Water Privatization, Provider-User Relations and Water Conservation

Preliminary insights from California

J.Fulton*, G. Kallis**, I.Ray***, J. E. McMahon****

***** Water Research Centre, Technical University Delft, P.O. box 5048, 2628 CN Delft The Netherlands (E-mail: j.fulton@tudelft.nl)

** Institut de Ciència i Tecnologia Ambientals, Universitat Autonoma de Barcelona, Edifici Ciències, Torre Àrea 9, 4a planta. C5-438, Barcelona, Spain, (E-mail: giorgoskallis@gmail.com)

*** Energy and Resources Group, University of California at Berkeley, 310 Barrows Hall, Berkeley, CA, 94720, USA, (E-mail: isharay@berkeley.edu)

**** Energy Analysis Department, Lawrence Berkeley National Laboratory, 1 Cyclotron Road, MS 90R4000, Berkeley, CA, 94720, USA, (E-mail: JEMcMahon@lbl.gov)

“Food and water are basic rights. But we pay for food. Why should we not pay for water?”

- Ismail Serageldin at the Second World Water Forum, The Hague

“Water should not be privatized, commodified, traded or exported in bulk for commercial purposes.”

- Maude Barlow, Blue Planet Project

Presentation Outline

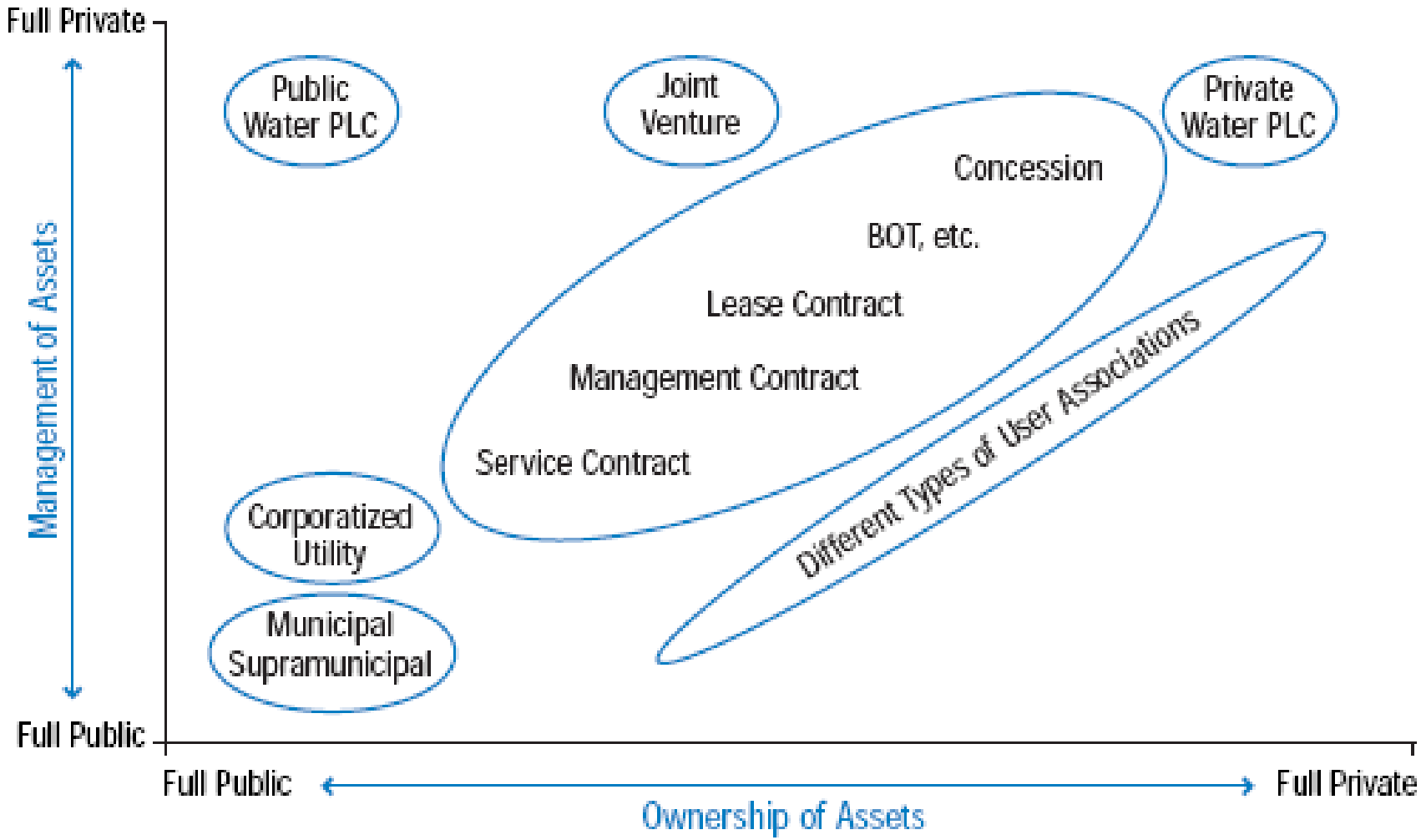
- Background
- Motivation
- Strategy
- Methods
- Results
- Conclusions

Background

Definition:

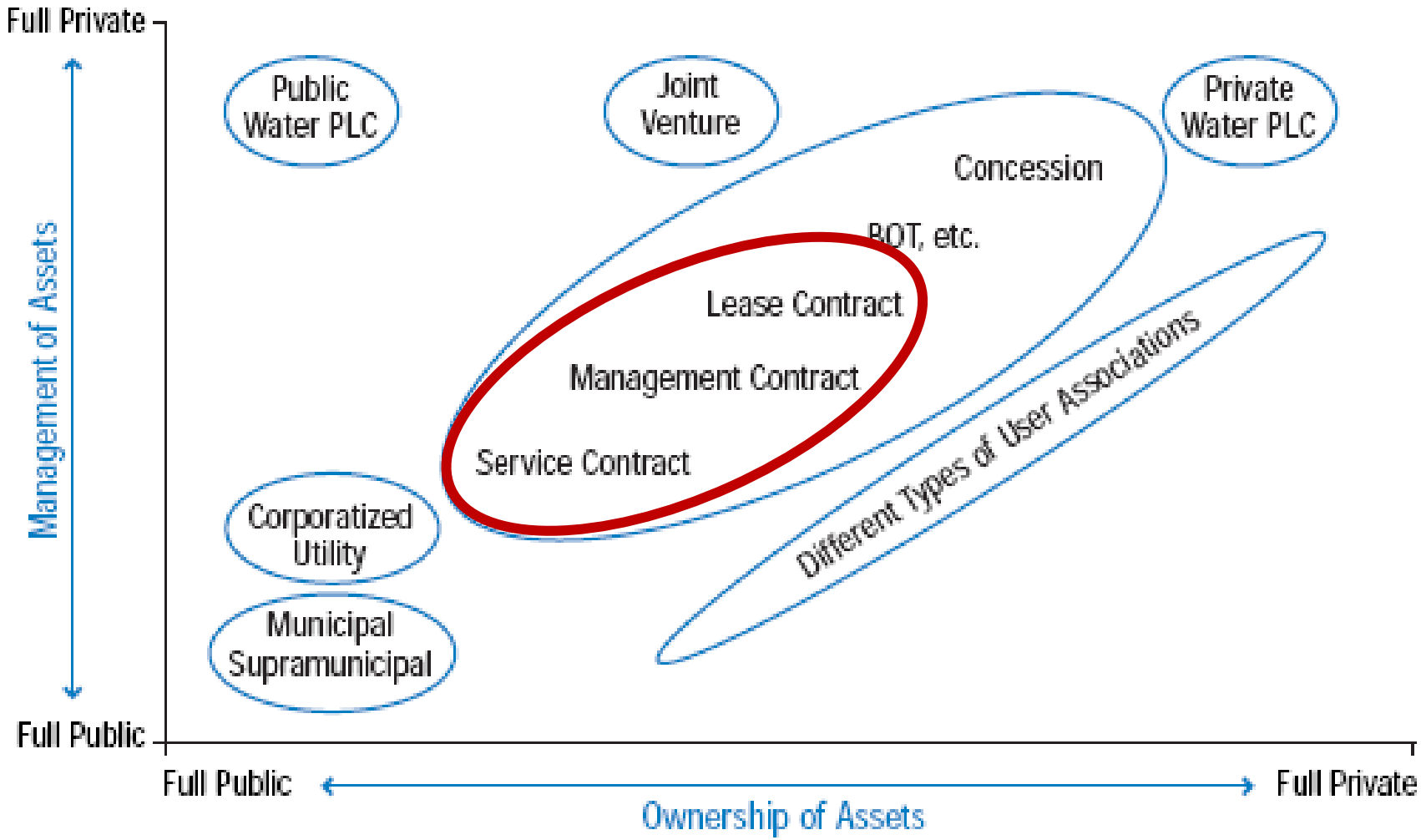
"privatization" means a permanent or longer term (>10 yrs) handover of management of the entity responsible for the core activities of drinking water supply, the "water utility".

Background



Source: Blokland (1999)

Background



Source: Blokland (1999)

Background

- 300 million people worldwide (5%) receive their water from private providers (up from 50 million in 1990)
- In the United States, this is about 16% of the population
- Multinational business ($300-400 billion)

Source: Wolff (2005)

Motivation

Reports, primarily from England, suggesting that after water privatization:

a) Users became less responsive to water providers' calls for conservation during shortages,

b) Users became more resistant to water price increases,

c) Water providers became more reluctant to ask for, or impose reductions in water consumption.

Motivation

These effects may relate to a shift from a civic model of water provision to a consumer model, where:

a. users are less likely to sacrifice for the common good,

b. providers are less likely to impose hardships on users,

…having direct implications for water resources

Strategy

To examine whether the observations from England are relevant to different contexts and types of privatization, by:

a. comparing users' intentions and practice when faced with conservation measures and rate increases

b. comparing the actions taken by water providers during drought conditions.

Strategy

This research aims to test empirically the following hypotheses:

Other factors equal, users in privatized water utilities are less willing to:

i. conserve water voluntarily
ii. pay more for water

…than users in similar non-private water utilities.

Methods

Three types of methods were used:

1. A telephone survey of water utility customers
2. Analysis of customer usage data
3. Interviews with water utility managers

Methods: Telephone Survey

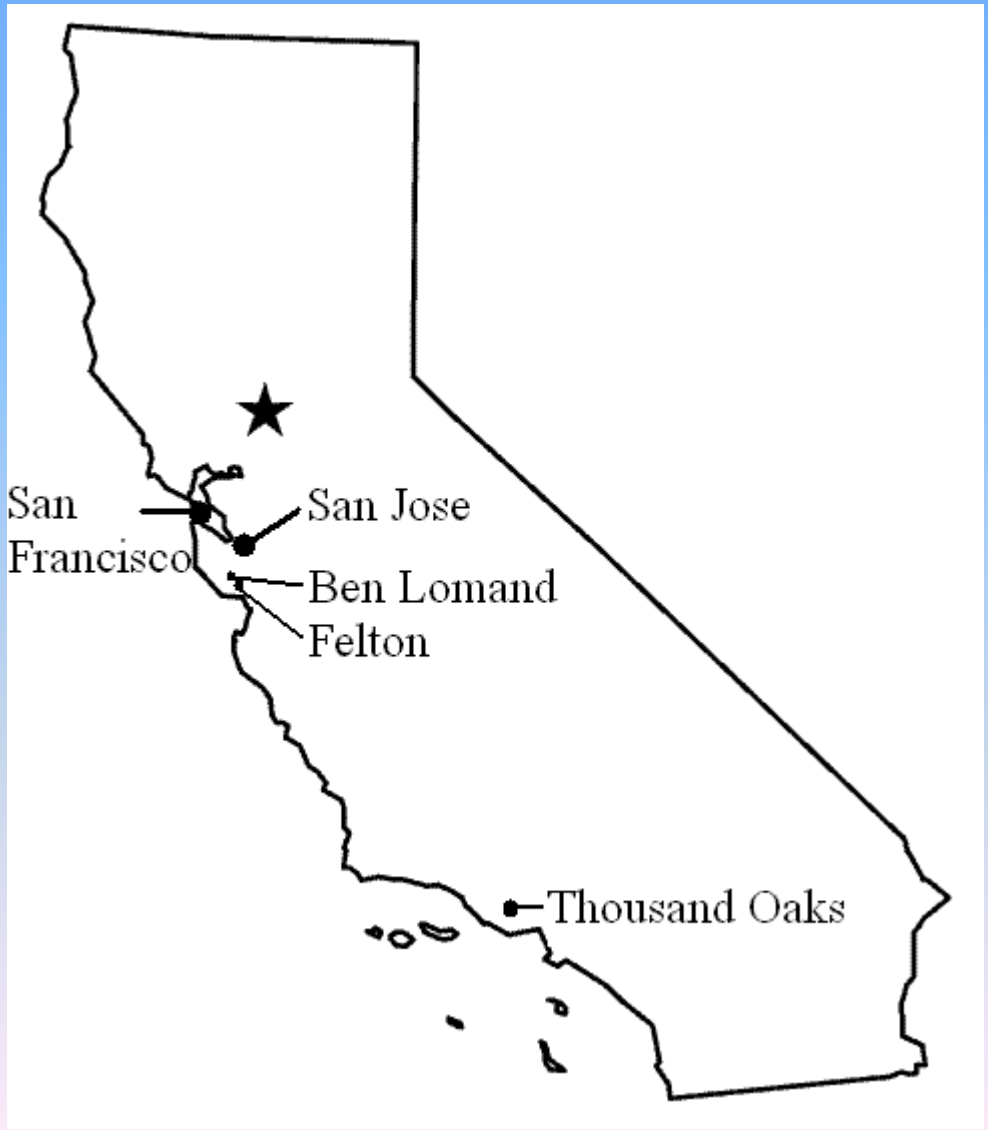
A random telephone survey of 600 water users in three pairs of comparable cities in N California, one of which was served by a public and the other by a private water utility:

	Set 1	**Set 2**	**Set 3**
Publicly-owned (public)	San Francisco Public Utility Commission	City of Thousand Oaks Department of Public Works	San Lorenzo Valley Water District – Ben Lomand
Investor-owned (private)	San Jose Water Company	California American Water Company – Thousand Oaks / Westlake District	California American Water Company – Felton District

Methods: Telephone Survey

Utilities and attributes:

- Population Served
- Population change
- Income
- Density
- Federal Voting
- Operator
- Ownership
- Since?
- Source of water
- Domestic consumption
- % of water to irrigation
- Price of water (w/.75” cnx)
- Rate structure
- Recent price increases
- Disconnection policies
- Conservation programs
- Recent drought orders



Methods: Telephone Survey

The survey questionnaire was designed to assess…

a. willingness to conserve during periods of water shortage, voluntarily,

b. willingness to conserve during periods of water shortage, by mandate,

c. willingness to pay higher prices to cover infrastructure improvements,

d. whether users' responses depend on their provider being public or private,

e. How aware are the users of the public or private character of their provider

Methods: Telephone Survey

…taking into account:

f. degree of practicing conservation already,

g. whether responding household pays for water itself or not,

h. local cost of water,

i. household income levels,

Methods: Telephone Survey

…and avoiding bias in sample demographics by:

j. making random calls in different days and times of the day,

k. talking only to adults,

l. informing about the topic of the discussion only after survey consent given.

Methods: Usage Data

Usage data was acquired from 30 utilities for 2007 (a drought year) and compared with previous (non-drought) years to test:

a. whether calls for conservation from utilities affected users' usage patterns,

b. whether there was a noticeable difference between usage patterns in public and private utilities.

…accounting for

c. demographic changes within the utility district affecting usage statistics

Note: data is still incoming and results from this section are not given

Methods: Interviews

Also in regard to the 2007 drought, water managers of private and public water utilities (30 total) were asked the following:

a. whether they issued voluntary calls for conservation last summer.

b. whether they applied any mandatory cuts on water uses.

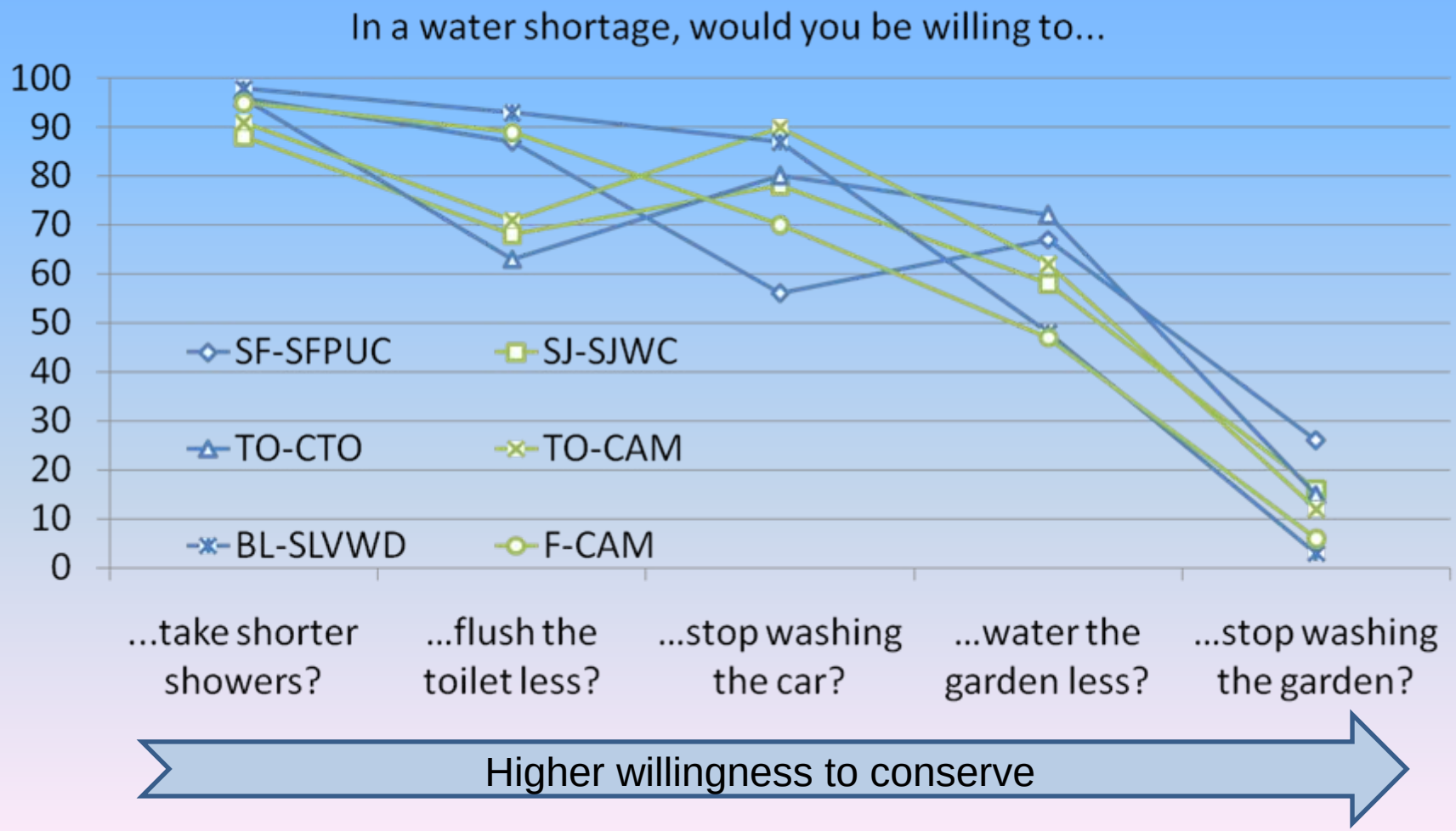
c. the type of messages and tools they used to sensitize and inform their users

…accounting for:

d. Type of water resources and hence severity of drought (ground water dependant providers face drought conditions later).

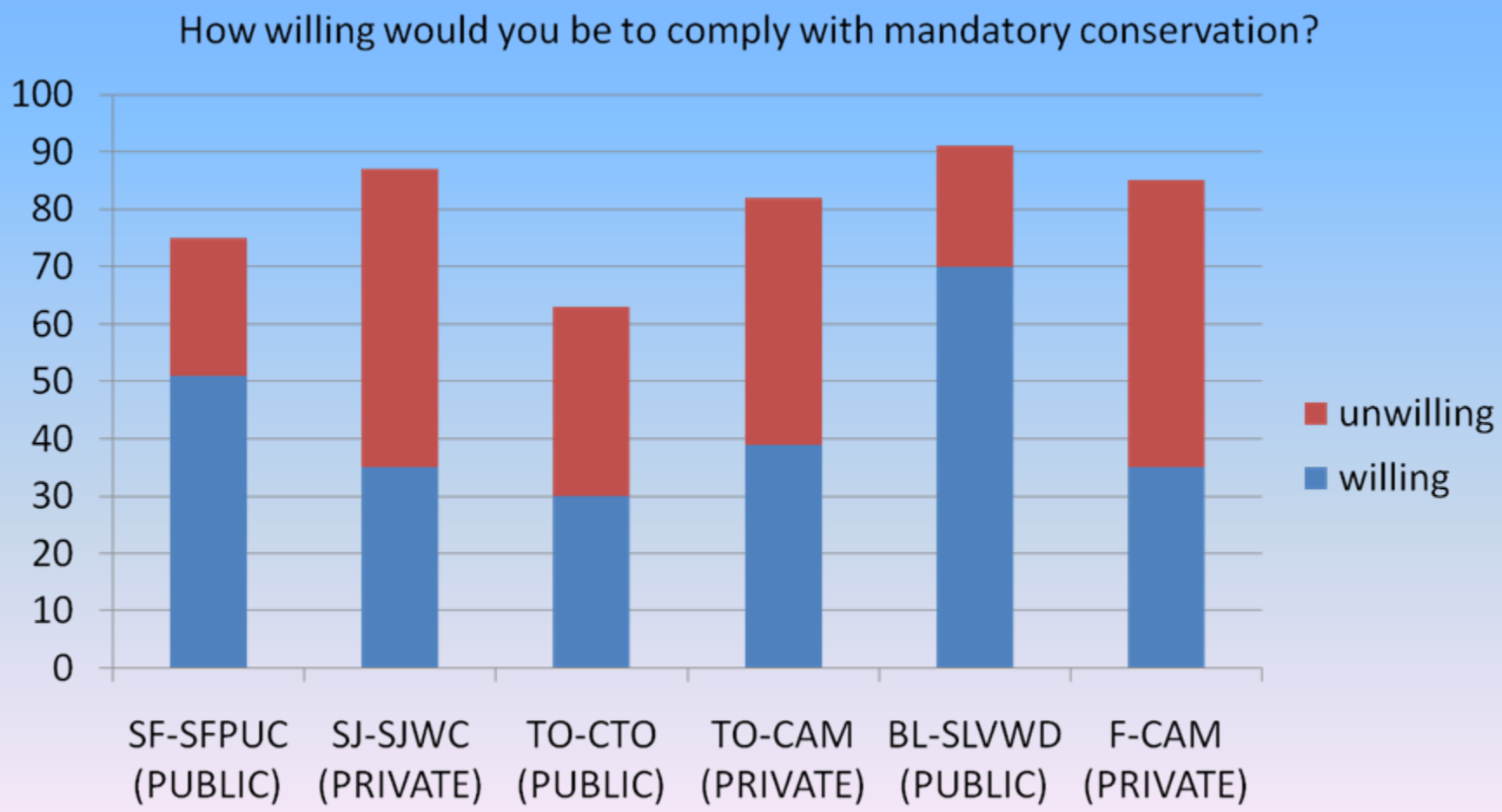
Results: Telephone Survey

a. willingness to conserve voluntarily:



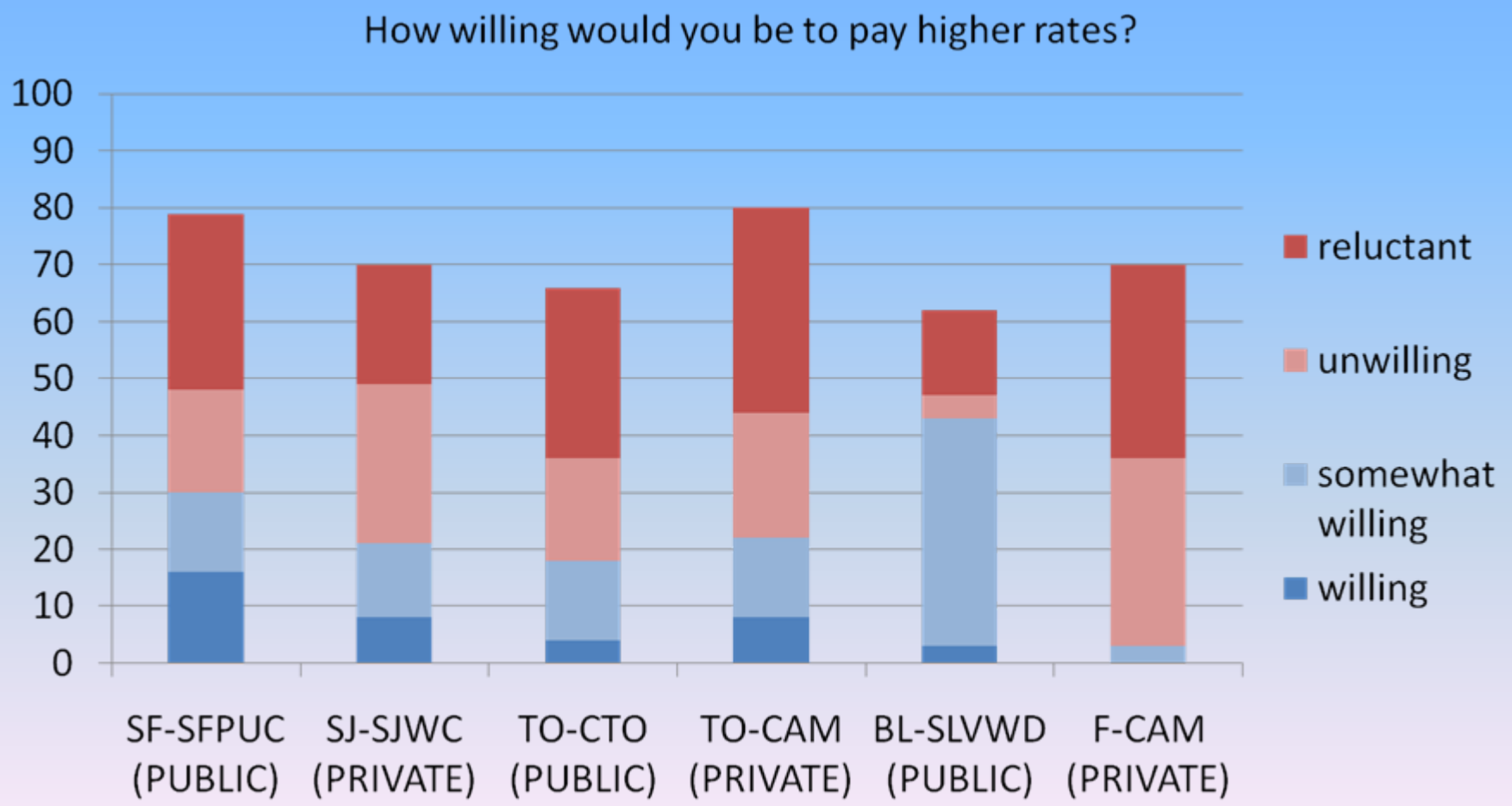
Results: Telephone Survey

b. willingness to conserve under mandatory restrictions:



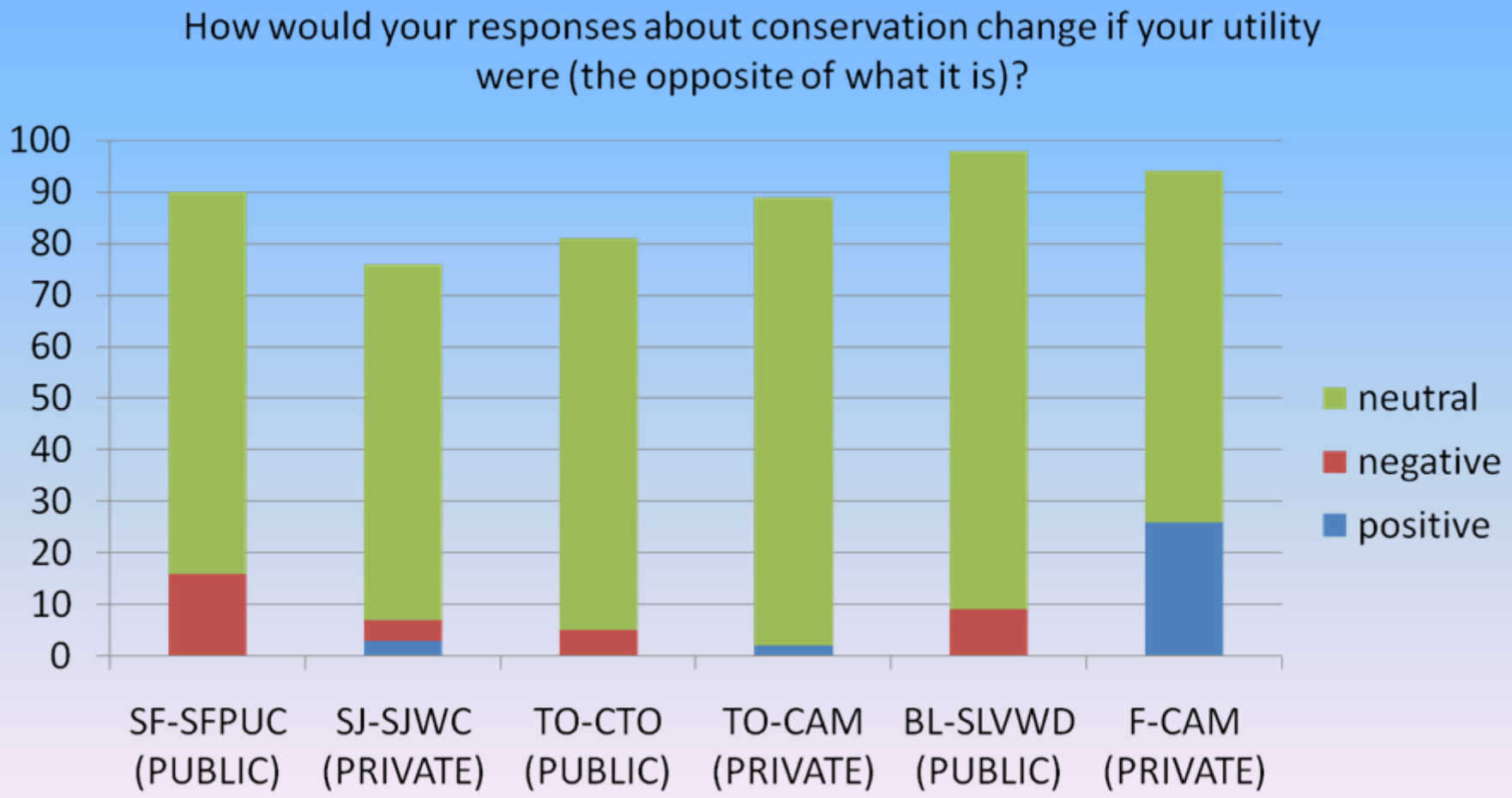
Results: Telephone Survey

c. the willingness of users to pay higher rates



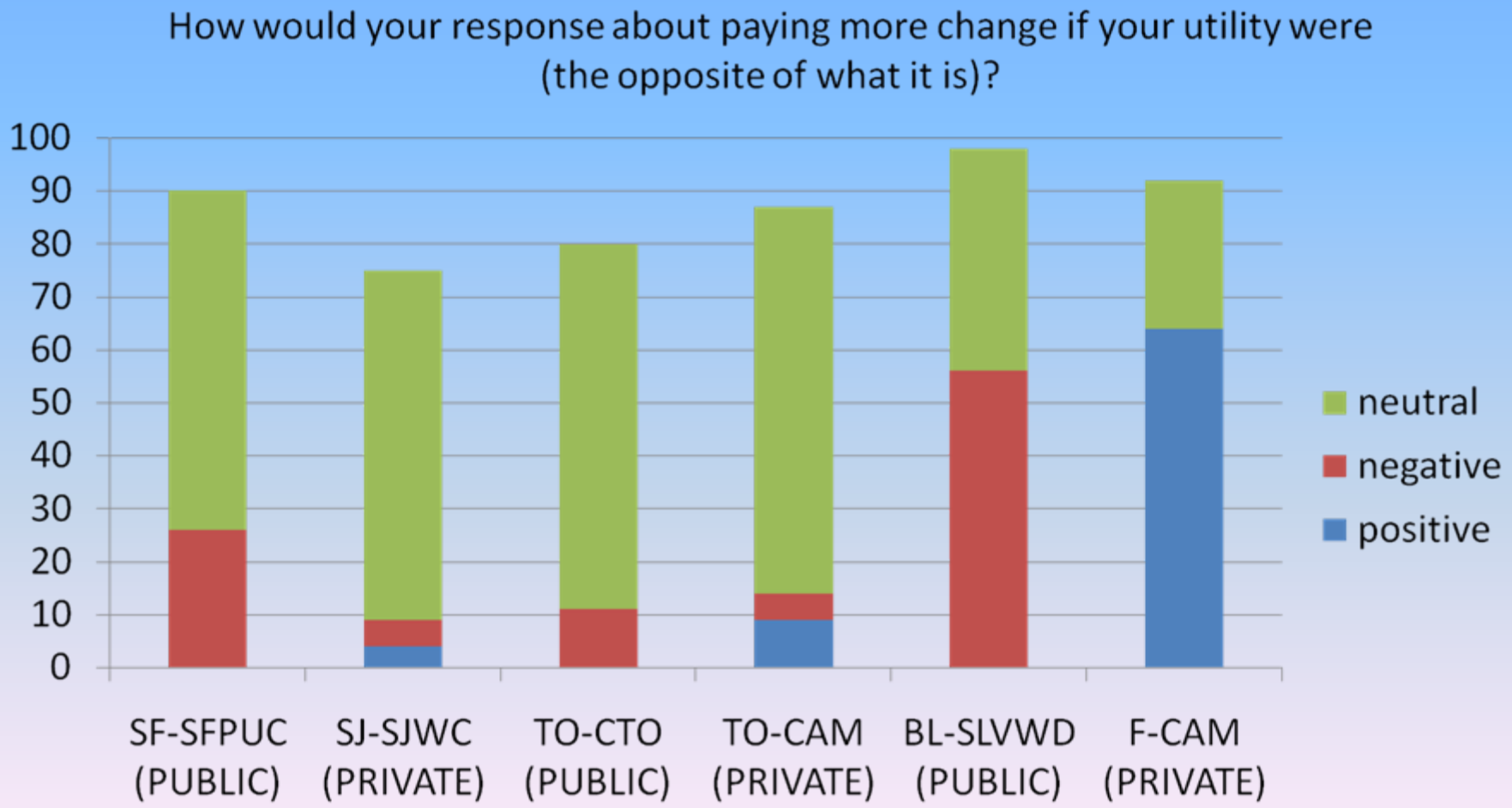
Results: Telephone Survey

d. Consideration of utility ownership in conservation



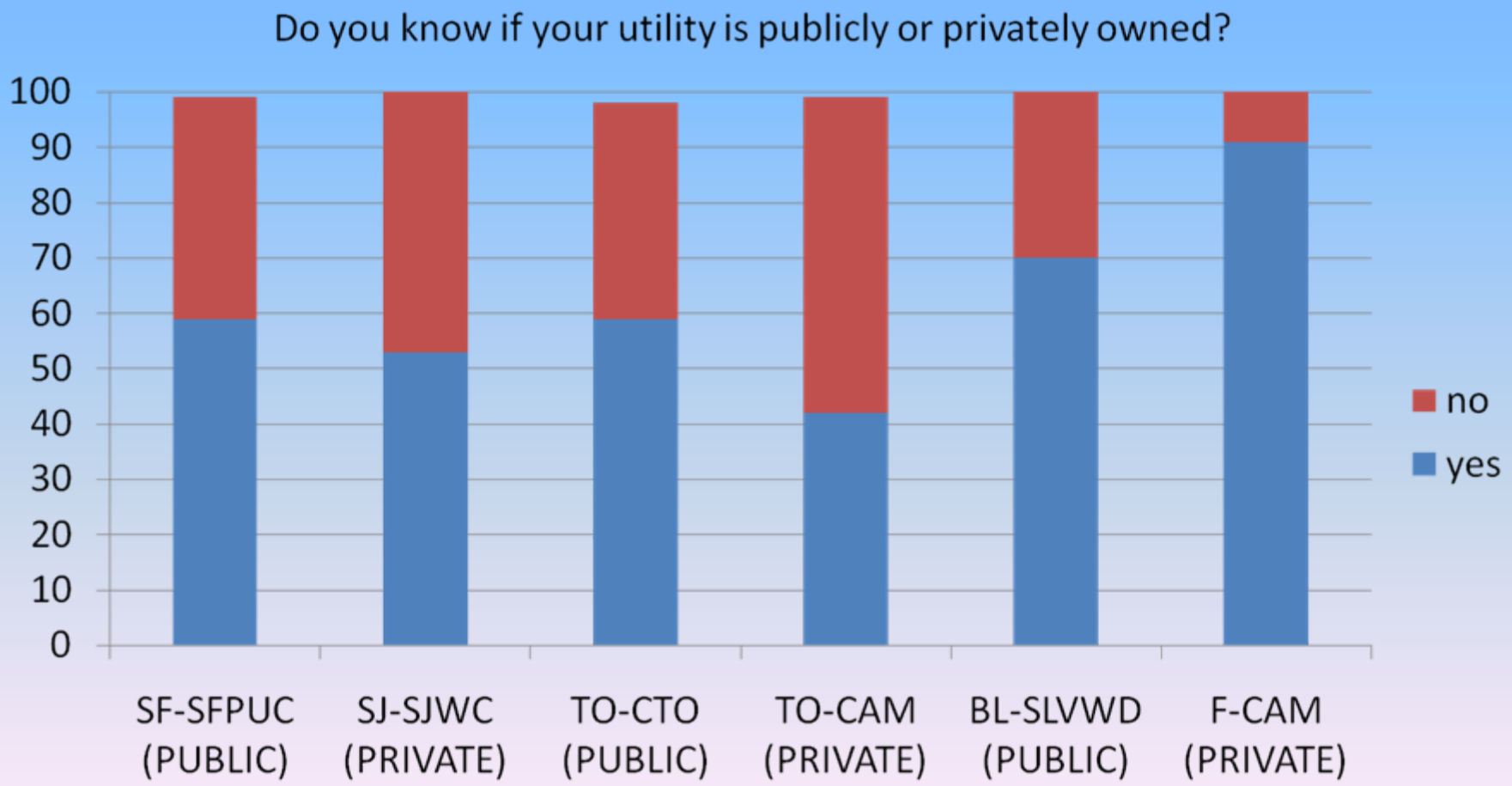
Results: Telephone Survey

d. Consideration of utility ownership in paying more



Results: Telephone Survey

e. Users' awareness of the public or private character of their provider



Results: Utility Interviews

In this summer's drought:

a. Significantly more public than private water providers issued conservation calls to their users,

b. and all but one of the private providers that issued, did not do so directly; it was the public districts they belonged to that issued the conservation calls.

c. No provider applied mandatory restrictions (though the drought was not yet that severe to warrant them),

d. Public providers were keen to work with their users through voluntary conservation programs

e. whereas, private providers were keen to wait and even recourse to harsh mandatory restrictions, once regulators declared drought formally.

Conclusions – Telephone Survey

- The private character of the provider seems to make a difference in willingness to accept mandatory conservation and higher prices
- …But hard to tell whether it is the public vs. private character of the providers responsible for the differences, or for more specific reasons related to socio-political factors.

Conclusion 1

- There is a difference in the way private and public providers see their relation to users and that this is part (decisive or not, is not clear) of the reluctance of private providers to proactively intervene and push water conservation.
- This is reflected in a relatively lower willingness of users in private utilities to accept a more interventionist conservation approach.

Conclusions 2

- Whereas private providers may be keener to use market instruments and the price signal for conservation, a downfall could be that their for-profit character makes users more skeptical of price increases

- Therefore whereas water users may be increasingly treated as customers by their providers, we expect that they will also be continuously instigated to think and act like citizens in periods of crisis and for purposes of conservation.

References

- Wolf, G., Hallstein, E., (2005), Beyond Privatization: Restructuring Water Systems to Improve Performance, Pacific Institute for Studies in Development, Environment, and Security. Oakland, California, USA.

- Blokland, M., O. Braadbaart, and K. Schwartz, (1999), *Private Business, Public Owners: Government Shareholding in Water Enterprises. Ministry of Housing, Spatial Planning* and the Environment. The Hague, the Netherlands.

Thanks!