



Merging Innovation and Excellence[®]

Introduction to Transit and BRT - 101

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FIXED GUIDEWAYS

- A fixed guideway is a mass transit facility using and occupying a separate right of way or rail for the exclusive use of mass transportation vehicles
- Fixed guideways may be reversible; operating in the peak direction in the morning and the opposite direction in the evening peak



PASSENGERS

- About 60 % of all transit trips are by Bus
- The Average trip length for Vanpools = 34 miles; for light rail = 4.5 miles; for Bus = 3.7 miles
- 59 % of all transit trips are work related



SIMPLE DEFINITIONS

- Unlinked Passenger trip : the # of passengers who board public transit vehicles. They are counted each time they board no matter how many vehicles they use to travel from origin to destination
- Average trip length is the average distance for an unlinked passenger trip (pass miles/unlinked pass trips)



SERVICE SPEEDS

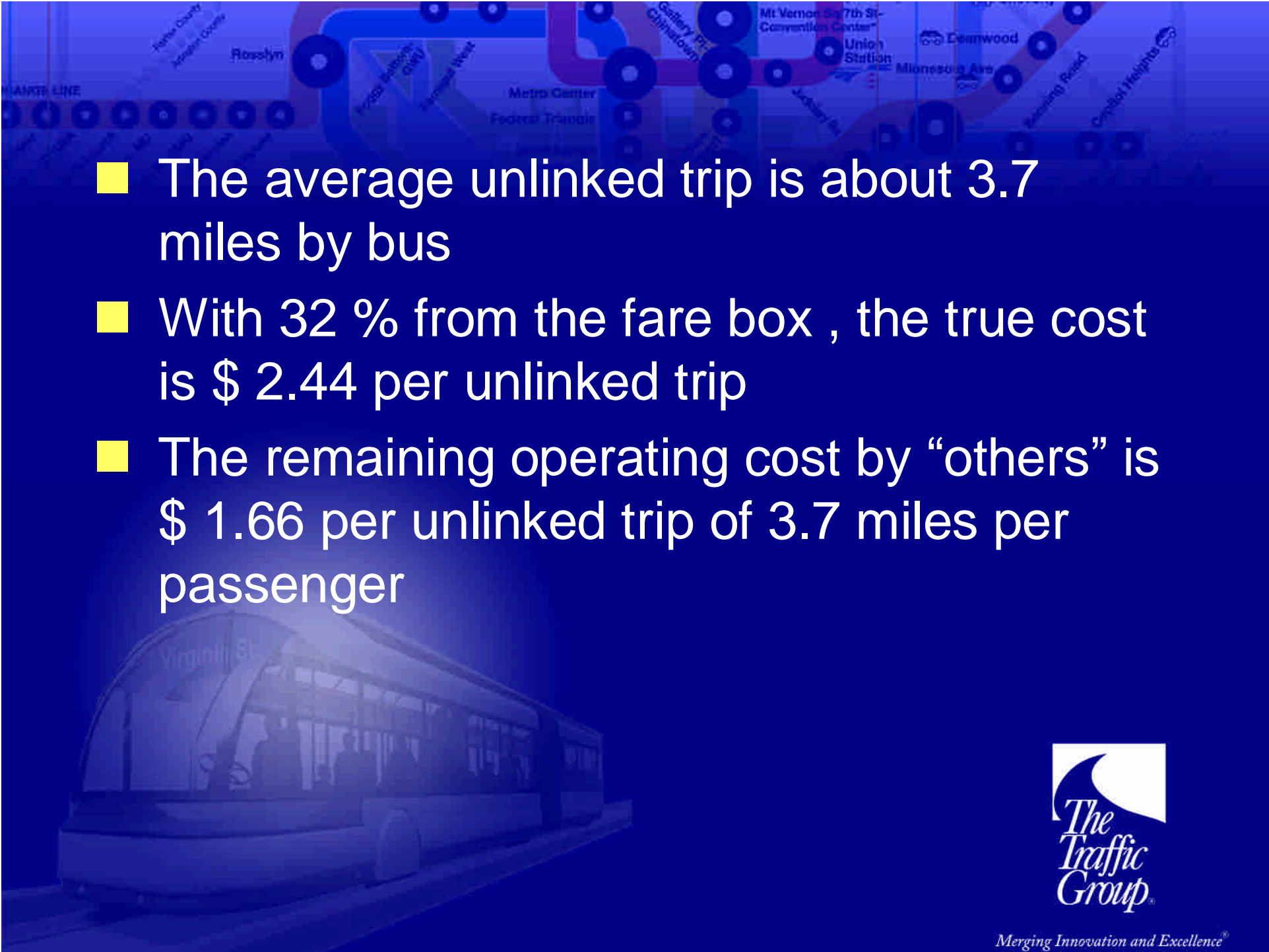
- Average revenue service speed was highest for vanpools at 38 MPH
- Light rail speed averages 15 MPH
- Bus transit speed averages 13 MPH



OPERATION FUNDING

- Typically – funding for operations comes from several sources including passengers, local government, federal government, transit agencies direct –levied taxes, advertising, interest income, etc
- The average per unlinked trip for a bus was \$ 0.78



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- The average unlinked trip is about 3.7 miles by bus
 - With 32 % from the fare box , the true cost is \$ 2.44 per unlinked trip
 - The remaining operating cost by “others” is \$ 1.66 per unlinked trip of 3.7 miles per passenger



COST TO COMMUTE - DC Metro Area

- In the year 2005, the average commute cost in the U.S. was \$ 6251 per year
- In 2009, in the DC Metro area the average cost to commute has risen to over \$ 9200 per year



Eugene, Oregon BRT System



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Eugene, Oregon BRT System



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Everett, Washington Swift BRT

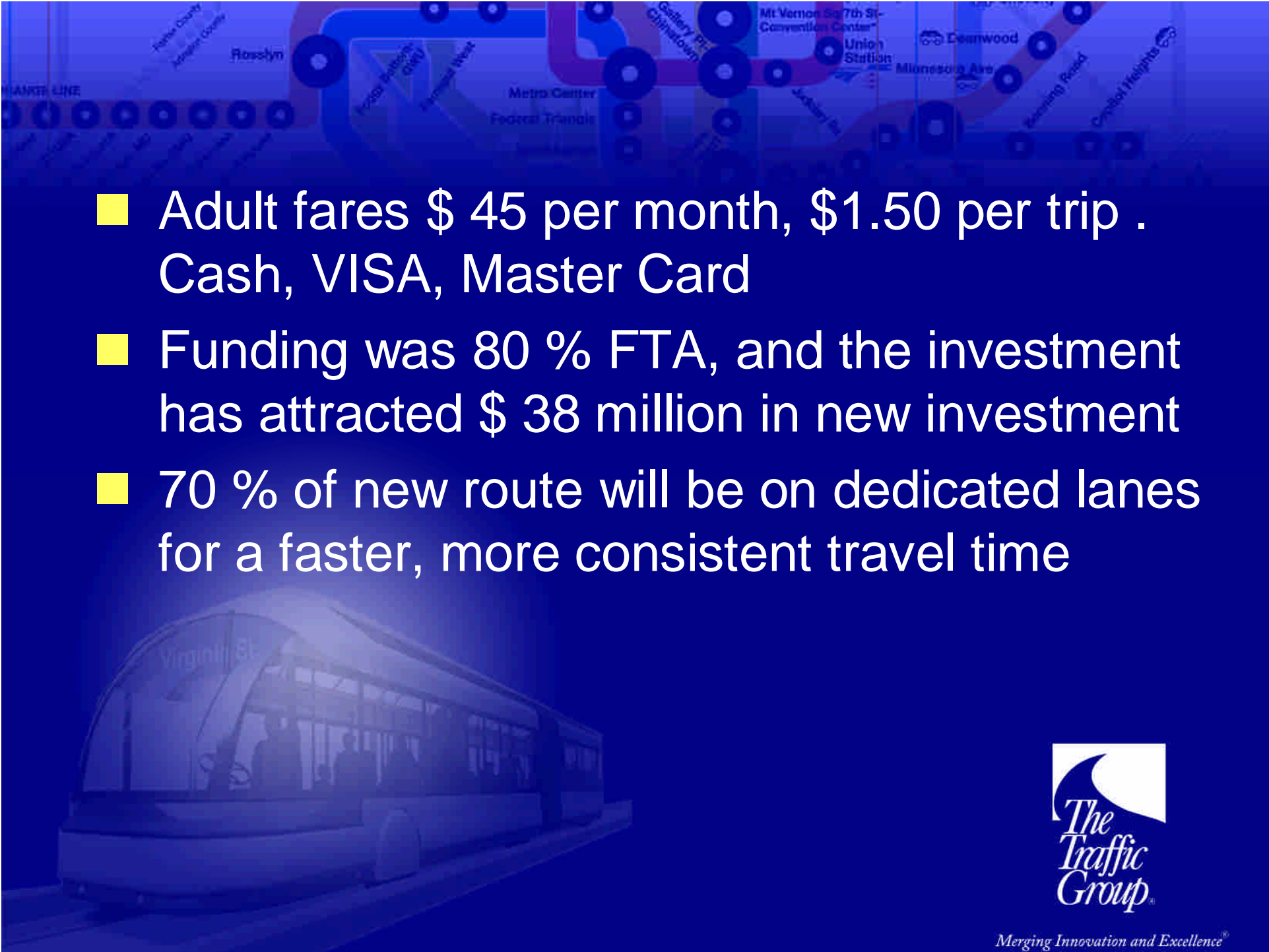


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Eugene – Springfield BRT Facts

- 4 mile Green Line, single track 10 ft wide
- Stations at ½ mile intervals (2600 ft)
- Real Time Vehicle tracking coming
- 60 ft Hybrid electric articulated buses
- 10 minute headways
- \$ 6 million per mile including Vehicles
- Operating costs \$ 128 k per mile
- Ridership 5400 per day – 1.4 M per

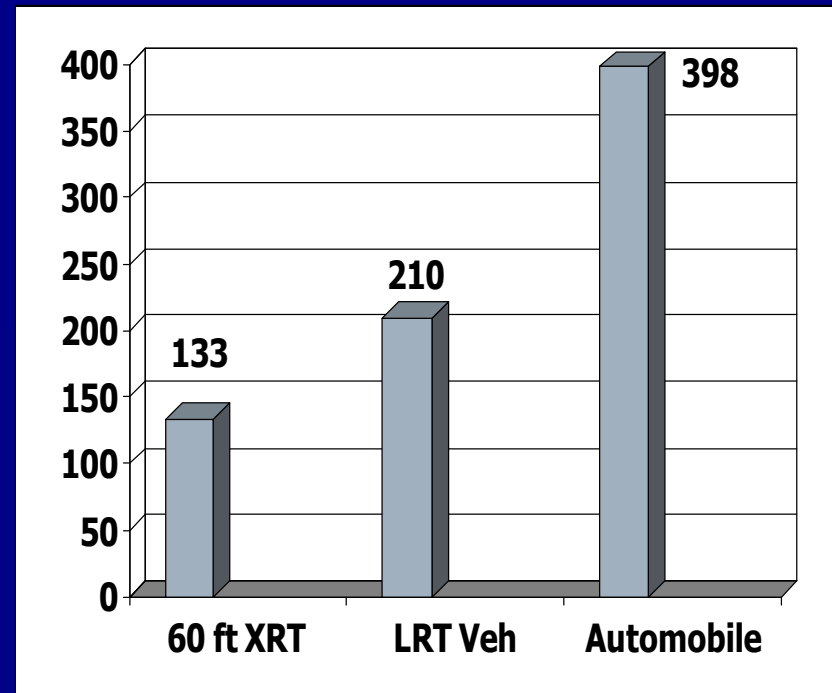


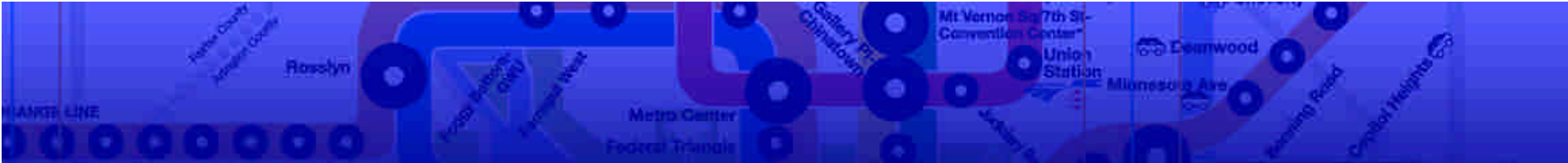
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- Adult fares \$ 45 per month, \$1.50 per trip .
Cash, VISA, Master Card
 - Funding was 80 % FTA, and the investment has attracted \$ 38 million in new investment
 - 70 % of new route will be on dedicated lanes for a faster, more consistent travel time



Transit - Changing the Way America Moves, NOW is the Time !!!

- Create a more robust economy
- Create a smaller carbon footprint
- Help Create Energy independence
- 1/3 the CO2 of Autos
–Grams / Pass mile



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- The growth in annual VMT in the U.S. has outpaced population growth !
 - American Households spend 17.6 % of their budgets on transportation, vs Europe at 11.9 %
 - Only 53 % of Americans have access to Public transportation



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- APTA –American Public Transportation association indicates a goal to be set of doubling the market share for public transportation by 2020, and by 2045 a market share equal to the Europeans.
 - APTA estimates that an investment of \$ 134 Billion in capital and \$ 102 Billion in operating costs per year would deliver that plan (goal) by 2030.



Benefits of More Public Transit

- 7.4 million green American jobs
- Save all American households \$ 2830 average per year in transportation costs
- Reduce VMT by 11 % by 2020 saving \$ 37 Billion per year by reducing congestion
- Save 15 billion gallons of fuel per year by 2020, nearly equal the amount we import from the Persian Gulf today
- Reduce carbon emissions by 141 million Metric tons per year.



What is FTA doing to Help ?

- The American Recovery and Reinvestment Act of 2009
- 100 % Federal Share except for NEW STARTS program
- Capital Expenses ONLY
- Cannot mix ARRA recovery funds with other grants



ARRA Multimodal Discretionary Program by FTA

- Capital investments in surface transportation infrastructure
- \$1.5 billion competitive grant program
- Projects with significant impact on metro area or region
- Grant awards: \$ 20 m to \$ 300 m
- Up to 100 % Federal Share

