Highlights From The Orange County Grand Jury report on Light rail

From: Orange County Transportation Authority and Light Rail Planning 5/27/99 (some bold added)

The national experience with urban light rail systems' ability to solve traffic congestion, air pollution and related urban problems has been poor. The Grand Jury examined the last 12 urban light rail systems developed in the U.S. The Grand Jury analysis strongly suggests that Orange County will experience that:

• **Light rail will have negligible impact on traffic congestion** because it attracts few automobile drivers from their cars.

• Demographic trends will make light rail much less effective than predicted by planners.

• **Light rail is expensive.** The most cost-effective, federally funded systems have required subsidies of $5,000 and more per new ride. New rides are those riders brought out of their cars and into the transit system.

• **Light rail is inflexible once** in place. The OCTA's bus system routes are adjusted three times a year.

• **Light rail cost and ridership forecasts will be erroneous and biased in favor of light rail.**

• **Light rail will not spur development.** Development along light rail corridors is spurred by tax subsidies, not light rail.

• **Light rail will not improve commuter travel times, energy conservation and safety.**

Transit's share of land travel in the U.S. has dropped from approximately 6 % to less than 1 % since 1950. Public subsidies have failed to reverse transit's trends. Transit subsidies have risen to nearly $20 billion a year from nearly zero in 1970. Yet in 1995, transit ridership dropped to its lowest level in 20 years.

• Percentage of work trips by transit has fallen from 13 % in 1960 to 5.1 % in 1990, a 60 % reduction

LIGHT RAIL AND CONSUMER MISMATCH

. . . Light rail's ability to move large numbers of people has virtually no value to the modern urban area because it doesn't match the needs of the modern urban traveler. Demographic studies have shown the following factors important to the peak hour commuter:

• Proximity—Consumers want service that is conveniently close to both their trip origin and destination. The trip by auto or transit must begin near home and end near work.

• Frequency—Consumers want freedom to travel whenever they want or need. That equates to service that is frequent and available virtually all day, every day.

• Travel time—Consumers want to get where they are going as quickly as possible. Additionally, riders dislike transferring from one route to another.

• Segmented trips—The work trip has increasingly become segmented. A segmented trip is one with more than one purpose. Frequent and convenient point-to-point transit service is simply not available for those trips.

• Cost—Work trips must be affordable.

. . .Studies have shown that transit is exceedingly unattractive for the work trip to suburban areas. Transit has no advantage for those consumers who can afford to make a choice in deciding how to make peak hour trips in the urban area. The auto, on the other hand, provides the on-demand, rapid service point to point transportation commuters to suburban jobs want.

TRAFFIC CONGESTION AND LIGHT RAIL

. . light rail does not reduce traffic congestion because it attracts few auto drivers. For example, approximately 20 % of Washington, D.C. rapid rail ridership formerly drove autos for their trips, while 25 % of San Diego's light rail riders were former auto drivers. The majority of new light rail riders are:

• Former bus riders who have been forced to transfer to rail because their bus routes now feed rail stations instead of the former destinations (usually downtown).

• Riders in "free fare" downtown zones (such as Portland, St. Louis, and Buffalo). For example, all light rail and bus service in downtown Portland is operated without fares.

• Drivers who use free downtown peripheral parking at rail stations to avoid downtown parking charges and ride short distances to their jobs. This reduces auto use by a very small amount and has little positive effect on pollution as well

• Former car pool riders whose car pools continue to operate or have become single-occupant trips. The autos stay on the road.

Light rail has not reduced traffic congestion on nearby freeways.

• For example, in Portland, traffic on the adjacent freeway has continued to grow and is now at least 58 % higher that before light rail was opened. During rush hour, adjacent freeway lane carries seven times as many riders as light rail inbound to downtown. In the reverse direction, a single freeway lane carries over 80 times the passengers on the light rail line.

AIR POLLUTION AND LIGHT RAIL

Considerable progress has been made in improving air quality in the United States and California's Los Angeles basin. From 1970 to 1992, annual road travel increased by more than 100%. At the same time, transportation-related carbon monoxide emissions fell 32 %, volatile organic compound emissions fell 53 %, and nitrogen oxide emissions rose only 1 %. Unhealthy air quality days dropped by more than two thirds in U.S. metropolitan areas from 1987 to 1996, and auto pollution is expected to drop about 25 % more from 1996 to 2010 despite continuing growth in miles traveled. The best year for air pollution in the Los Angeles area for the past 50 years was 1997—despite a tripling of the basin's population. Most of the improvement in air quality is improved vehicle emission technology. Virtually none of the pollution improvement is attributable to transit. Because light rail does not appreciably reduce auto use, U.S. Department of Transportation reports state it cannot materially reduce air pollution.

LIGHT RAIL AND COST EFFECTIVENESS

Since the early 1970s, public transit operating costs per mile have risen at more than double the rate of the Consumer Price Index. Transit is the only passenger or freight transportation mode that has not improved its cost effectiveness since 1980. As a result, transit has become much more expensive than even the auto. In 1995:

- The full cost per passenger mile of operating an auto was $0.16. Transit expenditures per passenger mile were $0.60 -nearly 4 times that of the auto.
- Transit fares, exclusive of subsidized costs, have become more costly than the full cost of the auto - $0.17 per passenger mile.
- Light rail is expensive relative to other transit modes—1996 light rail expenditures per vehicle revenue mile in urbanized areas exceeding 200,000 population were twice the bus rates per mile.

LIGHT RAIL AND ENERGY CONSUMPTION

Public transit is less fuel-efficient than the auto. Only commuter rail, such as Metrolink, is more energy efficient than the auto. In 1995, light rail consumed 13 % more energy than the auto per passenger mile. A principal factor in the energy intensiveness of the electric rail modes (light rail and heavy rail) is the great amount of energy needed to produce electricity. For instance, coal generation of electricity consumes three times as much energy as it produces in electricity.

TRAVEL TIMES AND LIGHT RAIL

A principal reason that urban light rail has not attracted significant numbers of commuters from autos is its slower operating speed. Light rail does not improve commuting speeds for auto commuters because the national experience has been that few riders abandon their cars for light rail.

Light rail is slower than the auto. The average commuter speed is 34.7 miles per hour for autos. This is more than double that of new light rail systems. There also is a waiting time associated with light rail, which increases the advantage of the auto. The average transit commute trip is some 31 minutes longer than the average commute by auto - more than an hour a day. The average auto work

The above is cut & pasted directly from a 1999 report by the Orange County Grand Jury:
Orange County Transportation Authority and Light Rail Planning
http://www.ocgrandjury.org/pdfs/GJLtRail.pdf

Another article about the report: http://www.publicpurpose.com/lib-orcorail.htm