

UTA Board of Trustees Meeting

July 17, 2019



Call to Order and Opening Remarks



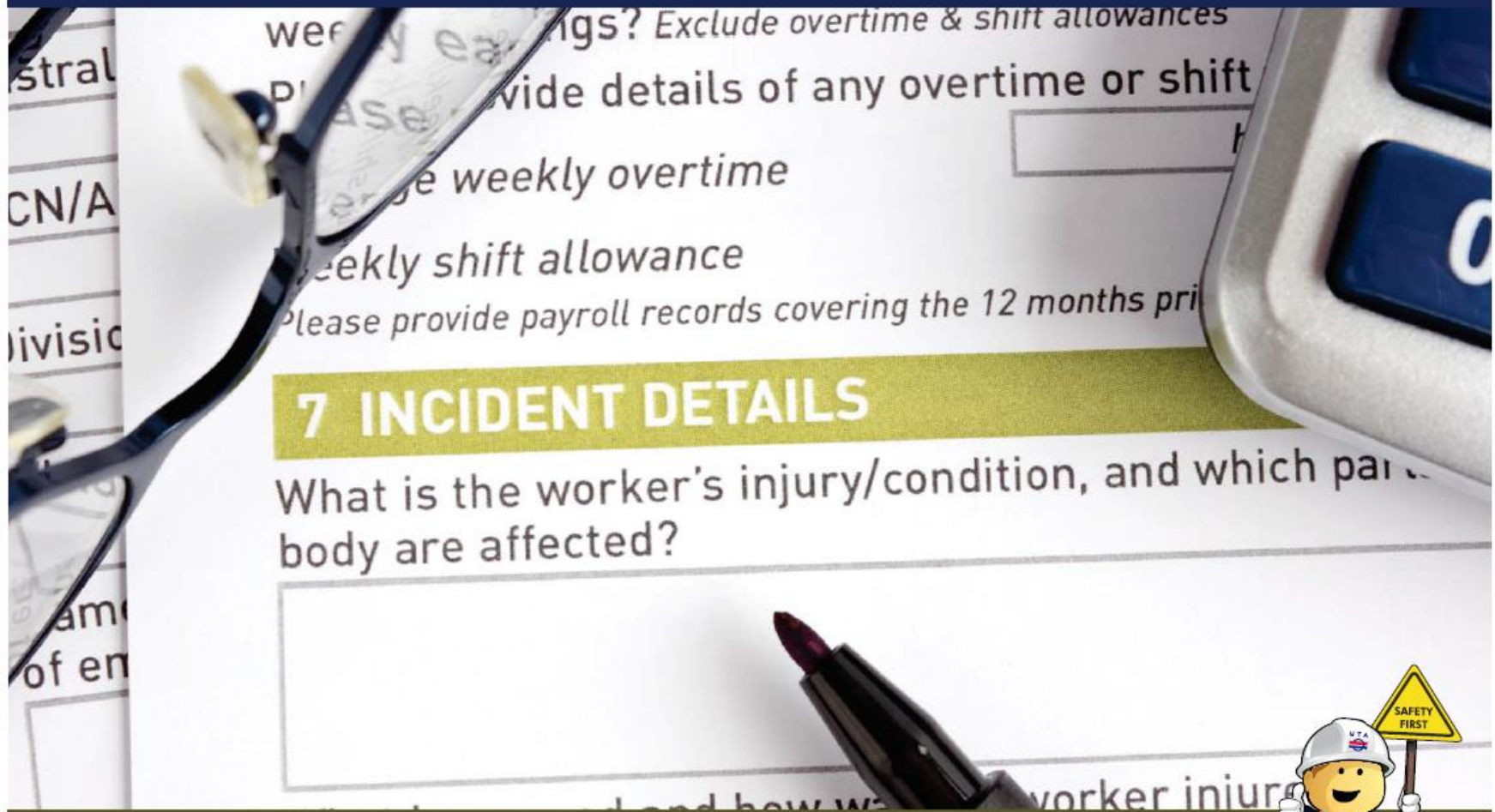
Pledge of Allegiance



Safety First Minute



**The Close Call reported today,
is the accident that does not happen tomorrow.**



Public Comment Period



Public Comment Guidelines

- Each comment will be limited to two minutes per citizen or five minutes per group representative
- No handouts allowed



Approval of July 10, 2019 Board Meeting Minutes

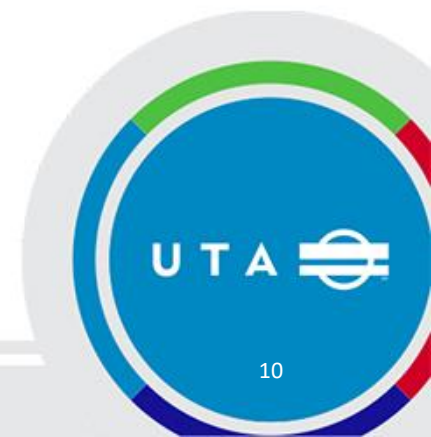


Recommended Action (by acclamation)

Motion to approve



Agency Report



Recognition of UTA International Rail Rodeo Team





2019 APTA International Rail Rodeo

UTA Local Rodeo





Rail Rodeo Events Mimic Real-Life Transit Situations





International Rail Rodeo



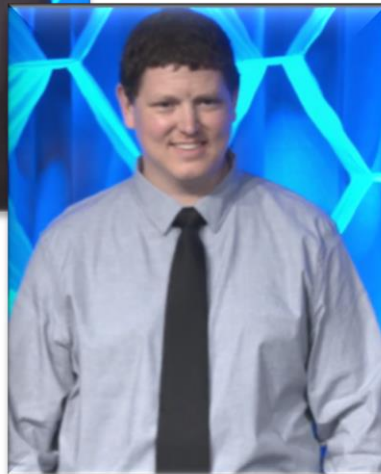
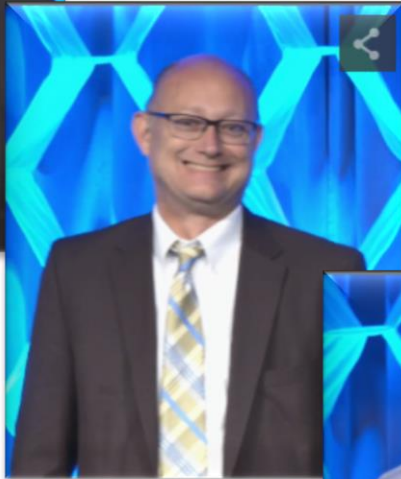
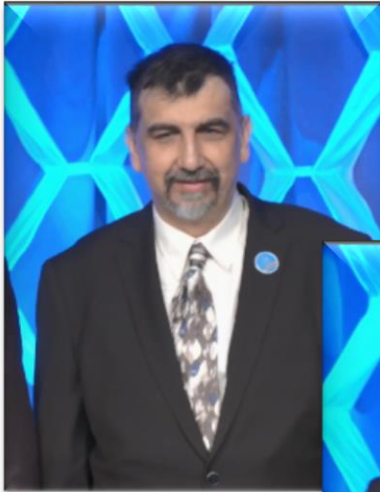


International Rail Rodeo





International Rail Rodeo



Mechanical Measuring



Utah Transit Authority

Roman Dobre
Jody Fairbourn
Tyler Hardy

VOITH
Engineered reliability





International Rail Rodeo




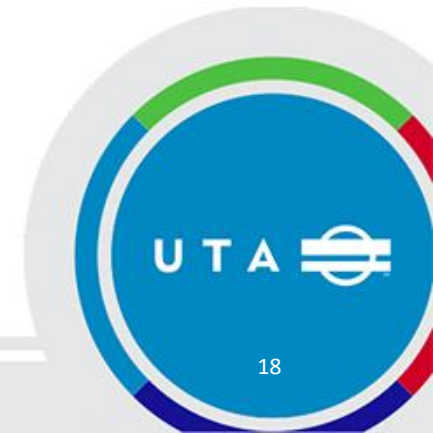
Transit Announced as Official UTA Trip Planning App

Plan and track your trip with **transit**.

Pay with **UTA GoRide**.

Available in the App Store and Google Play.

UTA  rideuta.com



Quarterly Investment Report



Quarterly Investment Report

Utah Transit Authority
Investment Portfolio
June 30, 2019

Investment	CUSIP	Amount Invested	Purchase Date	Maturity	Yield to Maturity	Annual Earnings
FHLB 2.000%	313380GJ0	\$ 5,015,494.44	9/25/2017	9/9/2022	1.953%	\$ 97,861
FHLB 2.000%	313380GJ0	\$ 5,011,255.56	9/29/2017	9/9/2022	1.976%	\$ 98,892
FHLB 2.000%	313380GJ0	\$ 5,011,405.56	9/29/2017	9/9/2022	1.975%	\$ 98,863
FHLB 2.000%	313380GJ0	\$ 5,008,311.11	10/10/2017	9/9/2022	2.001%	\$ 100,167
FAMCA 1.800%	3132X0WX5	\$ 4,952,250.00	10/11/2017	8/26/2022	2.051%	\$ 102,670
FFCB 2.08%	3133EHM91	\$ 4,992,900.00	11/1/2017	11/1/2022	2.110%	\$ 105,623
FHLB 2.030%	3130ACS96	\$ 4,982,373.61	11/14/2017	11/7/2022	2.113%	\$ 105,774
FFCB 2.08%	3133EHM91	\$ 4,987,466.67	11/22/2017	11/1/2022	2.110%	\$ 105,623
		\$ 39,961,456.95				

Zions Capital Advisors	\$ 28,410,088.53	2.503%	\$ 711,105
Zions Bank	\$ 15,169,661.28	2.260%	\$ 342,834
Public Treasurer's Investment Fund	\$ 110,404,042.26	2.859%	\$ 3,155,995
Total Investments	<u>\$ 193,945,249.02</u>		<u>\$ 5,025,407</u>

Rates as of Last Trading Day of

	April	May	June
Zions Capital Advisors	2.753%	2.634%	2.503%
Public Treasurer's Investment Fund	2.935%	2.859%	2.859%
Benchmark Return*	2.440%	2.390%	2.380%

*Benchmark Return is the highest of either the 3 Month T Bill rate or the Fed Funds rate.

R2019-07-01

**Resolution Authorizing Execution of
Addendum 2 to the Salt Lake City Master
Plan Interlocal Agreement for 2019-20
Frequent Transit Network Routes**



Key Considerations

- How to structure the agreement: balancing flexibility with specificity
- How to accommodate context: SLC's larger Funding our Future effort, UTA's internal and external stakeholders
- How to create an ILA that will serve as a regional model
- How to coordinate varied annual cycles
 - SLC: July 1 – June 30
 - UTA: January 1 – December 31
 - Service “Change Day”: August – August
 - FTA: October – October
- How to factor in administrative costs



Master Interlocal Agreement	Addendum 1 Mobilization	Addendum 2 2019-2020 Service	Addendum 3 2020-2021 Service
Exhibit A: Typical Addendum Template	Attachment A: Description of FTN Routes	Attachment A: Definition of Transt Service	Attachment A: Definition of Transit Service
Exhibit B: Table of Admin Costs	Attachment B: Funding for Mobilization	Attachment B: Baseline Service	Attachment B: Baseline Service
Exhibit C: Methodology for Calculating Service Costs		Attachment C: Funding for Transit Service	Attachment C: Funding for Transit Service
Exhibit D: Form of Annual Admin Cost Report			



Master Agreement

SPONSORED SERVICE COST CALCULATOR - SLC TMP Implementation

VARIABLE VALUES

	Most recent NTD Cost per Revenue Mile, Bus Service (1)
	Annual escalator rate (2)
	Number of Years since NTD report

	Negotiated Administrative Discount (3)
	Sponsored Revenue Miles

#DIV/0!	Sponsored Paratransit Service rate (4)
---------	----------------------------------------

	Fuel Cost per Gallon (Service Year Budgeted Cost)
	Fuel Efficiency, Miles per Gallon (adjust per vehicle type)

	Sponsored Vehicle Lease Costs
	Sponsored Vehicles

(1) NTD Cost per Revenue Mile has been adjusted to exclude fuel expense but does include approximately 2% for capital maintenance (e.g. engine replacement, etc).

(2) The annual escalator is a calculated average of the PCE CPI over a twenty year period.

(3) UTA will discount the administrative charges in proportion to the scale of the service increase in revenue miles.

SPONSORED SERVICE COST

\$	-	Most recent NTD Cost Per Mile - Bus Service
\$	-	NTD rate Adjusted to Service Year Costs
\$	-	Discounted NTD Adjusted to Service Year Costs
	0	Sponsored Revenue Miles
\$	-	Total Mileage Cost, Without Fuel, Annual

#DIV/0!	Add Paratransit Service
#DIV/0!	Total Annual Operating Costs without fuel

\$	-	Fuel Cost per Gallon
	0.0	Bus Miles per Gallon
	0	Sponsored Revenue Miles
#DIV/0!		Total Fuel Cost

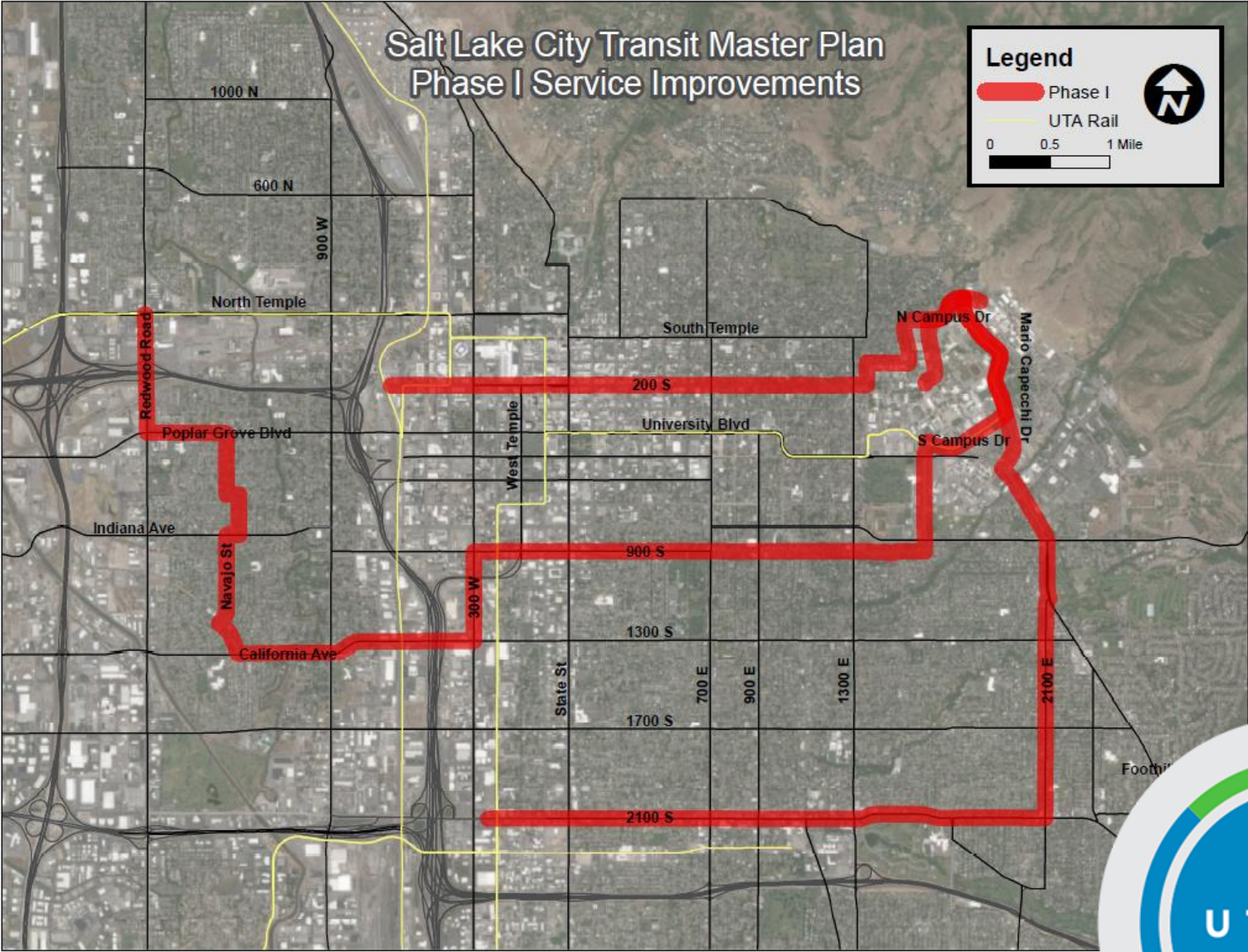
\$	-	Per Vehicle Principal + 4% Interest Rate, Annual
	0	Vehicles needed for sponsored service
\$	-	Total Annual Vehicle Cost for Sponsored Service

#DIV/0!	TOTAL
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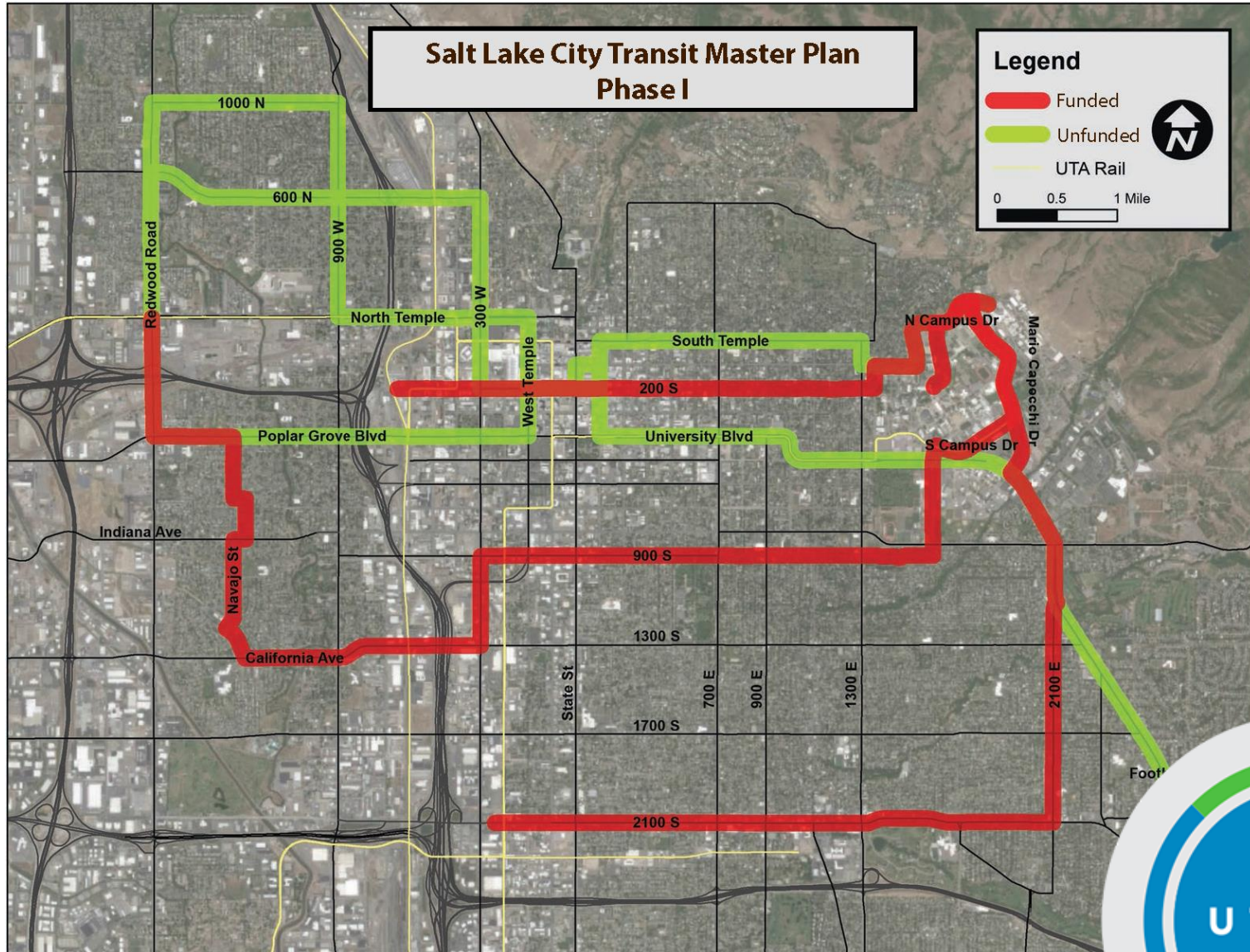


2019 Service Increases

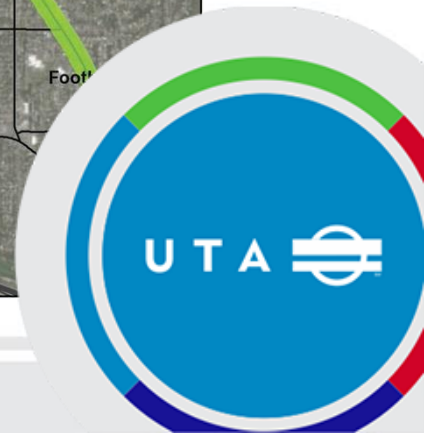
UTAH TRANSIT AUTHORITY



Unfunded Future Service Increases

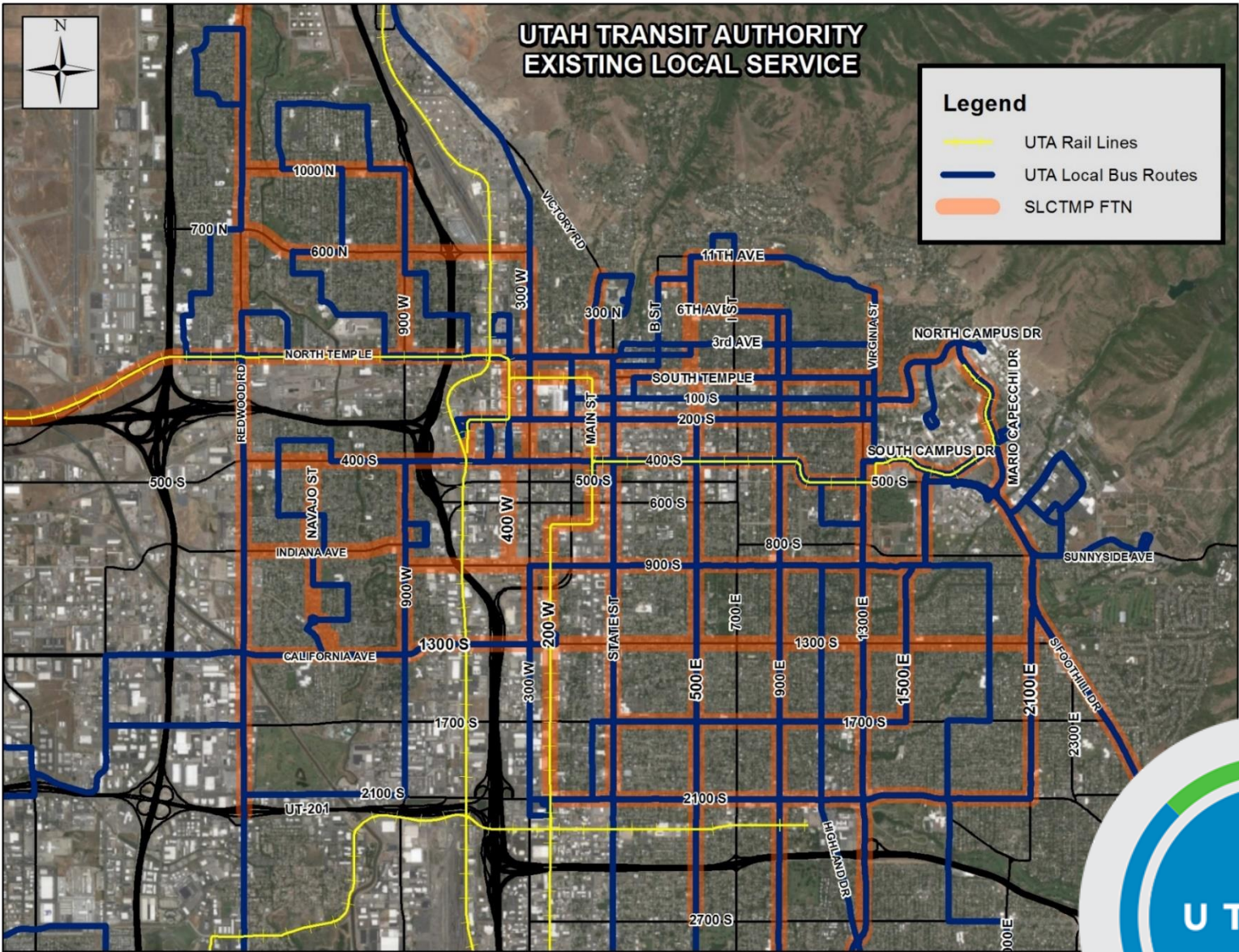


UTAH TRANSIT AUTHORITY



SLC Transit Master Plan

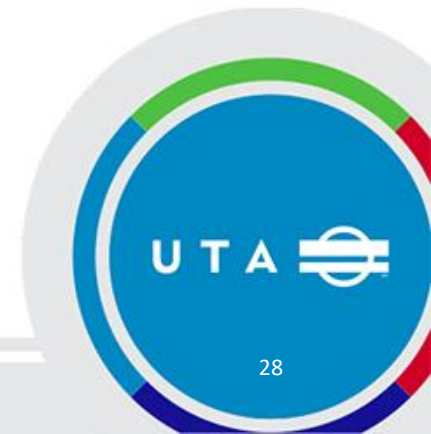
UTAH TRANSIT AUTHORITY



Recommended Action (by roll call)

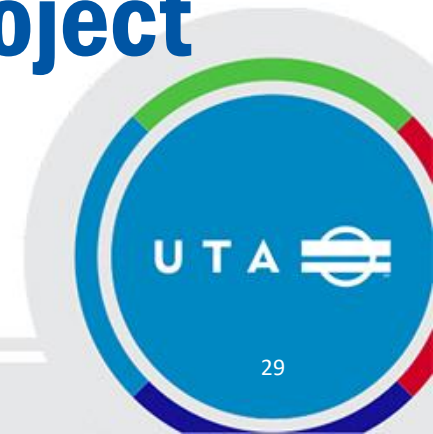
Motion to approve R2019-07-01:

Resolution Authorizing Execution of Addendum 2 to the Salt Lake City
Master Plan Interlocal Agreement for 2019-20 Frequent Transit
Network Routes



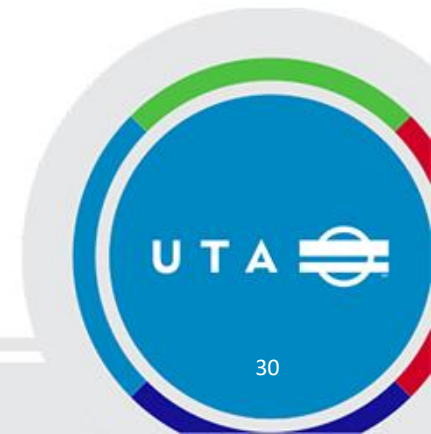
R2019-07-02

**Resolution Authorizing Execution of
Memorandum of Understanding with
the University of Utah
and Delegating Authority to the
Executive Director for Construction of
the Union Building Bus Bays Project**

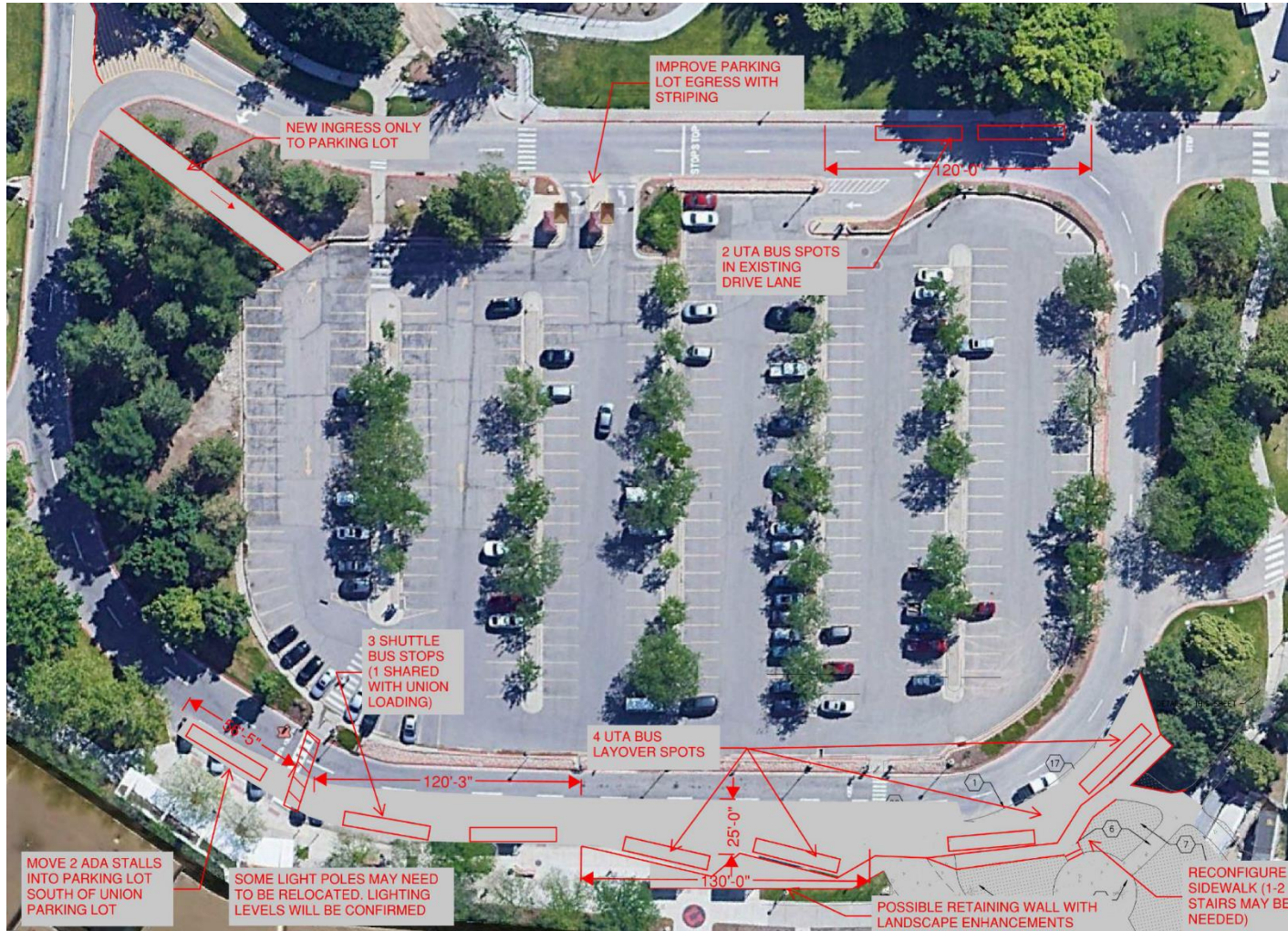


Union Building Bus Bays Project

- Description and purpose:
 - Construction of bus bay improvements near the Union Building at the University of Utah
 - Work will be performed as a task order to a three-year on-call maintenance contract with Stacy and Witbeck
 - Costs are anticipated to be covered by a grant from the Federal Transit Administration (\$372,360) and Salt Lake City (\$27,040)
- Total contract:
 - \$399,400



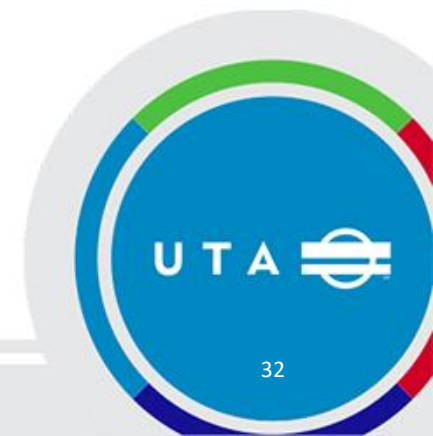
Union Building Bus Bays Project



Recommended Action (by roll call)

Motion to approve R2019-07-02:

Resolution Authorizing Execution of Memorandum of Understanding with the University of Utah and Delegating Authority to the Executive Director for Construction of the Union Building Bus Bays Project

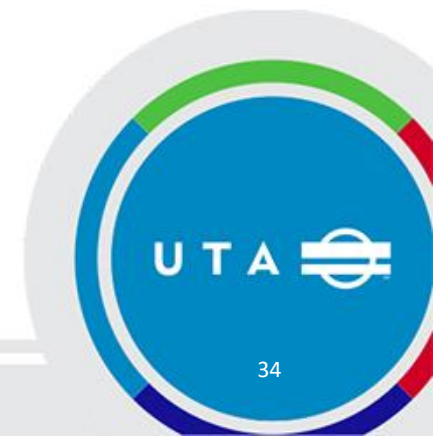


Contracts, Disbursements, and Grants



Contract: Point of the Mountain Transit Project (Parametrix)

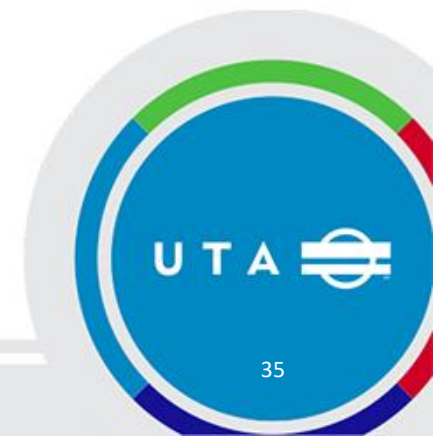
- Description and purpose:
 - Completion of an Alternatives Analysis study to evaluate potential alignments for rapid transit connections between Sandy and Lehi
 - Contract is phased into six tasks:
 - Tasks 1-4: \$550,000 – funding secured
 - Tasks 5-6: \$250,000 – funding to be identified
- Total contract:
 - \$800,000



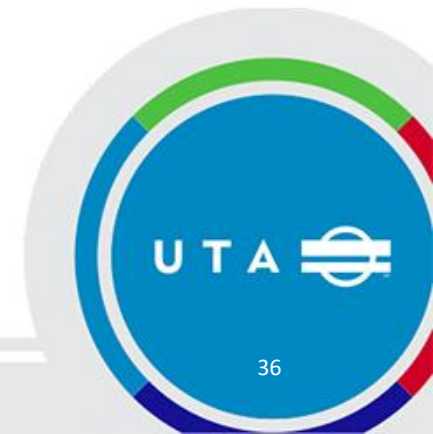
Recommended Action (by roll call)

Motion to approve contract:

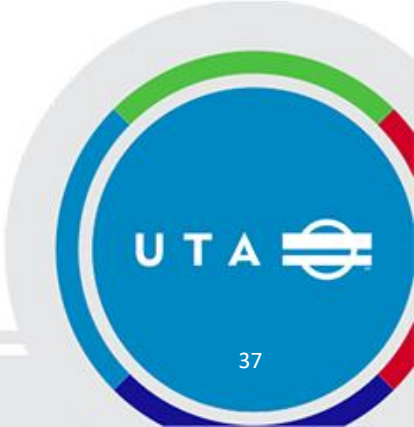
Point of the Mountain Transit Project (Parametrix)



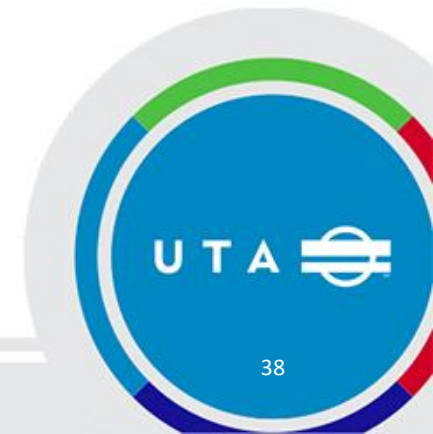
Pre-Procurement: Lawncare and Landscaping Services for Multiple Locations



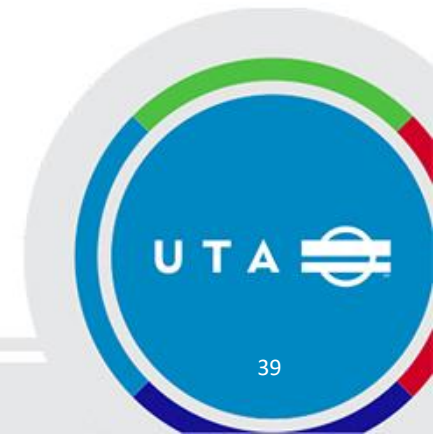
Pre-Procurement: New Roof Membrane on OK Manufacturing Building



Discussion Items



2019 Budget Amendment 2 – Capital Budget



Proposed Budget Amendments

- Capital
 - Salt Lake County 4th Quarter Capital Projects
 - E-Voucher Software Purchase

SM

Salt Lake County 4th Quarter Capital

Category	Proposed Amendment
Sales Tax	<u>\$6,000,000</u>
State of Good Repair – TRAX	2,000,000
State of Good Repair – SD Overhauls	1,500,000
Capital Project – Depot District	1,000,000
Capital Project – Meadowbrook Expansion	300,000
Capital Project – Operator Restroom	200,000
Capital Project – Bus Stop Impr. & Signage	<u>1,000,000</u>
Total	<u>\$6,000,000</u>

E-Voucher Software Capital

Category	Proposed Amendment
UTA Current Year Funding	\$166,000
Grants	<u>84,000</u>
Total Revenue	<u>\$250,000</u>
Other Capital Projects	\$250,000

2019 Capital Budget Amendment Revenue

Description	Current Budget	Amendment Amount	Amended Budget
UTA Current Year Funding	\$23,113,000	\$166,000	\$23,279,000
2018 UTA Carryover Funding	21,238,438		21,238,438
Sales Tax		6,000,000	6,000,000
Grants	62,398,278	84,000	62,482,278
Local Partner Contributions	17,013,733		17,013,7333
State Contribution	5,065,699		5,065,699
2018 Bond Proceeds	25,077,792		25,077,792
Leasing	<u>11,103,282</u>		<u>11,103,282</u>
Totals	<u>\$165,010,222</u>	<u>\$6,250,000</u>	<u>\$171,260,222</u>

2019 Capital Budget Amendment Expense

Description	Current Budget	Amendment Amount	Amended Budget
Provo-Orem TRIP	\$10,591,896	\$0	\$10,591,896
Airport Station Relocation	2,650,000		2,650,000
State of Good Repair	47,144,243	3,500,000	50,644,243
Other Capital Projects	<u>104,624,083</u>	<u>2,750,000</u>	<u>107,374,083</u>
Totals	<u>\$165,010,222</u>	<u>\$6,250,000</u>	<u>\$171,260,222</u>

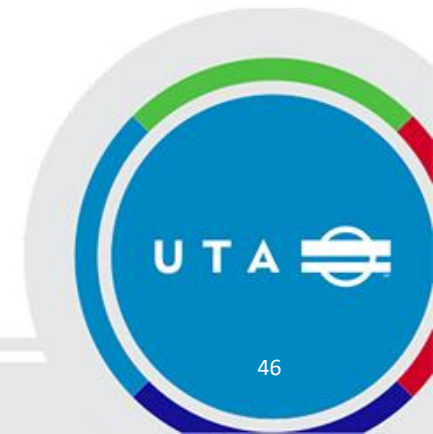
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Next Steps

- July 17 Advisory Council meeting - consultation
- July 31 Board meeting – Resolution amending the 2019 budget

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2019 Budget Amendment 3 – Operating Budget



Proposed Budget Reallocations

- Operating
 - Planning and Customer Experience
 - Salt Lake County 4th Quarter
 - Salt Lake City Purchased Service
 - Parts Freight Expense Adjustment

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Transfer of Budget From Planning To Customer Experience

Expense Category	Reallocation Amount
General & Administrative	\$ 463,263
Planning/RE/TOD/Major Program Development	<u>(463,263)</u>
Total	<u>\$0</u>

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Salt Lake County 4th Quarter

Category	Reallocation Amount
Sales Tax	(\$6,000,000)
Salt Lake County Service	(\$6,000,000)

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Salt Lake City Purchased Services

Category	Reallocation Amount
Salt Lake City Funding	<u>(\$1,887,351)</u>
Bus Operations	2,406,617
Paratransit	160,277
Operations Support	460,676
General & Administrative	176,079
Salt Lake City Service (line item)	(4,950,000)
Debt Service	<u>(141,000)</u>
Totals	(\$1,887,351)

Parts Freight Expense

Category	Reallocation Amount
Bus	\$58,900
Commuter Rail	104,782
Light Rail	142,000
Paratransit	7,000
Operations Support	19,000
Contributions to Reserves	<u>(\$331,682)</u>
Total	<u>\$0</u>

2019 Operating Budget Reallocations

Revenue

Description	Current Budget	Reallocation Amount	Amended Budget
Sales Tax	\$314,861,000	(\$6,000,000)	\$308,861,000
Federal Preventative Maintenance	66,188,000		66,188,000
Passenger Revenues	53,420,000		53,420,000
Advertising	2,467,000		2,467,000
Investment Income	8,582,000		8,582,000
Other Revenues	3,933,000		3,933,000
Salt Lake City	5,356,000	(1,887,351)	3,468,649
Salt Lake County (S-Line)	500,000		500,000
Utah County	1,670,000		1,670,000
Motor Vehicle Registration/UDOT	<u>2,400,000</u>	<u>0</u>	<u>2,400,000</u>
Totals	<u>\$459,377,000</u>	<u>(\$7,887,351)</u>	<u>\$451,489,679</u>

2019 Operating Budget Reallocations

Operating Expense

Description	Current Budget	Reallocation Amount	Amended Budget
Bus	\$102,107,000	\$2,465,517	\$104,572,517
Commuter Rail	29,064,000	104,782	29,168,782
Light Rail	49,906,000	142,000	50,480,000
Paratransit Service	22,918,000	167,277	23,085,277
Rideshare/Vanpool	3,541,000		3,541,000
Operations Support	48,097,000	479,676	48,576,676
General & Administrative	33,689,000	639,342	34,328,342
Salt Lake City Service	4,950,000	(4,950,000)	0
Salt Lake County Service	<u>11,479,000</u>	<u>(6,000,000)</u>	<u>5,479,000</u>
Total Operating Expense	<u>\$305,751,000</u>	<u>(\$6,951,406)</u>	<u>\$298,799,594</u>

2019 Operating Budget Reallocations Non-Operating, Debt Service & Total

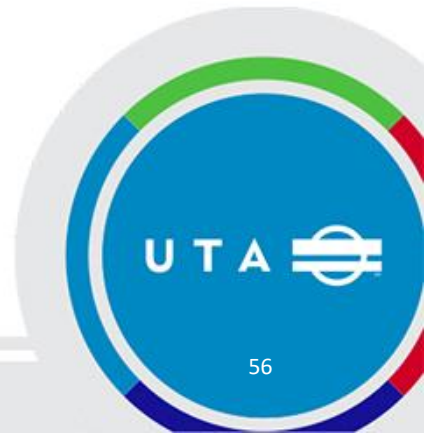
Description	Current Budget	Reallocation Amount	Amended Budget
Total Operating Expense	<u>\$305,751,000</u>	<u>(\$6,951,406)</u>	<u>\$298,799,594</u>
Non-operating	<u>6,151,000</u>	<u>(463,263)</u>	<u>5,687,737</u>
Principal and Interest	121,819,000	(141,000)	121,678,000
Early Debt Retirement Reserve	23,735,000	(331,682)	23,403,318
Contribution to Reserves	<u>1,921,000</u>	<u>0</u>	<u>1,921,000</u>
Total Debt Service	<u>147,475,000</u>	<u>(472,682)</u>	<u>147,002,318</u>
Total Operating Budget	<u>\$459,377,000</u>	<u>(\$7,887,351)</u>	<u>\$451,489,649</u>

Next Step

- July 31 Board meeting – Resolution amending the 2019 budget

SM

UTA Transit Financial Plan (TFP)



Transit Financial Plan (TFP)

Purpose

- Understand impact of revenue/expense changes
 - Sales tax growth
 - Fares
 - Grant funding
 - Personnel costs
- Estimate impact of proposed changes
 - New service
 - New capital project
- Adjust accordingly

Transit Financial Plan (TFP) Steps

	Year 1	Year 2	Year 3
Available Resources:			
Est. Beginning Balance (Restricted and Unrestricted)	+	+	+
Estimated Revenues	+	+	+
Use of Resources:			
Debt Service	-	-	-
Estimated Operating budget	-	-	-
Estimated Capital – Maintaining Assets	-	-	-
Estimated Capital – Adding New Assets	-	-	-
Est. Ending Balance (Restricted or more)	+	+	+

Transit Financial Plan (TFP)

- Updated three times per year
 - After annual audit
 - Update from expected to actual for past year
 - With preliminary budget information
 - Revise current year and update future assumptions
 - After adoption of annual budget
 - Revise current year and reflect next year's budget
- Review 2019-2023

January 2019 TFP: Summary

(2019 Budget Book; in millions)

	2019	2020	2021	2022	2023
Operating Revenue	\$456.7	\$493.8	\$517.0	\$536.5	\$556.7
Operating Expense	<u>(306.8)</u>	<u>(330.7)</u>	<u>(346.1)</u>	<u>(357.4)</u>	<u>(367.9)</u>
Net Operations	149.9	163.1	170.9	179.1	188.8
Debt Service	(119.6)	(129.3)	(141.4)	(149.1)	(156.9)
Net Available	30.3	33.8	29.5	30.0	31.9
Capital Revenue	75.8	118.5	78.8	30.5	48.0
Capital Expense	<u>(141.4)</u>	<u>(133.0)</u>	<u>(131.1)</u>	<u>(58.6)</u>	<u>(73.2)</u>
Net Change	(35.2)	19.3	(22.8)	1.9	6.7
January 1 Balance	237.4	202.1	221.4	198.6	102.5
Retire Debt Early	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>(98.0)</u>	<u>0.0</u>
December 31 Balance	<u>\$202.1</u>	<u>\$221.4</u>	<u>\$198.6</u>	<u>\$102.5</u>	<u>\$109.2</u>

January 2019 TFP: Reserves at Year End

(2019 Budget Book, in millions)

	2019	2020	2021	2022	2023
Restricted					
Debt Service	\$38.6	\$38.6	\$38.6	\$38.6	\$38.6
Debt Rate Stabilization	71.3	89.4	97.4	0.4	0.6
Service Sustainability	15.4	16.2	16.8	17.2	17.8
Working Capital	28.6	30.2	31.3	32.2	33.1
Risk	8.2	8.4	8.5	8.7	8.9
Fuel and Parts	<u>4.9</u>	<u>4.9</u>	<u>4.9</u>	<u>4.9</u>	<u>4.9</u>
Total Restricted	167.0	187.7	197.5	102.0	103.9
Unrestricted	<u>35.1</u>	<u>33.7</u>	<u>1.1</u>	<u>0.5</u>	<u>5.3</u>
Ending Balance, Dec. 31	<u>\$202.1</u>	<u>\$221.4</u>	<u>\$198.6</u>	<u>\$102.5</u>	<u>\$109.2</u>

January 2019 TFP Key Assumptions: Operating Revenue

	2019	2020	2021	2022	2023
Sales Tax	5.0%	5.0%	5.0%	5.0%	5.0%
Preventative Maintenance	5.0%	1.5%	3.2%	1.0%	4.1%
Passenger	1.4%	7.8%	(0.5%)	0.9%	1.4%
Interest (CBO + .75%)	3.55%	4.15%	4.15%	4.15%	4.05%

January 2019 TFP Key Assumptions: Long-term Operating Expense Growth Rate

Category	Weight	Growth Rate	Calculation
Labor	68%	3.0%	2.04%
Medical	13%	5.4%	.70%
Fuel	9%	2.1%	.19%
Parts	10%	2.2%	<u>.22%</u>
Totals	100%		3.15%
Annual Savings			<u>(.40%)</u>
Growth Rate			<u>2.75%</u>

Note: Growth rate was developed in 2017.

January 2019 TFP Key Assumptions: Leasing

(in millions)

Leasing	2019	2020	2021	2022	2023
Revenue Service Vehicles:					
Buses	\$5.3	\$27.3	\$35.9	\$7.2	\$34.0
Paratransit	\$2.9	\$2.9	\$3.0	\$3.1	\$3.1
Vans	<u>\$1.9</u>	<u>\$2.0</u>	<u>\$2.0</u>	<u>\$2.1</u>	<u>\$2.2</u>
Totals	<u>\$10.1</u>	<u>\$32.2</u>	<u>\$40.9</u>	<u>\$12.4</u>	<u>\$39.3</u>
Lease Rates:					
Buses	4.5%	4.5%	4.5%	4.5%	4.5%
Paratransit	4.0%	4.0%	4.0%	4.0%	4.0%
Vans	3.9%	3.9%	3.9%	3.9%	3.9%

January 2019 TFP: Capital Expense

(in millions)

	2019	2020	2021	2022	2023
Provo-Orem TRIP	\$2.5				
Airport Station Relocation	2.7	18.2			
Depot District	27.3	24.3	29.5		
State of Good Repair	46.7	48.5	60.7	42.1	70.0
Other Capital	<u>62.2</u>	<u>42.0</u>	<u>40.9</u>	<u>16.5</u>	<u>3.2</u>
Totals	<u>\$141.4</u>	<u>\$133.0</u>	<u>\$131.1</u>	<u>\$58.6</u>	<u>\$73.2</u>

January 2019 TFP: Capital Revenues

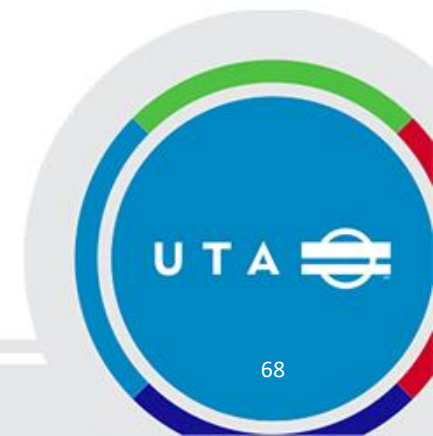
(in millions)

Source	2019	2020	2021	2022	2023
Grants	\$50.0	\$35.9	\$33.6	\$15.6	\$6.2
Bonds		34.7			
Leasing	10.1	32.2	41.0	12.4	39.3
Local Partners	11.0	1.8	1.7		
State	<u>4.7</u>	<u>13.9</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>
Total	<u>\$75.8</u>	<u>\$118.5</u>	<u>\$78.8</u>	<u>\$30.5</u>	<u>\$48.0</u>

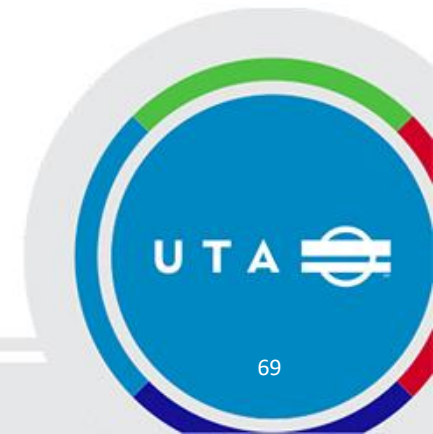
July 31 Board Meeting Discussions

- 2020 budget assumptions
- 2020 budget targets

Recess



Service Choices Report Presentation



UTA Service Choices

The UTA Service Choices project aims to fully review, and if necessary redesign, the pattern of bus service across the UTA network, as well as setting standards for future service changes.

The first report in this project was released in Spring 2019, and the initial engagement period closed at the end of May.

Beginning in August, UTA staff and the consultant team will design a Draft Network Plan.

Today's Choice

Today, we will provide information to help the Board of Trustees give their direction on the goals and desired outcomes of the Draft Network Plan.

This direction will directly shape the network design emerging from the next step in this process.

Project Timeline

Early 2019

Mid 2019

Fall 2019

Early 2020

Late 2020

2021

Service Choices
Public Outreach

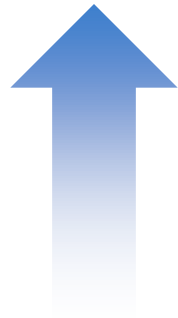
Board of Trustees
Direction on Bus
Service Priorities

Draft Network
Plan and
Route Definition

Draft Network
Bus Plan
Public Outreach

Network Bus
Plan Refinement

Network Bus Plan
Implementation



Where we
are right now

The Key Questions

Three critical questions must be answered to shape the design of the Draft Network Plan:

1. When deploying the existing operating budget (potentially moving service from one place to another), how should UTA balance the competing goals of **ridership** and **coverage**?
2. When deploying new resources, how should UTA balance the competing goals of **ridership** and **coverage**?

(Especially relevant in the Salt Lake Business Unit, where new resources for bus service are available.)

The Key Questions

3. When deploying service with a coverage goal – in expectation of low ridership – what should be the primary principle governing that service design:
 - **Serving people with no alternatives**, including seniors, youth, and people with low incomes.
 - **Responding to growth**, by extending service to newly developing communities.
 - **Serving everyone who pays taxes**. This principle would lead us to try to provide some service to everyone in the service area.

High-ridership transit is highly useful

What is useful transit?

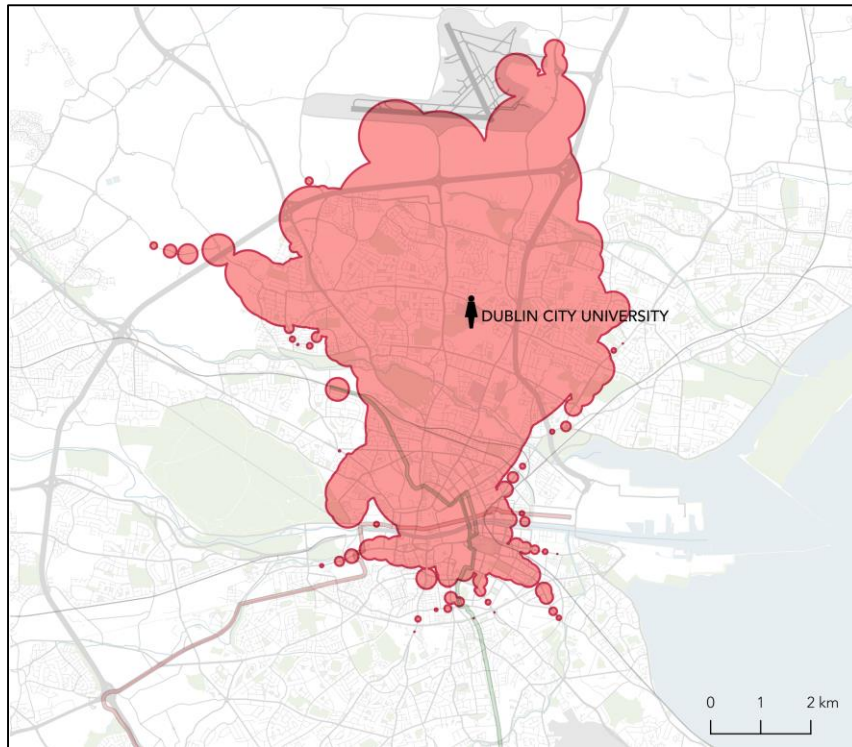
Is transit useful?



Transportation planning is freedom planning.

“Where can I go?” = “What could I do?”

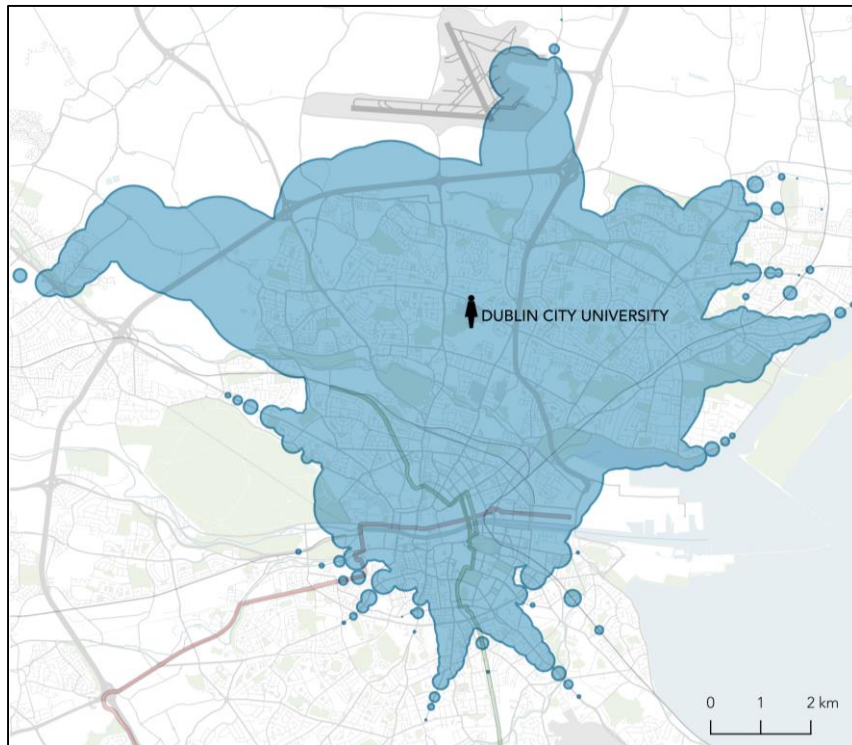
Where could I be in 45 minutes?



“isochrone” – a map shape enclosing the area that can be reached in a given travel time.

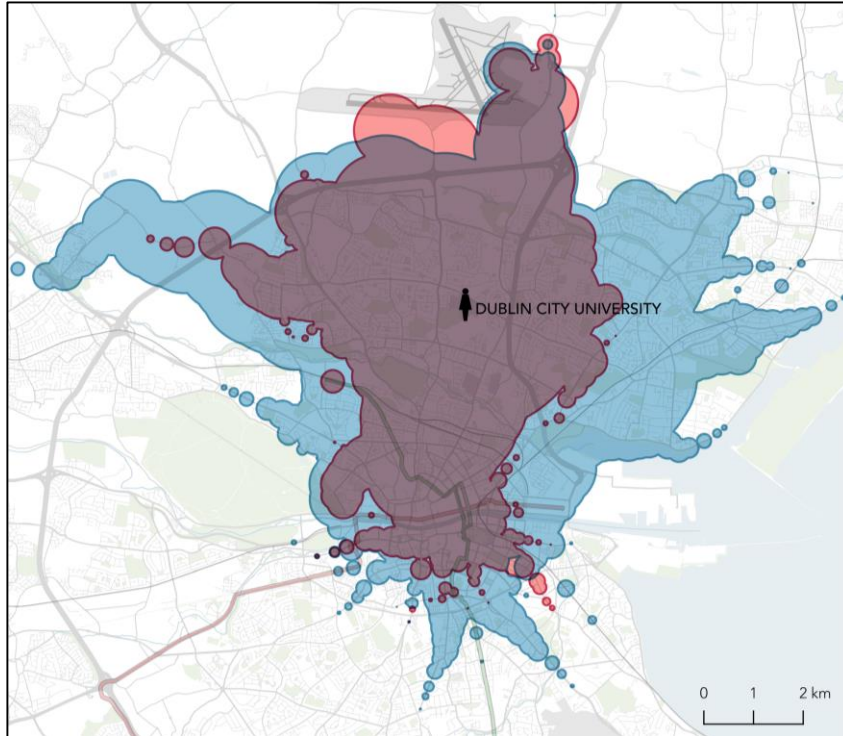
Where could I be in 45 minutes or less?

Where can I go with the new network?



The differences in the design of the new network produce a different isochrone.

To expand ridership, expand freedom



With the redesigned network, what new opportunities are open to me using transit?

Everywhere in blue is newly accessible by transit with this plan.

Everywhere in red is no longer accessible.

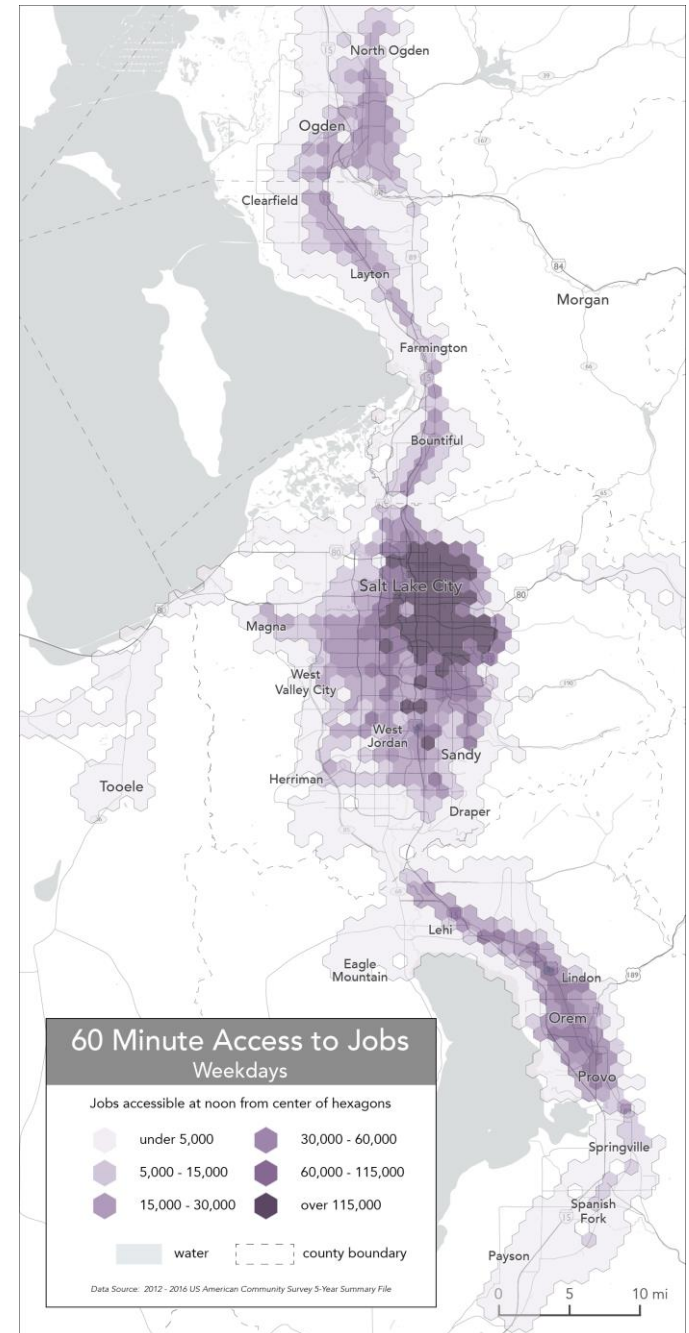
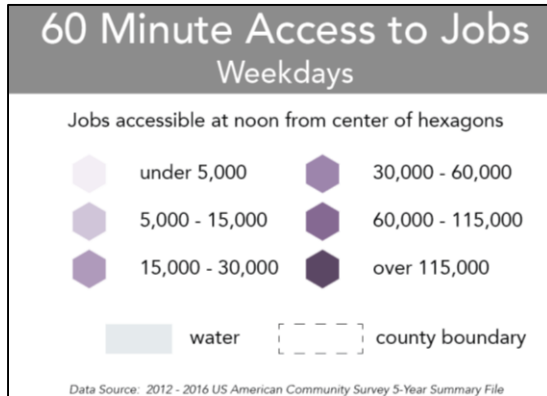


95,000 more jobs (+43%)

149,000 more residents (+68%)

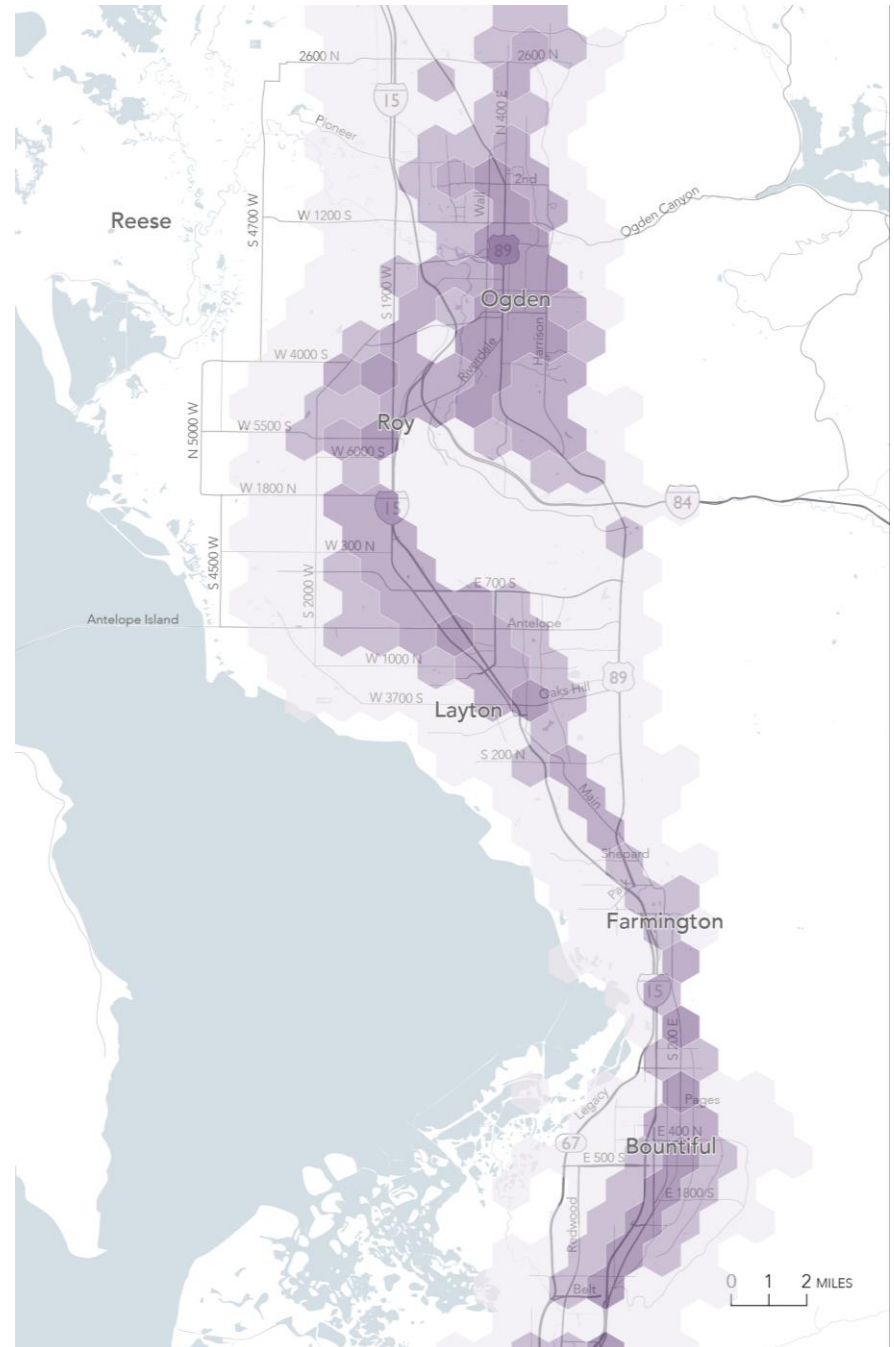
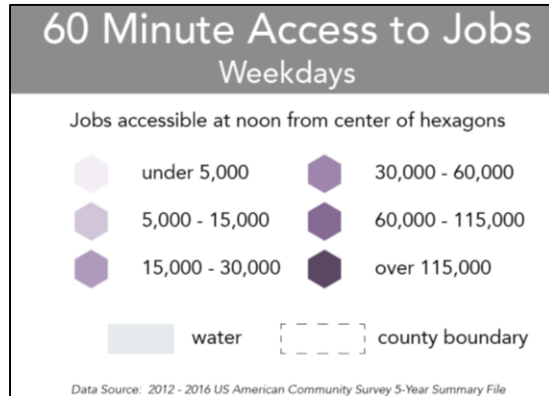
How useful are UTA's services?

The map shows the number of jobs within the county reachable at midday from the center of each hexagon by transit in 60 minutes.



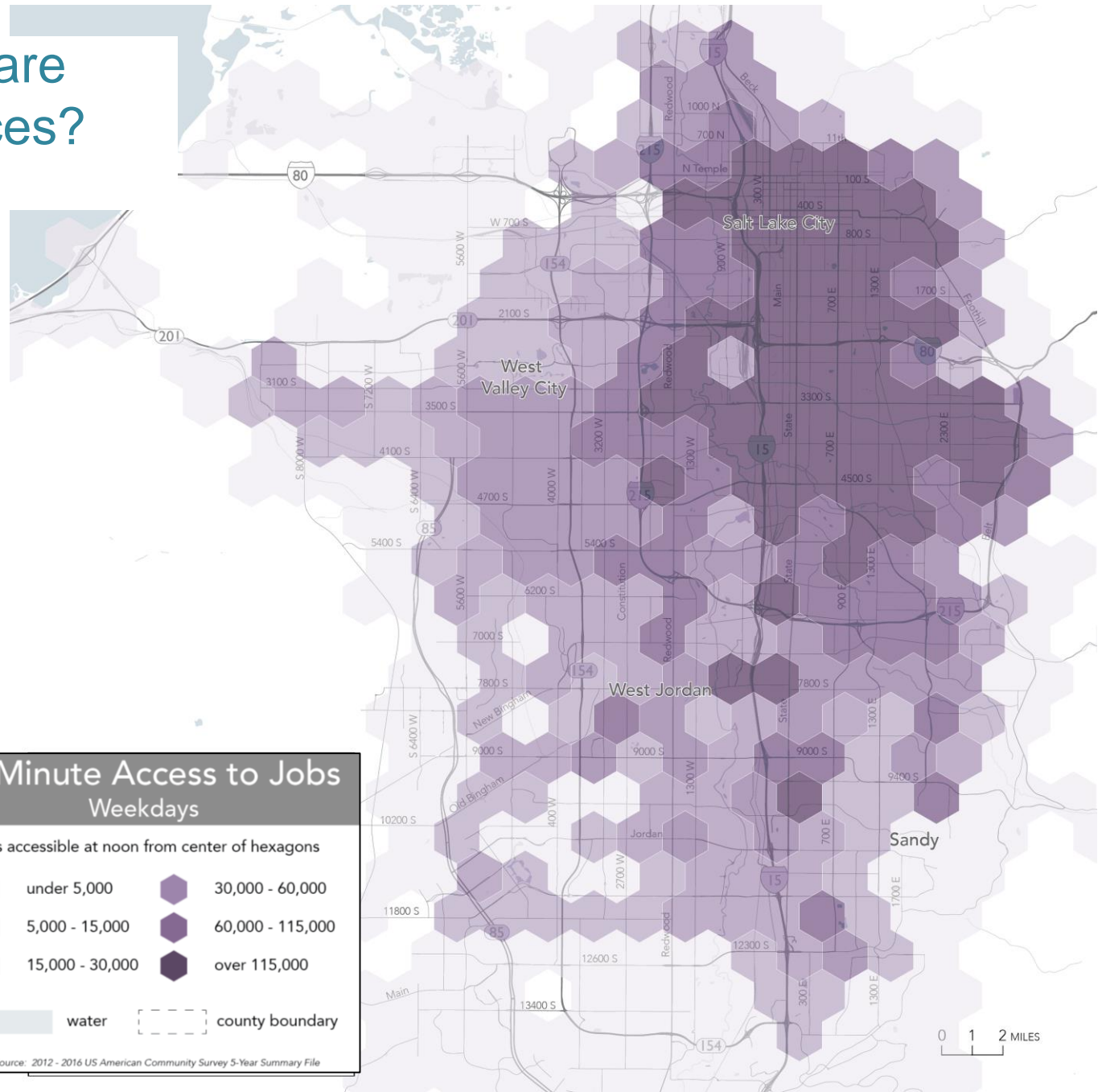
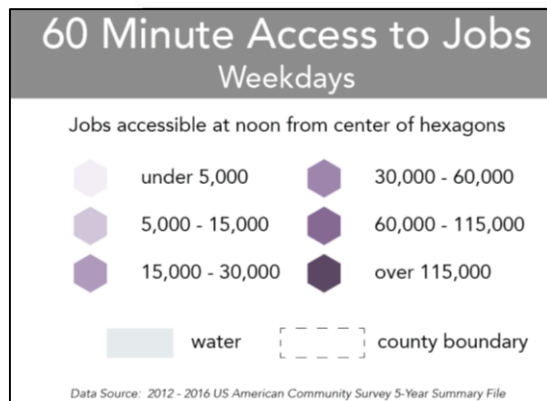
How useful are UTA's services? North

The map shows the number of jobs within the county reachable at midday from the center of each hexagon by transit in 60 minutes.



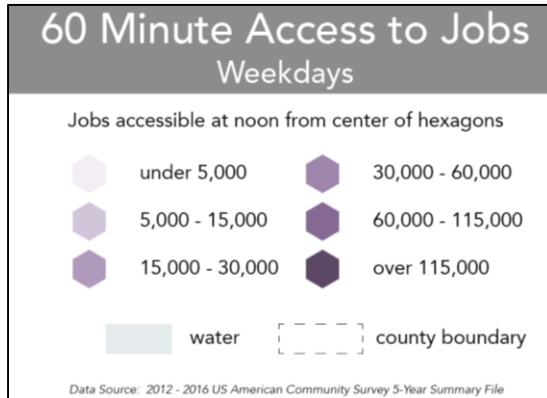
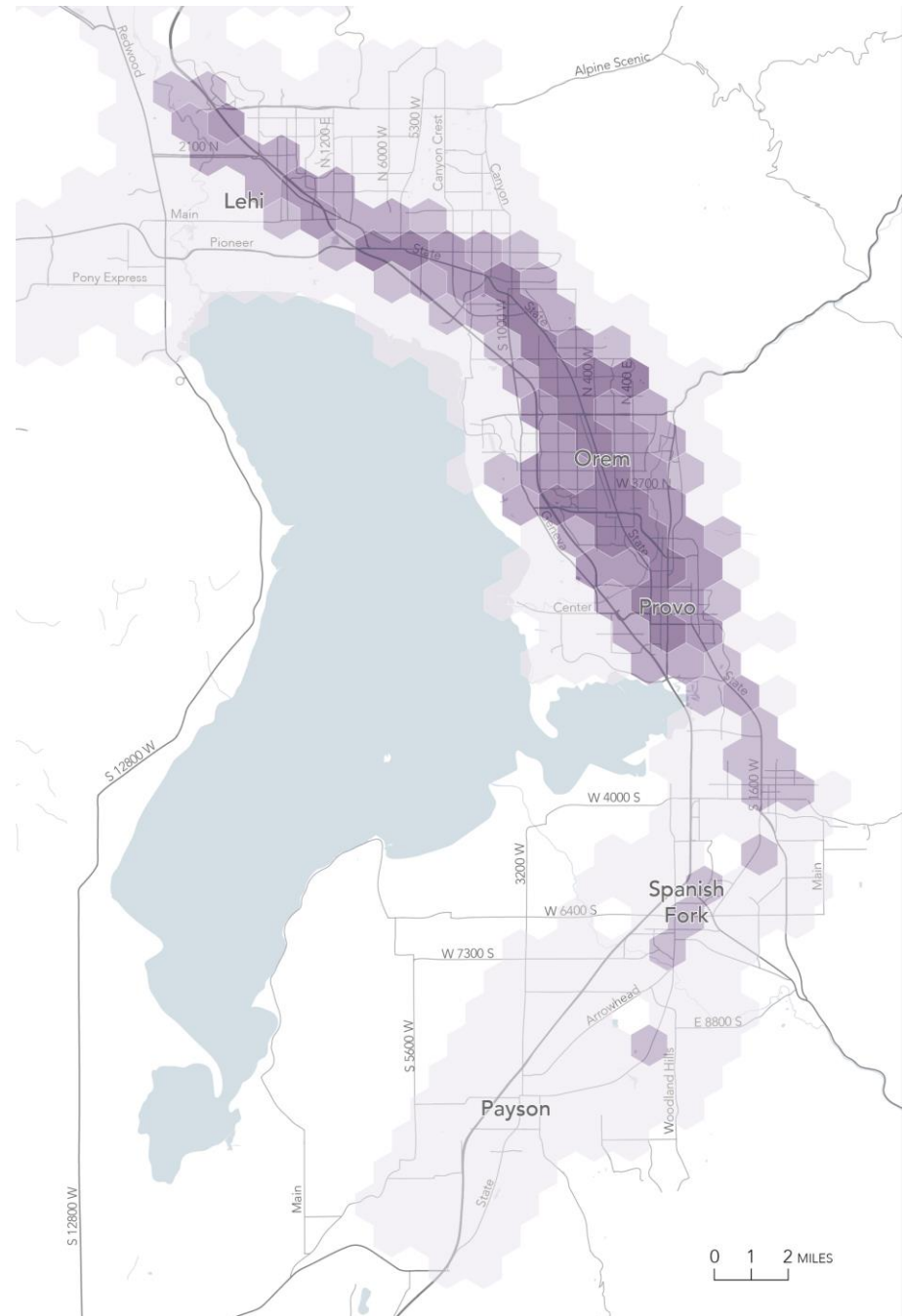
How useful are UTA's services? Central

The map shows the number of jobs within the county reachable at midday from the center of each hexagon by transit in 60 minutes.



How useful are UTA's services? South

The map shows the number of jobs within the county reachable at midday from the center of each hexagon by transit in 60 minutes.



How to design for high ridership?

Provide useful, liberating service ...

- Frequent
- Available when you need it (span of service)

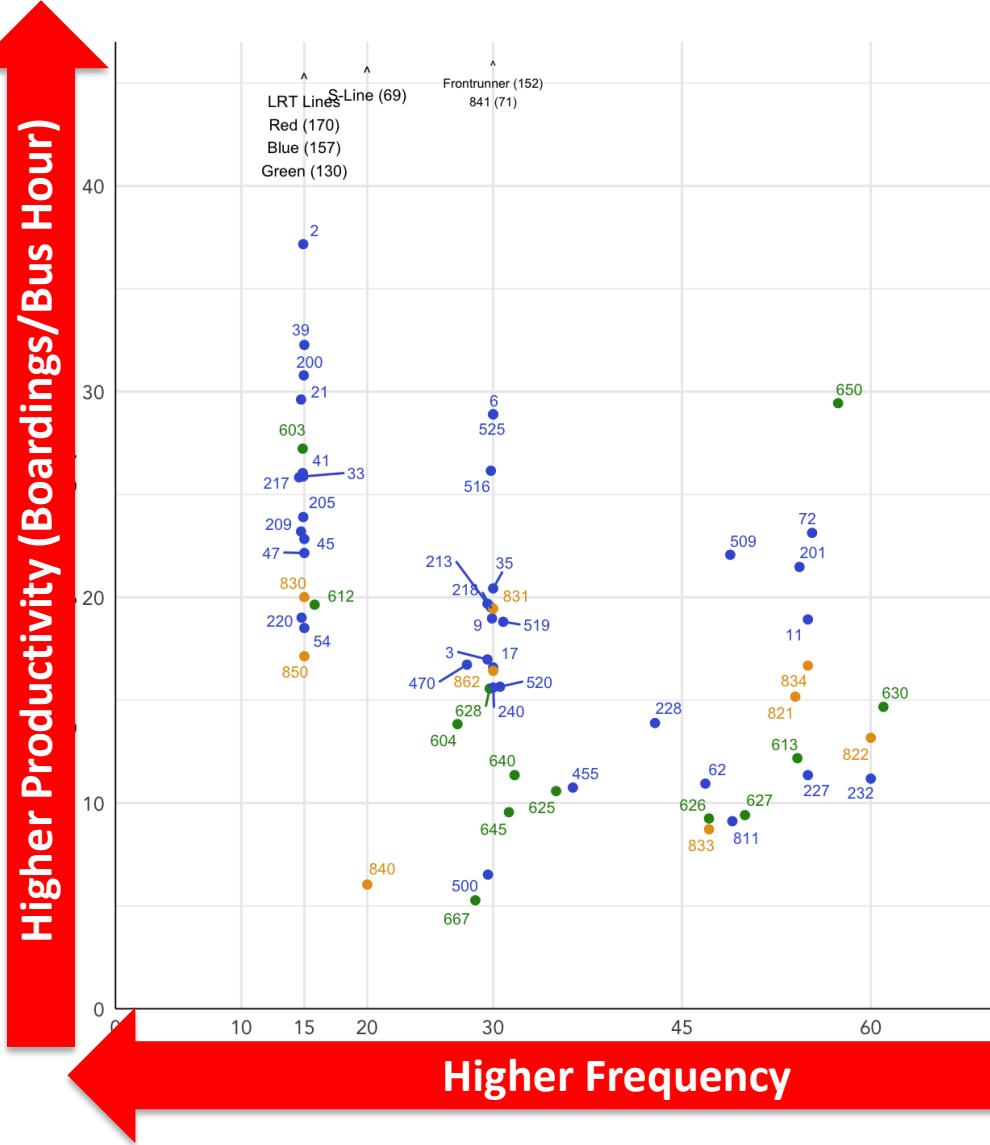
... in places where transit can compete for many trips

- Density
- Walkability
- Linearity (transit can follow straight paths)
- Proximity (transit does not have to cross long stretches of empty space)

UTA Routes' Productivity & Frequency

UTA All-Day Routes, Weekdays, April 2018

- Central (Salt Lake & Tooele Cos.)
- North (Weber, Davis, Box Elder Cos.)
- South (Utah Co.)



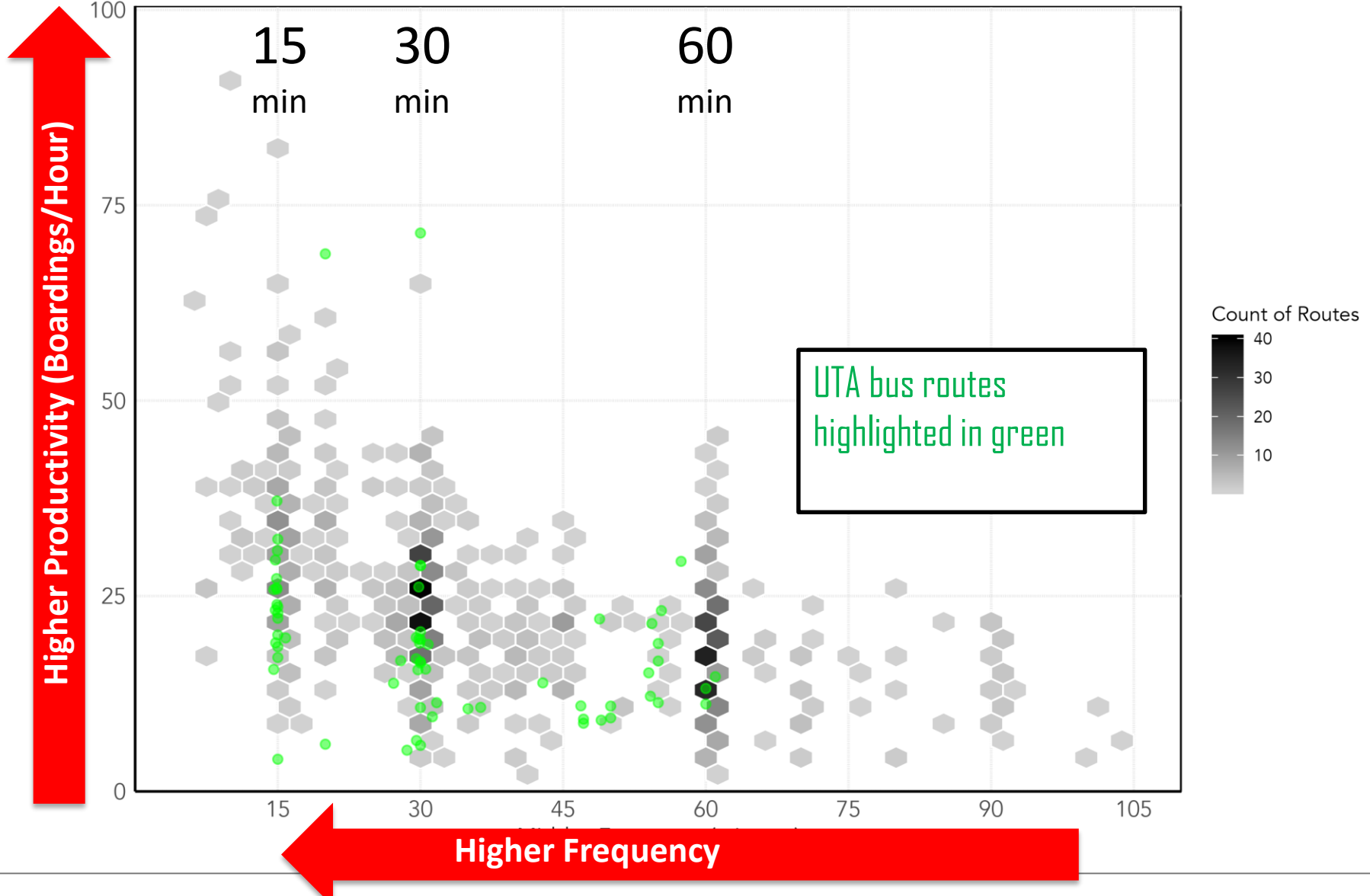
Frequency and Productivity at UTA

Many of UTA's most frequent routes are also among its most productive.

HIGH FREQUENCY → HIGH PRODUCTIVITY

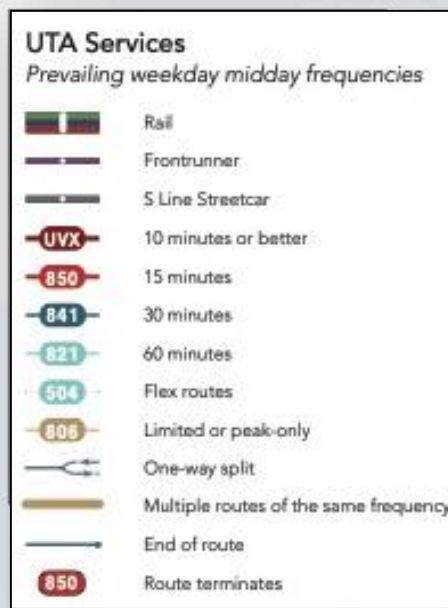
Productivity and Frequency

Data from 25 cities



Network Frequency North














Red = service every
15 minutes or better
at midday

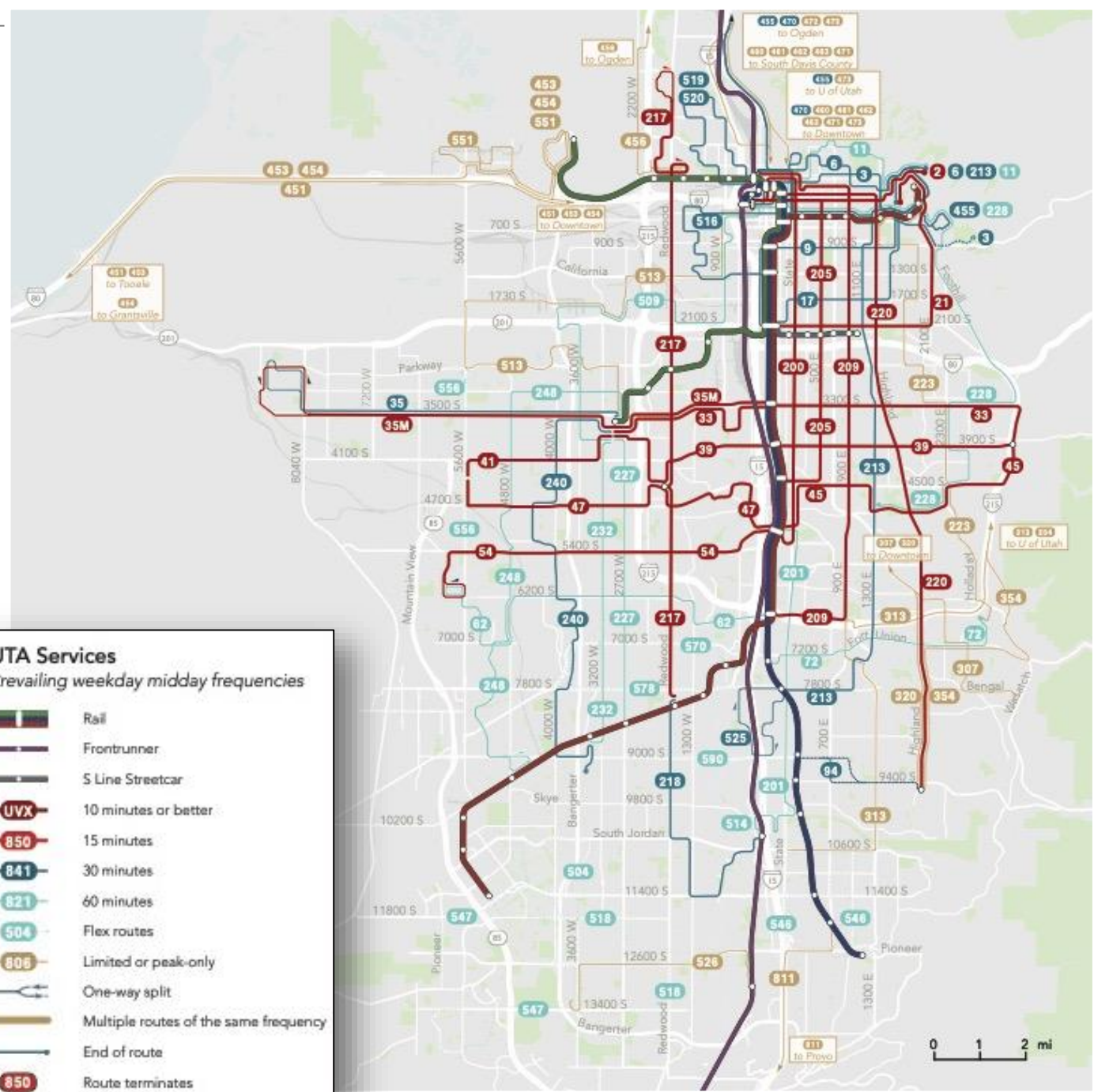


Network Frequency Central

Red = service every 15 minutes or better at midday

UTA Services
Prevailing weekday midday frequencies













-  Rail
-  Frontrunner
-  S Line Streetcar
-  10 minutes or better
-  15 minutes
-  30 minutes
-  60 minutes
-  Flex routes
-  Limited or peak-only
-  One-way split
-  Multiple routes of the same frequency
-  End of route
-  Route terminates

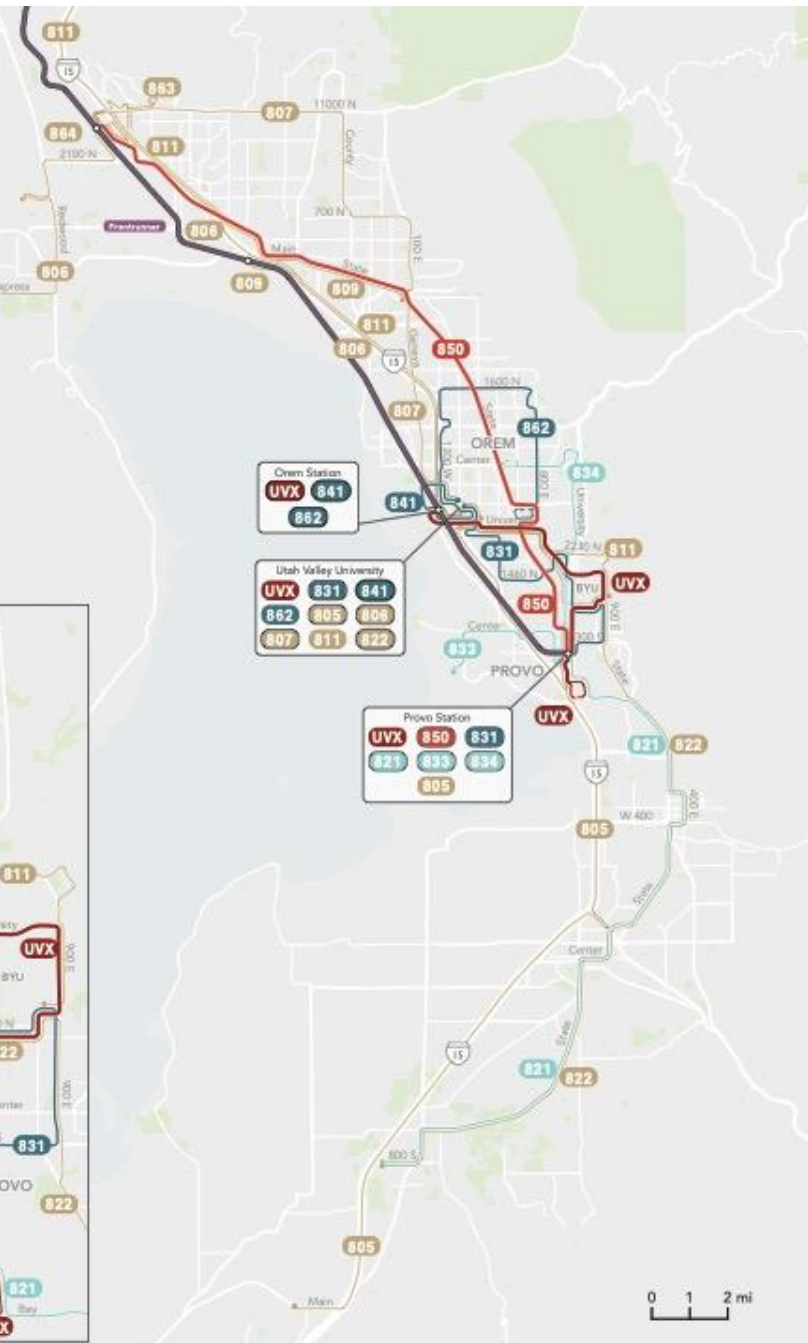


Network Frequency South

Red = service every 15 minutes or better at midday

UTA Services
Prevailing weekday midday frequencies

-  Rail
-  Frontrunner
-  S Line Streetcar
-  10 minutes or better
-  15 minutes
-  30 minutes
-  60 minutes
-  Flex routes
-  Limited or peak-only
-  One-way split
-  Multiple routes of the same frequency
-  End of route
-  Route terminates



Frequent Service Where?

Frequency is expensive, so to get the most useful transit to the most people, we have to focus it where the most people benefit. This is why it is a hard decision.

Density

DENSITY *How many people, jobs, and activities are near each potential transit stop?*



+ Many people and jobs are within walking distance of transit.



- Fewer people and jobs are within walking distance of transit.

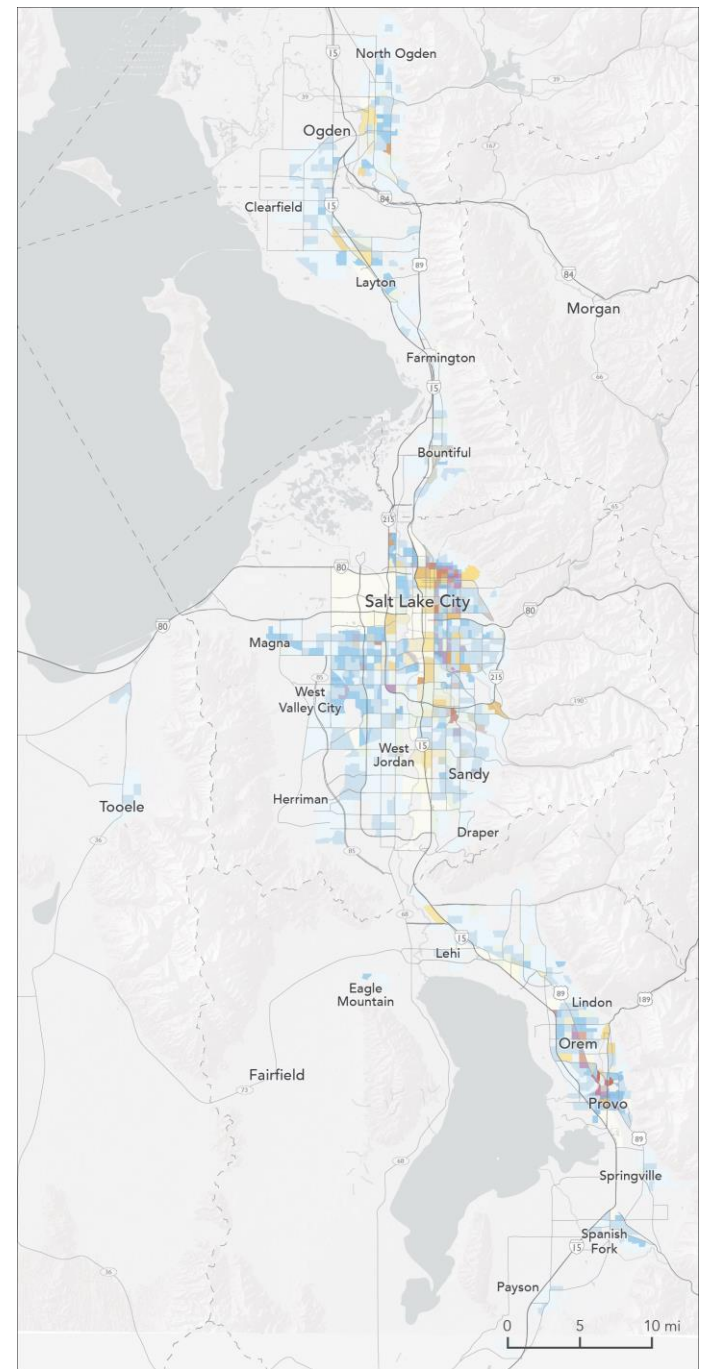
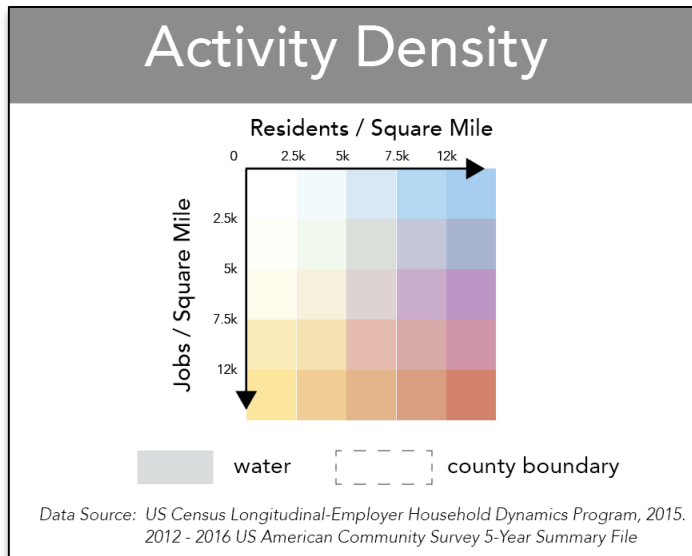
DENSITY How many people, jobs, and activities are near each potential transit stop?



+ Many people and jobs are within walking distance of transit.

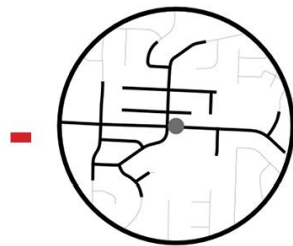
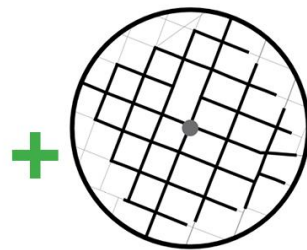


- Fewer people and jobs are within walking distance of transit.



Walkability

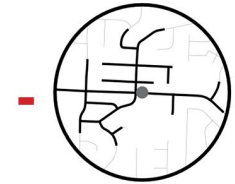
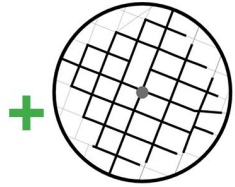
WALKABILITY *Is it possible to walk between the stop and the activities around it?*



+ It must also be safe to cross the street at a stop. You usually need the stops on both sides for two-way travel!

WALKABILITY

Is it possible to walk between the stop and the activities around it?



+ It must also be safe to cross the street at a stop. You usually need the stops on both sides for two-way travel!

Walk Network Connectivity



Less Walkable

More Walkable

Lower Street Connectivity

Higher Street Connectivity

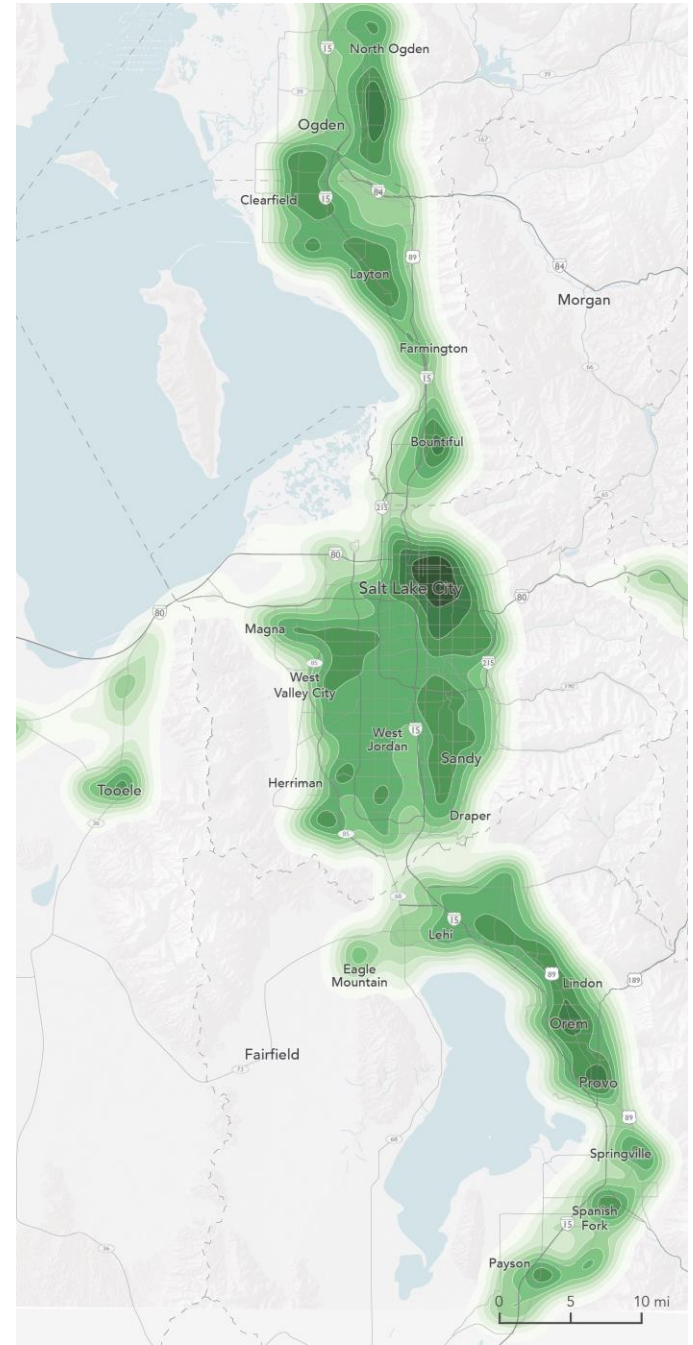


water



county boundary

Data Source: Walkability calculated using Open Trip Planner & Open Street Maps



Linearity

LINEARITY *Can transit run in reasonably straight lines?*



+ A logical transit line is a direct path between any two destinations on it.



Linearity

UTA's most productive routes are typically able to traverse relatively straight, direct paths through dense areas and between major destinations.

The arterial grid structure of much of UTA's service area provides a strong foundation for highly linear service.

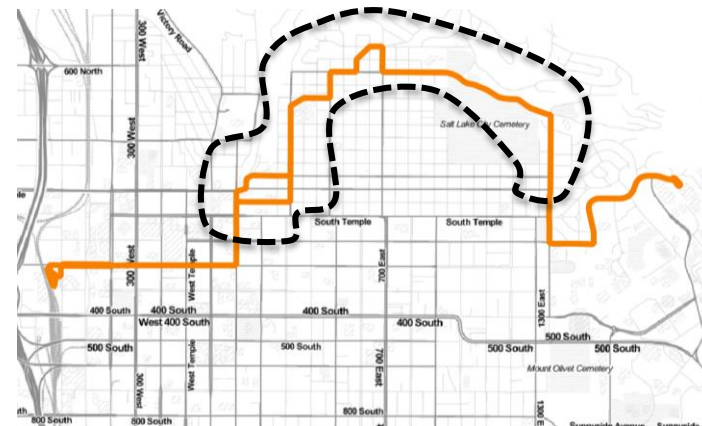
One example from the existing network:

2 – 200 South
Over 35 boardings per revenue hour



11 – 11th Ave
~20 boardings per revenue hour

Provides coverage along the deviation, but increases travel times between the ends.

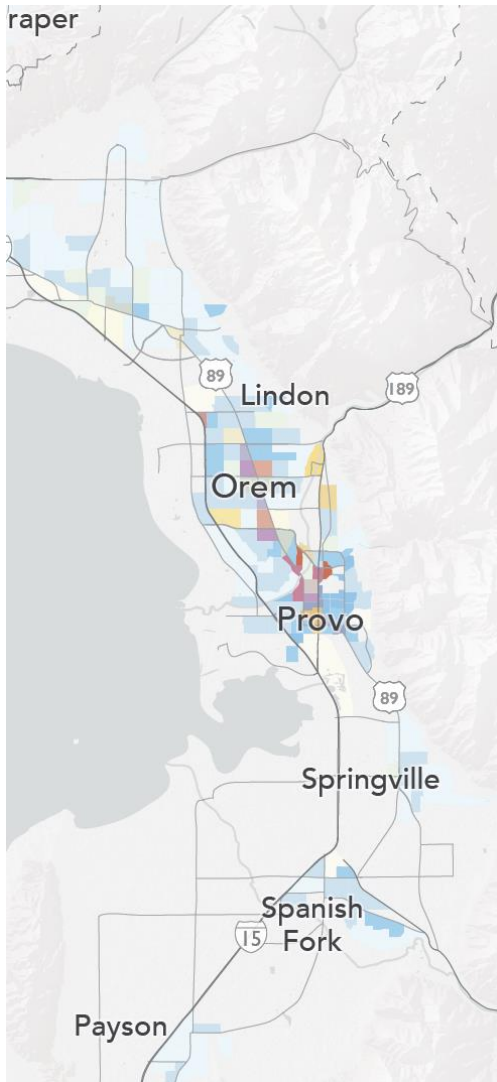


Proximity

PROXIMITY *Does transit have to traverse long gaps?*



Proximity

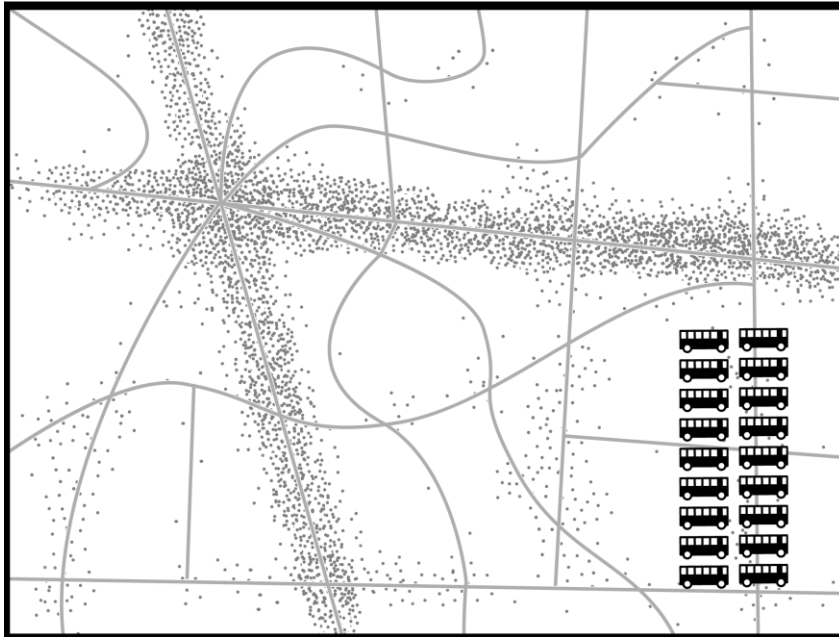


- Activity centers like central Orem and Provo that are close together and developed continuously are cheaper to serve.
- Connecting Provo to Spanish Fork is more expensive, because transit must drive a long distance through very low-density or undeveloped land.

Ridership or Coverage?

Different goals, different service.

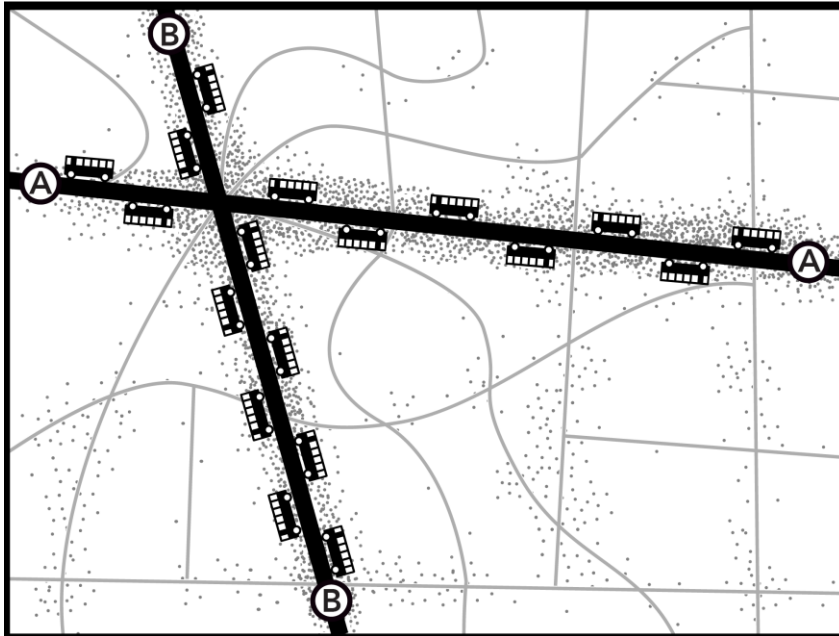
Different Goals, Different Service



Imagine you had 18 buses to serve this fictional town.

Dots are the locations of residents and jobs.

Ridership Goal



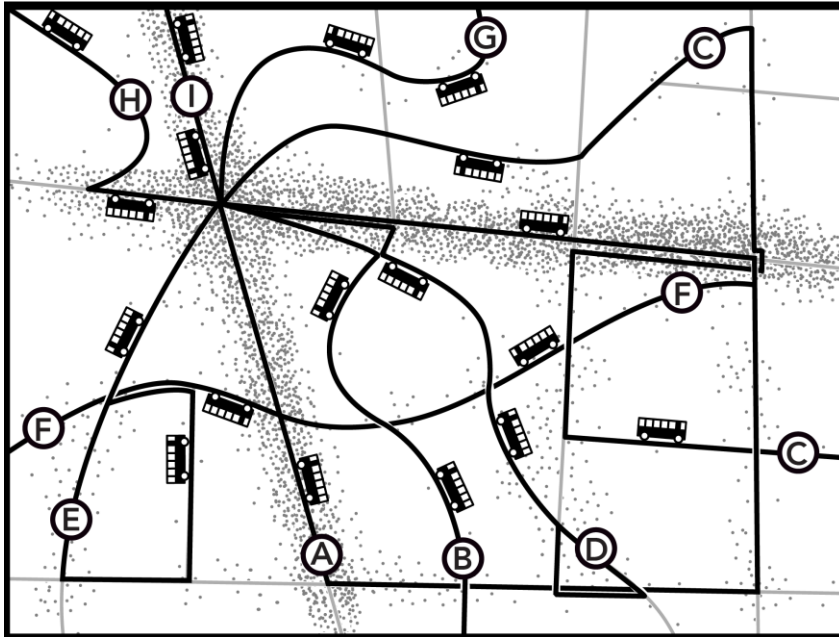
If your only goal was ridership, you would focus on service that generates the most ridership for the least cost.

That means high frequency in places that are dense, walkable, and linear, but no service elsewhere.

The Ridership Goal

Useful service in places where many people and nearby, and can compete for as many trips as possible.

Coverage Goal



The Coverage Goal

Some service near everyone who needs it.

If your only goal were Coverage, you would spread service out.

So you'd have a lot of routes ...

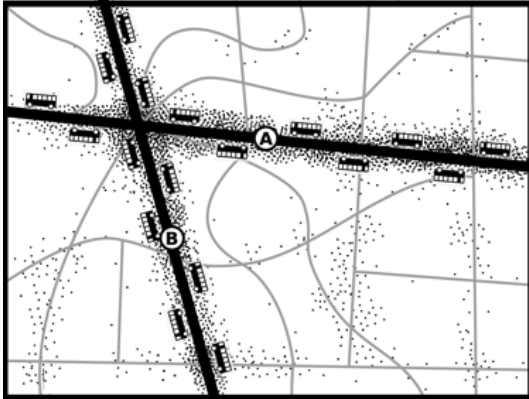
which means you couldn't afford to run them very frequently ...

which makes them not very useful ...

which means not many people ride.

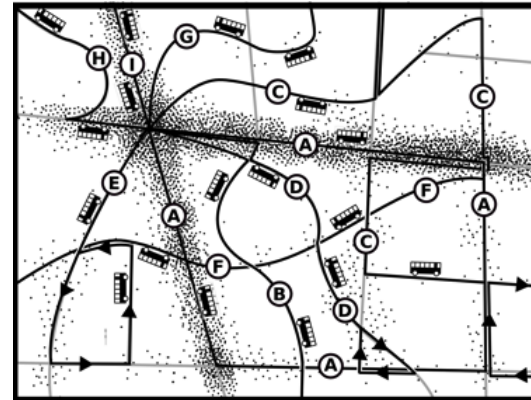
Spreading it out = spreading it thin.

Both goals are important,
... but they lead opposite directions!



Ridership Goal

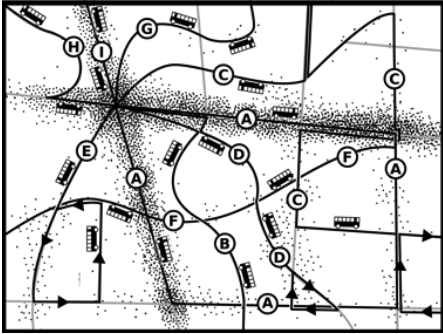
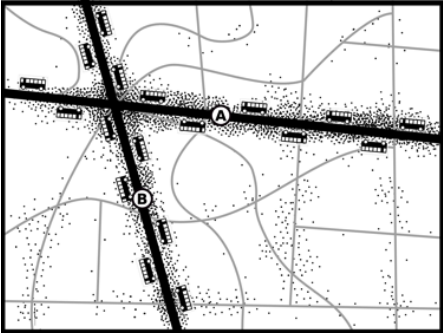
- "Think like a business."
- Highest fare revenue.
- Support dense and walkable development.
- Max. emissions reduction
- Maximum reduction of vehicle miles traveled



Coverage Goal

- "Think like a public service."
- "Access for all".
- Lifeline access for everyone.
- Service to every member city or electoral district.

So it helps to choose a point on the spectrum ...



100% Ridership
0% Coverage

75% Ridership
25% Coverage

50% Ridership
50% Coverage

25% Ridership
75% Coverage

100% Coverage
0% Ridership



Central UTA Region Bus Services
(Salt Lake and Tooele Counties)
60% Ridership, 40% Coverage

Southern UTA Region Bus Services
(Utah County)
60% Ridership, 40% Coverage

All Existing UTA Bus Services
55% Ridership
45% Coverage

Northern Region
(Davis, Box Elder, Weber Counties)
40% Ridership / 60% Coverage

Public and community leader engagement

What did we hear?

What did we hear?

Engagement efforts included:

- A public web survey
 - 3374 total responses
- 4 community leader workshops
 - 2 in central region, 1 in north, 1 in south
 - 114 total attendees
- 3 public open houses
- Tabling at public events on 14 days

What did we ask?

- The public and community leaders answered the same questions we are asking the board today:
 - Where is the right balance between ridership and coverage goals?
 - Existing resources
 - Additional resources
 - When we design coverage service, what should we prioritize?
- Both the public survey and community leader workshops were organized by region / UTA business unit

Ridership or Coverage?

	Public Web Survey		Community Leader Workshops	
	Existing Resources	Additional Resources	Existing Resources	Additional Resources
North	50/50	50/50	50/50	60/40
Central	60/40	60/40	70/30	70/30
		50/50*		
South	60/40	50/50	70/30	70/30

Red = input suggests move towards ridership

Blue = input suggests move towards coverage

Grey = input suggests maintain existing balance

Labeled with median response (ridership % / coverage %)

**When weighted by zip code population (to normalize for oversample and under sampled areas), the median response in the Central region to the question of the balance of existing resources was to focus slightly more on coverage.*

Coverage Priorities

Region	Public Web Survey			Community Leader Workshops		
	Service for people with no transportation alternative	Service responding to growth or new development	Service to all taxpayers	Service for people with no transportation alternative	Service responding to growth or new development	Service to all taxpayers
North	1	2	3	1	3	2
Central	1	2	3	1	2	3
South	2	1	3	1	2	3
	1*	2*				

- Top Priority
- Second Priority
- Third Priority

**When weighted by zip code population, in the South region, the top priority was "service for people with no alternative".*

What would it look like to change
the balance of service?

Shifting the balance

- Changing the balance of **existing service** means taking service from one place and putting it somewhere else.
- With **additional resources**, it means investing new service in one place over another.
- Each of the **maps on the next three slides** show a rough sense of where in each area bus service is focused on generating high ridership (in **red**) or providing coverage (in **blue**).
- Put simply, changing the balance means reducing service in one color, and increasing it in the other.

Ridership / Coverage Impact Areas
North Region

Currently served areas that would be impacted by network changes to the existing ridership / coverage balance.

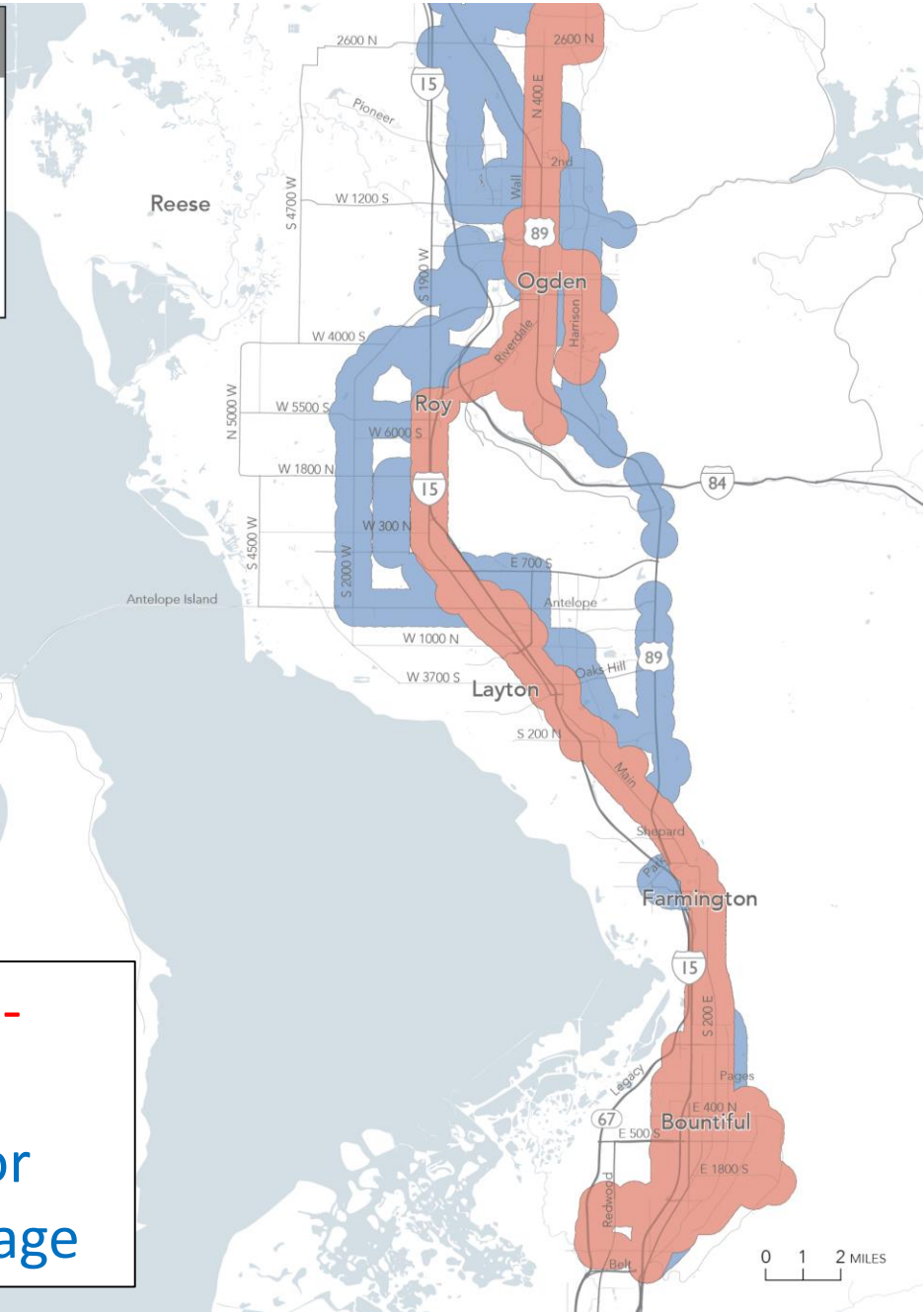
Ridership	Coverage
Existing stops serving a primarily ridership purpose	Existing stops serving a primarily coverage purpose

water
 county boundary

Data Source: Utah Transit Authority (UTA), December 2017.

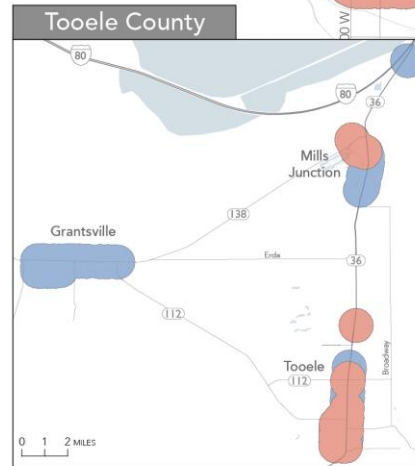
Red = areas served by ridership-goal routes

Blue = areas served primarily for the purpose of providing coverage





Red = areas served by ridership-goal routes



Blue = areas served primarily for the purpose of providing coverage



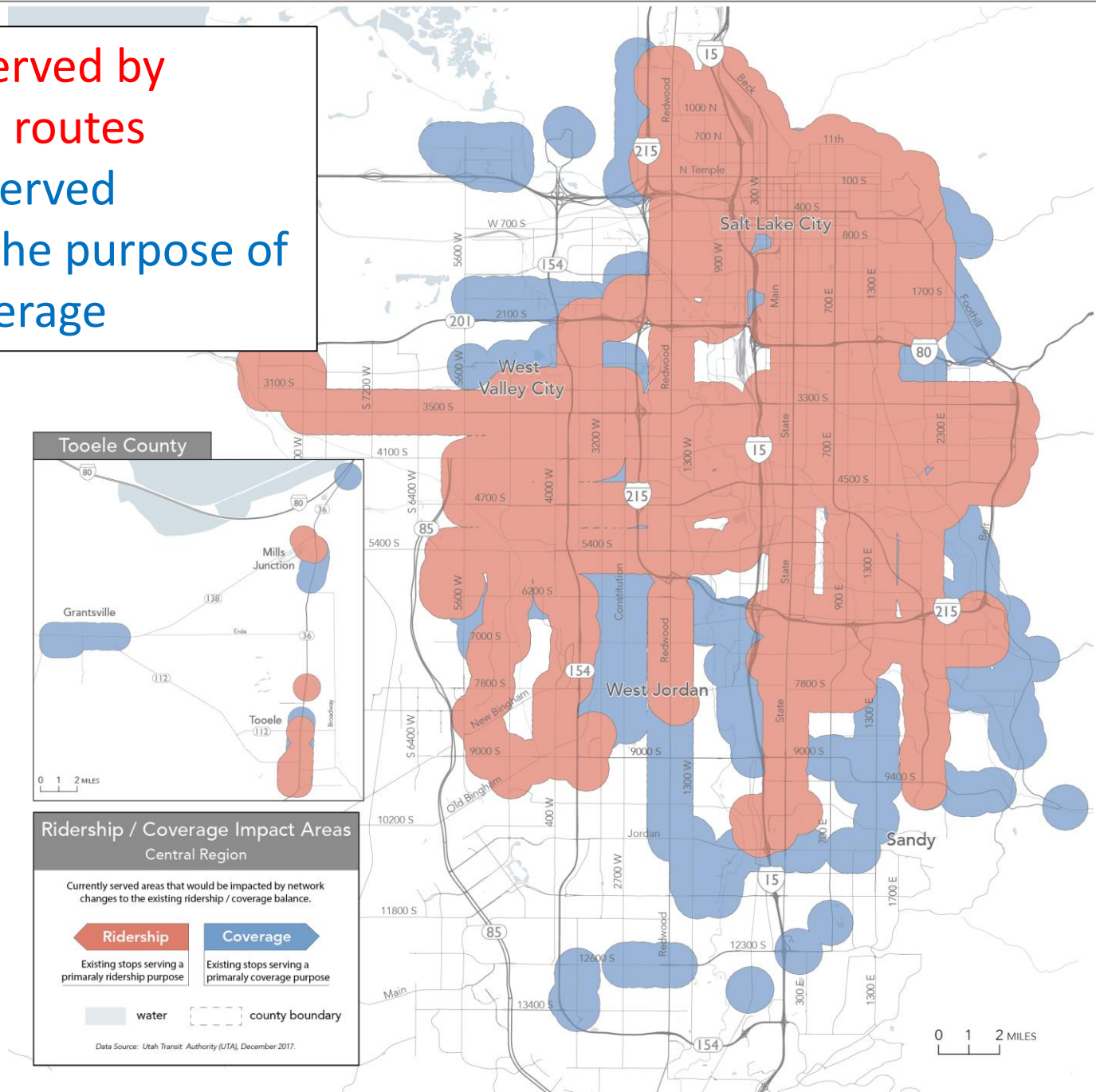
Ridership / Coverage Impact Areas
Central Region

Currently served areas that would be impacted by network changes to the existing ridership / coverage balance.

 Ridership	 Coverage
Existing stops serving a primarily ridership purpose	Existing stops serving a primarily coverage purpose

 water  county boundary

Data Source: Utah Transit Authority (UTA), December 2017.



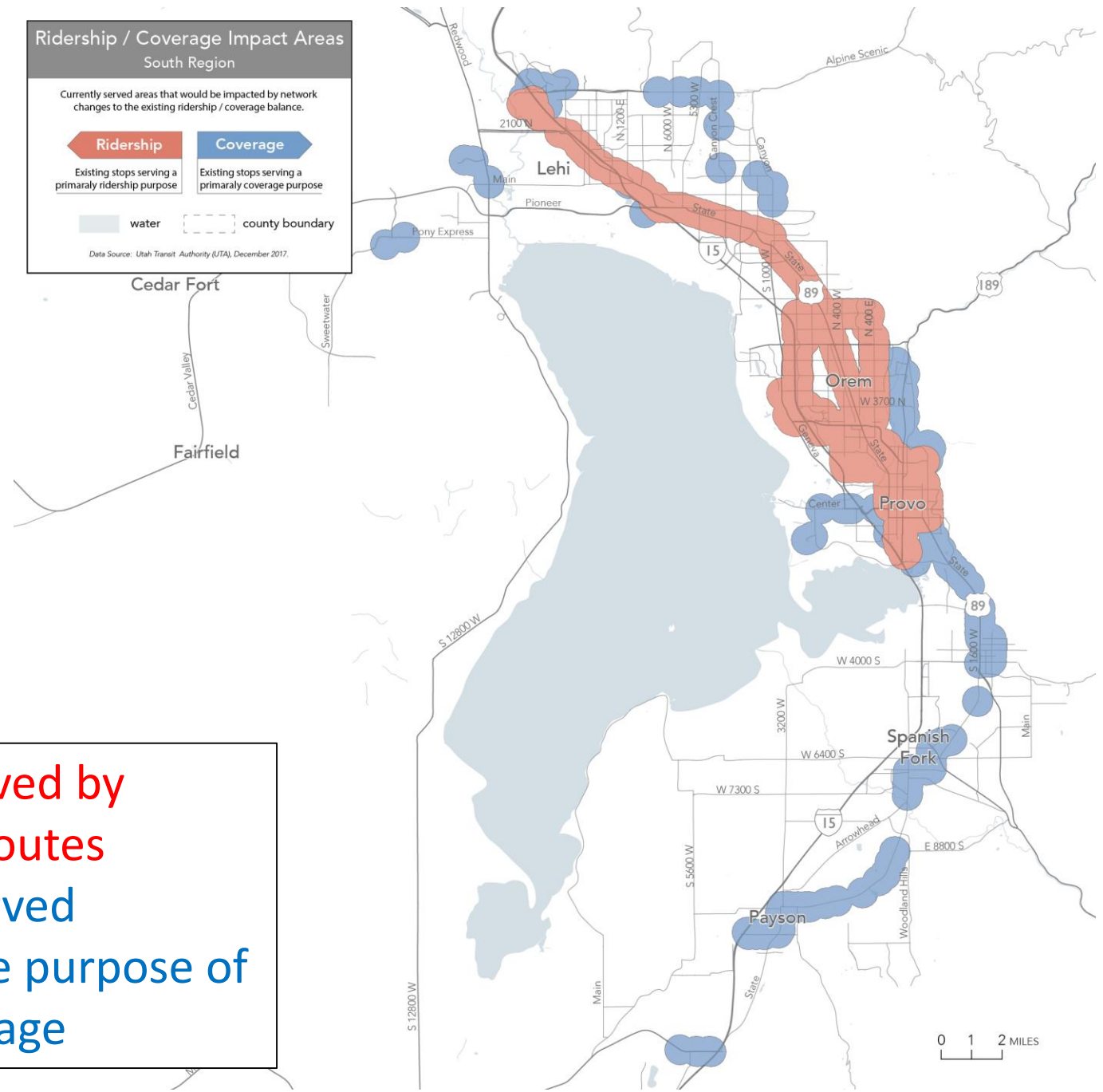
Ridership / Coverage Impact Areas South Region

Currently served areas that would be impacted by network changes to the existing ridership / coverage balance.

Ridership	Coverage
Existing stops serving a primarily ridership purpose	Existing stops serving a primarily coverage purpose

water
 county boundary

Data Source: Utah Transit Authority (UTA), December 2017.



Red = areas served by ridership-goal routes

Blue = areas served primarily for the purpose of providing coverage

What have other
agencies done?

Other agencies

Every community must make this decision for themselves, but we can share some examples of how it has worked in other places.

Metro Area	Original Split			After Redesign			Implemented	Ridership Change
	Ridership	Coverage	Duplication	Ridership	Coverage	Duplication		
Houston	55%	30%	15%	80%	20%	0%	2015	+3%
Columbus	70%	20%	10%	70%	30%	0%	2017	+3%
Fresno	85%	15%	0%	90%	10%	0%	Late 2018	<i>Too soon to tell</i>
San Jose	70%	30%	0%	90%	10%	0%	<i>Not yet implemented</i>	
Richmond, VA	50%	50%	0%	70%	30%	0%	2018	+17%

Questions for the Board

**Do you feel that you have enough
information to make a decision?**

Ridership or Coverage?

In the northern **Mt. Ogden Business Unit** (Davis, Weber and Box Elder Counties), about 40% of bus service resources are now deployed for a ridership goal, while the other 60% serves a coverage goal.

When deploying **existing resources**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

In the context of **future service growth**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

Ridership or Coverage?

In the central **Salt Lake Business Unit** (Salt Lake and Tooele Counties), about 60% of bus service resources are now deployed for a ridership goal, while the other 40% serves a coverage goal.

When deploying **existing resources**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

In the context of **projected service growth**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

Ridership or Coverage?

In the southern **Timpanogos Business Unit** (Utah County), about 60% of bus service resources are now deployed for a ridership goal, while the other 40% serves a coverage goal.

When deploying **existing resources**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

In the context of **future service growth**, this balance should be:

- Unchanged, or
- Shifted to a split of ___% ridership, ___% coverage.

Coverage Priorities

When we design coverage service (service that is not designed to maximize ridership), how should we prioritize the following:

- **Meeting needs**, by focusing in places where people are especially likely to not have access to cars due to age or income. This priority would tend to generate coverage service specifically where these groups are concentrated.
- **Serving new communities** that are just being built.
- **Providing some service to everyone who pays taxes.** This priority would spread service thinly across the entire developed region, since there is someone paying taxes everywhere in the transit district.

Next Steps

Next Steps

In August, UTA staff and the consultant team will design a Draft Network Plan.

This plan will be based on your decision about resource splits and coverage priorities.

Maps, analysis of outcomes, and a detailed report on the draft plan will be completed in Fall / Winter 2019, with the next round of outreach on the Draft Plan to begin in early 2020.

Early 2019

Mid 2019

Fall 2019

Early 2020

Late 2020

2021

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Direction on Bus
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Backup Slides

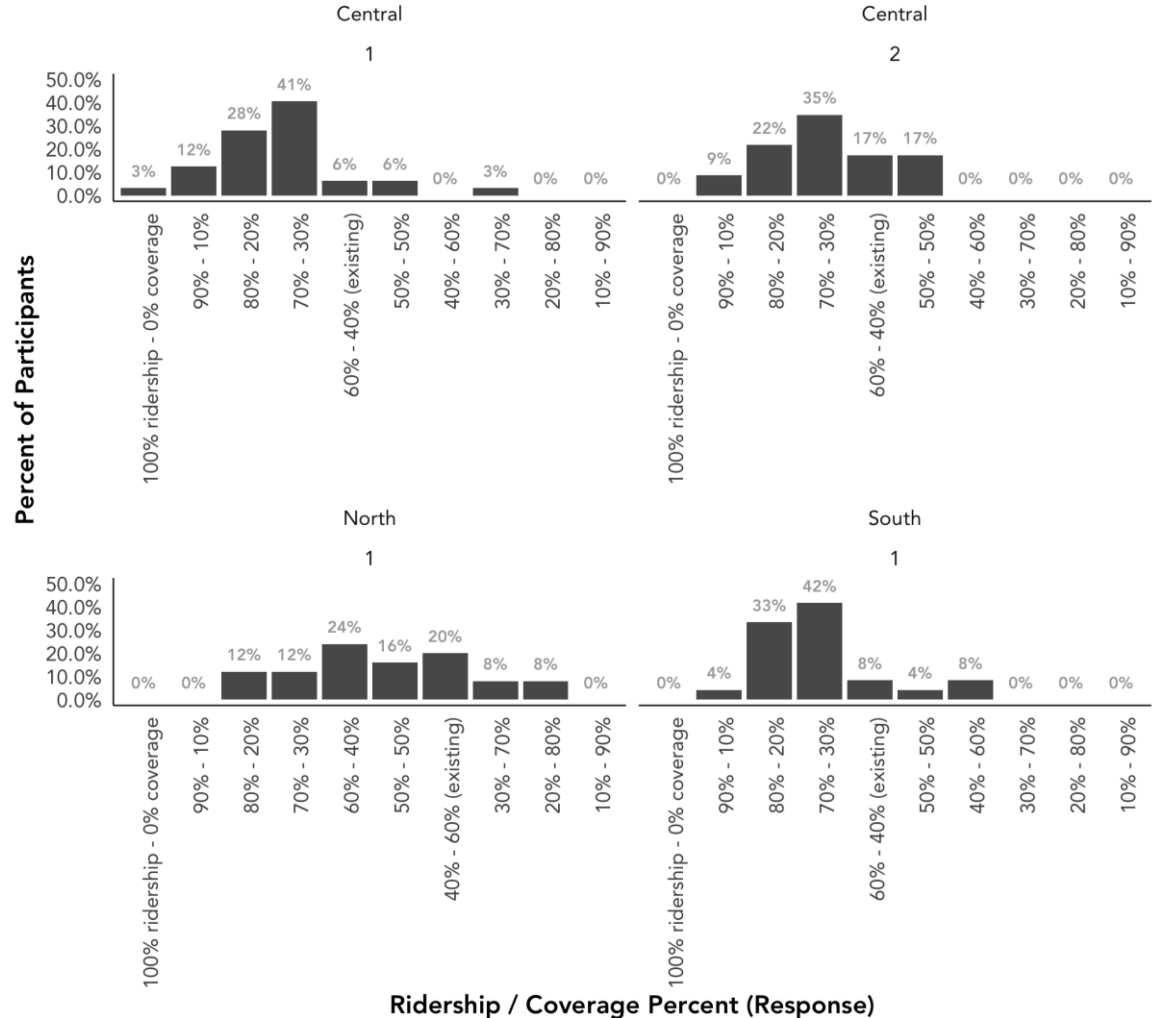
Community Leader Charts

Balance of Existing Resources

Community Leader Workshops

With our existing transit resources, how much should we spend on ridership or coverage? (Multiple Choice)

Responses by Region and Workshop

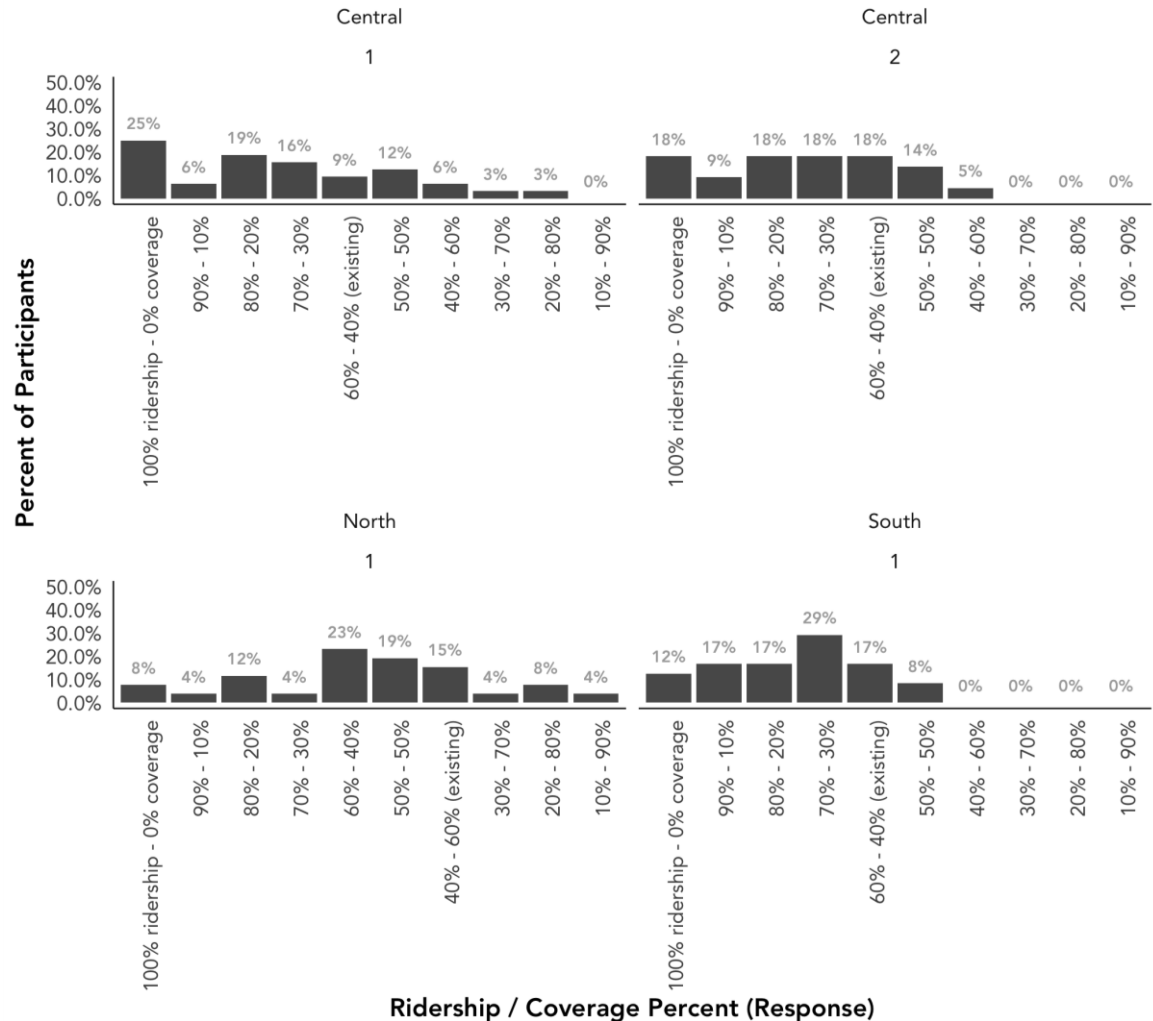


Balance of Additional Resources

Community Leader Workshops

If we had additional funds for transit service, how should those funds be divided between ridership and coverage? (Multiple Choice)

Responses by Region and Workshop

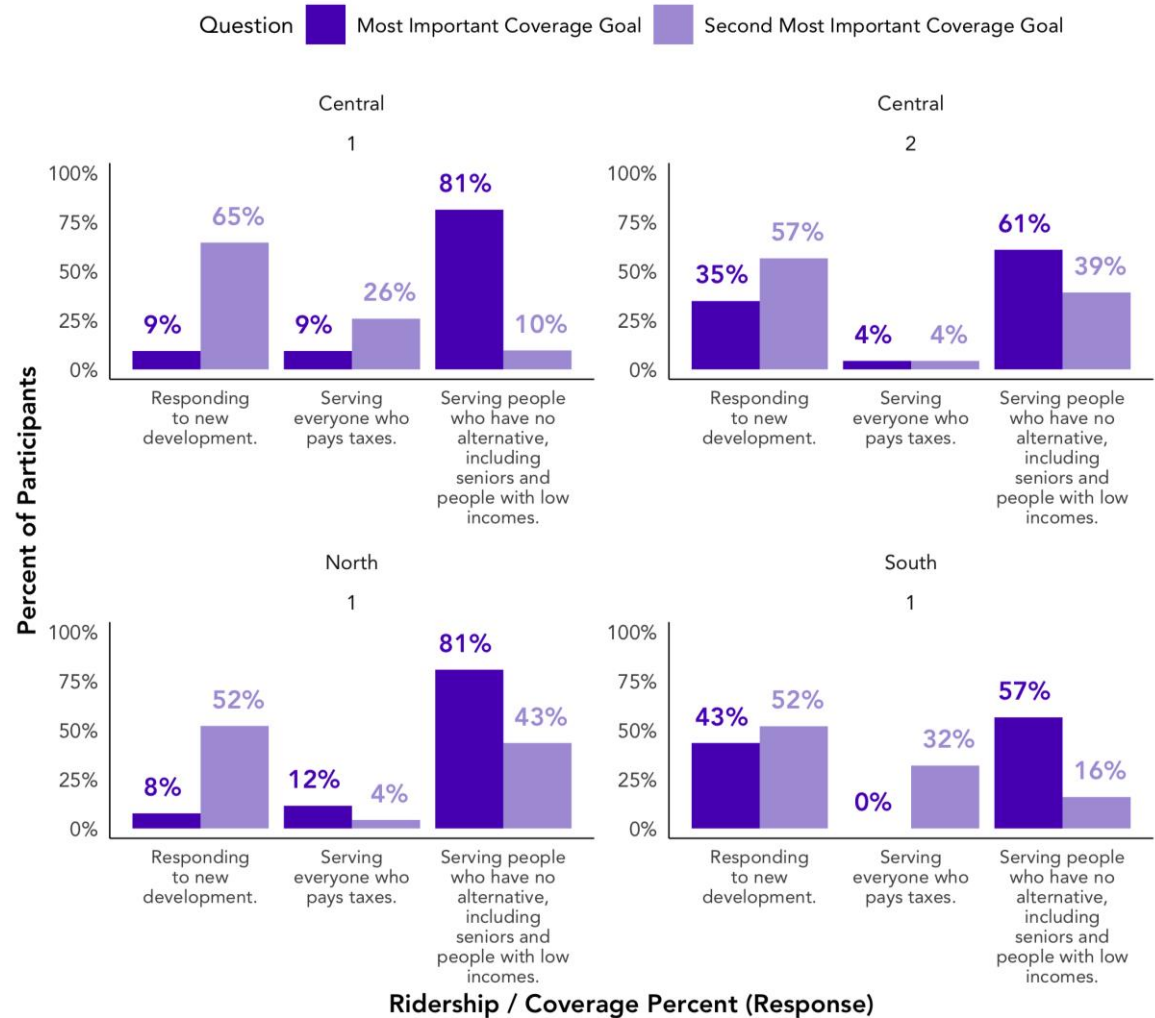


Coverage Priorities

Community Leader Workshops

When we design coverage service, which of the following is the most important goal we should pursue? (Multiple Choice)

Responses by Region and Workshop



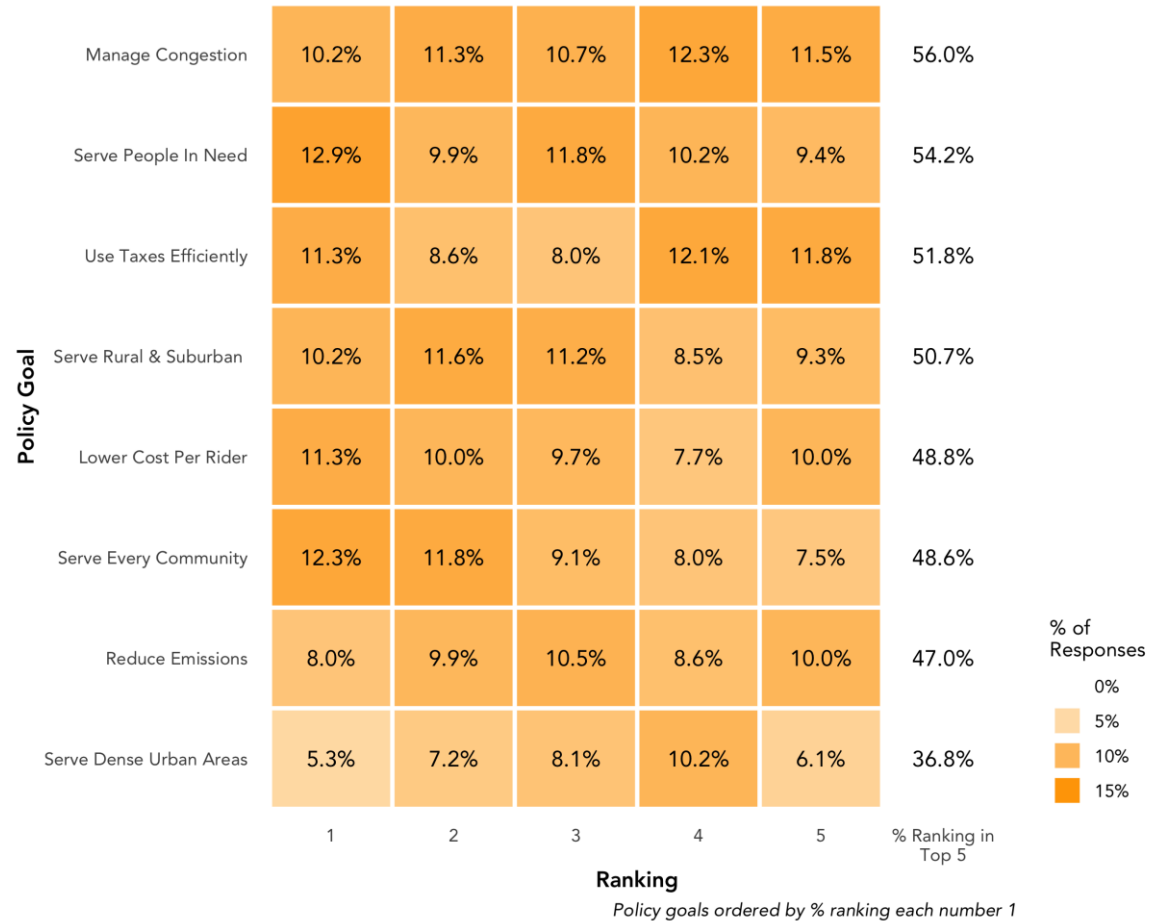
Public Web Survey Charts

Policy Goals – North

Public Web Survey

Policy Goal Rankings

North Region all responses

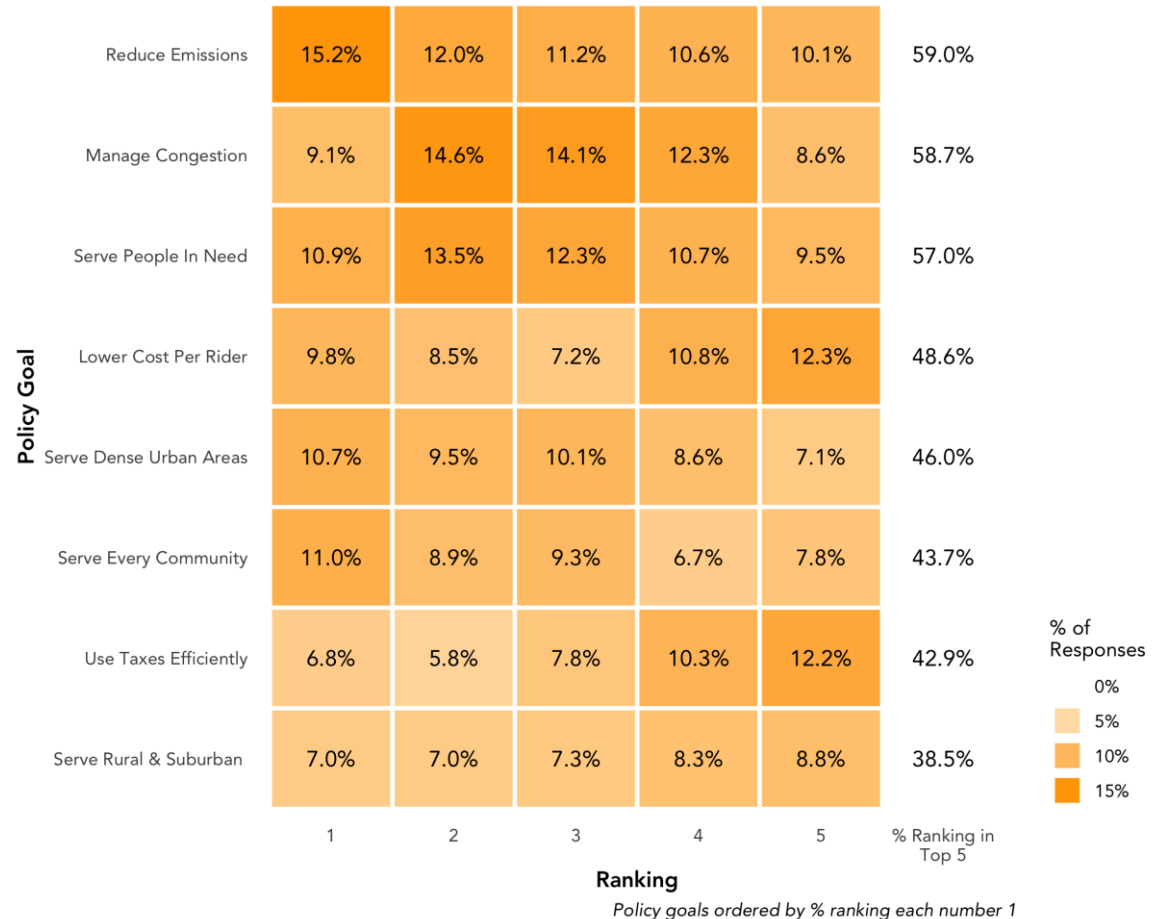


Policy Goals – Central

Public Web Survey

Policy Goal Rankings

Central Region all responses

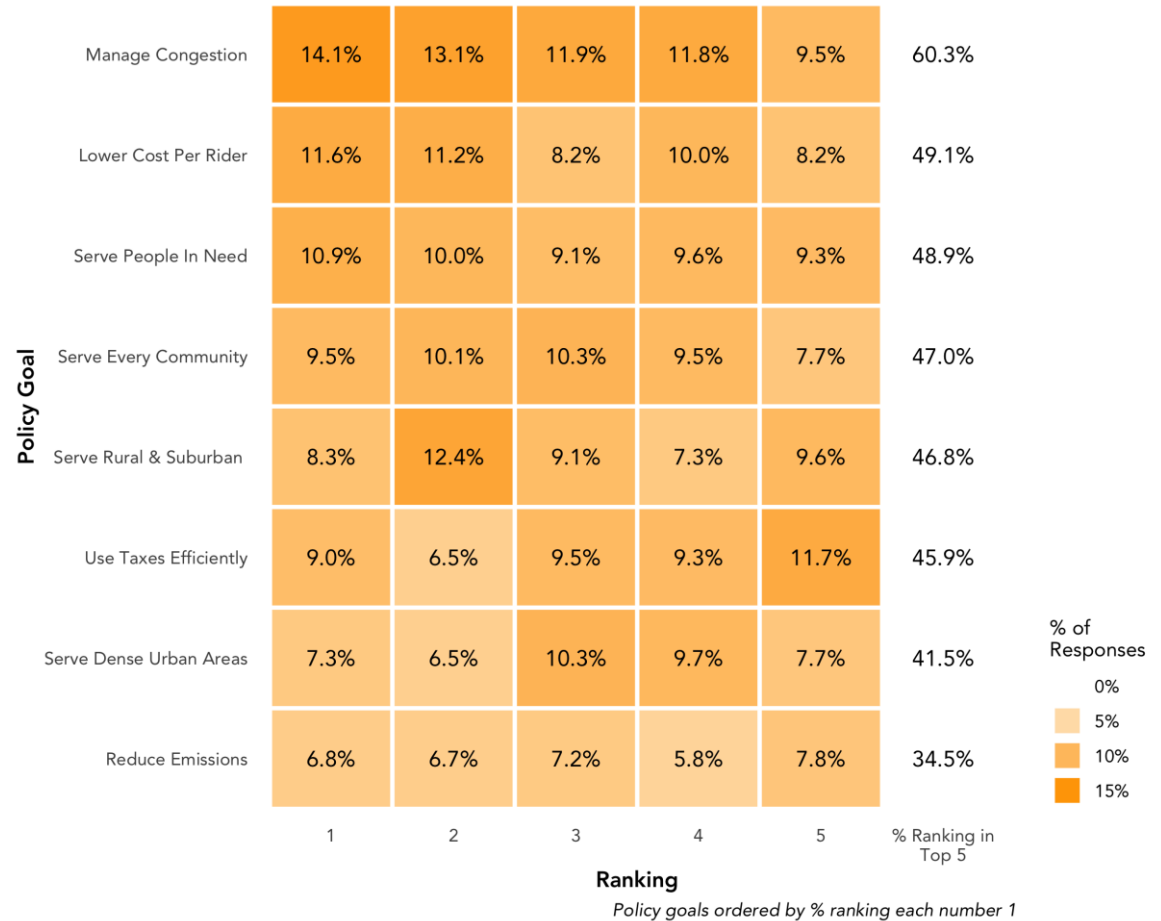


Policy Goals – South

Public Web Survey

Policy Goal Rankings

South Region all responses



Existing Resources – North

Public Web Survey

Existing Balance:

40% Ridership /
60% Coverage

Median Response:

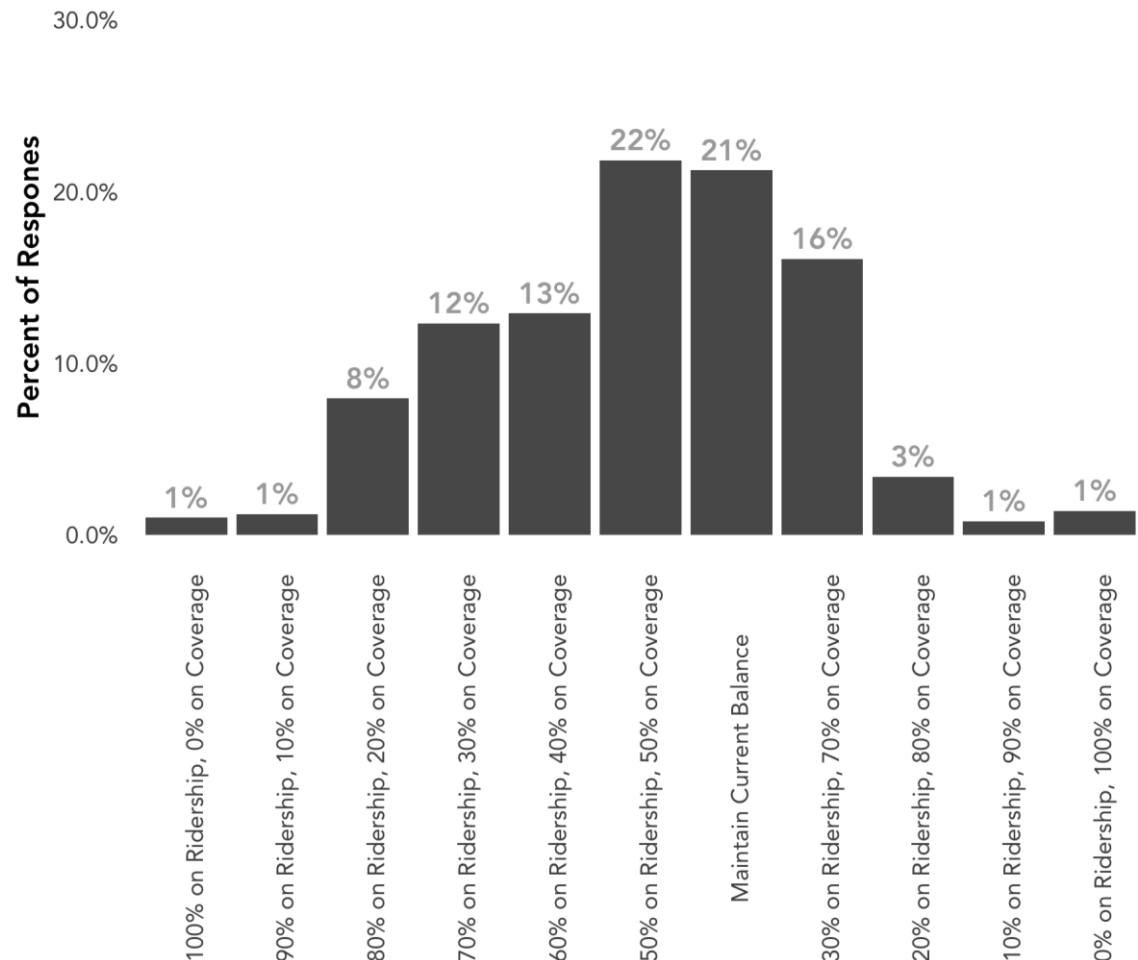
50% Ridership /
50% Coverage

Conclusion:

Focus slightly
more on ridership
service

Balance of Existing Resources

North Region



Median: 50 / Weighted Mean: 49.74

Existing Resources – Central

Public Web Survey

Existing Balance:

60% Ridership /
40% Coverage

Median Response:

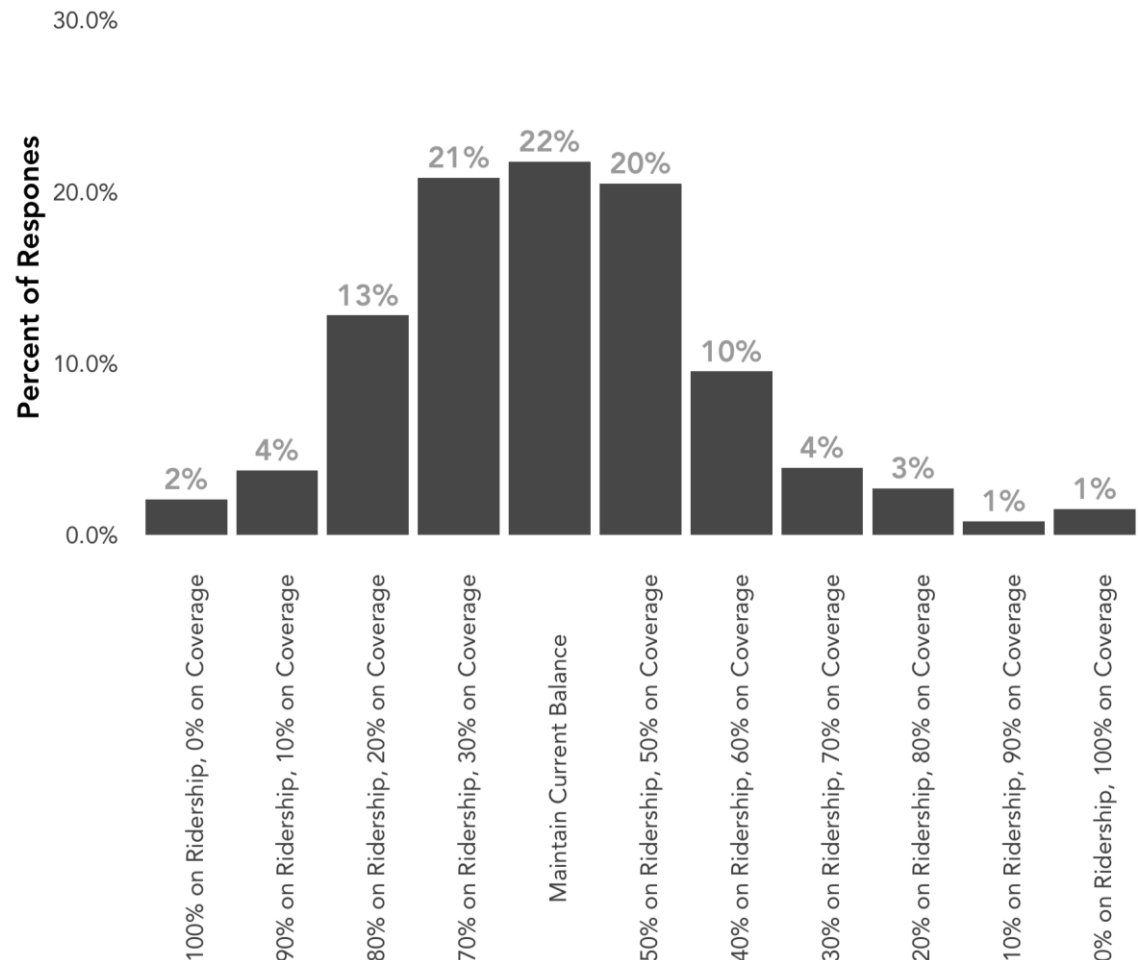
60% Ridership /
40% Coverage

Conclusion:

Maintain existing
resource split

Balance of Existing Resources

Central Region



Median: 60 / Weighted Mean: 59.11

Existing Resources – South

Public Web Survey

Existing Balance:

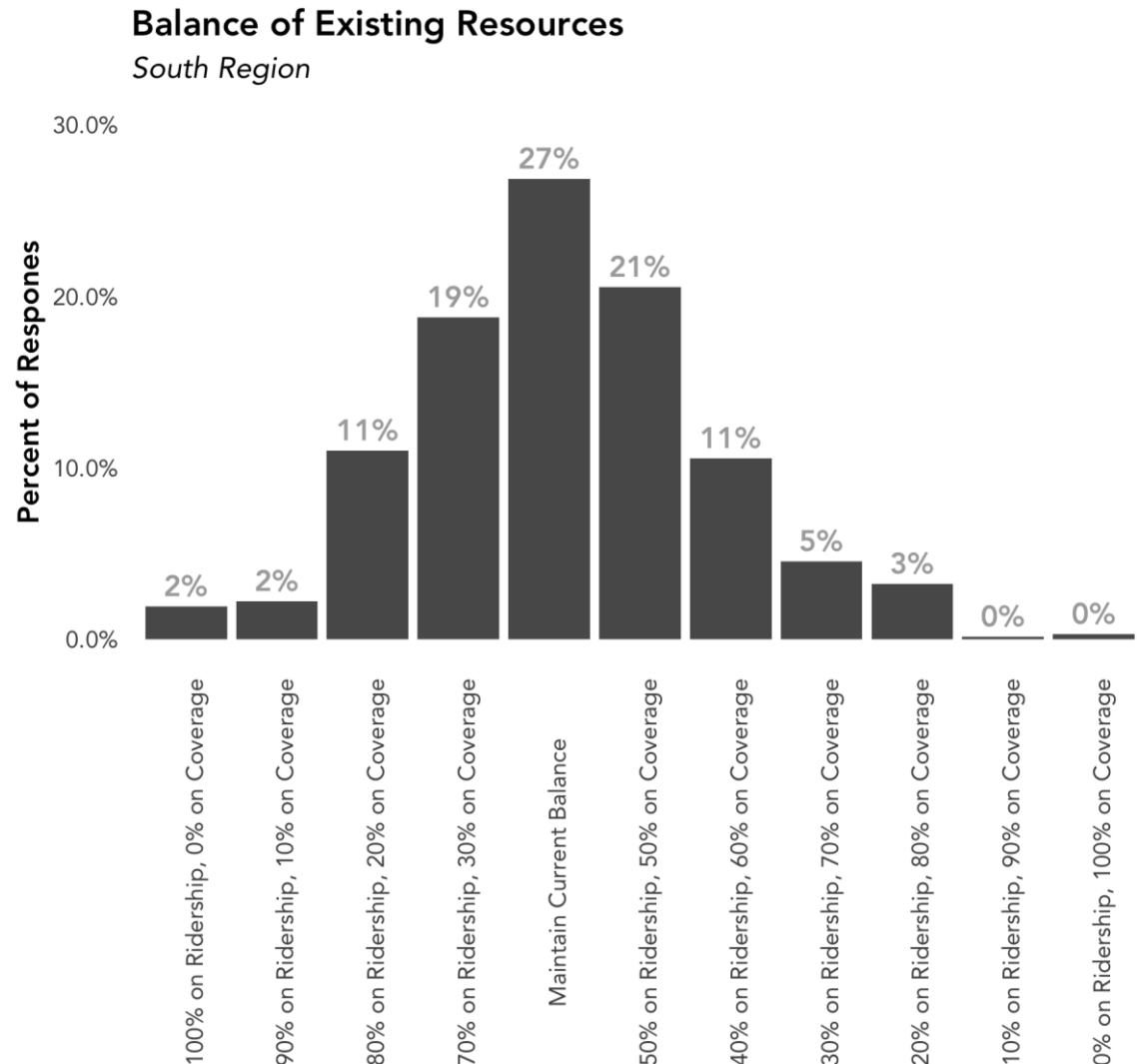
60% Ridership /
40% Coverage

Median Response:

60% Ridership /
40% Coverage

Conclusion:

Maintain existing
resource split



Median: 60 / Weighted Mean: 58.43

Additional Resources – North

Public Web Survey

Existing Balance:

40% Ridership /
60% Coverage

Median Response:

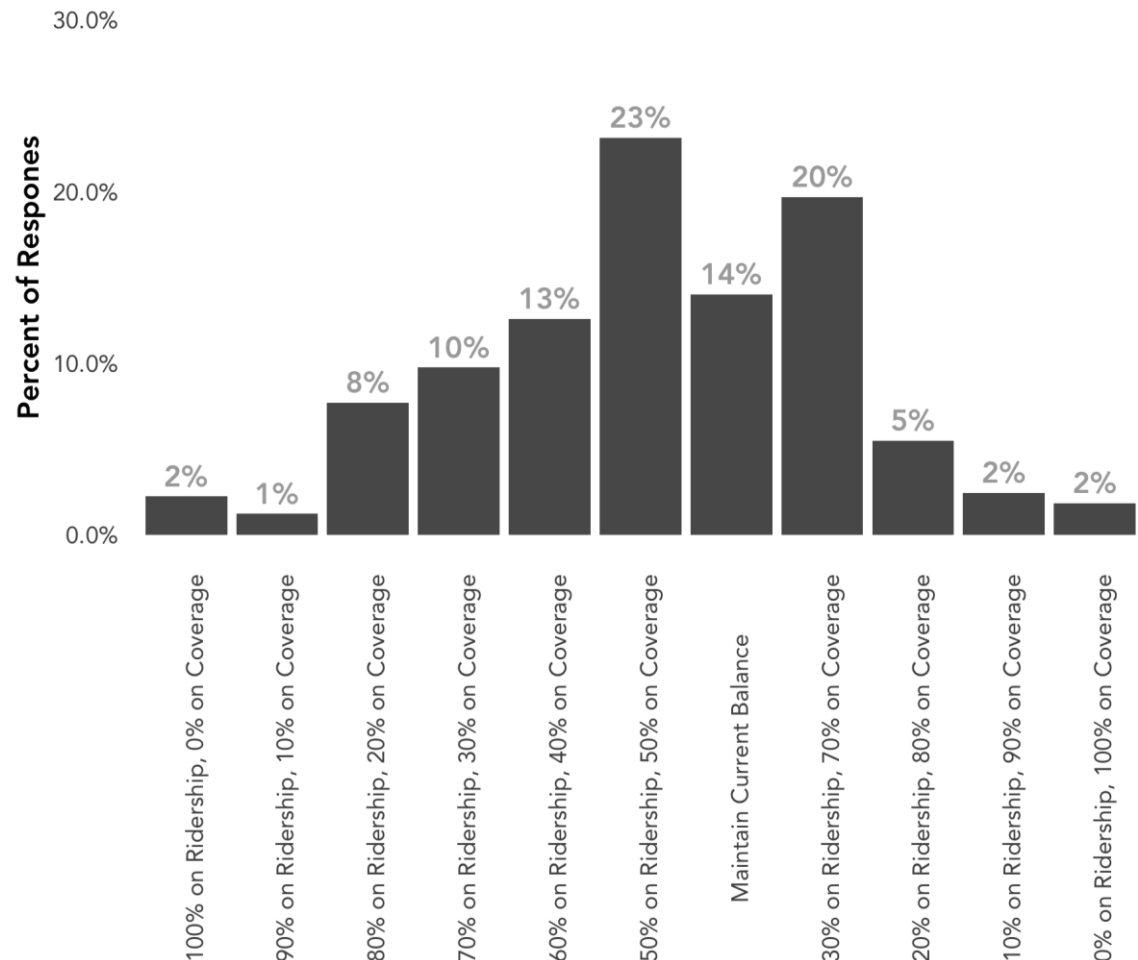
50% Ridership /
50% Coverage

Conclusion:

Focus slightly
more on ridership
service

Balance of Additional Resources
North Region

Hypothetical in
this region



Median: 50 / Weighted Mean: 48.26

Additional Resources – Central

Public Web Survey

Existing Balance:

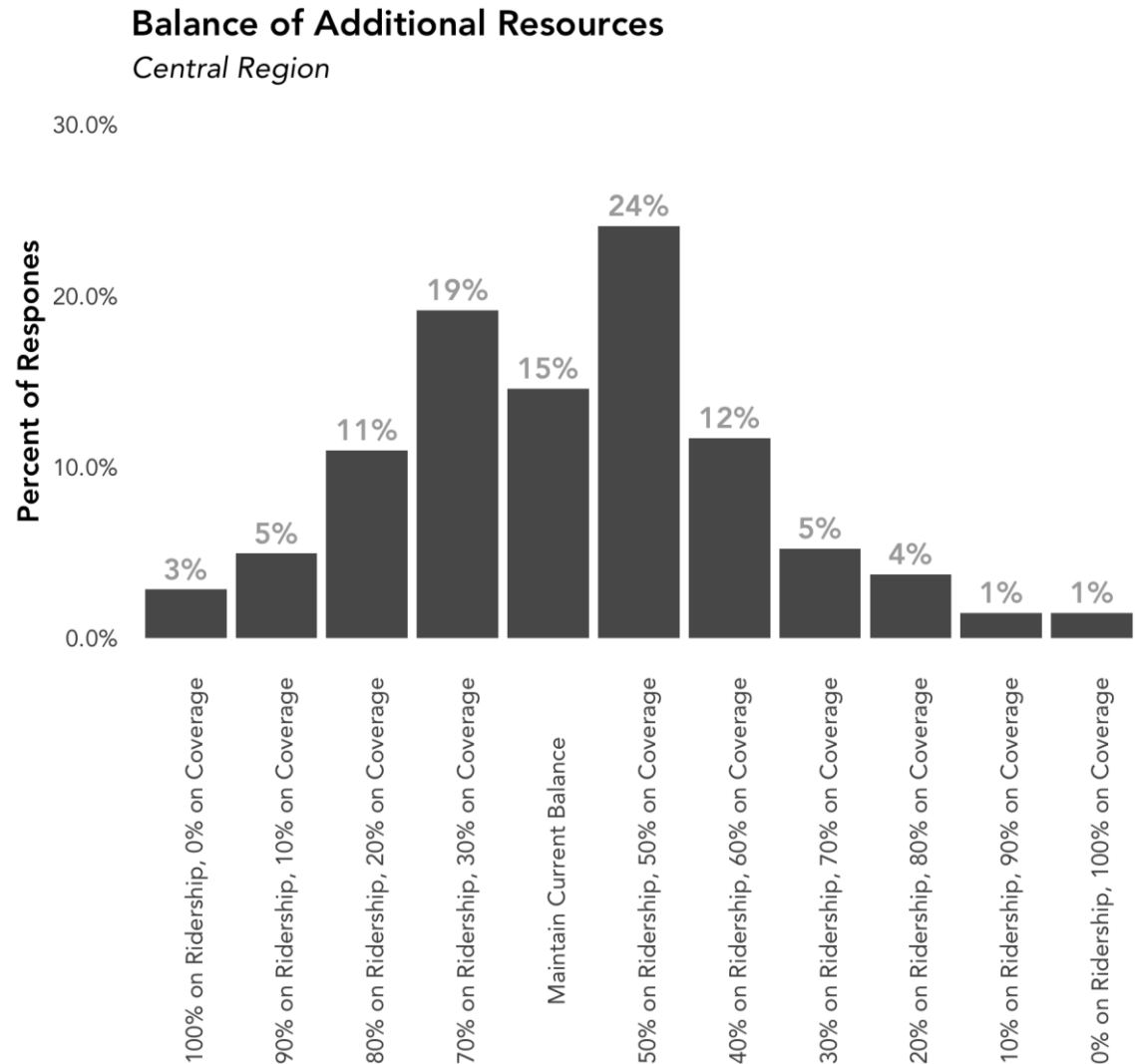
60% Ridership /
40% Coverage

Median Response:

60% Ridership /
40% Coverage

Conclusion:

Maintain existing
resource split



Median: 60 / Weighted Mean: 57.33

Additional Resources – South

Public Web Survey

Existing Balance:

60% Ridership /
40% Coverage

Median Response:

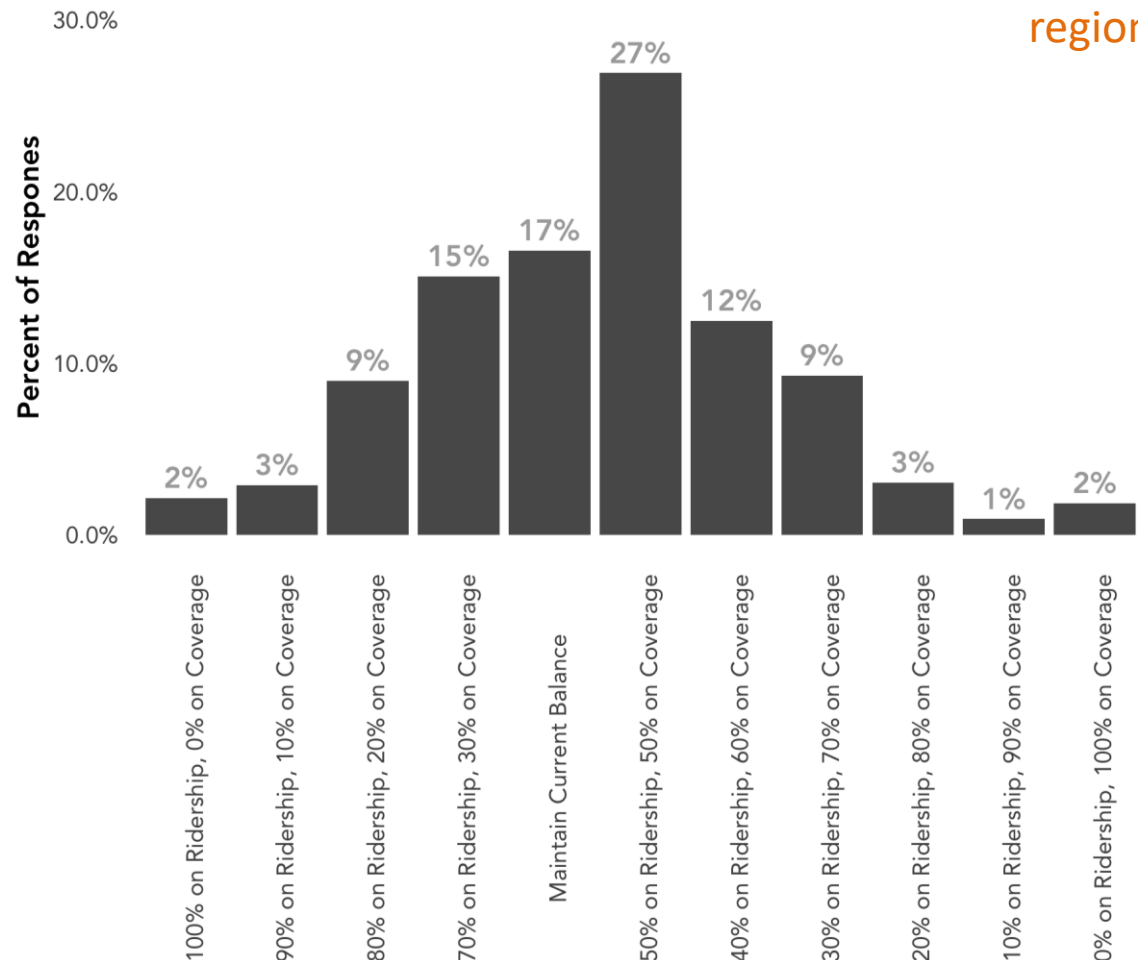
50% Ridership /
50% Coverage

Conclusion:

Focus slightly
more on
coverage service

Balance of Additional Resources
South Region

At least 8 years
away in this
region



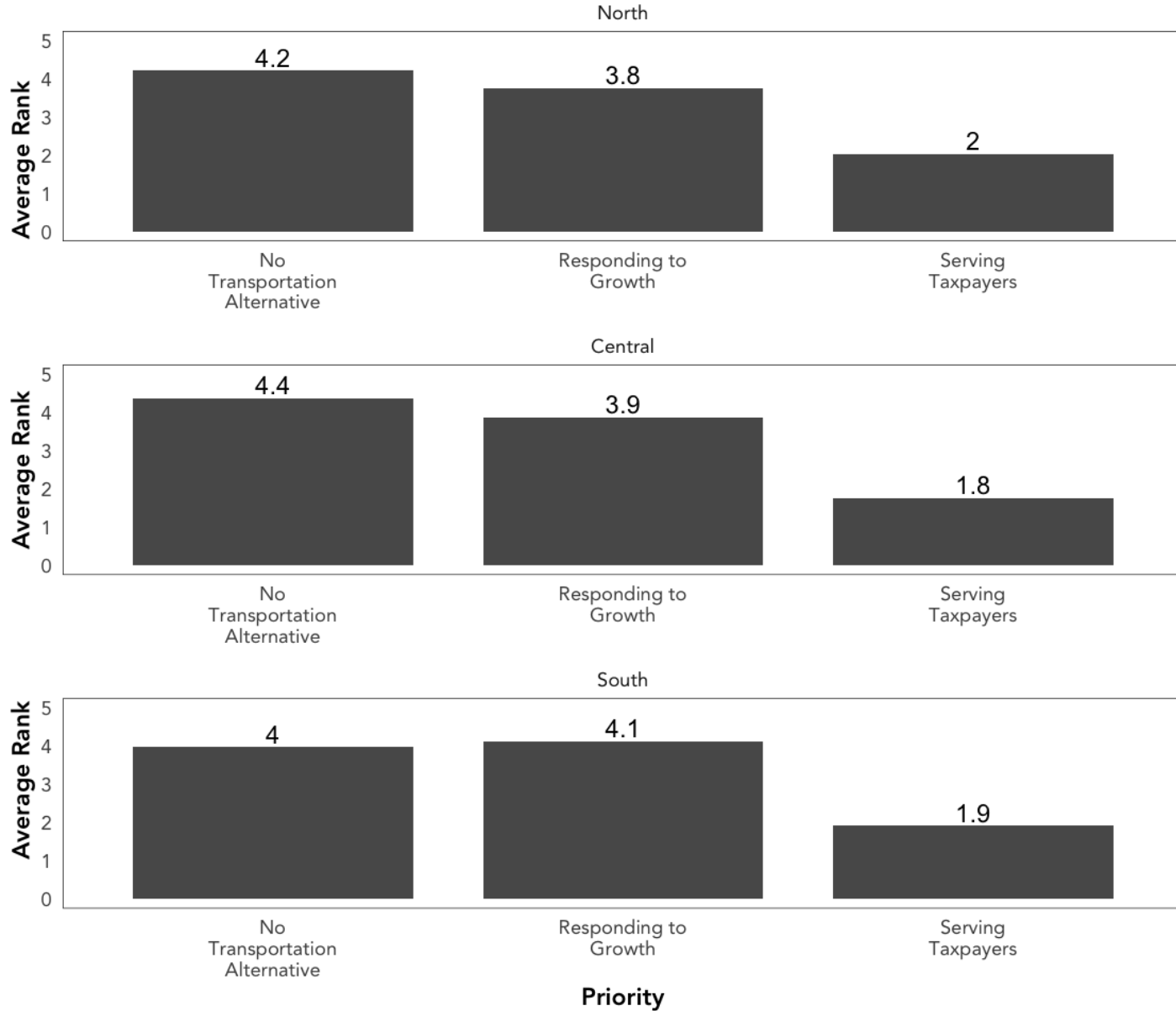
Median: 50 / Weighted Mean: 54.29

Coverage Priorities

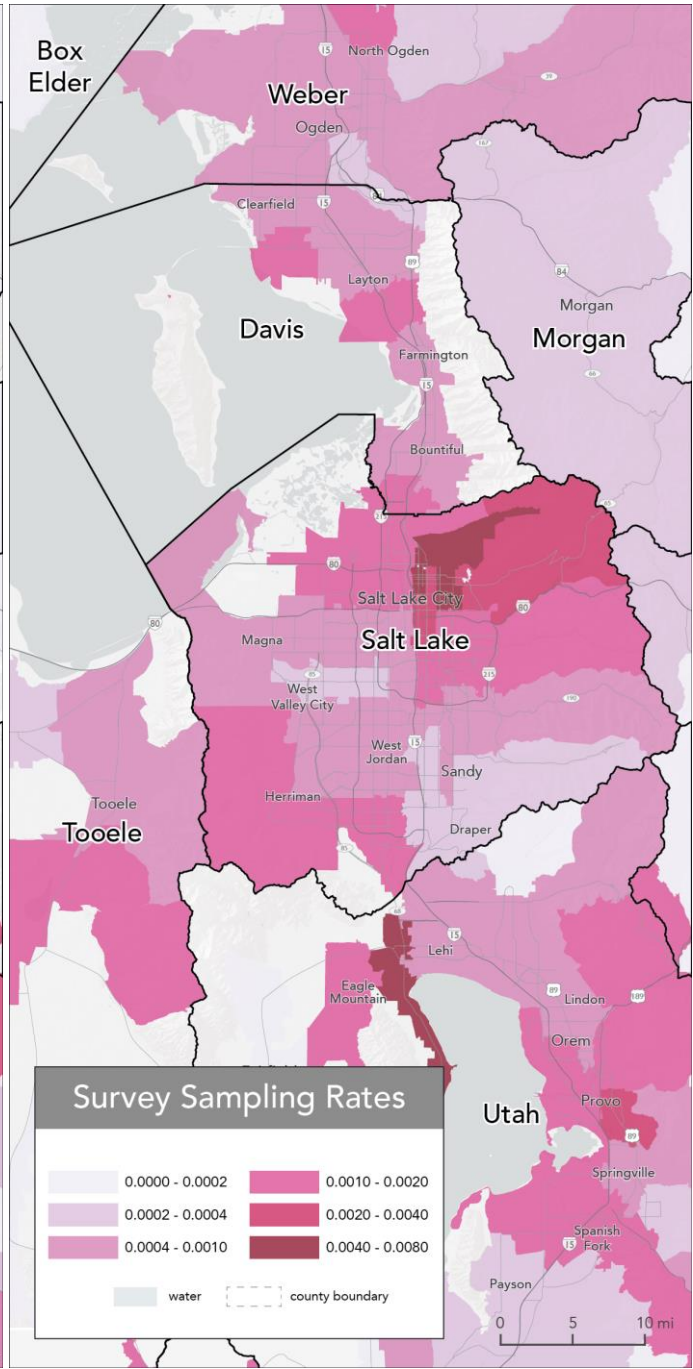
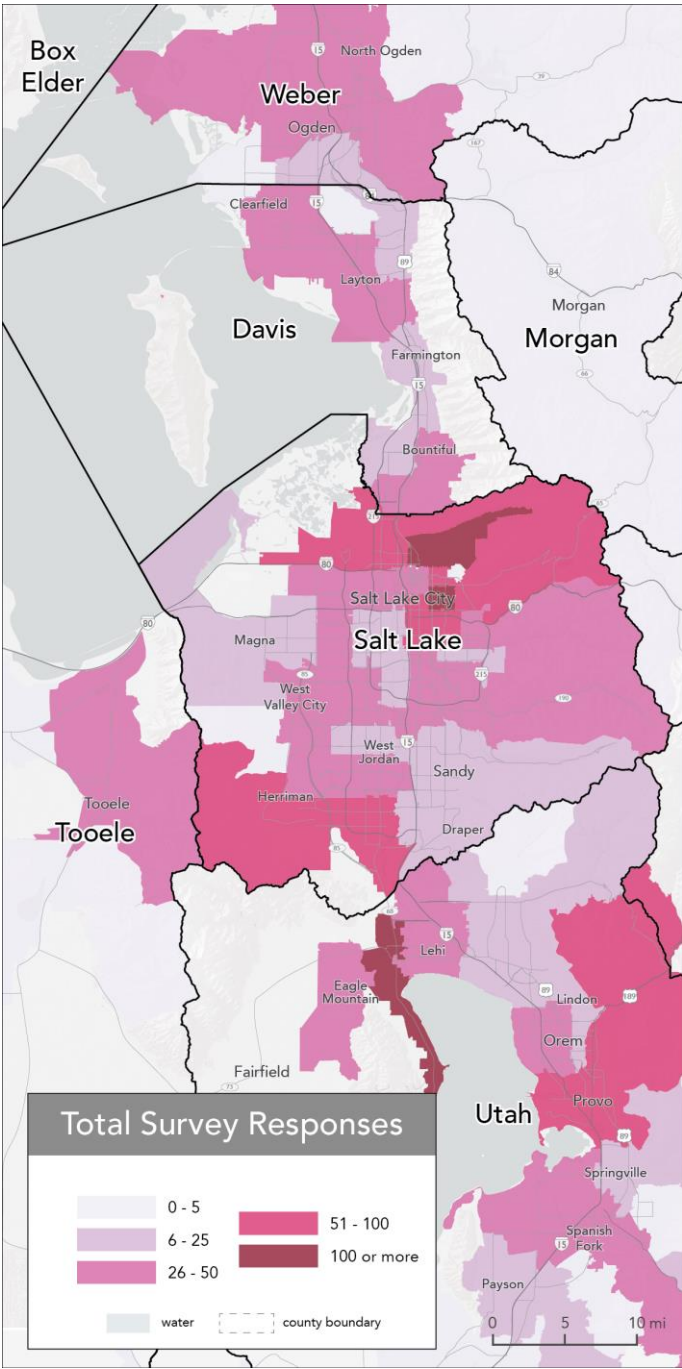
Public Web Survey

Coverage Priority

Mean Coverage Priority Rank by Region - Weighted by Vehicles Available

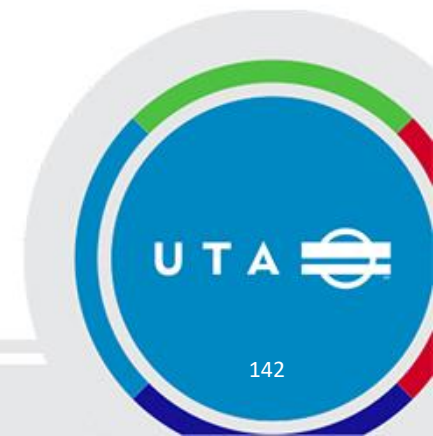


Where did our responses come from? Public Web Survey



Other Business

- a. Next meeting: July 31, 2019 at 9:00 a.m.



Adjourn

