

**August 9, 2005 Fare Increase
Analysis of Metro and APTA Elasticity with Actual Ridership and Revenue Results**

The impacts of the 2005 fare increase straddled two years because the fare changes were implemented during the latter half of 2005. The analysis below compares projections from Metro's elasticity model with actual ridership and revenues in 2005 and 2006. The ridership data used for the comparison are revenue rides less contract and non-revenue rides, taken from reports that are published monthly and reported to the TPC. This in effect is the ridership that pays with cash, ticket (10-ride) and monthly/semester passes. Revenues are from audited financial reports.

The fare model predicted an increase of \$571,000 in new revenues associated with the fare increase; the actual increase based on audited financial reports was \$592,751.

The model used elasticities in the range of -.2 and -.3 and predicted a ridership loss of 132,400. In actuality, ridership increased by 301,884 between 2004 and 2006, and has continued to increase.

If an elasticity of -.4 had been used in that model, the ridership loss estimate would have been 274,100, generating revenues of \$465,843.

At the time the 2005 model was developed, ridership counts by fare category were complicated by the fact that there were more fare types than farebox keys. As a result, some if not most keys had multiple fare types. Thus, ridership counts, derived by drivers pressing the appropriate keys, would not be accurate at the individual fare level for all fares types. Disaggregating the multiple fare types was a major challenge in developing the model. This situation has been largely rectified with the current automated fareboxes.

Table 1: Fares Raised on August 9, 2005

| Fares Increased | 2004 | 2005 | % Inc. | Ridership Loss at -.4 | Actual Revenue Changes Between 2004 - 2006 |
|-----------------|----------|-----------|--------|-----------------------|--|
| Adult Tickets | \$ 11.00 | \$ 12.00 | 9% | -3.6% | When adjusted for city employee shift to pass program, grew 14%. |
| Monthly Pass | \$ 39.00 | \$ 47.00 | 21% | -8.4% | When adjusted for city employee shift, grew 10%. |
| Youth Cash | \$ 0.85 | \$ 1.00 | 18% | -7.2% | Grouped with all cash, which increased by 26%. |
| Youth Tickets | \$ 6.00 | \$ 8.50 | 42% | -16.8% | Declined by 7%, probably some shift to semester pass. |
| Semester Pass | \$ 95.00 | \$ 125.00 | 32% | -12.8% | Increased by 29%. |
| Day Pass | \$ 3.00 | \$ 3.40 | 13% | -5.2% | Grouped with cash. |

Table 2: Metro/Apta Elasticity Compared to Actual Estimates

| Non-Contract Ridership and Revenues* | Metro Model | APTA (-.4) | Actual (2004-2006) | Variance | |
|--------------------------------------|-------------|------------|--------------------|--------------|-------------|
| | | | | Metro/Actual | Apta/Actual |
| Ridership Estimate | (132,410) | (274,091) | 301,884 | -144% | -191% |
| Revenue Gain Estimate * | \$ 571,000 | \$ 465,843 | \$ 592,751 | -4% | -27% |

* Excludes contract rides, Route 80, non-revenue rides, transfers and special events.