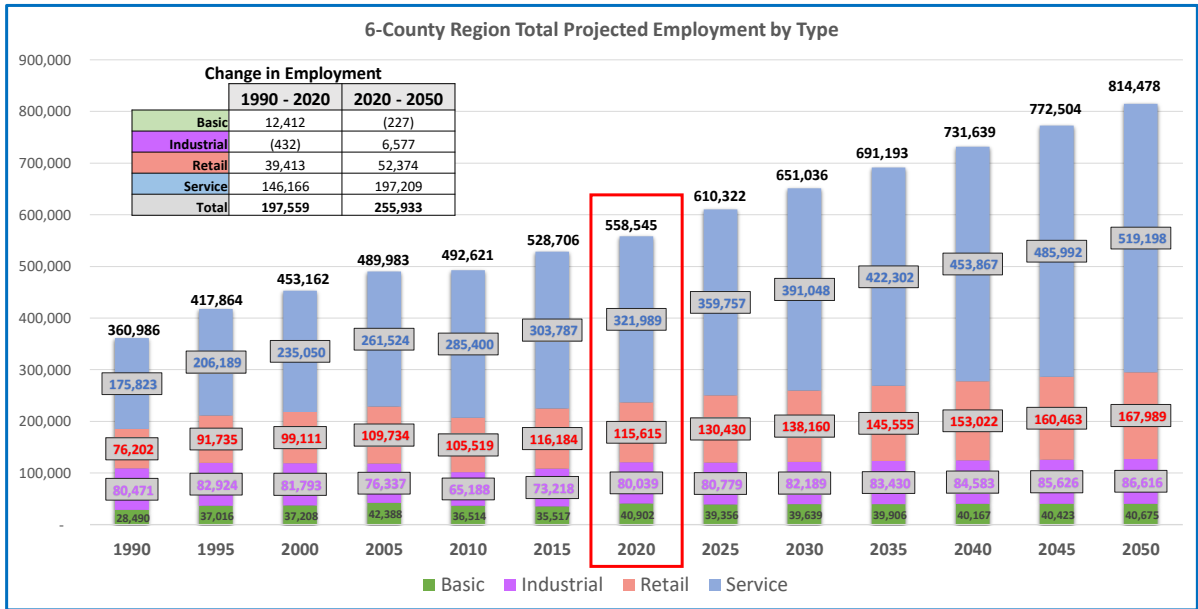
1	Tennessee	28,349
2	Florida	3,756
3	Georgia	2,166
4	California	1,917
5	North Carolina	1,719
6	Virginia	1,673
7	Texas	1,653
8	Illinois	1,421
9	New York	1,082
10	Alabama	1,006

Source: Census State-to-County Migration Flows ACS 2017-2021



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Employment Projections



Source: Woods & Poole Economics, Inc.

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Summary & Discussion

- **Latest Planning Assumptions – updating from 2018 Base Year to 2022**
- **Monitoring major population trends – short or long term?**
 - Declining birth rates
 - Increase in mortality
 - Increase in 'In-migration'
- **Data sources:**
 - CBER
 - Woods & Poole Economics, inc
- **TPO Staff Recommendation is to Use Woods & Poole, Inc. population projections for Mobility Plan 2050**
 - Most Current Available
 - Provides host of other interrelated socioeconomic variables needed for Travel Demand Model such as employment, income, and # of households

COUNTY	Population		Change
	2022	2050	
Anderson	78,913	84,591	5,678
Blount	139,958	175,416	35,458
Knox	494,574	592,702	98,128
Loudon	58,181	76,239	18,058
Roane	55,082	57,511	2,429
Sevier	98,789	134,155	35,366
TOTAL	925,497	1,120,614	195,117

COUNTY	Employment		Change
	2022	2050	
Anderson	52,736	58,783	6,047
Blount	74,947	115,626	40,679
Knox	340,445	461,262	120,817
Loudon	25,739	34,240	8,501
Roane	26,937	31,642	4,705
Sevier	69,977	112,925	42,948
TOTAL	590,781	814,478	223,697

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Prioritization

- We shared a survey link...
here are the results

Compared with the prior plan

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MOBILITY 2045 PLAN

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Weighted Average of 100 points

SMALL / Local

Safety & Security	21
Congestion Reduction	15
Maintenance & Efficiency	14
Health & Environment	13
Equitable Access	11
More Options (mode)	8
Preservation of Places	10
Economy & Freight	8

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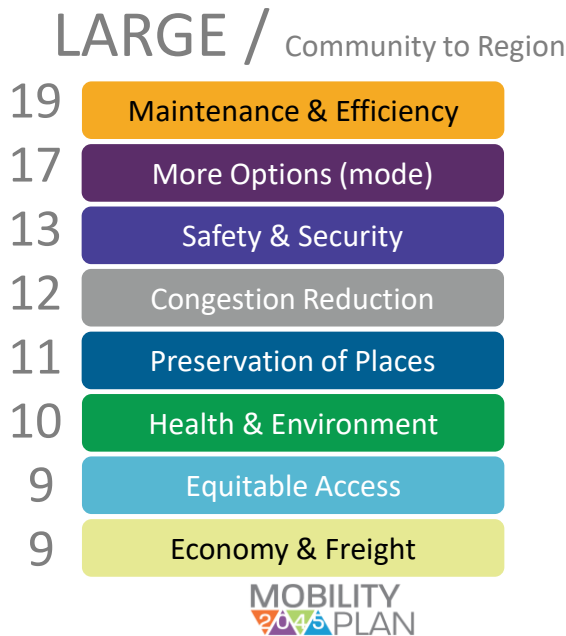
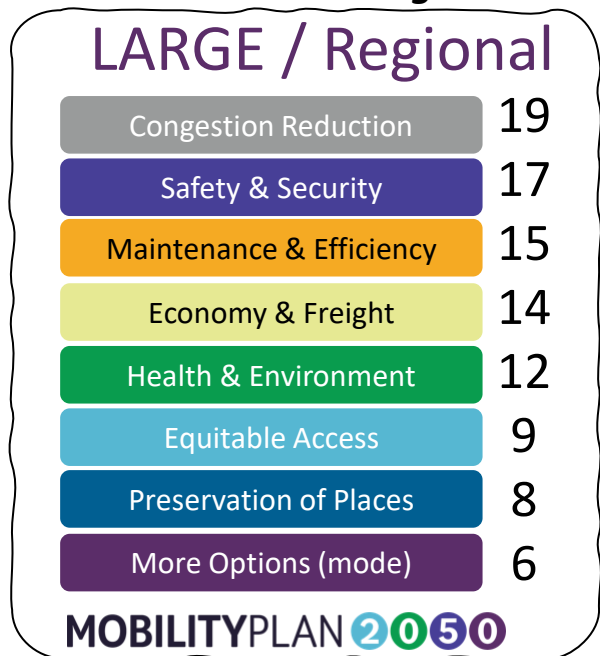
SMALL / Within Region

19	Maintenance & Efficiency
18	More Options (mode)
16	Safety & Security
13	Health & Environment
13	Equitable Access
9	Preservation of Places
8	Congestion Reduction
4	Economy & Freight

MOBILITY 2045 PLAN

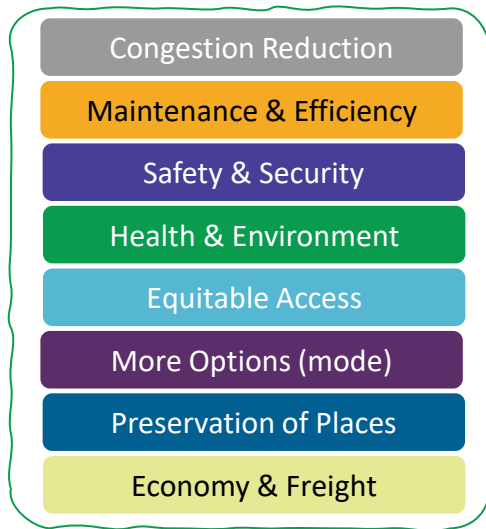
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Weighted Average of 100 points



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... and the Public (Survey) Suggested ...



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Let's Discuss...

SMALL / Local	LARGE / Regional	Public
Safety & Security 21	Congestion Reduction 19	Congestion Reduction
Congestion Reduction 15	Safety & Security 17	Maintenance & Efficiency
Maintenance & Efficiency 14	Maintenance & Efficiency 15	Safety & Security
Health & Environment 13	Economy & Freight 14	Health & Environment
Equitable Access 11	Health & Environment 12	Equitable Access
More Options (mode) 8	Equitable Access 9	More Options (mode)
Preservation of Places 10	Preservation of Places 8	Preservation of Places
Economy & Freight 8	More Options (mode) 6	Economy & Freight

- Are these appropriate priorities for 2024+?
- Are there additional perspectives needed? Whom?
- How will we best use these weights on projects?
- *Other questions?*

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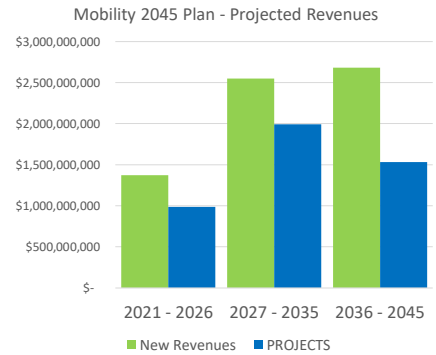
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Financial Projections (2045 Plan)

- Projections based upon historical allocations ***by program***
 - Not just dollars in / dollars out
- Assumptions:
 - Revenue growth: **~2.2% per year**
 - IJA revenue growth avg. 1.9% annually from baseline (2% for most formula programs)
 - Cost increase: **~3.3% per year**
- Are these assumptions still appropriate?



HORIZON	New Revenues	PROJECTS	% Total
2021 - 2026	\$ 1,372,416,672	\$ 987,093,273	22%
2027 - 2035	\$ 2,551,033,402	\$ 1,990,748,584	44%
2036 - 2045	\$ 2,681,920,662	\$ 1,530,936,820	34%
	\$ 6,605,370,736	\$ 4,508,778,677	

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What has changed?

- A global pandemic!
 - Change in commuting patterns!
- Inflation!
- Regional population growth!
- New Federal / State transportation funding legislation!
 - Safety focus / Safe Streets and Roads for All (SS4A)
 - TDOT 'Build with Us' 10-year plan [Build With Us \(tn.gov\)](https://www.tn.gov/build-with-us)
 - *Other(s)*

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TPO Funding Overview

- TPO call for projects and programming approach
 - One call for projects for all TPO attributed funds (L-STBG, L-STBG-TA, CRP)
 - Projects are then fit to available funding program budgets for TIP programming
 - Mobility Plan project funding source does not determine eventual TIP programming source
 - Cost overruns above policy thresholds approved by Tech Committee
- Benefits
 - Ease of managing (and responding to) one call for projects vs. several
 - Transparent cost overrun management
- Challenges
 - “Unified” call may be less flexible than multiple project calls
 - Fiscal constraint in an inflationary environment has not allowed for “interim” project calls
- 2050 Plan projected TPO attributed revenue: **\$713M** (~11%-16%)
 - L-STBG: \$574M
 - L-STBG-TA: \$69M
 - CRP (carbon reduction): \$69M

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Let's Discuss...

- TDOT's recent **10-Year Plan** has implications for the region:
 - Consultation necessary to inform revenue projections for TDOT attributed sources
- The **IIJA Act** was passed, and **new funding programs are available:**
 - Formula: Carbon Reduction Program (CRP)
 - Competitive Grants:
 - SS4A, Reconnecting Communities, PROTECT
- Revenue Growth
 - IIJA - most formula programs grow 2% annually
 - *This MTP should use... (discussion)*
- Year of Expenditure (YOE) costs
 - TDOT: 3.8% from 10-year plan – ‘**Build with Us**’
 - *This MTP should use... (discussion)*

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Agenda

1. Welcome / Introductions
2. Review of Schedule, Outreach
3. FHWA Requirements
4. Growth Trends Discussion
5. Goal Prioritization
6. Funding Trends
7. Action Items

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Action Items

What don't we know?...

- Any knowledge gap(s)?

Continue to **PROMOTE** project website www.KnoxMobility.org

STANTEC is working towards...

- Existing conditions / synthesis
- TAC #3 – Spring 2024
- Community Event – Round #1 – February 2024
 - Monday evening @ KAT Community Room – Knoxville, 4-7 pm
 - Tuesday afternoon – virtual
 - Tuesday evening @ Blount County Library – Maryville, 4-7 pm

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