



Network Redesign

Public Meeting- Alternatives Report



Tonight's Agenda

1. Welcome from Mayor Rhodes-Conway
2. Zoom Meeting Protocols
3. Introductions
 1. City Staff
 2. Consultant Team
4. Alternatives* Report Presentation – Daniel Costantino
5. Discussion
6. Engaging the Community -- Urban Assets

**correction from meeting, where this item said "Choices Report Presentation". No other changes made.*

Zoom Meeting Protocols

- Please remain on Mute during the presentation.
- Use the Chat to ask questions during the meeting.
- To ask questions at the end of the presentation, click Participants and select Raise Hand.
- Introduce yourself before speaking.
- Once your question is addressed, lower your hand.
- If you called into the meeting, use *9 to raise and lower your hand.

Introductions | City Staff

- Tom Lynch, Director, City of Madison Transportation Department
- Justin Stuehrenberg, General Manager, Metro Transit
- Mike Cechvala, Planner, City of Madison Transportation Department
- Ben Lyman, Transportation Planner, Greater Madison MPO

Introductions | Consultant Team

- Daniel Costantino – Jarrett Walker + Associates
(presenting)
- Chris Yuen – Jarrett Walker + Associates
- Melissa Huggins – Urban Assets

Why are we here today?

- We are re-envisioning **where** and **how often** the bus operates in Madison.
- The goal is to redesign the transit network **to better serve your community's values and priorities.**

Where are we in the process?



Why do we need the public's input?

- Changing the bus network requires dealing with a trade-off between service that is:
 - **Frequent** and **direct** enough to be useful to many people => to get maximum possible **ridership**.
 - **Available within a short walk** of as many people and places as possible => to get maximum **coverage**.

Why do we need your input?

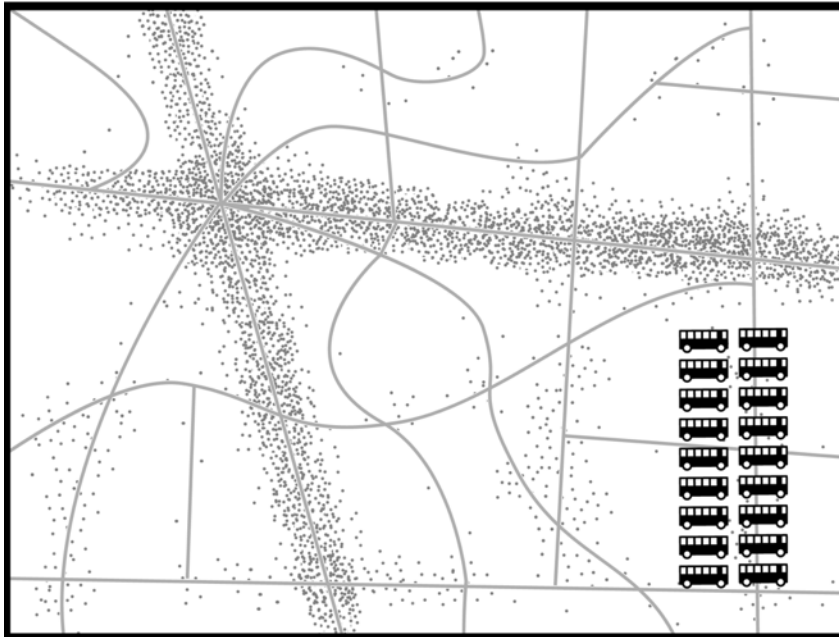
- Changing the bus network requires dealing with a trade-off between service that is:
 - **Frequent** and **direct** enough to be useful to many people => to get maximum **ridership**.
 - **Available within a short walk** of as many people and places as possible => to get maximum **coverage**.

Balancing these competing priorities is not a technical decision: it's a question about your community's values.

How can you provide input?

- **Tonight:** you can ask questions or provide comment after the presentation.
- **Until next Tuesday:** take the survey online!
 - *Project Web Page:* mymetrobus.com/redesign
 - *Direct Survey Link:* surveymonkey.com/r/NetworkAlternatives
- **Anytime:** e-mail MetroRedesign@cityofmadison.com

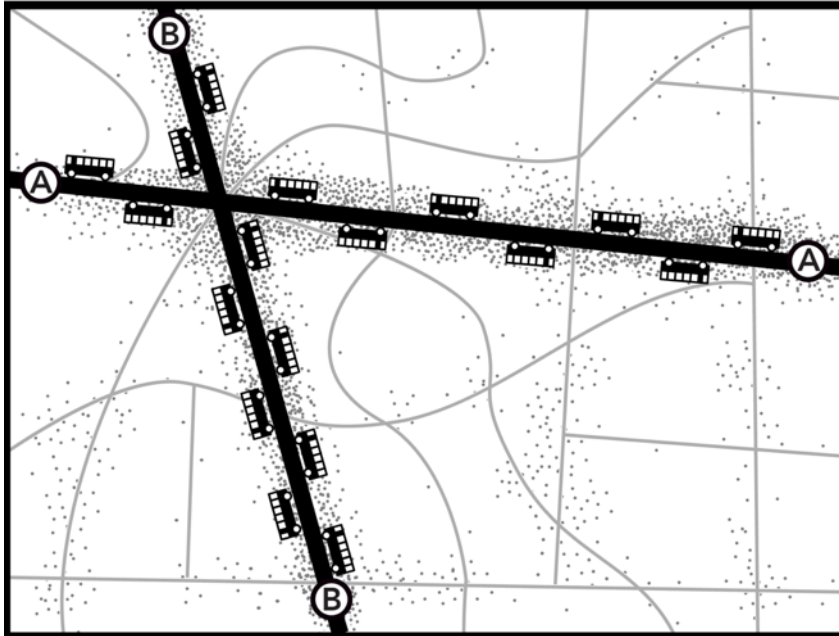
Different Goals, Different Service



Imagine you had 18 buses to serve this fictional town.

Dots are the locations of residents and jobs.

Ridership Goal

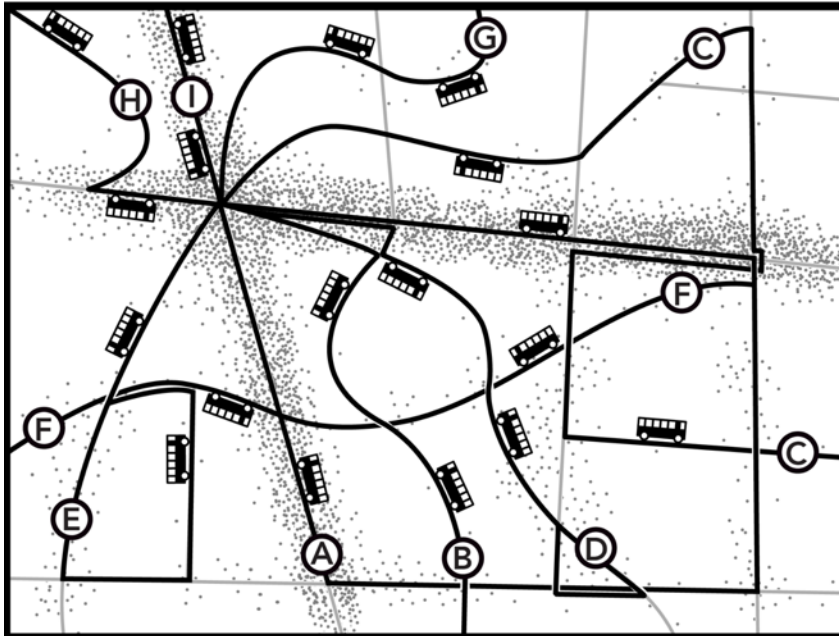


Highest possible **frequency** where many people live and work.

But:

- *not available for everyone*
- *not necessarily available to all the people who need it most.*

Coverage Goal



Some service near everyone.

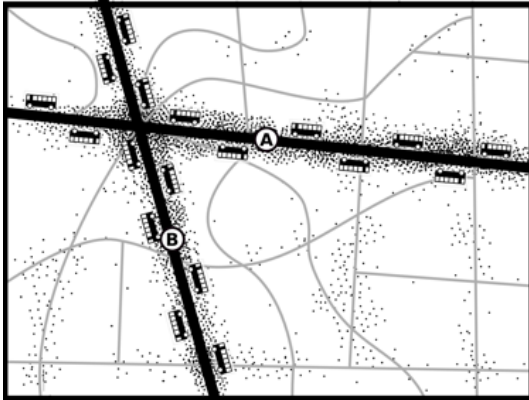
*But **service is infrequent**, so it's unlikely to be useful for many people and trips.*

Why is frequency so important?



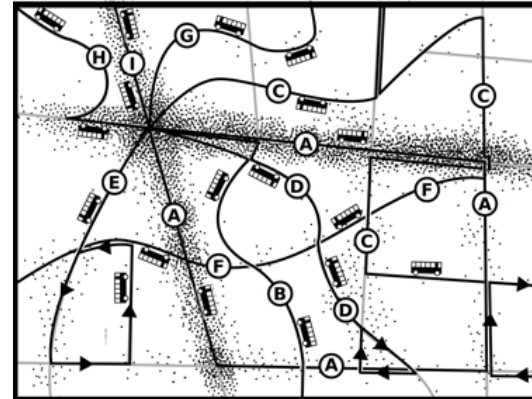
Imagine a gate at the end of your driveway that only opens once an hour!

Both goals matter



Ridership Goal

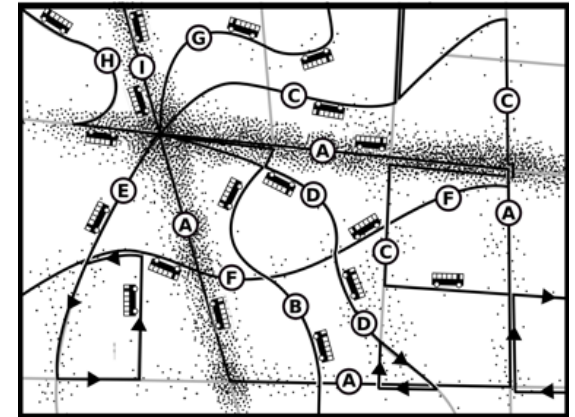
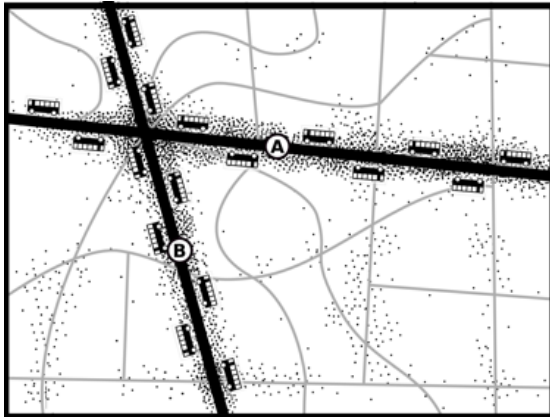
- Maximum total access to opportunity.
- Lowest subsidy per passenger.
- Support dense and walkable development.
- Reductions in vehicle miles traveled and emissions.



Coverage Goal

- Some service near every home and job.
- Baseline level of access available everywhere.

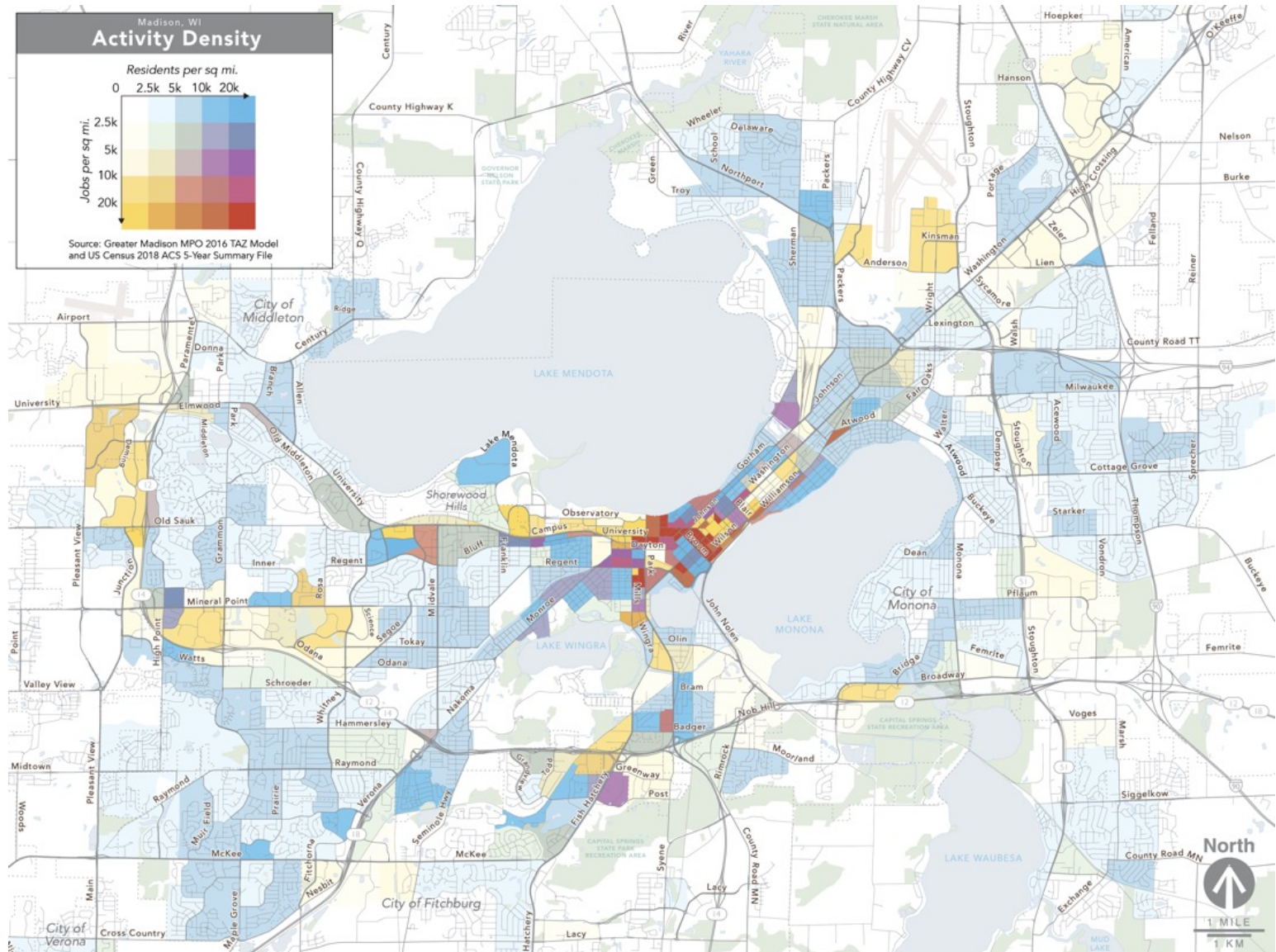
This tradeoff is unavoidable, at any level of funding.



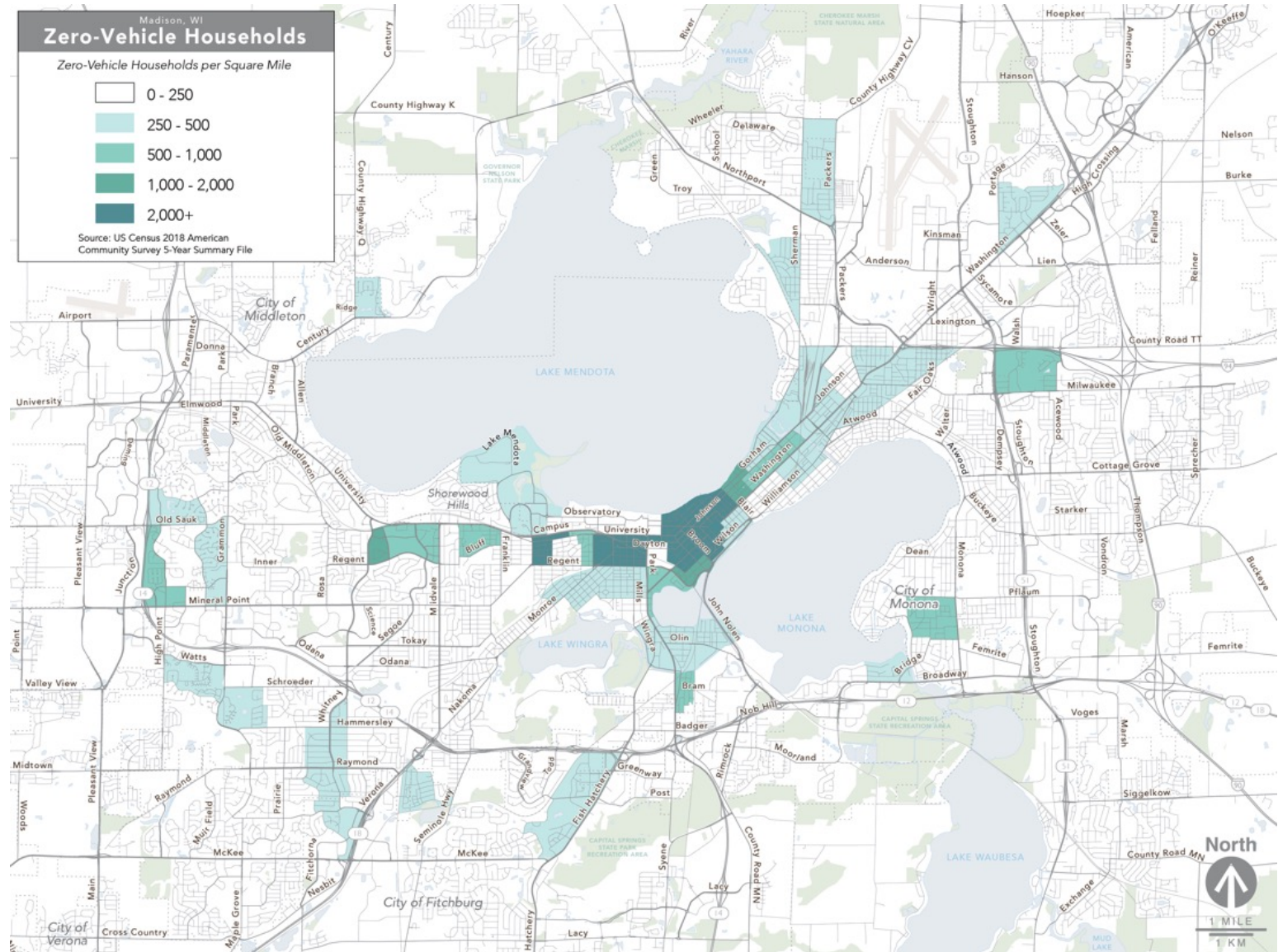
But you CAN choose a deliberate balance point on the spectrum between these goals. ("Devote ___% of our resources to the ridership goal and ___% to the coverage goal.")

What this Means for Madison

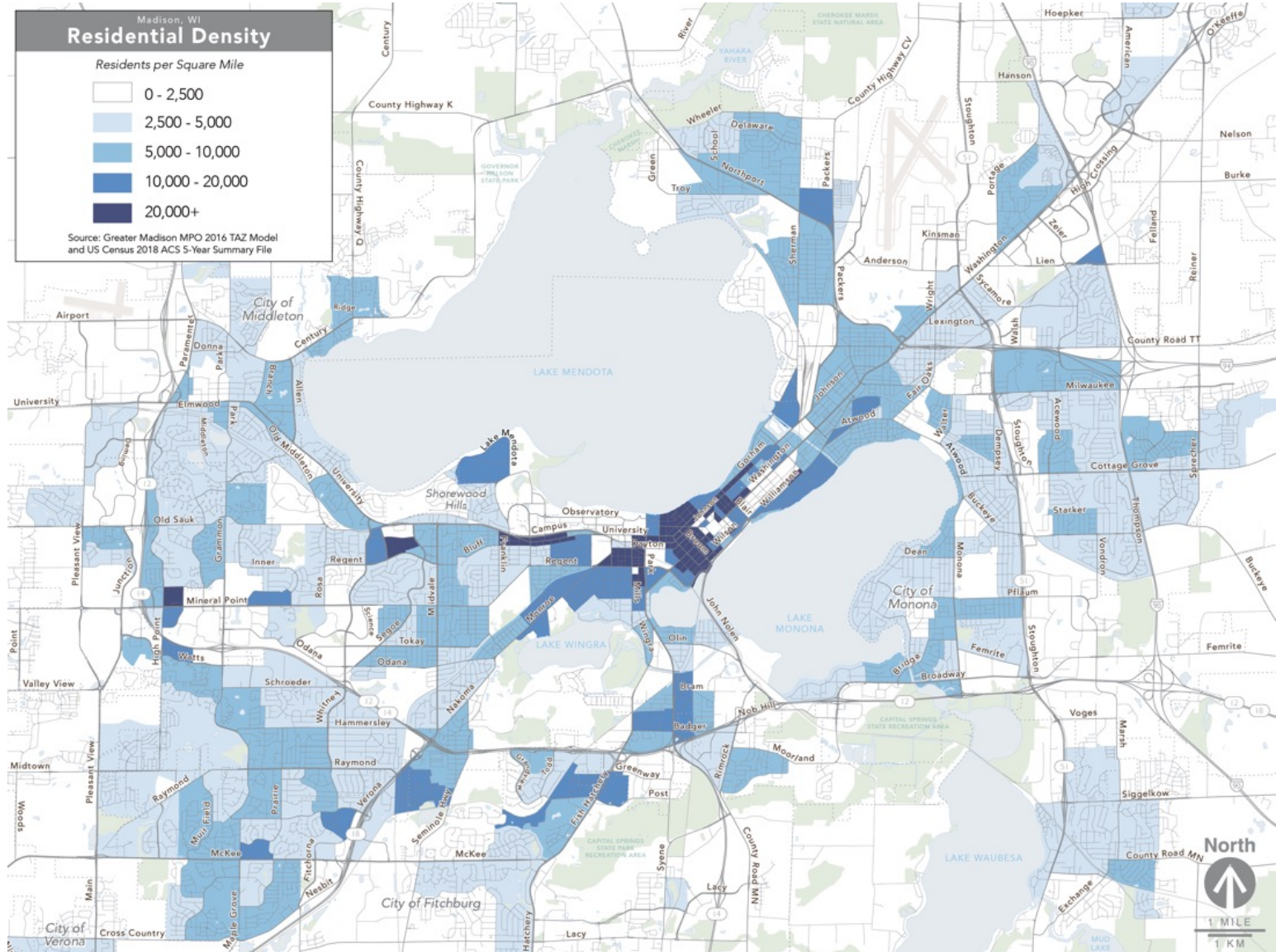
Ridership. The highest densities of people and jobs are in Central Madison.



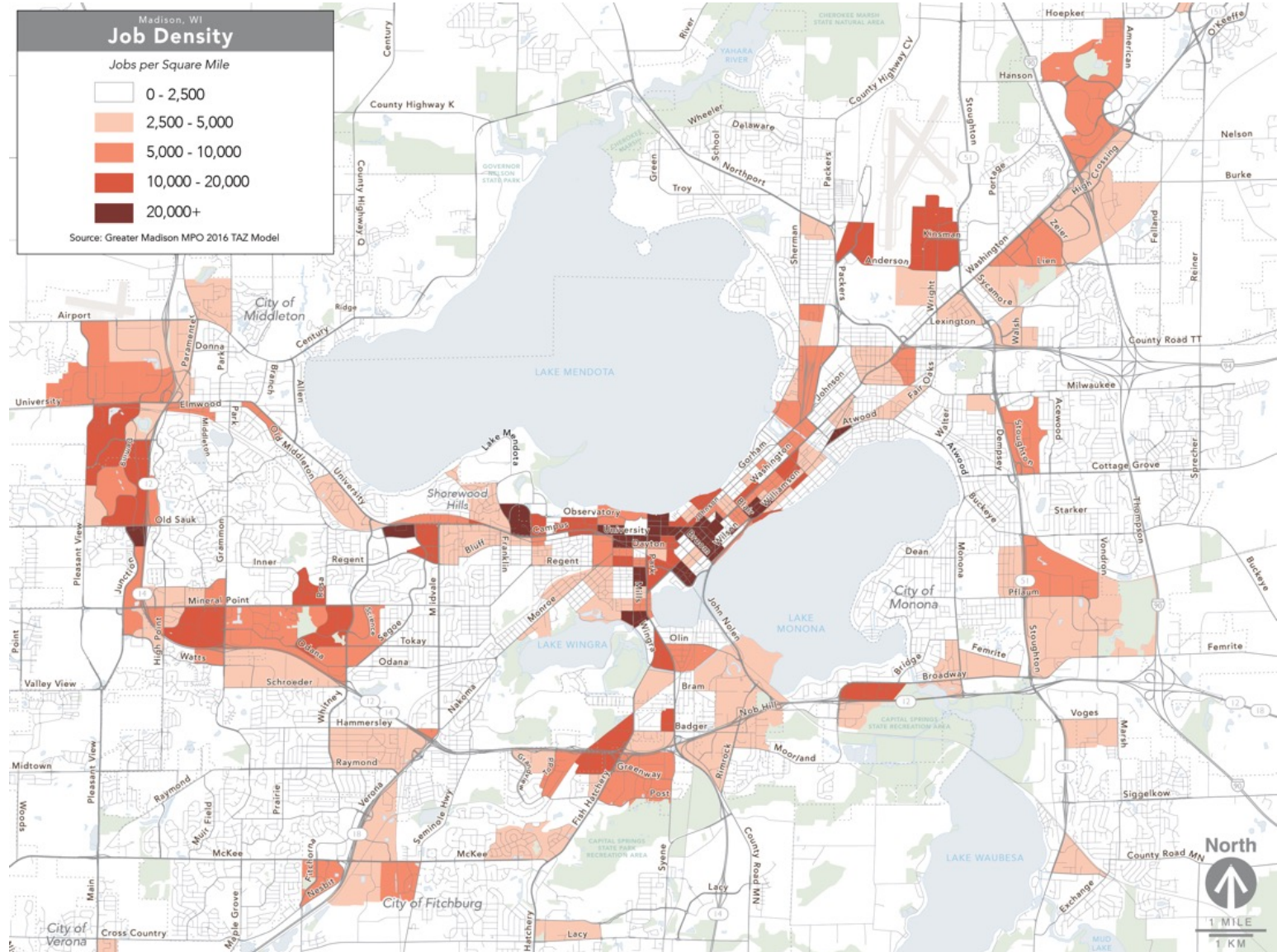
Ridership. This includes the largest concentration of people likely to use transit often.



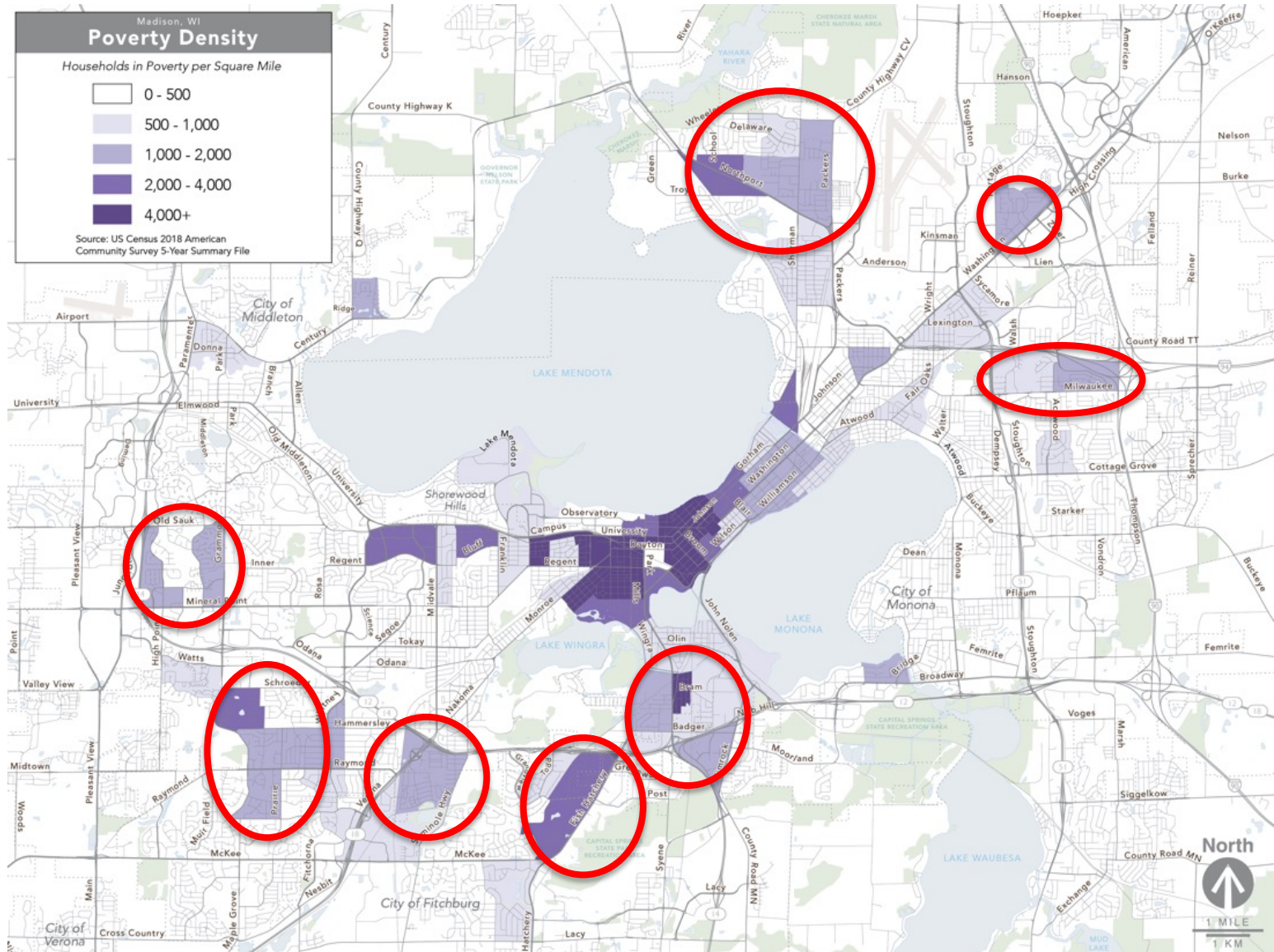
Coverage. But people live all over the city.



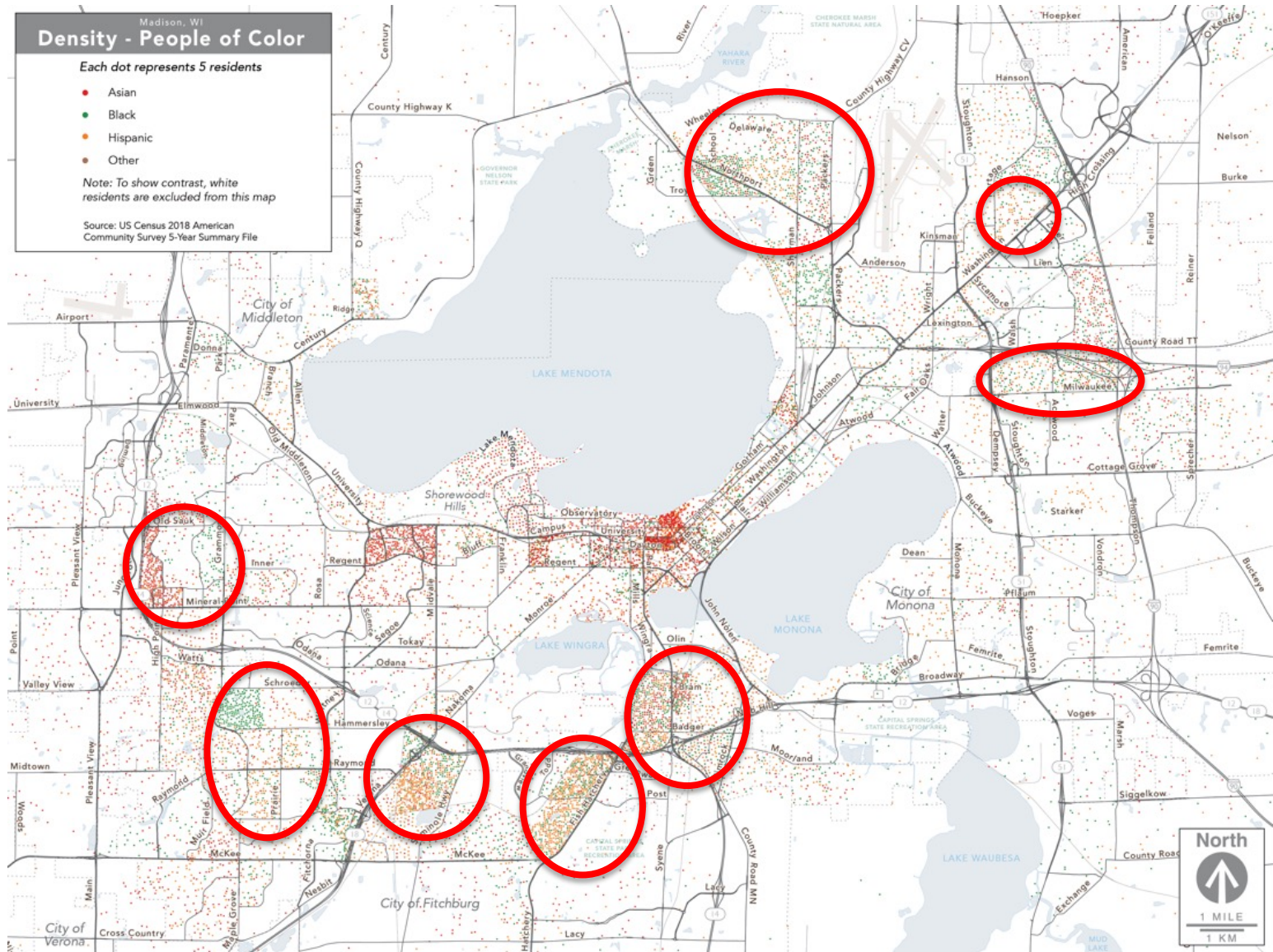
Coverage. And many jobs and other places people need to go are far from Downtown.



Equity. Many of the people who need transit most live in peripheral areas.

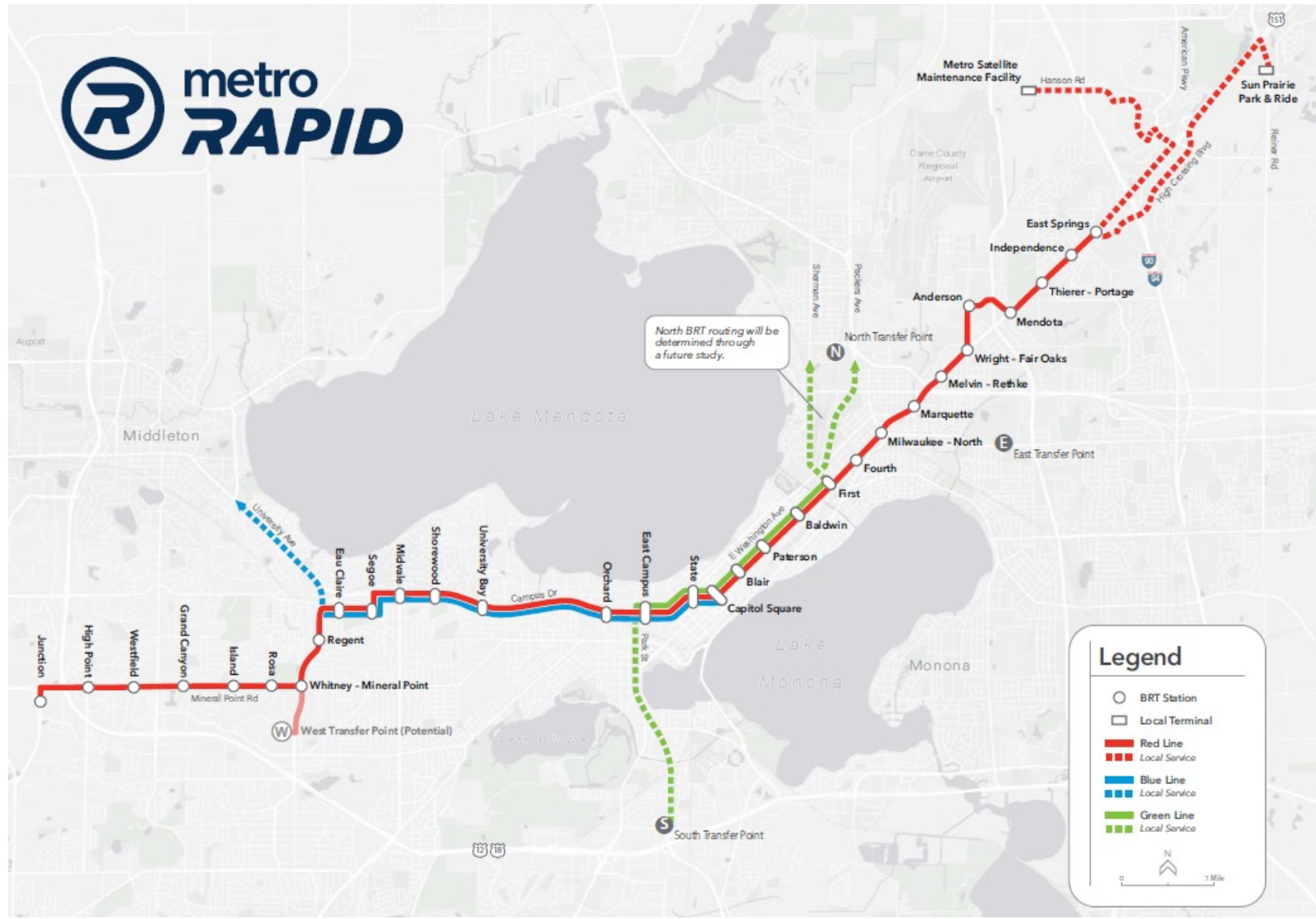


Equity. This includes most of Madison's disadvantaged communities of color.



Network Alternatives

Key Assumption: BRT is happening.



Key Assumption: service increased back to 2019 levels.

- Same amount of service as in 2019, but not necessarily at the exact same places and times.
- Any decision to run more service in one location than in 2019, is a decision to run less service in some other location.
- In both alternatives, BRT service hours would be similar to the total hours spent in the BRT corridors in 2019.

Other assumptions

- Neither alternative significantly expands where the bus goes, compared to 2019.
- To avoid cuts to weekday service, evening and weekend service would remain about 40% less than in the midday on weekdays.
- Peak service would be higher than in the midday, but not as much as it was in 2019.








Both alternatives are realistic.

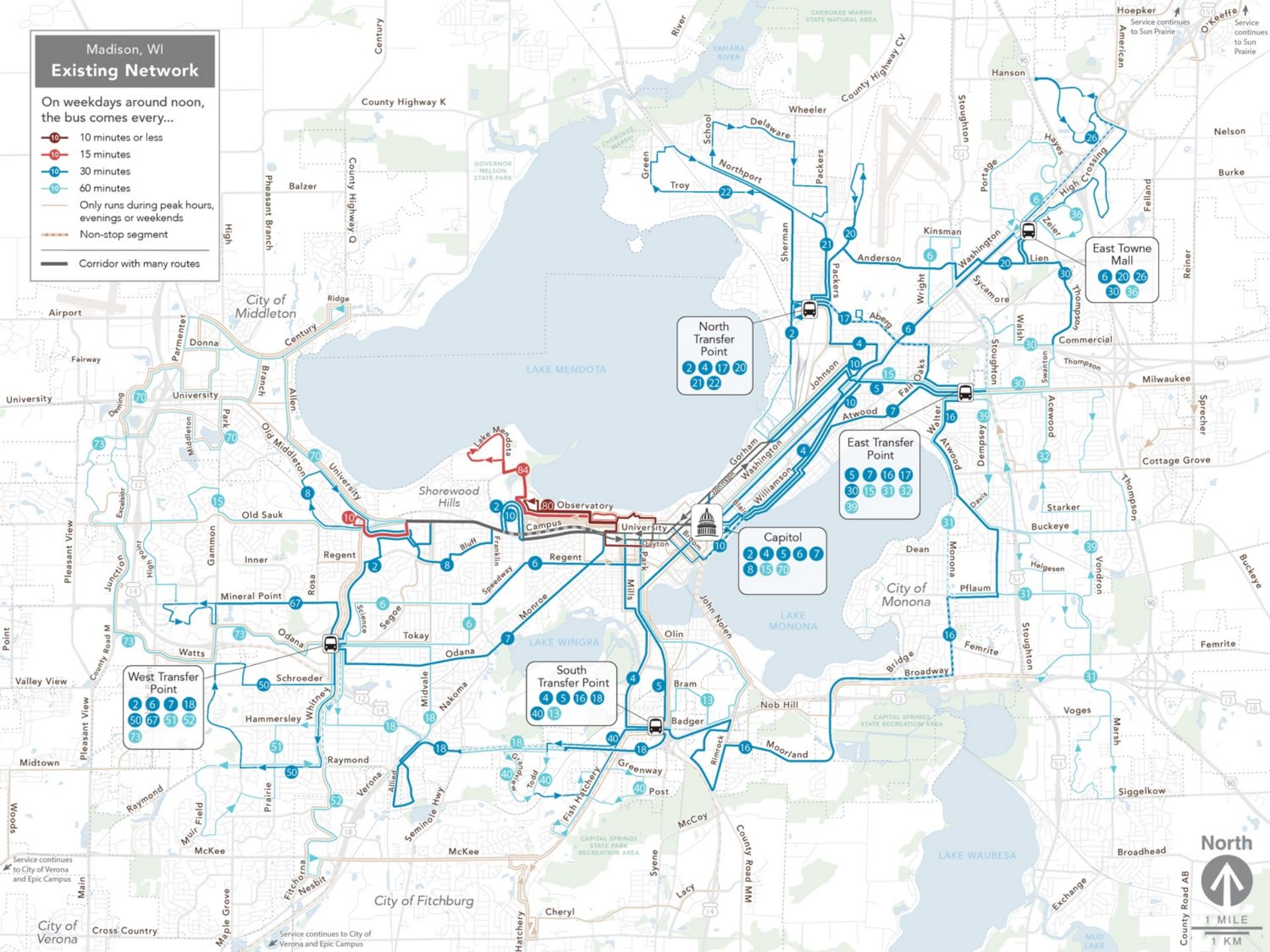
Neither is a recommendation

- These alternatives are intended to show the extremes of what might be possible in Madison.
- But both are likely to generate strong reactions in people who think differently.
- We want to learn which alternative is closest to what the community might accept, and the ways it will need to change to become a viable proposal.

Madison, WI Existing Network









On weekdays around noon,
the bus comes every...

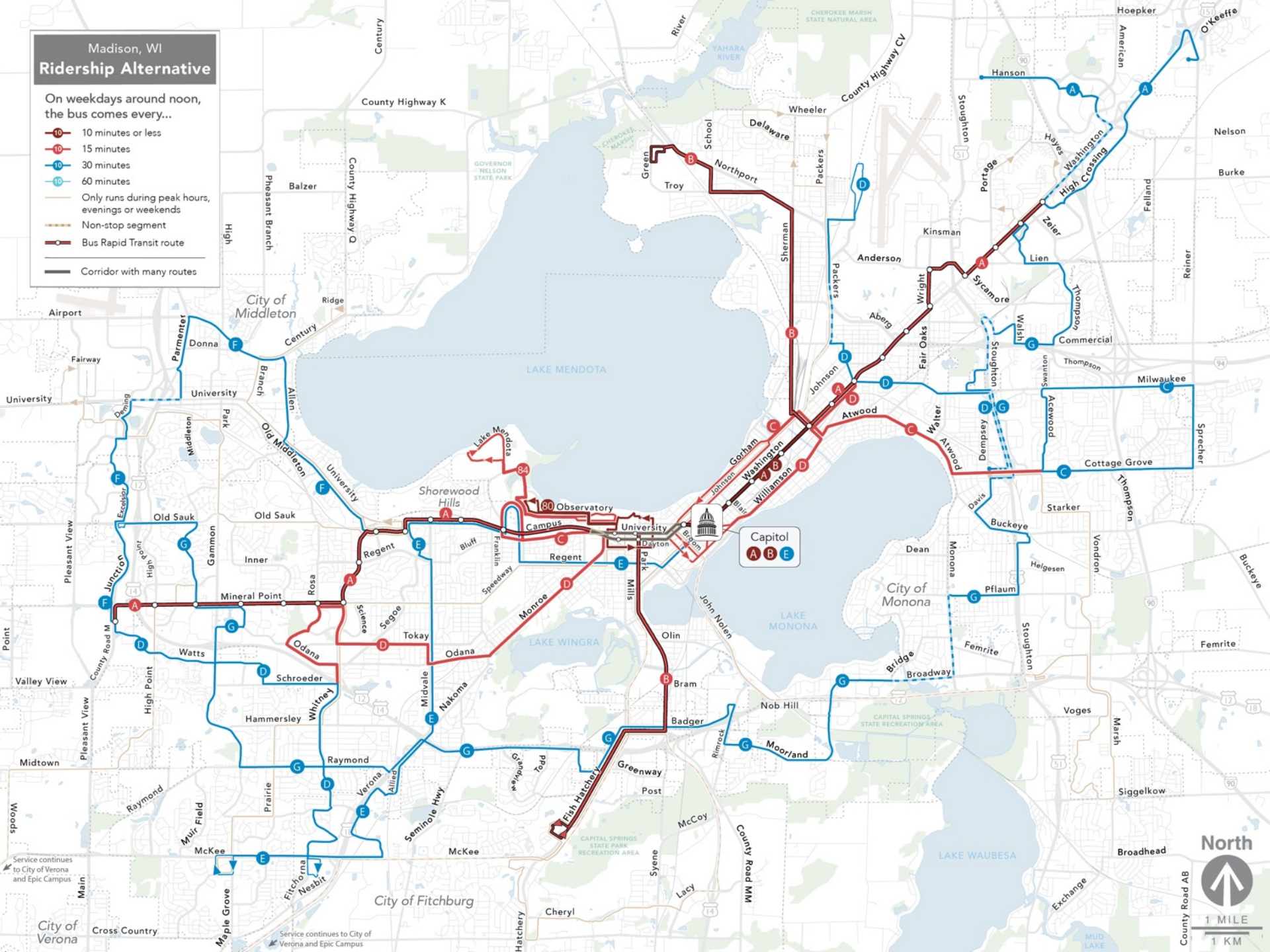
-  10 minutes or less
-  15 minutes
-  30 minutes
-  60 minutes
-  Only runs during peak hours, evenings or weekends
-  Non-stop segment
-  Corridor with many routes



Madison, WI Ridership Alternative

On weekdays around noon,
the bus comes every...

-  10 minutes or less
-  15 minutes
-  30 minutes
-  60 minutes
-  Only runs during peak hours, evenings or weekends
-  Non-stop segment
-  Bus Rapid Transit route
-  Corridor with many routes

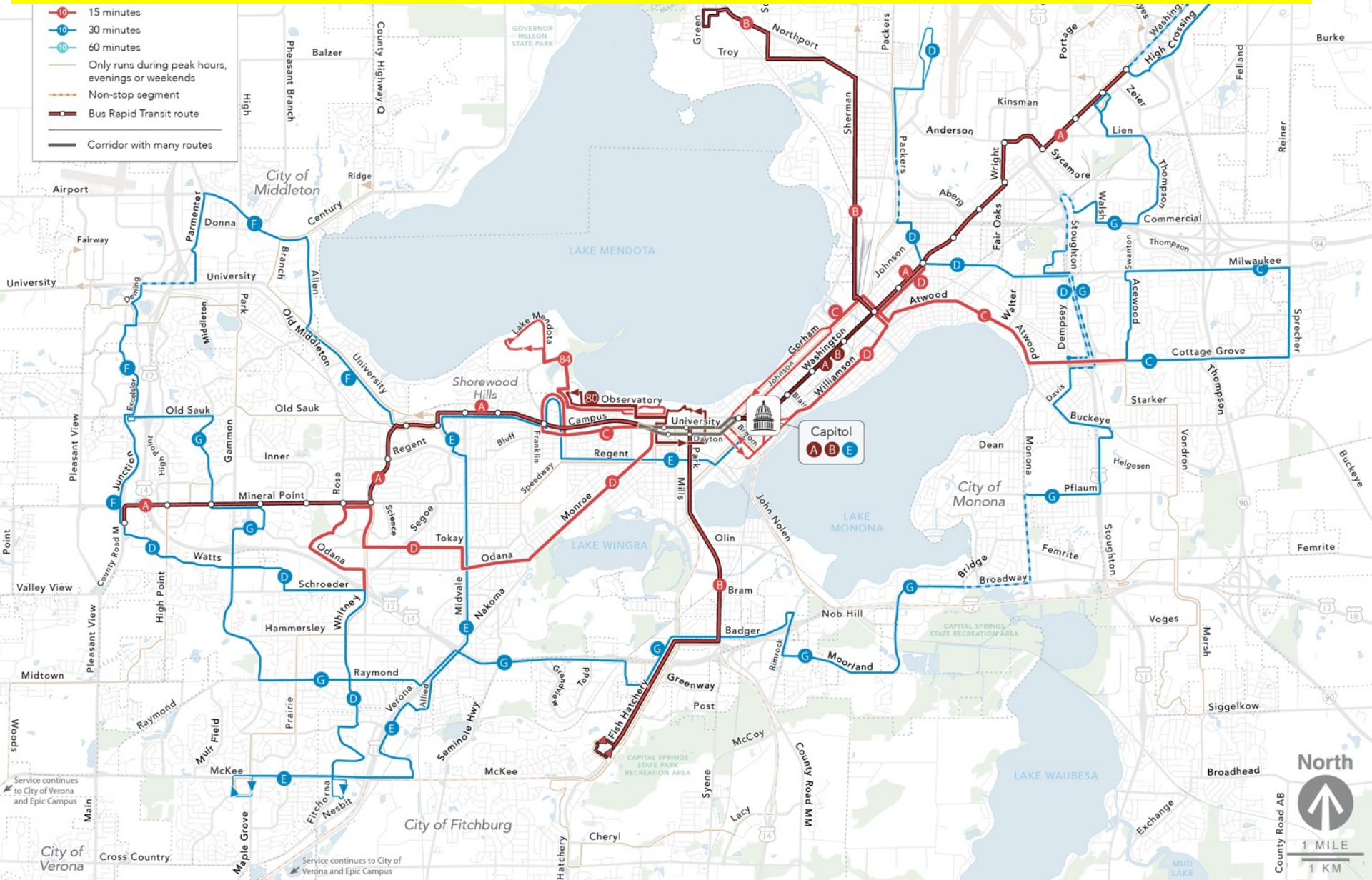


Higher frequency. Most service every 15 minutes or better. All-day service every 30 minutes or better.

Some coverage maintained only at peak hours.








No Transfer Points. Direct travel across town on most routes; transfers distributed throughout the city.

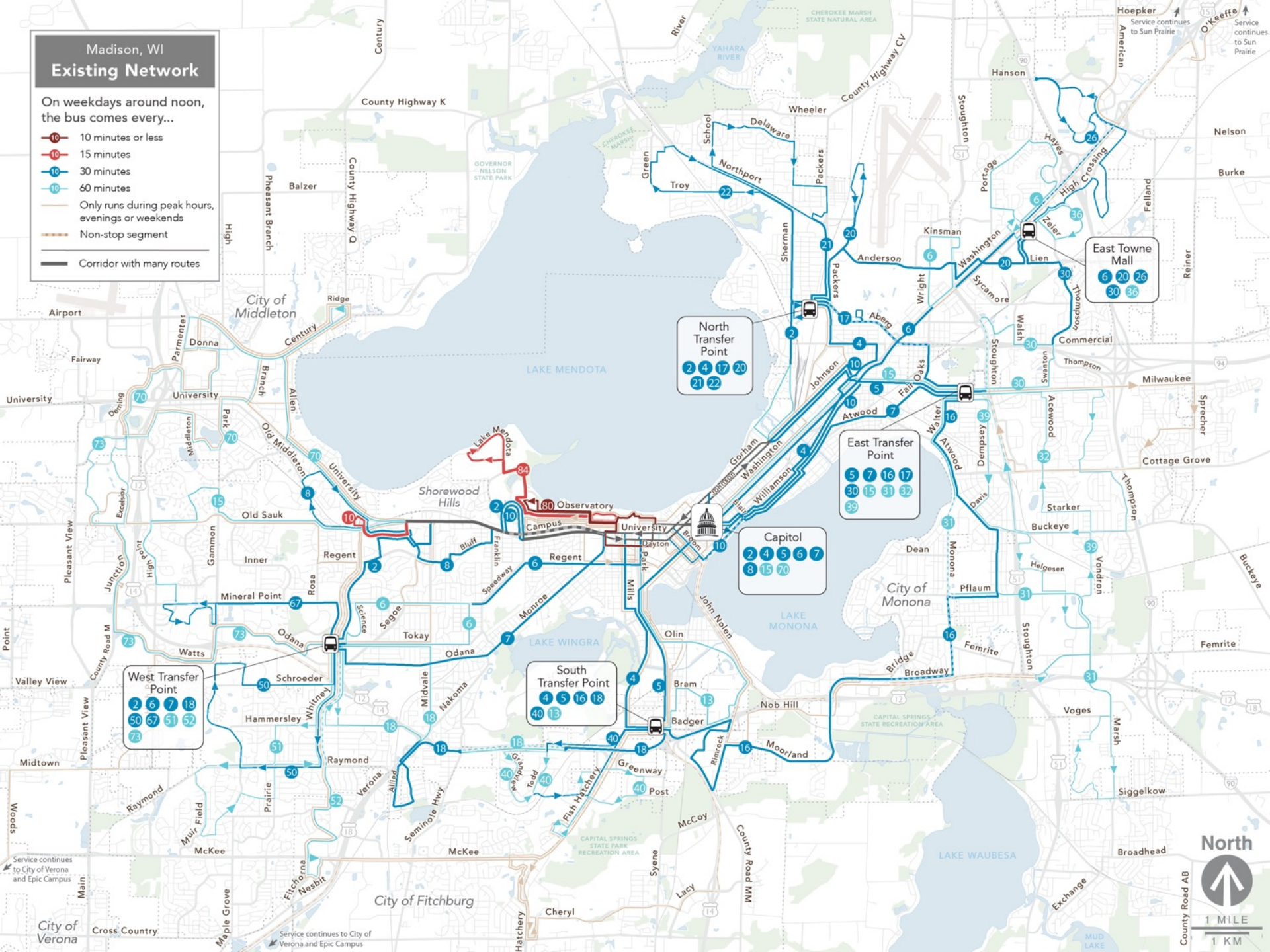
Lines aren't always straight, because most of Madison isn't built on a grid.



Madison, WI Existing Network

On weekdays around noon,
the bus comes every...

-  10 minutes or less
-  15 minutes
-  30 minutes
-  60 minutes
-  Only runs during peak hours, evenings or weekends
-  Non-stop segment
-  Corridor with many routes



City of Verona

City of Fitchburg

City of Monona

City of Middleton

Airport

East Towne Mall
6 20 26
30 36

North Transfer Point
2 4 17 20
21 22

East Transfer Point
5 7 16 17
30 15 31 32
39

Capitol
2 4 5 6 7
8 15 70

South Transfer Point
4 5 16 18
40 13

West Transfer Point
2 6 7 18
50 67 51 52
73

Service continues to City of Verona and Epic Campus

Service continues to City of Verona and Epic Campus

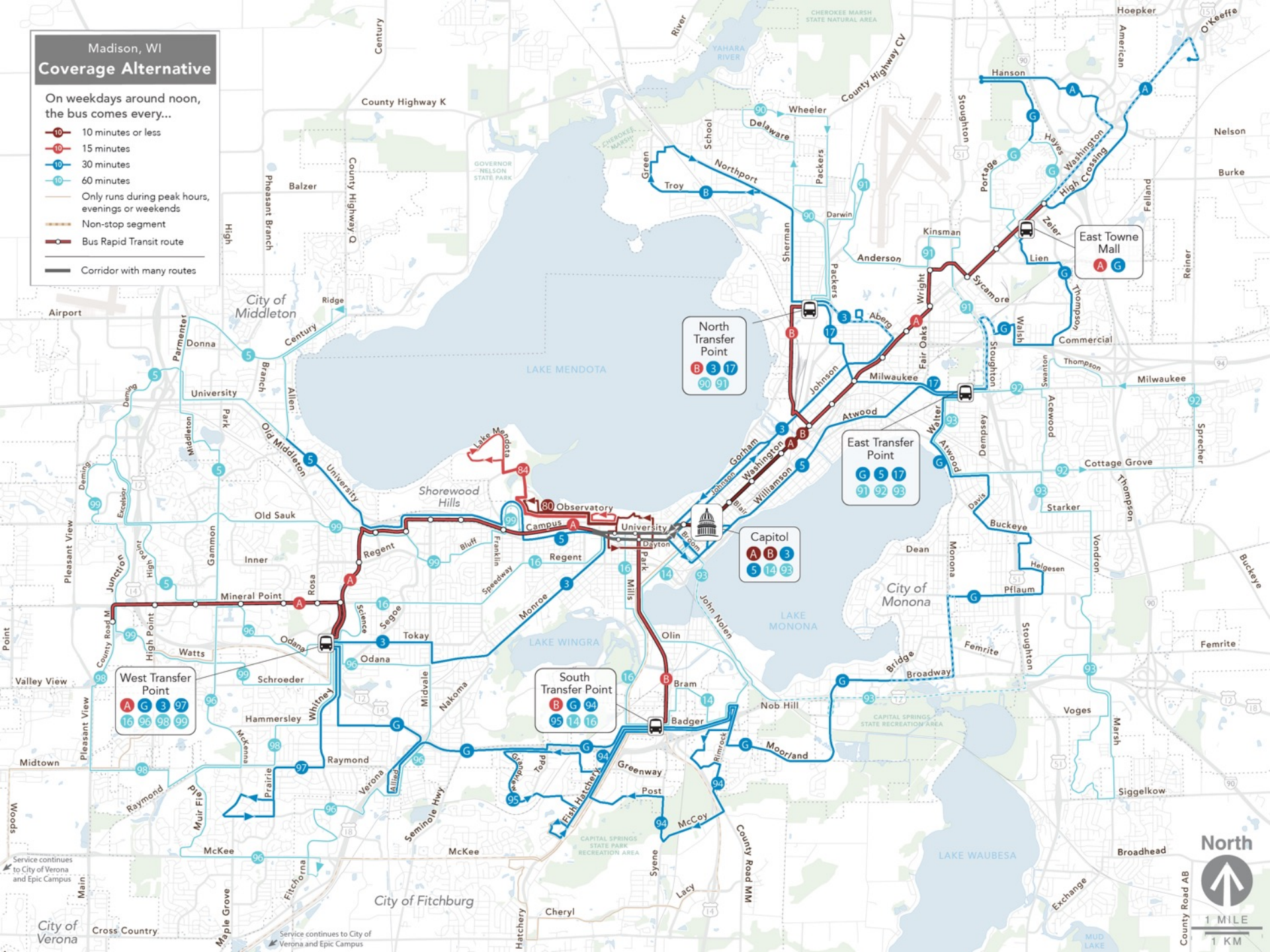
County Road AB

1 MILE
1 KM

Madison, WI Coverage Alternative

On weekdays around noon,
the bus comes every...

- 10 minutes or less
- 15 minutes
- 30 minutes
- 60 minutes
- Only runs during peak hours, evenings or weekends
- Non-stop segment
- Bus Rapid Transit route
- Corridor with many routes



North Transfer Point

B	3	17
90	91	

East Transfer Point

G	5	17
91	92	93

Capitol

A	B	3
5	14	93

South Transfer Point








B	5	94
95	14	16

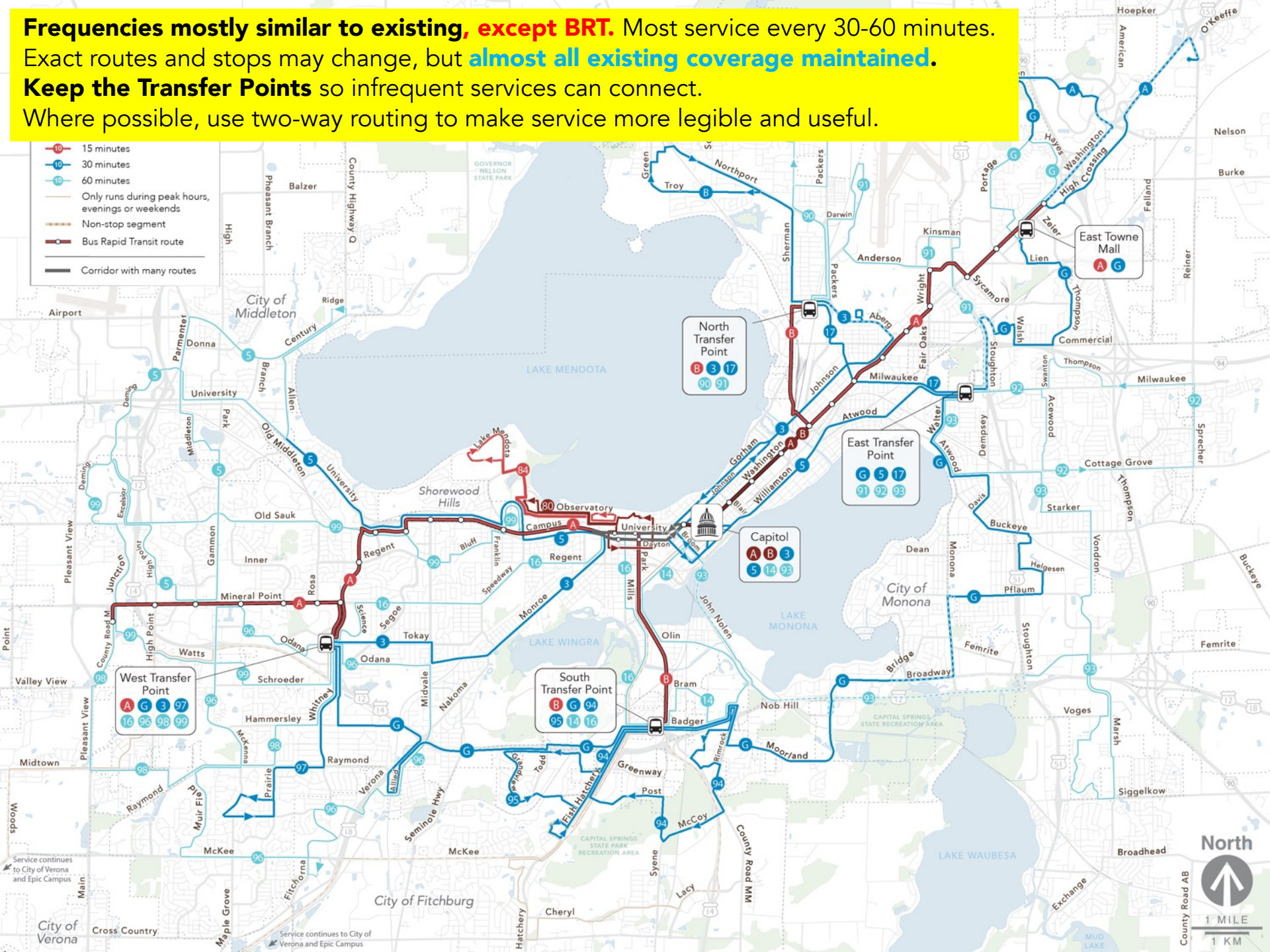
West Transfer Point

A	G	3	97
16	96	98	99



Frequencies mostly similar to existing, except BRT. Most service every 30-60 minutes. Exact routes and stops may change, but **almost all existing coverage maintained.** **Keep the Transfer Points** so infrequent services can connect. Where possible, use two-way routing to make service more legible and useful.

-  15 minutes
-  30 minutes
-  60 minutes
-  Only runs during peak hours, evenings or weekends
-  Non-stop segment
-  Bus Rapid Transit route
-  Corridor with many routes



Comparing Key Outcomes Proximity to Service

Proximity

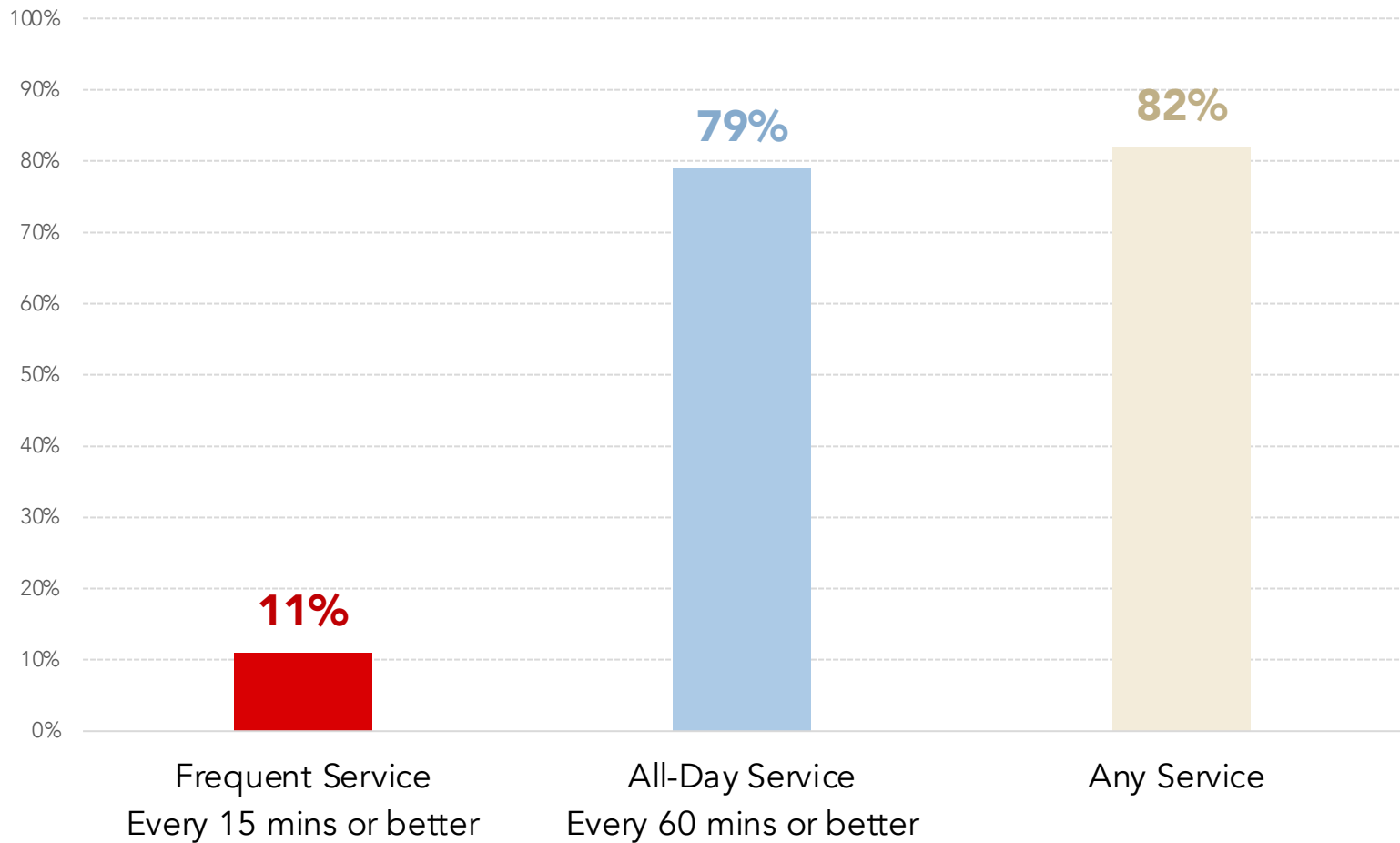
How many people are near transit service in Madison?

- We calculated **how many people in Madison would live within a 1/4-mile walk of a bus stop**, and how often the bus comes by on weekdays.
- This is a measure of **coverage**.
 - It tells us whether people have some level of insurance against isolation in their neighborhood.
 - It does not tell us whether anybody would find the service useful on a regular basis.

Proximity

How many people are near transit service in Madison?

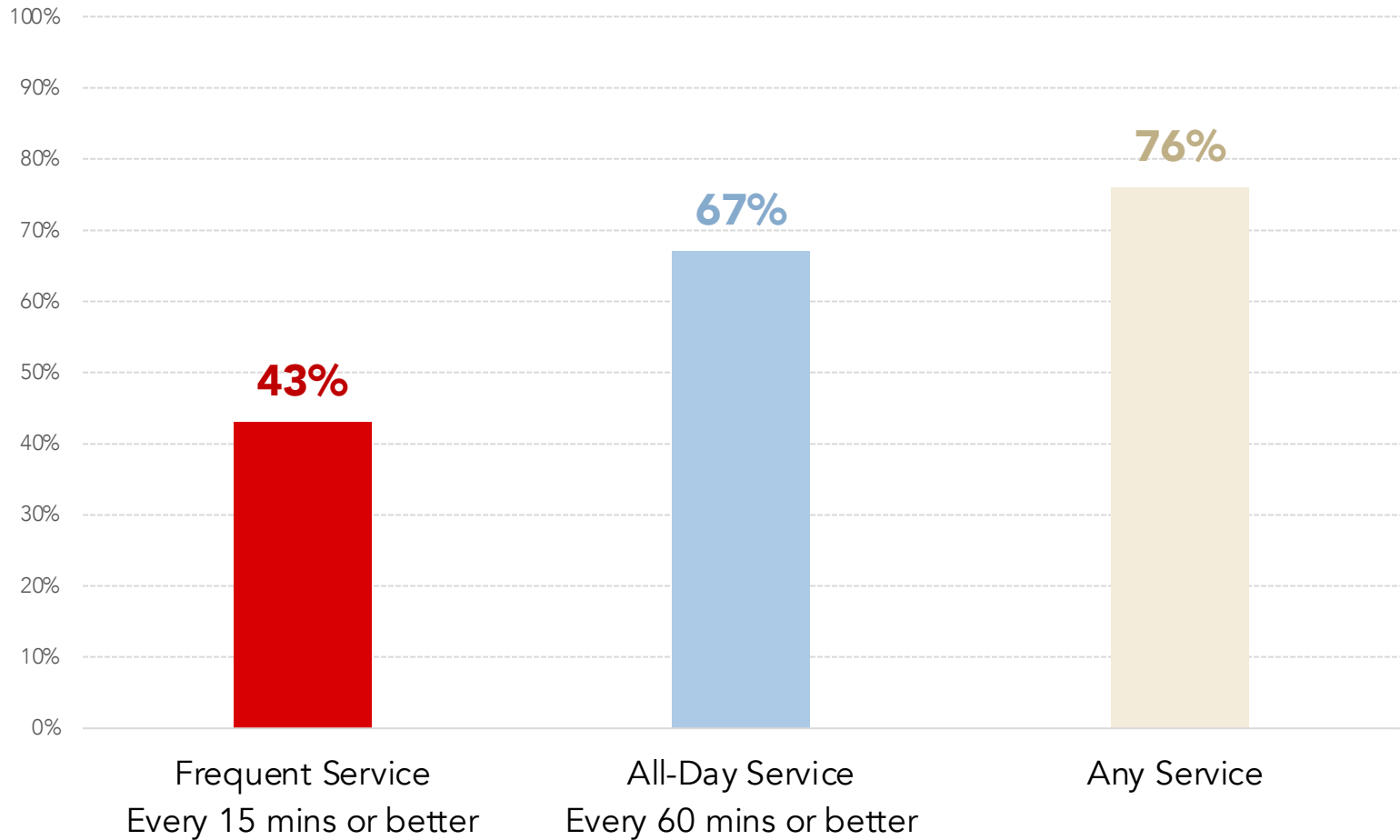
Existing Network



Proximity

How many people would be near transit service in Madison?

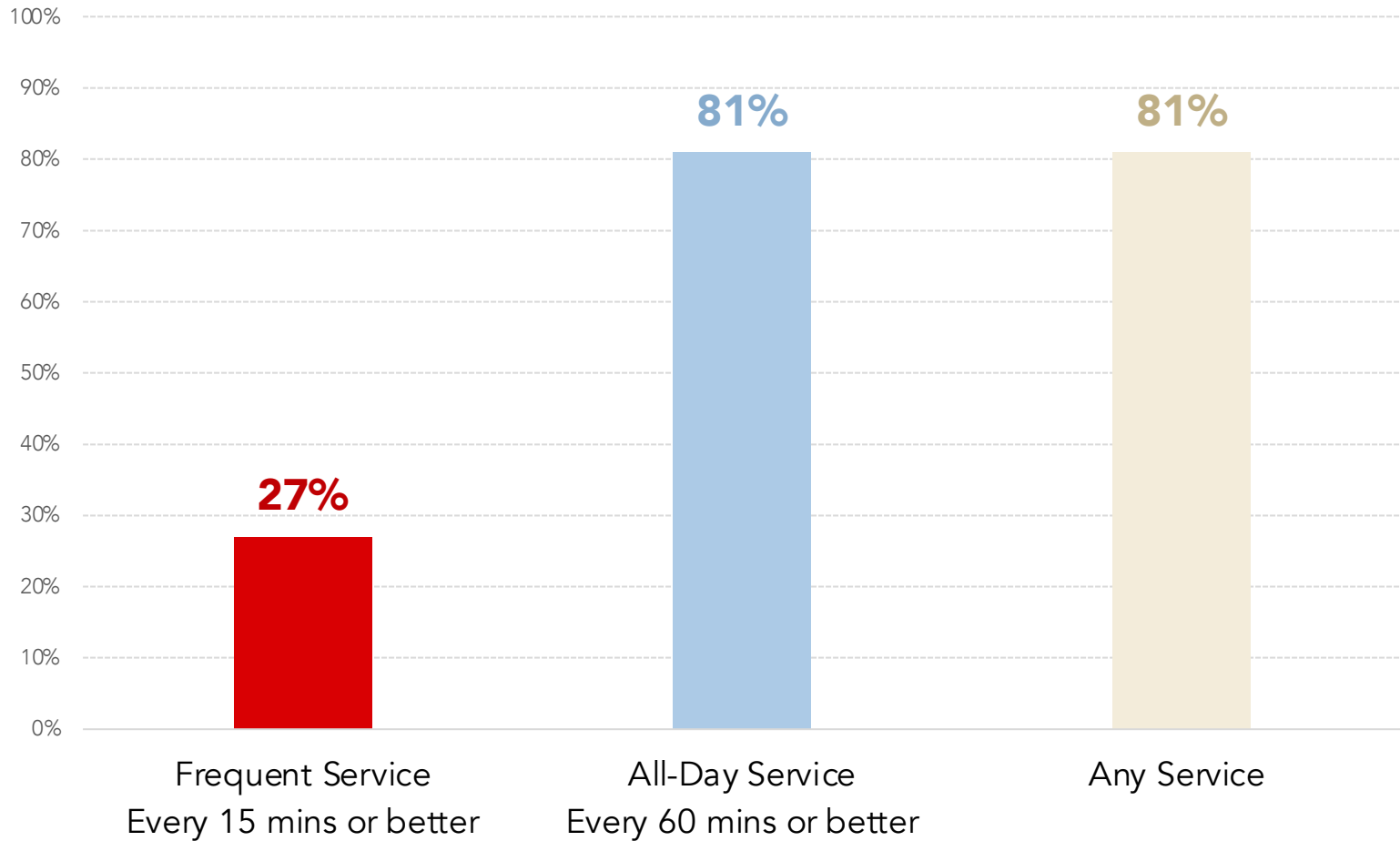
Ridership Alternative



Proximity

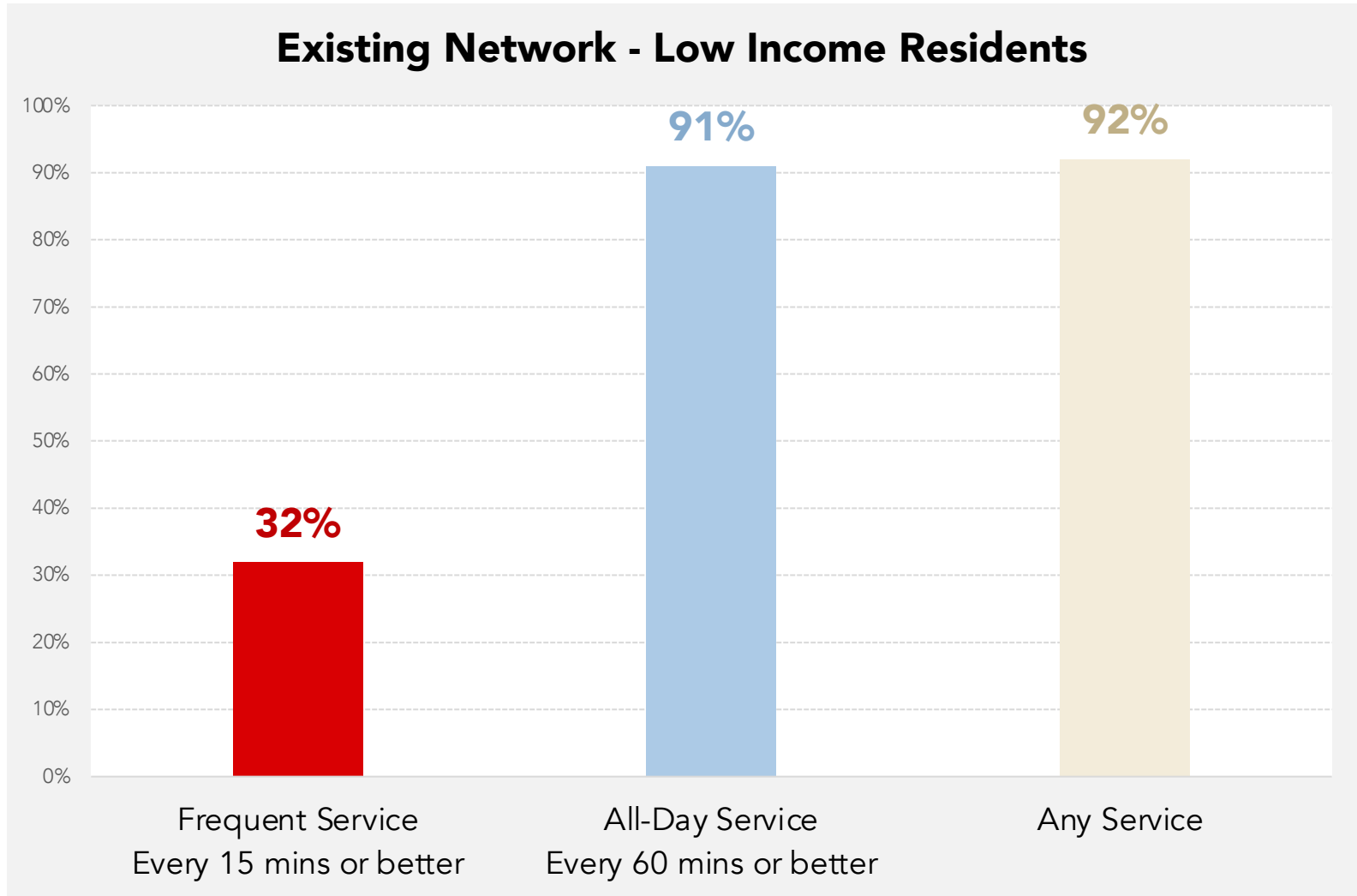
How many people would be near transit service in Madison?

Coverage Alternative



Proximity + Equity

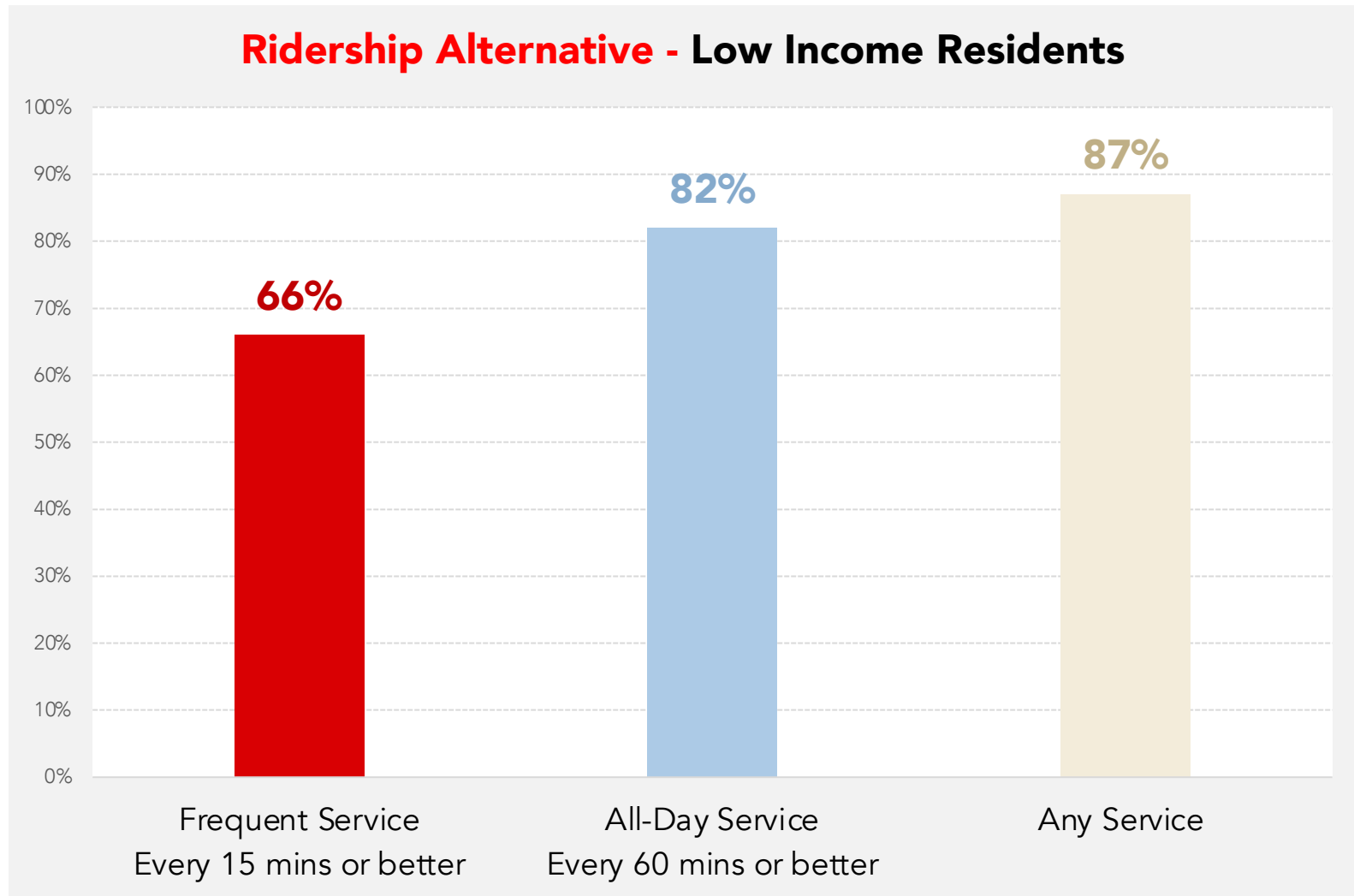
How many people would be near transit service in Madison?



Note: on these charts, People with Low Incomes = People living in households with incomes below 100% of the federal poverty line.

Proximity + Equity

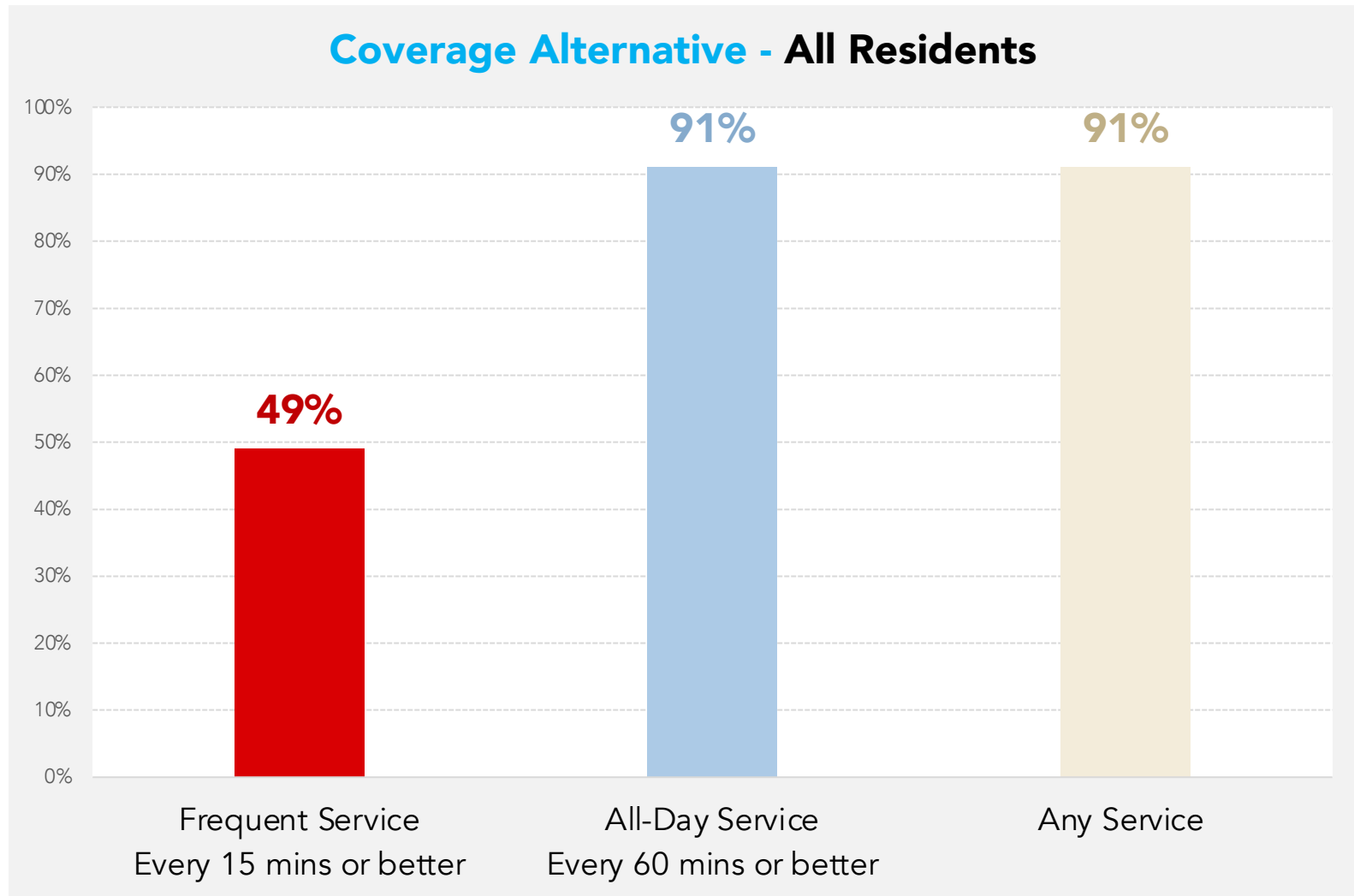
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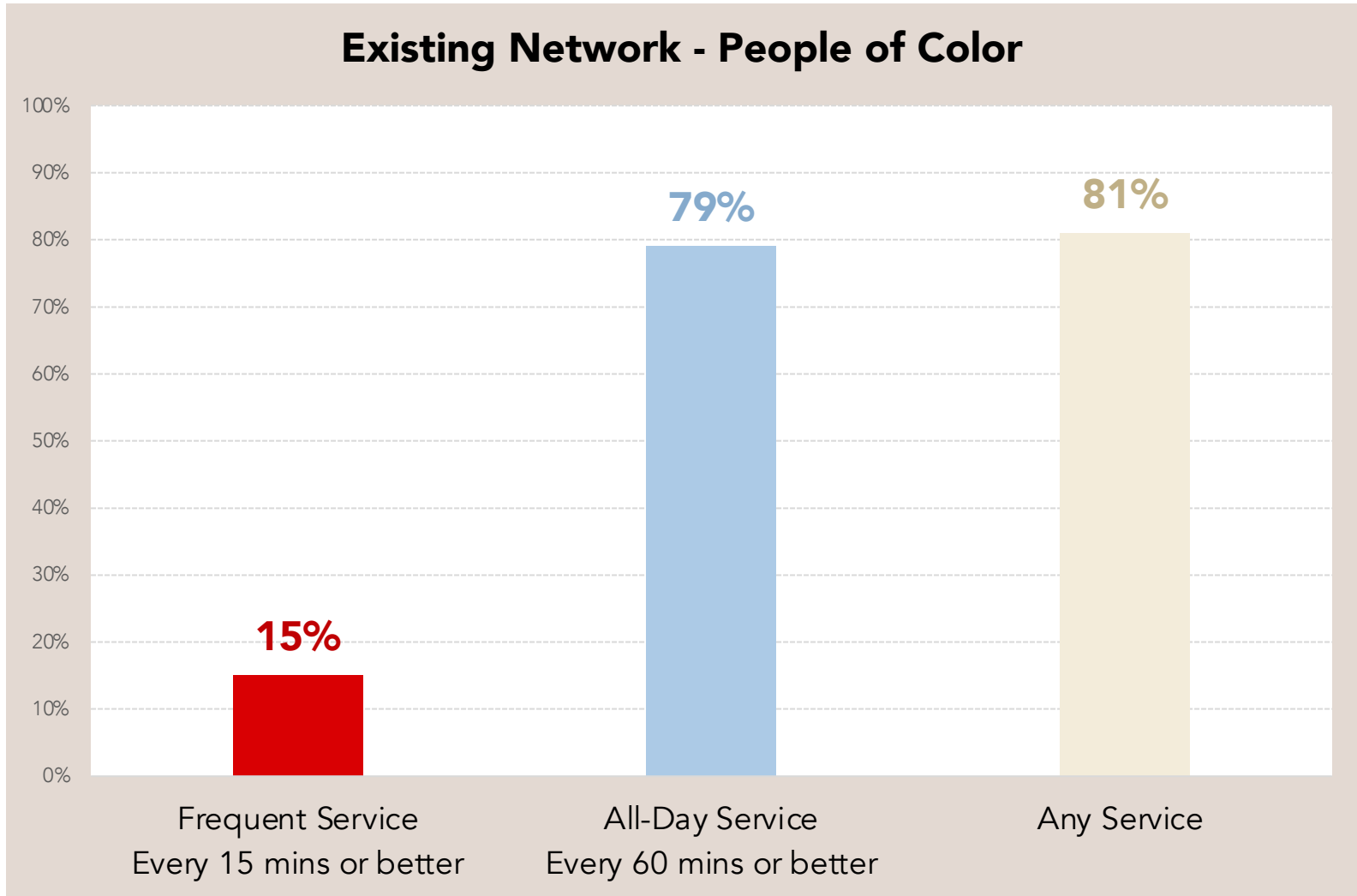
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Note: on these charts, People with Low Incomes = People living in households with incomes below 100% of the federal poverty line.

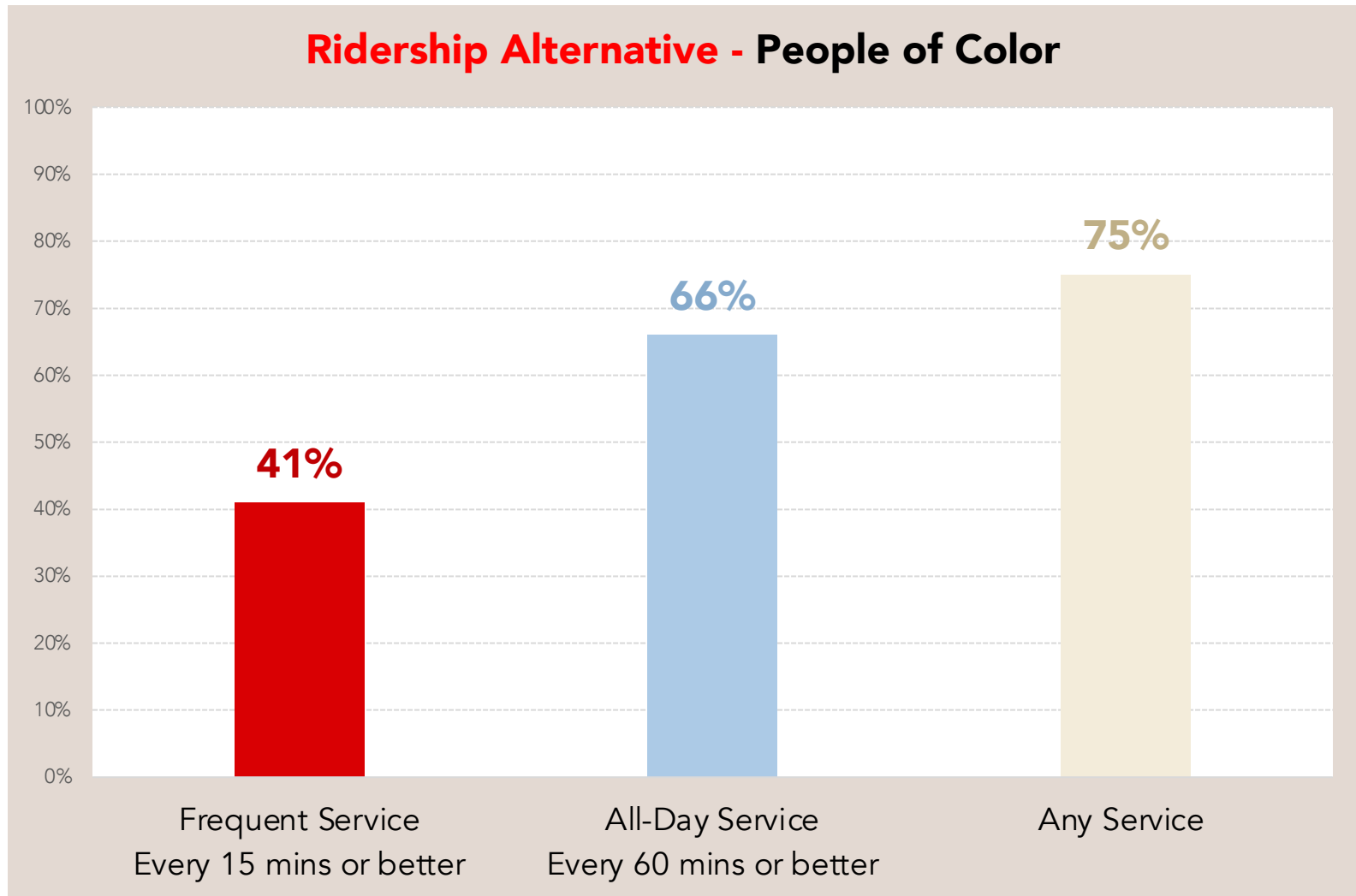
Proximity + Equity

How many people would be near transit service in Madison?



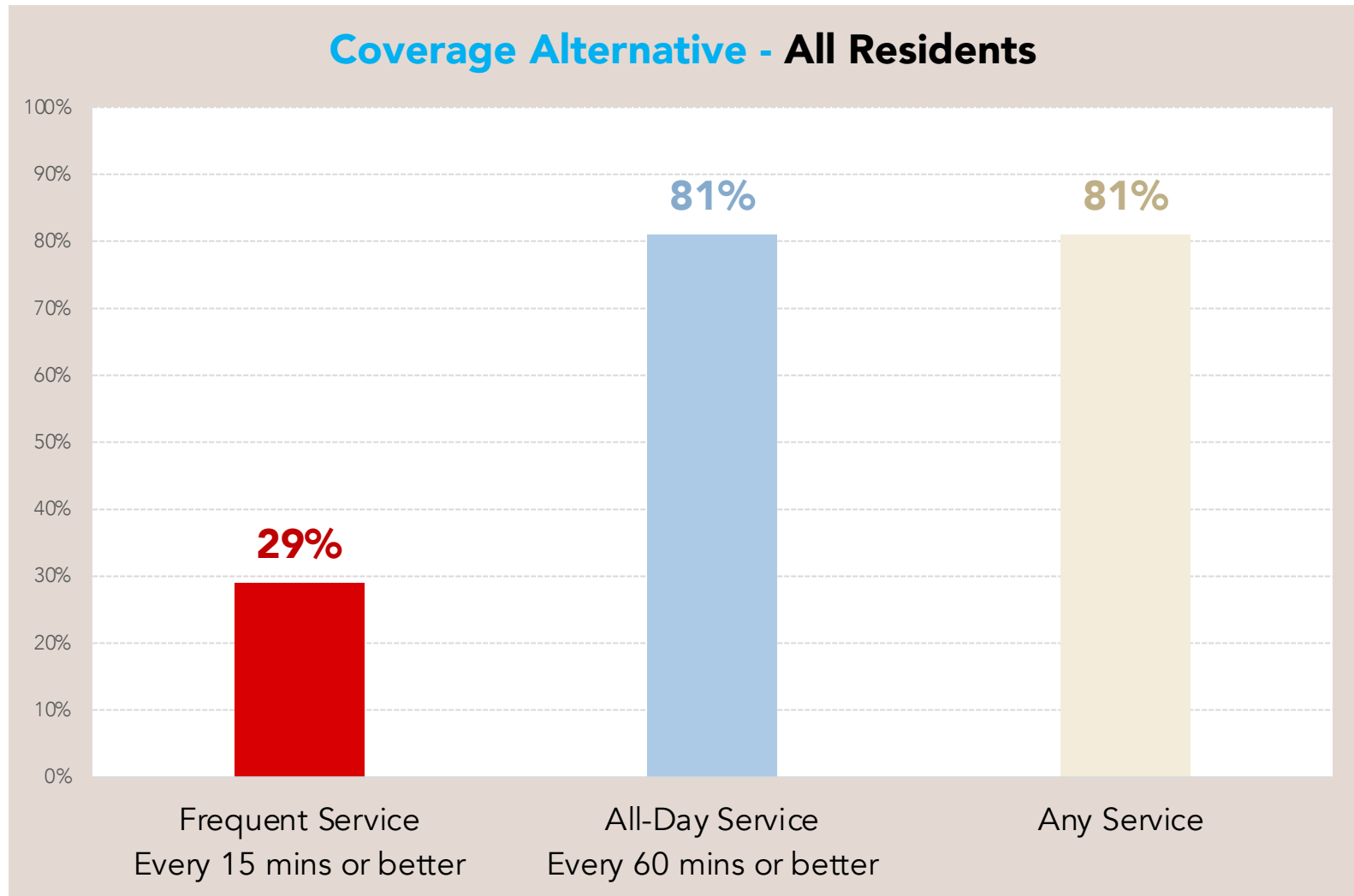
Proximity + Equity

How many people would be near transit service in Madison?



Proximity + Equity

How many people would be near transit service in Madison?



Comparing Key Outcomes

Access to jobs within 45 minutes

Access

How many places can you reach within 45 minutes?

- The maps on the following slides estimate **how many more jobs someone could reach within 45 minutes by transit** and walking, for each alternative, compared to today.
- This is a measure of the service's usefulness; **transit needs to be useful to generate ridership.**
- 45 minutes is about the amount of time it takes to drive from one end of Madison to the other.

Access

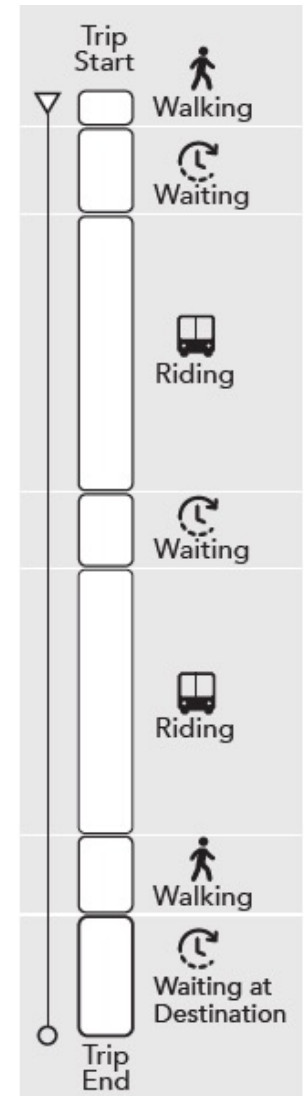
How many places can you reach within 45 minutes?

- We measure access to jobs because we have good data on jobs, not because transit's main purpose is commuting.
- Access to jobs matters for many non-commute trips, because most of the places people need to go are places of employment.
- **This measure is not a prediction of ridership change.**

Access

How many places can you reach within 45 minutes?

- When we say you can get somewhere in 45 minutes, that includes the time it takes to:
 - **Walk** to the nearest bus stop.
 - **Wait** for the next bus to come.
 - **Ride** the bus.
 - **Walk** to your destination.
 - Make any **transfers**.

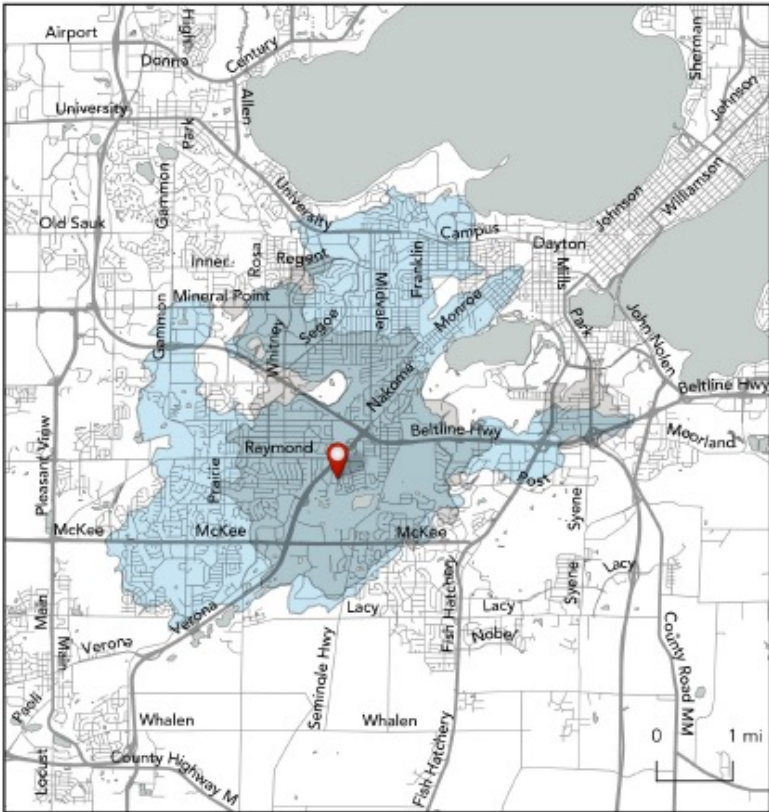


Access Change – An Example

How far can I travel in **45 minutes** from **Allied at Lovell** * Compared with the M

Allied at Lovell
on weekdays at noon using:

Ridership Network?

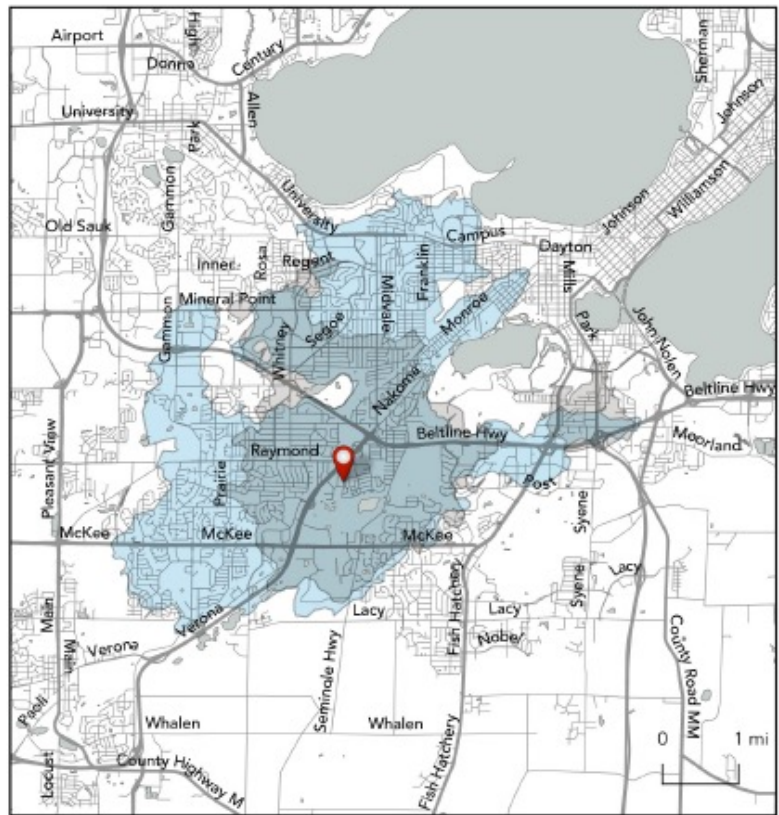


	Change	% Change
Residents Accessible	+43,400	+124.5%
Jobs Accessible	+28,100	+132.0%

Access Change – An Example

How far can I travel in **45 minutes** from **Allied at Lovell** on weekdays at noon using: * Compared with the Metro Network as of February 2020

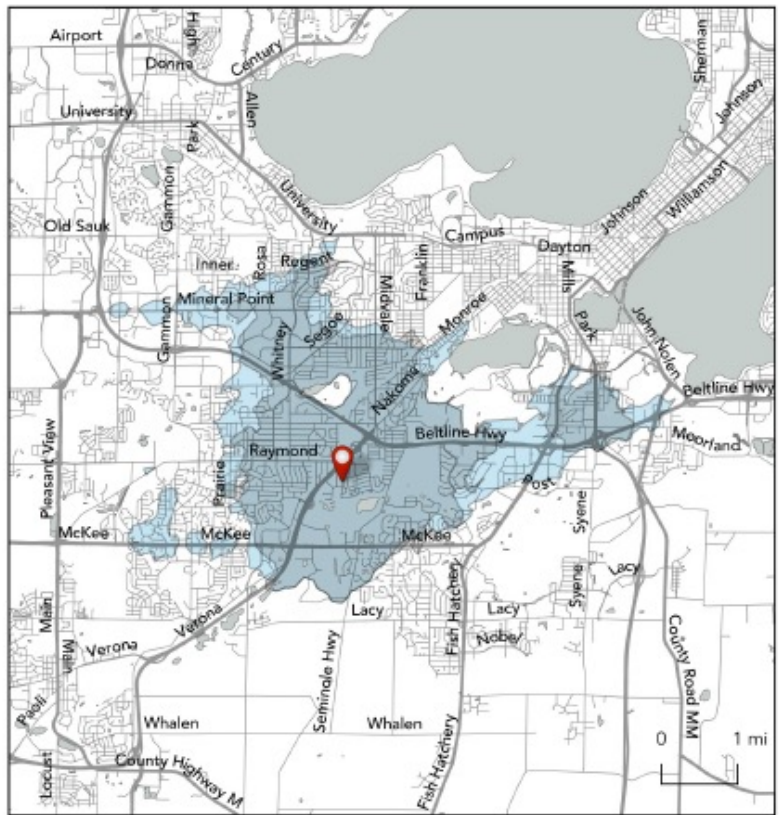
Ridership Network?



	Change	% Change
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Jobs Accessible	+28,100	+132.0%



Coverage Network?

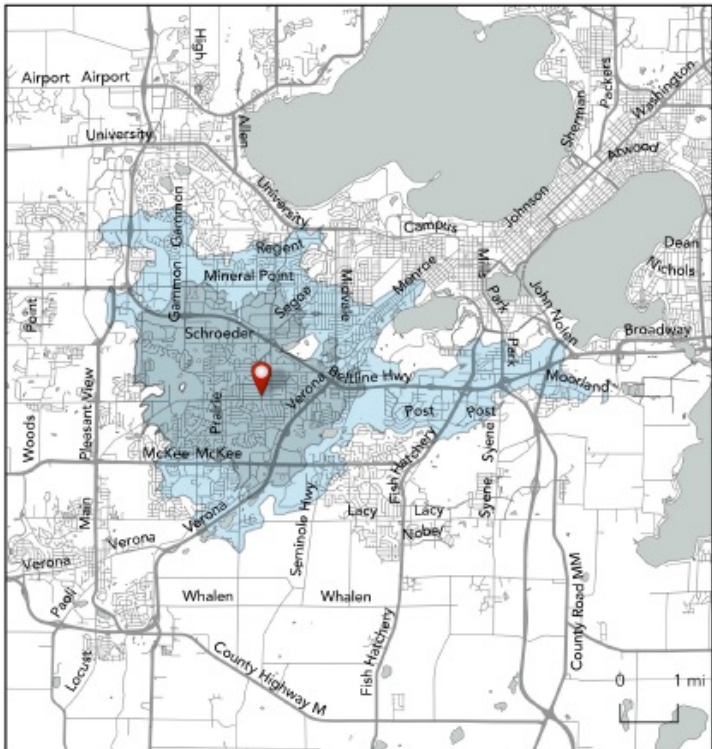


	Change	% Change
Residents Accessible	+15,600	+44.5%
Jobs Accessible	+13,000	+61.5%

Access Change – An Example

How far can I travel in **45 minutes** from **Raymond at Whitney** on weekdays at noon using: * Compared with the Metro Network as of February 2020

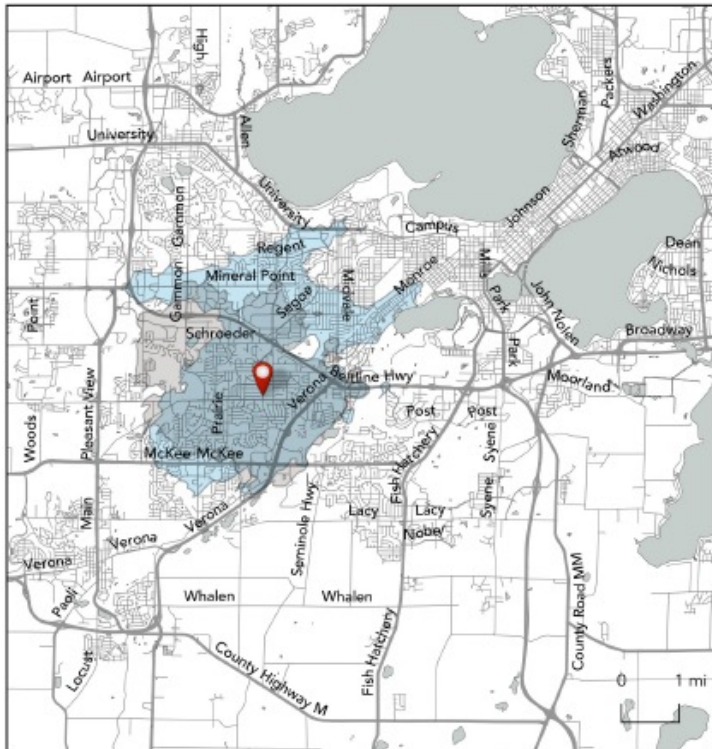
Ridership Network?



	Change	% Change
Residents Accessible	+50,600	+141.5%
Jobs Accessible	+33,400	+156.5%











Coverage Network?

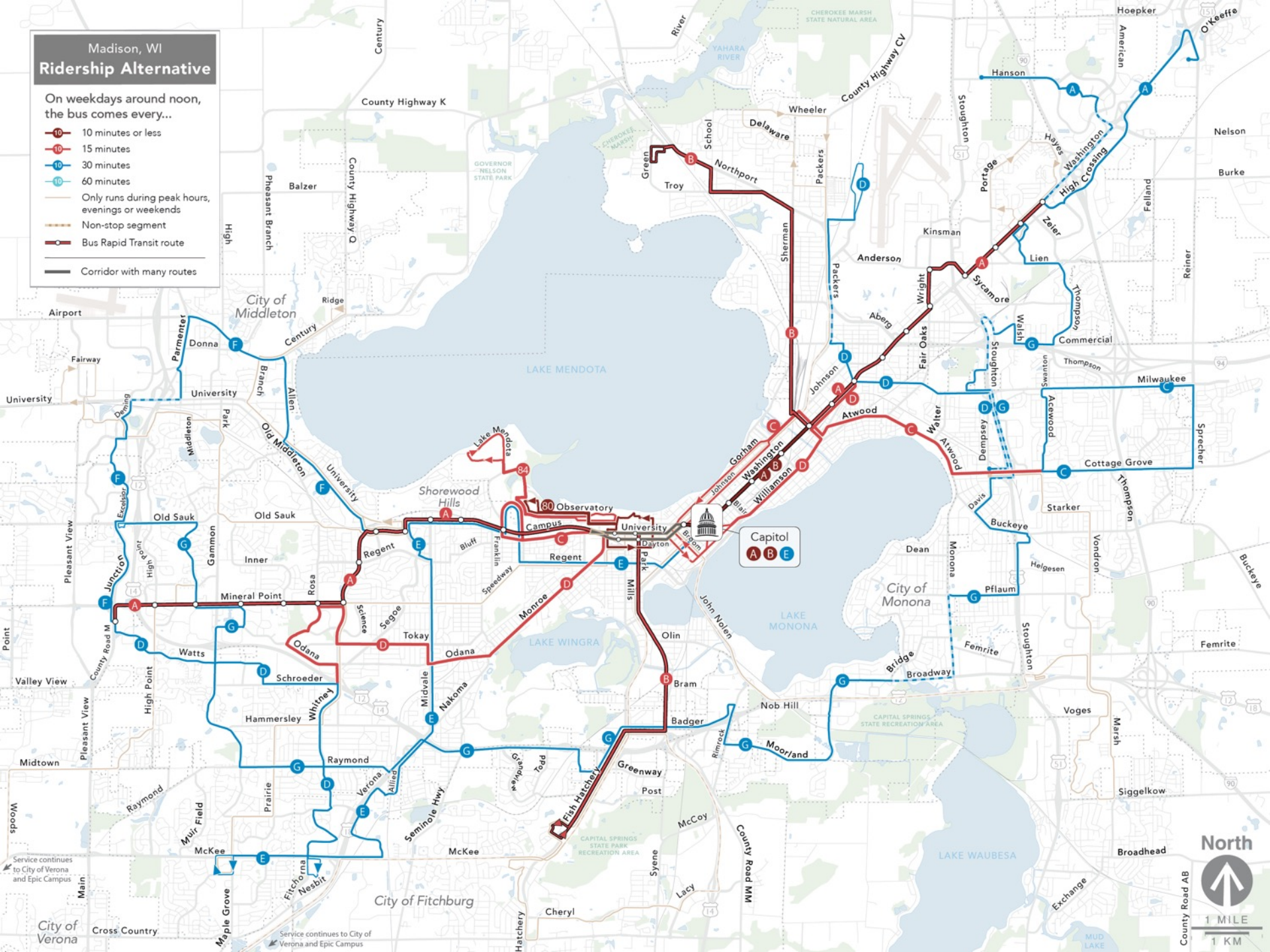


	Change	% Change
Residents Accessible	+18,100	+50.5%
Jobs Accessible	+7,900	+37.0%

Madison, WI Ridership Alternative

On weekdays around noon,
the bus comes every...

-  10 minutes or less
-  15 minutes
-  30 minutes
-  60 minutes
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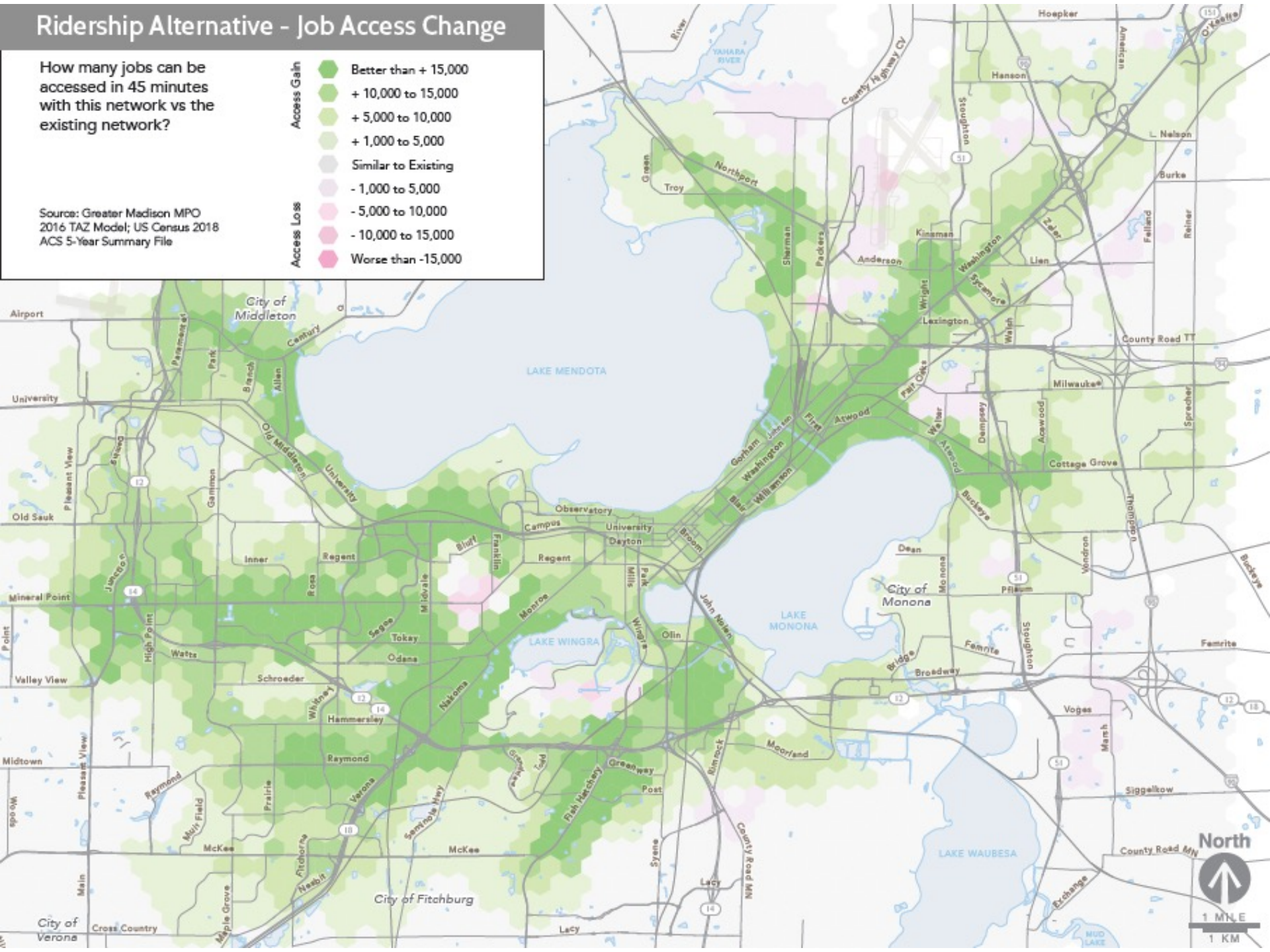


Ridership Alternative - Job Access Change

How many jobs can be accessed in 45 minutes with this network vs the existing network?

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File

- | | | |
|-------------|--|----------------------|
| Access Gain | ■ | Better than + 15,000 |
| | ■ | + 10,000 to 15,000 |
| | ■ | + 5,000 to 10,000 |
| | ■ | + 1,000 to 5,000 |
| | ■ | Similar to Existing |
| Access Loss | ■ | - 1,000 to 5,000 |
| | ■ | - 5,000 to 10,000 |
| | ■ | - 10,000 to 15,000 |
| | ■ | Worse than -15,000 |



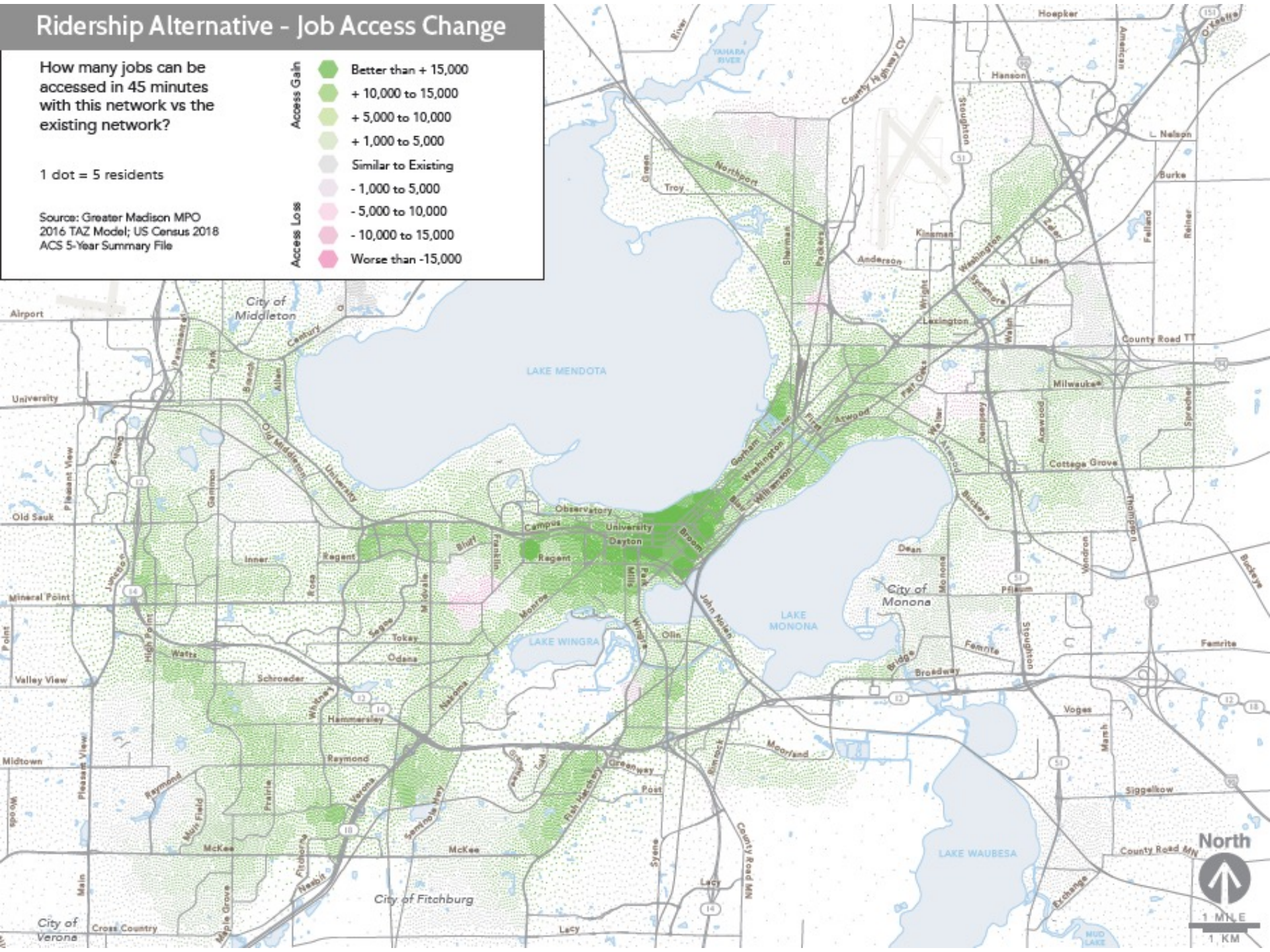
Ridership Alternative - Job Access Change

How many jobs can be accessed in 45 minutes with this network vs the existing network?

1 dot = 5 residents

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File

- | | |
|-------------|--|
| Access Gain | ● Better than + 15,000 |
| | ● + 10,000 to 15,000 |
| | ● + 5,000 to 10,000 |
| | ● + 1,000 to 5,000 |
| | ● Similar to Existing |
| Access Loss | ● - 1,000 to 5,000 |
| | ● - 5,000 to 10,000 |
| | ● - 10,000 to 15,000 |
| | ● Worse than -15,000 |



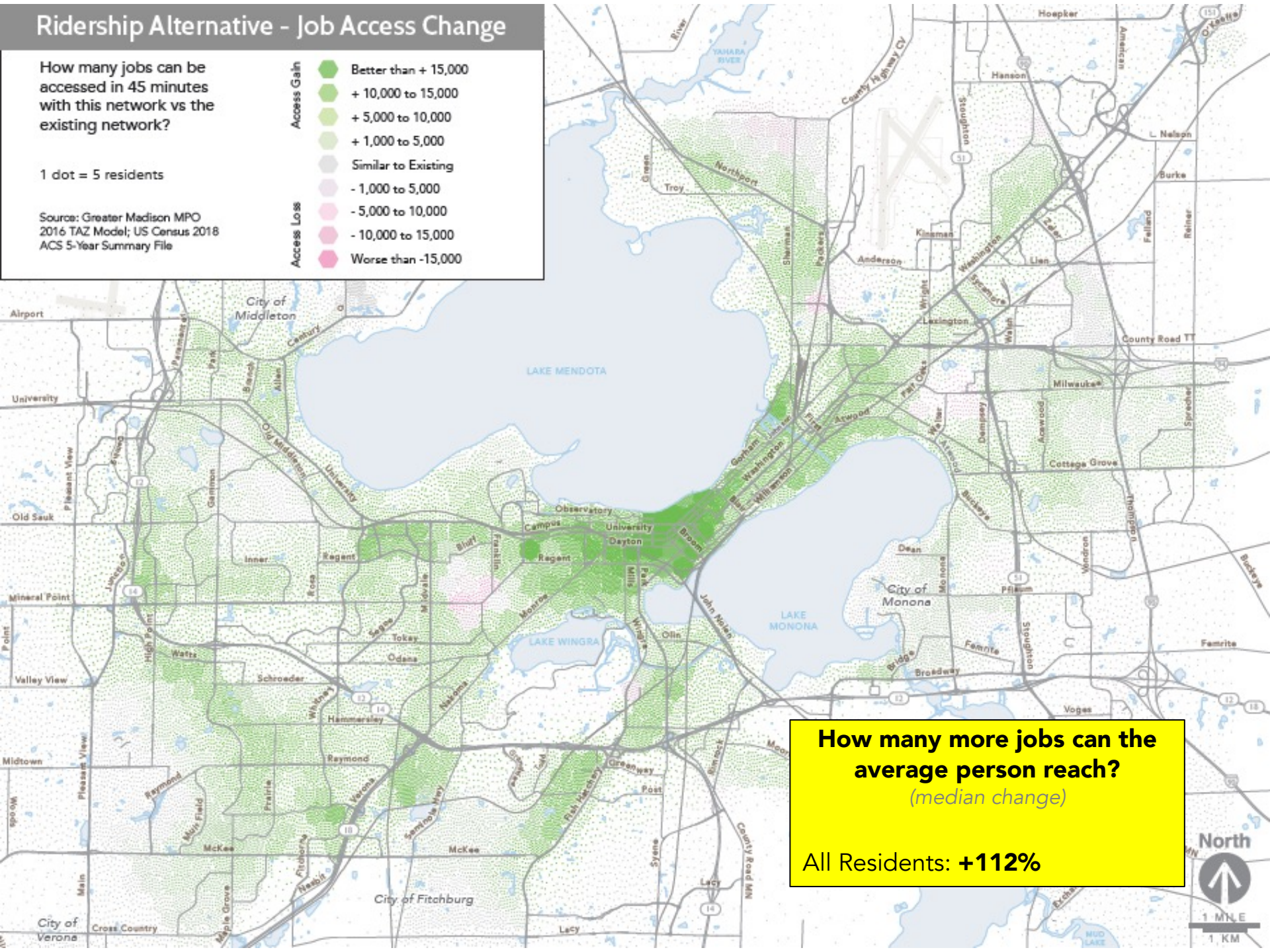
Ridership Alternative - Job Access Change

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1 dot = 5 residents

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File

- | | |
|-------------|---|
| Access Gain | <ul style="list-style-type: none"> ● Better than + 15,000 ● + 10,000 to 15,000 ● + 5,000 to 10,000 ● + 1,000 to 5,000 ● Similar to Existing ● - 1,000 to 5,000 |
| Access Loss | <ul style="list-style-type: none"> ● - 5,000 to 10,000 ● - 10,000 to 15,000 ● Worse than -15,000 |



How many more jobs can the average person reach?
(median change)

All Residents: +112%



Ridership Alternative - Job Access Change People of Color (1 dot per person)

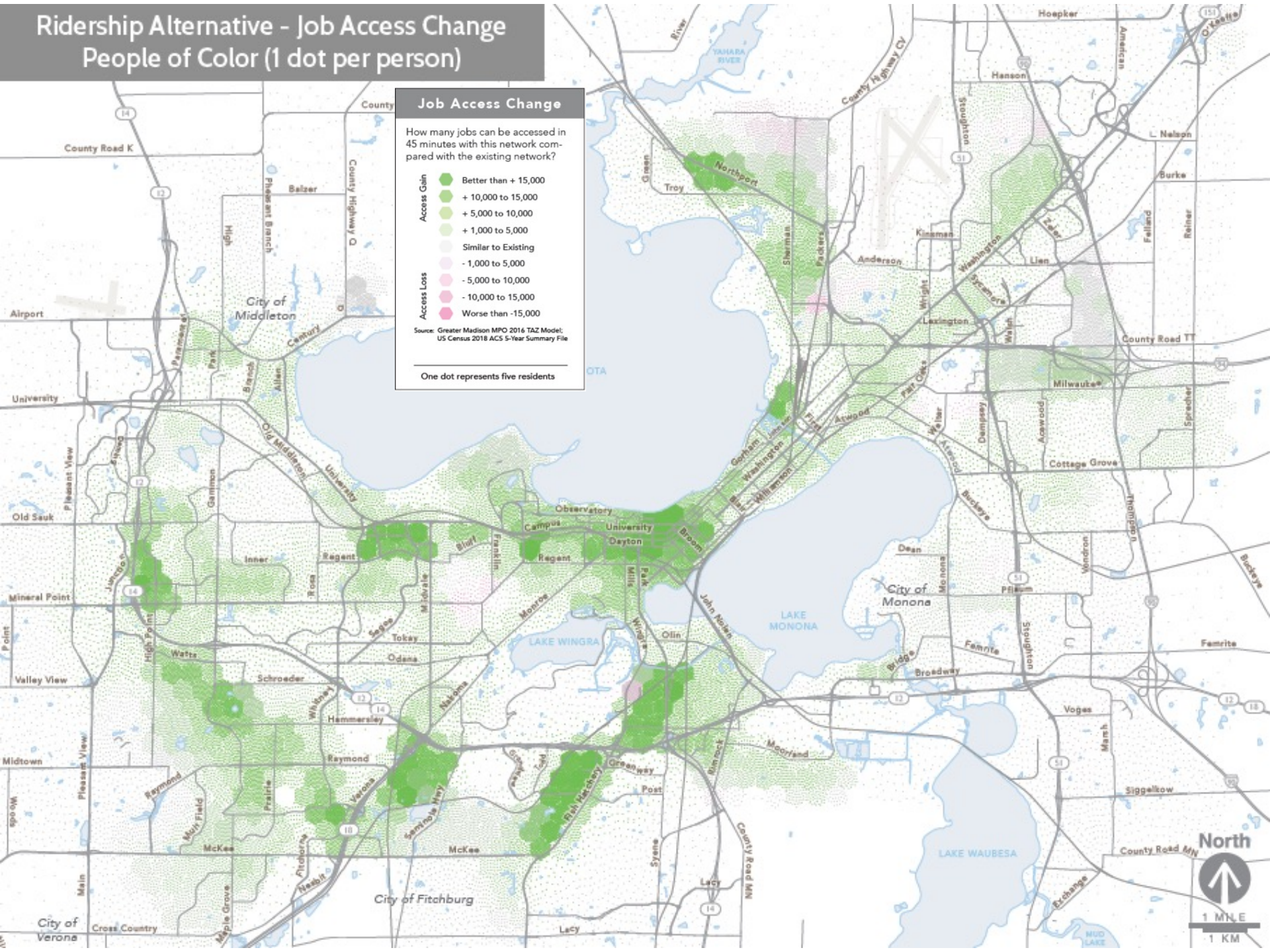
Job Access Change

How many jobs can be accessed in 45 minutes with this network compared with the existing network?

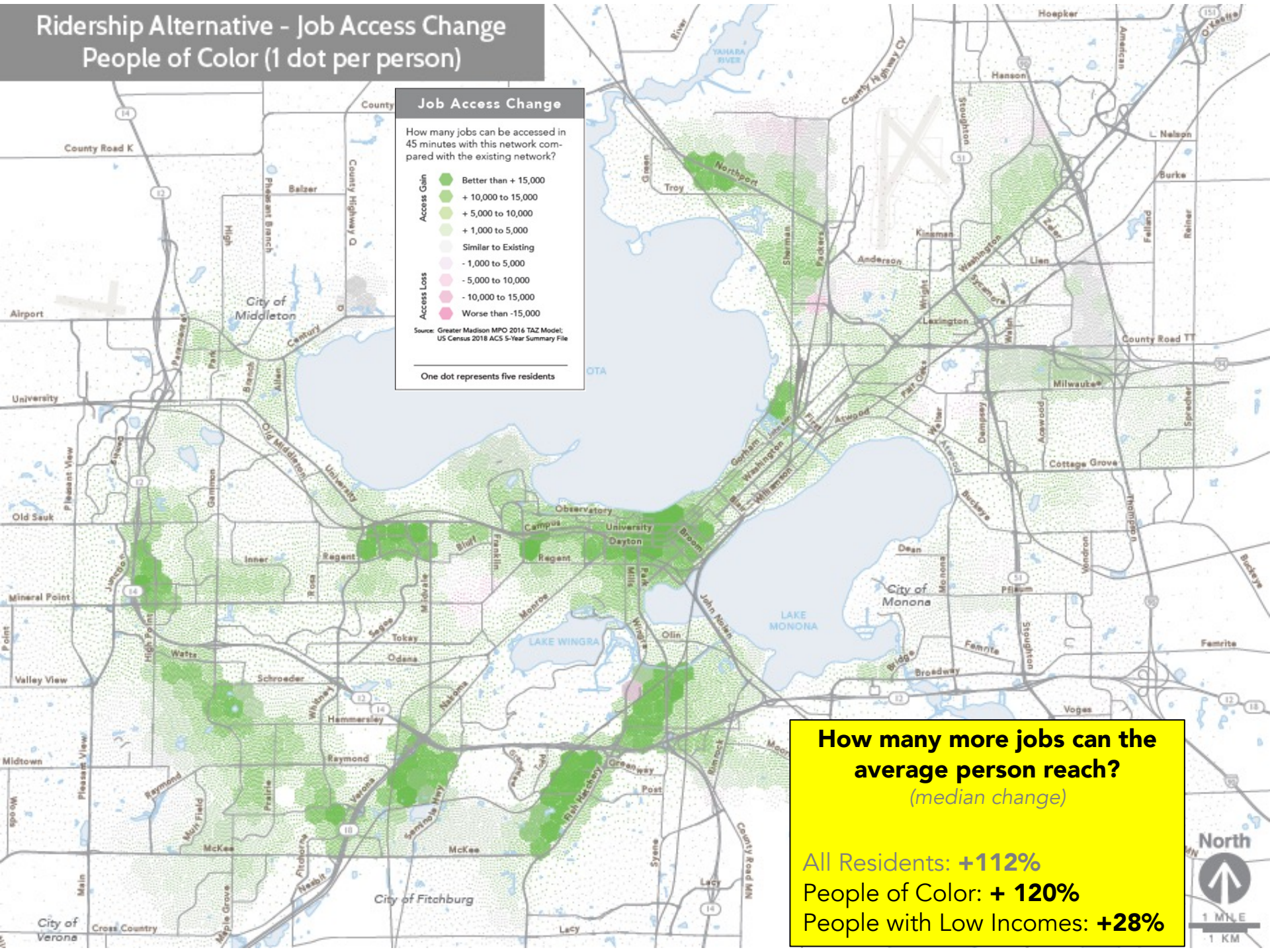
Access Gain	■ Better than + 15,000
	■ + 10,000 to 15,000
	■ + 5,000 to 10,000
	■ + 1,000 to 5,000
	■ Similar to Existing
Access Loss	■ - 1,000 to 5,000
	■ - 5,000 to 10,000
	■ - 10,000 to 15,000
	■ Worse than -15,000

Source: Greater Madison MPO 2016 TAZ Model; US Census 2018 ACS 5-Year Summary File

One dot represents five residents



Ridership Alternative - Job Access Change People of Color (1 dot per person)



Job Access Change

How many jobs can be accessed in 45 minutes with this network compared with the existing network?

- Access Gain**
- Better than + 15,000
- + 10,000 to 15,000
- + 5,000 to 10,000
- + 1,000 to 5,000
- Similar to Existing
- Access Loss**
- - 1,000 to 5,000
- - 5,000 to 10,000
- - 10,000 to 15,000
- Worse than -15,000

Source: Greater Madison MPO 2016 TAZ Model; US Census 2018 ACS 5-Year Summary File

One dot represents five residents

How many more jobs can the average person reach?
(median change)

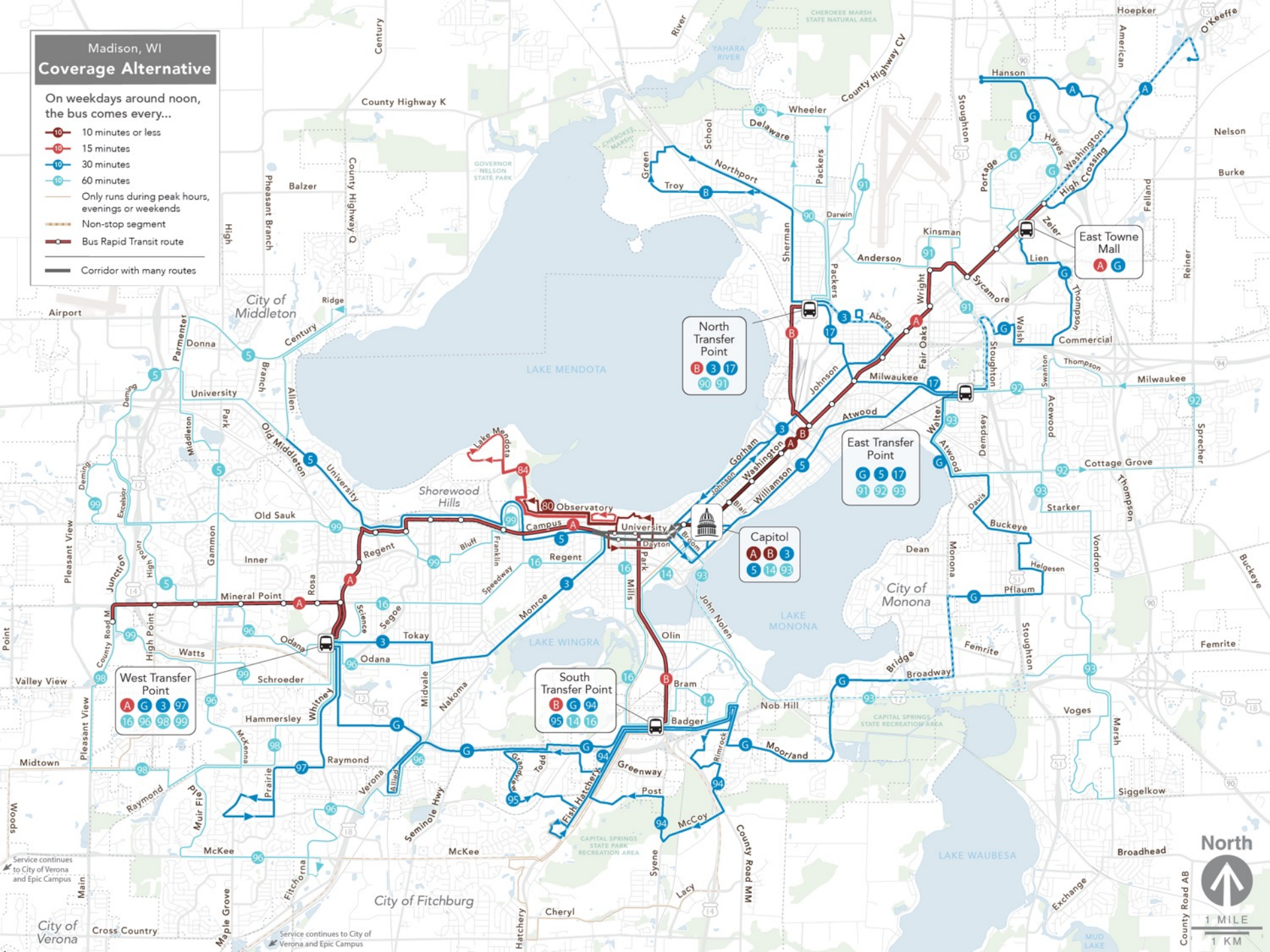
All Residents: **+112%**
 People of Color: **+ 120%**
 People with Low Incomes: **+28%**



Madison, WI Coverage Alternative

On weekdays around noon,
the bus comes every...

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- 15 minutes
- 30 minutes
- 60 minutes
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- Bus Rapid Transit route
- Corridor with many routes



North Transfer Point

B	3	17
90	91	

East Transfer Point

G	5	17
91	92	93

Capitol

A	B	3
5	14	93

South Transfer Point

B	5	94
95	14	16

West Transfer Point

A	G	3	97
16	96	98	99

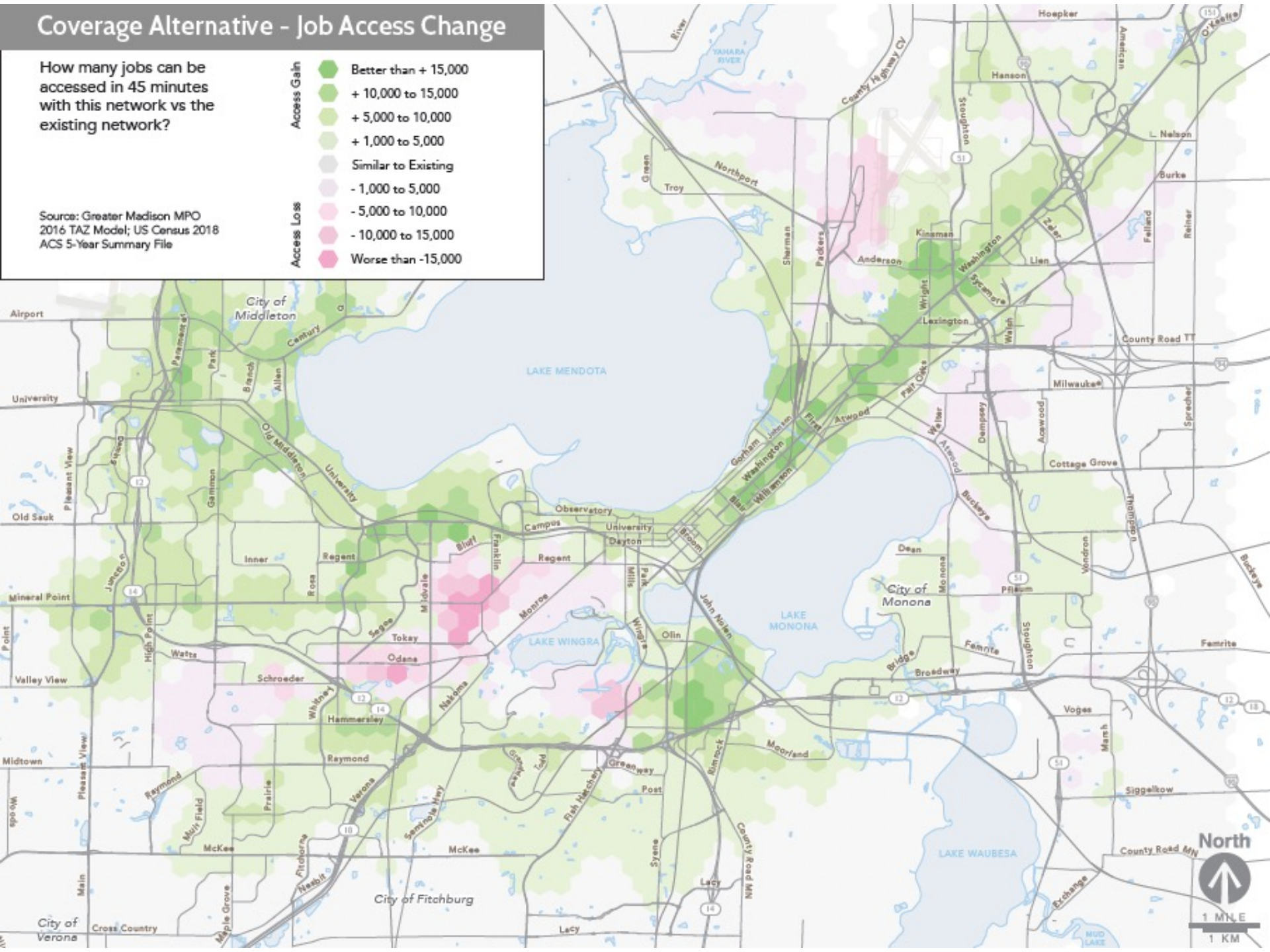


Coverage Alternative - Job Access Change

How many jobs can be accessed in 45 minutes with this network vs the existing network?

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File

- | | |
|-------------|---|
| Access Gain | ● Better than + 15,000 |
| | ● + 10,000 to 15,000 |
| | ● + 5,000 to 10,000 |
| | ● + 1,000 to 5,000 |
| | ● Similar to Existing |
| Access Loss | ● - 1,000 to 5,000 |
| | ● - 5,000 to 10,000 |
| | ● - 10,000 to 15,000 |
| | ● Worse than -15,000 |

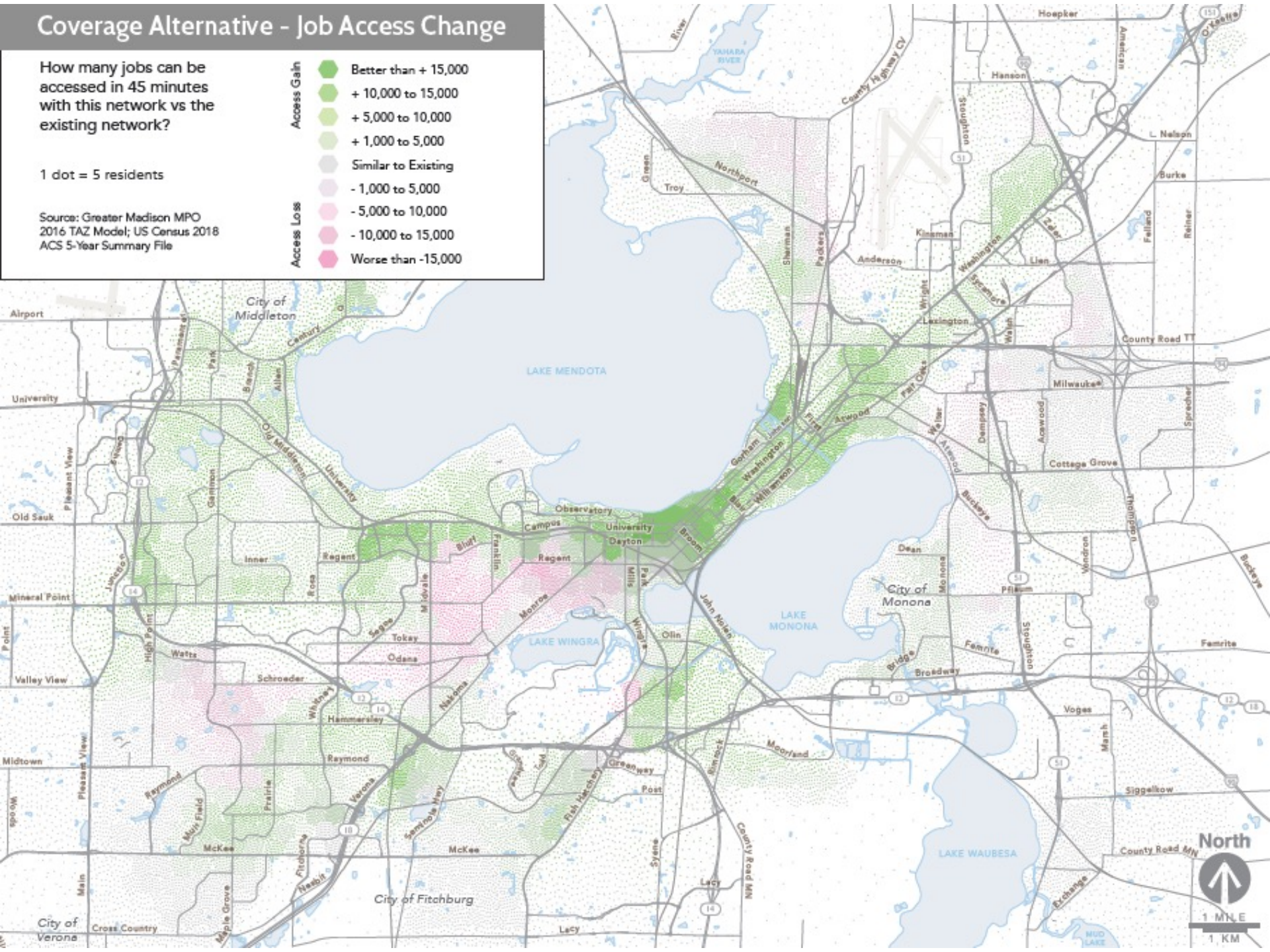


Coverage Alternative - Job Access Change

How many jobs can be accessed in 45 minutes with this network vs the existing network?

1 dot = 5 residents

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File



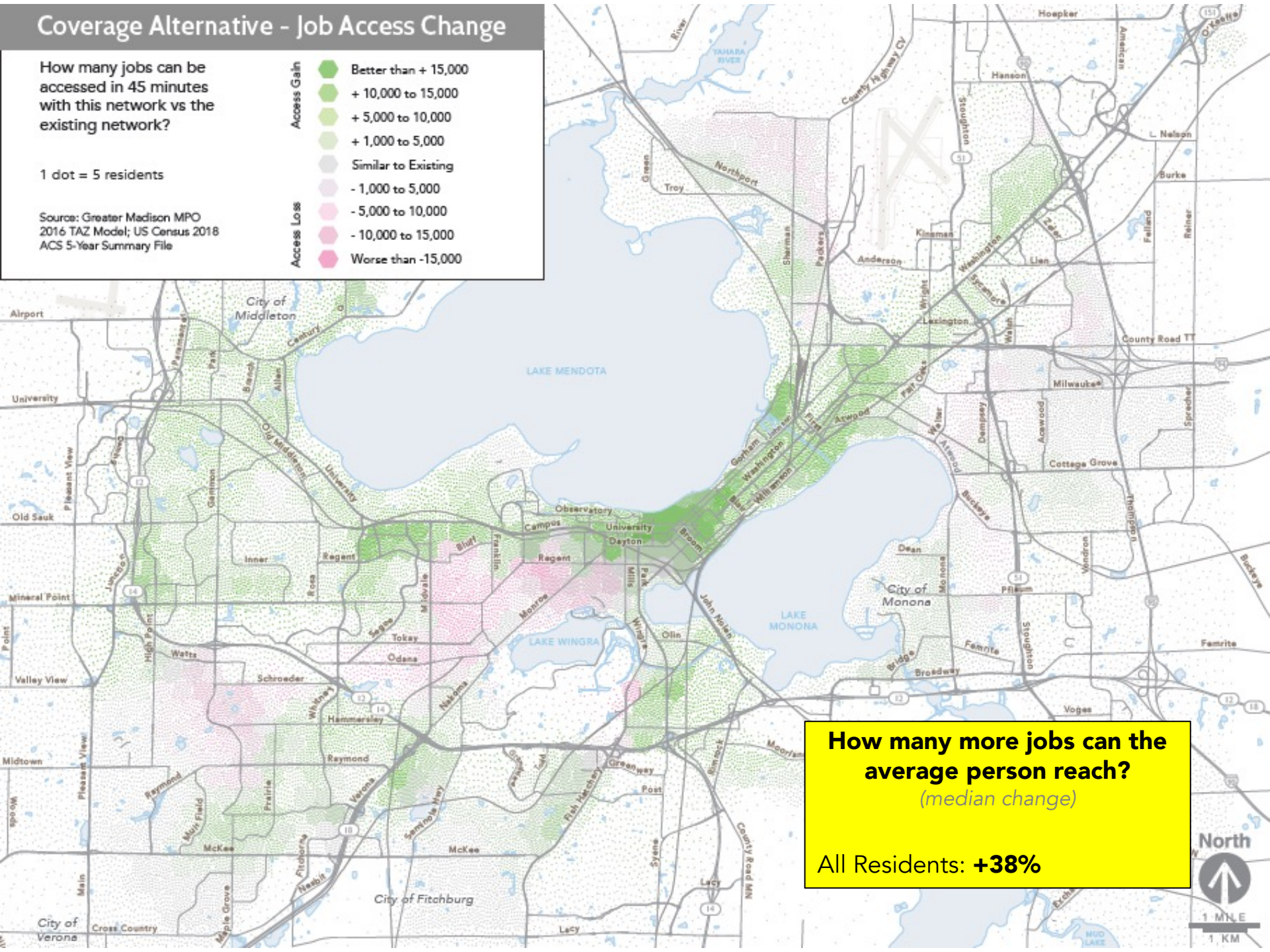
Coverage Alternative - Job Access Change

How many jobs can be accessed in 45 minutes with this network vs the existing network?

1 dot = 5 residents

Source: Greater Madison MPO
2016 TAZ Model; US Census 2018
ACS 5-Year Summary File

- | | | |
|-------------|--|----------------------|
| Access Gain | ● | Better than + 15,000 |
| | ● | + 10,000 to 15,000 |
| | ● | + 5,000 to 10,000 |
| | ● | + 1,000 to 5,000 |
| | ● | Similar to Existing |
| Access Loss | ● | - 1,000 to 5,000 |
| | ● | - 5,000 to 10,000 |
| | ● | - 10,000 to 15,000 |
| | ● | Worse than -15,000 |



How many more jobs can the average person reach?
(median change)

All Residents: +38%



Coverage Alternative - Job Access Change People of Color (1 dot per person)

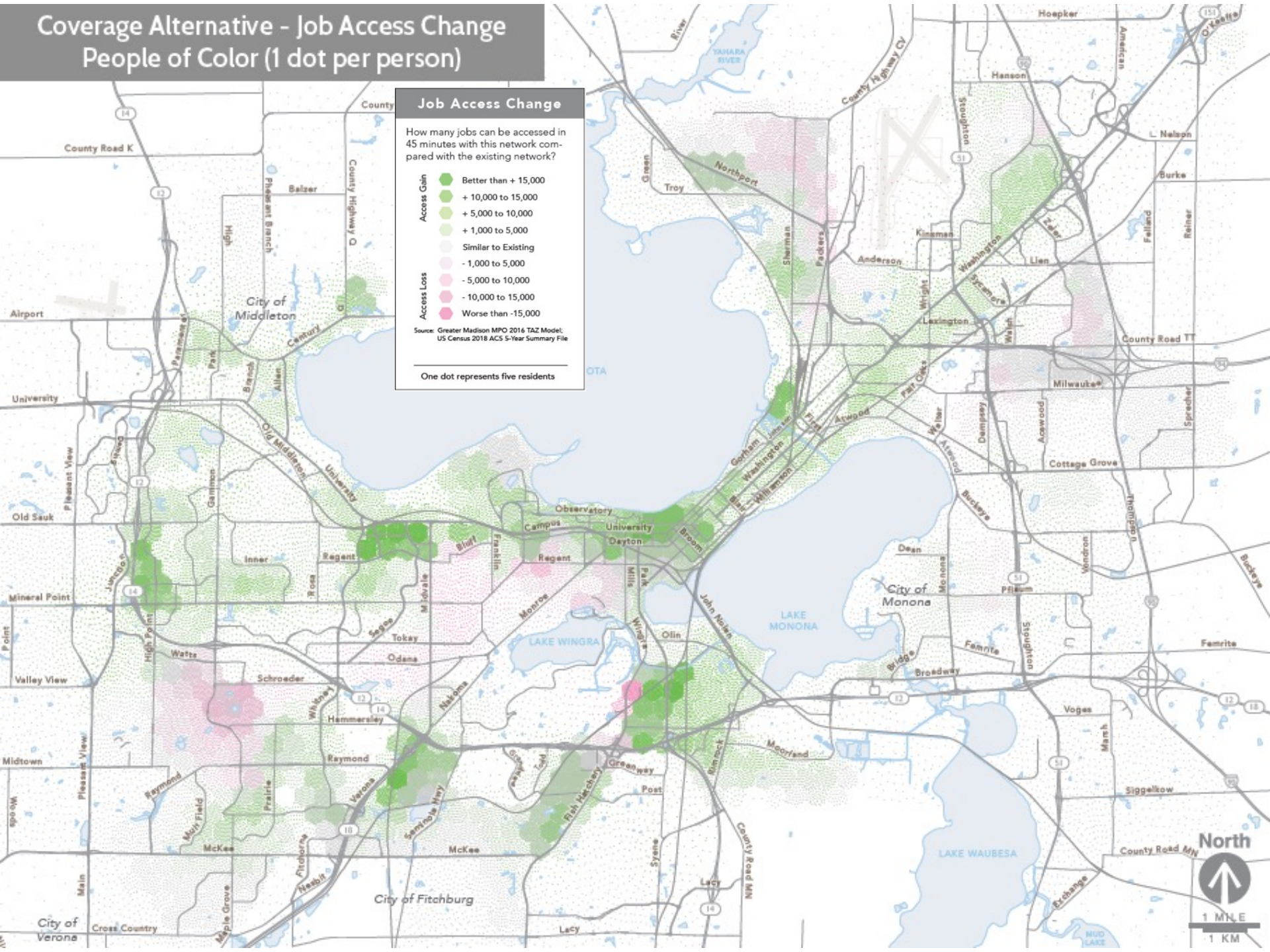
Job Access Change

How many jobs can be accessed in 45 minutes with this network compared with the existing network?

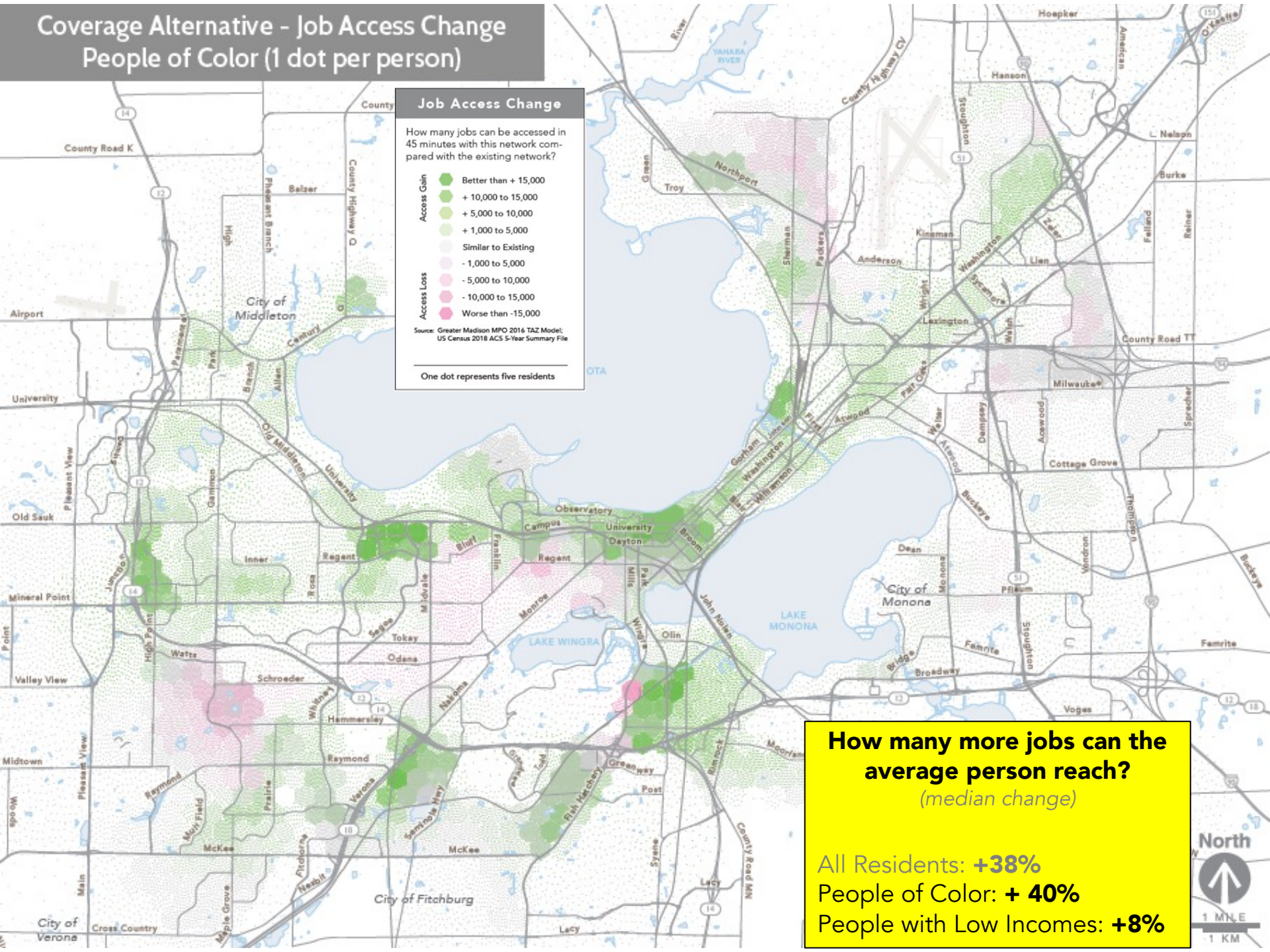
- Access Gain**
- Better than + 15,000
 - + 10,000 to 15,000
 - + 5,000 to 10,000
 - + 1,000 to 5,000
 - Similar to Existing
- Access Loss**
- - 1,000 to 5,000
 - - 5,000 to 10,000
 - - 10,000 to 15,000
 - Worse than -15,000

Source: Greater Madison MPO 2016 TAZ Model; US Census 2018 ACS 5-Year Summary File

One dot represents five residents



Coverage Alternative - Job Access Change People of Color (1 dot per person)



Job Access Change

How many jobs can be accessed in 45 minutes with this network compared with the existing network?

Access Gain

- Better than + 15,000
- + 10,000 to 15,000
- + 5,000 to 10,000
- + 1,000 to 5,000
- Similar to Existing

Access Loss

- - 1,000 to 5,000
- - 5,000 to 10,000
- - 10,000 to 15,000
- Worse than -15,000

Source: Greater Madison MPO 2016 TAZ Model; US Census 2018 ACS 5-Year Summary File

One dot represents five residents

How many more jobs can the average person reach?
(median change)

All Residents: **+38%**
People of Color: **+ 40%**
People with Low Incomes: **+8%**



In summary...

Summary

- In the **Ridership** Alternative:
 - **67%** of Madison residents would live **within ¼-mile walk** of a bus stop with all-day service.
 - The average Madison resident could access **+112% more jobs within 45 minutes by transit** compared to today.

- In the **Coverage** Alternative:
 - **81%** of Madison residents would live **within ¼-mile walk** of a bus stop with all-day service.
 - The average Madison resident could access **+38% more jobs within 45 minutes by transit** compared to today.

Summary

- **Equity.** In both alternatives, people of color and people with low incomes benefit in similar ways to the population in general.
 - the **Ridership** Alternative would more than double the jobs that People of Color can reach (+120%)
 - the **Coverage** Alternative would only modestly increase the number of jobs People of Color can reach (+40%)
 - In % terms, people with low incomes benefit relatively less in the access measure because many are students with low income in central areas of Madison, where access is already highest.

Key Questions

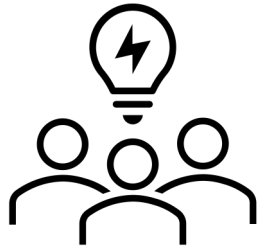
- How does each alternative sit with you?
- Which way are you leaning?
- What's missing or wrong in your preferred alternative?
- Should Metro Transit shift resources to the evenings and weekends, even if that means less service and lower frequencies on weekdays?

Public engagement is ongoing.

So far...



~2,100 online survey responses (as of earlier today)



5 focus group meetings

Responses so far (very preliminary):

- **Compared to the existing network:**

- Most (but not all) seem to think the Ridership alternative would be better than the existing network
- Opinions are split on whether the Coverage alternative would be better than the existing network.

- **Comparing the two alternatives:**

- The average response leans mostly toward Ridership, but with some concessions to Coverage.

But we still need to hear from a broader cross-section of people.

- 2,870 responses in Phase 1. Hoping to meet or exceed this number.
- To make sure we get the most representative input possible, we especially need more responses from:
 - People of Color
 - Seniors
 - People with Disabilities
 - People with Low Incomes

The survey is open until next Tuesday!

- Go to:
www.surveymonkey.com/r/NetworkAlternatives
- Tell all your people about it!
- Learn more about the project at:
www.mymetrobus.com/redesign
- Project e-mail: MetroRedesign@cityofmadison.com

What happens next?

Phase 1 (Fall 2020 – Winter 2021)

Nov – Feb 2020
Analyze Service, Demand, and Needs

March 2021
Choices Report

Mar-Apr 2021
What should our priorities be?

Phase 2 (Spring – Summer 2021)

Apr – Jul 2021
Alternatives to Illustrate Trade-offs

August 2021
Alternatives Report

Aug – Sep 2021
Which alternative is closer to what we want?

Phase 3 (Fall 2021)

Oct – Dec 2021
Draft Plan

January 2022
Draft Plan Report

Jan-Feb 2022
Did we get the plan right?

Mar-Apr 2022
Recommended Plan

Spring 2022
Final Plan Report

We appreciate your time and participation
today and going forward.

Thank you!