

A Consideration of the Costs vs. Benefits of Distributing Water to Fulton County

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January 13, 1996

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The proposal before Council involves a 20-year commitment to supply 12 million gallons of water per day to Fulton County, representing 10 percent of Toledo's current 120 million gallon daily water sales. Six million gallons per day, or 5 percent of Toledo's current daily water supply would go to a single firm, making this the largest water user in Northwestern Ohio. An informed decision by council should be based on consideration of both the costs and benefits associated with the proposed legislation.

While Don Moline has outlined the revenue (benefits) that will result from water sales at the negotiated surcharge rate, no one has attempted to enumerate the costs in terms of potential payroll and property tax losses to the City of Toledo. This report assesses these costs using information from past studies by the Urban Affairs Center. It should be kept in mind that time did not permit a detailed study. Nonetheless, the conclusions are quite clear cut, suggesting that a more in-depth study would come to the same qualitative conclusions, although some of the numerical magnitudes might change.

No one knows the future impact of economic development in western Lucas and Fulton counties, but we can calculate the payroll and property tax losses to Toledo that would offset the water revenue benefits set forth by Don Moline. This should provide a basis for thinking about the likelihood that benefits exceed the costs (or the converse). In addition to these calculations, we can apply what we learned about the rate of job movement from Toledo to the suburbs from the UAC Arrowhead study carried out for council. These dollar tax losses were calculated and translated into Toledo jobs lost using the following assumptions:

1. Every job lost would be a \$30,000/year job, the 1995 average pay of Toledo firms that moved to Arrowhead. To make this number conservative, no inflation was applied to future years extending through 2016, the life of the proposed 20-year water contract.
2. For every 2 jobs lost, Toledo would lose the property taxes paid on one \$90,000 home (the price of a home affordable on a \$30,000/year income). The assumption here is that 50% of the workers whose jobs moved to western Lucas or Fulton county would move out of Toledo. Given the distance to Fulton county, this seems a conservative assumption. In addition, no commercial property tax loss was considered, adding to the conservative nature of this assumption.
3. We assumed two alternative scenarios regarding the growth of water sales to Fulton county. Scenario 1 reflects a more conservative growth in water sales and scenario 2 suggests that we reach the maximum water sales of 12 million gallons/day specified

in the contract. In thinking about this, keep in mind that a typical household uses 50 gallons of water per day, suggesting that 1 million gallons of water would support 20,000 homes. Consider also that, for Fulton county to use the excess 6 million gallons/day specified in the contract, they would have to put in place 5 percent of the residential and commercial property currently being served by the City of Toledo Water Division. In brief, we believe that scenario 2 is extremely optimistic and that scenario 1 comes closer to reality.

(a) Scenario 1 posits:

Year 1, 1996	—	3 million gallons
Year 3, 1998	—	4 million gallons
Year 6, 2001	—	5 million gallons
Year 10, 2005	—	6 million gallons
Year 20, 2015	—	8 million gallons

(b) Scenario 2 posits:

Year 1, 1996	—	3 million gallons
Year 3, 1998	—	6 million gallons
Year 6, 2001	—	8 million gallons
Year 10, 2005	—	10 million gallons
Year 20, 2015	—	12 million gallons

Using these simple assumptions, we constructed Figure 1, showing the number of Toledo jobs that would need to be lost (as a result of development enabled by water sales) to just equal the surcharge revenue set forth by Don Moline under scenario 1 for growth of water sales over time. Think of Figure 1 as a costs = benefits line. This diagram indicates that a loss of more than 1,797 jobs by the year 2005 (due to development based on water availability) would mean the costs associated with the proposed legislation exceed the benefits. On the other hand if we lose less than the number of jobs specified on the line for Figure 1 for that various years, the benefits exceed the costs.

How likely is it that Toledo's jobs losses would equal or exceed those shown on the costs = benefits line in Figure 1? To address this question, we draw upon the UAC Arrowhead study. Figure 2 shows the 20-year Arrowhead experience with respect to Toledo jobs movement, superimposed on the costs = benefits line from Figure 1. In Figure 2, the costs = benefits line is dwarfed by property and payroll tax losses to Toledo due to job movement. Figure 2 suggests that by the year 2001 the costs to Toledo from water sales would exceed the benefits gained from surcharge

revenue. By the year 2015 the costs would exceed the benefits by roughly 10 million dollars per year.

Figure 3 shows the Arrowhead experience imposed on a costs = benefits line constructed on the basis of the optimistic scenario 2 regarding the growth of water sales to Fulton county. Here we see that under the most optimistic scenario, the payroll and property tax losses would exceed the water revenue benefits by the year 2004, and by the year 2015 the costs would exceed the benefits by 8 million dollars per year.

In summary, this brief analysis suggests it is highly likely that the costs to the City of Toledo from the proposed legislation would vastly exceed the benefits from the water revenue surcharge, even under the most optimistic outcomes. An intuitive explanation of these model simulation outcomes is as follows:

1. The Arrowhead experience suggests that economic development in northwestern Ohio involves birth of new firms, recruitment of firms from outside the area and movement of existing firms.
2. Existing firms that move are likely to come from Toledo (as it has the most firms) and are likely to be high-growth firms, since expanding employment leads to the need for more space.
3. Economic development in outlying areas (stimulated by the availability of water) will impose a cost on Toledo in that some high-growth firms will move out of Toledo.
4. Increased surcharge revenue from water sales tends to be more than offset by the loss of payroll and property tax revenue incurred by Toledo. Benefits increase with water sales, but increased water sales are indicative of more economic development. More economic development is associated with movement of existing firms which come disproportionately from the City of Toledo.
5. Ultimately, the rate at which water surcharge benefits increase is overcome by the costs associated with the decline in the payroll and property tax bases due to movement of existing firms.

Figure 1: Tax Loss (Costs) = Water Revenue (Benefits)

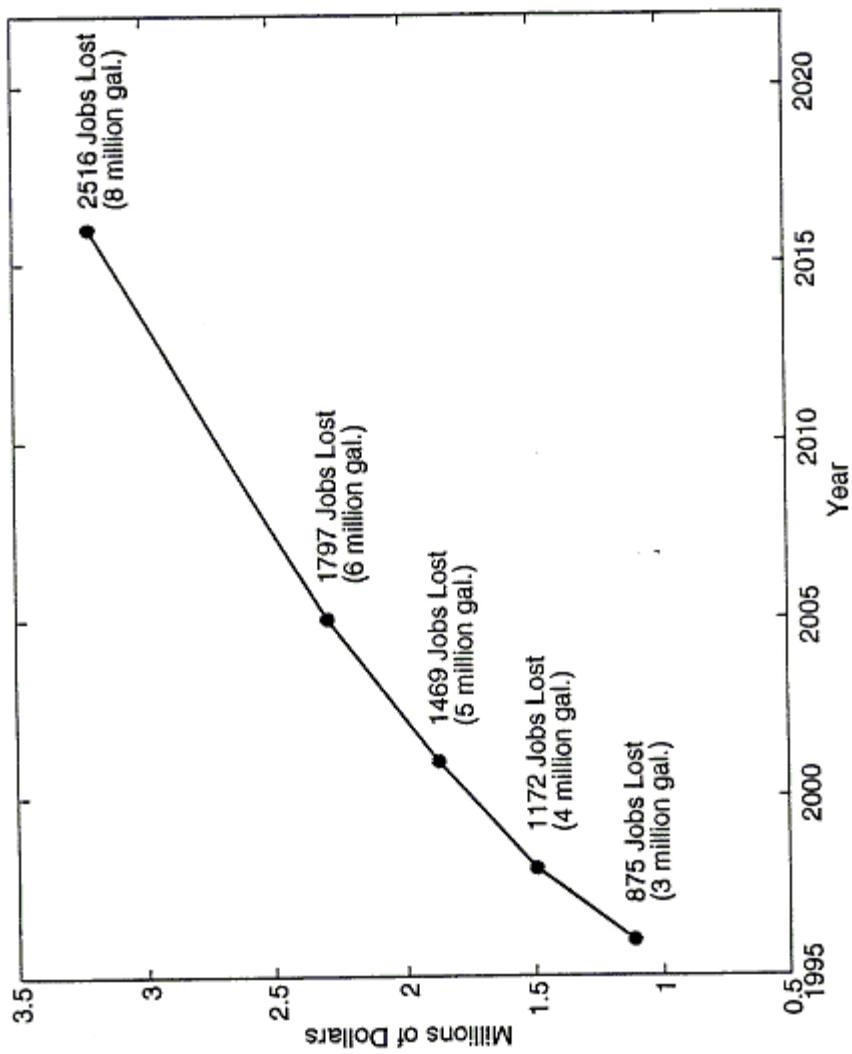


Figure 2: Arrowhead Job Loss Experience vs. Water Revenue Benefit

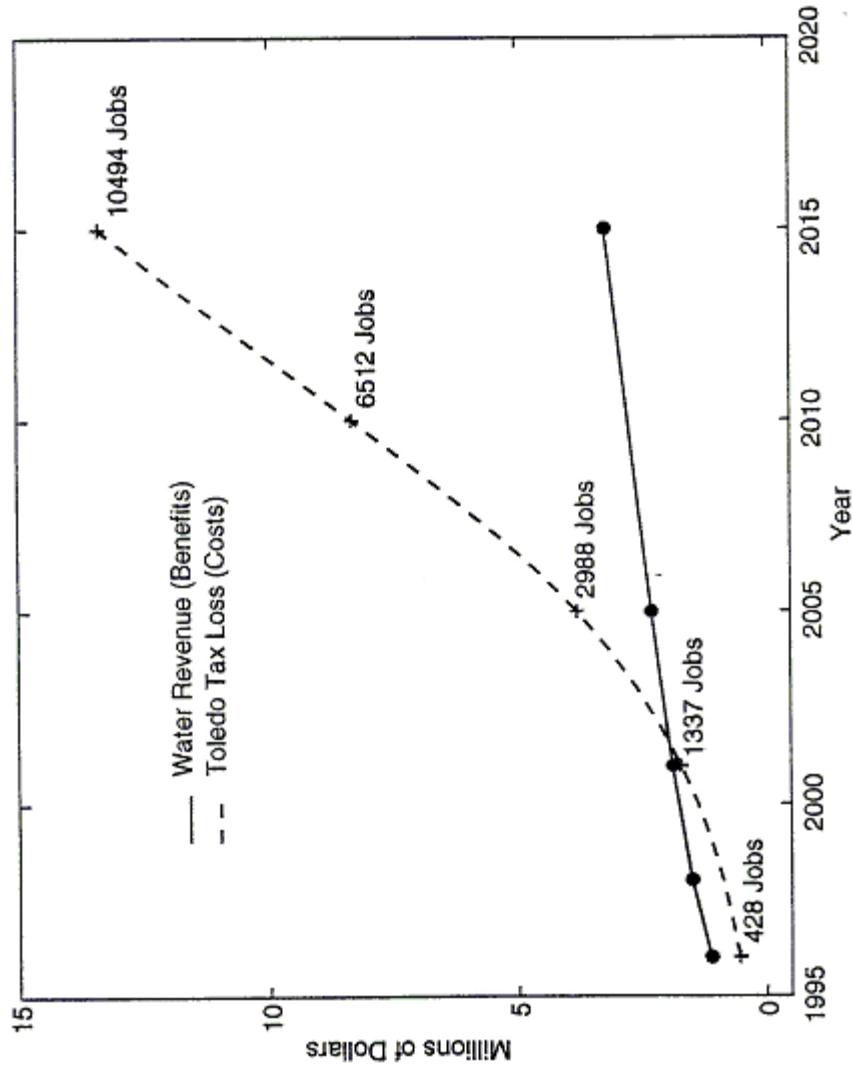


Figure 3: Arrowhead Experience vs. Maximum Water Revenue Benefit

