The Perceived Financial Condition of

Small-Scale Jurisdictions:  The

Elected Leaders' Perspective[1]

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# Abstract

Data were collected from a sample of 946 elected public
officials selected on a systematic random sampling basis from lists of
officials serving 79 of Ohio's 88 counties. The purpose of the study
was to examine the perceived seriousness of financial problems in
nonmetropolitan jurisdictions represented by the study respondents. A
theoretical perspective developed from scalar modeling in anthropology
and sociology was used to guide the research investigation. The study
findings revealed that financial problems were perceived to be
somewhat of a problem for all political levels evaluated. The most
serious problem existed on the county level while the least serious
problem existed on the township level. The best predictor of the
variance in the dependent variable was access to external resources.
The findings necessitated the reformulization of the theory but
basically demonstrated that the model had considerable merit.

Introduction

Local governments have traditionally been commissioned to
provide a wide variety of public services to their respective
constituents. Reid [1984] summarizes some of the major functions of
rural governments by noting that such jurisdictions are responsible
for: 1) the provision of public services, such as police/fire
protection, street/road maintenance, waste disposal, water supply and
other essentials for living; 2) the implementation of specific
national policies which include such things as the administration of
economic and human resources on the local level to accomplish stated
national goals; 3) the establishment and maintenance of communication
linkages among various levels of government (local, regional, state,
multi-state, and national); 4) the recruitment of capable people to
serve in leadership roles in local government; 5) the establishment of
leadership capacity within the governmental unit; and 6) the
procurement of economic and human resources to adequately fulfill
these obligations.

Sokolow [1982] and Browne [1982] suggest that a list of
governmental functions must include amelioration of potentially
adverse consequences of sudden socio-environmental changes which can
threaten the socio-economic stability and viability of local
jurisdictions. An example of a change which can generate extensive
disruption of governmental services in rural jurisdictions is rapid
population growth. Rapid population change can render previously
satisfactory governmental services inadequate because existing service
capacities of many small jurisdictions most often cannot accommodate
additional demands [Beale, 1982; Coelen, 1981; Kuehn, et al., 1983;
LaFollette, 1982; Stinson, 1981; Sullivan, 1981]. Such rapid changes

necessitate quick and decisive action on the part of local governments to prevent deterioration of existing governmental services.

While it is relatively easy to articulate the service functions of local governments, it is much more difficult to identify means of satisfying intergovernmental directives and constituent expectations. One of the major reasons it is difficult to satisfy public service demands in rural jurisdictions is that they are constantly changing as the social composition and expectations of the constituent groups change. Residents of small-scale jurisdictions frequently indicate that they desire more comprehensive and/or better quality governmental services than those available [Coelen, 1981; Stinson, 1981; Vehorn, 1981]. The service provision problem is further compounded by mandates from the State and Federal levels to up-grade service structures [Green and Reed, 1981]. The external mandates are particularly difficult for nonmetropolitan jurisdictions because they are initiated with little regard for the local jurisdiction's ability to comply.

The changing service expectations of long-term constituents, increased service demands of recent in-migrants, and mandates from State and Federal governments have created severe service provision problems for many nonmetropolitan governments. Satisfaction of these demands nearly always requires increases in human and economic resources but, unfortunately, these resources are seldom accessible within the local jurisdiction. Sullivan, et al., [1981] address this issue by noting that governmental expenditures in rural areas have drastically increased during the last decade while many forces have been operative which make it much more difficult to secure adequate funding. Recession, inflation, unemployment, taxpayer revolt,

increasing welfare payments, and reduction in intergovernment transfer payments combine to make the provision of governmental services in nonmetropolitan jurisdictions extremely problematic [Crider,1978a, 1978b; Hennigh, 1978; LaFollette, 1982; Stinson, 1981; Stocker, 1977; Sullivan, et al., 1981; Vehorn, 1981].

The severity of the problems associated with funding of rural governmental services is easily demonstrated via historic data which show that State and Federal aid has proportionately increased during the last two decades while local funding has been proportionately reduced.  Sullivan, et al., [1981] report that local property taxes have decreased substantially in terms of importance as sources of governmental funding in rural areas.  They observe that property taxes have decreased from 48 percent of total funding in 1960 to 29 percent in 1979.  Simultaneously, the State and Federal share of local funding increased from 31 percent to 45 percent during the same time period. Reid and Stam [1981] discuss the nature of the funding of regional projects and observe that State and Federal resources constitute the major portion of such efforts.  They report that 75 percent of most regional programs are financed by State and Federal sources and that 65 percent of the funds are received from Federal sources.  These authors contend that these service functions would never have been implemented and would not have been continued without this aid.

These data strongly indicate that financing government services in nonmetropolitan areas is very difficult and that external sources of funding are becoming more important over time.  The trends also strongly suggest that the financial problems of nonmetropolitan jurisdictions will probably continue [Coelen, 1981; Stocker, 1977; Stinson, 1981; Sullivan, et al., 1981] Many governmental units will

continue to be hard-pressed to provide adequate services and the demands will probably be expanded over time. Since the quality of rural government services cannot be permitted to deteriorate further, mechanisms must be developed to provide adequate funding of needed services. The observation made by Kuehn, et al., [1983] that rural jurisdictions will have to become much more efficient in terms of budgeting and planning to offset increased costs and demands on government services appears to be an appropriate assessment of the situation. It is highly questionable, however, that increased efficiencies in the use of existing resources will be sufficient to improve government services. Additional resources will undoubtedly be required to up-grade adequacy. Hitzhusen [1977] and Napier [1984] recognize the difficulties associated with funding of local government programs and suggest that nontraditional funding sources such as use of volunteers, donations and local revenue generating projects (dinners, garage sales, etc.) will be required to fund governmental services in the future.

The resolution of financial problems in rural jurisdictions is a very difficult task and will require considerable knowledge of the causes of financial difficulties and the isolation of the factors that perpetuate the problem in nonmetropolitan jurisdictions. The purpose of this paper is to present the findings of a study designed to address these critical issues using data from a state-wide survey of elected, public officials. The study was designed to accomplish 3 primary objectives which are as follows: 1) to determine the severity of financial problems in small-scale political jurisdictions in Ohio; 2) to identify the factors that are predictive of the degree of severity of financial problems of small-scale political jurisdictions

in Ohio; and 3) to test the merits of a theoretical perspective derived from scalar modeling in sociology and anthropology [Greer, 1962; Napier, 1973; Simpkins, 1972; Wilson and Wilson, 1945], and from selected literature regarding the economy of scale which focuses on the financing of governmental services [Coelen, 1981; Fox, 1981; Honadle, 1981; Myer, 1979; Sullivan, et al., 1981]. The findings are discussed in the context of community development programs to ameliorate financial problems of rural jurisdictions.

## The Concept of Scale and The Nature of Nonmetropolitan Financial Problems

The theoretical perspective developed and used in this study was formulated from selected components of scalar theory originally formalized in anthropology by Wilson and Wilson [1945] and elaborated in sociology by Greer [1962], Napier [1973] and Simpkins [1972]. This perspective was combined with elements of economy of scale modeling as it relates to the provision of governmental services [Coelen, 1981; Fox, 1981; Honadle, 1981; Myer, 1979; Stocker, 1977; Sullivan, et al., 1981] to create a model that elaborates both perspectives.

Scalar theory in sociology and anthropology basically asserts that as social systems (jurisdictions could be defined as functional social systems) enlarge, they become more complex in terms of social structure. The social structures become more differentiated to ensure coordination of the diversity of functions which emerge as social systems expand. The model basically argues that effective and efficient functioning of high-scale systems necessitates elaborate support subsystems to ensure smooth operation of the total system. The model, for example, states that high-scale social systems are characterized by large populations, well-developed transportation and

communication systems, sophisticated service structures and highly
interdependent linkages, both internally and externally[3] In essence,
scalar theory argues that the structural components of collective
groups become more complex and more highly differentiated as the scale
of the social system increases. The structural components of
high-scale systems also become more closely linked with external
systems to enhance the probabilities that all micro-level social
systems composing the total society survive. This means that social
systems (jurisdictions) become linked with others on a mutual support
basis.

As service subsystems become more highly specialized and
differentiated, the ability of high-scale systems to provide
governmental services to their respective constituents should also be
increased since the infrastructure to provide the services will tend
to be more complex and more cost efficient. Evidence to support this
theoretical argument is provided by the economy of scale literature
[Coelen, 1981; Fox, 1981; Honadle, 1981; Myer, 1979; Stocker, 1977;
Sullivan, et al., 1981] focused on the provision and financing of
government services. This literature suggests that size economies are
often achieved when population size and density are adequate to
efficiently use and to finance needed services. The evidence
presented suggests that nonmetropolitan service provision will remain
problematic because population bases in most rural areas are too low
to achieve the size economies associated with high-scale systems. The
reason economies of scale are seldom achieved in less densely
populated areas is the ratio of fixed costs of providing services to
the existing population bases. Physical structures and human
resources must be dispersed among the population to be served. When

the population density is low and these fixed costs are high, then the cost of providing the service is correspondingly high per client served.

Regionalization of service functions to achieve economies of scale is often not feasible in nonmetropolitan areas because some governmental services, such as police and fire protection, must be located in close proximity to the users of the services [Coelen, 1981; Fox, 1981; Myer, 1979]. Multiple service units (substations) to accommodate dispersed populations would have to be developed to provide rapid response to emergency situations, which means that any economies of scale achieved by consolidation of administrative functions would be negated by duplication of the facilities to deliver the service.

Other economies of scale can be achieved in terms of the provision of governmental services in addition to those noted above. The unit costs associated with purchasing supplies necessary to provide needed governmental services or to secure government-sponsored services from private providers can be substantially reduced by collective purchases [Hondale,1981]. Shared funding and collective administration of specific government services can also reduce duplication of efforts and cost savings can occur [Coelen, 1981; Honadle, 1981; Myer, 1979; Reid and Stam, 1981].

In addition to economy of scale savings, efficiencies in the provision of governmental services can be achieved through better role performance. Scalar theory argues that specialization of tasks will increase as scale of the social system increases. This specialization implies that people performing designated roles will become more proficient at their tasks via repetition and experience.

Specialization also generates subsystems to train people to perform specific roles which results in the development of human capital. The end result of improved management skills and better role performance should be better governmental services at lower unit costs due to the efficiencies achieved.

Another factor that must be considered in assessing the provision of governmental services is the human and economic resources available in high-scale systems to support government functions. Scalar modeling posits that high-scale systems expand beyond the level of extractive industries to become more highly differentiated economically. More diversified economies imply greater revenues for the provision of governmental services and also greater access to skilled, human resources. As the revenues available for use in providing services increase, there should be a concomitant decrease in financial problems for the governmental units possessing these revenues. Such governmental units should also be able to pay for more experienced and well-educated people to assume leadership roles. These officials would also more likely be full-time political officials, since the economic rewards would be sufficient to adequately compensate the person for devoting full-time to jurisdiction problems.

The availability of human and economic resources to apply to governmental functions should make it easier for high-scale systems to secure administrative and planning support staffs to aid the decision-makers (public officials) in the conduct of their roles. Support staffs increase the probabilities that long-range planning will be undertaken and that budget efficiencies will be achieved. Such achievements would not be possible without support staffs.

Support staffs will also enhance the probabilities of accessing external economic and human resources. Federal grants, for example, can be accessed via the external linkages, if government staffpersons possess planning and grant management skills. Lower-scale systems must rely primarily on volunteer support personnel since they do not have the resources to hire professional staffs. Certain efficiencies associated with knowledge bases are lost when support staffs are composed primarily of volunteers even though salary savings are important considerations. Administrative capacities of social systems are very important because access to external revenue sources tends to be highly correlated with abilities to identify relevant external programs, complete necessary documentation, and to effectively administer grants once they are received [Green and Reed, 1981; Kuehn, et al., 1983; Sullivan, et al., 1981].

In summary, the scalar model developed for this study basically asserts that higher scale systems will tend to 1) develop linkages to access external economic and human resources; 2) be more highly differentiated economically and will have greater internal economic and human resources available for fulfilling governmental service functions; 3) have the population bases necessary to efficiently use government services; 4) develop more highly differentiated service systems that make it easier to satisfy service needs; and 5) contain better trained and experienced people who will assume leadership roles. Therefore, it is hypothesized that measures of social scale will be significantly related to perceived financial problems of nonmetropolitan governments. It is expected that financial difficulties will be most prevalent in lower-scale systems.

Since the scalar model places so much emphasis on structural

characteristics of social systems, measures of structural differentiation are expected to be the best predictors of the dependent variable under study. The number of support staffpersons available in the jurisdiction, measures of the influence of external systems on the jurisdiction, perceived adequacy of existing government services in the jurisdiction, population characteristics of the jurisdiction, proximity of the jurisdiction to large population centers, level of stress associated with leadership role performance, intra-jurisdiction demands for better government efficiencies, and characteristics of the public officials are expected to be significantly related to perceived seriousness of the financial problems in the jurisdiction. The specific hypotheses suggested by the scalar model are as follows:

H1   Reduction in access to external resources support will be positively related to perceived seriousness of financial problems in the jurisdiction.

H2   Intra-jurisdiction pressures for more government efficiencies in service provision will be positively related to the perceived seriousness of financial problems in the jurisdiction.

H3   Perceived level of stress associated with role performance (lack of support bases in small-scale social systems necessitates officials performing a multitude of roles) will be positively related to the perceived seriousness of financial problems in the jurisdiction.

H4   Measures of leadership competency will be inversely related to perceived seriousness of financial problems in the jurisdiction. It is expected that older, more experienced, long-tenured, better educated, full-time, and well-paid officials will

be administering jurisdictions with less severe financial problems.

H5  Measures of adequacy of existing government services will be inversely related to perceived seriousness of financial problems in the jurisdiction.

H6  The availability of support staffpersons will be inversely related to the perceived seriousness of financial problems in the jurisdiction.

H7  Measures of population size and growth will be inversely related to perceived seriousness of financial problems in the jurisdiction.

H8  The distance of the official's residence to population centers (ecological niche of jurisdiction) will be positively related to perceived financial problems of the jurisdiction.

H9  Type of primary employment in the jurisdiction will be significantly related to perceived seriousness of financial problems in the jurisdiction.  It is expected that agricultural jurisdictions will exhibit the highest level of perceived seriousness of financial problems.

H10 Level of political jurisdiction will be significantly related to perceived seriousness of financial problems in the jurisdiction.  It is expected that larger jurisdictions (counties) will exhibit the lowest level of perceived seriousness of financial problems.

## Methodology

Sampling

Data used to test the merits of the theoretical perspective outlined above were collected in the winter of 1983 and spring of 1984

from 946 elected, public officials serving jurisdictions in 79 of
Ohio's 88 counties. Public officials in nine counties were excluded
from the study because the population of the counties exceeded the
criterion established for inclusion. Since the purpose of the study
was to examine nonmetropolitan jurisdictions in Ohio, any county which
contained an urban community in excess of 75,000 people was excluded
from the sampling frame. The counties excluded using this criterion
were as follows: Lucas, Lorain, Cuyahoga, Summit, Stark, Mahoning,
Franklin, Montgomery and Hamilton. Given the sampling frame developed
for this study, the findings may not be applicable to the major
jurisdictions in the state.

Names and addresses of all mayors, township trustees, and
county commissioners in the 79 counties included in the study were
secured and a systematic random sample [Blalock, 1979] was drawn. The
sampling technique consisted of selecting every third elected official
from each type of political jurisdiction. This methodology produced a
mailing sample of 1,522 public officials which was composed of 243
mayors, 1,200 township trustees, and 79 county commissioners.

A structured questionnaire was developed and evaluated by
people knowledgeable of governmental problems in Ohio. The
questionnaire was reformulated and mailed to the selected sample in
December 1983. The first mailing produced a response rate of 41
percent. A second mailing was sent to the nonrespondents in March
1984 and the final questionnaires included in the study were returned
in late May. The final response rate was 65.8 percent which is
defined as being very good using contemporary research standards
[Dillman, 1978]. A total of 1,002 questionnaires were returned with
946 being usable. Fifty-six questionnaires were returned incomplete

due to death, relocation and refusal to provide critical information. When the 56 incomplete questionnaires are removed from the original sample, the usuable response rate becomes 64.5 percent (946/1466).

Given the wide geographical distribution of the sample, high response rate, and large sample size, it is argued that the data are quite adequate to test the theoretical perspective developed for this study. The characteristics of the sample are presented in Table 1 disaggregated by type of political jurisdiction.

(Table 1 Here)

These data show that the respondents on the average are in their early fifties, represent small jurisdictions which are basically stable or slightly increasing in population. The public officials on the average have achieved more than a high school education, have lived in their political jurisdictions for most of their lives, and have served about 10 years in public office. The respondents receive relatively low pay for their work but also spend relatively few hours working on jurisdiction business. The pay per hour ranges on the average from a low of less than $4.00 per hour for mayors to a high of slightly more than $11 per hour for county commissioners. The low pay scale for mayors and township trustees is reflected in the average percentage of total family income derived from public office (12.3 percent and 17.8 percent respectively). County commissioners report that they receive about half of their family income from public office salaries. The study respondents report that some stress is associated with their public service role and the data indicate that county commissioners feel they experience the highest level of stress. All of the various levels of government examined report that their residences are on the average about 36 miles from a city of 50,000 or

more.

The data reported in Table 1 concerning the characteristics of
the jurisdiction show that there are very few support personnel
available to any of the political levels examined.  The officials
reported that the public services in their jurisdictions are adequate
(general services), slightly less than adequate (special client
services) and less than adequate (treatment services) depending on the
services examined.  The respondents felt that reduction of external
support had caused considerable problems for their jurisdictions, but
internal pressures for efficiencies had been less troublesome.

Measurement of
Variables

The dependent variable for this study is termed _perceived
seriousness of financial problems_ and was measured by asking the
public officials to circle a number along a scale of 0 to 10 with 0
representing "no problem" and 10 representing "a very serious
problem."  A basic assumption was made that elected leaders would be
able to validly assess the financial condition of their respective
jurisdictions since they are constantly being exposed to information
about the financial constraints of their jurisdictions in the conduct
of their official roles.  Twenty-four independent variables were
selected to represent different aspects of the scalar model discussed
above.  Each of the variables is operationalized below.

_Reduction in External Resources_ was measured by asking the
officials to indicate how much of a problem was created for their
respective jurisdictions by several external events.  The responses
ranged from "created no problem" to "created a serious problem."  The
weighting values ranged from 1 for "created no problem" to 5 for

"created a serious problem." The events subsumed under this variable
were as follows: loss of Federal revenue, loss of State revenue,
inflation, unemployment, declining tax base, and State tax, revenue or
expenditure limits. The responses were submitted to item analysis to
determine the reliability of the index, and the analysis revealed the
alpha coefficient to be 0.844 which is very high. The high alpha
means that the items composing the index are highly intercorrelated
and, therefore, can legitimately be combined into a composite index.
The weighting values for the six items composing the index were summed
to form an index score for each respondent.

Intra-Jurisdiction Pressures was measured by asking the
respondents to evaluate how specific events affected their respective
jurisdictions. The methods used to measure and evaluate this variable
were the same as those discussed in the previous variable. The events
evaluated in this variable are: citizen demands for better public
service, pressure from local taxpayers to reduce taxes and spending,
failure of bond referendums, mandated costs from Federal and State
governments, and pressure from jurisdiction's employees for higher
wages. The alpha coefficient of reliability was 0.751 for this index
which means that the variables can be legitimately combined into a
composite index. The weighting values for the five items composing
the scale were summed to form a composite index score for each
respondent.

Perceived Level of Stress was evaluated by asking the
respondents to circle a number along a 5-point scale that best
represented the level of stress they had encountered in their public
role during the last year. The possible responses ranged from "no
stress" (weighted 1) to "great stress" (weighted 5).

Tenure in Public Office was measured as the number of years the official had served in public office.

Age was measured as the age of the official in years at last birthday.

Time Spent On Jurisdiction Work was operationalized as the number of hours usually spent each week on jurisdiction business.

Number of Part-Time Planning Staff was assessed by asking the official to note how many part-time people were engaged in planning in the official's jurisdiction.

Number of Full-Time Planning Staff was measured by asking how many people were engaged full-time in planning in the official's jurisdiction.

Number of Volunteer Administrative Staff was evaluated by asking the officials to note how many volunteers they had to help with administrative tasks.

Number of Paid Administrative Staff was assessed in terms of the number of people who were employed on a part-time and full-time basis to aid in the administrative work of the jurisdiction.

Adequacy of General Public Services was measured as an index composed of four items which evaluated the perceived adequacy of public services in the jurisdiction. The governmental services assessed were police protection, fire protection, emergency medical, and road and street maintenance. The weighting values ranged from 1 for "very inadequate" to 4 for "very adequate." Higher values indicate higher levels of adequacy. Item analysis produced an alpha of 0.661 which is acceptable for building a composite index. The item weighting values were summed to form an index score for each respondent and used for statistical analysis.

Adequacy of Special Client Services was measured using the same methodology as the previous variable. The eight governmental services assessed were mental health programs, health care programs, programs for the elderly, library services, employment services, social welfare programs, child-care programs and low-income housing. The alpha coefficient was 0.843 which is quite high and means the items can be legitimately summed to form a composite index. Higher values indicate higher levels of adequacy.

Adequacy of Treatment Services was assessed by three items using the same methodology employed in the two preceding variables. The governmental services included in this variable were sewage treatment, water treatment and solid waste treatment. The alpha coefficient was 0.785 which is high and indicates that the item composite index can be legitimately summed to form a composite index. Higher values indicate higher levels of adequacy.

Annual Public Salary was assessed by asking how much money the official received each year for performing his/her public service.

Percent of Income From Public Office was operationalized by asking the official to note what percent of his/her total family income was derived from public office salary. The percentage was used for statistical analysis.

Previous Management Experience was evaluated by asking the official if he/she had ever had managerial experience in business or industry. A "yes" response received a value of 0 while a "no" response received a value of 1.

Participation In Training Programs was measured by asking the official if he/she had ever attended a training program or workshop for public officials. A "yes" response received a value of 1 while a

"no" response received a value of 0.

Education Level was measured as the number of years of formal education completed by the official.

Length of Residence In the Jurisdiction was operationalized as the number of years the official had lived in the jurisdiction he/she currently represented.

Distance of Residence From The Nearest City of 50,000 or More was measured in terms of miles.

Population of Jurisdiction was operationalized as the population of the jurisdiction per the 1980 Census.

Population Change was measured by asking the official to indicate if the jurisdiction was growing rapidly, growing slowly, stable, declining slowly or declining rapidly. Weighting values from 1 to 5 were used to record responses with 1 indicating "declining rapidly" with "growing rapidly" receiving a value of 5.

Level of Jurisdiction was measured by asking the respondents to note if they were mayors, township trustees or county commissioners.

Type of Economic Activity was operationalized by asking the respondents to choose the type of economic activity that best represented the major source of employment for residents in their jurisdiction. The response categories were as follows: agriculture, mining, industry, commerce and business, university/college, tourism and recreation, and State and Federal government.


Analyses of Data

Multiple correlation, regression and analysis of variance were used to analyze the data. Correlational analysis was used to assess

the merits of the scalar model, while regression analysis was used to determine the relative explanatory power of the independent variables when all of the independent factors were considered simultaneously. Analysis of variance was used to examine the relationships of "level of jurisdiction" and "type of economic employment" with perceived seriousness of financial problems, because the criterion variables were nominal in nature. It was assumed the attitude measures met the assumption of metric measure [Abelson and Tukey, 1970; Kim, 1975; Labovitz, 1970] and that linear relationships existed among the variables included in the analysis. Missing data were attributed the variable mean because is has been shown that this approach is the best method when the sample is large and the correlations are moderate to low [Donner, 1982]. Both conditions were met in this data set. Missing data were also very few in number for each variable, which adds credibility to the technique used to salvage cases.

### Findings

Correlational analysis was used to determine the magnitude and direction of the bivariate relationships between the dependent and each independent variable. These findings are presented in Table 2.

(Table 2 Here)

The findings in Table 2 reveal that 16 of the 22 independent variables included in the correlational analysis were significantly correlated at the .05 level with perceived seriousness of the financial problems in the jurisdiction for the total sample. Ten of the 22 independent variables were significantly related at the .05 level with the dependent variable when data for mayors were analyzed separately. Fourteen independent variables were shown to be significantly related with the dependent variable at the .05 level

when the township trustees were considered alone.[4] Six variables were
shown to be significantly related with the dependent variable at the
.05 level when county commissioners were considered alone.

Only four variables were shown to be correlated with perceived
seriousness of the financial problems for all four levels of analyses
(total sample, mayors only, township trustees only, and county
commissioners only). These variables are reduction in external
support, intra-jurisdiction pressures, perceived level of stress,
and time spent on jurisdiction work per week. As loss of external
support became problematic, intra-jurisdiction pressures became
troublesome, level of job-related stress increased, and as time spent
on jurisdiction work per week increased, there was a concommitant
increase in perceived seriousness of the financial problems in the
jurisdiction. The first three variables were correlated as expected,
but the last variable is inconsistant with research expectations. It
was expected that time spent on jurisdiction business would be
inversely related since high-scale systems could more easily afford to
employ full-time administrators and that high-scale systems would have
the lowest financial problems. The hypothesis for the latter variable
was rejected.

Three variables were shown to be significantly related to
perceived seriousness of financial problems for the total sample,
mayors and township trustees. These variables are adequacy of special
client services, percent of income from public office, and distance
of residence from nearest city of 50,000 or more. Two variables were
shown to be significantly related at the .05 level to perceived
seriousness of financial problems for the total sample, township
trustees and county commissioners. These variables are age of public

official and adequacy of treatment facilities. All of the significant
correlations were in the expected direction with the exception of
percent income. It was expected that people who devoted more
attention to the work role would be in higher scale systems and
perceive fewer financial problems. The hypothesis for percent income
was rejected.

Two variables were shown to be significantly related to the
dependent variable for the total sample and mayors. These variables
are population size and annual salary from public office. Both
variables were positively correlated with the dependent variable,
which was inconsistent with the research expectations. Even though
significantly correlated at the .05 level with the dependent variable,
the hypotheses were rejected since they were contrary to research
expectations.

Four variables were shown to be significantly correlated at
the .05 level with the dependent variable for the total sample and
township trustees. The significant variables are adequacy of general
services, number of part-time planning staff, tenure in office, and
length of residence. All of the correlations were in the expected
direction and the hypotheses as stated were accepted.

One variable was correlated significantly with the dependent
variable for the total sample. The variable was number of full-time
planning staff. The variable was correlated positively while the
research expectations were negative. The hypothesis was rejected.

Participation in training programs was positively correlated
with the dependent variable for township trustees. The correlation is
in the opposite direction than expected, therefore, the hypothesis was
rejected.

The hypotheses for the variables which were not significantly correlated with the dependent variable were rejected. The number of volunteer administrative staff, the number of paid administrative staff, educational level, and previous management experience were not significantly related to the dependent variable at any political level.

Regression analyses were conducted on the data to assess the relative explanatory power of the independent variables included in the analysis. These findings are presented in Table 3.

(Table 3 Here)

The findings for the total sample show that 10 variables were significant in reducing the unexplained variance in perceived seriousness of financial problems in the jurisdictions. The significant variables are reduction in external support, intra-jurisdiction pressures, perceived level of stress, age, time spent in jurisdiction work, number of part-time planning staff, adequacy of general public services, adequacy of special client services, percent of income from public office, and distance of residence from city of 50,000 or more. The 10-variable model explained 31.9 percent of the variance.

The regression analysis for the data collected from mayors produced a two-variable model that explained 30.3 percent of the variance in perceived seriousness of the financial problems in the jurisdiction. The two significant factors are reduction in external support and annual public salary.

The regression analysis for the data collected from township trustees produced a nine-variable model which explained 28.8 percent of the variance in the dependent variable. The variables included in

the model were identical to those noted for the total sample with the exception that percent of income from public office did not enter the equation for township trustees.

The regression analysis for the data collected from county commissioners produced a two-variable model that explained 33.3 percent of the variance. The two variables are reduction in external support and age of the official.

Analysis of variance was used to examine the relationship of level of jurisdiction and type of economic structure with perceived seriousness of financial problems in the jurisdiction. These data are presented in Table 4.

(Table 4 Here)

The findings demonstrate there were significant differences among the groups as they were partitioned by the criterion variable, but the explained variance was quite low for both variables. The direction of the differences were inconsistent with the research expectations. County commissioners exhibited the highest level of perceived seriousness while it was hypothesized they would have the lowest. It was also expected that agriculturally-based jurisdictions would exhibit the highest level of perceived financial problems when, in fact, they exhibited the lowest. The hypotheses for these two variables were rejected.

## Summary and Conclusions

The study findings revealed that reduction in access to external resources was the best predictor of perceived seriousness of financial problems for all levels of jurisdictions examined. This finding is consistent with the theoretical perspective developed for testing and the service provision literature which states that

external resources are becoming more important sources of local governmental revenues over time. Structural linkages to external social structures have become essential to the economic survival of local governments. It is interesting to note, however, that the best predictor of perceived seriousness of financial problems is composed of variables which cannot be manipulated by local people.

As the pressures increased on local governments from taxpayer revolts, failure of bond referendums, and other such internal pressures, there was a concomitant increase in the perceived problems of financing local governmental services. This finding is also consistent with the model. Unless adequate funding of governmental functions exist, the financing of essential services becomes problematic.

The study findings revealed that the number and type of support staffs examined were not very good predictors of perceived financial problems. This was surprising since support staffs should prove to be extremely valuable in accessing external resources and enhancing government management capacities. Future research should examine the qualitative aspects of the support staffpersons. A small number of highly skilled support staffpersons may be much more efficient and useful to the public officials and the jurisdictions than a horde of well intentioned but unskilled local constituents.

The perceived adequacy of governmental services were correlated in the expected direction with perceived financial problems. As perceived adequacy of governmental services increased, perceived financial problems concomitantly decreased. This was expected since pressure from local constituents would tend to be reduced if the level of governmental services was perceived to be

adequate. It was reasoned that inadequacy connotes unmet needs. If there are inadequacies in service provision, then it is highly likely the service needs of the constituents are not being met because resources are not available to provide better services. Attempts to provide better governmental services will result in a strained budget.

The personal characteristics of the officials were very poor predictors of perceived financial conditions in the jurisdictions. Several of these measures were not significantly correlated with the dependent variable and when they were significantly related, the magnitude of the coefficients were quite low.

The most surprising findings of the study were the very low and positive relationships between population measures and perceived financial problems. The scalar model created for this study posits that due to differentiation of the service infrastructure and service social structures in high-scale systems there should be a decline in financial problems because resource bases should be available to adequately fund such services. This was not the case. Officials of higher scale systems exhibited the greatest level of perceived seriousness of financial problems. The same findings were also noted for more diversified economies which would be associated with higher scale systems.

In sum, the findings demonstrate that on the average a moderate level of financial problems existed within all political levels assessed, a moderate amount of explained variance was explained with the independent variables included in the analyses, and that the theoretical model used to explain perceived seriousness of financial problems in nonmetropolitan jurisdictions in Ohio was useful but in need of conceptual modification.

Modification of
The Scalar Model

The population-related findings provided the critical data to
correct the inadequacies in the scalar model as it was articulated in
this study. The population-related findings demonstrated that larger
political jurisdictions exhibited higher levels of perceived financial
problems than smaller scale jurisdictions. The original theoretical
conceptualization posited that increasing scale of the social system
would result in greater resources being allocated to the governmental
service functions. This theoretical argument is probably correct, but
the inadequacy in the original modeling is due primarily to ignoring
the increasing demands made on the service structure of the higher
scale systems due to increasing demands from the high-scale systems'
members. While greater resources may be allocated to governmental
services in high-scale systems, the demands for services are also much
higher which stresses the jurisdictions' abilities to provide
financial support. As a social system expands, the service
expectations increase in terms of diversity and quality. Satisfaction
of the increasing demands from constituents necessitates the
allocation of phenomenal economic and human resources which may be
beyond the means of large-scale systems to provide.

Future research focused on the provision of governmental
services in nonmetropolitan areas should expand on the original
theoretical modeling to include the demands made on the governmental
services as the scale of the system increases. Combining measures of
expanding demands and increased government costs due to the
elaboration of existing infrastructures to accommodate constituent
needs with the structured factors included in the present model should

increase the predictive ability of the theoretical perspective.

Implications of the
Study Findings

The major action implication of the study findings is the
necessity of nonmetropolitan jurisdictions to access external
resources. This means that efforts must be initiated to develop
systemic linkages with external governments to access the resources
State and Federal governments make available to local jurisdictions.
Capacity building may return great rewards to local governments in
terms of successful achievement of outside resources. This phenomenon
should be examined in future research.

The most interesting findings from the study in terms of
action programs are those associated with leadership characteristics.
None of these factors were shown to be good predictors of perceived
financial problems within the jurisdictions represented in the study.
Either these factors are of little consequence in the operation of
jurisdictions or leadership capacities as measured by these variables
are randomly distributed throughout the various jurisdictions in Ohio.
If the former situation is true, then leadership training programs,
years of experience, and other experience-based measures are of little
consequence in affecting the financial situations in most
jurisdictions. If the latter situation should prove correct, the
leadership capacities are rather well-distributed among jurisdictions
needing leadership capacities as they relate to financial problems.
It is more likely the former explanation is correct since the best
leaders cannot solve financial problems in jurisdictions without
access to the necessary resources to solve problems. The impact of
leadership capacities on financial situations in nonmetropolitan areas

should be examined in more depth. Development programs to enhance leadership skills may be of little consequence if the solutions to local government funding are structurally based and lie outside the local jurisdiction.

## Closing Comments

This study represents an initial effort to understand the complex processes associated with predicting the perceived seriousness of financial problems in nonmetropolitan jurisdictions in Ohio. Considerable progress has been made in explaining the variance in the perceived seriousness of the financial problems as it was measured in this study. Insight has also been gained relative to potential avenues for expanding the predictive ability of the theoretical model. Hopefully, future research will be initiated to elaborate the perspective through empirical research. If other predictive factors can be identified, corrective action may be initiated to address the problems. This assumes, of course, that financial problems lend themselves to resolution.

Footnotes


1. Salaries and research support for this study were provided to the Ohio Agricultural Research and Development Center and the Ohio State University via the State 502 project. The authors with to thank Lyndal K. Napier for secretarial support during the writing phase of the project and W. Richard Goe for computer assistance.


2. The authors share equally in the conceptualization and implementation of this paper.


3. For a discussion of horizontal and vertical linkages in social systems see Warren [1972].


4. Given the substantial differences in the number of observations in each political level included in the study, the magnitude of the correlation to be significant at the .05 level also varied.

Table 1: Socio-Demographic Characteristics of Study Population
Disaggregated By Type of Jurisdiction

| Characteristic | Total Sample (N=946) | Mayors (N=137) | Township Trustees (N=739) | County Commissioners (N=51) |
|---|---|---|---|---|
| Population Size | $\bar{x}$=6,271.2 SD=20,481.7 | $\bar{x}$=5,833.8 SD=23,936.6 | $\bar{x}$=2,359.8 SD=6,845.7 | $\bar{x}$=64,614.8 SD=44,016.7 |
| Population Change Increase | $\bar{x}$=3.34 SD=0.79 | $\bar{x}$=2.96 SD=0.81 | $\bar{x}$=3.39 SD=0.76 | $\bar{x}$=3.57 SD=0.83 |
| Age of Public Official in Years | $\bar{x}$=52.9 SD=11.8 | $\bar{x}$=51.0 SD=13.1 | $\bar{x}$=53.3 SD=11.7 | $\bar{x}$=53.4 SD=10.4 |
| Educational Achievement Level in Years | $\bar{x}$=12.5 SD=2.2 | $\bar{x}$=13.5 SD=2.2 | $\bar{x}$=12.2 SD=2.0 | $\bar{x}$=13.6 SD=2.8 |
| Tenure in Public Office in Years | $\bar{x}$=10.4 SD=7.8 | $\bar{x}$=11.1 SD=8.2 | $\bar{x}$=10.3 SD=7.8 | $\bar{x}$=9.4 SD=6.7 |
| Length of Residence in Jurisdiction in Years | $\bar{x}$=39.3 SD=17.3 | $\bar{x}$=30.6 SD=17.2 | $\bar{x}$=40.6 SD=17.1 | $\bar{x}$=44.7 SD=14.5 |
| Annual Public Salary | $\bar{x}$=\$4,638.05 SD=\$5,095.27 | $\bar{x}$=\$3,732.04 SD=\$7,256.78 | $\bar{x}$=\$3,818.44 SD=\$2,479.23 | $\bar{x}$=\$18,918.08 SD=\$5,733.27 |
| Percent Income From Public Office | $\bar{x}$=18.7 SD=17.8 | $\bar{x}$=12.3 SD=22.1 | $\bar{x}$=17.8 SD=14.3 | $\bar{x}$=49.2 SD=22.3 |
| Time Spent On Jurisdiction Work In Hours Per Week | $\bar{x}$=17.4 SD=11.3 | $\bar{x}$=19.7 SD=16.3 | $\bar{x}$=15.7 SD=9.0 | $\bar{x}$=33.8 SD=12.1 |
| Perceived Level of Stress | $\bar{x}$=2.7 SD=0.9 | $\bar{x}$=3.0 SD=0.9 | $\bar{x}$=2.7 SD=0.9 | $\bar{x}$=3.5 SD=0.7 |
| Distance of Residence From Nearest City of 50,000) | $\bar{x}$=36.2 SD=22.7 | $\bar{x}$=36.8 SD=24.7 | $\bar{x}$=36.0 SD=22.4 | $\bar{x}$=34.2 SD=20.7 |
| Number of Volunteer Administrative Staff | $\bar{x}$=0.5 SD=3.6 | $\bar{x}$=0.5 SD=2.9 | $\bar{x}$=0.5 SD=3.9 | $\bar{x}$=0.0 SD=0.0 |

| | | | | |
|---|---|---|---|---|
| Number of Paid Administrative Staff | $\bar{x}=0.8$ SD=2.8 | $\bar{x}=1.9$ SD=5.9 | $\bar{x}=0.5$ SD=1.6 | $\bar{x}=1.6$ SD=1.9 |
| Number of Part-time Planning Staff | $\bar{x}=1.2$ SD=3.1 | $\bar{x}=1.1$ SD=2.4 | $\bar{x}=1.3$ SD=3.3 | $\bar{x}=1.1$ SD=2.1 |
| Number of Full-time Planning Staff | $\bar{x}=0.3$ SD=1.2 | $\bar{x}=0.4$ SD=1.3 | $\bar{x}=0.2$ SD=1.0 | $\bar{x}=1.6$ SD=2.5 |
| Adequacy of Public Services For Select Clients | $\bar{x}=22.2$ SD=3.7 | $\bar{x}=21.0$ SD=4.0 | $\bar{x}=22.3$ SD=3.6 | $\bar{x}=23.8$ SD=3.8 |
| Adequacy of General Public Services | $\bar{x}=12.0$ SD=2.1 | $\bar{x}=12.0$ SD=2.3 | $\bar{x}=12.0$ SD=2.1 | $\bar{x}=11.9$ SD=2.2 |
| Adequacy of Treatment Services | $\bar{x}=7.5$ SD=2.1 | $\bar{x}=8.0$ SD=2.5 | $\bar{x}=7.4$ SD=2.0 | $\bar{x}=7.4$ SD=1.9 |
| Reduction In External Support | $\bar{x}=19.2$ SD=5.5 | $\bar{x}=20.3$ SD=5.6 | $\bar{x}=18.8$ SD=5.4 | $\bar{x}=22.6$ SD=4.0 |
| Intra-Jurisdiction Pressures | $\bar{x}=11.6$ SD=4.2 | $\bar{x}=11.9$ SD=4.3 | $\bar{x}=11.2$ SD=4.0 | $\bar{x}=16.4$ SD=3.7 |

Table 2: Bivariate Correlation Findings For Perceived Seriousness of
Financial Problems of Jursidictions and Selected Independent Variables
Disaggregated By Type of Official

| Independent Variable | Total Sample (N=946) | Mayors (N=137) | Township Trustees (N=739) | County Commissioners (N=51) |
|---|---|---|---|---|
| Reduction In External Support | 0.462* | 0.512* | 0.417* | 0.549* |
| Intra-Jurisdiction Pressures | 0.427* | 0.457* | 0.373* | 0.491* |
| Perceived Level of Stress | 0.277* | 0.324* | 0.221* | 0.482* |
| Tenure In Public Office | -0.114* | -0.049 | -0.134* | 0.001 |
| Age of Public Official | -0.166* | -0.065 | -0.185* | -0.299* |
| Time Spent On Jurisdiction Work Per Week | 0.234* | 0.187* | 0.173* | 0.326* |
| Number of Part-Time Planning Staff | -0.088* | 0.070 | -0.120* | 0.145 |
| Number of Full-Time Planning Staff | 0.096* | 0.065 | 0.030 | 0.208 |
| Number of Volunteer Administrative Staff | -0.030 | -0.023 | -0.027 | 0.000 |
| Number of Paid Administrative Staff | 0.044 | 0.031 | 0.001 | 0.007 |
| Adequacy of General Public Services | -0.217* | -0.041 | -0.274* | 0.008 |
| Adequacy of Special Client Services | -0.173* | -0.165* | -0.204* | 0.056 |
| Adequacy of Treatment Services | -0.117* | 0.003 | -0.152* | -0.296* |

| | | | |
|---|---|---|---|
| Annual Public Salary | 0.185* | 0.308* | 0.006 | 0.231 |
| Percent of Income From Public Office | 0.166* | 0.257* | 0.094 | 0.084 |
| Previous Management Experience | -0.004 | -0.044 | 0.015 | -0.013 |
| Participation In Training Program | 0.018 | -0.141 | 0.090* | -0.143 |
| Education Level | 0.044 | 0.080 | -0.017 | 0.123 |
| Length of Residence In Jurisdiction | -0.113* | 0.106 | -0.156* | -0.186 |
| Distance of Residence From Nearest City of 50,000> | 0.136* | 0.167* | 0.149* | -0.102 |
| Population of Jurisdiction | 0.168* | 0.218* | 0.027 | 0.110 |
| Population Increase | -0.052 | -0.192* | -0.014 | -0.157 |

*Significant at the 0.05 level (two tailed test).

Table 3: Best Regression Models* For Perceived Financial Problems of Jurisdictions and Selected Independent Variables Disaggregated By Type of Official: Data Presented In Standardized Regression Coefficient Form

| Independent Variable | Total Sample (N=946) | Mayors (N=137) | Township Trustees (N=739) | County Commissioners (N=51) |
|---|---|---|---|---|
| Reduction In External Support | 0.261 | 0.474 | 0.231 | 0.523 |
| Intra-Jurisdiction Pressures | 0.178 | --- | 0.164 | --- |
| Perceived Level of Stress | -0.086 | --- | 0.072 | --- |
| Tenure In Public Office | --- | --- | --- | --- |
| Age of Public Official | -0.120 | --- | -0.134 | -0.243 |
| Time Spent On Jurisdiction Work Per Week | 0.068 | --- | 0.084 | --- |
| Number of Part-Time Planning Staff | -0.084 | --- | -0.102 | --- |
| Number of Full-Time Planning Staff | --- | --- | --- | --- |
| Number of Volunteer Administrative Staff | --- | --- | --- | --- |
| Number of Paid Administrative Staff | --- | --- | --- | --- |
| Adequacy of General Public Services | -0.101 | --- | -0.139 | --- |
| Adequacy of Special Client Services | -0.083 | --- | -0.091 | --- |
| Adequacy of Treatment Services | --- | --- | --- | --- |

| | | | | |
|---|---|---|---|---|
| Annual Public Salary | --- | 0.230 | --- | --- |
| Percent of Income From Public Office | 0.078 | --- | --- | --- |
| Previous Management Experience | --- | --- | --- | --- |
| Participation In Training Program | --- | --- | --- | --- |
| Education Level | --- | --- | --- | --- |
| Length of Residence In Jurisdiction | --- | --- | --- | --- |
| Distance of Residence From City of 50,000> | 0.102 | --- | 0.102 | --- |
| Population of Jurisdiction | --- | --- | --- | --- |
| Population Increase | --- | --- | --- | --- |
| Adjusted Coefficient of Determination | 0.319 | 0.303 | 0.288 | 0.333 |

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* Best regression models are defined as the linear combination of independent variables that maximized the adjusted coefficient of determination while meeting the .05 level of significance for every independent variable.

Table 4: Analysis of Variance Findings For Perceived Seriousness of Financial Problems By Level of Jurisdiction and By Type of Economic Structure of the Jurisdiction

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Level of Jurisdiction

| | | | |
|---|---|---|---|
| Mayor | $\bar{x}=5.1$ | SD=3.0 | |
| | | | F-Ratio=8.6 |
| Township Trustee | $\bar{x}=4.3$ | SD=2.9 | |
| | | | Degrees of |
| County Commissioner | $\bar{x}=6.5$ | SD=2.6 | Freedom=2,924 |

Multiple R Squared = 0.035

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Type of Economic Structure

| | | | |
|---|---|---|---|
| Primarily Agricultural Employment | $\bar{x}=4.2$ | SD=2.8 | |
| | | | F-Ratio=8.7 |
| Primarily Industrial Employment | $\bar{x}=4.9$ | SD=3.0 | |
| | | | Degrees of Freedom=2,943 |
| Primarily "Other" Employment | $\bar{x}=5.2$ | SD=3.2 | |

Multiple R Squared = 0.020

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