Tax and Spending Effects of Municipal Enterprises: The Case of Florida Electric Utilities

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Abstract:
This study tests the appropriateness of two competing hypotheses drawn from the public finance literature about the impact of municipal utility profits on local tax and spending patterns. By comparing data from cities that own their electric utilities to nonelectric cities, this research finds that neither city expenditures nor property tax rates are significantly affected by the transfer of profits. The evidence suggests that the profits are used by cities with relatively weak tax bases to obtain revenues from tax-exempt institutions, homeowners, and nonresidents.

Article:
Municipal enterprises have begun to receive renewed attention in recent years. In part, this attention has resulted from the fiscal crisis of the cities that has developed over the past decade. Quite simply, municipal enterprises can be sources of substantial revenue for cities faced with declining tax bases, tax limitations, or federal grant reductions. Alternatively, those same enterprises can serve as a significant drain on city revenues if they are not fiscally self-supporting through user charges. Increasingly, cities are creating separate enterprise funds for such services, including water, sewer, electric, or gas utilities, as well as recreation services and refuse collection, among others. Thus, city officials have a growing concern for making enterprises pay for themselves, and, if possible, produce profits or surpluses. In many states, municipal enterprises, especially electric utilities, often do generate profits. The question is: How are these profits used by municipal governments?

Two divergent hypotheses have been suggested in the literature. First, the availability of enterprise profits may produce an expenditure effect—i.e., the profits of the municipal enterprise may simply be used to finance higher levels of spending with no balanced reduction in other local taxes. Indeed, Colberg speculated that city expenditure levels would be higher in cities with municipal electric utilities than elsewhere due to the extra funds appropriated from utility profits. In testing this hypothesis, DiLorenzo found some evidence of such an expenditure effect in his analysis of a sample of New York municipalities. He concluded that:

while it is possible that utility profits may be substituted for other local revenue sources, in the sample of New York municipalities studied internal subsidization is likely to have stimulated expenditures, leading to an increase in local tax collections.

This, of course, would lead us to expect higher expenditure levels in cities with profitable municipal enterprises than cities without such enterprises.

An alternate view would lead us to a very different expectation, however. This second hypothesis points to a revenue substitution effect as the main result of available enterprise profits—i.e., transfers of enterprise profits could be used as substitutes for other local revenue sources. Strauss and Wertz and Vogt examined cities prior to the eras of both the energy crisis and the tax revolt and found evidence of such a use of municipal electric utility profits in their studies of North Carolina cities. Nonetheless, their findings that property taxes were lower in cities with municipal electric companies might be especially relevant in examinations of municipal finance over the past decade as voters repeatedly expressed disenchantment with the property tax. Several
studies have shown that other forms of municipal revenue have been used in the recent past to substitute for declining reliance on the property tax. Municipal utility profits might be employed in the same manner, leading to the expectation that reliance on other local revenue sources would be less in cities with profitable municipal enterprises than in cities without them.

In this article, then, we test these two competing hypotheses about the use of municipal enterprise funds by analyzing the transfer of electric utility profits and their fiscal impacts in the case of Florida cities. The single state study of Florida was chosen not only for practical purposes, but also to minimize accounting, budgeting, and functional responsibility differences that become a thorny problem in cross-state research on municipal finances. In the first section, we examine city policies on utility profits and discuss the role of electric utility profits in city finances. This is followed by a study of actual fiscal data for two sets of Florida cities: those with and those without municipal electric utilities. In the final section, we examine an alternative way of looking at the use of utility profits by municipalities. The conclusion raises several questions about the fiscal impacts of utility profits on consumers as well as on city finances.

ELECTRIC UTILITY PROFITS AND REVENUE TRANSFER POLICIES

Traditional analyses of municipal utilities suggest that, in general, cities subsidize certain services, such as mass transportation, break even on others such as, water and sewer, and make a profit, if possible, on electric utilities. Obviously, only the last category of municipal enterprises offers substantial opportunities for tax substitution purposes or the improvement of other city service levels. However, these utility profits need not be used for either purpose. Rather, they could be used for at least two other purposes—to fund the utility's capital improvements or to subsidize the operation of other, less financially lucrative municipal enterprises. This assumes, of course, that city officials have little interest in reducing consumers' utility rates and thereby eliminate or decrease the profits.

However, much of the profits of municipal electric utilities are usually added to the general fund, and, thus, create opportunities for tax substitution and the funding of higher service levels. For instance, in FY84, the 32 Florida cities operating municipal electric utilities transferred a total of $69,905,713 out of their utility enterprise funds to the general fund for a mean transfer of $2,255,023. Such transfers are clearly sizable, comprising a mean per capita transfer of $74.91 and a mean utility customer transfer of $130.32. These figures comprise a mean of almost nine percent of the utilities' operating revenues and accounted for over seven percent of the general fund and other debt financing revenue of these cities.

These average figures, however, obscure important differences in transfer policies among cities. Indeed, the wide dispersion of transfer amounts across the cities indicates that the municipalities had differing transfer policies and practices. To examine this issue more systematically, we requested copies of the transfer policies of the 33 city-owned utilities in Florida. Twenty cities responded for a response rate of 61 percent.

As might be expected, the cities do not have a standard approach to determining the amount of the annual transfer to the general fund, and some do not have a written policy but, rather, operate on an ad hoc basis from year to year. Still, several general patterns were discernable.

First, several of the Florida cities use the traditional "in lieu of taxes" principle that provides an amount city government would receive if the utility were privately owned and subject to property and franchise fees. The consolidated government of Jacksonville, for example, receives payments from its utility authority using this approach, although the amount is negotiated between the city and the authority, and expressed in a per kilowatt hour rate.

Second, other utilities transfer to the general fund the equivalent of a "reasonable profit" (usually around 6 percent), such as that allowed by the state Public Service Commission for investor-owned utilities (IOU's) that distribute dividends from corporate earnings. The City of Vero Beach's version of this, however, is a contribution of 12 percent of the value of the electric plant on the principle of "return on investment." Third,
some cities compute the transfer to be a fixed percentage of the revenues of the utility. For example, Lake Worth contributes up to 10 percent of gross revenues, while Fort Pierce transfers up to 40 percent of net revenues, thus ensuring an increasing amount as fuel costs rose during the 1970s and early 1980s, but resulting in a significant decrease more recently as fuel prices dropped.\textsuperscript{11}

A fourth method focuses on the revenue needs of the general government, by specifying an amount based on the general government's expenditures. Tallahassee, for example, has recently stipulated that by 1990 its transfer should be 35 percent of the city's budgeted general expenditures—a reduction from the current 39 percent. The effort to reduce the percentage was stimulated by the concern for the financial viability of the utility as the city engages in an aggressive annexation strategy. As the city grows in size and the general fund expenditures increase, the transfer must also increase even though the utility's revenues are not expected to grow correspondingly.

Of those cities with no firm policy (and even some that do), most simply arrive at an amount each year based on the financial needs of general government. The city managers and/or elected officials tend to make transfer decisions without much input from the utility managers, who generally seem to prefer to keep the size of the transfers low and predictable. These transfers can be planned in advance, during the budget review phase, or can take place during the fiscal year, as needs arise. Limits can be placed on such ad hoc transfers as well, but the temptation to use whatever is needed by general government is understandably substantial. In such cases, the utility profits are used as a contingency fund, with widely differing amounts of transfers across years.

The City of Gainesville, for example, for several years had no specific formula for transfers beyond an amount in lieu of taxes and full reimbursement of indirect costs. In 1982, the city council placed a 3 percent limit on future increases in transfers from one year to the next. However, the limit may be exceeded by a majority vote of the city council following a public hearing. On several occasions, such votes were taken to raise the amount of the transfer significantly; the FY 86 budget included an approximately 20 percent increase over the previous year, as an alternative to increasing the property tax rate. Recently Gainesville, adopted a formula that transfers approximately 15 percent of the difference between gross revenues and gross fuel expenditures.

Obviously, these different transfer policies offer different opportunities for using electric utility profits.\textsuperscript{12} In general, those relying simply on "in lieu of taxes" and "reasonable property taxes" of utility property as guidelines for transfers appear to transfer less than cities relying on the other transfer policies. More specifically, those with no overall transfer policy were least predictable in terms of the amounts actually transferred. Still, the wide mix and combinations of policies and the varied practices operative under them mean that we cannot discern how utility profits are actually used from an examination of stated policies alone. To fully discern the use of transferred utility profits, then, we must turn to an examination of the actual municipal finance data.

**TESTING FOR THE SUBSTITUTION AND EXPENDITURE EFFECTS**

How, then, do cities use excess municipal utility funds? As noted in the introduction, two general uses might be hypothesized. First, cities might use the fund transfers to finance higher levels of expenditures, without increasing other taxes. And second, cities could use fund transfers as a substitute for other local taxes, thus reducing taxes or preventing increases, without cutting expenditures. To begin to assess these hypothesized uses of fund transfers, we compared the finances of the 32 municipal electric utility cities of Florida to 35 randomly selected non-electric utility cities in Florida. The two groups of cities were found to be similar on a number of demographic characteristics not directly related to their fiscal condition—city size, form of government, percentage of the population on public assistance, and the percentage of the population receiving social security. However, the electric utility cities were found to have somewhat lower median income levels per capita than the nonelectric cities ($t=2.04$; significant at .05 level). In addition, the functional responsibilities for services of these cities did not vary significantly, since Florida's constitution does not encourage or allow much
variation among population classes. (The major exception to this is the consolidated City of Jacksonville. See note 9.)

The expenditure effect is the most easily evaluated by testing the hypothesis that expenditures in electric utility cities are higher than in cities without municipal utilities. If cities are using utility fund transfers to finance higher levels of expenditure, we should find support of this hypothesis. However, as seen in the first row of Table 1, we find little evidence confirming the hypothesis; there is not a statistically discernable difference in the per capita FY 84 expenditures of the two sets of cities. Indeed, the electric utility cities had somewhat lower levels of expenditure—$407.97 per capita—than the nonelectric cities which spent on average $415.16 per capita. Thus, in contrast to DiLorenzo's confirming test, these results provide little support for Colberg's hypothesis that utility profits are used to increase municipal expenditures.

Does this then mean that utility profits are used as a substitute for taxes? We can evaluate the tax substitution hypothesis by examining the mean differences across the two sets of cities on a number of tax characteristics. And such comparisons provide some evidence for a substitution effect. As seen in the second row of Table 1, the FY 84 mean locally raised per capita tax burden (including the property tax, utility taxes, sales taxes, fees and fines) in electric cities was only $100.01 compared to $185.22 for the nonelectric cities, a difference that was significant at the .05 level. And this difference grew as city size increased. As seen in the third row of Table 1, even though electric utility cities of all size classes raised lower amounts of revenue from their own sources (not including the utility transfer) than did nonelectric cities, for those cities over 20,000 population, the electric cities raised $127.05 per capita. In contrast, the non-electric cities in this population class raised $211.39 per capita in own-source local revenue, a difference that was significant at the .01 level.

Because electric utility cities use utility transfers as a substitute for local taxes, they generally rely less on these revenue sources than do nonelectric utility cities. As seen in the fourth row of Table 1, locally raised revenues comprised 37.36 percent of local FY 84 revenue in the nonelectric utility cities, but only 24.05 percent for the electric utility cities—a difference of 13.31 percent that is significant at the .01 level. Nearly half of this difference is made up of a lower reliance on the property tax. The nonelectric cities rely on the property tax, an average of 19.38 percent of total revenue, more than the electric utility cities, which average only 12.41 percent, as seen in the fifth row of Table 1. Although this difference of 6.03 percent was not statistically discernable, the resulting property tax revenues per capita were significantly different in the two sets of cities. While the average property tax burden in electric cities was $50.81 per capita, the amount was over twice that in nonelectric cities.
$109.47, a figure that was significant at the .05 level, as indicated in the sixth row of Table 1. Thus, the electric cities raised lower levels of revenue through the property tax than did the nonelectric municipalities.

At first glance, then, electric utility transfers appear to be used as a substitute for other local revenue, especially the property tax. That first impression changes sharply, however, when we examine average millage rates across the two sets of cities. That is, if transfers are used as a substitute for property taxes, we should find that property tax millage rates are lower in electric utility cities than in nonelectric utility cities. Yet, as seen in the seventh row of Table 1, no difference was found in the two sets of cities; both sets of cities had an average millage rate of 3.76, a relatively low millage rate—well below the state-mandated cap of 10 mills for city governments. Although in some states millage rates and assessments are manipulated by local officials to stay within state tax limitations, this does not appear to be a significant problem in Florida. Variations in local assessment practices and assessment/sales price ratios are comparatively narrow for Florida. Thus, while the electric utility cities relied on local property taxes to a much lesser extent than non-electric utility cities, there was no difference in the average property tax rates across the two sets of cities. In short, there does not seem to be a simple substitution of utility transfers for local property taxes as hypothesized.

The failure to find either an expenditure effect or a simple revenue substitution effect leaves us with something of a mystery. What did the electric utility cities do with the transfer funds if they were not used to finance higher levels of expenditures or, alternatively, to reduce local property tax rates? And why would the per capita property taxes be significantly lower in the electric cities? The answer to this mystery lies in one important difference between the two sets of cities: the electric utility cities have a significantly lower mean value of taxable property as a proportion of total assessed property value than the nonelectric utility cities, in terms of both the actual totals for the two groups and the per capita amounts. That is, the electric utility cities were burdened with substantially more tax-exempt property than the nonelectric utility cities. For FY 83, for instance, before the homestead exemption was broadened to a blanket $25,000 for all resident property owners, 43 percent of the total assessed value of property in the electric utility cities was on average subject to some form of exemption: homestead, nonprofit, or governmental property. In contrast, on average only 36.06 percent of the total assessed value of property in the nonelectric utility cities was subject to some exemption. And the difference of 7.1 percent was significant at the .05 level as seen in Table 1. The mean assessed value of the taxable property in the electric cities for FY 83 was $23,079 per capita compared to the nonelectric cities' amount of $36,006. The difference of means was also significant at the .05 level.

Thus, far from being a simple substitute for property tax payments by individuals, utility transfers seem, instead, to be used as a substitute for a weaker property tax base. The electric utility cities seem to have overcome the revenue constraints of their relatively lower tax bases without reducing expenditures or increasing their millage rates by relying on utility transfers. The evidence is especially clear in the examples of two of the electric utility cities: Gainesville, home of the largest university in the state; and Tallahassee, the state capital and home of two major state universities as well as many nonprofit agencies. In each case, electric utility fund transfers facilitate avoidance of the financial problems associated with a tax base depleted by significant amounts of exempt property.

The most likely explanation as to why the electric cities have more tax exempt property than the nonelectric group is related to the very reason why some cities own their electric utilities while others do not: history. The cities of Florida and other states that were in existence in the Progressive Era adopted electric utility ownership as a reform alternative to dependence upon inefficient, and sometimes corrupt, private firms. That option usually disappeared as the private companies grew larger, became more efficient, and fell under the regulation of state utility commissions. Thus, newly incorporated cities have not had the option nor seen the need to get into the electric business.

The Florida cities that today have electric utilities are primarily older cities in the north and central regions of the state that were originally settled and incorporated in the nineteenth and early twentieth centuries. These cities, with a few exceptions, have generally not had the rapid growth, non-resident holdings, or land value
increases seen in the many new and suburban cities in south Florida along the coastline. Consequently, the property of electric cities has been more affected by the tax-exempt status given to residents with property values of $25,000 and under. The newer, nonelectric cities also have not historically had much government, educational, and nonprofit centers since many of these establishments were located in older cities before the growth that has occurred since the 1950s. Since many other cities outside of Florida also acquired their electric utility status in the early part of this century, it is quite possible that similar kinds of differences between electric and nonelectric cities may be found in other states. While they may not have the large homestead exemption, electric cities in other states may also have lower land values and more tax-exempt property as compared with their newer, nonelectric counterparts. Further study is needed to see the extent of this phenomenon in other states.

DISCUSSION
We have seen that electric utilities provide a substantial amount of local revenue for a number of Florida cities. However, the availability of that revenue has not led to lower average property tax rates nor higher levels of expenditure. Instead, utility transfers have been used as a substitute for substantial tax exemptions. Therefore, we cannot characterize the use of transfers as either an expenditure effect or a simple revenue substitution.

How, then, shall we characterize the use of utility transfers? A more complex and interesting rationale given for large transfers by some city officials, and one that seems to fit the present case, is that the utility fee is a method of ensuring that all city government "consumers" pay for services and facilities. Those that do not contribute directly through property taxes include:

- Property owners whose property is assessed at less than $25,000, since the Florida Supreme Court awarded all resident property holders 100 percent homestead exemption on all property values of $25,000 or less in 1983;
- Property owners who have received a total disability exemption;
- Government and nonprofit institutions that have tax exempt status; and
- Commuters and citizens outside of the city limits who use city services and facilities, but do not contribute toward their provision since the Florida constitution does not allow a municipal income (or commuter) tax.

As a result of such exemptions, an argument could be made that many citizens and institutions make fairly negligible contributions to city coffers, though their use of services may be equal to or higher than that of those subject to the property tax. In such cases, reliance on utility transfers allows cities to recoup payment for services since many of these exempt service recipients, including government facilities and those living outside the city limits but in the electric service district, still make electric utility payments. In such cases, then, the most appropriate characterization of the use of utility transfer funds may be that of a "minimum tax." In effect, the utility can be viewed as a "minimum tax collector" through its electric rates that are, obviously, much higher than they need to be to cover service, fuel, and administrative costs. One major exception to this tax principle is the case of the city of Gainesville, which provides other city services to the tax-exempt University of Florida and copes with its negative externalities, but cannot benefit fiscally via electricity sales to the university, since a private utility sells power to the campus.

Other states may have differing expenditure and revenue patterns, but this study suggests that utility profits can have more than just the simple tax or spending effects that previous studies have found. In some circumstances, officials may use the utility transfers to compensate for a weak tax base. Since many cities in other states face a tax base problem, it is likely that they are also taking advantage of their electric utility ownership in similar ways. We can also speculate that with fiscal strain, cities are more likely to use utility profits either to develop a minimum tax strategy (especially where no municipal income tax exists) or to use the profits as a substitute for the unpopular property tax.
While utility profits may appear to local officials to be a useful method of revenue diversification, it must be noted that few cities currently have the opportunity to enter this service area, to either generate or distribute electricity. Private investor-owned utilities (IOU’s) and regional public utilities are seldom motivated to allow municipals to operate where other firms have been established. In addition, few inefficiencies and corruption scandals have plagued contemporary private utility companies to the extent found earlier in this century. Thus, the public has not demanded better and less expensive services as a rationale for forcing public ownership.

While transfers may relieve fiscal strain for current electric utility cities, such use of utility profits raise a number of critical questions. For instance, to what extent is reliance on the utility "tax" influencing the economic choices of citizens and firms, especially in comparison to the property tax? How are utility rates adjusted when cities rely heavily on utility profits to supplement the general fund? Does this method of raising revenue contribute to citizen fiscal illusion about services and/or revenues? And what is the impact of reliance on utility transfers for non-residents who pay for utilities as consumers of a monopoly service, yet have no political voice in the city government? Based on existing research and theory, we might expect that such use of utility profits cost high energy consumers more than low energy consumers, increase utility rates, promote fiscal illusion, and limit the fiscal-political voice of non-resident consumers. Verification of these expectations, however, will require further research. What is necessary in the public finance and urban public policy literature is an increasing awareness of the importance of electric utilities in those cities that own them, and the broader issues that ownership raises.

NOTES
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2. Bennett and DiLorenzo (1982) include in their discussion of off-budget enterprises (OBEs) a variety of special authorities (including "lease-back authorities") that have spun-off from city government. We restrict our study to entities that operate public facilities and continue to be "owned" by municipal government, but are separately budgeted from the general government fund.


7. James A. Maxwell, and J. Richard Aronson, Financing State and Local Governments, Third Edition (Washington, DC: Brookings Institution, 1977), 177. Whether or not cities own all or only some of their public utilities is usually the result of historical circumstances. In the early part of this century, municipal reformers sometimes were successful in purchasing private companies to improve service provision and reduce corruption. See, for example, Ernest S. Griffith. A History of American City Government: The Progressive Years and Their Aftermath, 1900-1920 (New York: Praeger, 1974). For a

8. Officials sometimes prefer to use the terms "surplus" or "income," instead of "profit" to describe the excess funds.

9. The electric group included all municipalities with electric utilities, with the exception of the consolidated government of Jacksonville, whose fiscal data would have distorted the comparisons since county- and city-type expenditures and revenues are combined in its budget. However, Jacksonville is included in the section on transfer policies.


11. One startling non-Florida example of utility transfers in this pattern is San Antonio, Texas. Its transfer is set at an amount equal to 14 percent of the operating revenues of the electric utility. For FY 85, this policy meant that over $100 million was transferred to the general fund.

12. Not included in this discussion are transfers that are not strictly transfers of utility profits, but include services, cost reimbursements, or "loans." They often involve informal payments or exchanges that are less visible, made by rough estimates, and known only to a few insiders. Some municipal utilities provide free electricity for streets and city buildings. Others estimate the city's administrative overhead costs (e.g., office space, equipment, manager's salary) and add this total to the size of the transfer. One city uses the utility funds as a bank to borrow funds that are to be repaid later.

13. However, one small city, Fort Meade, did not have a millage rate since it does not use the property tax at all. It has historically relied primarily on its utility charges to raise revenues.

14. The coefficient of inter-area dispersion in the ratios for counties in Florida is 6.7 percent, the sixth lowest in the fifty states. Thus, assessments are very uniform throughout the state. See U.S. Bureau of the Census. Census of Governments Taxable Property Values and Assessment/Sales Price Ratios Vol. 2 (Washington, DC: U.S. Government Printing Office, 1982).

15. Florida Department of Banking and Finance, 1984.

16. It should be noted, however, that these two cities are not so unique as to affect the results of the previous analyses when they are left out of the electric group.

17. See note 2 above.