2045 DEMOGRAPHIC FORECASTS
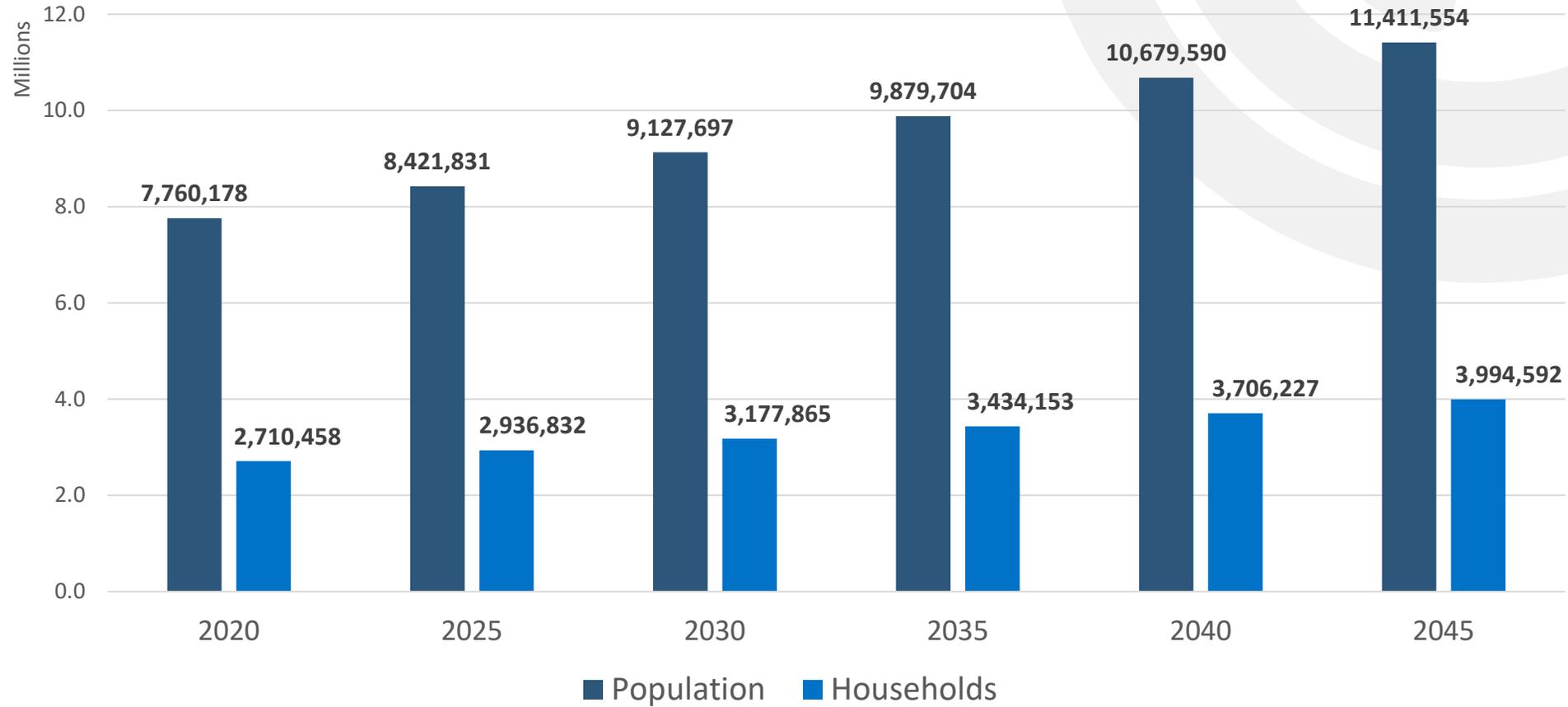
REGIONAL TRANSPORTATION COUNCIL
JANUARY 13, 2022
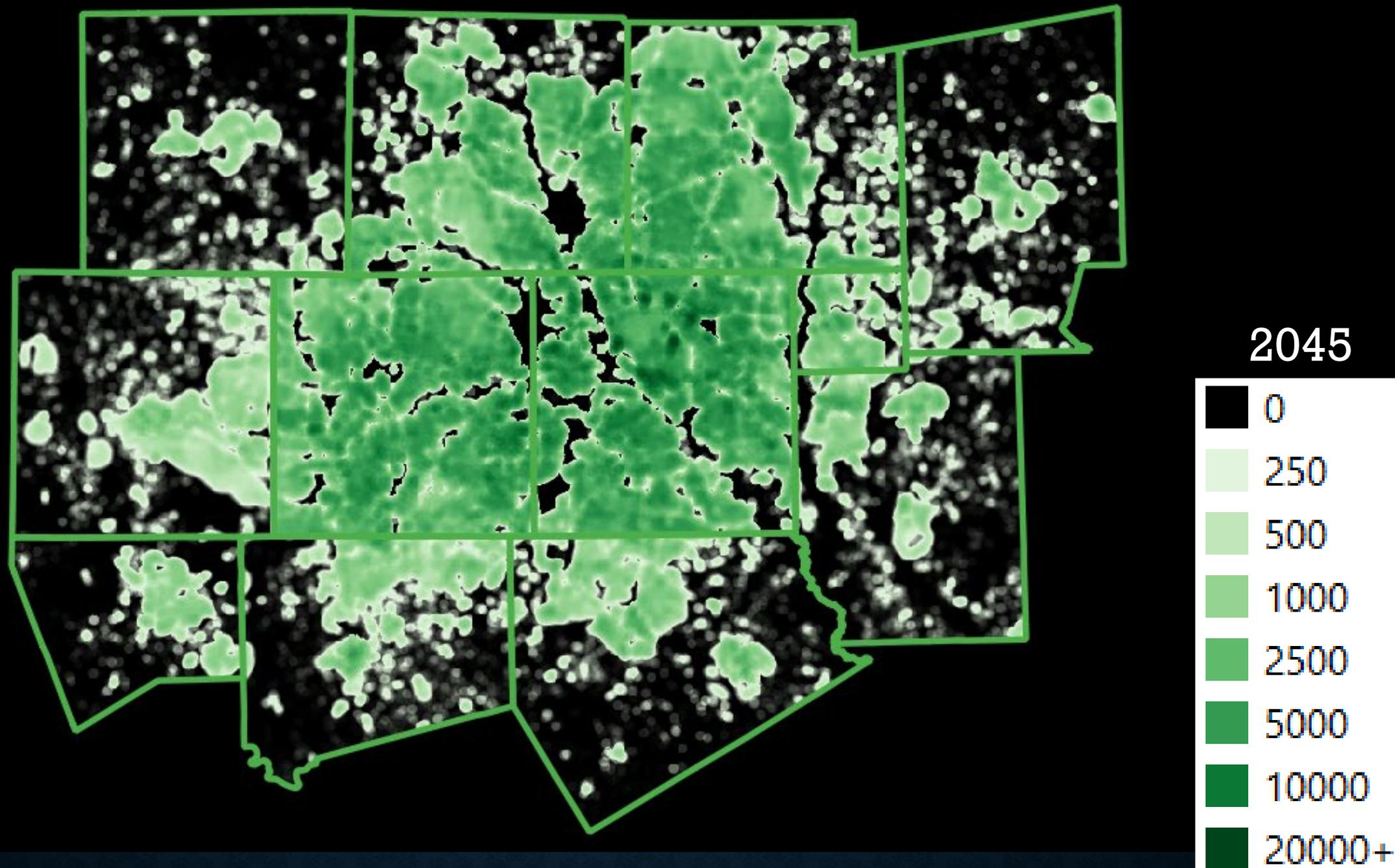
REGIONAL CONTROL TOTALS - POPULATION


Bar chart showing Population and Households projections:

Year	Population	Households
2020	7,760,178	2,710,458
2025	8,421,831	2,936,832
2030	9,127,697	3,177,865
2035	9,879,704	3,434,153
2040	10,679,590	3,706,227
2045	11,411,554	3,994,592

(Y-axis in Millions)

■ Population   ■ Households

2045 Total Population Forecast

	2020 Census	2045	Change	Compound Annual Growth Rate
Collin	1,064,465	1,789,900	725,435	2.19%
Dallas	2,613,539	3,533,500	919,961	1.26%
Denton	906,442	1,518,900	612,458	2.17%
Ellis	192,455	318,250	125,795	1.83%
Hood	61,598	95,184	33,586	1.52%
Hunt	99,956	143,620	43,664	1.51%
Johnson	179,927	258,030	78,103	1.53%
Kaufman	145,310	209,440	64,130	1.93%
Parker	148,222	234,660	86,438	1.17%
Rockwall	107,819	161,580	53,761	1.70%
Tarrant	2,110,640	3,044,500	933,860	1.54%
Wise	68,632	104,010	35,378	1.75%
TOTAL	**7,699,005**	**11,411,574**	**4,606,756**	**1.65%**

Household Population per Square Mile for a 1 SqMi circle around each 30x30m grid cell

2045

|	
■	0
	250
	500
	1000
	2500
	5000
	10000
	20000+

REGIONAL CONTROL TOTALS - EMPLOYMENT
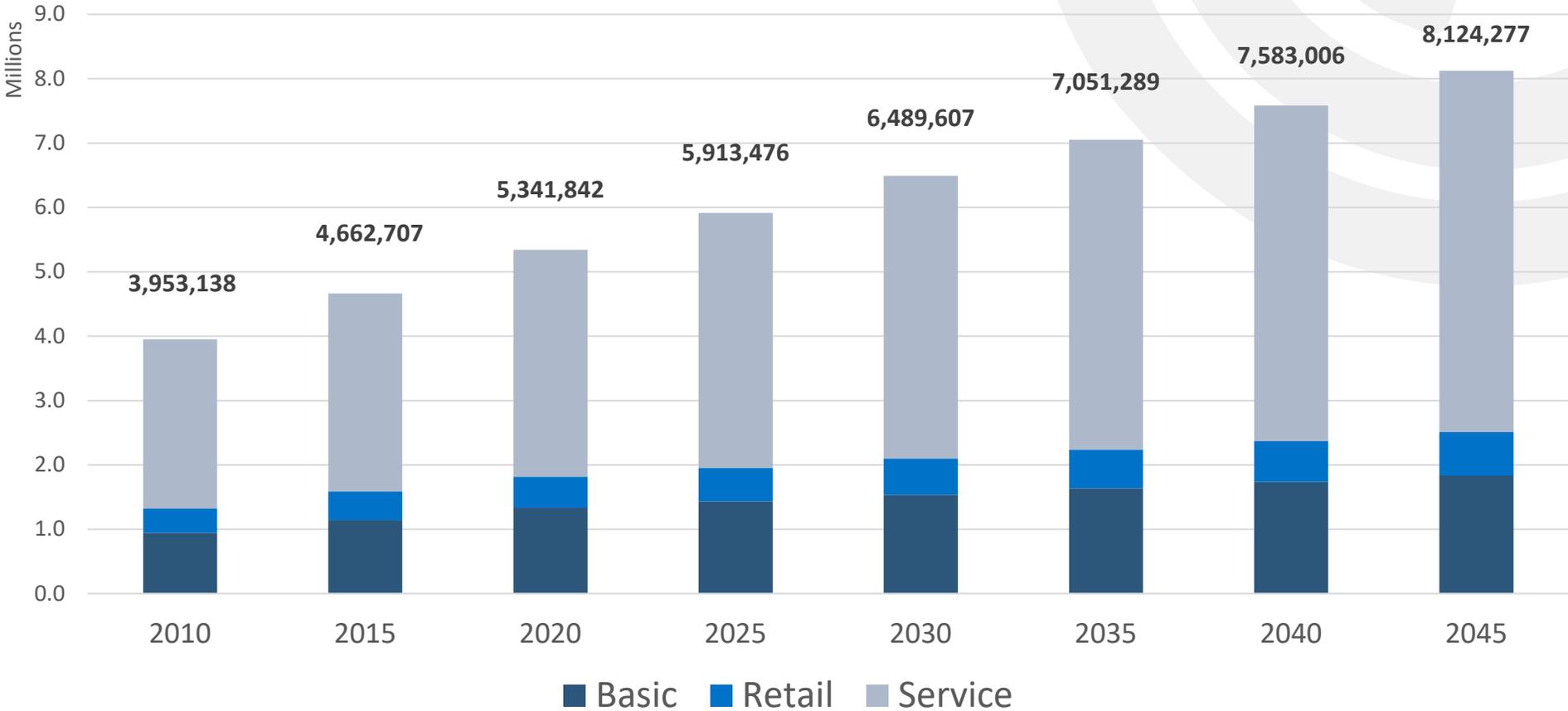
Source: The Perryman Group. (March 2020). A Long-Term Employment and Population Forecast for the North Central Texas Council of Governments Region

2045 Control Total Employment Forecast

	2019 BEA	2045	Change	Compound Annual Growth Rate
Collin	666,572	1,068,600	402,028	1.99%
Dallas	2,365,389	3,577,100	1,211,711	1.74%
Denton	433,036	715,810	282,774	2.12%
Ellis	86,545	136,110	49,565	1.90%
Hood	30,859	47,312	16,453	1.80%
Hunt	46,374	70,605	24,231	1.77%
Johnson	80,090	120,540	40,450	1.72%
Kaufman	56,474	82,627	26,153	1.60%
Parker	68,593	102,280	33,687	1.68%
Rockwall	55,514	88,708	33,194	1.97%
Tarrant	1,332,042	2,047,100	715,058	1.81%
Wise	36,215	54,376	18,161	1.71%
TOTAL	**5,257,703**	**8,124,278**	**4,606,756**	**1.83%**

2015 – Built Area
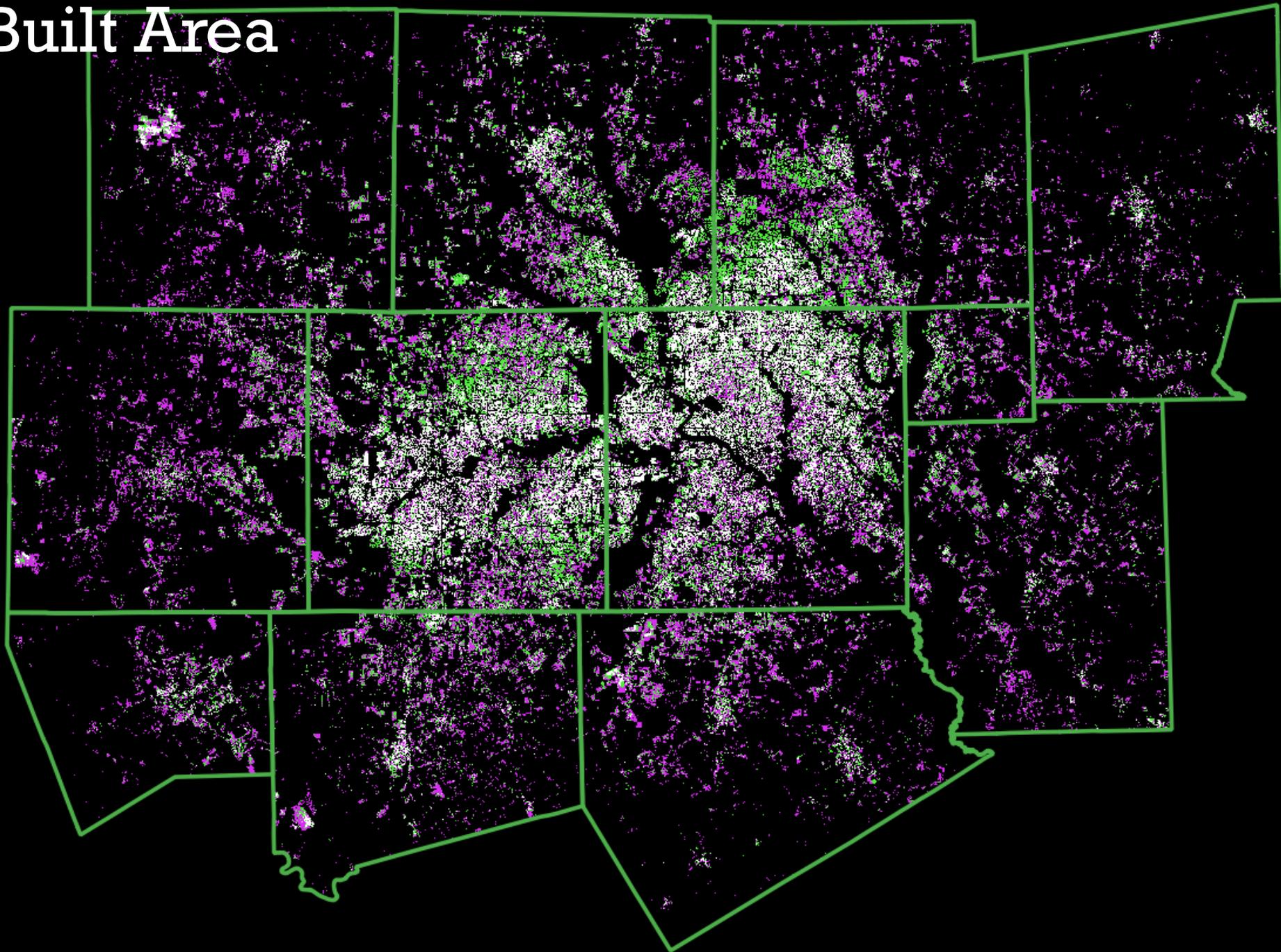
1986
2000
2015
2030
2045

2045 – Predicted Built Area
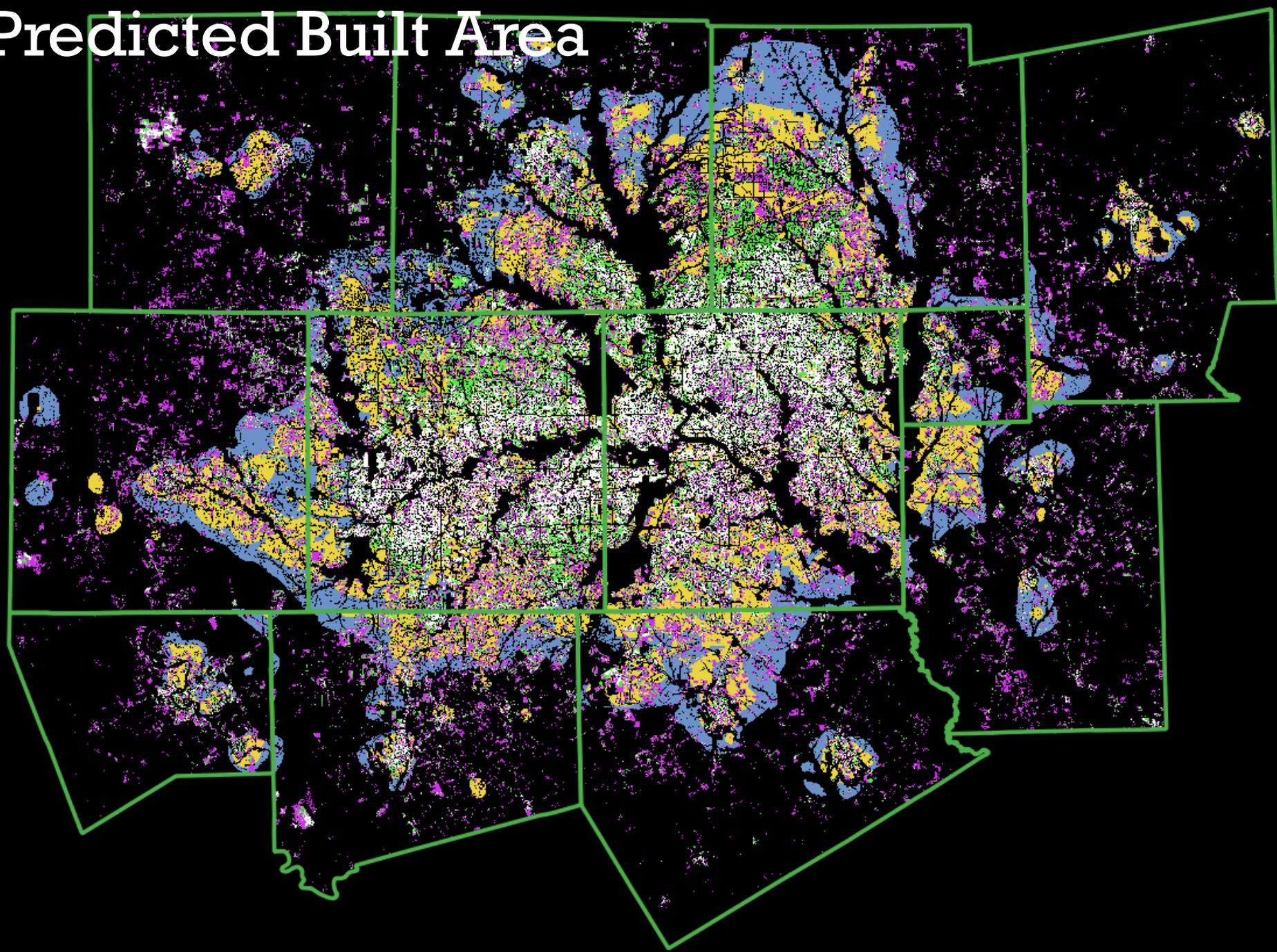
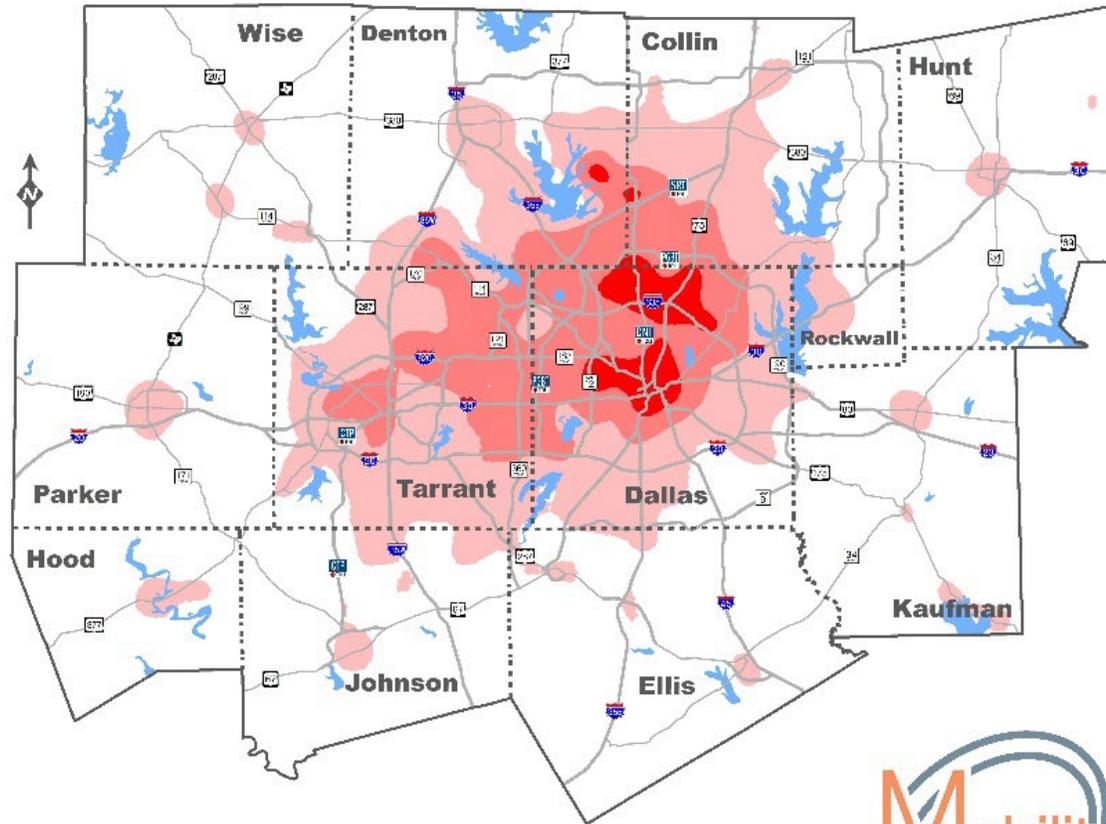|	
1986	⬜
2000	🟩
2015	🟪
2030	🟨
2045	🟦

2018 Levels of Congestion/Delay

Congestion Index

- No Congestion
- Light Congestion
- Moderate Congestion
- Severe Congestion

Dallas CBD

Fort Worth CBD

North Central Texas
Council of Governments

June 2018

Cost of Congestion/Delay: $12.1 billion

Congestion Index is based on a percent increase in travel time.

Mobility 2045

2045 Levels of Congestion/Delay

Congestion Index

- [ ] No Congestion
- [ ] Light Congestion
- [ ] Moderate Congestion
- [ ] Severe Congestion
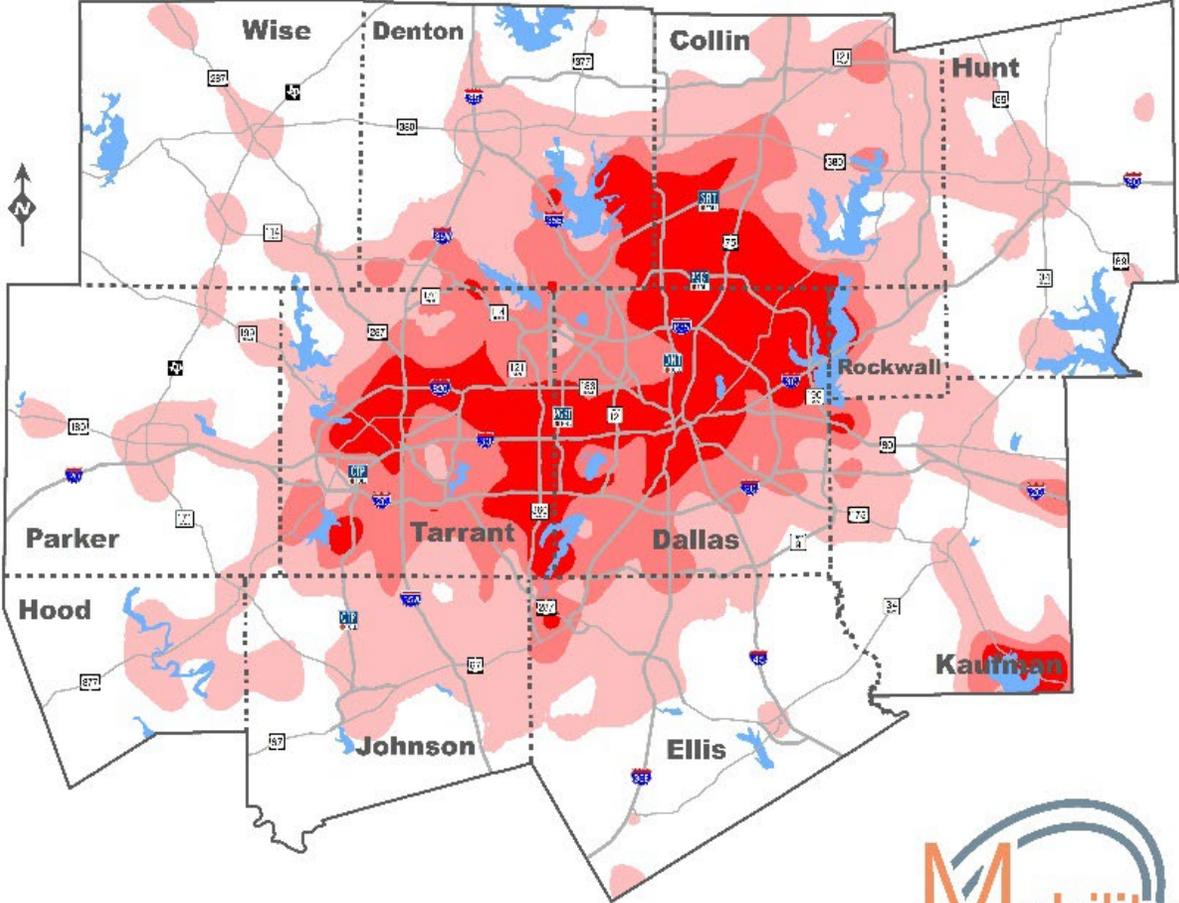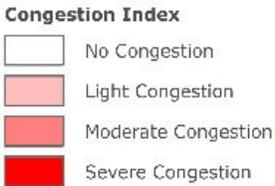
Dallas CBD

Fort Worth CBD

North Central Texas
Council of Governments

June 2018

Cost of Congestion/Delay: $27.2 billion

Congestion Index is based on a percent increase in travel time.

Mobility 2045

2045 DEMOGRAPHIC FORECASTS
FUTURE CHALLENGES AND OPPORTUNITIES

New Regional Control Totals call for increase of 200,000 additional people and 1,100,000 additional jobs above the current 2045 forecasts previously used to develop the Mobility 2045 Plan in 2018

Over 50 percent of the population growth projected to occur by 2045 is anticipated to occur outside existing incorporated areas

By 2045 over 60 percent of the region's population and over 40 percent of the region's employment is anticipated to reside outside the current DART, Trinity Metro and DCTA Transit Authority service areas

Without continued planning for higher residential and employment densities future development will occur in areas where our ability to provide transportation infrastructure will be challenged

Demographic and Travel Modelling Tools are now readily available to facilitate scenario planning

SCHEDULE

July/September 2021

Draft forecasts for internal review

October/November 2021

Draft forecasts for external review

December 2021

Finalization of forecasts

February 2022

Presentation of final forecasts to NCTCOG Executive Board

FORECAST TEAM

RESEARCH & INFORMATION SERVICES

Mark Folden
Senior Predictive
Analytic Specialist

Kyle Caskey
Research Data Analyst

Donna Coggeshall
Manager of Research

TRANSPORTATION

Arash Mirzaei
Senior Program Manager

Zhen Ding
Senior Transportation
System Modeler

Dan Kessler
Assistant Director of
Transportation

QUESTIONS

Change in Total Employment
2015-2045

	-500 - 0
	0 - 2500
	2500 - 5000
	5000 - 10000
	10000 - 20000
	20000 - 30000
	30000 - 40000
	40000 - 50000
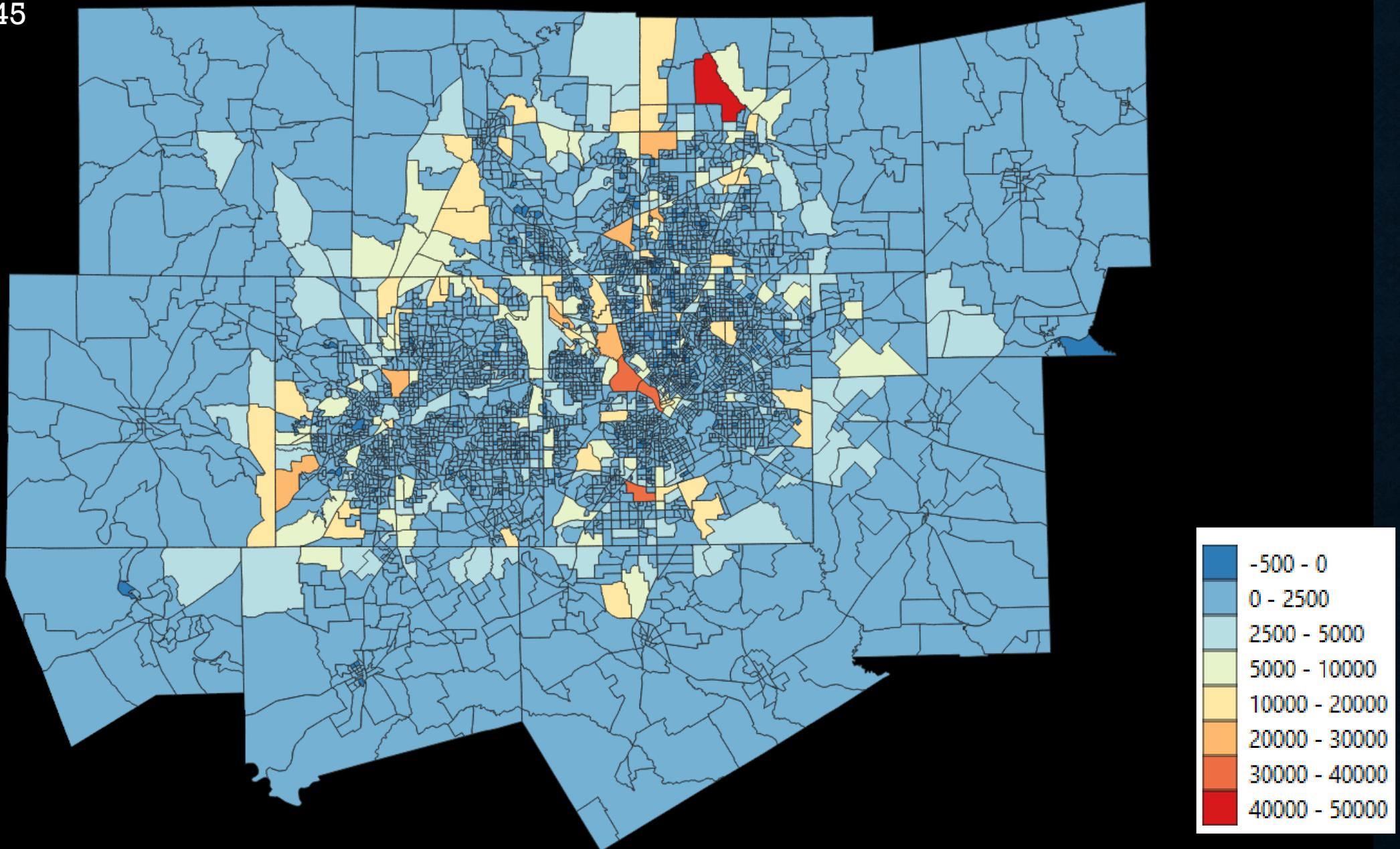
Change in HH Population
2015-2045
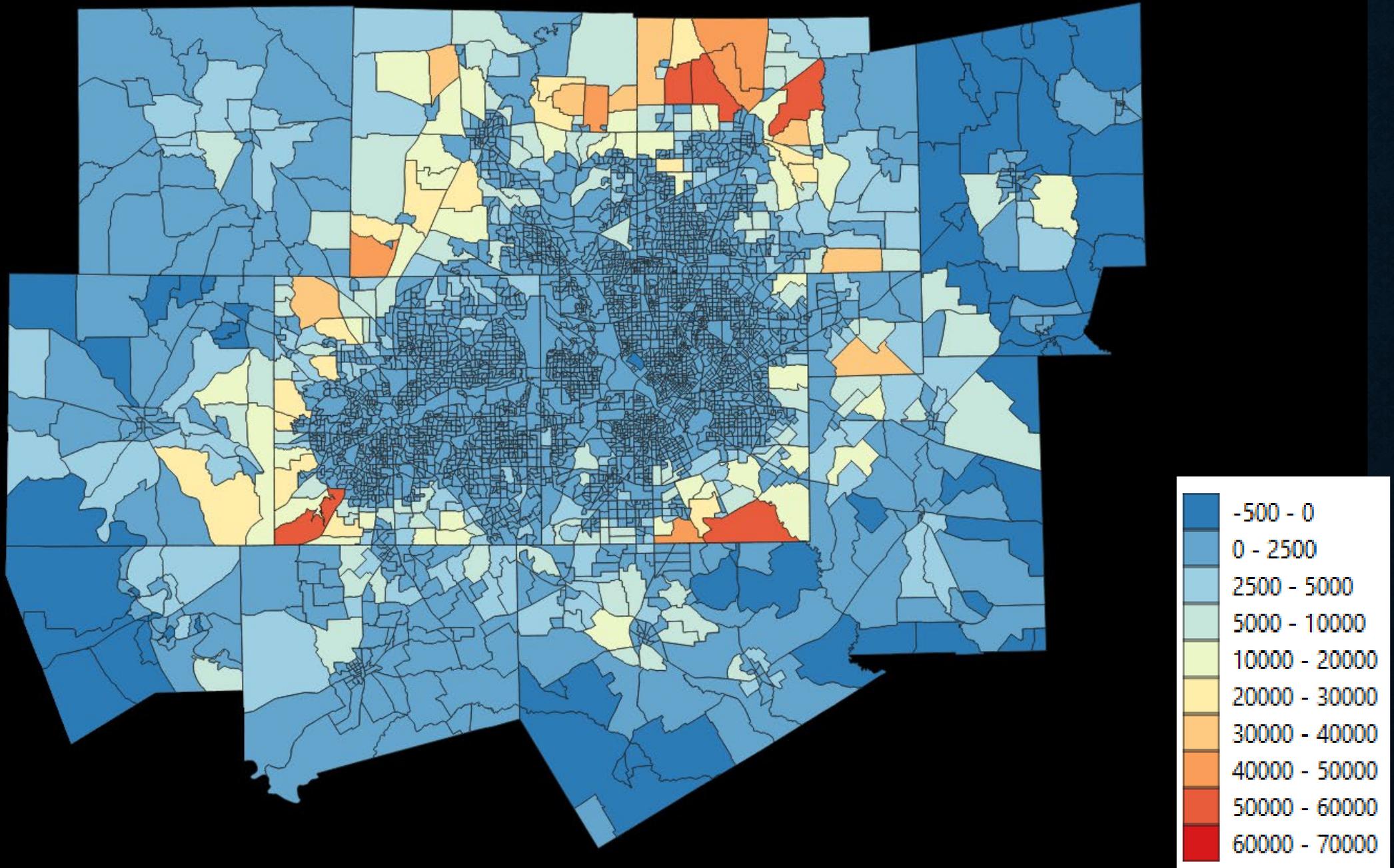
Legend:
- -500 - 0
- 0 - 2500
- 2500 - 5000
- 5000 - 10000
- 10000 - 20000
- 20000 - 30000
- 30000 - 40000
- 40000 - 50000
- 50000 - 60000
- 60000 - 70000

LARGEST CITIES POPULATION

Name	2020 Census Population	2045 Draft Forecast	Change	% Change	CAGR
Dallas	1,289,961	1,621,500	331,539	25.7%	0.9%
Fort Worth	901,434	1,172,600	271,166	30.1%	1.1%
Arlington	388,680	486,570	97,890	25.2%	0.9%
Plano	284,519	317,150	32,631	11.5%	0.4%
Garland	244,984	290,760	45,776	18.7%	0.7%
Irving	255,247	289,450	34,203	13.4%	0.5%
Frisco	199,863	252,160	52,297	26.2%	0.9%
Grand Prairie	195,432	244,620	49,188	25.2%	0.9%
McKinney	193,488	234,450	40,962	21.2%	0.8%
Denton	132,437	208,550	76,113	57.5%	1.8%
Mesquite	149,523	192,430	42,907	28.7%	1.0%
Carrollton	132,791	148,590	15,799	11.9%	0.5%
Richardson	112,657	127,970	15,313	13.6%	0.5%
Lancaster	40,930	117,890	76,960	188.0%	4.3%
Lewisville	111,410	115,840	4,430	4.0%	0.2%
Allen	104,294	111,480	7,186	6.9%	0.3%
Mansfield	72,040	102,920	30,880	42.9%	1.4%
Cedar Hill	48,985	98,332	49,347	100.7%	2.8%
Flower Mound	75,690	98,279	22,589	29.8%	1.1%
DeSoto	55,771	90,267	34,496	61.9%	1.9%

LARGEST CITIES POPULATION

Name	2020 Census Population	2045 Draft Forecast	Change	% Change	CAGR
North Richland Hills	69,649	88,638	18,989	27.3%	1.0%
Celina	16,654	83,280	66,626	400.1%	6.7%
Rowlett	62,255	82,818	20,563	33.0%	1.1%
Euless	60,942	68,893	7,951	13.0%	0.5%
Keller	45,487	67,123	21,636	47.6%	1.6%
Wylie	57,315	66,884	9,569	16.7%	0.6%
Grapevine	50,174	63,678	13,504	26.9%	1.0%
Little Elm	46,453	61,504	15,051	32.4%	1.1%
Bedford	49,570	61,041	11,471	23.1%	0.8%
Rockwall	46,862	60,836	13,974	29.8%	1.0%
Waxahachie	39,888	60,266	20,378	51.1%	1.7%
Haltom City	45,971	55,177	9,206	20.0%	0.7%
Prosper	30,174	53,314	23,140	76.7%	2.3%
Southlake	31,048	53,132	22,084	71.1%	2.2%
Midlothian	35,019	53,057	18,038	51.5%	1.7%
Burleson	47,493	51,006	3,513	7.4%	0.3%
Coppell	42,851	50,452	7,601	17.7%	0.7%
Duncanville	40,479	49,767	9,288	22.9%	0.8%
Hurst	40,202	47,812	7,610	18.9%	0.7%
The Colony	44,534	45,411	877	2.0%	0.1%

LARGEST CITIES EMPLOYMENT

Name	2015 NCTCOG Employment	2045 Draft Forecast	Change	% Change	CAGR
Dallas	1,150,349	1,792,500	642,151	55.8%	1.5%
Fort Worth	530,119	974,730	444,611	83.9%	2.1%
Irving	289,318	456,220	166,902	57.7%	1.5%
Plano	271,915	405,540	133,625	49.1%	1.3%
Arlington	207,607	270,920	63,313	30.5%	0.9%
Richardson	152,845	218,500	65,655	43.0%	1.2%
Garland	105,832	181,560	75,728	71.6%	1.8%
Frisco	79,047	171,200	92,153	116.6%	2.6%
Carrollton	111,414	161,540	50,126	45.0%	1.2%
Denton	96,344	160,500	64,157	66.6%	1.7%
McKinney	62,137	159,380	97,243	156.5%	3.2%
Mesquite	67,813	156,160	88,347	130.3%	2.8%
Grand Prairie	88,020	154,880	66,860	76.0%	1.9%
Grapevine	104,368	144,810	40,442	38.7%	1.1%
Farmers Branch	82,392	119,820	37,428	45.4%	1.3%
Lewisville	83,184	116,800	33,616	40.4%	1.1%
Addison	74,033	113,440	39,407	53.2%	1.4%
Allen	39,063	84,472	45,409	116.2%	2.6%
Coppell	46,377	73,849	27,472	59.2%	1.6%
Mansfield	28,017	69,321	41,304	147.4%	3.1%

LARGEST CITIES EMPLOYMENT

Name	2015 NCTCOG Employment	2045 Draft Forecast	Change	% Change	CAGR
Flower Mound	35,942	67,490	31,548	87.8%	2.1%
Lancaster	13,682	66,433	52,751	385.5%	5.4%
DeSoto	18,643	63,368	44,725	239.9%	4.2%
Westlake	9,435	63,273	53,838	570.6%	6.5%
Southlake	33,212	57,225	24,013	72.3%	1.8%
Rockwall	32,710	56,637	23,928	73.2%	1.8%
Cedar Hill	16,903	54,433	37,530	222.0%	4.0%
North Richland Hills	30,277	45,414	15,137	50.0%	1.4%
Bedford	31,080	42,519	11,439	36.8%	1.1%
Waxahachie	27,208	41,220	14,012	51.5%	1.4%
Prosper	3,205	41,188	37,983	1185.2%	8.9%
Rowlett	12,052	36,170	24,118	200.1%	3.7%
Haltom City	20,371	35,148	14,777	72.5%	1.8%
Euless	19,275	34,252	14,977	77.7%	1.9%
Burleson	18,935	32,750	13,815	73.0%	1.8%
The Colony	11,170	30,054	18,884	169.1%	3.4%
Duncanville	15,770	29,640	13,870	87.9%	2.1%
Weatherford	24,980	29,568	4,588	18.4%	0.6%
Hurst	22,126	29,224	7,098	32.1%	0.9%
Keller	16,266	28,518	12,252	75.3%	1.9%

Household Population per Square Mile for a 1 SqMi circle around each 30x30m grid cell
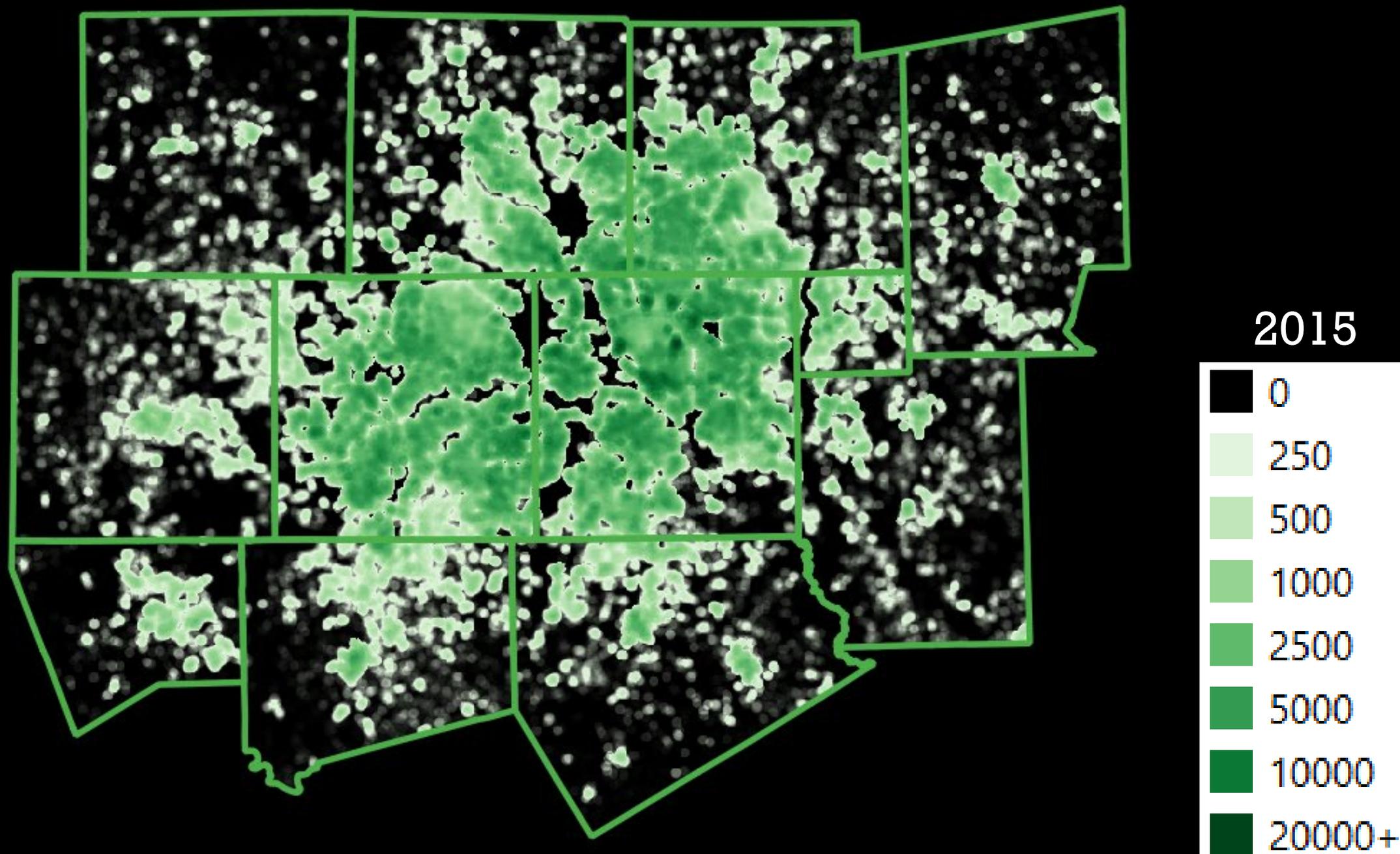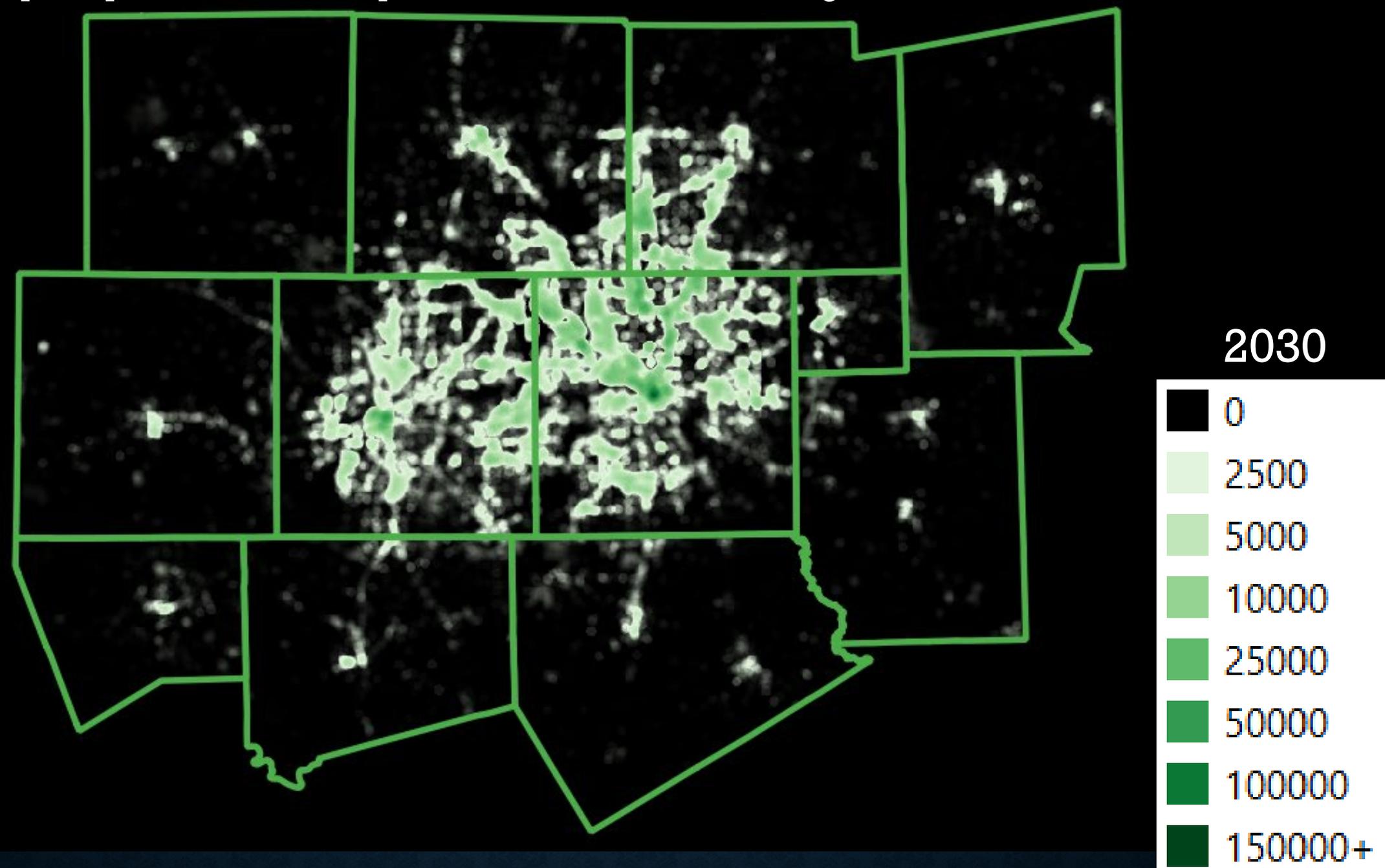
2015

■	0
░	250
░	500
▒	1000
▓	2500
▓	5000
▓	10000
■	20000+

Household Population per Square Mile for a 1 SqMi circle around each 30x30m grid cell

2030

⬛	0
	250
	500
	1000
	2500
	5000
	10000
	20000+

Total Employment per Square Mile for a 1 SqMi circle around each 30x30m grid cell

2015

■	0
■	2500
■	5000
■	10000
■	25000
■	50000
■	100000
■	150000+

Total Employment per Square Mile for a 1 SqMi circle around each 30x30m grid cell

2030

⬛	0
⬜	2500
🟩	5000
🟩	10000
🟩	25000
🟩	50000
🟩	100000
🟩	150000+

Total Employment per Square Mile for a 1 SqMi circle around each 30x30m grid cell

2045

■	0
■	2500
■	5000
■	10000
■	25000
■	50000
■	100000
■	150000+
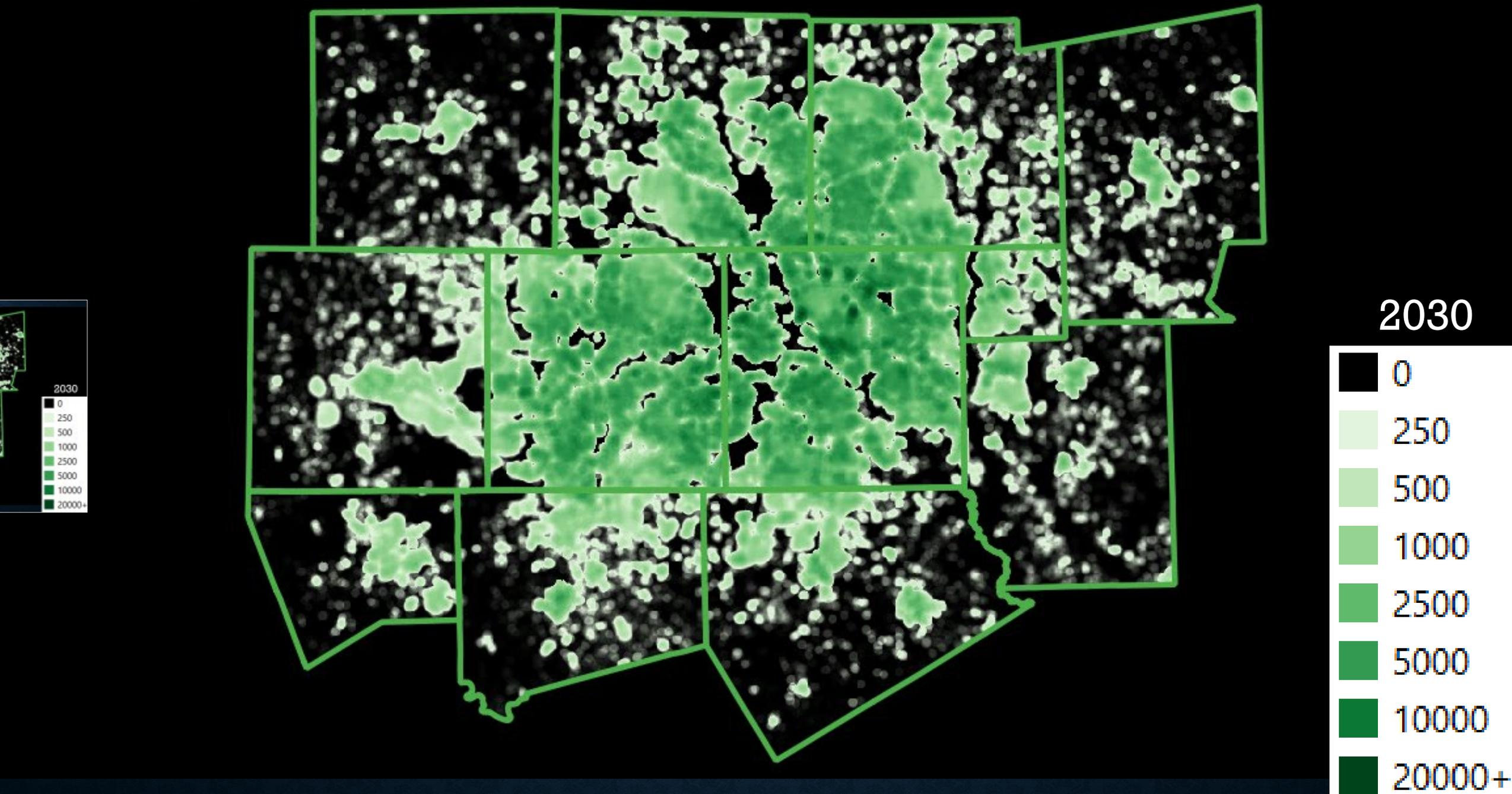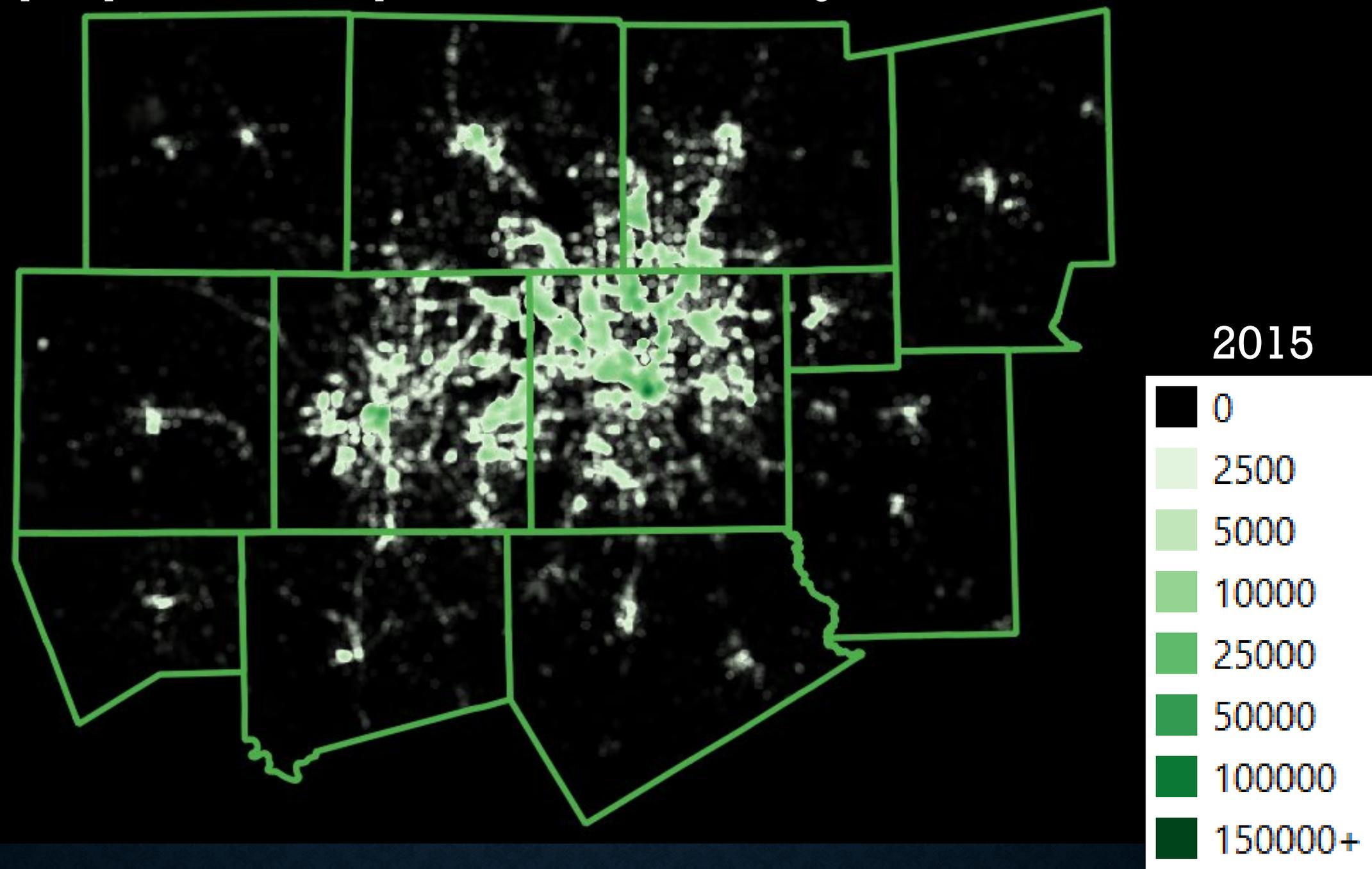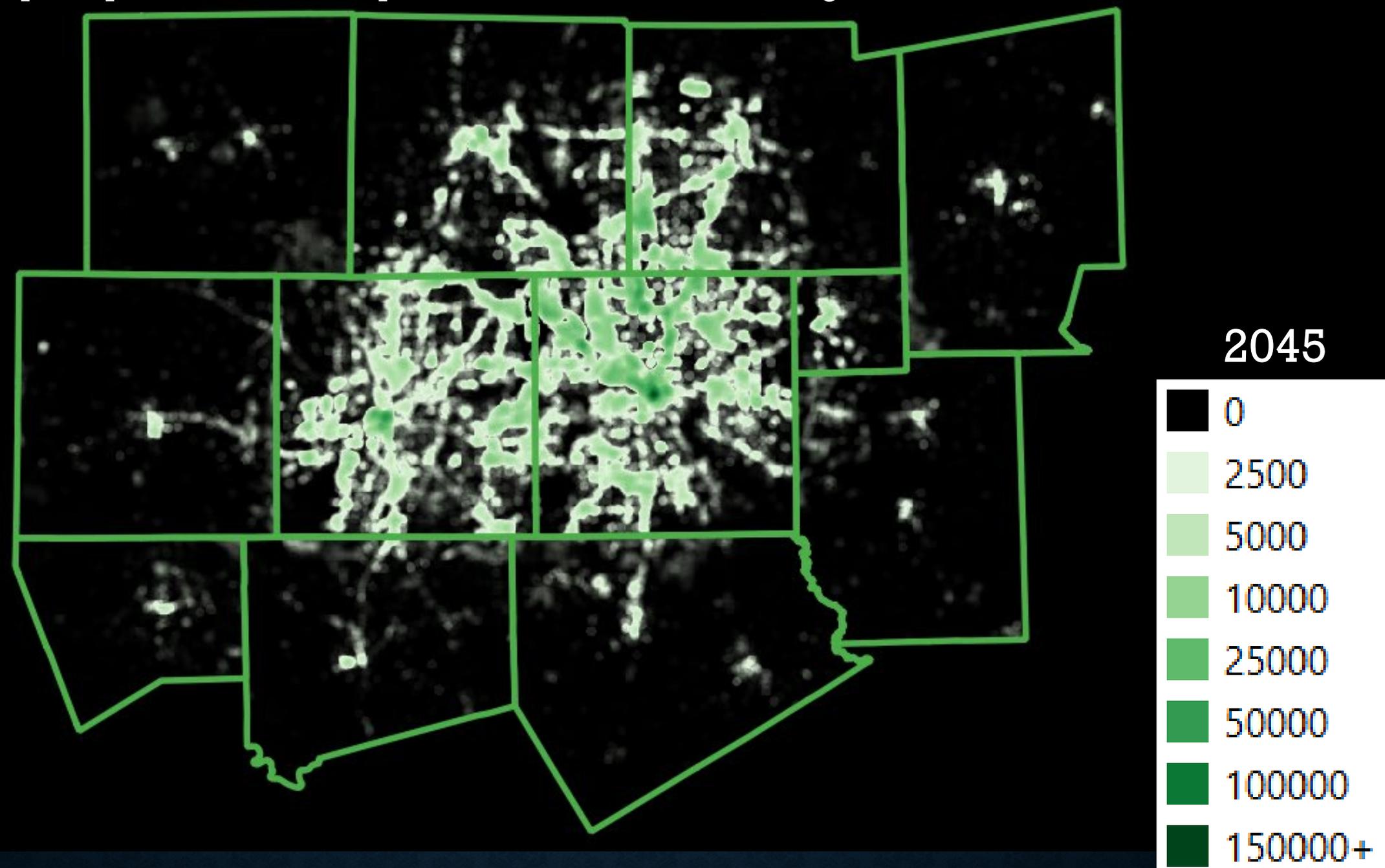
2030 – Predicted Built Area

1986
2000
2015
2030
2045
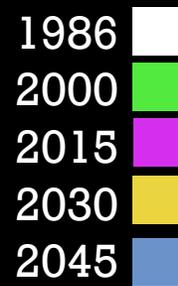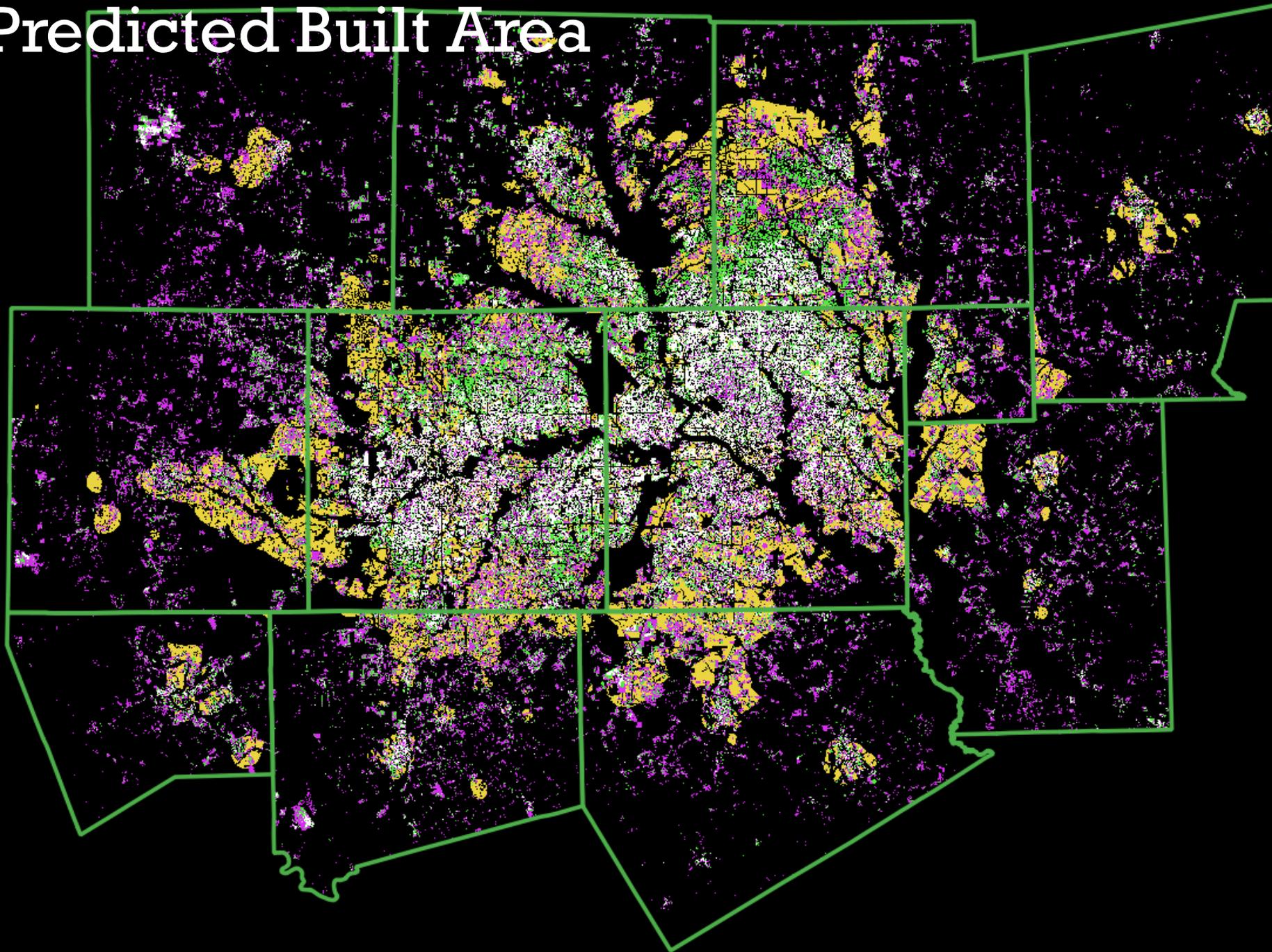
POPULATION FORECAST UNINCORPORATED AREA

- Based on 2020 City Boundaries
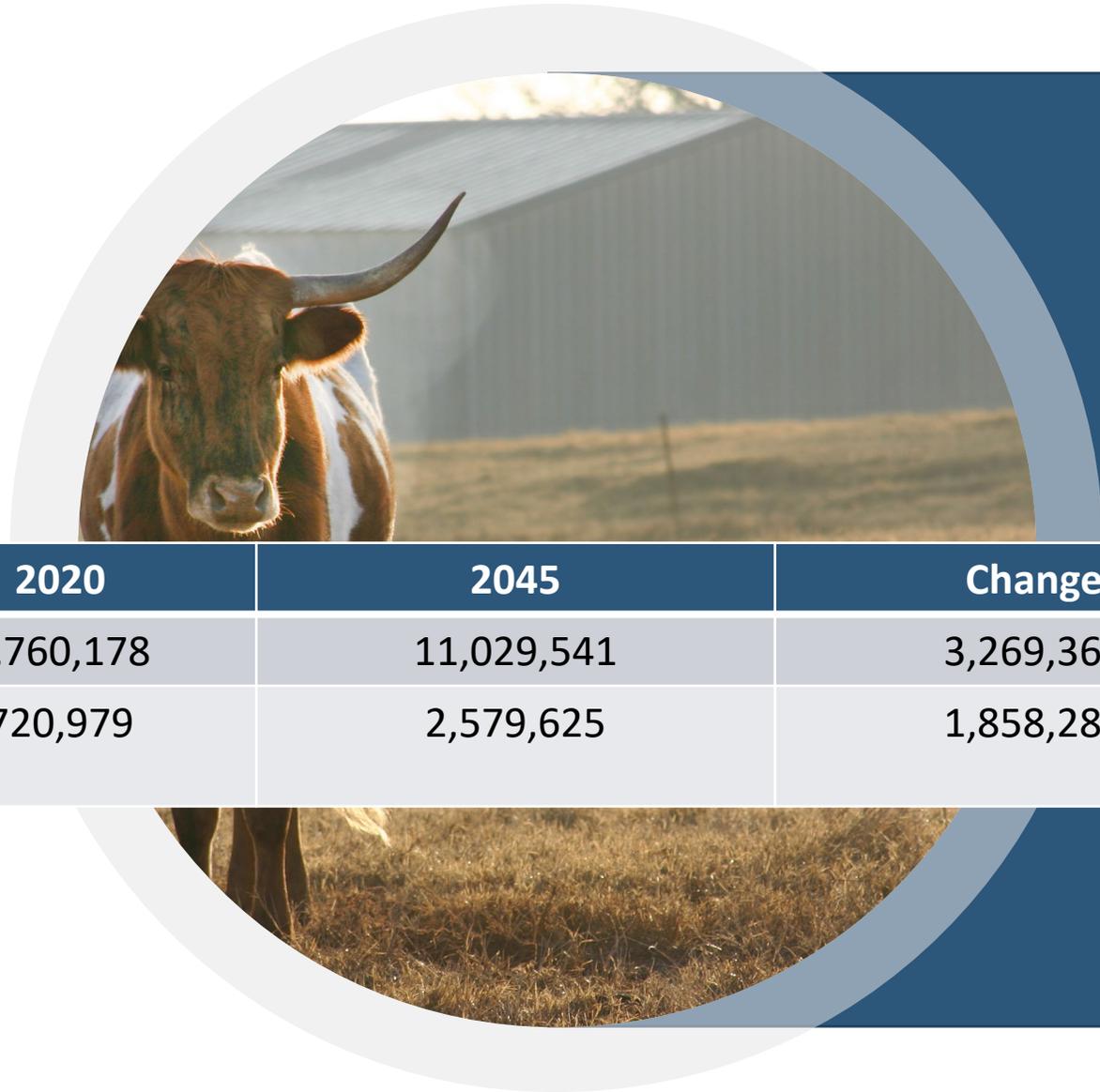
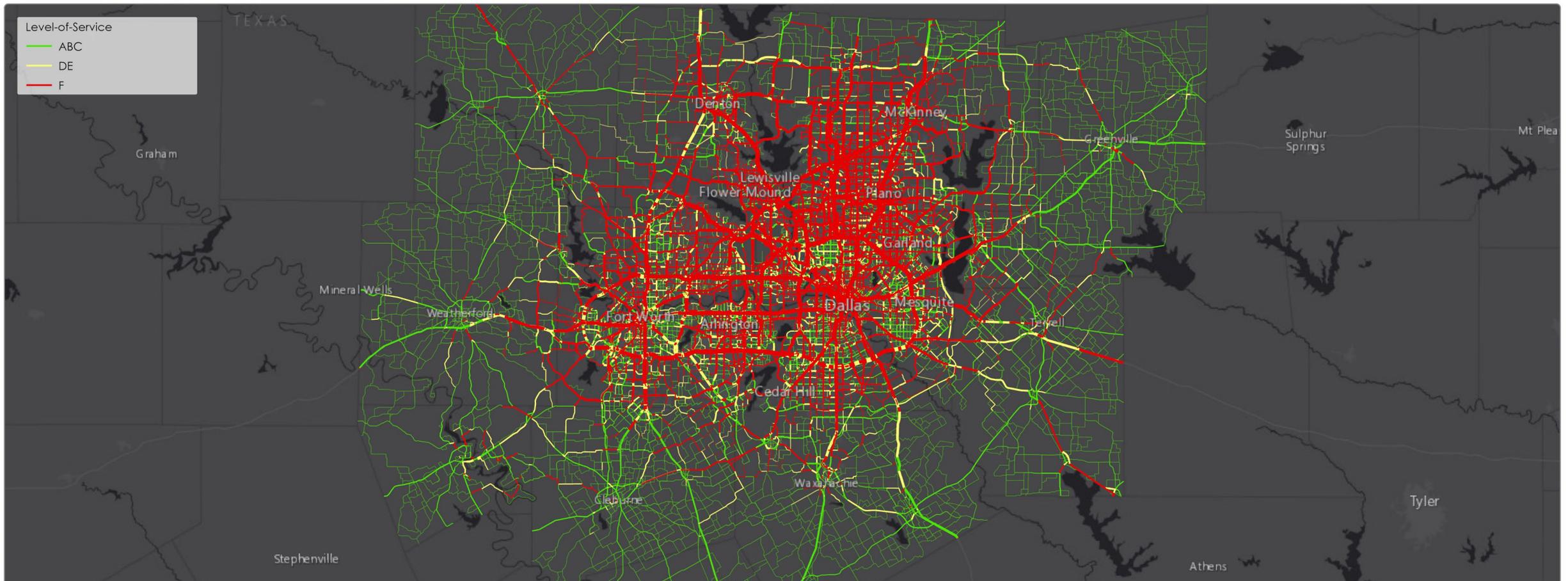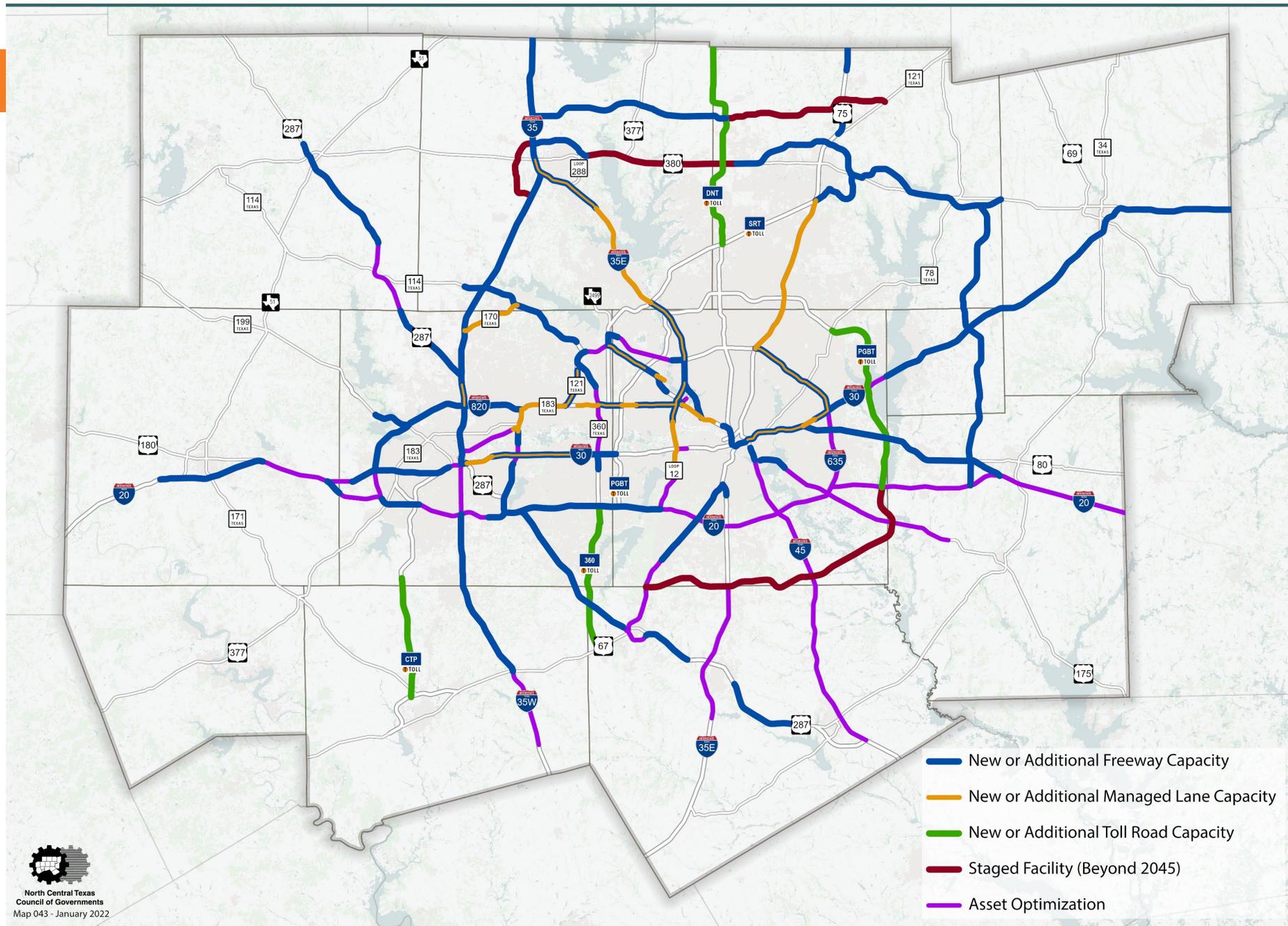|	2020	2045	Change
Total Population	7,760,178	11,029,541	3,269,363
Unincorporated Area Population	720,979	2,579,625	1,858,286

DRAFT 2045 PEAK HOUR LEVEL OF SERVICE

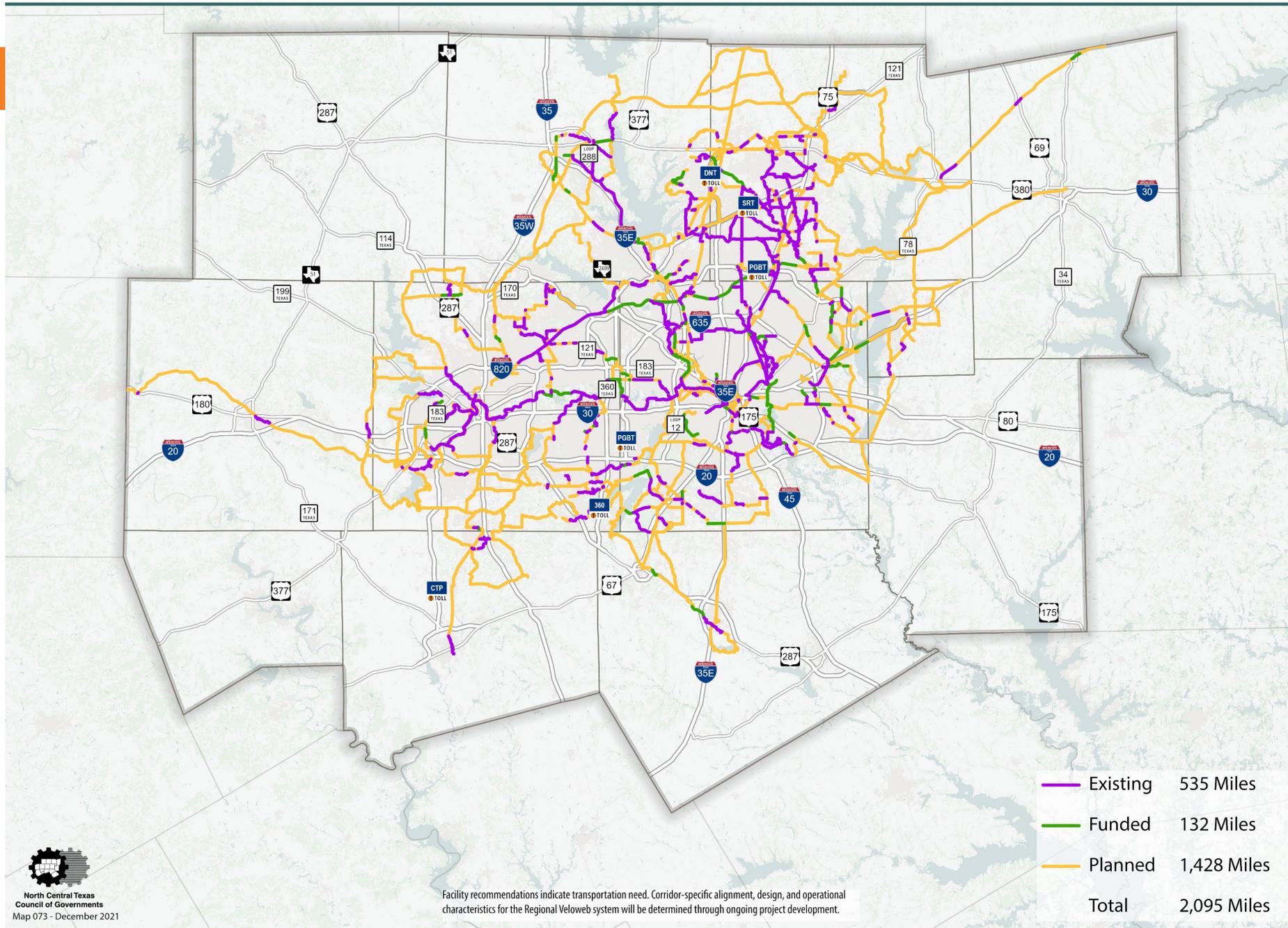**NEW MODEL, NEW DEMOGRAPHICS, NEW CONTROL TOTALS (NNN) LEVEL-OF-SERVICE**

MOBILITY 2045
2022 UPDATE

January 13, 2022

plan in progress

MOBILITY 2045

2022 UPDATE

Legend:
- New or Additional Freeway Capacity
- New or Additional Managed Lane Capacity
- New or Additional Toll Road Capacity
- Staged Facility (Beyond 2045)
- Asset Optimization

North Central Texas Council of Governments
Map 043 - January 2022

Major Transit Corridor Recommendations

DRAFT

Existing   535 Miles

Funded   132 Miles

Planned   1,428 Miles

Total   2,095 Miles

North Central Texas
Council of Governments
Map 073 - December 2021

Facility recommendations indicate transportation need. Corridor-specific alignment, design, and operational
characteristics for the Regional Veloweb system will be determined through ongoing project development.

# HIGHLIGHTED POLICY AND PROGRAM UPDATES

Safety

References new Pedestrian Safety Action Plan endorsed by the Regional Transportation Council on June 10, 2021

Health Accessibility Program

Identify and support transportation solutions to address health disparities in underserved communities, including solutions that improve access to healthy food and medical care
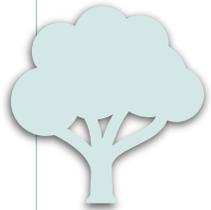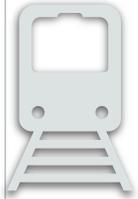
Environmental Considerations

Build on air quality, resiliency, and environmental programs and incorporate new strategies

TDM Strategies

RTC Resolution R21-04 supports the establishment of a regional SOV trip reduction target of 20% annually

HIGHLIGHTED TECHNOLOGY PROGRAM UPDATES

Advance High-Speed Transportation recommendations

Consider high-speed rail and hyperloop between Dallas-Arlington-Fort Worth, as well as connectivity with the proposed Houston-Dallas high-speed rail and Fort Worth-Laredo high-speed/hyperloop

Safe integration of Vertical Mobility Technology in the NCTCOG region

New policy to safely and efficiently integrate Vertical Mobility Technology, Advanced Air Mobility, Urban Air Mobility, Unmanned Traffic Management, Unmanned Aircraft Systems into the NCTCOG region

Advance Automated Transportation Systems (ATS)

Apply ATS technology in passenger and freight applications for local circulation and first/last mile access to regional rail

Automated Vehicles

Incorporate the new Automated Vehicle 2.0 initiative launched since the adoption of the last Mobility Plan

Internet and Broadband

Incorporates a new topic of broadband internet through discussion of access, infrastructure, the intersection of communications and transportation, and potential uses
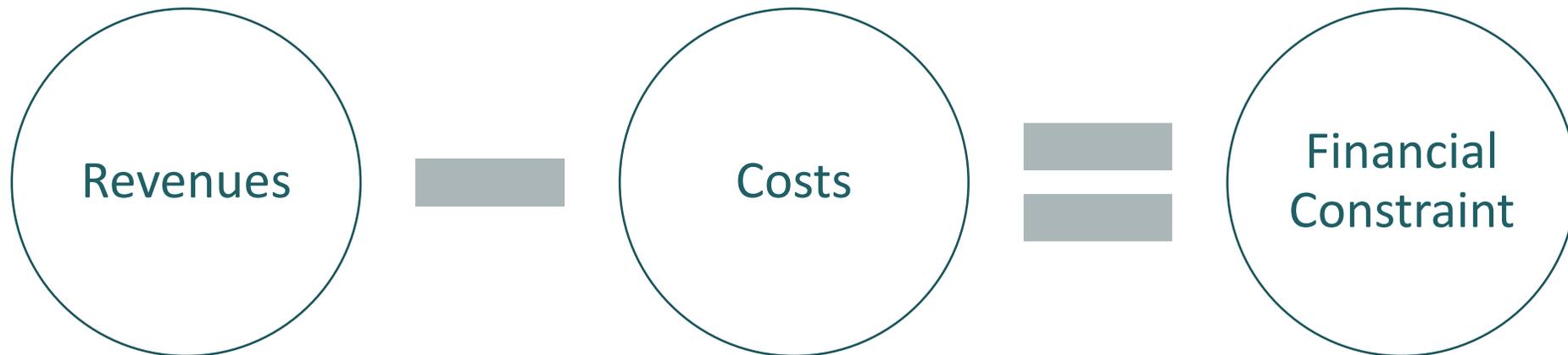
FINANCIAL PLAN

FINANCIAL PLAN REQUIREMENTS

| Plan must be financially constrained | Include all reasonably expected sources of revenue | Year of expenditure dollars | Balance priorities with available revenues |

Revenues ▬ Costs = Financial Constraint

PRELIMINARY FINANCIAL PLAN

	MOBILITY 2045	MOBILITY 2045 UPDATE
Infrastructure Maintenance	36.8	-15% ▼
Management & Operations	9.5	0%
Growth, Development, & Land Use Strategies	3.2	-60% ▼
Rail & Bus	33.3	+25% ▲
HOV/Managed Lanes + Freeways/Tollways and Arterials	53.6	+25% ▲
Total, Actual $, Billions	**136.4 Billion**	**140-150 Billion ▲**

REVENUE FORECAST: TRADITIONAL ROADWAY FUNDS
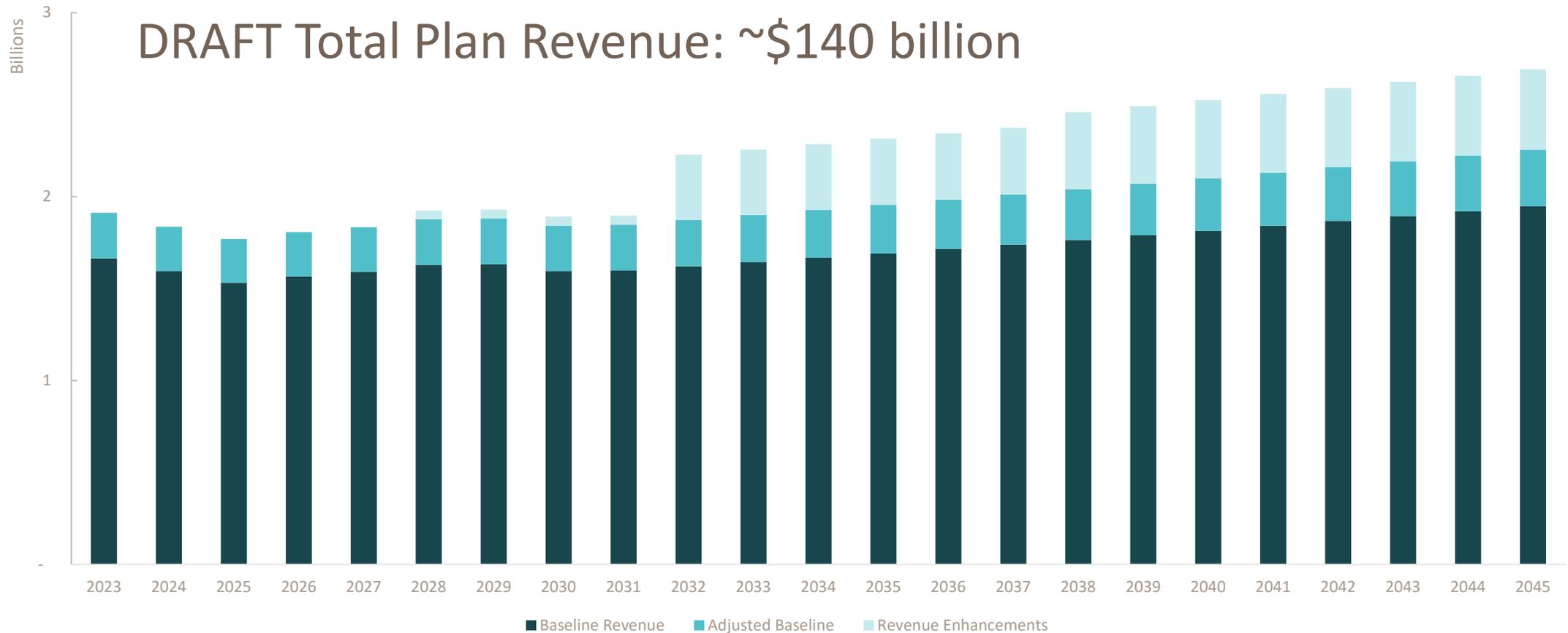
DRAFT Total Plan Revenue: ~$140 billion

Chart above shows annualized revenue sources only and does not include all revenue totaling $140 billion; additional lump sum revenues (i.e. competitive grants) not included in chart.
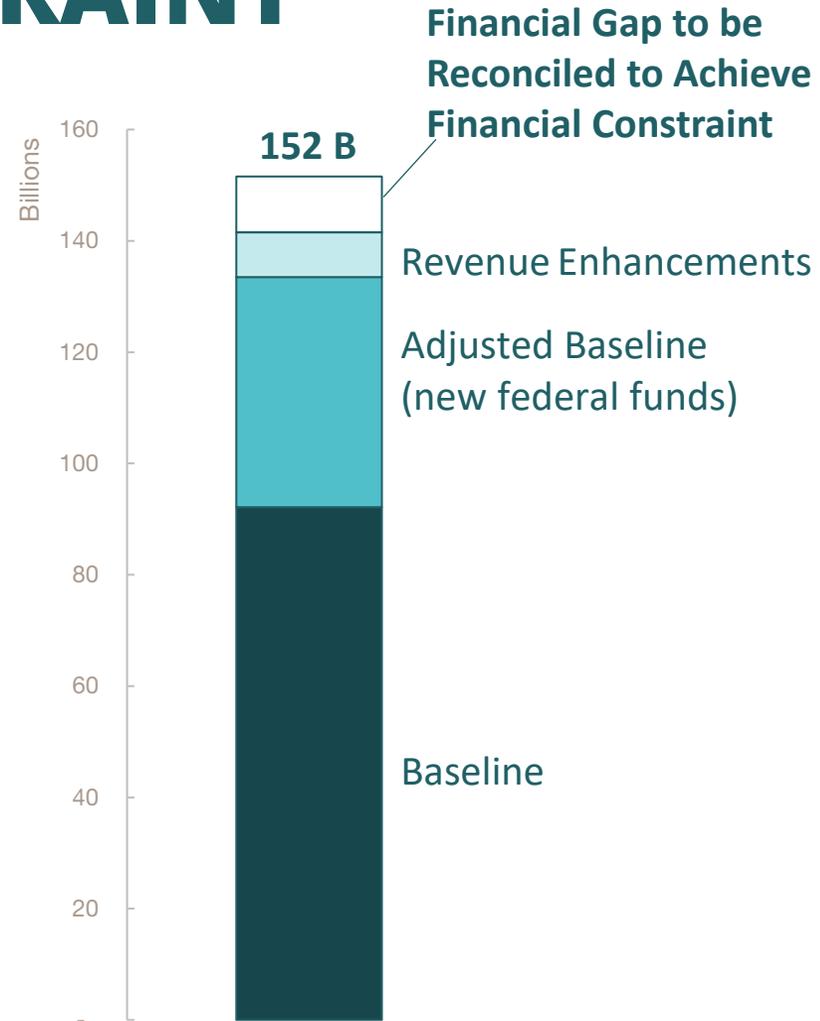
FINANCIAL CONSTRAINT

IN PROGRESS

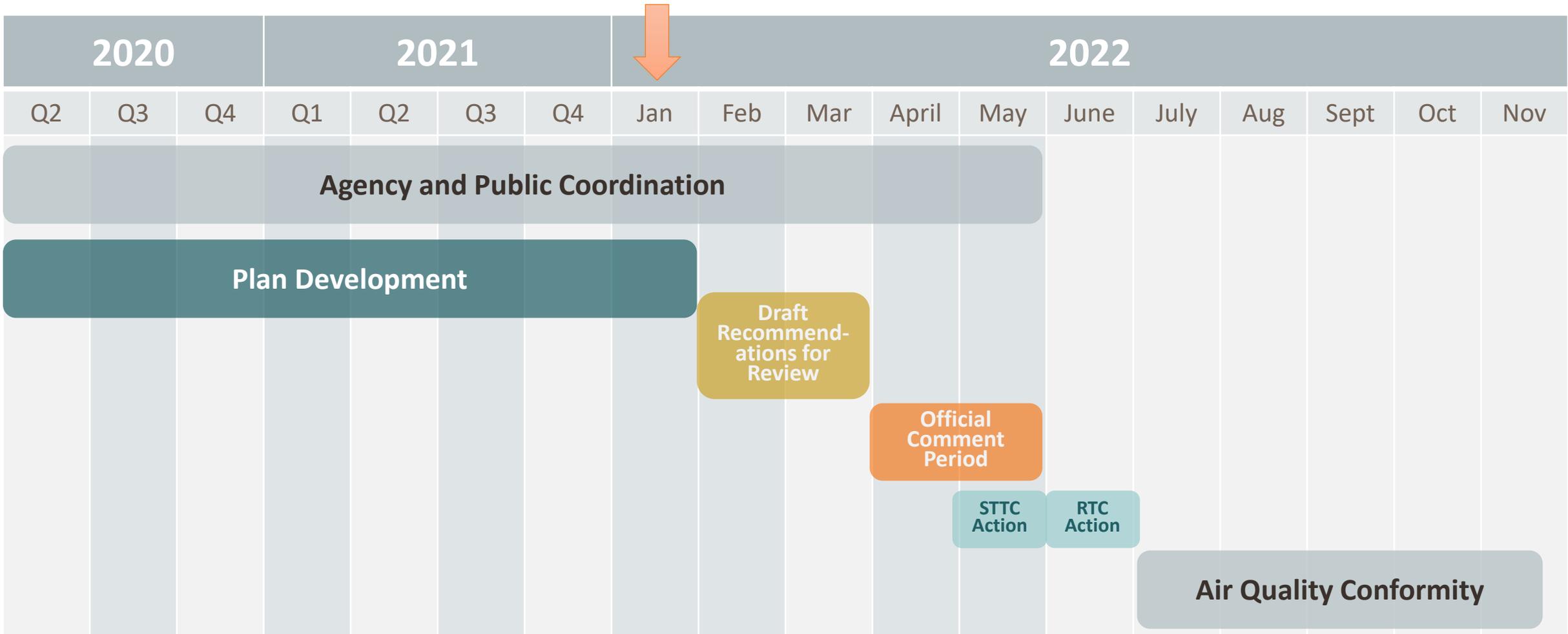Financial constraint expected

Refinement of project/program costs

Refinement of revenue forecast

Financial Gap to be Reconciled to Achieve Financial Constraint

152 B

Revenue Enhancements

Adjusted Baseline (new federal funds)

Baseline

Billions

MOBILITY PLAN SCHEDULE

2020			2021				2022									
Q2	Q3	Q4	Q1	Q2	Q3	Q4	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov

Agency and Public Coordination

Plan Development

Draft Recommend-ations for Review

Official Comment Period

STTC Action

RTC Action

Air Quality Conformity

Notes:
- Public meetings held during highlighted months.
- Regional Transportation Council action on Mobility 2045 Update scheduled for June 9, 2022.

CONTACT US

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FINANCIAL PLAN FUNDING BASICS

Revenue Enhancements

Equivalent of state gas tax increase

Equivalent of federal gas tax increase

Equivalent of registration fee increase

Baseline Adjustments

Infrastructure and Jobs Act (federal) – transit and roadway

Increases due to data sources and formulas (federal)

Continuation of Propositions 1, 7 (state)

New TERP funds (state)

Surplus tolled managed lane revenue (local/regional revenue)

Baseline Revenue

Traditional federal and state sources – transit and roadway

Toll facility revenue

Local revenue and local contributions