Intercity Passenger Transport for Iowa?

Comments for the Interim Study Committee on Mass Transit

The Iowa General Assembly

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By

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•**Background**: a word about your presenter may be helpful. John W. Fuller has been a Professor at the University of Iowa since 1979. He teaches in the Graduate Program in Urban and Regional Planning and the Department of Economics, specializing in transportation planning and economics. Prior to that he served as Deputy Director of the National Transportation Policy Study Commission and with the Wisconsin Department of Transportation. In the 1980s he directed the Legislative Extended Assistance Group (LEAG), commissioning funded research for the General Assembly. His first job in transportation, while still a graduate student, was as acting Assistant Director of the Spokane, WA Metropolitan Area Transportation Study, producing that area's transit and transportation plan. Fuller has long-term and broad interests in the transportation field.

•**Preface:** I appreciate being asked to meet with your study group and will do my best to respond to your questions. First, though, I believe some broad remarks will prove useful. Your study charge is extensive and difficult to fulfill without detailed investigation. My comments are not a substitute for such fact-finding, but I hope they will serve as a balanced reaction to your charge, and will help suggest a few fruitful opportunities. I have also cited some references that may be of help in your deliberations. In my presentation I will comment first on definitions; then I will offer comments on each of your Committee's multiple charges.

•As I read the charge to the Committee, I came to believe some definitions would be useful. *Transit* (a term used throughout your charge) generally refers to passenger transport available to the public within metropolitan regions. Such transport is provided by different modes, such as transit buses, light and heavy rail systems, paratransit, and taxicabs. *Intercity passenger transportation* (transport between cities) has a subset of *public transportation*

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(contrasted with private transportation via auto and other modes like general aviation) which is provided in the U.S. by intercity bus carriers, Amtrak and air carriers. It appears to me that the committee's charge involves **intercity public transportation** and its interactions with transit; these are the two terms I will use in my remarks. Perhaps the following definition provided by APTA (the American Public Transportation Association) is useful for clarification and mutual understanding.

What is Public Transportation?

Public transportation is "transportation by a conveyance that provides regular and continuing general or special transportation to the public…" as defined by the federal government. It includes service by buses, subways, rail, trolleys and ferryboats. It also includes paratransit services for seniors and persons with disabilities as well as vanpool and taxi services operated under contract to a public transportation agency.
(American Public Transportation Association, Public Transportation Fact Book, 2007, VIII)

•**Your Committee's charge** has the following seven elements that I will comment on in turn. The Committee is to--

(1)Study ways to employ mass transit to provide public transport service between Iowa communities.

Comments: Limited intercity public transportation exists between some Iowa cities in the form of paratransit vans provided by the state's 16 regional transportation systems. Iowa is to be commended for such regional service, which is uncommon in other states. Some of Iowa's 19 urban transit systems provide urban transit service between contiguous cities (as an example, between Coralville and Iowa City), but not to my knowledge between cities. I doubt that Iowa's transit systems would wish to extend to become intercity service providers, nor would I imagine are they well equipped to provide it. The chief suppliers of intercity public transportation services in Iowa are intercity bus carriers, air carriers, and, to a quite limited extent, Amtrak.

The key ways to provide additional service beyond today's levels, in my estimation, are through subsidizing the private intercity bus carriers, contracting with Amtrak for added Section 403(b) services, and adding funding to the state's regional systems.[i] Added air service seems infeasible (and federal subsidy funds for small community service are quite limited).

(2)Consider effects of transit availability on those unable to drive or without an auto.

Comments: Nationally, according to the U.S. DOT's Bureau of Transportation Statistics, some 8.8% of households do not own vehicles.[ii] This is quite a large figure, although I suspect the percentage in Iowa is lower (partly because the highest percentage of households without autos reside in central-city urban areas). The proportion without vehicles has been declining over the years.[iii] Of those households without vehicles, some members are able to drive

and do have access to a vehicle (as a driver or passenger) on at least some occasions.[iv] Certainly some persons would be helped were Iowa to have more transit services or more intercity public transportation, but the numbers wishing to travel—and not currently served by Iowa's limited routes and schedules—are not likely great. It should be noted that the higher recent private costs of vehicle operation have undoubtedly affected many more Iowans than are affected by lack of access to a vehicle.

Overall relatively few Iowans are affected by a lack of intercity public transportation; likely more are affected by the cost of private transportation.

*(3) Determine any impact of transit **within** communities on population levels, quality of life, and economic development in urban job centers, small and satellite communities, and rural towns.*

Comments: Certainly transit can be pointed out as contributing positively to urban quality of life and one's ability to access jobs. A number of studies done by the Transportation Research Board's Transit Cooperative Research Program with titles such as *The Role of Transit in Creating Livable Metropolitan Communities* and *Transit and Urban Form* point up the possibilities. Yet one should note that positive effects come with high levels of use, achieved primarily in dense urban areas. Overall fewer than 5% of all work trips in the U.S. are made by public transportation; far fewer other trips use public transportation.[v]

Iowa's population is not dense and public transportation's impact on the factors noted in the Committee's charge can be expected to be rather small. If Iowa is going to offer more urban transit services, land-use changes to promote greater urban density are needed.[vi]

(4) Identify the effect of mass transit on greenhouse gases and on overall air quality.

Comments: The American Bus Association Foundation (an association of intercity bus operators) commissioned a study, released in October, ranking various modes under consideration by your Committee in terms of energy use and carbon dioxide emissions. It ranked intercity buses as best on all counts, followed by vanpools, and then by other rail, bus and auto configurations. Interestingly, demand-response services topped the list for high levels of energy use and air emissions. Light-rail service ranked rather high, far higher than two persons in a car or even the single-occupancy auto.[vii] While it is perhaps not surprising that an industry foundation would report such results, not dissimilar findings have been reported by University of California-Berkley researchers in NewsBITS (Fall 2008), Vol. 4, No. 1).[viii]

Why are autos not bad on these counts and transit vehicles poor? The key has to do with usage. Transit vehicles of any kind operating off-peak, with very few riders, are inefficient users of energy and emit large amounts of greenhouse gases per user.

One needs to fill public transportation vehicles with passengers in order to have less effect on fuel use and greenhouse gases compared with even the single-occupant auto. A state interested in a better environmental footprint will carefully plan transit or intercity transportation services to ensure maximum usage.

(5) Determine the level of need for mass transit, including any specific areas in immediate need; investigate the feasibility of expanding mass transit services and the types and combination of services that might comprise a state mass transit system.

Comments: I can be of little help to you in pointing out specific geographic areas of potential passenger groups in immediate need; detailed demand studies would be required. They could estimate usage in relation to specified services offered at estimated levels of cost. Need should always be measured in relation to full social costs and benefits.[ix] I doubt that any such study would point to a statewide transit system. More likely particular route possibilities would be pointed out. Of course, such studies are made frequently for FTA's new starts and small starts programs, and some state transportation plans and programs present investigations of intercity public transportation possibilities.

Retrospective analysis has generally shown that estimates of demand for rail transit and intercity public transportation projects have been inflated and estimates of costs understated—which should be of concern to this study committee.[x]

(6) Identify potential costs and funding mechanisms for developing and maintaining specific mass transit services.

Comments: The cost of a public transportation service is specific to the circumstances of the service. On the other hand, potential funding mechanisms can be generalized and reviewed. A useful source for a review of state mechanisms is the annual report, Survey of State Funding for Public Transportation[xi] (The survey and report are produced by AASHTO and APTA with U.S. DOT support.) The report suggests that Iowa's federal transit funding ranks about in the middle of those states that have under $1 billion in federal support. Of the 48 states and DC that have state funding of transit, Iowa's $11 million annually ($3.64 per capita) ranks 20th from the bottom (exceeding Kansas, Nebraska, Missouri as well as both Dakotas added together, but far less than Minnesota's $296 million, Wisconsin's $113 million, or Colorado's $22 million).[xii]

Iowa's source of transit funding is a portion of the vehicle sales tax.[xiii] Ten states use this mechanism, whereas 19 use the gas tax, 12 the state's general fund, 10 apply bond proceeds while another 10 use registration or license fees, and 9 provide support from the general sales tax.

This comparison suggests potential funding sources could be the state's gas tax or its general fund.

Of course, additional federal funds are a possibility. The federal railroad safety act passed in October essentially doubled federal Amtrak spending. Reauthorization of surface transport legislation offers manifold opportunities for increased federal funding. AASHTO—the American Association of State Highway and Transportation Officials--has proposed doubling current spending for surface transport to $545 billion (with $93 billion for transit), including $5 billion annually for intercity passenger rail. Yet there are many claimants because most transit operators are facing cutbacks.[xiv] In last week's election California's voters approved $10 billion in bonds as a down payment on a LA-SF high-speed rail system, but it's hard to imagine that nearly bankrupt state not making a major claim on federal funds.

Iowa has possible funding sources for transit or intercity passenger transport that have not been tapped, such as the state gas tax or general revenues.[xv] Of course, local government finance is also possible, and the most common source nationwide other than general funds has become the local option sales tax.[xvi] On the other hand, voter opposition to raising gas tax rates or utilizing general revenue sources is likely to be strong. Increased federal transportation funding may be forthcoming, but undoubtedly there will be many competing needs for additional funding.

(7)Assess the attitudes and habits of Iowans concerning personal transportation and ways to educate the public about the economic, social, and environmental advantages of mass transit.

Comments: I know of no statewide survey of Iowan's attitudes towards transportation or transportation services, but state surveys could be undertaken and have been elsewhere. Observed behavior is available only through federal surveys (which have unfortunately been underfunded and lack geographic specificity).[xvii]

Transportation education is not widespread anywhere in the U.S., and education about the economic, social and environmental impacts of various transportation choices is both lacking and without as firm a research foundation as would be desirable.[xviii]

An attitudinal survey by the Iowa DOT as part of it's continuing transportation planning efforts would seem a reasonable undertaking. Further research support at the

state and national levels for work on transport externalities is called for.

●Concluding suggestions

As I consider the charges before your Committee, I would suggest several directions for your consideration.

(1) Rely upon the state's transit operators and your DOT to continue monitoring service needs and federal funding opportunities for urban transportation, and to report back to the General Assembly as opportunities arise. Become prepared to propose specific service improvements that meet new federal funding initiatives.

(2) Rely as well on the DOT to monitor and report intercity passenger transport opportunities as federal funding undergoes revision and restructuring. However, do not anticipate new intercity passenger initiatives to be implemented in the foreseeable future in Iowa, and realize that matching state and local funding will prove necessary.

(3) Request an investigation by your DOT of special opportunities to support enhanced intercity bus service for Iowa, perhaps as an element of an intercity bus plan and program, encompassed within the next state transportation plan.

It is noteworthy that innovative motor-coach operations have sprung up in the Midwest and elsewhere over the past few years, leading to a recent ridership growth rate of some 7%, following decades of decline.[xix] These newer carriers can operate without conventional terminals, using curbside locations and public-transit facilities. This is one mode that had modest capital costs, quick start-up opportunities, and positive environmental effects versus alternatives. The economics of intercity bus service appear well suited to the intercity demands of a state such as Iowa.

Appendix

Mass Transit Study Committee

Charge: Study the ways in which mass transit might be employed to provide public transportation services among Iowa communities. Consider the ways mass transit availability affects various populations in rural and urban communities, particularly those who are unable to drive or cannot afford to own a motor vehicle; determine any impact mass transit within communities can have on population levels, quality of life, and economic development in urban job centers, small and satellite communities, and rural towns; identify the effect of mass transit on greenhouse gases and on overall air quality; determine the level of public need for mass transit, including any specific areas in immediate need; investigate the feasibility of expanding mass transit services and the types and combination of services that might comprise a state mass transit system; identify potential costs and funding mechanisms for developing and maintaining specific mass transit services; and assess the attitudes and habits of Iowans concerning personal transportation and ways to educate the public about the economic, social, and environmental advantages of mass transit. Consult with the interests listed in 2008 Iowa Acts, S.F. 2425, § 146, in conducting the study.

Endnotes

[i] For example, Amtrak service extension from the Quad Cities to Iowa City has been studied recently, as has been commuter rail service between Iowa City and Cedar Rapids. See M.W. Franke, R.P. Hoffman and B.E. Hillblom, Executive Summary, Feasibility Report on Proposed Amtrak Service, Quad Cities-Chicago (Chicago, IL: Amtrak, 2008). The Midwest Regional Rail Initiative to plan and provide high-speed service has existed since 1996, but appears to have made little progress. However in September 2008 federal study funds of $297,000 were granted, matched by Amtrak and state funds of $594,000.

[ii] Bureau of Transportation Statistics, Pocket Guide to Transportation 2008 (Washington, D.C.: U.S. Department of Transportation, 2008), 21.

[iii] The BTS's Transportation Statistics Annual Report 2001 contains a useful section on Mobility and Access to Transportation (Chapter 4). It should also be noted that Iowa's population is relatively old, affecting the ability to drive, and relatively rural, affecting driving distances, times, and costs.

[iv] In a few large U.S. cities such as Washington, San Francisco, Portland OR, Seattle and Boston, and in several other countries, car associations and firms such as Flexcar provide membership or rental services to those without vehicles or for those seeking another vehicle for short term use. Of course traditional car rental sources are also available to those able to drive.

[v] See Commuting in America III (Washington, D.C.: Transportation Research Board, 2006).

[vi] A view of such land-use transportation interaction is presented in A Vision for 2050, Final Report of APTA's TransitVision Task Force (October 2008) available 11/13/08 at www.apta.com.

[vii] See M.J. Bradley & Associates, Updated Comparison of Energy Use $ CO2 Emissions From Different Transportation Modes (Washington, D.C.: American Bus Association Federation, 2008). The American Public Transportation Association recently compiled information from a number of sources to produce a short report, available 11/13/08 on their web page www.apta.com, titled Public Transportation Reduces Greenhouse Gases and Conserves Energy [2008]. A useful source for researchers is Stacy C. Davis, Susan W. Diegel and Robert G. Boundy, Transportation Energy Data Book: Edition 27 (Oakridge

[viii] For the full paper see Mikhail Chester and Arpad Horvath, Environmental Life-cycle Assessment of Passenger Transportation: A Detailed Methodology for Energy, Greenhouse Gas and Criteria Pollutant Inventories of Automobiles, Buses, Light Rail, Heavy Rail and Air v.2 (2008) found at the UC Berkley Center for Future Urban Transportation.

[ix] I find excellent suggestions for such analysis contained in July 10, 2008 Senate testimony by Jayetta Z. Hecker of the GAO. See Surface Transportation, Principles Can Guide Efforts to Restructure and Fund Federal Programs (Washington, D.C.: U.S. General Accountability Office.

[x] The DOT Volpe Center's chief economist, Don Pickrell, did seminal work on this topic.

[xi] See Survey of State Funding for Public Transportation 2007 (Washington, D.C.: American Association of State Highway and Transportation Officials, 2008).

[xii] A Transportation Research Board report reviewing an earlier 2004 study of state transit funding found Iowa to be one of the larger funding contributors on a state level among comparable states. See Comparative Review and Analysis of State Transit Funding Programs, NCHRP Report 569, (Washington, D.C.: Transportation Research Board, 2006), 19.

[xiii] Recently increased registration fees for light trucks in Iowa may supplement this source slightly.

[xiv] A recent survey of the top 100 U.S. transit agencies found about 72.5% of the operators are finding it difficult to balance service demands with higher fuel costs. They are raising fares, adjusting routes, and extending vehicle service intervals as countermeasures. The only Iowa system among these is Des Moines Area Regional Transit, ranked 96th. See Alex Roman, *Ridership, Fuel Cost Hikes Force Top 100 to Make Adjustments*, Metro Magazine (September/October 2008), 21. Evidence of financial difficulty is widespread. As examples see Michael Dresser, *MTA to cut commuter bus routes, Harford, Howard service, MARC trains to be reduced*,

baltimoresun.com (October 17, 2008) and Kevin Yamamura, *Legislative analysts sees state finances as "truly awful."* The Sacramento Bee, Nov. 12, 2008.

[xv] Support for state transportation funding initiatives was strong

[xvi] In this November's elections quite a few transit measures passed. "Local measures included 12 initiatives to extend or renew an existing sales tax for transportation purposes (10 were approved), five bond authorizations (all were approved), two new taxes for transportation (one was approved) and 10 increases in existing sales or property taxes (five were approved)." Overall there were 37 state and local funding-related ballot initiatives in 17 states. Some 25—78% of the bond and tax measures—were approved with an average vote of 63%. See www.acpubs.com accessed November 13, 2008.

[xvii] For information see Commuting in America III, *op. cit.*

[xviii] Useful Transportation Research Board projects undertaken by the University of Iowa's Public Policy Center for the National Cooperative Highway Research Program that are directly relevant to this educational charge are Guidebook for Assessing the Social and Economic Effects of Transportation Projects (2001) and Assessing the Social and Economic Effects of Transportation Projects (2001-2). See www.trb.org.

[xix] See the study by Joseph P. Schwieterman, *et.al.* The Return of the Intercity Bus: The Decline and Recovery of Scheduled Service to American Cities, 1960 – 2007 (Chicago: DePaul University, 2007). Also see *Motorcoach Facts 2008*, available 11/13/08 at www.buses.org.