

MUNICIPAL WATER SUPPLY PROBLEMS IN WEST-CENTRAL ILLINOIS:
AN ASSESSMENT OF PROBLEMS AND SOLUTIONS

An Abstract of a Thesis

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ABSTRACT

Municipal water supply systems experience a wide range of problems that affect their ability to operate. Some communities are more successful in solving water supply problems than others. The factors responsible for the successful resolution of such problems in western Illinois were the focus of this study.

To better understand the nature of these factors, questionnaires were used to collect data from 51 communities in a nine county area to test the hypothesis that success in solving water supply problems was related to population size. A number of previous studies concluded that larger communities in the United States generally were more successful in solving water supply problems because more resources were available to contribute toward that success.

The hypothesis was tested using the Chi-square statistic and a point-biserial correlation. The statistical test results are as follows:

preference for some successful communities to cluster around a regional water supply system and some unsuccessful communities to be located in an area where they shared the same groundwater aquifer. No reasons, however, were forthcoming to help clarify how success or lack