AATA Fare Should Be 0¢

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The purpose of a bus system is twofold, to provide mobility to those who cannot afford cars and to induce those who own cars to use them less often. Both of these goals are best achieved by lowering bus fares. There have been two recent experiments in lowering Ann Arbor's bus fares, and each has displayed a large positive ridership response to the lower fare.

The first experiment started in October 2004. The fare for all riders showing University of Michigan (UM) ID cards was lowered from $1 to zero. Over the next three years, while the number of fare-paying non-UM riders declined by 5%, the number of now-fare-free UM riders grew by 262%. What a difference the fare makes! Over the 15 years before UM people rode for free, the Ann Arbor Transportation Authority (AATA) bus ridership grew at a rate of only 0.6% per annum. Over the next three years, the total bus ridership grew at a rate of 10.2% per annum despite the slight decline in non-UM riders.

The second experiment is being provided by the recent rapid rise of gasoline prices. More expensive gasoline has greatly raised the cost of driving one's own car, which is the only practical alternative to bus riding for most commuters. The increase in gasoline prices lowered the cost of bus-commuting relative to the cost of car-commuting. Because of this change in relative prices, we expect some commuters to switch from their cars to the bus. Indeed they have: "Average weekday ridership on AATA buses was up 8% in April and 7% in May compared to last year" (*Ann Arbor News*, 25 June 2008).

Lower bus fares stimulate bus ridership. Lower bus fares make all bus-riders better off. Old riders are saving money, and new riders are displaying their preference for the now cheaper bus-commutes over the now costlier car-commutes. The only question is how far to cut the bus fare. The economist's answer to that question is that each rider should pay whatever amount his or her ride adds to the total cost of providing the bus service.

What does it cost the AATA when another rider gets on one of its fixed-route buses? Practically nothing – the same driver, the same fuel. Slight discomfort to other riders at the few rush times when the buses are full. And those times are very few. If you get on a random fixed-route bus at a random time in Ann Arbor, there will on average be only 5.5 other riders on that bus. Actually, the real social cost of a new bus rider is often negative! When you leave your car in the garage and take the bus instead, you reduce the traffic congestion, parking problems, and air pollution in Ann Arbor, you reduce the foreign oil dependence of the United States, and you reduce the global warming of the planet. But the only way we can ensure that everyone who wants to ride the bus ends up riding the bus is by charging a zero fare.

The cost of adding a rider may be zero, but the overall cost of running the bus system is not zero. There are buses to be bought and drivers to be paid. How will we ever pay for all these costs without fare revenues from bus riders? The short answer is that the AATA relies very little on fare revenues. Where does the AATA money currently come from? Three main sources: 1) the federal government pays 80% of the cost of new buses – and it is not stingy, having recently urged the AATA to buy bio-diesel hybrid buses that cost nearly twice as much as regular buses; 2) the Michigan state government pays the

other 20% of the cost of new buses and then chips in handsomely for one third of the AATA operating expenses as well; and 3) the City of Ann Arbor collects and passes on to the AATA a dedicated property-tax-millage revenue that covers another one third of the AATA operating costs (and neighbor cities served by the AATA also pitch in). In the end, fare revenues cover only 15% of the AATA operating expenses and none of its new bus costs.

But 15% is not zero percent. Without fare revenues, how could the AATA cover operating costs? The answer is that the AATA can lower its costs by cutting out the slack in its operation. I compared for 2005 the operating costs per bus of the AATA with the average operating costs per bus of two other control groups: 1) 20 other city bus systems in the United States, namely the ten with slightly larger populations than Ann Arbor and the ten with slightly smaller populations (these ranged from 50% larger Knoxville Tennessee to 20% smaller Lincoln Nebraska); and 2) all (omitting incomparable Detroit) the 12 other Michigan bus systems (where populations ranged from 90% larger Grand Rapids to 80% smaller Benton Harbor).

The AATA total operating cost per bus was 34% higher than the average of the sample of the comparably-sized bus systems in the United States and was 68% higher than the average of the other Michigan bus systems (only 46% higher if we include the two Detroit systems). Nor is this result unique to the choice of the two comparison groups – in the entire 2005 National Transit Database of 368 publicly operated city bus systems in the United States, only 49 had total operating costs per bus higher than the AATA, and many of those 49 were in much larger cities than Ann Arbor (and larger cities have higher wage rates and higher land prices). A phased-in loss of its fare revenue would force the AATA to uncover ways to provide its services more cost-effectively.

Many large cities provide free bus service within a limited downtown area, and a few small cities provide free bus service on all their fixed routes – e.g. Chapel Hill NC and Clemson SC. But they are very small cities. Ann Arbor would be the first U.S. city with more than 100,000 people to provide completely free fixed-route bus service, a distinction I hope Ann Arborites will be happy to accept.