GOVERNMENT FINANCE RESEARCH CENTER

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Intergovernmental Coordination for Water Rate Setting in Northwestern, Central, & Southern Illinois

Policy Bite

The Illinois General Assembly commissioned the Government Finance Research Center to conduct a "Water Rate Setting Study." This brief is based on the second report from the study, which focuses on Northwestern, Central, and Southern Illinois (NCSI). Regional challenges and opportunities that are cross-jurisdictional in nature require a higher degree of collaboration in the absence of a central governing authority, especially across NCSI, which has a variety of community sizes and sources of drinking water production and provision. This brief examines the coordination landscape in NCSI.

- Municipalities engage in formal arrangements with water districts, commissions, and cooperatives. These arrangements are beneficial because they can stabilize rates for some time. Municipalities purchasing water wholesale have $4.57 lower standardized water bills on average.
- Less formal intergovernmental arrangements also benefit communities through sharing resources. Over 66% of municipalities have at least one water operator working for another system.
- Wholesalers selling water to neighboring communities can boost their revenues while leveraging economies of scale and maximizing the unused capacity of their treatment plants and distribution systems.

Research Brief

To overcome the hurdles created by functional fragmentation and lack of central decision-making for public service delivery, governments regularly engage in intentional coordination through various arrangements. These can range from informal and temporary *ad hoc* groups to more formal and legally binding contractual arrangements or the creation of entirely new organizations like water commissions.

Formal arrangements that actively seek to consolidate or regionalize water systems take many forms, including water commissions, joint action water agencies, water districts, and even privatization through businesses and 501(c)12 nonprofit utilities. Public water districts were established through state legislation in 1945 and are given the ability to serve both urban and rural areas. Rural water districts were established in 1953 but are limited to serving rural areas and communities under 500 people.

An alternative formal intergovernmental coordination takes place when communities choose to form a water commission. The Illinois Constitution gives municipalities the right to contract between municipalities or to combine and transfer any power or function to obtain and share services. Across the NCSI regions, water commissions serve communities alongside public and rural water districts and private providers.

The motivation for regionalizing water systems is tied to issues of fragmentation and challenges associated with managing small water systems. Consolidation of systems can occur through the functional consolidation of multiple systems into one or through administrative consolidation, where the management of fragmented systems is shared. Functional consolidation is thought to create economies of scale. Although consolidating systems has benefits, local officials may be averse to losing the autonomy of their systems.

Rather than consolidation, municipal water utilities may enter into wholesale purchasing agreements. Approximately a quarter of community water systems in the U.S. rely on purchasing water wholesale. Treatment plants are expensive, and engineering studies have found that economies of scale are nearly inexhaustible on the treatment side; however, not guaranteed in water distribution. Wholesale purchasing agreements allow municipalities without the fiscal capacity to construct and maintain a treatment facility or without access to a viable

source of water to maintain a degree of control over their system and the rate-setting process.

Focusing on the 859 municipalities in NCSI served by municipal water systems or water commissions and districts, about 59% (506) self-produce water and do not purchase from others. Over 7% (62) purchase exclusively from water districts, about 7% (59) purchase exclusively from private sources, and about 5% purchase exclusively from commissions (41). The remaining 22% (191) buy from a mix of sources. Of the wholesalers across NCSI, water commissions are the largest provider to community water systems that choose to purchase their water (see Figure 1), while water districts serve the largest number of people.

A hierarchical linear model examining the association between wholesale purchasing and water rates reveals that municipalities purchasing water wholesale tend to have lower standardized water bills by $4.57 less on average. In terms of affordability policies stipulated in municipal ordinances, wholesale purchasers have an average 5 fewer days until shut off for nonpayment. This suggests that wholesale purchasers may be more risk-averse, possibly due to their obligation to repay their wholesale suppliers.

Another formal aspect of intergovernmental cooperation and coordination is the prevalence of community water systems sharing certified water operators. An aging drinking water operator workforce has been a challenge exacerbated by difficulties in recruiting the next generation of water operators. Small utilities, like many of those in NCSI, are having the most difficulty in hiring certified operators and instead tend to hire and train entry-level employees. In addition, the skills needed by water operators are changing and now include higher digital proficiency and knowledge of innovative treatment technologies, among others. In NCSI, over 66% of municipalities or 531 (out of 798 for which data are available) share operators, i.e., have at least one operator working for another system. Operator sharing is most prevalent in Central Illinois, where over 70% of municipalities share at least one operator. Southern Illinois follows at over 60% (see Figure 2).

In addition to these formal contractual arrangements, there are meaningful informal means of collaboration, such as through professional associations. Interviews conducted with representatives from municipal water providers reveals:

- Individual purchasing agreements are available to small community water systems or those dealing with water quality issues.
- Wholesalers note that their own systems benefit from selling water to neighboring communities as it helps to raise revenues.
- Across NCSI, communities also engage in formal arrangements with water districts, commissions, and cooperatives that are private 501(c)12 utilities. For some communities, these arrangements are beneficial because rates can be negotiated to be consistent over time, even if they may change later.
- One type of informal intergovernmental coordination is benchmarking, or comparing proposed rate increases to neighboring communities. Part of this informal collaboration also involves engagement and connections between regional leaders.

Read the full report HERE.

The **Government Finance Research Center** at the University of Illinois Chicago shapes and informs public policy and scholarly discourse on government and public finance by identifying, planning, and executing research, providing reports and informed analyses, delivering educational opportunities and technical training, and offering inclusive venues to convene national and local discussion on fiscal and governance issues.

Figure 1. Share of Wholesalers by Type

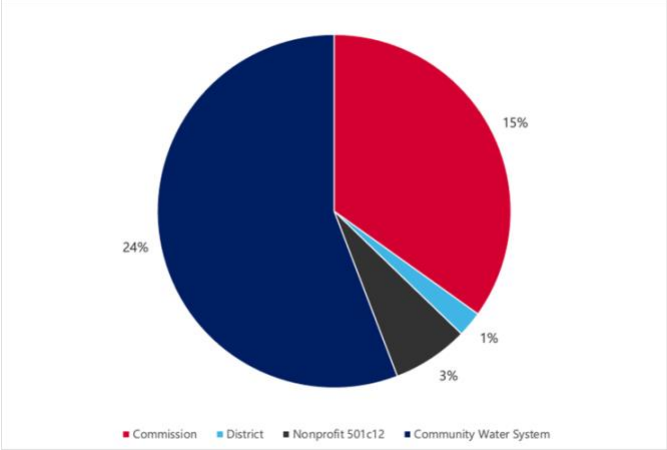
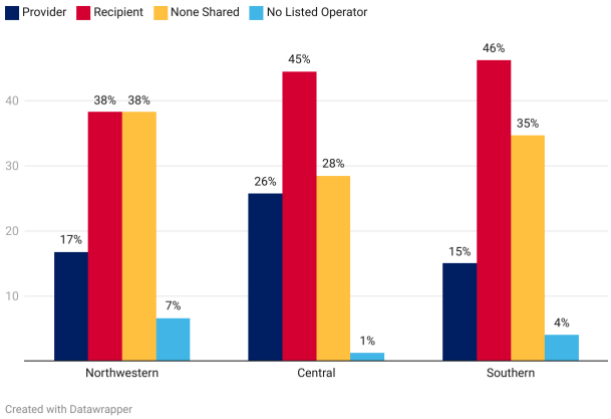
Figure 2. Prevalence of Operator Sharing