

the **Ochs Center**
for metropolitan studies



If You Build It, Will They Come?

Reassessing the Economic Impacts
of the Northern Beltline Project

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All photos by Hunter Nichols

Executive Summary

The Northern Beltline—a proposed 52-mile, \$4.7 billion highway around northern Jefferson County, Alabama—has been a controversial transportation project in the Birmingham community for many years. Proponents of the Beltline claim it will reap enormous economic benefits, yet the only evaluation of the Northern Beltline’s economic impacts is a 2010 study by the University of Alabama’s Center for Business and Economic Research (CBER). The Ochs Center for Metropolitan Studies has critically reviewed the 2010 CBER study and relevant data regarding the Northern Beltline, the Birmingham metropolitan area, and cities throughout the Southeast. It has found significant flaws in CBER’s analysis and provides clear evidence that, contrary to the claims of supporters of the Northern Beltline, this project would be a poor investment of limited taxpayer dollars given its enormous cost and over-inflated economic benefits. It further concludes that the region could be better served exploring alternative transportation investments that produce better economic results at lower cost and in a shorter timeframe.

The Ochs Center’s specific conclusions regarding the Northern Beltline are as follows:

- 1. The 2010 CBER study is not a true cost-benefit analysis of the Northern Beltline’s impacts. It only looked at the benefits side of the equation while overlooking the project’s significant costs. The analysis also did not examine alternative transportation investments that could produce higher benefits at lower cost.**

The CBER study can best be characterized as a “benefits” analysis. The study did not assess the economic costs of the Northern Beltline. As described in this report, these costs are substantial.

The CBER study also did not examine the costs and benefits of spending taxpayer money on other transportation investments in the Birmingham metropolitan area or elsewhere in Alabama instead of the Northern Beltline. Therefore, the CBER study does not provide the basis for making an informed decision about whether the Northern Beltline represents the best investment of limited dollars.

In short, the CBER study looked at the Northern Beltline in a vacuum, answering only the question of whether there will be economic benefits to spending \$4.7 billion on this particular project versus doing nothing at all. Predictably, the CBER study concluded that there will be benefits, but there is no way to know based on the CBER study whether this project is a sound investment.

2. The Northern Beltline’s job-creation potential during construction has been exaggerated.

The reliability of the CBER’s conclusions about the Northern Beltline’s overall economic impact hinges on an accurate estimate of the project’s job-creation potential, both during construction and after construction has been completed. The Ochs Center has determined that the CBER study’s estimates are inaccurate. The CBER’s numbers confuse permanent jobs with jobs available in any one year and rely on outdated Federal Highway Administration data. The actual number of construction-related jobs arising from the Northern Beltline project in any one year is much lower than has been claimed.

Specifically, the CBER study claims that the Northern Beltline, if built over the course of 17 years, would produce “69,535 direct and indirect jobs” during the construction phase. This is false; the

projection of 69,535 jobs is actually only referring to the “job-years” of work that the CBER study predicts the Northern Beltline will produce. One “job-year” is one job held by one person for one year. Using a 17-year construction schedule, the CBER study contends that constructing the Northern Beltline would only produce 4,014 actual jobs in any one year.

Even this number is too high because the CBER study relies on outdated Federal Highway Administration (FHWA) data. Prior to 2007, the FHWA projected that, on average nationwide, \$1 billion of federal highway construction aid would generate 27,800 job-years. However, due to the rising cost of construction materials, in 2010 the FHWA recalculated the impact of federal highway spending and decreased the number of jobs that could be created per \$1 billion from 27,800 to 13,000 job-years—a reduction of over 50 percent. Using the current and more accurate FHWA data, the true job-creation potential of building the Northern Beltline is 48,880 job-years over a 17-year construction period, or a maximum of 2,805 construction jobs in any one year.

Notably, not all of these construction jobs would be guaranteed to go to Alabama firms or workers. The most recent Corridor X construction contract went to an Atlanta firm.

3. The Northern Beltline’s ability to create permanent jobs has been overstated.

The CBER’s 2010 study projected that the Northern Beltline, when and if it is completed, will produce 20,641 permanent jobs. As a threshold matter, econometric models such as the one used by the CBER for this estimate are notoriously unreliable for forecasting what may happen decades in the future. Using CBER’s own numbers, every man, woman and child who would come to Alabama as a result of the Northern Beltline would have to create 8 new jobs.

Furthermore, the CBER study failed to address the “present value” of the results it projected. Standard economic analytical procedure for predicting outcomes over multiple years is to measure them in terms of current dollars in the decision year,

a process known as “discounting.” Discounting is especially important here because the permanent jobs projected by the CBER will only materialize if and when the Northern Beltline is completed, which according to the CBER study would be 17 to 30 years in the future. While the Ochs Center accepted the CBER’s time estimate for the Northern Beltline’s construction, the Alabama Department of Transportation (ALDOT) has since estimated that more than 35 years would be needed to build the road.

The CBER study also assumes that the construction activity would not negatively affect any of the 7,500 existing firms located in the Northern Beltline corridor or their 45,000 employees. If any firms were disrupted, displaced or acquired for construction purposes, those job losses must be subtracted from the total number of jobs projected to be created by this project.

Moreover, beltline projects such as this often simply shift jobs around within a region. For example, employers currently located in the City of Birmingham who choose to relocate along the Northern Beltline are not creating “new” jobs for the metropolitan area. In fact, they would be taking jobs away from established neighborhoods and commercial districts. This important factor was not addressed by the CBER study.

4. The cost of building the Northern Beltline per job generated renders the project an inefficient economic development tool.

The CBER’s study failed to address the “present value” of any jobs that the Northern Beltline would create. Discounting, as described above, is also important here because the permanent jobs projected by the CBER will only materialize if and when the Northern Beltline is completed. Therefore, using the Appalachian Regional Commission’s discount rate of 5 percent, the Ochs Center calculated the cost per 2012-equivalent job of the Northern Beltline.

- If the Northern Beltline were built in 17 years, incorporating the CBER study’s job-creation projections, the discounted cost to American taxpayers per job would be \$281,824.
- If the Northern Beltline were built in 17 years,

factoring in the more up-to-date FHWA job-creation projections, the discounted cost per job would be \$302,326.

- Recognizing that fiscal constraints would likely slow the construction schedule to 30 years or more, and using the FHWA's job projection data, the discounted cost per job would be \$456,016.
- At the state level, the cost per job of building the Northern Beltline would be between 20 percent and 32.32 percent of that total national cost, depending on Alabama's ability to recapture or reallocate certain federal dollars committed to the state if the Northern Beltline were not built. That means a cost per job to Alabamians of between \$91,203 and \$147,384. Notably, most of these jobs pay less than \$35,000 per year.

5. The Northern Beltline will require significant investments in sewers, connecting roads, schools, and other services in order to realize economic development, further increasing its overall costs.

As was stated initially, the CBER's 2010 study does not analyze the costs of the Northern Beltline, particularly those costs that will be necessary to generate any economic development once construction is complete. Primary among these costs are sewer and secondary road investments. The Northern Beltline would run through many areas not currently served by sewer facilities, and local officials have already noted the difficulty in locating and constructing sewer lines in much of this area because of topographical challenges. These costs are vital to assessing the true economic development potential of this project.

The investment that will be needed for sewer expansion (which includes new pipes, pumps, and new or upgraded treatment facilities) is particularly significant, given Jefferson County's recent bankruptcy, which was caused in part by past investments in speculative sewer infrastructure. The costs of providing sewer to the Northern Beltline corridor must be fully assessed and weighed

against any potential benefits from the project. In addition, investment in school quality, crime prevention, and other services that are vital to attract residents and businesses must also be accounted for in a proper cost/benefit analysis. County residents, local governments, sewer ratepayers, and Alabama taxpayers could all be required to contribute to these investments. Pouring limited resources into realizing any economic development potential from the Northern Beltline will also mean less money available to make other necessary local investments to maintain or expand infrastructure, upgrade schools, prevent crime, and improve quality of life.

6. Building the Northern Beltline means less money available for other needed transportation projects in Birmingham and throughout Alabama.

The Regional Planning Commission of Greater Birmingham has ranked the Northern Beltline behind 35 other transportation projects according to regional transportation importance, putting it roughly in the middle of all planned projects in terms of priority. Fifty percent of that ranking is determined by a project's potential to reduce traffic congestion. The economic development value of completing those other 35 transportation projects was not calculated by the CBER. This is value that will be delayed or lost altogether because of the state's price tag associated with the Northern Beltline. Other alternatives should be vetted, such as the extension of Corridor X (I-22) into downtown Birmingham to connect with I-20/59.

The Birmingham region, and the state of Alabama as a whole, both face increasing road and bridge maintenance needs and costs. Each of the nearly \$1 billion in state dollars spent on the Northern Beltline is one less dollar available to repair a road or bridge elsewhere in the state. Yet state gas taxes are fixed and are not indexed to reflect inflation. Automobiles are becoming more fuel-efficient, effectively reducing gas tax revenue for all states. Adding additional infrastructure burdens on a system that is already fiscally constrained will affect all taxpayers in Alabama. Because of the ongoing uncertainty associated with both federal and state funding, there is a good

chance that the Northern Beltline could wind up as a costly unfinished road to nowhere.

7. Beltlines do not automatically produce economic development. Conversely, numerous cities have experienced significant economic development without building beltlines.

This report compares Birmingham's Northern Beltline proposal with projects in other cities around the region. Many thriving southeastern metropolitan areas have no bypasses or outer beltlines. In fact, there is no consistent relationship between the presence or absence of a beltline and the unemployment rate in a particular metropolitan area.

Beltlines are not automatic job generators. Within the Birmingham area, for example, Bessemer—which is located near I-459 and I-20/59 and thus highly accessible—has not experienced appreciable population or business growth in the last decade. Moreover, neither the CBER analysis nor the 2012 ALDOT Reevaluation of the Northern Beltline measures the impact that other factors—school quality, demographic trends, business trends, crime rates, and the availability of developable land, for example—will have on the economic development potential of the highway.

Conclusions

The Ochs Center for Metropolitan Studies concludes that the proposed Northern Beltline will not produce the economic benefits that have been claimed by its proponents. The limited, speculative, and far-off benefits of this project do not justify its \$90 million-per-mile price tag, which does not account for the other substantial costs that are necessary for development, such as sewer. Any hoped-for development from this project will not happen without making substantial other investments, which will entail redirecting even more limited taxpayer dollars. In short, the Northern Beltline is an inefficient engine to drive the economic development of the Birmingham metropolitan area. Alternative investments in transportation infrastructure should be evaluated and pursued that could generate more economic development faster and at lesser costs.