

MayorAndCouncil, Mark Twain's view of LTD statistics

To: MayorAndCouncil
From: Paul Conte <pconte@picante-soft.com>
Subject: Mark Twain's view of LTD statistics
Cc:
Bcc:
Attached:

Dear Mayor and Councilors,

For those of you who are fans of Mark Twain, you'll know he popularized the saying attributed to Disraeli: "There are three kinds of lies: lies, damned lies, and statistics".

If Twain were around Eugene today, he might have used one of LTD's statistics as an example.

In the Powerpoint presentation LTD presented at your February 23 work session (which I've just received today), on slide 28, titled "Conclusions on Financial Commitment," LTD attempts to trivialize the 72,000 greater ridership gain of the W. 6th/7th alternative over the W. 11th/13th alternative, which they're promoting. The slide states:

"Note that the 6th/7th alternative has \$10 million more in capital cost [which is] 12.5% higher with longer travel times (4 minutes) and less than 1% more ridership system-wide."

The obvious inference you're intended to draw from this "analysis" is that Council would be making a very bad decision to spend \$10 million for less than a 1% gain in ridership (even though we all know this would be "free money" from the Feds and State, anyway).

But let's examine the statistics a little more closely.

* What LTD presented ...

To make the claim that \$10 million in additional capital costs produced "less than 1% more ridership," LTD used the difference between 6/7 and 11/13 gain in ridership divided by the total system ridership.

$72,000 / 15,000,000 = 0.48 \%$

Now let's look at how the two alternatives actually compare head-to-head:

* What is the return on investment for the W. 11th/13th alternative? It's total ridership gain divided by total system ridership divide by cost. ...

$548,000 / 15,000,000 = 3.653 \%$ increase for \$76.6 million = 0.4769 % gain per \$10 million

* And, using the same calculation, what is the return on investment for the W. 6th/7th alternative? ...

$620,000 / 15,000,000 = 4.133 \%$ increase for \$86.3 million = 0.4772 % gain per \$10 million

How do you like that? It turns out that the W. 6th/7th alternative that LTD tried to marginalize has a better ridership ROI than their favorite!

And if LTD thinks that a ridership gain of less than 1% for \$10 million is a bad deal, then what kind of

deal does that make either WEEE alternative, when they both return less than *one-half percent* per \$10 million investment?

Mark Twain would be chuckling.

-- Paul Conte