Georgia Brain Train Group Opposition Research & Data – Work In Progress
Updated & Published to Brain Train Group – October 17, 2006
Prepared by A. Brown-Olmstead Associates

- **Ridership statistics & congestion relief**

    - Opposition statement – The Brain Train will not have a significant impact on traffic congestion relief. Steve Davis quote: "The best official statistic claims to remove 3,000 trips which is only 1,500 passengers each way (another way to hide the truth) and that would be in the year 2030. Current statistics from Georgia Department of Transportation show over 325,000 cars use Interstate 85 during rush hour every morning. I don't believe if the project removed 1,500 or even 3,000 it would even make a dent in traffic." He has further stated, ""…even when you put high-density housing along rail lines, the *best* you could possibly hope for is a ridership base of 15 percent of those residents using the adjacent transit."

    - According to Steve Roberts of Georgia Rail Consultants, one single commuter rail line has 18 times the capacity of one lane of interstate highway.

    - A Georgia Department of Transportation Commuter Rail Alternative Study from 1990 forecasts Home Based Work Trips from the northeast Atlanta corridor (Atlanta-Athens line) at 8,600 trips toward the central business district (CBD) per day. (4,300 in-bound and presumably an identical number out-bound returns in the evening). The same study estimates growth in ridership to a total of 17,800 (8,900 in-bound and return trips per day) 20 years later (2010).

    - Georgia Rail Consultants projects this plan would provide an equivalent capacity of ½ to ¾ traffic lanes, thereby avoiding road construction costs of over $730 million resulting in $65 million annually in time savings for those remaining road users. **The Brain Train would cost approximately $330 million less than the equivalent capacity in new highway.**

- Georgia Rail's 2003 Environmental Assessment of the Atlanta to Athens commuter rail corridor projects this alternative would divert 1,800,000 automobile drivers from the highways by 2025.

- The Virginia Railway Express (commuter rail service between the Virginia suburbs and Washington, D.C.) entered service in July 1997. Ridership in the first month averaged 12,000 trips per day (6,000 in-bound and return trips to the CBD daily). As of February 2006, average daily ridership is slightly in excess of 28,000 (14,000 in-bound and return trips per day).

- According to the Associated Press, Florida's Tri-Rail commuter system currently carries 13,000 passengers per day.

- According to Georgia Rail Consultants, commuter rail is forecast to achieve both higher overall patronage and to divert a more substantial number of riders from single occupant automobiles with annual trips forecast 645,000 for express bus and 2,345,000 for commuter rail service by 2025. In terms of effectiveness, with the more productive operation of commuter trains, the operating assistance per rider is forecast to be $2.00 for commuter rail trips and $4.81 for each express bus rider.

- **Project cost**
  - Opposition statement – commuter rail is more expensive than roads and more expensive than buses.

  - Within ARC's currently approved Transportation Improvement Plan (TIP) the average cost per lane mile of improving the Interstate Highways in Metro Atlanta will be $18.19 million per lane mile. One mile of commuter rail track – which can operate in both AM and PM directions - costs $5.32 million per mile.

  - Capitol costs – According to Georgia Rail Consultants' 2003 study, capital costs of this rail line were $378 million. The prices of steel and concrete have increased significantly since then. The longer we wait to start, the higher the cost and the worse the traffic congestion will be.

  - The Federal DOT (80%) and Georgia DOT (20%) are spending more than $147 million on the I-85 and Georgia 316 interchange alone.

  - Georgia Rail Consultants projects this plan would provide an equivalent capacity of ½ to ¾ traffic lanes, thereby avoiding road construction costs of over $730 million resulting in $65 million annually in time savings for those remaining road users. If we use $400 million as a round number for capitalization cost for the Brain Train, **The Brain Train would cost more than $300 million less than the equivalent capacity in new highway.**

- For 2006 AAA estimates the average cost to operate a private automobile at 52.2 cents per mile*. A round-trip commute from Lawrenceville to Atlanta and back totals 64 miles. At 52.2 cents per mile, the cost of that trip in an automobile is $33.41.

    - * This estimate figures in average fuel, routine maintenance, tires, insurance, license and registration, loan finance charges and depreciation costs for an automobile driven 15,000 miles per year. When road construction, maintenance, time lost to congestion and environmental impacts are considered, some educated estimates indicate the true cost of driving is in excess of $1.20 per mile.

- Operating expenses – Georgia Rail Consultants' 2003 study estimates the Atlanta-Athens commuter rail line operating expenses in 2025 to be $19.5 million, fare box revenue at $14.1 million, and annual operating assistance of $5.5 million (2007 dollars).

- Commuter rail has the advantage of adding capacity more quickly than buses without additional expenses like more drivers, more fuel, and more traffic on the roads.

- **Safety – is commuter rail safer than driving?**

    - A July 1, 2005 interim analysis of push-pull operations performed by the Federal Railroad Administration (FRA), the federal regulator of railroad safety, showed that a person riding a push-pull commuter rail train is 25 times safer than a person riding in an automobile." – William W. Millar, president, American Public Transportation Association to Alan Lowenthal, chair, Senate Transportation and Housing Committee – Calif.

    - According to the U.S. Bureau of Transportation Statistics, in 1997 motor vehicles accounted for .93 fatalities per 100 million passenger miles traveled compared to .05 for commuter rail. In 2004, there were 42,636 highway traffic fatalities on U.S. highways, 1,634 of which occurred in Georgia.

- **Economic Development**
    - According to the Center for Transportation Excellence, public expenditures in transit net a gain in sales of local businesses of three times that amount – a return ratio of more than three to one.

    - A 1999 Texas case study used national input-output table data to calculate the regional economic activity and employment generated by expenditures on automobile use, transit use, and general consumer expenditures (*Miller, Robison & Lahr, 1999*). It found that each 1% of regional travel (53 million vehicle-miles) shifted from automobile to public transit increases regional income about $2.9 million (5¢ per mile shifted), resulting in 226 additional regional jobs.

- The same study found that within five years of the opening of Dallas' new commuter rail line, private businesses invested over $1 billion near the line's train stations.

- **Air quality / Environmental comparison** of true ridership estimates and emissions from diesel engines and emissions from the same number of automobiles

  - The approved Environmental Assessment for the Athens - Atlanta corridor encompassed the following assessment of air quality effects with commuter rail service.
  - In summary, on an annual basis for the corridor in the 2025 Horizon there would be:
    - 42,500,000 fewer vehicles miles of travel (VMT);
    - The reductions in VMT lead to 16.2 tons of hydrocarbons reduced, 5.8 million tons of nitrous oxides increased, .1 ton of increased particulates and a reduction of 210.4 tons of carbon monoxide.*
      - * The increase in NOx is a result of a theoretical increase in travel speeds for the remaining automobiles. The particulate increase is the result of the diesel emissions. The hyrdrocarbons and CO are net after VMT reductions.
    - Note: the Environmental Protection Agency (EPA) has continued to promulgate more stringent standards for diesel emissions and is likely to address the NOx and particulate standards.