

An aerial photograph of a city grid, likely New York City, with a solid red overlay. The grid pattern of streets and buildings is visible through the red tint.

# BENJAMIN BACHWIRTZ

UNDERGRADUATE PORTFOLIO

## SKILLS

Strong writing abilities (esp. marketing, grant, feature, research report)

Strong research skills (incl. historical)

Strong graphic design skills (Adobe Photoshop, Illustrator, InDesign)

Mapping software (ArcGIS)

Microsoft Office (including Excel, Word, Powerpoint)

## LANGUAGES

Spanish

Intermediate working proficiency

French

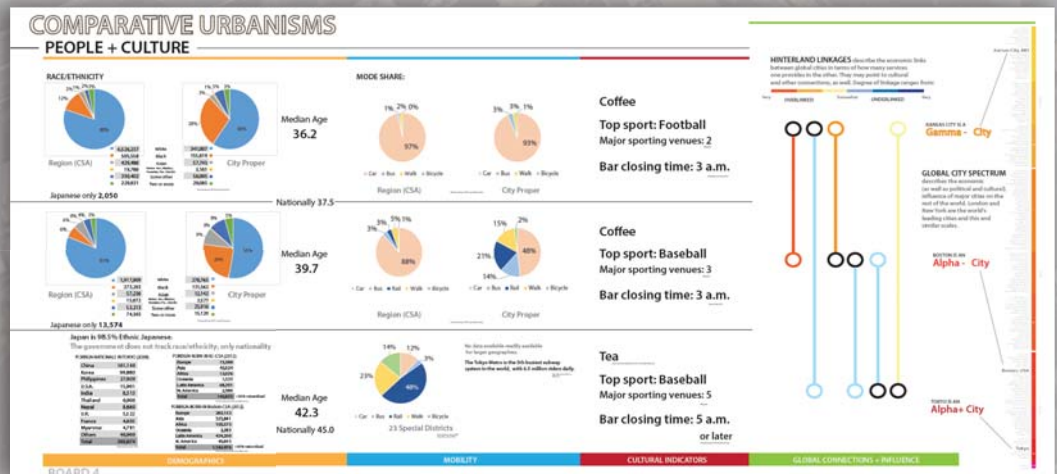
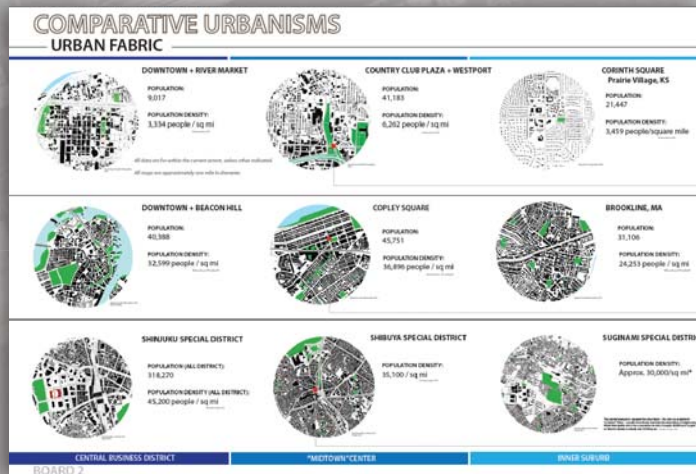
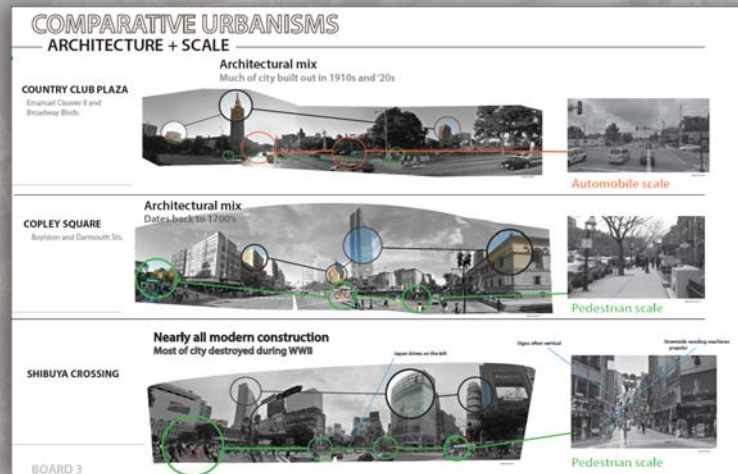
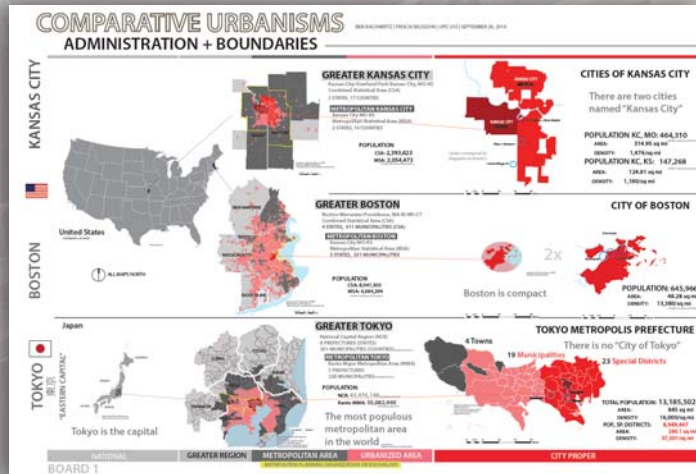
Intermediate conversational proficiency

## THIS PORTFOLIO

A selection of urban planning and graphic design projects are featured beginning on the following page.



# COMPARATIVE URBANISMS



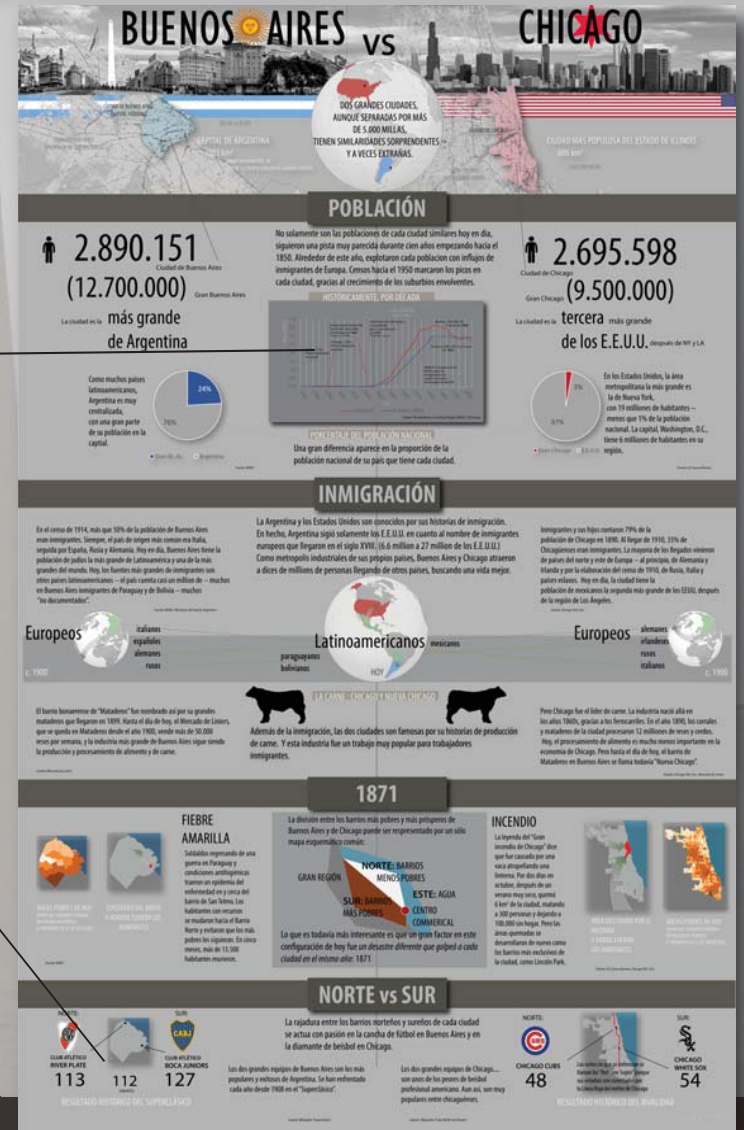
## OVERVIEW

Four presentation boards, 36" high

Project Type: Research  
Position: Student (Junior)  
Year: 2014

As part of this project, students were assigned a major American city and a major global city to compare to Kansas City, Missouri. I was assigned Boston and Tokyo. Points of comparison between these cities were expected to include basic demographic characteristics, as well as urban morphology. I examined each cities political boundaries, architecture and scale, urban morphology, racial/ethnic and immigrant makeup, and commuting mode. I also attempted to touch on certain "intangibles," such as cultural habits of residents and the city's "global-ness".

# BUENOS AIRES vs CHICAGO



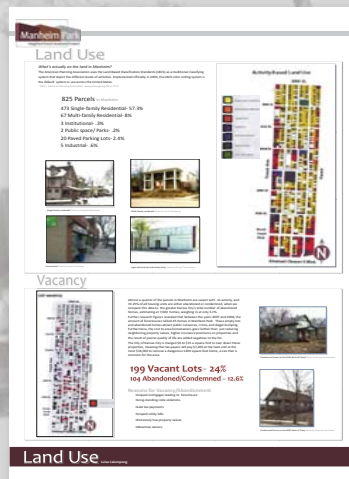
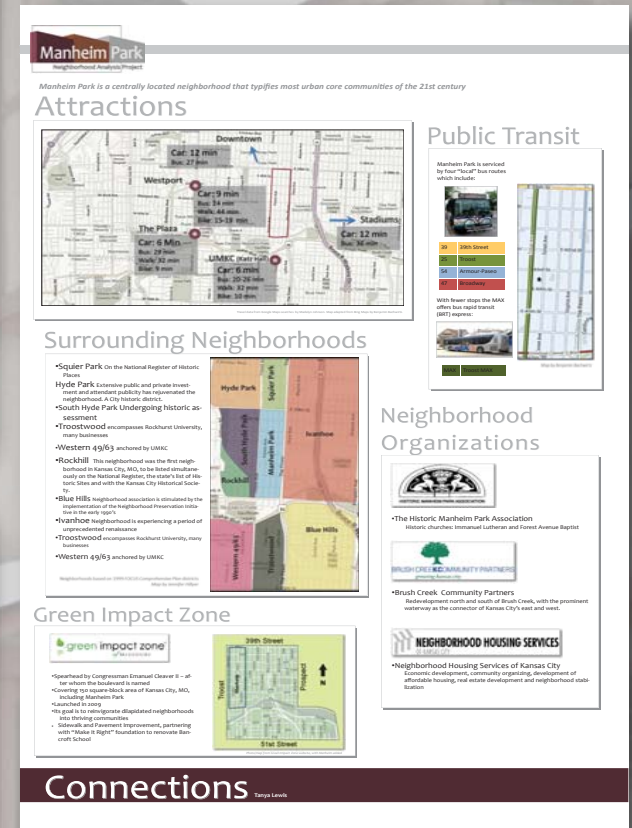
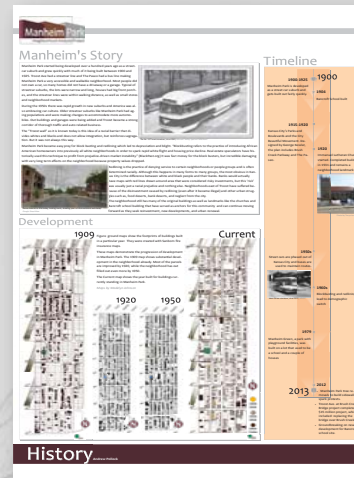
## OVERVIEW

24 x 36" infographic board

Project Type: Research  
Position: Student (Junior)  
Year: 2014

This was the final project for a culture and literature class I took while studying in Buenos Aires, Argentina, during the summer of 2014. The project was largely self-defined. I created this infographic to describe several interesting coincidences between Buenos Aires and Chicago I had noticed during the trip. I compare the two cities' similar populations, their common histories of immigration, their experience with similarly timed natural disasters (which produced eerily similar effects on the urban form), and even commonalities in their sports rivalries.

# MANHEIM PARK ANALYSIS



## OVERVIEW

Seven presentation boards approx. 24 x 36"

Project Type: Existing conditions analysis  
Position: Student (Freshman)

This was a group project from the first-year, second-semester urban planning studio. Students were expected to research existing conditions of the Manheim Park neighborhood in Kansas City, MO, and to create a presentation of their findings. Most students were assigned a particular variable to study, but I was made "presentation coordinator." I created the project logo, designed a common layout/theme, and communicated them to classmates. We collaborated to create the above boards and an accompanying PowerPoint presentation.

# ACTIVATED NODES: CROSSROADS 2035



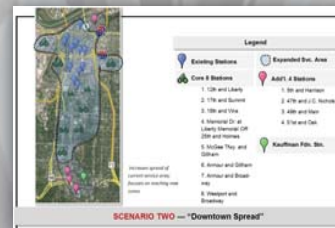
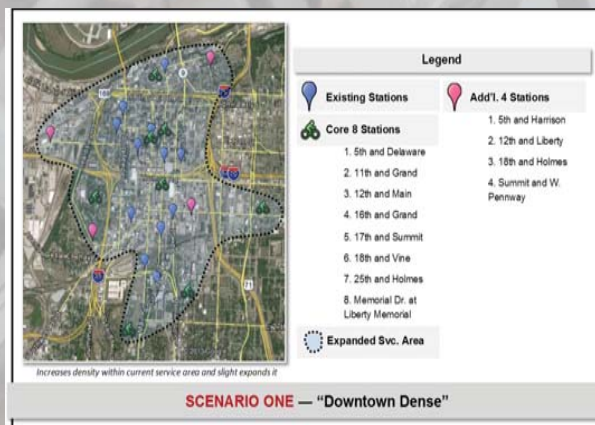
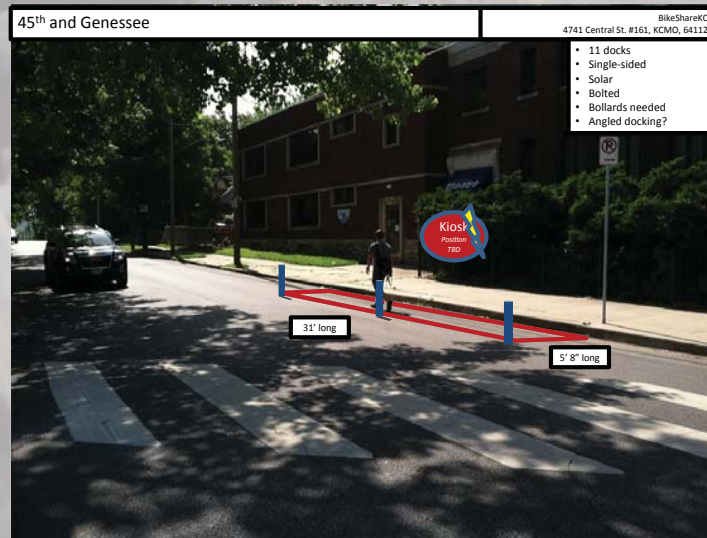
## OVERVIEW

Two presentation boards 30" x 54",  
1:40-scale model

Project Type: Urban design project  
Position: Student (Junior)

"Crossroads 2035" was a design project in second-year urban planning & design studio. Students were assigned to create a vision for part of the Crossroads Arts District just south of Downtown Kansas City. Analysis of existing conditions revealed that though the neighborhood -- a former warehouse district serving nearby rail lines -- had benefitted from recent arts-based revitalization, its growth has stagnated. I proposed an approach in which a framework of "nodes" (intersections), activated with high-traffic retail and office establishments, supported the vitality of adjacent, mixed-use streets. A network of activated alleys, meanwhile, would create small, affordable commercial and studio space to keep part of the neighborhood within financial reach of students at a planned nearby satellite campus of UMKC.

# KANSAS CITY B-CYCLE - PHASE II ANALYSIS



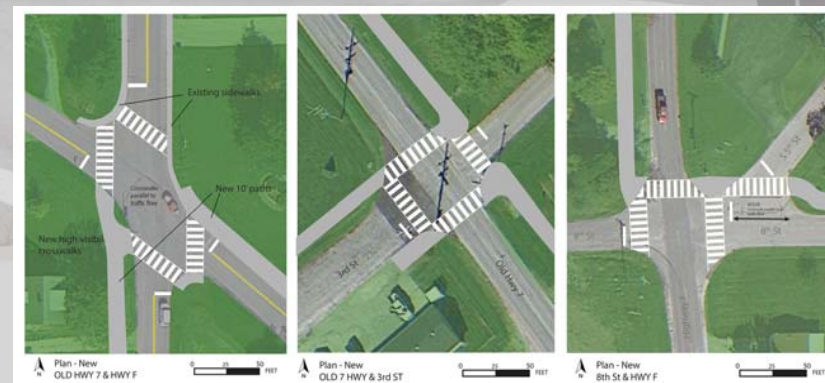
## OVERVIEW

Site analyses, renderings, final report

Project Type: Expansion plan  
Position: Planning Intern, BikeWalkKC  
Year: 2013

Kansas City B-cycle is the city's bikeshare system, owned and operated by local bicycle-pedestrian advocacy organization BikeWalkKC. In summer of 2013, the organization performed a study for an expansion of its system from eight stations around the central business district to as many as 12 more stations in and around the busy Plaza-Westport area. I was part of a team that performed site visits, analyzing the feasibility of potential sites for new bikeshare stations. We created simple graphics describing potential locations. I was then tasked with creating various scenarios for the expansion of the system, based on job density, residential density, transit proximity, and other factors considered necessary for success of a bikeshare system. The system expanded in summer 2014, using one of the scenarios as a framework.

# CONNECTING GARDEN CITY



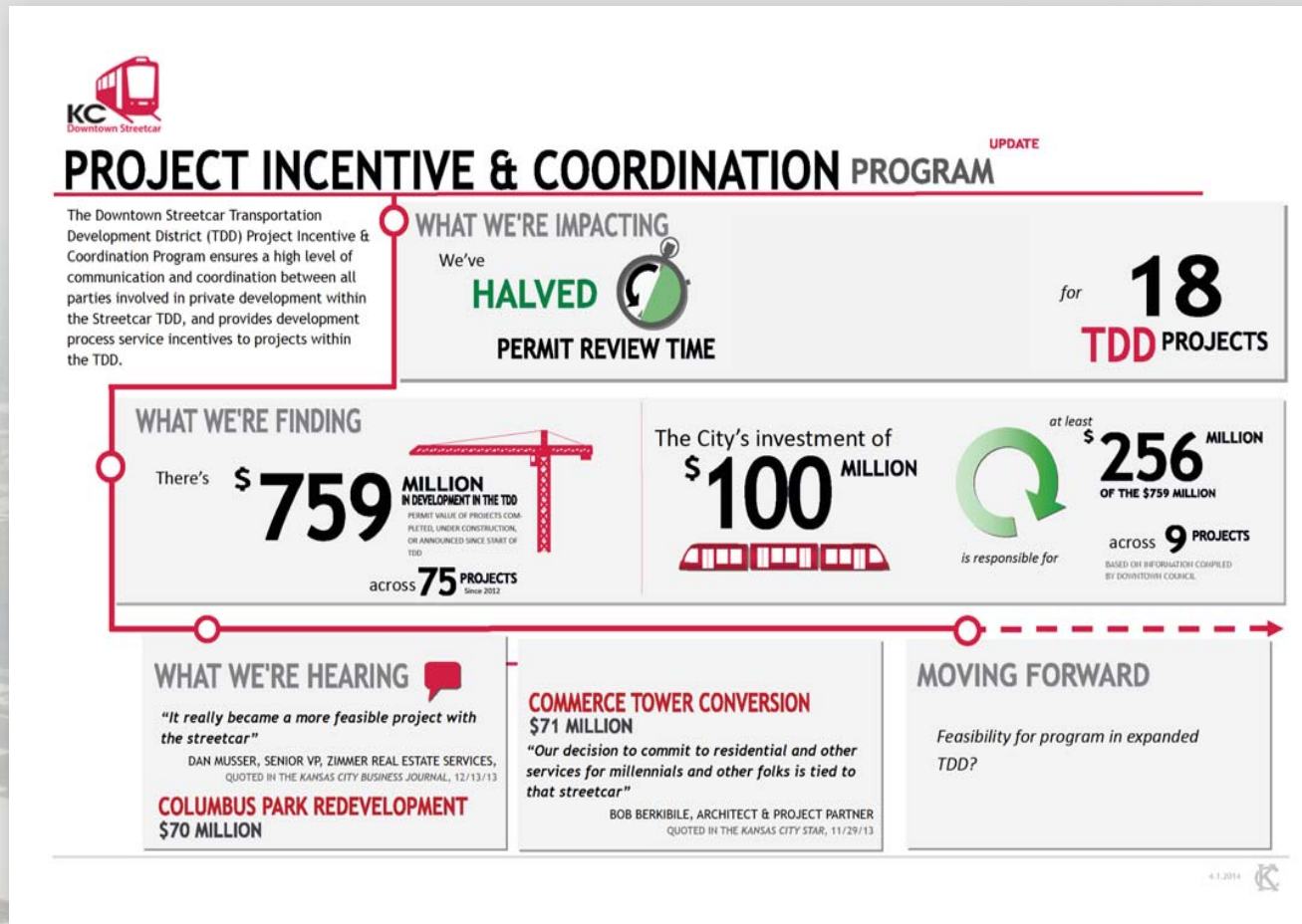
## OVERVIEW

### *Pedestrian safety audit, master plan*

Project Type: Bicycle-pedestrian master plan  
Position: Research assistant, UMKC  
Year: June 2014 - March 2015

The City of Garden City, MO, hired the UMKC Department of Urban Planning + Design to create a bicycle-pedestrian master plan and a Complete Streets policy plan for its community of 1,600 residents southeast of Kansas City. I assisted a professor in creating those documents, along with a pedestrian safety audit that informed them. In addition to organizing public engagement and coordinating with city officials, I performed substantial research, created the graphics and renderings for the documents, and wrote much of the final reports. I created cost estimates and contributed to an implementation plan. Ultimately, a "triangle" of mixed-use paths was proposed along major streets connecting the downtown area to adjacent core neighborhoods.

# KC STREETCAR DEVELOPMENT



## OVERVIEW

*Database update, report*

Project Type: Development tracking  
Position: Intern, KCMO City Manager

Interning for the City of Kansas City, Missouri's City Manager's Office, I tracked development projects along the route of the downtown streetcar starter line. Specifically, I was tasked with tracking projects that qualifying for expedited development review, due to their location in the streetcar's Transportation Development District (TDD) taxing district. The work included researching projects via the City's KivaNet development database, updating them and compiling them in a separate database. Periodic written reports for the Assistant City Manager and ultimately the above infographic (presented at the Mayor's KCStat meeting) were produced to summarize updates in development activity in the TDD.

# WRITING

*"Transforming KC Transit" May-June 2012 issue of **Greenability***

## **Freelance marketing writing samples:**

For Kansas City B-cycle

"Renew now to enjoy another year's access to the expanded B-cycle"

"B-cycle means business"

For BikeWalkKC

"2014 End-of-Year Letter"

"Safe driving important as kids head back to school in KC"

For Shipley Communications

"KCK program brings free, healthy meals to students this summer"

**Academic/report writing example, Geographic Information Systems class, UMKC, Fall 2012**



## Public transit rolls into town



BikeShareKC is slated to bring bike-sharing rentals to Kansas City by July 1. Vireo, a landscape architecture and community design company, envisions a bike station Downtown.

By Benjamin Bachwitz

This could be the year public transit plans take off in metro Kansas City.

The list of projects in the works is impressive: public bicycles, a Downtown streetcar, commuter rail, car sharing and bus improvements. Several projects will be in place by year's end. Others are still on the drawing board. In any case, the returns may be evident within a decade.

Each of these modes aims to give residents and visitors less expensive alternatives to personal gasoline-powered cars, while improving health by encouraging more active transportation choices. The relative cleanliness and energy efficiency of these transit modes could spell great changes to the region's air quality and carbon footprint.

Adding good public transportation to recent city improvements like the Kauffman Center for the Performing Arts, the Sprint Center and the emerging Crossroads District arts hub would make getting around easier and attract economic redevelopment to the center city.

Here we profile three of the major plans on the drawing board.

### Starting soon: BikeShareKC

The first project scheduled to hit Kansas City's streets may be the least familiar to residents more attuned to plans for light rail and commuter trains. Starting July 1, 200 slick, blue-branded bicycles will be installed at 20 stations around Downtown, introducing Kansas City to the concept of bike sharing.

The idea is fairly simple. With BikeShareKC, anyone with a credit card can rent and ride the self-service bikes. After buying a one-day or multi-day pass, users can remove a bicycle from a station and pedal away. When they're finished, the bike is returned to any BikeShare station. Riding for 30 minutes or less is free; after that, riders are charged by the half hour. The system will get riders from point A to point B within the Downtown area, and will help public transit users connect with bus (and, perhaps soon, streetcar) lines. The bikes will be available 24/7 for at least nine months of the year, and they could stay out during a mild winter.

A \$60 annual membership makes the whole process even smoother. Members will unlock bikes with a simple tap of a pass.

This sort of public bicycle program is one that has been tested and passed in such locales as Paris, Montreal, Washington, D.C., and the Twin Cities.

Here, the system is expected to reap benefits in several forms.

"We've got a transportation problem and a health problem," explains Sarah Shipley, communications director for BikeWalkKC, the local bicycle and pedestrian advocacy group that will operate the system.

Shipley says the bike-share system will offer an alternative to high gasoline prices and will encourage residents to be more active in this car-centric city. She hopes that once the model takes hold, people will go out and ride their own bikes more often, creating an active transportation culture. Users of BikeShareKC will also get to know the city better by bike and foot.

The Kansas City, MO City Council passed a resolution in February supporting the project and pledging to add bike lanes between bicycle stations.

"More and more people are choosing not to own automobiles, and more and more people are interested in healthier lifestyles," noted Councilwoman Jan Marcason, the in-district representative of the city's Fourth District and a co-sponsor of the resolution. "It's about giving that option."

The price tag for the project should appeal to residents. The capital cost for the initial batch of 20 stations and 200 bicycles is approximately \$1 million. Annual maintenance expenses are estimated at under \$100,000. The system will be funded entirely privately — by user fees, advertising and sponsorships.

The system's expected health benefits caught the attention of local insurer Blue Cross and Blue Shield, which recently announced its financial support for the first phase of the system.

"We're focused on addressing childhood obesity in the area," said Dawnavan Davis, director of health promotions for Blue KC. "So we're supporting environmental changes that can help individuals, families and the community lead a healthy lifestyle."

Meanwhile, BikeShareKC is expected to bring other benefits. Added foot and bike traffic can help businesses and properties. Shipley points to several studies from cities across North America that show improving bicycle and pedestrian amenities also helps sales at nearby retail stores and improves property values. A 2009 study of Bloor Street in Toronto showed that people who biked and walked to the area spent more money in the area than those who drove there.

Shipley says the system's placement in the Downtown area will play a part in the continued development of the city's urban core. The launch before the All-Star Game and events

in July highlights another plus — it will provide an attractive, inexpensive mode of transportation for tourists. The system will get its first test during the All-Star events, when Shipley hopes it will help reduce the strain on existing transportation infrastructure from the thousands of visitors in town for the event.

Bicycles and stations will be provided by B-Cycle of Madison, WI, the bike-share arm of Trek. The standard equipment for the company's bicycles is the 3-speed version, but Kansas City's topography means BikeShareKC will use 7-speed bikes.

The initial phase of BikeShareKC will cover an area from 3rd Street in the north to Crown Center, and West Pennway Street to 18th and Vine streets, west to east. The system is anticipated to expand in as little as a year, spreading 100 bikes south to the Plaza. A third phase, expected to launch within three to five years, will add another 100 bikes and stretch the system through the University of Missouri-Kansas City campus and Brookside to Waldo neighborhoods. In total, the entire system will be a multi-million-dollar project that will require the support of more funders.

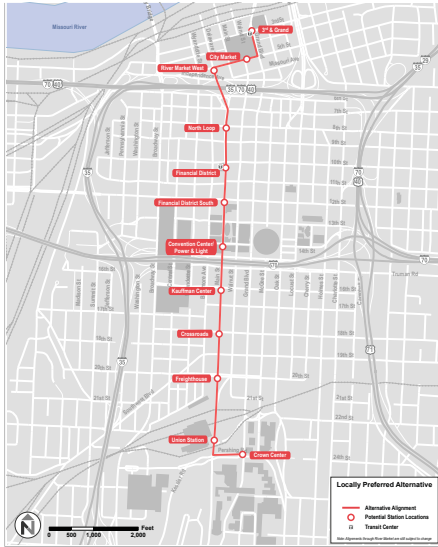
Shipley sees the investment in the system contributing to the city over the long term "Biking and walking can't be beat," she said. She sees a more active lifestyle culture complementing a growing number of transit options. "In 10 years, Kansas City will be a transportation city. It will be easy."

### Kickstart the core: Downtown streetcars



Cutline goes here. Cutline goes here.

After years of considering plans to build light rail, Kansas City officials are opting for a shorter, cheaper option, while still keeping a broad vision for the future. By 2015, it is hoped Main Street between the City Market and Crown Center will be served by a 2.2-mile, \$100-million modern streetcar line.



A map of the proposed streetcar project shows the primary corridor running down Main Street from the City Market to Crown Center.

Officials hope it will accomplish several things, including getting a wider rail system started and pushing redevelopment of the central city.

"It's about getting other transit options out there for residents, and it's a catalyst project for developing the core," says Sherri McIntyre, assistant city manager and public works director for Kansas City, MO.

In contrast with light rail, a modern streetcar can run in traffic using existing roadways. Stops are frequent — they would be found an average of every two blocks in Kansas City. The model supports dense, walkable urban environments.

Streetcars are not as fast as light-rail vehicles, but that's not the point, says Thomas Gerend, assistant director of transportation for the Mid-America Regional Council (MARC). MARC and Kansas City are leading the study of possible alternative transportation modes along the corridor.

Some people call them 'pedestrian accelerators,' Gerend says. He explains the goal of the streetcar would be to quickly move people from center to center along the corridor — from the City Market to Crossroads, for instance. It would make the corridor more walkable and vibrant.

Then why not just get nicer buses?

"You know exactly where it's going because you see the tracks on the street," says McIntyre.

The permanent nature of a streetcar makes developers and business more confident about investing in an area served by the system. The streetcar mode also encourages higher density growth, and can generate an extra \$500 million in development along a route.

While design details have yet to be completely ironed out, the line would use vehicles powered by electricity, using a combination of batteries and overhead wires. These vehicles would produce no direct greenhouse gas or particulate emissions.

Of all major transportation modes, including cars, light rail and buses, modern streetcars produce the lowest amount of carbon emissions over a system's lifetime, according to Patrick Condon, a researcher at the University of British Columbia. McIntyre says streetcars have been known to bring more riders to transit overall.

After receiving public feedback, planners decided to run the line on Main Street, primarily because of the street's central route relative to main attractions. Other routes examined were Grand Boulevard, Baltimore and Wyandotte streets.

The \$100-million project could be partially financed by \$25 million in federal grants.

The difference would be made up by local sources. The study for the project delineated a possible Transportation Development District (TDD) where a special property tax assessment and one-percent sales tax would be collected. The TDD would stretch from the Missouri River to 27th Street, north to south, and generally Broadway to Locust streets, west to east. The special levies would include 52 cents per \$100 assessed on commercial property and 70 cents on \$100 of assessed value for residential property. Surface parking lots would face a \$182.50 per space annual fee. McIntyre says this would encourage higher density construction on the lots. Additional local funding would come from rider fares and advertisements.

The city will know by August whether it receives federal funding. Residents of the proposed TDD will vote June 5 whether to approve the tax assessment for all property owners in the district. If the funding sources come through, construction would begin early next year, and the line would be fully operational by April 2015.

Officials seem confident enough in the starter line's success that they're already discussing future streetcar extensions.

"There's a dense corridor to the Plaza, for instance," said MARC's Gerend.

Other potential routes include a stretch north of the river, a run to the east along Truman Road and an extension down to the West Bottoms. McIntyre says that planners would look at the ability for a similar funding structure to be repeated along these corridors.

For supporters of light rail, meanwhile, the starter line keeps the dream of that faster mode alive — especially as the streetcar's infrastructure is compatible with light-rail vehicles.

"Once we start, we can expand until we have — perhaps 15-20 years in the future — caught up with all the other major cities who have provided a transit system that facilitates mobility, commerce, development and recreation throughout their regions," says Mayor Sly James of Kansas City. "I believe it is an investment we will look back upon and wonder why it took so long for us to finally invest in rail transit."

## Catalyst for the future: Commuter Corridors

The widest-reaching transit vision in the works would bring the outer suburbs of Jackson County closer to Downtown and spur economic development countywide.

Led by Jackson County and MARC, planners are studying the feasibility of improvements to three commuter corridors that extend from downtown Kansas City to points throughout Jackson County.

The first would follow Interstate 70 through Independence, Blue Springs, Grain Valley and Oak Grove, and could stretch as far as Odesa in Lafayette County. The second route would run along the first until the Truman Sports Complex, then turn southeast and follow MO 350 Highway and an abandoned

Rock Island Railroad right-of-way. It would serve Raytown, Lee's Summit and Pleasant Hill. Finally, a third corridor would run on 71 Highway from Downtown to Belton in Cass County.

Officials are considering express commuter bus, commuter rail and streetcar for these corridors. Planners hope to go to the public in May to get feedback on the possible modes for the I-70 and Rock Island Corridors. The Grandview/71 Highway study is in an earlier stage, and should be completed by January 2013.

"Our region is extremely auto dependent," said Gerend. "This project would help develop a viable alternative."

With the cost of gas rising, area motorists are facing increasing congestion, and local governments are facing limits on how much they can expand existing road infrastructure. Improving the corridors under study with alternative modes would help address these problems. Any changes would be specifically development-oriented.

"Downtown Blue Springs could see a new transit center that would be focused on redevelopment of that city's center," Gerend said. A bus or train could then transport riders from Blue Springs to events at the Truman Sports Complex or take them to Union Station and jobs and attractions in the central city. The suburban line would link up with Kansas City's streetcar line.

Much of the vision for the project has come from Jackson County Executive Mike Sanders. Sanders sees the three



Cutline goes here. Cutline goes here.

corridors as the start of a wider regional system, with possible extensions to KCI. He, too, highlights the corridors' economic development potential.

"In this new global economy, the world is shrinking, and we need to ask, 'Are we competing?'" says Sanders. "There are forward-thinking cities around that are choosing to make their competitiveness surround mass transit."

Sanders said the project would also make environmental sense by helping to tackle challenges like climate change. He points to the warm winter of 2011-12 as a sign of how pressing the problem is and how the corridors project is very timely.

Sanders predicts that what the interstate highway system did to modernize the nation in the 1960's, mass transit will do for our cities in the next few decades.

"In 10 years, I see the paradigm for transportation in Kansas City shifting," said Sanders. "In 10-plus years, I want young professionals moving here being able to consider not owning cars."



A proposed Jackson County commuter bus route would initially connect Interstate 70 through Independence, Blue Springs, Grain Valley and Oak Grove, and could stretch as far as Odessa in Lafayette County. Additional routes would run to Truman Sports Complex and MO 350 Highway to Raytown, Lee's Summit and Pleasant Hill.



**this glass is half full**

**And we have good reason to be optimistic. Last year...**

- Deffenbaugh delivered to the Ripple Glass processing facility more than **1,500 big purple bins** that **YOU** filled up.
- We recycled enough glass to make over **100 million** Boulevard beer bottles. Placed end-to-end, these would stretch halfway around the earth.
- Deffenbaugh started a glass recycling service for bars and restaurants in two new service areas.

**keep it up Kansas City!**

**ONE EARTH ONE CHANCE**  
REUSE. REPAIR. RECYCLE.

**rippleglass**

**Deffenbaugh INDUSTRIES**

## Bicycling: Kansas City goes for platinum

By Benjamin Bachwirtz



**A**fter being named the worst city for cycling in the country, Kansas City, MO city officials pledged in 2008 that K.C. would become a platinum-level Bicycle Friendly Community (BFC) by 2020.

The League of American Bicyclists (LAB) awards BFC designations to communities that implement bicycle infrastructure and educational programs, with bronze, silver and gold award levels. Three cities — Portland, OR; Davis, CA; and Boulder, CO — have the superlative platinum classification.

Kansas City has a lot of work to do. Both Boulder and Davis have bike lanes on at least 90 percent of their major roads. In these cities, roughly 16 percent of all trips are made by bike. Portland has hundreds of miles of lanes and trails that see as many as 3,000 cyclists a day.

Since making its 2008 pledge, Kansas City has reached the BFC bronze-level by installing 185 miles of signed bike routes that are designated free of bicycling hazards. There are an additional 42 miles of bike lanes, a new bicycle lane on the Heart of America Bridge and 27 miles of mountain-bike trails.

But can Kansas City reach platinum by 2020?

"It is my opinion that we are on track toward achieving the goal," says Deb Ridgway, the bicycle and pedestrian coordinator for Kansas City.

There's no formula provided by the LAB for achieving platinum status, but Ridgway says the City's BikeKC plan will include 600 miles of bikeways plus bicycle parking.

Meanwhile, the coming of BikeShareKC — which is run independently of the city — may help boost the city's bike-friendly status. The KCMO City Council recently passed a resolution supporting the project and pledging to add bike lanes between bike-share stations.

A number of bicycle and pedestrian projects are planned for this year, including constructing, completing or opening:

- MO Highway 150 trail
- Cycle tracks on Riverfront Heritage Trail from River Bluff Park to Forrester Viaduct Bridge
- Line Creek Trail
- Little Blue Trace Trail

This mountain-bike trail is being installed in Swope Park for new off-road cycling recreation.

- Brush Creek Trail near Troost Avenue
- Art work installation and railing on I-670 Pedestrian Bridge
- Bike lanes on Benton Boulevard
- Brush Creek and Van Brunt Trails
- Blue River Trail
- Shoal Creek Trail
- Trailhead in the West Bottoms for Riverfront Heritage Trail
- Improvements on Chouteau Trafficway, Longview Road, Lee's Summit Road and Barry Road

Elsewhere in the region, Shawnee and Lawrence, KS, are both BFC-bronze-level and Leawood, KS, and Lee's Summit, MO, received honorable mentions for their bicycle and pedestrian programs. Overland Park and Kansas City, KS are teaming up to build portions of a downtown connector to link Turkey Creek Trail in Merriam to a planned bike route on the Missouri side at Southwest Boulevard.

Learn more at [www.bikeleague.org](http://www.bikeleague.org) and [www.kcmo.org](http://www.kcmo.org).



## **Renew now to enjoy another year's access to the expanded Kansas City B-cycle**

Take advantage of new stations, added convenience, and big savings in 2015. It's twice the city, same great price.

Dear [Kansas City B-cycle Member],

We hope you've enjoyed your annual membership to Kansas City B-cycle so far. Our records show your membership is up for renewal soon. We want to invite you to renew now in order to avoid missing a minute of access to KC's bike share system.

As a member of B-cycle, you've experienced getting from A to B in KC like never before. The B-cycle system connects you to and from home, work, or entertainment in your favorite neighborhoods. It's fun, affordable, and it fills in the gap for short trips that don't make sense to drive but still take a while to walk.

And today, there's more of Kansas City within pedal's reach. Two times more, really. We've doubled the size of the B-cycle system, adding eight stations in and around Westport and the Plaza. Now, a movie on the Plaza and drinks afterwards in Westport takes just a 5-minute ride up the street -- no car necessary.

A membership gets you added convenience, too. With your red B-card, checking out a B-cycle is as easy as tapping the card on a bike dock, taking a bike, and riding off -- literally 1, 2, 3! As a member, you can also track your stats, such as miles ridden, calories burned, and CO2 emissions saved, on [kansascity.bcycle.com](http://kansascity.bcycle.com).

You can get these member's perks, plus double the city, the same price of just \$65 a year. That's 365 days of unlimited access to the B-cycle system for a great value. Consider this: Paying for a daily pass every time you wanted to ride would cost you \$7 every time -- you basically pay off your annual membership in less than ten days. And that membership costs less than what you pay towards your car in a couple weeks, less than a monthly bus pass -- and it's a whole lot more fun.

Don't miss a minute of life in KC from the seat of a B-cycle. Renew today at [kansascity.bcycle.com](http://kansascity.bcycle.com).

Thanks,

**B-cycle means business. Both mean a vibrant Kansas City.**

Dear Greater Kansas City Business Leader,

Kansas City is on the map. Every month or so, it seems, we're in a national publication that highlighting the achievements of our business community -- everything from our gourmet coffee shops and creative restaurants to homegrown design firms and successful tech startups. And just about as often, another business announces it's relocating to Kansas City.

Not only is each of these dynamic businesses a mark of a strong, growing local economy, it also shows we live in an increasingly vibrant community.

There's something that can catalyze an even more vigorous Kansas City -- *and you can help build it.*

In 2012 we brought bike share to Kansas City's streets with Kansas City B-cycle. Eight stations of specially built rentable bikes debuted in Downtown, providing residents and visitors an inexpensive, convenient, and healthy way to reach shops, restaurants, the office or home. In just its first year, hundreds of people used the system.

The best part of B-cycle is that it is supported by the community -- businesses like yours provide sponsorship for bike share by with advertisements on our fleet of bicycles. With ad options ranging from \$50 to \$5,000 -- businesses of any size can show their support.

This year, the B-cycle system doubled with eight more stations in Plaza and Westport, and we're planning more in 2015.

You can put your business's message in front of the now thousands of people who use B-cycle annually and help build the transportation option linking a better Kansas City.

Get the word out about your business by:

- Sponsoring a Station (name your station)
- Buying an advertisement on our baskets (get recognized all around town)
- Purchasing B-cycle passes for your employees (a wellness benefit)

We hope you'll join us in improving transportation and boosting wellness in Kansas City.

Thanks,

The B-cycle Team

**This was a great year for active transportation in Kansas City. Let's make 2015 even better.**

Dear Friend of BikeWalkKC,

A lot of good happened for local cyclists and pedestrians on Kansas City streets in 2014. This summer, the city's bike share system, Kansas City B-cycle, doubled in size, with eight new stations in the County Club Plaza and Westport. Thousands of area kids learned bicycle safety from the proven BLAST youth bicycle safety course, now in all Kansas City Missouri Public Schools. And more recently, Kansas City, MO, passed a Safe Streets Ordinance, protecting hundreds of cyclists and pedestrians from harassment on city streets.

BikeWalkKC was behind these and other exciting projects -- but we couldn't have done any of it without you. Now that we've got momentum going towards a better city for bicyclists and pedestrians, we're ready to grow it in 2015 -- with your help.

What impact can you have? If each one of our members gives \$50, we would instantly have \$25,000 to work with. But it doesn't stop there -- with that amount, BikeWalkKC would be able to leverage \$125,000 in Federal funding to make our programs go even further -- *five times further*. Your gift of just \$50 would become \$300 to help make Kansas City's streets better for the city's bicyclists and pedestrians.

In 2015, BikeWalkKC is ready to bring new bike share stations to KC's streets, more lessons to area students, and more change at City Hall. Will you help make that happen?

Help us grow the momentum towards better bicycling and walking in Kansas City in time for 2015 by giving today.

Thanks,

## **Safe driving important as kids head back to school in KC**

*Drivers reminded to keep the basics in mind in neighborhoods and school zones; upcoming Walk to School Day teaches students pedestrian skills*

The back to school season means tens of thousands of area children are once again traveling area streets on their way to and from school. Drivers know to use caution around school buses and school zones -- but as classes start again, drivers are asked to be sharp at the wheel in other places they see students traveling.

“Summer break might have made you more relaxed driving through places like school zones,” says Eric Rogers, executive director of BikeWalkKC, a local nonprofit organization advocating for better active transportation in the region. “But now it’s time to start paying attention.”

BikeWalkKC says that as kids hit the streets again, being sharp at the wheel is equally important in places beyond school zones where kids may be walking or biking. These can include neighborhood side streets near schools, as well as parks, and bus stops.

Following a few key tips can keep both kids and drivers safe this back-to-school season:

- Be attentive and keep your eyes on the road.
- Do not text and drive.
- Obey posted speed limits, especially reduced speeds near schools.
- Yield to children crossing the street and crosswalks.
- Give cyclists at least three feet when passing them on the road (this is law in Kansas)

The tips might seem very basic, Rogers says, but they can go a long way to keeping kids -- who may be easily distracted or might not judge distance accurately when crossing a street -- from getting hurt.

Kids, meanwhile, can learn to be safer on their walk to school on International Walk to School Day, this October 8th. Participating schools receive tools to help their students learn about safe travel on foot, as well the health and wellness benefits of being a pedestrian. (A similar event for bicycling takes place annually in May.) Parents can find if their student’s school is participating at [www.walkbiketoschool.org](http://www.walkbiketoschool.org).

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## **KCK program brings free, healthy meals to students this summer**

'Dotte Meals aims to expand free meals to more kids in need across the city

Kansas City, KANSAS -- Kids living in the Kansas City, Kansas Public Schools (KCKPS) district can receive up to three meals a day through the district's new 'Dotte Meals program. The meals will be served throughout June and July at 40 locations across the city.

"The new program is like the district's existing free-lunch or afterschool meal programs," Joanna Sabally, Program Specialist for Healthy Communities Wyandotte, an office of the county's health department.

" 'Dotte Meals is meant to get to more parents and kids, and regardless of whether those kids are in summer school."

This year, kids attending KCKPS during the regular school year will qualify for a free breakfast, lunch, and dinner, Monday through Friday during June and July. The meals will be served at 40 locations across Kansas City, Kansas, including schools, community centers, and even apartment complexes.

KCKPS already has approximately 30 locations that served an average of 950 breakfast and 1,600 lunch meals daily last summer. But many more students qualify -- over 15,000 students in the district participate in a subsidized lunch on a daily basis during the regular school year. *Meanwhile, Wyandotte County was recently noted as having the highest rate of "food insecurity" (lack of access to nutritious food) in Kansas.*

In addition to the increased reach of the program, 'Dotte Meals will put a new focus on nutrition. Promotional material for the program introduces kids to characters like Ms. Strawberry and Mr. Broccoli that represent the healthy ingredients that will be used in meals served to students.

"We're not just trying to feed more kids, we're trying to sell them (and their parents) on the value of healthy eating," says Sabally.

More information about 'Dotte Meals can be found at [kckps.org/schools](http://kckps.org/schools) or by calling 311 in KCK.

'Dotte Meals is part of the Cities Combating Hunger through Afterschool and Summer Meal Programs (CHAMP) initiative, organized by the National League of Cities.

About Healthy Communities Wyandotte

Healthy Communities Wyandotte's (HCW) mission is to mobilize the community to improve health and well-being in Wyandotte County through increased communication, coordination, and culture change. Operating within the Health Department, the countywide coalition aims to help Wyandotte become the most improved county for health in the state of Kansas through innovative leadership and community participation.

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## Metrolink and the St. Louis Region: A Snapshot of their Relationship

### Executive Summary

This analysis attempts to put the St. Louis Metrolink light rail system in demographic, geographical, and social contexts. Who uses the system? What is their income? Where do they come from? What evidence of planning decisions can be seen? What effect does the system have on St. Louis's unique and strained relationship of city and suburbs? Altogether, ten maps demonstrate the relation of the Metrolink lines to their users' homes and destinations, the area's income and race distributions, and more. Maps being limited to the visual representation of this data, accompanying tables and text explain help interpret what is seen on the maps. Altogether, the data shows the Metrolink system covering a wide geographically area, but narrowly serving two groups: inner city Blacks and poor (many of whom must use public transit) and better-off suburbanites who connect to the system using their cars. Also seen are the characteristics of the service area of the Blue Line, which would open in a few years: here, we see the line about to extend into more middle-class sections of St. Louis County.

### Introduction

Historically an industrial and distribution powerhouse and among the top 5 cities in the country at mid-century, the city of St. Louis has declined sharply, now more synonymous with blight and crime than trade and commerce. From a population of 850,000 in 1950, it now only sports about 350,000 residents and continues to decline. This, at a time when most old city centers are adding population (Salunty 2007).

The fall of the city proper was accompanied (or hastened, perhaps) by the explosion of its suburbs. St. Louis County, the county surrounding the city proper, has doubled in population since 1950, now with nearly a million residents. Altogether, the Greater St. Louis area now has 2,812,896 people living in it, and this number is climbing slowly – even as, again, St. Louis proper continues to decline (East-West Gateway 2010, p. 20).

In 1993, the first part of a light rail system, Metrolink, began running. Originally serving St. Louis proper, the initial line quickly expanded to suburbs in St. Louis County and across the river to East St. Louis, IL. The system has been popular with users, and has marked record ridership in the past few years. The system was most recently expanded in 2006 to the Shrewsbury-Landsdowne I-44 station, and more additions/extensions have been proposed (Metro St. Louis 2010, p. 1-2)

St. Louis's recent history, in terms of population and economic strength anyway, are nearly unique. No city proper has declined so much while its metropolitan area has thrived so much. The existence, popularity and growth of the Metrolink can, then, be examined in this light. What relationship does the system have with the St. Louis and its suburbs? Does it help stop the degradation of the city center? Or does it only magnify suburbanization? Does it serve the urban poor or White, middle-class suburbanites more?

Using 2003-04 data from the East-West Gateway Council of Governments (EWG), the St. Louis-area metropolitan planning organization, and 2000 census statistics, we attempt to answer some of these questions. The data comes from only the early 2000's, so the long-term

analysis needed to settle some of the questions isn't possible, and some conclusions made here may not hold if reexamined with modern data.

#### Notes

Several notes regarding the maps are necessary: first, only the Missouri and Mississippi rivers are shown to clarify the maps, though the legends will read simply "Rivers;" secondly, the Blue Line extension from Skinker to Shrewsbury-Landsdowne I-44 did not exist when the user survey we used was done. It appears on several maps only as an indication of the future extension. Also, the data included a still-non-existent extension to MidAmerica Airport in St. Clair County, Illinois. This was removed in all but Figure 2. Finally, tables are provided where tabulation is useful.

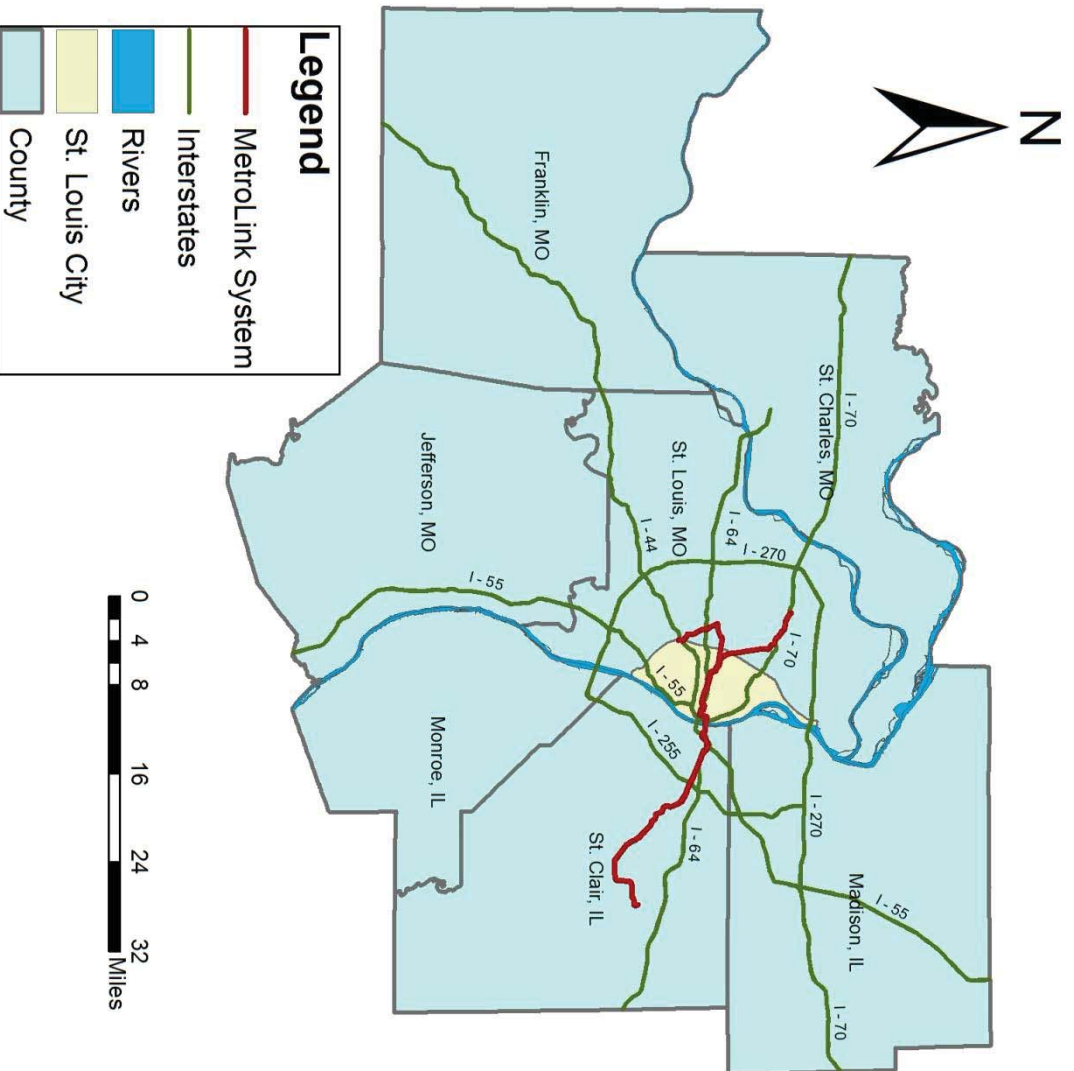


Fig. 1 – MetroLink Study Area

The area for this study is the geography overseen by the East-West Gateway Council of Governments, the St. Louis-area MPO. It includes seven counties and the City of St. Louis, an independent city. The entities, from most to least populous, are: St. Louis County (998,692), St. Charles County (360,485), St. Louis City (318,069), St. Clair County (270,056), Madison County (269,282), Jefferson County (218,733), Franklin County (101,492), and Monroe County (32,957). Note that St. Louis proper is third – only 30% the population of the county of the same name. (East-West Gateway 2011)

The EWG geography encompasses only half of the counties in the St. Louis Metropolitan Statistical Area (MSA), from which Greater St. Louis's population figure is derived. Another

seven and part of an eighth county are included in the MSA. Still, the EWG area includes 89% percent of the MSA's population. (East-West Gateway 2011; US OMB)

The region's four interstate highways and two of its four interstate linkages are seen in Figure 1 (Gateway Commerce Center, n.d.). Though it's the 17<sup>th</sup> MSA in terms of size, the St. Louis area is only 8<sup>th</sup> in freeway miles, at 1.7 per square mile. Perhaps consequently, its average commute time is 23<sup>rd</sup>, two minutes faster than average (East-West Gateway 2010, p. 76).

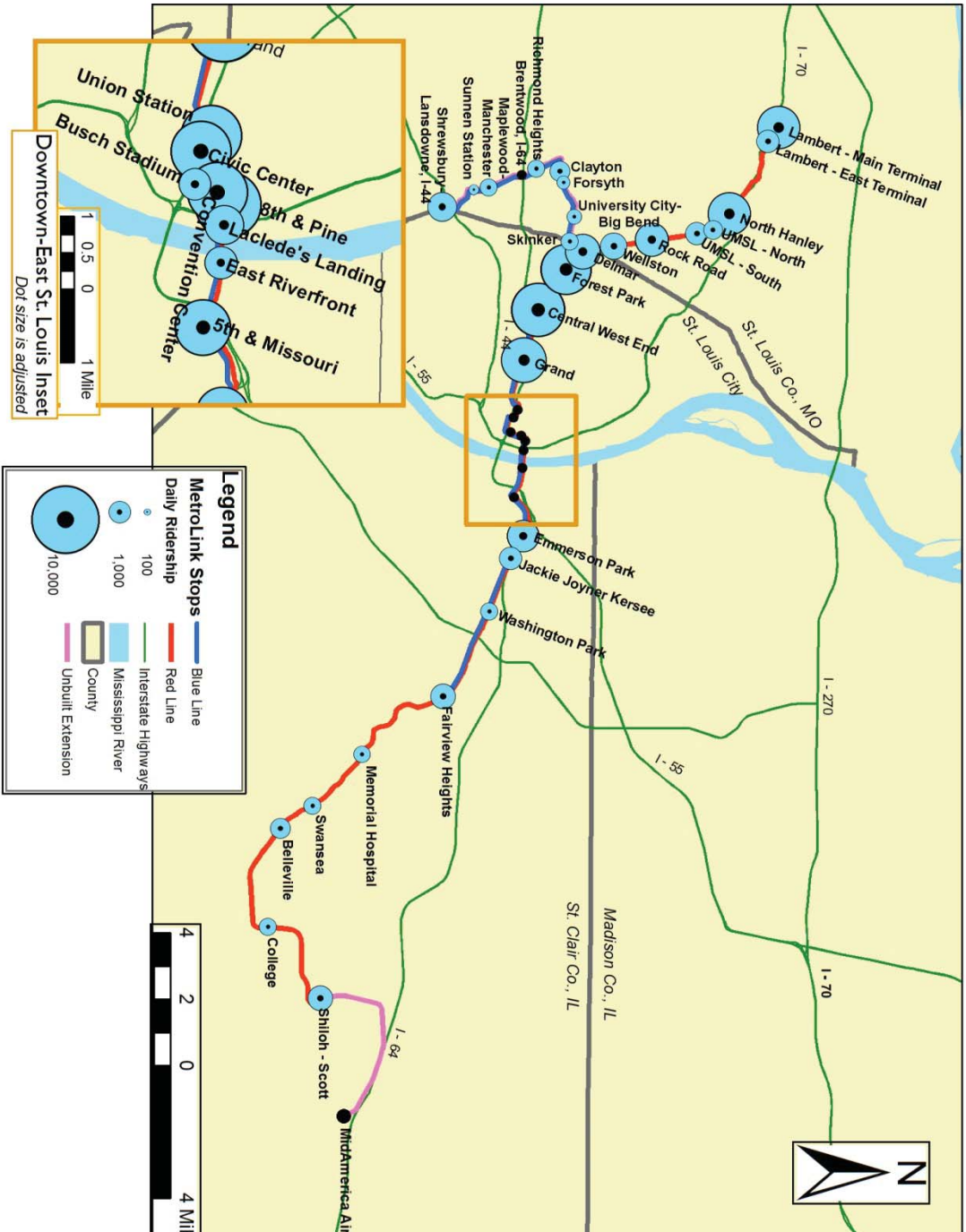


Fig. 2 – MetroLink System, as of 2012

The MetroLink system, as it currently extends, is depicted here, with a proposed extension to the MidAmerica Airport. The existing system consists of two lines covering 46 miles across 37 stations. The Red Line, the original segment, initially connected the North Hanley stop in St.

Louis County to 5<sup>th</sup> and Missouri in East St. Louis when it opened in 1993. The Lambert – Main Terminal stop was added a year later, and the Lambert east station was built four years later. The system was fast popular – “one of the most successful light rails systems in the country.” The line was extended in 2001 to the east to the College stop. An extension to Shiloh-Scott was completed in 2003.

The branch to Shrewsbury-Lansdowne I-44 opened in 2006. In 2008, the lines were color-coded for the first time, and the Blue Line extended its eastern terminus from Emerson Park to Fairview Heights. The Blue Line did not exist at the time the data was collected.

In the 2010 fiscal year, the system served an average of 51,716 users a day, or 17,713,472 in a year. As of 2008, the most popular station was the Central West End station with 6,232 riders daily. Forest Park-DeBaliviere was close second at 5,438. Sunnen Station had the least, 220 riders. Average ridership is 1,829.

The following table lists ridership by station. Note many of the most popular stations are found in St. Louis City.

**Table 1 -- Daily Ridership by Station (Metro 2008)**

| Rank | Station                   | Daily Ridership | Rank | Station                  | Daily Ridership |
|------|---------------------------|-----------------|------|--------------------------|-----------------|
| 1    | Central West End*         | 6232            | 20   | UMSL South               | 1105            |
| 2    | Forest Park-DeBaliviere*  | 5438            | 21   | Lambert Airport East     | 1095            |
| 3    | Grand*                    | 4455            | 22   | Brentwood I-64           | 910             |
| 4    | Lambert Airport Main      | 3978            | 23   | Belleville               | 892             |
| 5    | North Hanley              | 3939            | 24   | Clayton                  | 880             |
| 6    | Convention Center*        | 3473            | 25   | East Riverfront          | 854             |
| 7    | Union Station*            | 2953            | 26   | UMSL North               | 828             |
| 8    | Civic Center*             | 2852            | 27   | Stadium*                 | 787             |
| 9    | 8th & Pine*               | 2851            | 28   | Skinker*                 | 700             |
| 10   | Delmar Loop*              | 2721            | 29   | Swansea                  | 698             |
| 11   | 5th & Missouri            | 2501            | 30   | College                  | 692             |
| 12   | Rock Road                 | 2408            | 31   | Washington Park          | 677             |
| 13   | Emerson Park              | 2201            | 32   | Maplewood-Manchester     | 670             |
| 14   | Shrewsbury-Lansdowne I-44 | 1860            | 33   | Richmond Heights         | 660             |
| 15   | Wellston                  | 1569            | 34   | Memorial Hospital        | 594             |
| 16   | Shiloh-Scott              | 1409            | 35   | University City-Big Bend | 480             |
| 17   | Fairview Heights          | 1380            | 36   | Forsyth                  | 390             |
| 18   | Arch-Laclede's Landing*   | 1209            | 37   | Sunnen                   | 220             |
| 19   | Jackie Joyner-Kersey      | 1118            |      |                          |                 |

\* in St. Louis City

The MetroLink system is complemented by 75 routes of the MetroBus system, which has about twice the ridership as the light rail system. Six of the bus network's transit centers connect with MetroLink. Altogether, the two systems serve 579 square miles in St. Louis City and St. Louis County in Missouri and St. Clair, Madison, and Monroe counties in Illinois, and in 2010 attracted a combined ridership of 47.2 million customers. Ridership has increased every year in the past decade. (Metro St. Louis 2010, *Comprehensive Annual Financial Report*)

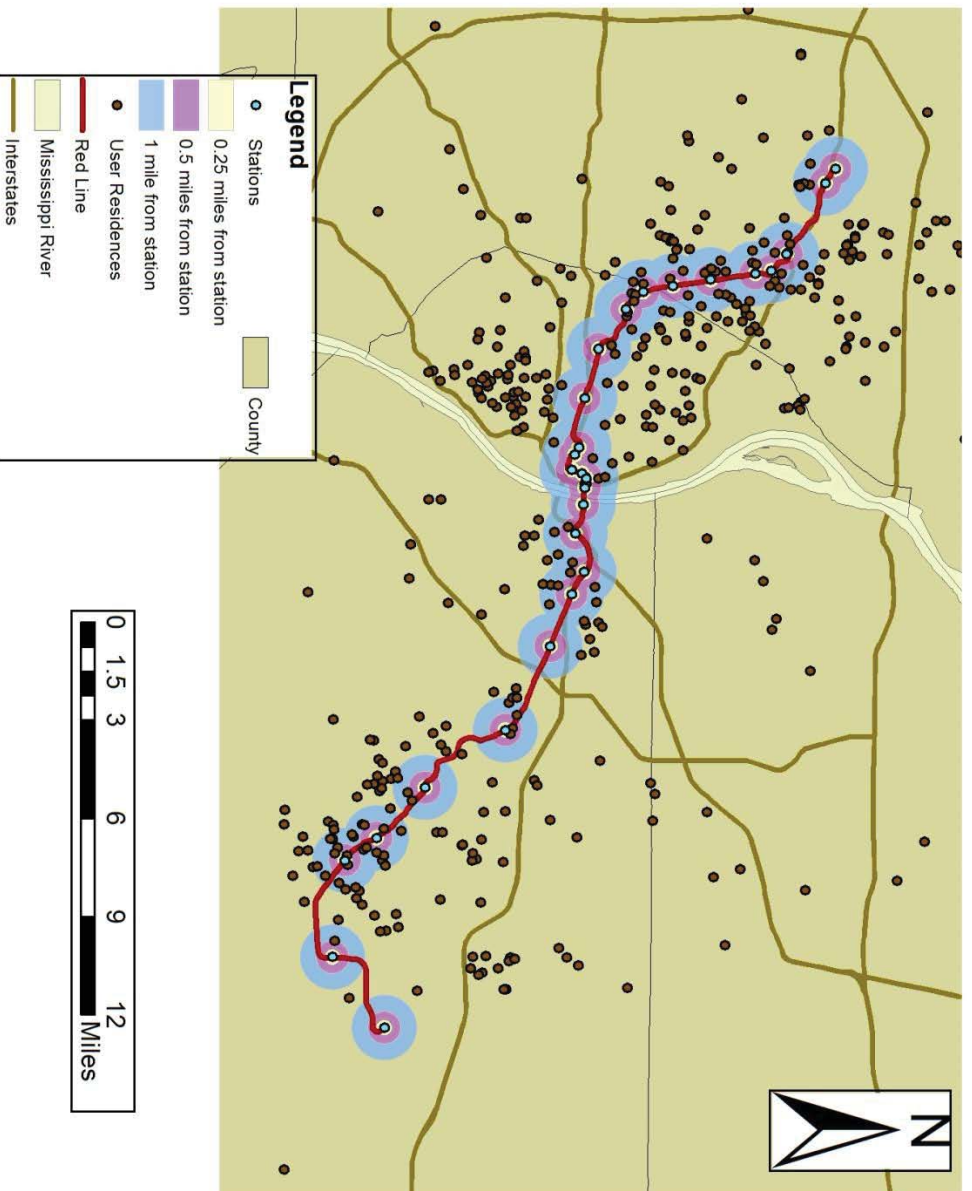


Fig. 3 – MetroLink User Airline Distance from Stations

Rider distance from MetroLink stations is shown here. Users are spread quite a bit, so this map is zoomed to make quarter-, half-, and one-mile buffers around the stations visible. The current rule for transit planners is that transit stops should be within a quarter mile (comfortable walking distance) of user residences for them to use the service. That rule is not represented here – many riders are willing to come from much farther away. Only 12 members of the sample (2%) came

from within a quarter mile of a station. Forty-two users (about 9%) traveled a half mile. Substantially more came from within a mile – 108 or 22%. About half lived with two miles. Up until this mark, as the measurement distance is doubled, so is the share of riders. Four hundred (83%) of users came from 5 miles or less. Nearly all riders lived within ten miles – 451, or 93%. Still, there were those who came from much farther afield. The farthest-traveling user in the sampling was a individual who traveled 35 miles from west-central St. Charles County to their job at the Robert A. Young Federal Building in Downtown St. Louis. This user's residence lies almost on top of I-70, which they used to get the 27 miles to North Hanley station. Twenty-two MetroLink stations – all suburban – are accompanied by park-and-ride lots today (Metro St. Louis 2012). This, coupled with our findings noted above seem to suggest much of the system is design

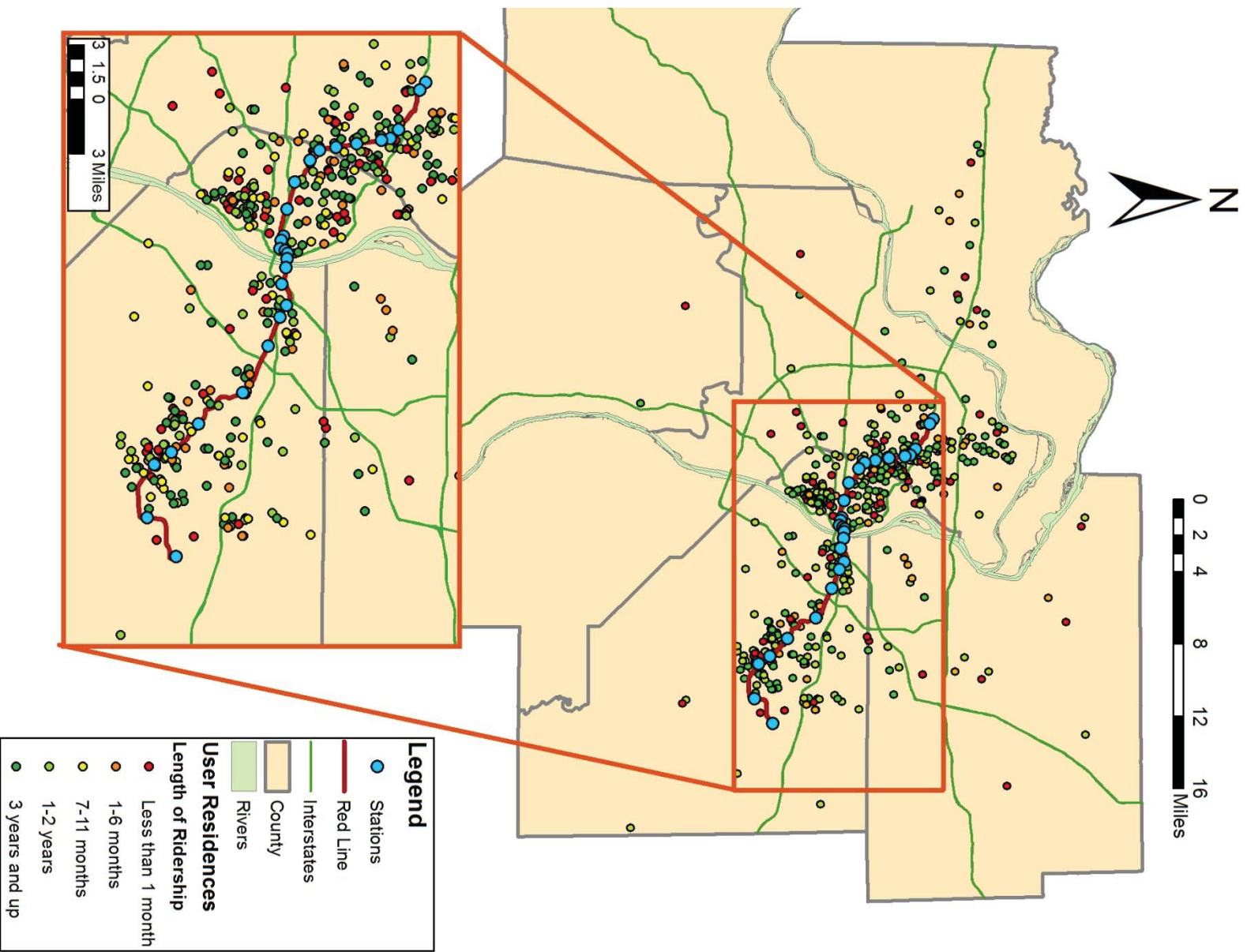


Fig. 4 – MetroLink User Residence and Length of Ridership

The length of ridership can tell us something about any geographical shifts in ridership, particularly because it allows an analysis across time. The following table details the length of use by the sampled users (to clarify the map, the last two categories were consolidated). Thirty-five did not have their usage length recorded. Most riders had been using the system for at least a year (54%). Ninety-one (18%) had been riding for 4 or more years and for 1-2 years. Only 9% had used it for less than a month.

**Table 2 – Length of Ridership**

| Length of Ridership | Number of Riders |
|---------------------|------------------|
| less than one month | 45               |
| 1-6 months          | 66               |
| 7-11 months         | 74               |
| 1-2 years           | 91               |
| 3-4 years           | 81               |
| 4 or more years     | 91               |
| Uncategorized       | 35               |
| TOTAL               | 483              |

No correlation can certainly be made between new ridership and expansions of the Metrolink system. The only changes to the route within the last 4 years of the data's collection were the extensions of the Red Line to College in 2001 and to Shiloh-Scott in 2003. Only 2% (12 riders) of our sample used the College station as their origin station – none were recorded as using Shiloh-Scott – in any case, ridership at either stop cannot account for any of the ridership categories above. And neither station is found near a major employment center, so there could not have been a major increase in ridership outbound.

Further, note that the red dots representing “Less than one month ridership” are scattered pretty evenly across the map and are perhaps clustered more along the tracks. Note, however, that the longer-term riders (both shades of green) are definitely grouped along the route and

particularly along the alignment that been around since 1998.

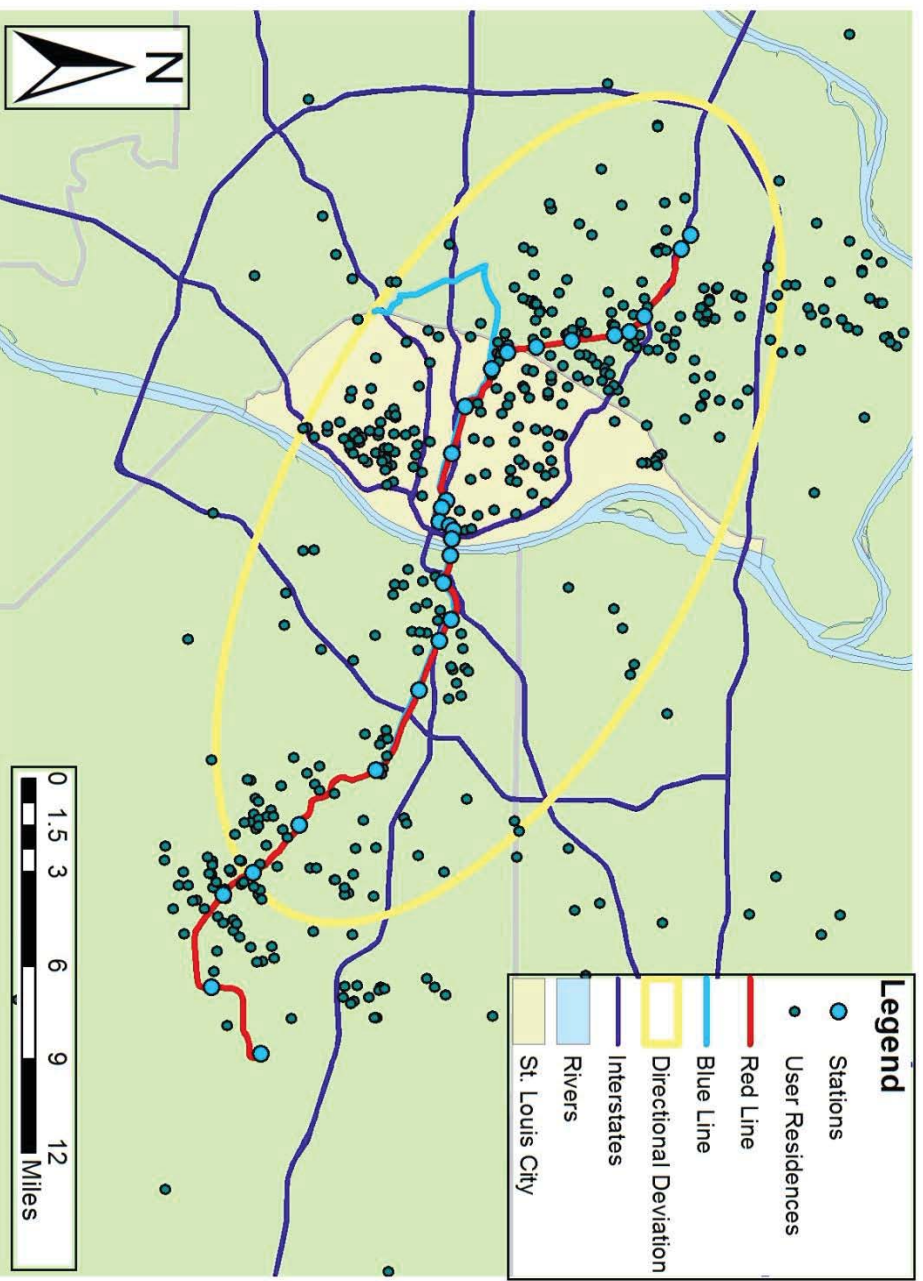


Fig. 5 – Directional Deviation of MetroLink User Residences (1 Std. Dev.)

The disposition of MetroLink users can also be investigated by finding and plotting a directional deviation oval on the locations of user residences. Here, 332 (almost precisely 68.7%) of users fall within the yellow oval, which measures approximately 30 by 13 miles and covers about 523 square miles (or 90% of the Metro system's total service area). Interestingly, the oval is almost perfectly centered in Downtown St. Louis. The shape is split almost perfectly in half by the Mississippi – about half lies in Missouri, half in Illinois. Note the Blue Line extension that would be built in a few years falls within the one standard deviation line; so though the expansion was surely aimed at serving customers deeper into St. Louis County, it did not extend far beyond the reach of the already existing market.

The two-standard deviation loop extended far enough that parts of it landed beyond the EWG area. This oval, encompassing 95% of users, extended substantially into St. Charles County and clipped northern Monroe County, Illinois.

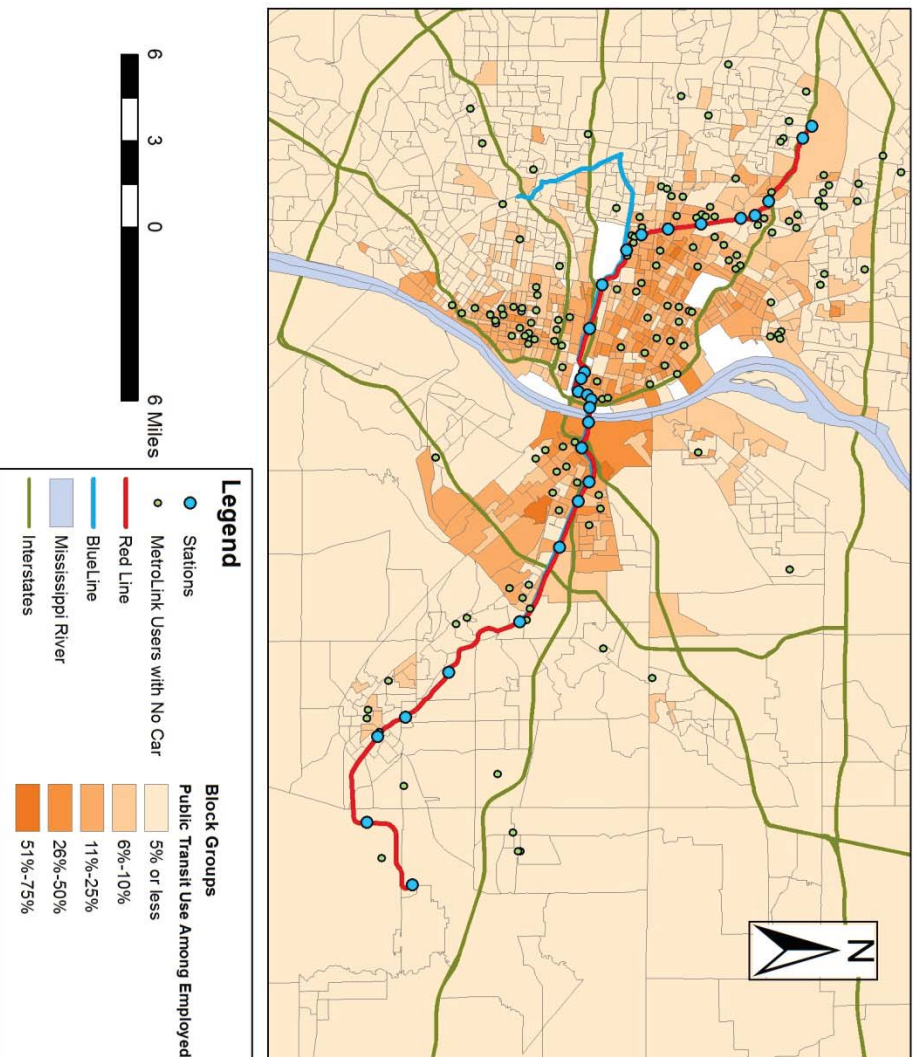


Fig. 6 -- Public Transit Use by Block Group

The system's relationship to transportation choice is depicted in more detail here. The heaviest rates of public transit use seem to occur where income is lowest – there don't appear to be many exceptions. Usage is heaviest in impoverished East St. Louis (see the income map) Meanwhile, users without access to cars are plotted here. They account for 34% of the sample. Their residences fall mostly within block groups with at least moderate transit use. This data, especially when compared with income distribution, suggests that MetroLink had not shifted transportation habits *en masse* ten years after coming on line.

Car availability was selected over possession of a driver's license because riders were asked about trips they make regularly on MetroLink, and it's assumed they usually don't have a car if they didn't when they were surveyed. Looking at car availability counts those who have a license but no car – a more inclusive measure.

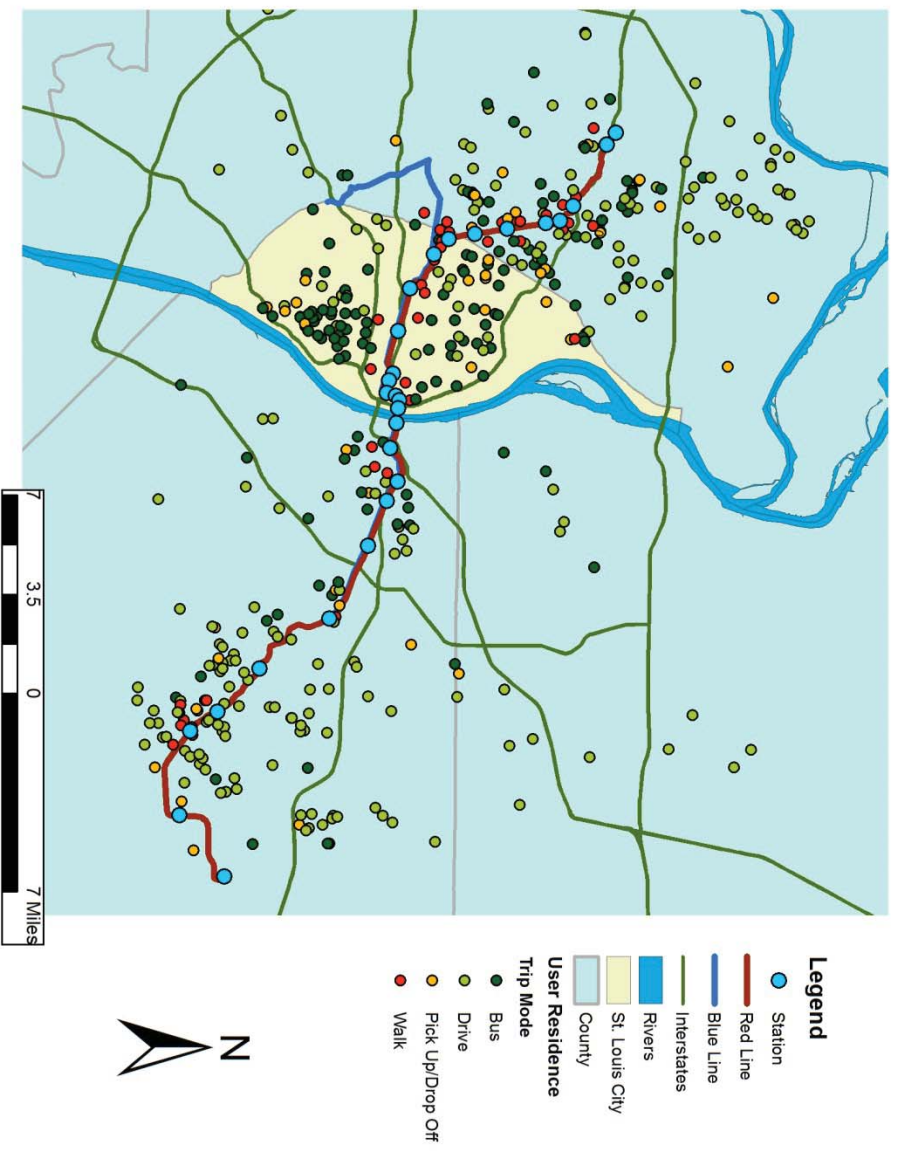


Fig. 7 – MetroLink Connection Trip Mode

The question examined above in Fig. 6 can be investigated further here. It appears most users don't go car free – most (51%) drive to/from their MetroLink stop and more are picked up or dropped off (another 10%, for a total of 61% using cars). About thirty percent make connections with a MetroBus. Nine percent walk (of those, only 28% are within a quarter mile of a stop). Of bus users, 71% had no car available, while among pedestrians 67% had no car. For those picked up/dropped off, 43% had no car. Overall, this data points to great deal of car use to make connections, while most non-automobile connections were done out of necessity.

**Table 3- Trip Mode to/from MetroLink**

| Mode             | Number of Users |
|------------------|-----------------|
| Bus              | 142             |
| Drive            | 247             |
| Pick Up/Drop Off | 51              |
| Walk             | 43              |
| <b>TOTAL</b>     | <b>483</b>      |

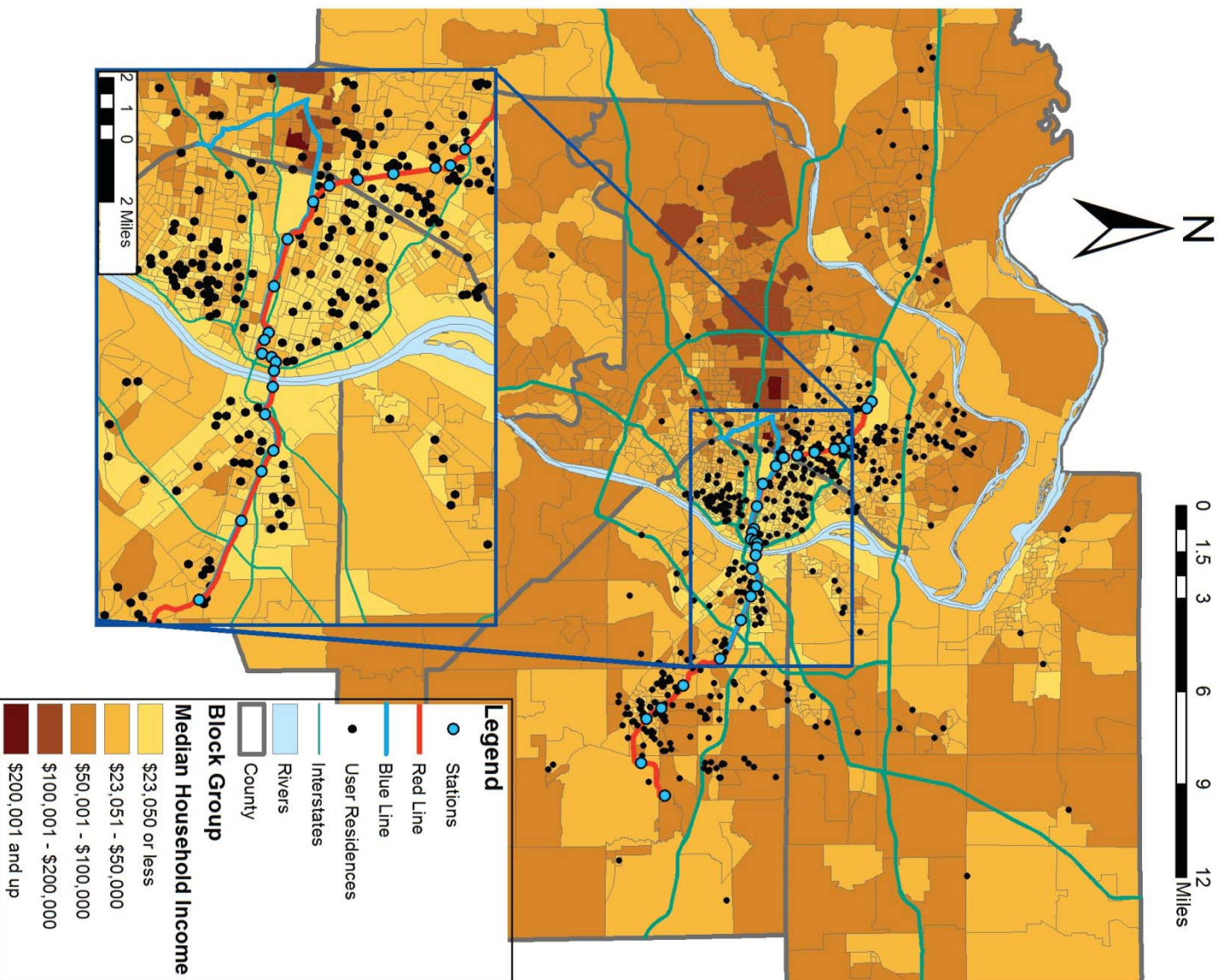


Fig. 8 – MetroLink User Residences and Block Group Income|

The median household incomes by block group are displayed in a further attempt to understand who MetroLink serves. The median household income in St. Louis as of 2010 was \$51,691, after a steady decrease during the early 2000's. The EWG data shows the bulk of MetroLink riders in the early part of the decade were from below-average block groups in terms of household income. Nearly 59% came from block groups with between \$23,050 (one of the Department of Health and Human Services' poverty lines for a family of four) and \$50,000 median household income (just below median St. Louis-area income) (US HHS 2012). Twenty-three percent, the next-largest group of riders, were from middle-class block groups. Eighteen percent came from block groups the households of which were officially poor. In all, users from below-St. Louis median income households made up nearly 77% of the sample.

Two users (5%) came from block groups where the median household income was over \$100,000.

Overall, the pattern is one that shows that MetroLink primarily serves below-average-income areas.

**Table 4 -- Users by  
BG Median  
Household Income**

| Block Group Income<br>Classes | Number of<br>Users |
|-------------------------------|--------------------|
| \$23,050 or less              | 87                 |
| \$23,051-\$50,000             | 284                |
| \$50,001-\$100,000            | 110                |
| \$100,001-\$200,000           | 2                  |
| \$200,000 and up              | 0                  |
| <b>TOTAL</b>                  | <b>483</b>         |

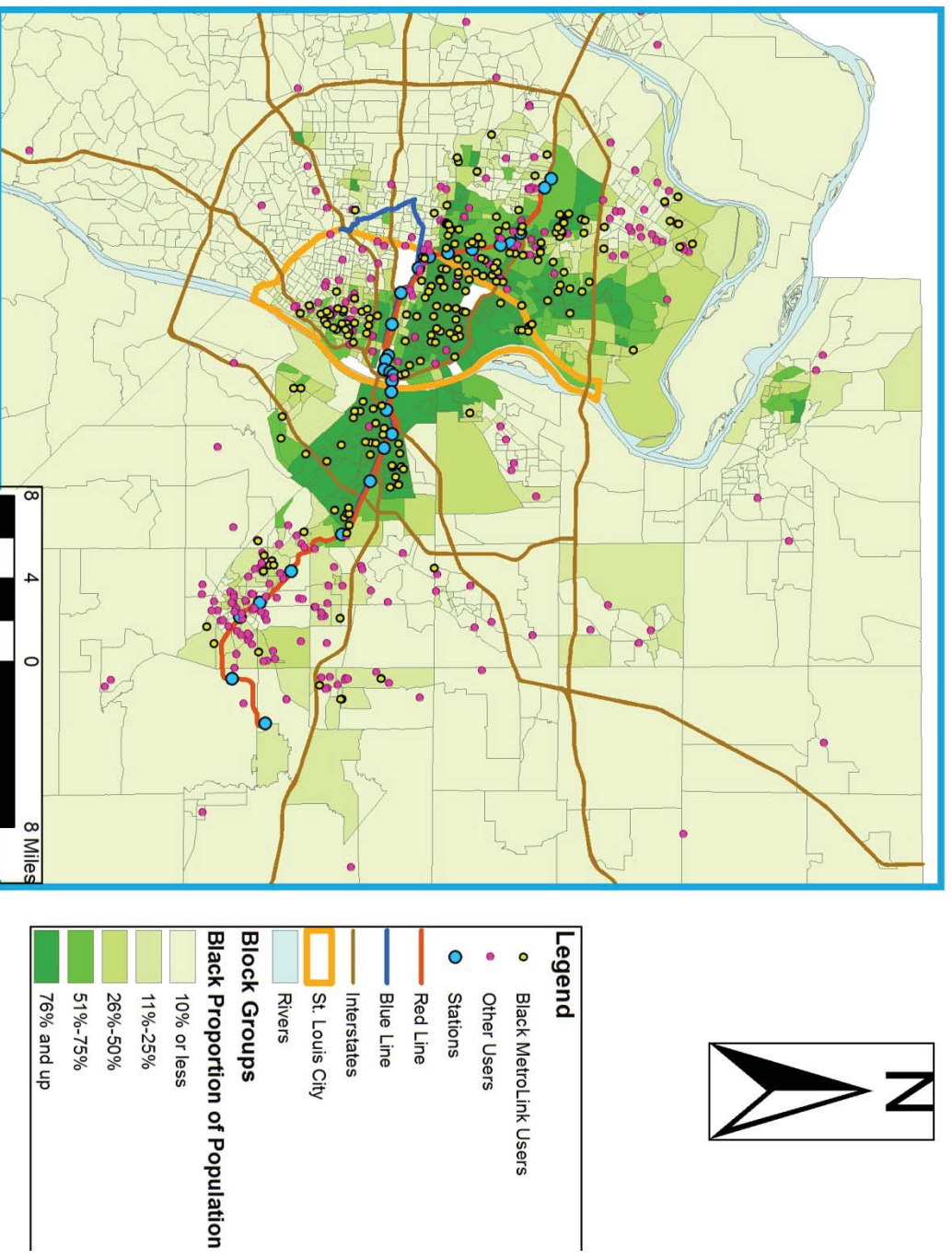


Fig. 9 – Black Population along MetroLink System

Blacks have long resided in the St. Louis area – particularly in the city proper. African-Americans accounted for 18.3 percent of the St. Louis region’s population, as of 2010 (East-West Gateway 2012, p. 22). According to the US Census Bureau, Blacks made up 48.3% of St. Louis City, as of 2011! (US Census Bureau 2012). This is seen in the map: the northern half of St. Louis City and much of St. Louis County (the “North County” district) is for the most part majority Black.

The largest group of MetroLink users in the sample (27%) came from block groups with a 76% or higher Black population. In all, thirty-seven percent came from majority-Black block groups. Forty-four percent of sample users were black (220 users); but 30% came from non-majority neighborhoods. This would seem to suggest at first that MetroLink serves primarily African-Americans. But a roughly equal number of Whites use the system, indicating the system

is shared, even if the riders of different races come from sharply separate areas of the region. And the disposition of the Blue Line extension reinforces this – St. Louis’s transit planners are extending to more White neighborhoods.

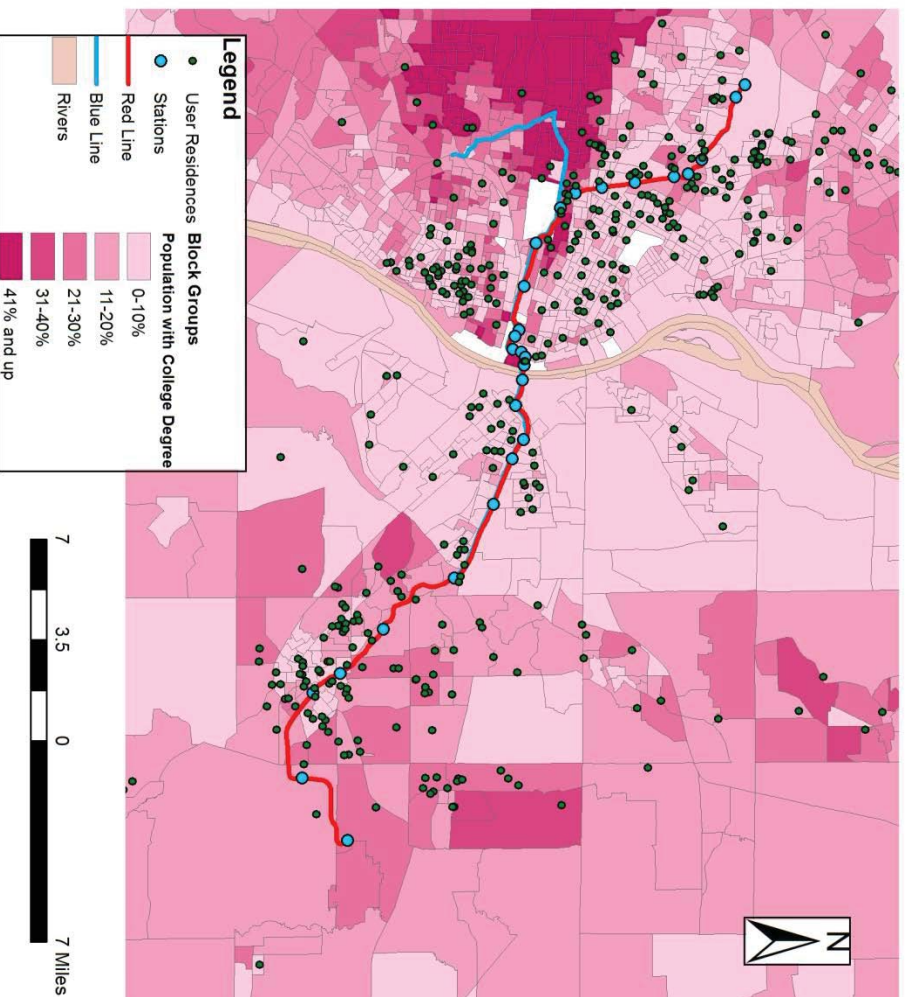


Fig. 10 – College Education by Block Group and MetroLink Users

A final metric of the characteristics of MetroLink users and their geographical disposition completes this report. Overall, the MetroLink system does not serve the highest-educated areas of the St. Louis area, though the Blue Line extension would change that. At survey time, most riders lived in districts with 20% or less college graduation rate. (This refers to the graduate having at least an Associate’s degree – the national average is 40%. [Quick & the Ed 2010]) The areas of education roughly mirror the income map above, and reinforces the thesis that MetroLink *primarily* serves below-average/underserved/disenfranchised areas of the region.

## Conclusion

The St. Louis MetroLink light rail system joins a large metropolitan region, linking ever-growing suburbs to a dwindling city center. The system, as success according to its operators, has grown considerably since its inception in 1993, and plans speak of building new lines as funding becomes available.

This analysis took a look at the system about a decade ago. Using demographic and economic data about specific users and the about the region, several characteristics of the system at the time were made visible. Overall, the MetroLink of 2003 joined suburbs and city, appearing to serve the residents of each (who were well-off and disenfranchised, respectively) sufficiently perhaps – but certainly separately.

A glimpse of the future MetroLink was provided with the alignment of the Blue Line included in most of the maps. This showed planners were putting more emphasis on suburban customers.

We have the benefit of being able to see some of the patterns in the 2003 data develop. The Blue Line is now running and is popular. Indeed, the entire system remains popular. And St. Louis continues to have growing, prospering suburbs with a still-declining, segregated inner city. MetroLink continues to speed along, its impact on all of the above still rather unclear.

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