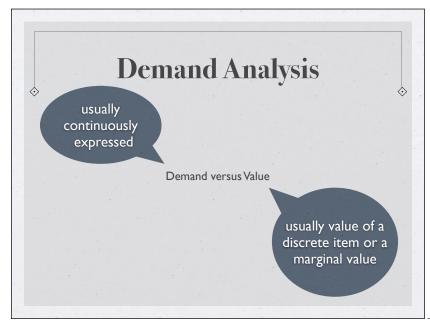


#### Forthcoming Chapters 10. Demand estimation methods, findings 11. Supply methods 11.7 "Privatization Question" 12. Demand & Supply Modeling 13. WRE's Themes



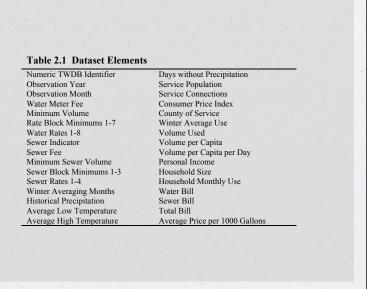
#### Demand Analysis \* When speaking of "demand", \* insist on economic literacy \* w=D(p; ...) or MB=D-1(w; ...) \* Projecting quantity demanded (so-called water "needs" or "requirements") is an empty exercise if rising scarcity is ignored

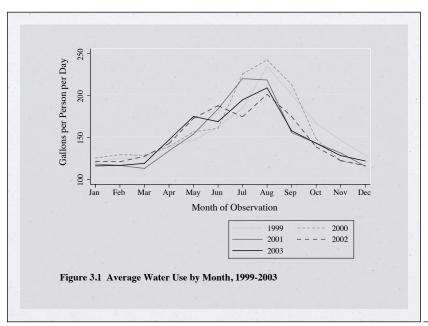
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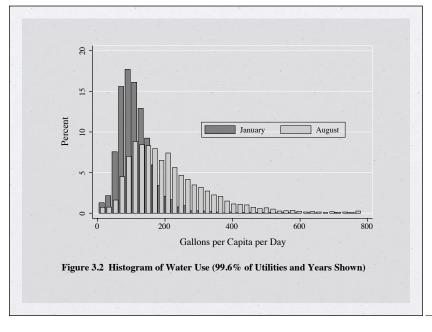
# Demand Analysis Eight Empirical Methods 1. point expansion 2. residual imputation 3. math programming 4. production function 8. travel cost

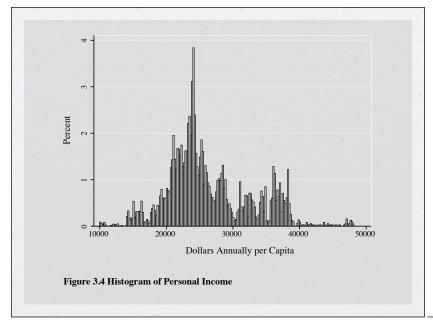
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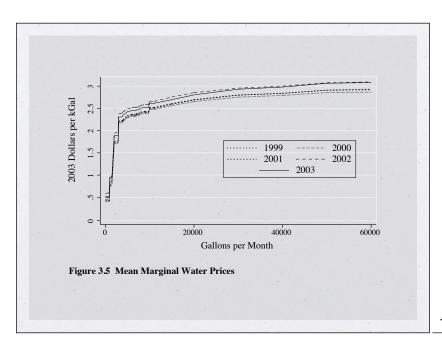
# \* 730/1406 communities \* quantity, rate, income, weather data \* monthly × 5 years (1999-2003) \* over 39,000 observations in completed dataset

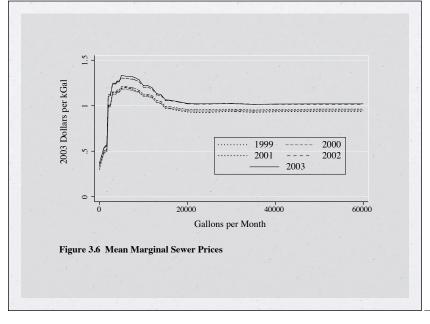


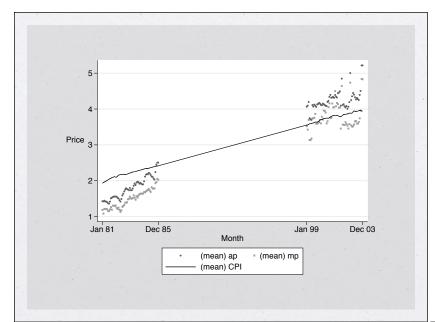


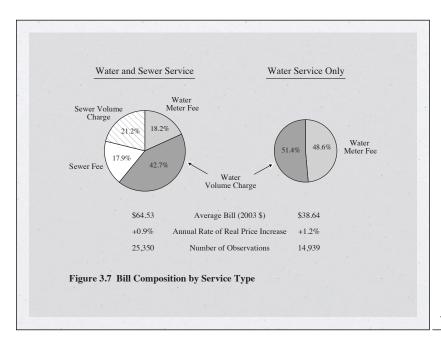


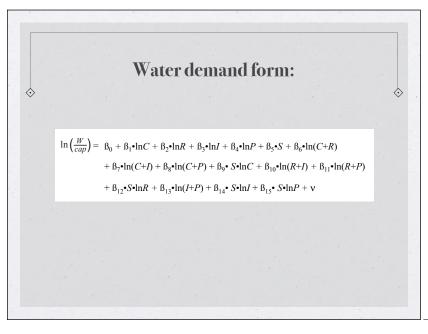


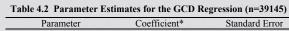








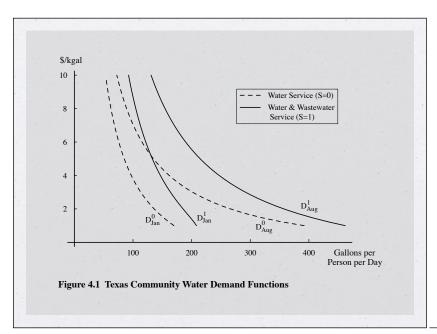




Parameter	Coefficient*	Standard Error
ln C	0.189	0.0264
ln R	0.339	0.0233
· ln I	0.541	0.0624
ln P	-0.448	0.0331
S	0.393	0.0252
ln (C+R)	-0.219	0.0487
ln (C+I)	0.316	0.0699
ln (C+P)	0.909	0.0597
S • ln C	-0.0699	0.0156
ln (R+I)	-0.260	0.0550
ln (R+P)	-0.526	0.0416
S • lnR	0.0903	0.00861
ln (I+P)	-0.800	0.0637
S • ln I	-0.268	0.0185
S • In P	0.144	0.00915
Constant	5.58	0.0674
Adjusted R <sup>2</sup>	0.49	
Mean Squared Error) <sup>0.5</sup>	0.36	

<sup>\*</sup>All parameter estimates significant at 99% confidence level.



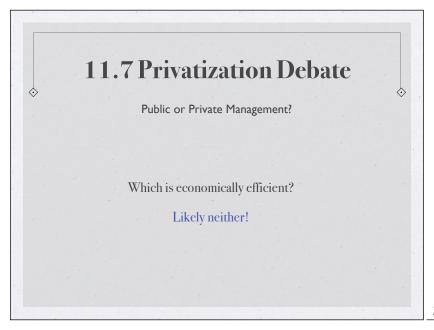


#### 11.7 Privatization Debate

What should own/run these natural monopolies?

#### Debate Public or Privatization Debate Public or Private Management? \* Can't apply First Theorem here! \* An assumption isn't met (DRTS). \* Decreasing returns to scale is commonly untrue due to high proportion of fixed costs in producing retail water. \* Completely different issue than natural water ownership \* Privatization ≠ competition

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# \* Public managers aren't rewarded for net benefits or low costs. \* Political process advances nonefficiency goals in public decision making.

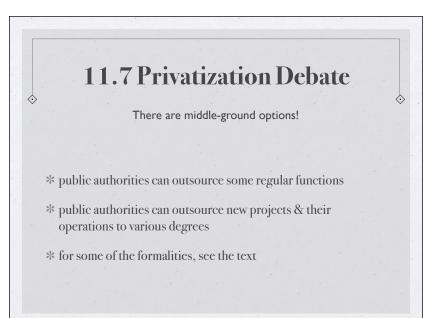
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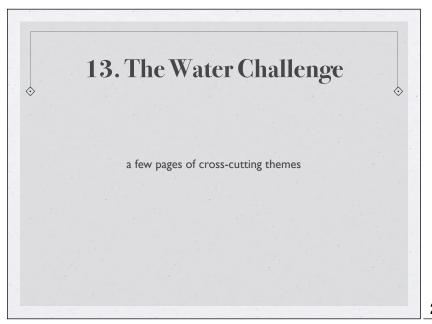
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### \* May miss municipal bond tax exemption \* Pursuit of profit leads to abuse? \* Does rate regulation encourage too much capital? \* Other losses or omissions too?

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# \* Statistical analysis is inconclusive regarding cost differences, but neither style seems least-cost \* Both types tend to omit important opportunity costs anyway





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#### **Major Messages** ♦ \* Marginalism \* New Labels Are Empty \* Go with the Flow \* Criticize Missed Opportunities \* Not Needed, Not Required \* Conduct Policy/Project Analysis \* Efficiency Objectives \* Enable Markets, But Be Real \* Attend to Opportunity Costs \* Improve Pricing \* Appreciate Program Packages \* Overrated 2ndry Effects \* Address Risk \* Empirical Practices \* Refine Institutions \* Privatization