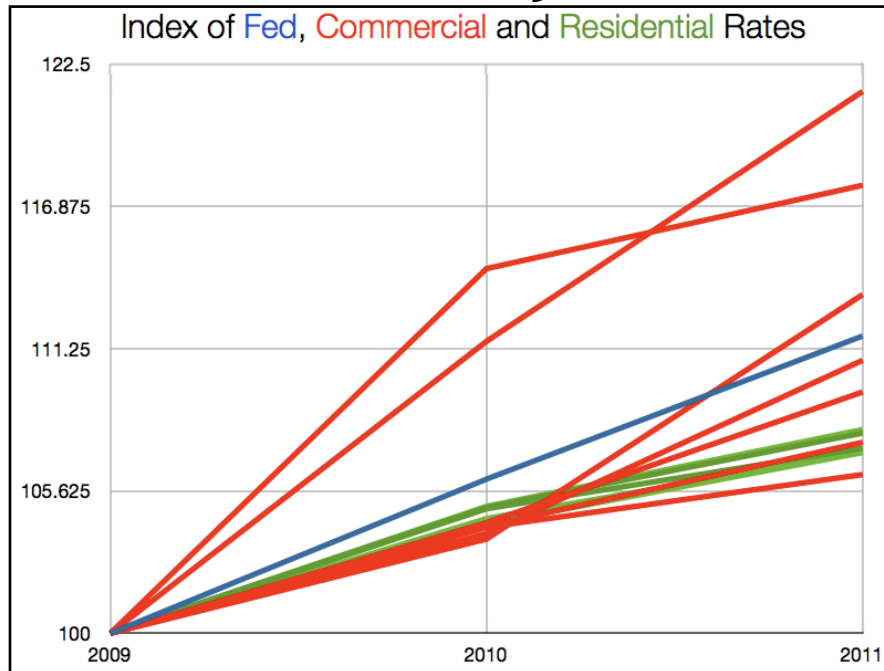




# Banyan Bulletin

## Price Index for 15 Utilities



Research indicates that prices rose at the fastest rate for commercial customers at large meter sizes: 2", 8" and 10".

Prices rose from 10-22% over a period of three years.

These prices were driven primarily by increases in the base charge. However, these results are tenuous as they're based on a small

quantity of water consumption for the meter size.

For small commercial and residential meters, prices rose by 6%-15% over three years. Price increases were driven by commodity charges.

Data from the Bureau of Labor Statistics on 200 utilities shows prices rising by 11% over three years.

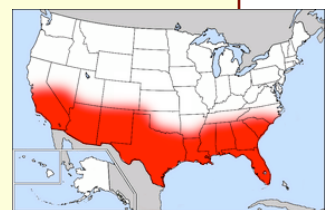
### Where are these utilities?

These utilities are located in the sunbelt region, which is in the Southern United States.

There were a total of 15 water utilities in the sample, located in: Colorado, Tennessee, California, Texas, New Mexico, Nevada and Florida.

While user charges vary based on the demographics of the region, they are constant as a percentage of median household income (MHI).

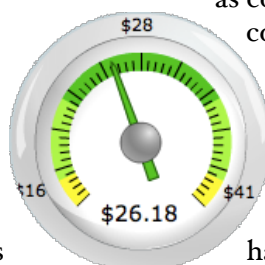
For example, Miami has the third lowest MHI in the nation, and San Francisco has one of the highest, but both households spend about the same percentage of their incomes on water. (<1%)



### GAUGES TELL YOU THE DISTRIBUTION OF THE DATA, BUT ARE LIMITED IN USE

Gauges can potentially provide important information for the user, usually the distribution of data, along with other vital statistics like the average and dispersion.

Gauges can also cross-link to other databases, giving a more comprehensive picture of water prices



as compared to income, utility revenues, and conservation incentives.

However, there are limits to using gauges. For example, the "bill comparison" gauge (pictured) belies a symmetrical distribution. Contrary to the dial, the distribution of the prices for the 15 utility sample had a distribution that was positively skewed.



## WHICH UTILITIES NEED OUR SERVICE?

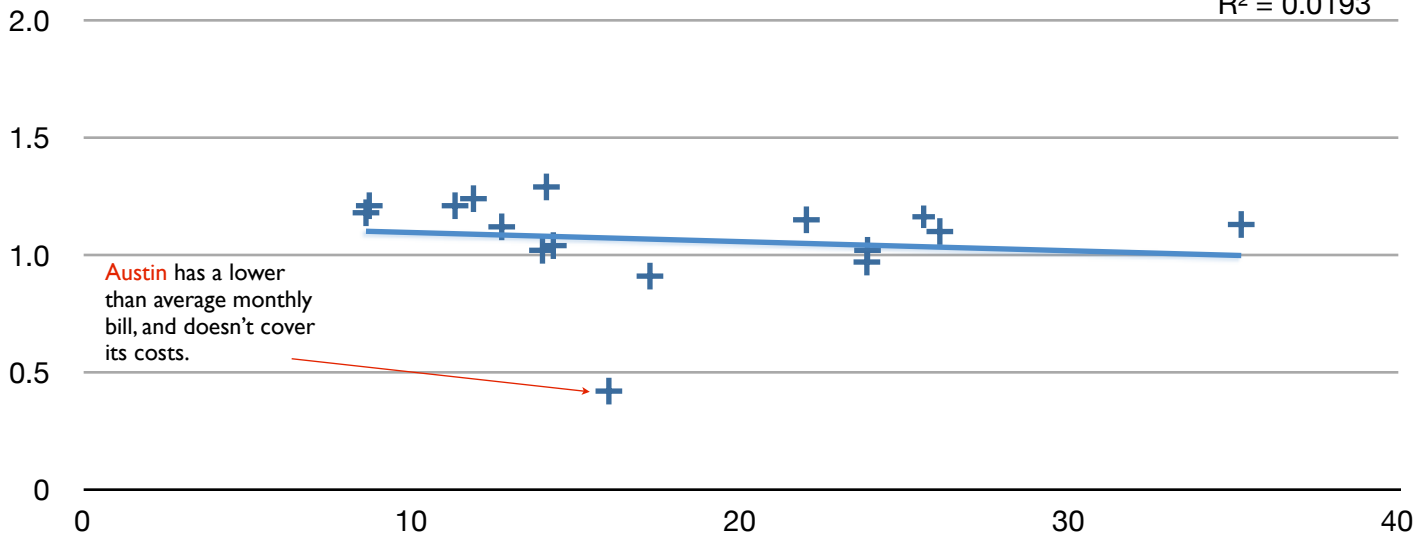
The majority of the utilities in the survey, all of which have large customer bases, are able to cover their costs.

This begs the question, why would they then buy our dashboard? Many of them already employ financial consultants. Where, or *who*, is our “low-hanging fruit,” and what are their attributes?

Potential clients of the Banyan Dashboard should be medium size utilities that are small enough that there is a higher chance that they fail to cover their costs but large enough that they can afford to funnel revenue from increased prices into (a) balancing their books and (b) paying us. Case in point: Austin.

## CASE STUDY: AUSTIN

### Average Residential Bill against Operating Revenues over Operating Expenses

 $R^2 = 0.0193$ 

While prices against cost recovery are the primary indicator of potential clientele, there are certain “ancillary signals” that may serve as barriers to raising prices.

Water costs should be approximately 1% or less of median household income (MHI) (Raftelis 2009).

Austin is right in the center of the distribution of residential bills over MHI (top chart), which indicates that Austin can raise its costs while still meeting its affordability requirement.

Another ancillary signal is conservation pricing, which factors scarcity into water prices.

A general shift towards incremental block rates (IBR's) and seasonal pricing suggest that incremental costs above average consumption are increasing.

Again, Austin is in the mode of the distribution. Austin has a strong interest in conservation, as they charge users additional “sustainability fees.”

*Top chart: the distribution of residential bills as a percentage of MHI.*

*Bottom chart: the distribution of incremental prices (prices for an additional 1,000 gallons beyond 5,000 gallons per month)*

