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Perceptions, Predictions, and Barriers: The Atlanta BeltLine



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Project Overview

The goal of this research is to provide an analysis of the barriers that residents face when presented with an alternative to an established metropolitan environment. We do this by first surveying Georgia residents, both within Metro-Atlanta area and in the surrounding greater Atlanta area, regarding their choices within the built environment, their current and future predicted use of Atlanta's parks, trails, and transit systems as well as perceptions of Atlanta's proposed BeltLine project.

The purpose of this research is not simply to find out how many people in the Atlanta area approve or disapprove of the BeltLine project. Rather, it is to figure out why a project like the BeltLine is so difficult to bring to completion even if there is broad support for it, to understand how people think about the difficulty of such projects, and to consider whether people's thinking itself might contribute to that difficulty.

By investigating perceptions, predictions, and opinions that Atlanta residents have about the city and the BeltLine, we reveal some of the most intriguing relationships that emerge from the data. We identify and examine factors contributing to support, skepticism, and likely use of the proposed BeltLine parks, trails, and transit.

In addition, we pull from various contemporary authors and researchers to support or contest their BeltLine-related assertions and hypotheses. The paper makes a valid contribution, as a well-researched and unbiased social survey is not found in the literature, much less one that draws from such a range of perspectives.

Literature Review

Ryan Gravel: BeltLine—Atlanta, Design of Infrastructure (1999)

The review of literature begins at the beginning: a Georgia Institute of Technology master's thesis that evolved into the most ambitious economic development project in the city of Atlanta's history. The thesis comes to the conclusion that the city of Atlanta can greatly benefit from substantial investment in alternative transportation infrastructure, "Much the same way an infrastructure of highways led to suburban expansion and inner city depopulation in the second half of the century, an expansion of mass transit infrastructure will lead to both the revival of the inner city and the protection of our natural ecology and agricultural resources." The author, Ryan Gravel, builds this conclusion on several thoroughly researched theoretical assumptions:

The first assumption, which has support from several respected authors, states that infrastructure has a very important impact on the way residents act within the city, "Infrastructure has a dramatic impact on urban development, therefore the design of such an infrastructure should reflect the public's best interest."

The second assumption asserts that the metropolitan area should be promoted as the focal

point of Atlanta, "Metro area public policies should support downtown Atlanta as the primary and logical center of the metropolitan region". This assumption is difficult for some people; first because it assumes that new infrastructure development should be purposely designed to promote public policies, and second because it means that the cities

To what extent is there support for the project within the Metro-Atlanta region and in the surrounding greater Atlanta area?

and towns surrounding Atlanta will no longer be the dominating focal point of populationgrowth policies.

The third and fourth assumptions are that there are particular models that are suited to address an increase in city density, and that these models are appropriate for use in Atlanta.

The thesis is quick to concede that the proposed model, "does not justify light rail transit according to current ridership projections, but proposes that if the redevelopable territory associated with the BeltLine is handled appropriately, future population and employment growth on those sites will support it." Furthermore, the proposed model will benefit Atlanta because, "the central

Do residents think the BeltLine can transform Atlanta?

city has a social and political history that such a project will engage—one that divides and connects home and destination, rich and poor, black and white." While Mr. Gravel makes a compelling argument to support this assumption, we will see that it still has challengers in more than one camp.

Atlanta Development Authority: Atlanta BeltLine Project Plan of Work (2006)

The next source gives a bit more substance to the theories presented, as a thesis is translated

into a project with specific, measureable, and time-sensitive goals. The Atlanta Development Authority is the parent agency to the Atlanta BeltLine Inc. and is partially responsible for the implementation of Ryan Gravel's idea, the BeltLine project, within the city. This plan incorporates several of the research and outreaches that the ADA has conducted to better inform this economic development strategy. The three goals of greenspace, transit, and economic development are then outlined in the plan of work and include, "Transforming Atlanta, Improving quality of life, connecting neighborhoods with parks, trails, transit and transportation, ensuring growth across quadrants, and engaging the community in shaping Atlanta's future."

Which of the stated goals do people feel are most important?

Which are most needed for a better Atlanta?

What are the likely barriers to its success?

Moving forward, the work plan notes six principles that are critical to the success of the project: Securing the transit Right-of-Way, completing critical planning activities early, achieving tangible success within first five years, striving for geographic balance, ensuring financial feasibility, and maintaining a strategic reserve for unforeseen opportunities." It seems that the project sits on a strong planning base, and although recent economic troubles present serious obstacles, the project will continue to pursue its core goals.

Gerald M. Neumark: Neo-Pluralism and the BeltLine (2009)

Economic troubles, however, are not the only obstacle to the success of the project, as political scientists such as Neumark focus on the extent to which public input is being encouraged and allowed in the BeltLine policy-making process. The author takes a social justice approach by offering evidence that the policy process has become neo-pluralistic. He concludes that, "Community leaders strongly agree that the political process is being controlled, not simply facilitated, by the government, and this is what one would expect from a neo-pluralist description of the policy-making process."

The author then posits and gives evidence for two reasons elites are able to dominate the political process (and thus push their vision of the BeltLine onto residents) "The first is a

Is mass apathy towards the project apparent?

Is there a perception that political interests are dominating the project? function of their ability to garner informational sources and 'capture' government policy-makers... The second reason is a function of mass apathy, as masses allow elites to fill in the political vacuum created by this apathy" He claims that there is no specific policy goal because it is being considered simply as economic development and that "the BeltLine master planning process has been abandoned."This description of a top-down driven project is of primary concern to the author, and the arguments, when presented in combination with empirical evidence, raises legitimate concerns about whether the project is as equitable as it aims to be.

Neumark also brings up points questioning the appropriateness of the project for Atlanta, "at 4.95 persons per acre, Atlanta comes in at 256 in terms of density of American cities... for light rail to be effective, a community must have 22.5 to 31.6 persons per acre". Given this, Neumark asserts that, "The idea that development levels can be pumped up around the BeltLine to then justify a transit system to go

Is more density and transit what residents want?

Does the Beltline get people where they want to go?

around the BeltLine, or vice versa, simply doesn't get people where they want to go".

In the article, he notes the capability of residents to "take back" the project, explaining that Atlanta is unique in its political process in that Neighborhood Planning Units are given a great deal of political power and must vote on issues before they even reach the city council and, "only when community leaders take the time and effort to use their political power will the BeltLine administration listen." A lack of community engagement would certainly be a problem for local economic development to be effective, and if neighborhoods perceive that their concerns are not being heard, it could mean trouble for even the best-intentioned projects.

Dan Immergluck: Large Redevelopment Intiatiatives, Housing Values, and Gentrification (2007)

Dan Immergluck attempts to strike a similar tone, though it is nearly lost in the apparent success of the project to raise speculation on residential property values at an exceptional rate. The main focus of Immergluck's work is to investigate how the media coverage, and subsequent speculation, has altered housing values in the areas surrounding the BeltLine Tax Allocation District. "It is found that there are large increases in premiums for homes near the lower-income, southside parts of the BeltLine TIF district between 2003 and 2005, which corresponds to the initial media coverage of the planning process. The findings suggest that "planning for the BeltLine induced substantial speculation and gentrification."

As a policy tool, it is good to know that the BeltLine Tax Allocation District (TAD) does what its supposed to (raise property values to pay for the project) as well as accrue spill-over benefits to surrounding residential neighborhoods, raising property values for these areas. Immergluck found that, "residential property values for properties within one-quarter of a mile of the proposed target development area appreciated at substantially higher rates ... as much as 30 per cent more than otherwise-similar properties just a mile from the BeltLine area." The work uses an easy to understand pricing model to analyze price increases controlling for features of the property and based on distance to the BeltLine.

However, Immergluck points out that higher property values may not always be desired policy outcomes, and it is also important to consider the latent consequences of this option, which is that property taxes will also go up, likely pricing certain demographics out of the area. "Given current residential tax rates and homestead exemption levels in Atlanta, a somewhat typical

homeowner with a house worth \$100,000 in 2001 and located within an eight of a mile of the TIF would see her property tax increase from approximately \$540 in 2001 to over \$1400 by 2006." The article provides significant insight into the benefits of the economic growth perspective, as it analyzes property value increases, and at the same time provides one of the most significant critiques of the project from the perspective of social justice.

Robert Kirkman: the Ethics of Metropolitan Growth (2010)

The last piece of literature sets the foundation for identifying how residents respond to their surroundings, given Atlanta's historical, political, and physical environment. Robert Kirkman proposes that, "most of the time, we live and act automatically on the basis of decisions already made—consciously or not, by ourselves or by others—at some point in the past". In the case of Atlanta, the decisions that were made in the past established a city that is spread out and highly auto-dependent. "One of the most basic ways we make sense of our environment is rooted in our bodily experience: there are some things we are able to do, and some things we are not able to do, and the world takes shape from there". The BeltLine, according to supporters, offers an opportunity to change the physical built environment, and thus change the opportunities and constraints surrounding individuals' decisions. There are three different barriers to an individual's "ideal" action: limits of autonomy, integrity, and efficacy.

Limits of autonomy describes a difficult to identify issue with human rationality—most notably that it is bounded by our experiences and the environmental constraints placed on our ability to

What barriers might people be facing within the urban environment, and how easily are these identified? reason. To be autonomous, one must be, "capable of making unconscious choices on the basis of [their] own reasoning about what is good and what is right". For example, deep-seated assumptions, such as the notion that all teenagers should become a licensed car driver at age 16, are built into modern American society, and cause individuals to be committed to this particular core value, which makes it very convenient to leave alternative views and options out of the thought process. Using

private automobiles then becomes the status quo rather than a purposeful decision to make it one's primary form of transportation.

Limits of integrity refers to a situation in which, "commitments that are deeply entrenched in our character pull against one another and against new commitments that we have since taken on by choice." For example, an individual may want to move closer to their place of work, but may also want to be in the best school district they can afford. This creates an internal conflict and projects that otherwise would be pursued end up taking the theoretical back seat.

Limits of efficacy involves, "learning what we can and cannot do given the relationship between our bodies and our environment" and is often the most recognizable limitation to ethical action, because it, like limits of autonomy, shifts control of the action process away from the decision maker. For example, a person may want to ride public transit to avoid traffic, however their options are limited given their current location or job requirements. All of these limitations act as barriers during different stages of the decision-making process and make it difficult to identify which impediment is curtailing a project.

Literature Review Conclusion

The underlying theory for the BeltLine is traced back to its roots in a thesis by Ryan Gravel, which sets the tone by outlining the goals of such an ambitious project. Since infrastructure has the ability to shape how residents live within the urban environment, Gravel posits a project that increases the city's ability to handle increasing urban density in an attempt to meet the needs of the public. The model that was chosen aims to connect the disjointed and divided center of the metropolitan region through a transit loop, promoting it as the primary hub for government, culture, and business.

The literature above is a sample of the most applicable to this research. The greater literature can be similarly grouped based on the lens they used to assess the BeltLine project. Concerns about the quality of life for residents, remediation of contaminated land, expansion of parks, trails, and green space, and the shift to a less auto-dependent city were often used to argue in favor of the project and took an environmentally-conscious perspective. Other perspectives, like economic growth, have a more diverse range of support for the project. The apparent success of the project to induce speculation and raised property values was short-lived as recent housing market troubles have caused the primary funding mechanism, based on tax revenue, to be less abundant. Given this circumstance, concerns about the maintenance costs of the proposed new park spaces are also being discussed. Those authors that addressed the social justice aspect of the project often touted the promotion of access across the divided quadrants of the city while simultaneous expressing concern about gentrification resulting from rising property values, and the perceived lack of public engagement and equal distribution of benefits as the project is implemented.

This paper maintains that all of the above mentioned perspectives are important concerns. For such an ambitious project, a holistic view of its impacts, good and bad, are a necessity. In theory, this investment in infrastructure has overwhelming support as it can meet the needs of all three camps; however in practice the literature has already outlined specific reservations and potential shortcomings moving forward.

This research addresses several of the critiques raised by contemporary authors in the field, using the data available to support or contest the findings on both sides of the discourse. In addition to contributing to the much-needed policy literature, results could be used by the ADA and ABI to focus and better articulate policy goals on the issues people care about. It gauges public perception of the project, facilitates public engagement, and better informs the implementing agency as to whether the policy is fulfilling the preferences of the people and meeting expectations. It might also be useful for describing the intended and unintended consequences of the project, and allow for future policies with similar strategies to benchmark the aspects that are effective.

Method of Analysis

Since this is a public project, we proposed an analysis of public perceptions to better inform the diverse participatory agencies of their perceived progress and potential barriers to success. Other methods of analysis can be achieved through secondary analysis of data (housing values, costs to the tax payer, etc.) but can only provide part of the picture. The method of analysis chosen for this study is self-administered online questionnaires, which were given to members of the general population of Atlanta with varying knowledge of the project. With responses pertaining to how often respondents would use the proposed public goods, and factors that impede more frequent use, we can get a better understanding of whether the project is perceived as applicable to the general population.

This method of survey analysis, naturally, has its strengths and weaknesses. There is the obvious selection bias, as respondents with internet access were the recipient of the survey. Also, this particular method of gathering information does not lend itself well to open-ended questions, so questions had to be carefully designed to be comprehensive. Still, there are obvious benefits to using this method, as it is inexpensive and yields consistent results across each sample. In addition, the amount of responses allows for reliable trends to be identified. Finally, given the large sample, the data can be quantitatively coded and analyzed to reveal even more commonalities across and between responses.

After more than a year of preparatory work, we administered the online survey in the summer of 2009. We asked 37 questions in all, gathering data on participants' backgrounds, their opinions about the Atlanta region as it is and as it may be, and their attitudes and expectations about the BeltLine project. We administered two versions of the survey, which differed only in the information provided about the BeltLine project itself: one included a text description of the BeltLine, the other included both a text description and a very general map of the proposed route.

We receive 946 responses from all over the region, of which more than 90% were able to be used for quantitative analysis. Preliminary analysis began by coding responses according to either a nominal, scale, or index measurement. Some questions were more easily applied to this analysis, for example, a question asking whether the respondent agreed with a statement could be coded on a likert scale of "strongly agree" which would receive a 7, through a neutral response "neither agree nor disagree" which would receive a 4, and finally "strongly disagree" which would receive a score of 1.

Coding all of the questions in this way allowed us to identify correlations between questions, for example noting that those with higher income levels identified as being more familiar with the project, or that those who supported the BeltLine project were more likely to prefer to live in a city that has been transformed to have more density, green space, and transit. We also looked simultaneously at responses to questions to identify trends within and between different questions, which allowed us to identify peculiar trends that otherwise would not be captured in the correlation analysis. A table of the coding scheme is included in Appendix 1 of this paper, along with a full list of survey questions.

Background on Respondents

It might be useful to highlight the demographics of respondents to provide some context to the responses. The following variables (See Below) help us to understand the particular environment that respondents live in, and ensure that the data is representative enough to make assumptions about the broader Atlanta population. Of the usable responses,

approximately 1/3 of respondents gave a zip code that was within the Atlanta-metro area, and the remaining responses were from the greater Atlanta area. Unless otherwise specified, the analysis presented is conducted on all of the responses. The average age of all respondents

Demographics	Mean	Range
Years of Education	14.98	10 - 18
Age (in Years)	49.42	25 -70
Total Household Income (in Dollars)	\$67,062.21	\$20,000 - \$160,000
Numbers of Cars in Household	1.92	0 – 5
Years lived in the Atlanta Area	15.35	1 -20
Years at Current Residence	8.89	1 – 20
Daily Round-Trip Commute (Minutes)	45.42	0 - 480
Number of People in Household	2.53	1 – 6

was 49 years old. The number of cars owned was a little below two per household, and the average education attained by respondents was 15 years, the equivalent of "some college". Most respondents have lived in the Atlanta area for an average of 15 years, while the average number of years at their current residence was almost 9 years. Average household income was about \$67,000 and the average daily round trip commutes ranged from 0 minutes to 480 minutes with the average being around 45 minutes.

One of the benefits of obtaining quantitative data with a large sample size is that responses can be coded and correlated to see if there are useful interactions between variables. Below is a chart with some interesting correlations between the demographic variables and a few of the variables explored in the research. For example, we find that respondents who have more years of education, a higher household income, and have lived in the Atlanta area longer tend to be more familiar with the BeltLine project. In contrast, we find that familiarity with the

	BeltLine approval	Prefer an Atlanta with more density, transit, etc.	Believe the BeltLine will be transformative	Familiarity with the BeltLine
BeltLine approval	1	+0.30*	+0.60*	-0.04
Years of Education	-0.03	+0.08	-0.03	+0.20*
Household Income	-0.04	-0.00	-0.06	+0.15*
Age	-0.10*	-0.05	-0.12*	-0.25*
Years lived in the Atlanta area	-0.07	-0.06	-0.05	+0.17*
Years at current residence	-0.12*	-0.10*	-0.08*	+0.16*
Number of cars owned	-0.01	-0.04	-0.07*	-0.02
Round-Trip Commute	-0.06	-0.02	-0.00	-0.06

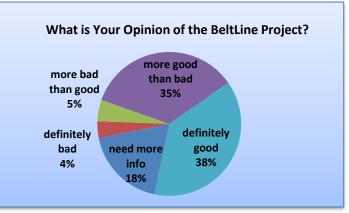
BeltLine seems to have no effect on whether the respondent approves of the project or not.

Public Support of BeltLine Project

The focus of this report far exceeds a simple public opinion survey, where respondents are asked whether or not they are in favor of a project. However, we do that too. This first section was included for the purpose of determining if there is general public support for the project within the Atlanta-Metro area and in the surrounding greater Atlanta area.

We asked respondents if they think the BeltLine project is a good idea or a bad idea, and found

a significant amount of support from the general population. 38% of respondents said that it was definitely a good idea, and another 35% thought it was more good than bad. About 5% responded that it was more bad than good, and only 4%, or 32 people, responded that it was definitely a bad idea. The remaining responses decided they needed more information before forming their opinion. This means that almost $\frac{3}{4}$ of respondents have a favorable



"Almost ¾ of respondents have a favorable opinion of the BeltLine, and the largest remaining group simply has not made up their minds yet." opinion of the BeltLine, and the largest remaining group simply has not made up their minds yet.

We analyzed this same question while controlling for people who live within the Atlanta-metro region, as opposed to the greater Atlanta area, and found that the rate of agreement is only slightly higher. Regardless of how close people live to the BeltLine development, there appears to be very strong support for the project.

When asked to speculate as to what *others* think about the BeltLine project, responses shift quite a bit. About 20% still are not sure, and similarly to personal opinion, about 7% say that it is a bad idea. *However, only 23% of respondents say that others think it's a good idea,*

"However, only 23% of respondents say that others think it's a good idea, compared to the 73% that self-identified as thinking it is at least more good than bad." compared to the 73% that self-identified as thinking it is at least more good than bad. There are a couple possible explanations for this. Respondents were given two new choices that likely drew responses away from a more optimistic guess. 30% stated that people are evenly divided in their opinions and the remaining 18% decided that most Atlantans probably don't know or care about the BeltLine right now. A more critical analyst may posit that this question reveals a response that the

respondent might be too polite to answer by themselves; however the anonymity of the survey method makes this unlikely. More likely is that the respondent expects that the BeltLine, like most other public issues, has people arguing for both sides and others who are uninformed or apathetic.

Expected Use of Parks and Transit

One of the largest critiques of the transit portion of the BeltLine project is that based on current public transit trends, there will not be enough ridership to effectively support a new transit rail. This next section examines how often respondents expect to use the proposed parks, trails, and transit, and compares it to how often they expect others will use them.

Respondents were asked to predict their use of the proposed BeltLine transit rail, assuming the

project is completed as planned. When examining the overall trend, we find that nearly 40% of all respondents claim they will probably never use the transit rail. In contrast, if we look just at residents within the Atlantametro area, that percentage drops to 28%. From the break-down comparison (right) it is clear that the metro

Expected Transit Use Free	Metro Only	
Probably never	39.7%	28.2%
Several times per year	31.4%	27.3%
Several times per month	15.3%	22.9%
Several times per week	13.2%	21.6%

"While the overall sample has only 28% of people expecting to be frequent riders, 45% of respondents within the metro Atlanta area expect to be frequent riders of the BeltLine transit" residents expect to use the transit rail more often than the general population. To emphasize the difference between these two results, we could split the responses into frequent and infrequent riders, with those riding monthly and weekly being frequent riders, and *find that while the overall sample has only 28% of people expecting to be frequent riders, 45% of respondents within the metro Atlanta area expect to be frequent riders of the BeltLine transit.* It is difficult to draw any definitive ridership numbers from this question, however it does bring to light to what extent residents expect to incorporate the transit rail into their routines.

Expected frequency of park visits follows a similar trend as transit use, with 37% of respondents who claimed that they would probably never visit a BeltLine park. Of the remaining individuals who plan on visiting the parks, 38% said they would visit several times per year, 17% said they

would visit several times per month, and 7% said they would visit several times per week. Again, we compared this overall response to those responses with Metro-Atlanta zip codes (right) and found that park visit increased greatly. If responses were divided up by infrequent visitors and frequent visitors, we find that about 25% of the general sample expect to be frequent

Expected Park Visit Freq	Metro Only	
Probably never	37.2%	21.4%
Several times per year	38.4%	39.9%
Several times per month	16.9%	24.7%
Several times per week	7.5%	1 4.0 %

visitors of the BeltLine parks, whereas 39% of respondents in the Atlanta-Metro expect to visit the parks several times per month or per week.

Both of these questions can be compared with corresponding questions about how often they expect others will use the parks and transit. When asked how often they expected other people will use the transit, 57% of respondents assert that many people will regularly ride the BeltLine and 11% stated that few people will ride the BeltLine, while the remaining 31% have no guess. A similar story is found when respondents were asked to predict how often other people will visit the BeltLine parks, with 62% of respondents asserting that many people will visit the BeltLine parks, 10% claiming that few people will visit the parks, and 28% having no guess.

both cases, there appears to be a noticeable discrepancy between how often people expect they will use the BeltLine parks and transit and how often they expect others will use the parks and transit.

Barriers to Park and Transit Use

As discussed earlier, one focus of this paper is to identify what factors prevent individuals from changing their behavior within the constraints of their environment. Sometimes these factors are internal and represent a choice of one interest over another, for example, the desire to wake up later and drive to work as opposed to waking up earlier to adjust to a public transit schedule. Other times, these constraints are external, such as living in an area that is not serviced by any reasonable public transit. This next section investigates what may prevent people from using the parks, trails, and transit, both recreationally and as a part of their routine.

This analysis is useful for determining what it is that might keep people from using the BeltLine parks and transit more frequently, and the two most distinguished responses (right) are that residents either live too far from the parks and transit, or that they do not know where the parks will be or where the transit loop will go. In fact, these two

Main Reason for Not Visiting Parks More Frequently	
I live too far from the parks	36.4%
I'm uncertain about where the BeltLine parks will be	29.8%
I wouldn't feel safe	12.4%
I don't use public parks very often	12.1%
I'm uncertain about how nice the parks will be	8.7%

categories make up 66% of the reason why individuals predict they will not visit parks more frequently and 73% of why individuals predict they will not ride transit more frequently.

Concerning park visits, 12% of respondents claim that they would not feel safe visiting the proposed BeltLine parks, 9% are uncertain how nice the parks will be, and the last 12% simply do not use public parks very often. Concerning the

Main Reason for Not Riding Transit More Frequently		
I'm uncertain that it will go where I want to go	38.5%	52.0%
The BeltLine is too far out of my way	35.5%	17.2%
I'm uncertain about the costs of using the BeltLine	10.5%	17.2%
I wouldn't feel safe	7.6%	5.7%
I do not like public transit	7.1%	7.8%

transit loop, 11% are uncertain about the costs, 8% wouldn't feel safe riding the BeltLine transit

"The largest concern that emerged was uncertainty about where the BeltLine transit will go, and if it is where the respondent will want to go, accounting for over half of respondent reluctance in the metro area" loop, and 7% simply do not like riding public transit. To hone in on those respondents that would be most directly affected by the new development, we took a closer look at the respondents with Metro-Atlanta zip codes and found that these numbers do change quite a bit (above). The percent of respondents claiming that the BeltLine is too far out of their way dropped in half, and those who are unsure of the costs became more frequent. The largest concern that emerged was uncertainty about where the BeltLine transit will go, and if it is where the respondent will want to go, accounting for over half of respondent reluctance in the metro area. This suggests that there is skepticism about what destinations will be available once the loop is

created, since presumably residents have some idea of the places they might want to go.

Barriers within the Built Environment

The scope of this project also spans past BeltLine concerns to explore more general ways that people are constrained in their choices. By examining the context in which they make decisions, we can more effectively identify which factors are preventing them from a lifestyle change, or at least to find out which barriers they perceive to be the most important in shaping the actions that make up their daily lives.

To explore some preliminary findings leading up to the survey, we included a question

inquiring why respondents live in their current location, with the focus of the question on barriers preventing them from moving to another location. The results were so evenly dispersed that it warrants a chart (right). The lack of a most frequent answer is an interesting result, and suggests that the barriers within the built environment are indeed

ca	uning up to the survey, we included a questic	///
	Main Reason for Living in Current Location	
	Some other reason	22.9%
	Housing market conditions	19.4%
	I just moved here, and don't want to move again	14.0%
	Better locations are unaffordable	12.8%
	I'm just not able to move	10.5%
	My current or future job status is too uncertain	8.1%
	I am currently trying to move	6.6%
	Better locations do not have my preferred housing/schools	4.9%

abundant and complex, but it appears that internal barriers to integrity are less often cited than barriers to efficacy, especially regarding external economic barriers.

To analyze the commute portion, we looked at the reasons respondents chose for staying in their current commute, as opposed pursuing another method of getting to and from work. The

results were surprising, as a quarter of respondents expressed that they did not have any other alternatives available to them, and almost 1/10 admitted that they were not aware of any other commute alternatives. This suggests that if lack of access is the primary barrier to the individual not changing their commute, that there may be an unmet demand. Other responses, such as other methods

Main Reason for Continuing in Current Commute		Metro Only
I don't have other commute options available to me	25.6%	16.2%
Some other reason	22.6%	23.2%
Other ways of commuting would take too long	16.0%	26.1%
My job demands that I use my current method	15.3%	11.2%
I don't know of any commute alternatives for me	9.0%	8.7%
Other ways of commuting would cost too much	5.1%	7.9%
I am currently changing my commute	3.3%	5.8%
I just changed my commute	1.3%	0.8%

taking too long or being too expensive, suggest that the barrier is more a matter of choice than external constraints.

"Some barriers are more easily identified than other barriers, and also that they are likely layered, so as one barrier is removed ... other barriers are revealed" When we hone in on Metro-Atlantan respondents (above), we find an extremely interesting reversal of response rates. Among Metro-residents, the main reason they stay in their current commute is that other methods would take too long, in contrast to the general population whose main reason is that other commute alternatives are not available. In fact, these two response rates reverse when looking at the Metro-Only responses. *This suggests that some barriers are more easily identified than other barriers, and also that they are likely*

layered, so as one barrier is removed (such as availability of commute alternatives), other barriers are revealed (such as internal conflict over time constraints).

Too Few Alternatives, Too Few Roads, Too Many People

We probe further into possible sources of to gather a better understand of how residents perceive Atlanta's current urban form by investigating people's opinions of traffic and likely future transit ease. By doing this, we can gauge to what extent residents feel they are stuck with the cities as they are now. When asked why traffic was a problem in Atlanta, the largest percentage of respondents blamed too few alternatives to driving as the source in both the

general and the Metro sample (right). The next most popular sources of traffic were too many people and poorly designed roads. In the metro sample, people were less likely to put the blame on too many people and slightly more likely to

Traffic in Atlanta is a Problem Mainly Because…		Metro Only
Too few alternatives to driving	30.6%	32.0%
Too many people	20.6%	15.2%
Roads are too few, badly designed, or poorly maintained	18.2%	16.4%
Jobs, schools, and shopping are located far apart	10.1%	13.5%
The way things go: traffic always gets worse	8.0%	5.3%
People's love of driving	6.8%	1 0.2%
Decisions people make about where to live or start a business	5.6%	7.4%

instead blame the spread out nature of Atlanta's jobs, schools, and shopping as well as people's love of driving. Overall, these findings show that a plurality of respondents believes if Atlanta had better alternative transportation, traffic would be less of a problem.

We were also curious about how the respondents perceive the trajectory of the city's overall Quality Of Life (QOL) and future transit ease. Before introducing the BeltLine, we asked whether

they thought QOL and transit would get better or worse in the next 5 years, without making reference to, or giving any information about the proposed project. The results are strikingly pessimistic. Among just Metroresidents, there is slightly less pessimism, but trends do not differ significantly (right). In the general sample, 79% of Atlantans expect that Quality of Life will stay the same

In your opinion, will the following get better or worse in Atlanta in the next 5 years?	Quality of Life	Transit Ease
Don't know	8.2%	4.8%
Get worse/harder	47.7%	70.0%
Stay about the same	31.0%	19.4%
Get better/easier	13.1%	5.7%

"70% of respondents expecting that it will be harder to get around Atlanta in 5 years ... Nearly half of all respondents expect that QOL will get worse" or get worse in the next 5

years. Nearly half of all respondents expect that QOL will get worse. Predictions about getting around Atlanta in the next 5 years are even more pessimistic, as 89% believe transit will either stay the same or get harder, with 70% of respondents expecting that it will be harder to get around Atlanta in 5 years. Since so few people cited "traffic always gets worse" as a reason for traffic congestion in Atlanta, there must be some other factor(s) invoking

this very widely held assumption that transit ease and quality of life in Atlanta are decreasing. Perhaps the answer is a similar story to what the respondents are telling us already: It will be

harder to get around in Atlanta if there are too few roads, too few alternatives to driving, and too many people.

The BeltLine Might Give Atlanta What it Needs

We return to the BeltLine as the most likely candidate for easing Atlanta's traffic problems. Though the stated goals of the BeltLine project are relatively clear, as outlined in the literature review, it is important from a research and public engagement standpoint to identify which aspects of the project are most important to the individual respondents.

When asked which part of the BeltLine is most important to them, 36% stated the most

important part of the BeltLine was that it would provide more public transit options. Another 28% stated that revitalizing neighborhoods was most important to them, and the third most frequent response was that the BeltLine would convert old industrial parks into green space. Curiously, the costs of the project and the impact on future school funding made up only small percentages of responses, which suggest

Which part of the BeltLine is most important to	o you?
More public transit options	36.4%
Revitalizing neighborhoods near the BeltLine	27.5%
Converting old industrial areas to parks	18.4%
More workforce housing	5.2%
Impacts on future school funding	4.8%
The project is not applicable to me	3.6%
Higher density housing	3.1%
Other (costs, crime, sustainability, tourism)	1.0%

that the benefits of the project are a larger concern for the overall sample.

In addition to investigating the general public perception of the project goals, we are also interested in its perceived ability to accomplish those goals. Just like people have barriers to actions, public projects can be similarly stuck.

When asked about the likely size of the project, we found that 29% of respondents believe that the project will be built as planned, 17% expect it will fall far short of the current plan, 13%

believe it will be smaller than planned, and 13% believe it will be larger than planned. Among respondents that expect the project to be larger than planned, the most important part of the BeltLine is public transit options, whereas among respondents expecting the project to be smaller, the most important priority also includes revitalizing neighborhoods. Those who think the project is a



good idea were more likely to predict that the project will be as large or larger than planned.

To get a better idea of why the project might be different than planned, we looked at the respondents who predicted the BeltLine would be smaller (or much smaller) than planned (below). The most frequent explanation is that the project will run into financial problems, followed by the prediction that special interests would ruin the project. Legal and engineering obstacles make up less than 10%, and general skepticism about these types of projects

accounts for only 5% of

responses. These results suggest that financial issues and special interests are the two largest anticipated threats to the BeltLine project's success, and that 30% of respondents think it is likely that these barriers will cause the project to be smaller than planned.

Why do you think the project will not go as planned?	
The project will run into financial problems	56.4%
Powerful special interests will ruin the project	17.8%
Residents and politicians won't support it	10.2%
There will be too many legal obstacles	5.7%
Projects like this rarely succeed	5.3%
There will be too many technical obstacles	3.0%

Next, we gauge to what extent the BeltLine will be able to transform the city into one with more green space, more public transit, and denser urban neighborhoods. When asked if they

thought the completed BeltLine project would transform Atlanta, a quarter of respondents are positive that the project will be transformative, and a little less than half think that it might transform Altanta, leaving around 20% of respondents who are unsure, skeptical,

or project will not transform "With 70% of respondents thinking that the project might be able to transform Atlanta according to the project's stated goals, it appears that the pessimism from the transit ease and

quality of life questions has been mitigated."

Will the BeltLine Transform Atlanta?		
No, it won't	4.5%	
Doubtful	16.9%	
Maybe	45.5%	
Yes, definitely	24.7%	

Atlanta. With 70% of respondents thinking that the project might be able to transform Atlanta according to the project's stated goals, it appears that the pessimism from the transit ease and quality of life questions has been mitigated.

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confident that

Later in the survey, we asked respondents to consider what Atlanta could look like in 50 years. We then gave them two decisive choices: "an Atlanta locked in to look as it does today", or "an

Atlanta that has been transformed by the BeltLine into a city with higher density, more public transit, slower automobile traffic, more parks, and higher housing costs." The results of this ultimatum are more favorable towards a BeltLine-Atlanta than expected. More than half of respondents chose an Atlanta with more density and transit, even with stipulation that automobile traffic would be likely be slower and housing costs will be higher. Another quarter of respondents are simply indifferent to the two choices, and one-fifth would prefer an

ľm indifferent Atlanta 25% with much more Atlanta "as density it is today' and transit 20% 55%

Atlanta as it is today. The purpose of this question was to determine if the whole BeltLine

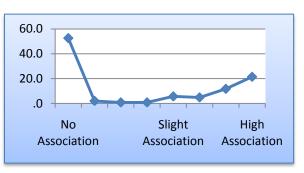
"The purpose of this question was to determine if the whole BeltLine package is the kind of transformation that residents want for Atlanta... More than half of respondents chose an Atlanta with more density and transit."

package is the kind of transformation that residents want for Atlanta, even if this means being stuck in with slower automobile traffic and higher housing costs. When we compare this general sample to the Metro-Atlanta residents, we find even higher percentages of respondents

choosing an Atlanta with much more density and transit.

Next, we created an index to indicate whether or not respondents connected the goals of the

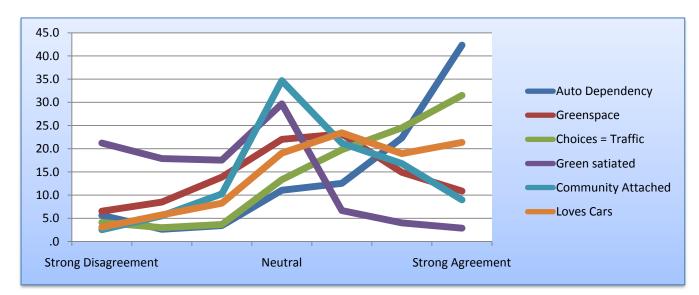
BeltLine project to their own personal opinions of what Atlanta needs to become a better city. If respondents were consistent across pairs of responses, their association scores were higher. For example, if an individual responded that Atlanta is too auto-dependent, and then identified the most important aspect of the BeltLine project as providing alternative transit, they scored high on the index. The results are mixed, as most people made no



connection between what Atlanta needs and what they think the BeltLine could provide.

Finally, we wanted a way to quickly express the varying levels of agreements that respondents had towards several prompted statements. The purpose of these questions was to better understand how residents viewed Atlanta as an urban environment. Respondents were asked to state their level of agreement with the following six statements:

- "Atlanta is too automobile dependent"
- "Atlanta is a very green city it has lots of parks, trees, green space, etc"
- "People's choices about where they live contribute to traffic congestion"
- "Atlantans already have all the parks and green space they want"
- "Most Atlantans like their current community too much to move"



• "Most Atlantans like their cars too much to ride transit"

Each respondent's response on the scale of agreement was recorded and summed with other respective agreements for each statement. The resulting chart (above) has colored lines representing the different statements. On the vertical axis is the cumulative percent of responses for each of the levels of agreement listed on the horizontal axis. For example, the first dark blue line represents agreement with the statement "Atlanta is too automobile dependent" and shows that response rates went up sharply at the end, meaning that over 40%

of people strongly agreed with that statement. We believe this information will be useful, going forward, in determining what extent respondents can imagine and work toward cities and towns that might be better for them and for their communities.

Conclusion

The BeltLine has come in and out of the city's focus since it was first thought up as a master's thesis. All the while it was evolving from a set of plans to a new urbanism philosophy of how the city should look. Supporters say it will revitalize the city, promote economic growth, and improve quality of life for future generations, while skeptics say it will not—and that it will cost the city too much money besides. Mixed into all of this is the role of planners and policymakers, who must decide whether this project is worth pursing and through which means. Finally, the growing unease of the 70% of respondents who expect it will be harder to get around Atlanta in 5 years, and nearly half who fear Quality of Life will get worse.

To understand the usefulness of the conclusions of this research, one must first understand what the BeltLine is supposed to do for Atlanta. Atlanta's first claim to fame was as a train station hub for the South, which is particularly important because it was the first set of heavy infrastructure that shaped the landscape, and in turn, the way residents decided to build and use the city. For years the trains served the textile and agriculture industries in the South and the growth triggered the need for large interstates to connect the north and west to the south. These highways, which facilitate a vastly dispersed greater Atlanta area, are one of the largest contributors to Atlanta's dominant urban form. In support of this, we found that people generally agreed that the choices people make about where to live and work contribute to traffic congestion. Still, only 16% of the general sample and 21% of the Metro-Atlanta sample identify the spread out nature of Atlanta or people's decisions as direct causes of traffic problems. Instead, we found that the largest two barriers, accounting for half of the general sample, is that there are too few alternatives to driving and that there are too many people. However, this is not the first time Atlanta has faced this same predicament.

After the highway boom caused Atlanta to become more populated, the MARTA transit system was installed to help people travel to and from the outskirts of the continuously sprawling city. We further investigated what barriers residents face within the urban environment and found that among Metro-residents, the main reason they stay in their current commute is that other methods would take too long, in contrast to the general population whose main reason is that other commute alternatives are not available. We posit that this is a result of layered barriers, and as one barrier is removed, such as Metro-Atlantans having more access to alternative transportation, the next barrier is revealed in that it is perceived as taking too long. This is an important finding because it suggests that changing actions is not as simple as removing the largest barrier to action, as the "largest" barrier to action at the time may just be the most easily identifiable one.

The BeltLine's proposed transit loop reuses the largely abandoned rail lines that surround the core of the city, transforming the minimally useful MARTA cross shape into an interconnected crosshair of access. As the project has evolved, additions have been made that make the project about more than just transit—affordable housing for Atlanta's growing workforce, new parks and green space where industrial sites used to be, and trails connecting it all. Of these stated goals, we found that more public transit options, revitalizing neighborhoods near the BeltLine, and converting industrial areas into parks are, respectively, the most important to residents.

We then connected the project goals with how the BeltLine will be used at a more personal level and found that while the overall sample has only 28% of people expecting to be frequent riders, 45% of respondents within the metro Atlanta area expect to ride the BeltLine transit several times per month or per week. Further, 25% of the general sample expect to be frequent visitors of the BeltLine parks, whereas 39% of respondents in the Atlanta-Metro expect to visit the parks several times per month or per week.

When prompted about the barriers that may prevent them from using the transit more often, the largest concern that emerged was uncertainty about where the BeltLine transit will go, and if it is where the respondent will want to go, accounting for over half of respondent reluctance in the metro area. We examined this particular response further and found that those who were uncertain about where the BeltLine transit will go were no less familiar with the project than others, nor did it make a difference if they had a map of the proposed BeltLine to reference! This leads us to draw the conclusion that location uncertainty has less to do with location and more to do with destination; that respondents are unsure that the transit will take them where they want to go at the time.

Finally, we investigated how respondents perceive barriers to the BeltLine's success and note that more than half of all respondents who believe the project will be smaller than planned predict it will run into some kind of financial trouble. This is surprisingly accurate, as the fate of the Tax Allocation Bond is still unknown, as of the time of this writing, given the recent economic downturn in the housing market. There are mixed findings in relation to Neumark's hypothesis of neo-pluralistic policymaking, as resident apathy is supported by 18% of respondents revealing that most Atlantans probably don't know or care about the BeltLine right now, and another 1/5 of respondents believe the project will be smaller than planned because it will be ruined by special interests.

Still, the findings show significant support for the project, both in philosophy and in practice: 73% of the general sample think the project is a good idea, and given the choice between an Atlanta "as it is today" and an Atlanta that has been transformed by the BeltLine, more than half prefer Atlanta with much more density and transit. Furthermore, 70% of respondents think that the project might be able to transform Atlanta according to the project's stated goals, which is in strong contrast to the pessimistic predictions on Quality of Life and transit ease in Atlanta before the project was introduced to the respondent. Curiously, there is skepticism about the support of others, with the majority believing that others are evenly divided and only 23% of respondents saying that others think its a good idea.

Our findings attempt to demystify the views held by residents within and surrounding the metro-area, comparing Atlanta as it is today, to an Atlanta with a BeltLine. It is our hopes that the findings will be useful for anyone interested in the BeltLine, as well as more broad applications of the perceptions of large-scale development projects on the greater public. The results may be used to better understand and engage residents, to inform decision-makers of the opportunities and potential pitfalls associated with the project, and establish a general method by which to examine infrastructure projects in a multidisciplinary nature. Regardless of the use, the project facilitates a conversation about the extent to which residents and policymakers can work towards cities and towns we think might be better for us and for our communities.

References

Atlanta Development Authority, "BeltLine Public Budgetary Work Plan July 5, 2006". <BeltLine.org/ResourceLibrary>

Gravel, Ryan A. "BeltLine – Atlanta Design of Infrastructure." December 1999. Master Thesis Georgia Institute of Technology.

Immergluck, Dan "Large Redevelopment Initiatives, Housing Values, and Gentrification". Urban Studies 46(8) 1723-1745, July 2009 http://usj.sagepub.com/content/46/8/1723

Kirkman, Robert "The ethics of Metropolitan Growth: the future of our environment" continuum. MPG Books Group. 2010.

Konrad, Mirmiam Fiedler, "Transporting Atlanta: The Mode of Mobility Under Construction" (2006). Sociology Dissertations. Paper 26. http://digitalarchive.gsu.edu/sociology_diss/26>

Neumark, Gerald M "Neo-Pluralism and the BeltLine" (2009) Georgia Political Science Association

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