Intl Journal of Public Administration, 30: 1549–1572, 2007

ISSN 0190-0692 print / 1532-4265 online
DOI: 10.1080/01900690701230184

Routledge
Taylor & Francis Group

Municipal Responses to Fiscal Stress

Craig S. Maher
Department of Public Affairs, Master's of Public Administration Program, University of Wisconsin-Oshkosh, Oshkosh, Wisconsin, USA

Steven C. Deller
Department of Agricultural and Applied Economics, University of Wisconsin-Madison/Extension, Madison, Wisconsin, USA

Abstract: This study examines officials' reactions to the fiscal constraints facing Wisconsin municipalities in 2004. Using survey response data coupled secondary demographic and financial data, our findings reflect a substantial amount of continuity when compared to earlier published works. Wisconsin municipal officials support a series of revenue and expenditure strategies depending on the level of stress facing the community. Surprisingly, we find no statistical relationship between officials' perceptions of fiscal stress and empirical measures of fiscal stress. Our study also demonstrates that the existence of professional administration influences the types of response strategies pursued by municipalities.

Keywords: fiscal stress, public finance, retrenchment

The amount of research on the fiscal health of governments that has been generated over the past couple of decades is truly impressive.[1] Most of this research, however, has focused on the development and justification of various measures of fiscal health.[2] What we know much less about is how governments respond to fiscal stress. During the late 1970s/early 1980s when local governments were experiencing severe fiscal constraints several studies surfaced which sought to understand not only the amount and types of fiscal stress facing communities, but response strategies.[3] Today, municipalities are once again facing significant levels of fiscal stress,[4] yet we know very little about the factors that influence government responses to such conditions.

Address correspondence to Craig S. Maher, Associate Professor, Department of Public Affairs, University of Wisconsin, 800 Algoma Blvd., Oshkosh, WI 54901; E-mail: maher@uwosh.edu

This exploratory study builds on these earlier works, in particular Pammer,[5] Levine[6] and Schick,[7] and attempts to model levels of support by local officials in Wisconsin for 20 retrenchment strategies. This study contributes to the field by:

1. providing a cross-sectional analysis, where much of the earlier work relied on case studies;
2. focusing on small-mid sized communities which reveal findings different from metropolitan cities and;
3. incorporates a richer body of literature that didn't yet exist in the 1980s.

The environment in which local governments operate has undergone significant changes during the past thirty years. First, services expected from local governments have grown at a rapid rate. Citizens expect not only higher quality education, but also police and fire protection, transportation services, health care services, parks and recreational services and protection of the environment to name a few. While many of these new expectations are from local citizens, several services are now provided in response to mandates imposed from federal and state governments.

Second, the structure of the economic base upon which local governments depends for revenues have undergone basic change. In rural Wisconsin, for example, agriculture is playing a significantly smaller role, while many forms of tourism and other non-extractive economic activities are assuming a dominant role. The ability of local governments to develop sufficient revenues to continue to support traditional services and establish new programs has been altered. The limited ability to raise sufficient revenues to maintain an aging physical infrastructure while providing new services is but one example of the complications facing local officials.

Third, stresses caused by national and regional economic downturns, a steady decline in state and federal support, and antipathy toward the expansion of traditional revenue sources like the local property tax have all negatively affected local cash flows.[8] Finally, the changing relationship between federal, state and local governments has created significant uncertainty at the local level.[9] The current era of devolution has seen a transfer of responsibility for key programs passed from the federal to state and local levels. At a time when local governments are being asked to do more, the resources from higher levels of government are dwindling.

These fundamental changes, coupled with a host of others, have created a difficult situation for many local governments. Both rural and urban government officials, faced with increased local resistance to higher taxes, increasing expenditure needs, weakening financial support from higher levels of government, and the growing pressure to "do more with less," have expressed concern over the long-term sustainability of their fiscal health. The fiscal health and well-being of local governments is important. Above all, it is an indication

of the ability of local governments to provide adequate and uninterrupted services to local residents and businesses. While fiscal health may not be the ultimate measure of success for local governments, a fiscally unhealthy local government will not be able to provide the level and quality of public services that are required for a high quality of life and an effectively functioning government.

Unfortunately, we do not fully understand how local officials respond to periods of fiscal stress. While anecdotal stories abound there have been few systematic studies aimed at documenting the preferences of local officials for specific strategies. Using data from a web-administered survey conducted in the spring of 2004, coupled with 2000 Census data and detailed audited annual municipal finance data, we outline levels of fiscal stress with a detailed accounting of response strategies. We also offer a simple statistical model in which we explore patterns in response strategies.

Beyond these short introductory comments, the study is composed of five parts. We begin by reviewing the surprisingly limited literature documenting strategy responses to stress. Next we provide a short overview of Wisconsin municipalities in order to set the stage for the survey and subsequent analysis. We then outline the survey design and process. The fourth step is descriptions of current levels of fiscal stress and how those levels have changed over time along with a review of the results of the survey on strategic preferences of local officials to stress. A simple model designed to examine patterns in strategy support is then reported. The study closes with a summary of our major findings and outlines a potential research agenda.

LITERATURE REVIEW: RESPONDING TO FISCAL STRESS

The literature describing government responses to fiscal stress, or retrenchment has essentially fallen into three camps. One approach follows Wildavsky[10] and Lindblom's[11] "muddling through" or incrementalism approach meaning that given the various actors involved in the policy-making process, decisions will be made on an incremental basis. Critics contend that such an approach may be useful in times of growth or even modest decline, but that when public financial pictures reach crisis mode, such an explanation of response is inadequate.[12] An alternative approach described in the fiscal stress literature is that of a logical, or rational progression of steps prescribed for communities based on the severity of its fiscal crisis.[13] Alternatively, Downs and Rocke,[14] describe retrenchment strategies in Pittsburg and San Diego that most closely resemble a random-effects, or garbage-can approach to fiscal stress.[15]

Of the three approaches to decision-making during times of fiscal stress, the rational approach is the most frequently referenced. According to Schick, responses to fiscal stress can be described in the context of four

types, or stages, of scarcity; relaxed, chronic, acute and total. A community facing relaxed scarcity is in the enviable position of having ". . . sufficient resources to continue existing programs and to undertake substantial new budget commitments".[16] Under circumstances of chronic scarcity, governments have sufficient revenues to cover the costs of existing programs, but not additional programs or services. Schick asserts that decision-making in communities facing chronic scarcity most closely resembles the "muddling through" approach. During circumstances of more severe, acute scarcity, resources are insufficient to cover the incremental growth in current expenditures. Resulting actions include budget cutting, higher fees and the pursuit of additional intergovernmental aid. The most severe situation government can find itself is total scarcity; available resources are insufficient to meet ongoing program expenses. Such a scenario can lead to inappropriate actions taken by government officials in an effort to mask the dire situation from constituents and the media.

Wolman and Davis'[17] description of local government responses is similar to Schick. Wolman describes a "rational" approach to fiscal stress where the first response would consist of drawing down reserves, borrowing to cover deficits in operation expenses, and inter-fund transfers. The next stage would consist of increasing intergovernmental transfers, followed by increasing own-source revenues and lastly, cutting expenditures. This is generally consistent with Levine's managerial factors in response to fiscal stress which consist of revenue generation, productivity improvement and cutbacks and terminations.[18] While differences appear between initial and secondary strategies (revenues or productivity improvements), there is consensus that cutbacks and terminations are last-ditch efforts.

To date, our ability to understand the extent to which any or all of these approaches are being utilized by governments is limited by studies that rely on case studies.[19] Pammer[20] has conducted one of the few cross-sectional analyses of cities. Relying extensively on a survey conducted in 1983, Pammer studied the degree to which 120 cities utilized a variety of retrenchment strategies in response to fiscal stress. In general, the author finds little evidence of a "rational" response approach and, therefore, concludes that these municipalities follow retrenchment strategies more akin to the garbage-can approach described by Downs and Rocke.[21]

Like Pammer,[22] we have attempted to model response strategies considered by a cross-section of municipalities. Our study differs from Pammer most significantly in the selection of municipalities used in the cross-sectional analysis. Whereas Pammer examined large metropolitan cities, our study is based primarily on small to mid-sized municipalities. Our expectation is by emphasizing smaller communities, the role of professional staff will be more pronounced. This is consistent with recent work by Hendrick[23] who argues that professional government structures should reflect behavior different from non-professional government forms.[24]

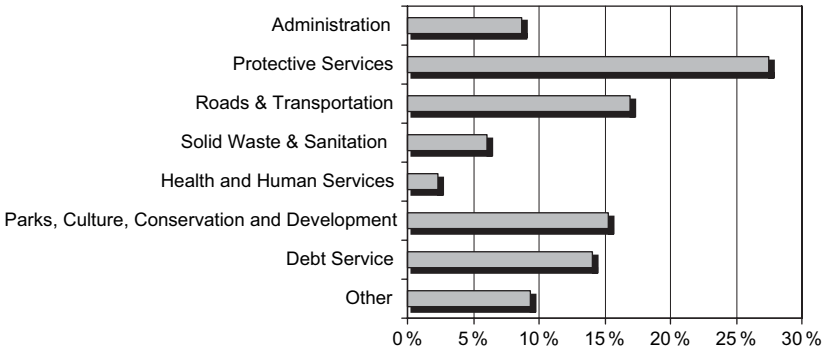
City and Village Government Finance in Wisconsin

In Wisconsin, city and village governments are primarily responsible for providing urban services such as public safety, roads and transportation, sanitation, and human enrichment as well as managing development and land use for the municipality. The distribution of expenditures acts as a proxy to demonstrate the relative level of services provided by Wisconsin cities (Figure 1).

The largest single category of expenditures is protective services (police and fire) accounting for 27 percent, or $322 per person in 1998. Transportation services, in particular road maintenance, account for about 17 percent of all expenditures, about $198 per person (Figure 1). Cultural services, such as parks and recreation, conservation and development efforts, and libraries represent just over 15 percent of total expenditures at $179 per person. Payment for debt, which is used to smooth the cost of providing public services over time, accounts for a substantial 14 percent of total expenditures, or about $165 per person.

The level and mix of public goods and services that local governments can provide in response to demand is constrained in part by the revenues available, or fiscal capacity, to meet those demands. At the municipal level in Wisconsin, general state non-targeted aids and property taxes are the primary sources of revenue. Together they accounted for nearly 60 percent of total revenue in 1998.

In Wisconsin, aids take two forms, general targeted aids, such as road maintenance aids, and general non-targeted aid in the form of state shared revenues. The latter aid follows the model of the old Federal Revenue Sharing program of the 1970s and 1980s. In essence a direct transfer from the state to local government is made with “no strings attached.”



Source: Wisconsin Department of Revenue

Figure 1. Wisconsin City and Village Expenditure Shares.

Source: Wisconsin Department of Revenue.

Wisconsin's state revenue program is one of the most generous aid programs in the United States and accounts for 24 percent of all revenues for Wisconsin cities and villages, about $220 per person (Figure 4). While the Wisconsin state shared revenue program is distributed based on individual municipal population, spending, and property values, it has the potential to be strategically manipulated. Because the amount of aid to be distributed is fixed, the aid received by an individual community also depends on population, spending, and property values of other municipalities. Thus nearly all municipal governments treat this significant source of revenue as something beyond their control. This leaves the property tax as the primary tool left under the control of municipal government for generating revenue.

User fees have recently emerged as an important tool for generating revenue. User fees are a politically popular way of maintaining non-essential public services through requiring the users of those services to pay for them. For Wisconsin cities and villages, user fees and charges account for about 12 percent of all revenues, or $106 per person. While for many services, user fees and charges are attractive, Wisconsin law limits the level of revenue generation to the recoupment of capital costs under specific criteria. In other words, fees and charges cannot be set by what the market will bear and act as a potential excess revenue generator. In addition, the revenue generating potential for fees and charges often limits this option to only the largest of municipalities.

Another significant source for paying the cost of public goods and services provided by municipal government is debt. Debt is primarily used to smooth the payment for large capital expenditures over time and to allow future users of the capital item to pay for services that flow from the item. Unfortunately, there is often a mismatch between when municipal governments incur the cost of growth and development and when revenues generated from the growth are realized. Debt can help fill that gap.

SURVEY DESIGN

In June 2004, we began to design a survey that would serve two principle functions; it would provide measures of current municipal fiscal stress that could be compared to an earlier study by Deller, Hinds, and Hinman[25] and it would enable us to evaluate response strategies to fiscal stress. The final instrument consisted of four core and several background questions.[26] Whereas the first three questions measured perceived current and future fiscal stress, the fourth focused on 20 different possible responses to fiscal stress. Question four read, "In recent years many of Wisconsin's communities have been facing varying levels of fiscal stress. Please help us understand the means by which your community has responded to these challenges." Each of the responses to this question were coded using a 5-point Likert scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

In an effort to expedite the process, we administered the survey on-line. A list of municipal email addresses was purchased from the League of Wisconsin Municipalities, a lobbying organization for cities and villages that annually prepares an extensive directory of municipal officials. In addition, a postcard was sent to each of the city and village clerks directing them to the survey web link. Follow-ups were conducted both via email and postcard approximately two weeks after the initial effort.

As with any survey, concerns arise over sample bias. Using 2000 US Census data, comparisons were made between all cities and villages in Wisconsin (N = 583) and our sample (n = 119). Our sample was slightly biased toward larger cities and villages (average population for population was 6,312 versus sample population of 7,648)[27] and substantially biased toward communities with professional administrations (34.2 percent of all cities and villages have an administrator/manager versus 53 percent of the sample). On other indicators such as per capita income, median age and household size, there were no substantive differences between our sample and the population.

MEASURING FISCAL STRESS IN WISCONSIN COMMUNITIES

Unfortunately, the combined impacts of the recent economic recession, declining support from the state and significant uncertainty over future spending restrictions embodied in the proposed Taxpayers Bill of Rights (TABOR) have created a situation of significant fiscal stress for Wisconsin cities and villages.[28] In a survey of cities and villages conducted in 1997, less than one in five municipalities expressed concern about the adequacy of their fiscal position.[29]

Today the fiscal health of Wisconsin municipalities has fundamentally changed for the worse (Figure 3 and Table 1). In general, 53.5 percent of the respondents believe that their revenues are “inadequate” and 23.9 percent are facing reductions in services in response to their current fiscal position. Only 4.5 percent of the respondents reported that their revenues are adequate and they are able to reduce local taxes. This stands in stark contrast to 20.8 percent of respondents to the 1997 survey who claimed that their fiscal health was sufficiently strong that they were able to reduce taxes. Almost one in five municipalities (23.9%) report that their fiscal health is sufficiently stressed that they are faced with the reduction of services.

If we ask municipal officials to consider their future (five years) fiscal health, the picture becomes bleaker (Table 1 and Figure 2). A clear majority (58.6%) believe that their revenues will be inadequate and 35.7 percent report that they will be forced to reduce services. Only 3.8 percent believe that they will be in a position to reduce taxes. Compare these results to the same question asked only seven years earlier a clear majority of respondents in 1997 believed that they had adequate revenues over the next five years and 17 percent thought that they would be able to reduce taxes. The combined effects of the recent

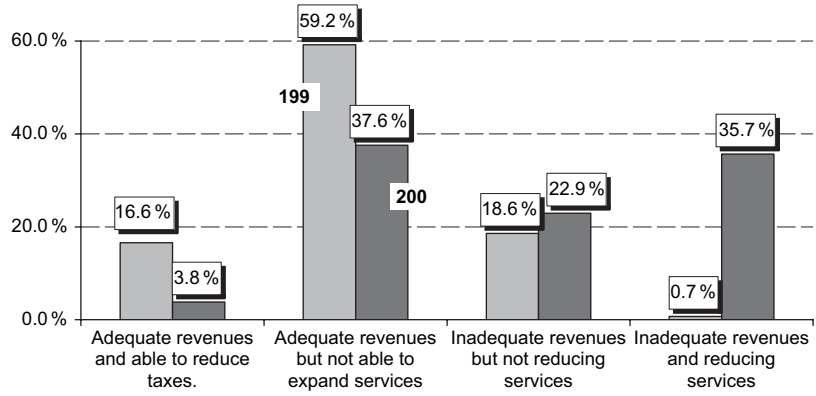


Figure 2. Expected Future Financial Condition.

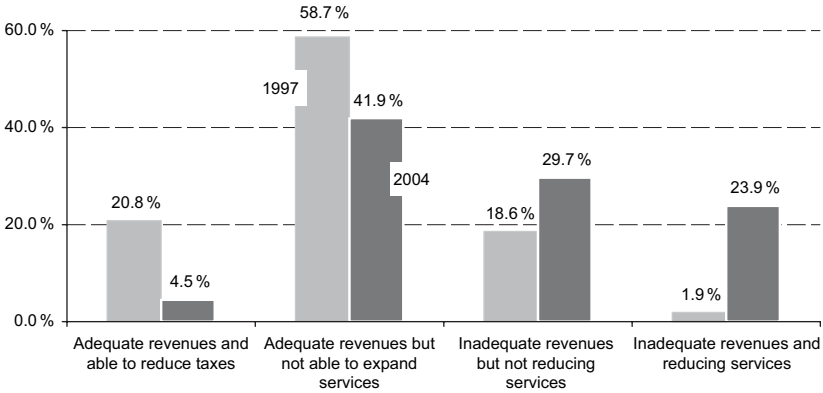


Figure 3. Current and Historical Financial Condition.

economic recession and uncertainty over state funding policies has created a more dire fiscal outlook for most Wisconsin municipalities. A significant part of this pessimistic outlook in 2004 is due to the uncertainty surrounding state shared revenues and the serious attention being paid to the proposed Taxpayers Bill of Rights (TABOR). Until the state resolves some of its long-term fiscal issues, municipalities in Wisconsin will continue to face significant uncertainty.

Current Fiscal Conditions

The survey asked eight questions to more specifically gauge the fiscal health of Wisconsin municipalities. The results suggest several areas of concern (Table 2), for instance:

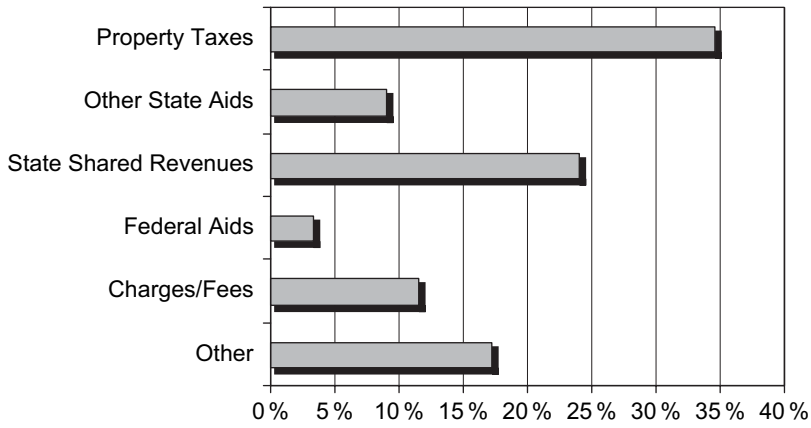


Figure 4. Wisconsin City and Village Revenue Shares.

Source: Wisconsin Department of Revenue

Table 1. Overall levels of Wisconsin city and village fiscal conditions

	Current Condition	Condition in Five Years
Adequate revenues and able to reduce taxes.	4.5%	3.8%
Adequate revenues but not able to expand services	41.9	37.6
Inadequate revenues but not reducing services	29.7	22.9
Inadequate revenues and reducing services	23.9	35.7

- less than half (45 percent) agree that their fiscal situation is acceptable;
- only 37 percent of the municipalities have a fully financed capital improvements plan;
- 41 percent of the communities are near their debt limit;
- less than half (48 percent) are satisfied with their current credit rating; and
- 45 percent are faced with unfunded pension responsibilities.

Perhaps of greater concern is that 40.8 percent are at or near their debt limit. Because most capital improvement projects are funded through debt, a number of Wisconsin cities and villages may not be in the position to finance major capital projects. Another concern facing Wisconsin municipalities is future pension obligations for municipal employees. Almost half (45.1%) reported that they unsatisfied with their position on pension funding. As we age as a society the number of public employees

Table 2. Specific measures of Wisconsin city and village fiscal conditions

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Our current fiscal situation is acceptable	8.4%	36.1%	21.3%	23.9%	8.4%
We are able to maintain three months of operating expenditures with current cash reserves	3.2	49.0	7.7	9.7	30.3
Our current capital improvement plan is fully financed	17.1	20.4	19.1	33.5	9.9
Our current credit rating is acceptable	0.0	47.7	14.8	5.8	31.6
We are near our debt level capacity	25.5	15.3	10.8	40.1	8.3
We have been able to roll over cash reserves from the previous budget cycle	3.9	49.7	14.8	14.8	16.8
We are faced with unfunded pension responsibilities	24.5	20.6	12.3	29.7	12.9
We are able to maintain our current employee benefits package	7.7	30.3	24.5	29.0	8.4

retiring will increase significantly placing many municipalities under additional stress.

The few "bright" spots in this series of survey questions include:

- 52 percent are able to maintain three months of operating reserves with current cash reserves; conversely 40 percent are unable to do so; and
- 54 percent have been able to roll over cash reserves from the previous budgeting cycle, whereas only 32 percent have been unable to do so.

Based on these survey results, many Wisconsin cities and villages may not be in crisis mode, but current trends are unsustainable. As the state grows and demand for municipal services expands, many will be in a difficult position to satisfy those demands. The combination of concerns over debt limits, credit rating, unfunded pension obligations and instability of state aids paints a picture of potential crisis on the near-term horizon.

Current Strategies Being Adopted

There are numerous short- and long-term strategies that municipalities can pursue when faced with fiscal stress. For this study we focused on three broad

categories: service delivery or management, revenue alternatives and changes in expenditure policies. We asked respondents to indicate the degree to which they agree or disagree with the listed strategies as they describe their community's recent efforts to cope with fiscal stress. We do not attempt to address the political viability of the alternative strategies, but rather seek to gain insights into the current thinking of local officials. We will discuss each in turn.

Service Delivery

Wisconsin city and village municipal leaders were asked to evaluate a total of six service delivery improvement strategies (Table 3). The most frequently agreed with strategies include:

- improving productivity through better management (61.1 percent);
- pursuing regional cooperative agreements (48.3 percent); and
- contracting out services (44.9 percent).

A clear majority thought that improved productivity through better management was a viable strategy. Interestingly, 17.2 percent of the respondents "strongly disagreed" with improved productivity through better management as a viable strategy to reduce fiscal stress. While it may at first come across as peculiar that there would be such a strong dislike for such a common sense approach, the responses may reflect a certain frustration with the "cutting the fat" rhetoric many politicians have been touting over the years.[30]

The strategies least supported by municipal officials were:

- the reduction of hours for public facilities (32.7 percent agreed or strongly agreed);
- department consolidation (36.5 percent); and
- service elimination (38.4 percent)

Through informal discussions with some of the survey respondents, it became clear that local officials are under strong pressure to maintain current service levels. Discussions to significantly reduce service levels are perceived by the public as "scare tactics" and local officials are not sufficiently diligent in reducing waste and inefficiencies.

Revenue Strategies

When asked about the revenue side of the equation, there seems to be strong agreement that municipalities should adopt *increase user fees and charges and pursue additional grants* from state and local government. Here 61.7 and 65.3 percent, respectively, supported these two ways to enhance revenues during times of fiscal stress. Slightly more than half (50.6%) of Wisconsin city and

Table 3. Levels of support for specific strategies in response to fiscal stress

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Service Delivery					
Improved productivity through better management	3.8%	57.3%	18.5%	3.2%	17.2%
Contracted out services	5.7	39.2	25.9	22.1	6.9
Consolidated departments	10.9	25.6	26.9	32.0	4.5
Pursued regional cooperative agreements	3.9	44.4	26.8	15.7	9.1
Reduced hours for public facilities	10.3	22.4	21.1	42.9	3.2
Eliminated services	9.6	28.8	18.6	37.8	5.1
Revenues					
Drawn down cash reserves to meet daily operations	10.2%	29.3%	16.5%	38.2%	5.7%
Raised property tax levies	8.8	41.8	15.2	25.9	8.2
Adopted or increase user fees and charges	2.5	59.2	9.5	8.9	19.7
Created or expanded enterprise funds	3.2	25.3	40.3	26.0	5.2
Pursued grants from federal/state government	0.0	65.3	8.4	6.5	19.5
Expenses					
Refinanced outstanding debt	5.1%	45.2%	11.5%	13.8%	24.8%
Increased short-term debt	17.6	17.6	22.2	38.7	3.9
Delayed routine maintenance expenditures	5.1	37.8	16	30.8	10.3
Delayed capital expenditures	3.2	52.2	10.2	18.5	15.9
Laid off workers	20.6	14.2	14.8	45.8	4.5
Hiring freeze	9.7	27.7	28.4	25.8	8.4
Across the broad budget cuts	6.4	28.2	23.1	31.4	10.9
Targeted budget cuts	1.9	54.2	12.9	13.5	17.4
Discouraged population growth	32.5	2.6	14.3	50.6	0

village officials responding to the survey believe that raising property taxes is a viable option. Drawing down cash reserves had a mixed reaction where 39.5 percent supported the approach, and one in ten strongly supporting the idea, was counter-balanced with 43.9 percent not agreeing with this particular strategy. The two options with the strongest options include adopting or increasing user fees and charges with 19.7 percent strongly disagreeing and the pursuit of grants from higher levels of government with 19.5 percent strongly disagreeing.

Expenditure Strategies

The most frequently agreed with expenditure strategies include:

- targeted budget cuts (56.1 percent agreed or strongly agreed);
- delayed capital expenditures (55.4 percent);
- refinancing outstanding debt (50.3 percent); and
- delaying routine maintenance (42.9 percent).

The least agreed with expenditure strategies include:

- across the board budget cuts (34.6 percent agree or strongly agree);
- laying off workers (34.8 percent);
- discouraging population growth (35.1 percent); and
- increasing short-term debt (35.2 percent).

Strategies to reduce expenditures exhibit the greatest degree of divergence in the opinions of these local officials. Consider for example the option to refinance outstanding debt to secure better interest and payment schedules. A slight majority, 50.3 percent, supports this option, but 24.8 percent strongly disagreed. It may be the case that many municipalities have already taken advantage of historically low interest rates and it is widely expected that interest rates will increase.

Indeed, the record low rates may explain the popularity of increasing short-term debt. Although only 35.2 percent of respondents support this idea, 17.6 percent strongly favor this option. Delayed capital expenditures as a solution also proves to be controversial. While 42.9 percent generally support delayed capital expenditures, 15.9 strongly disagree. The competing strategies of across the board budget cuts compared to targeted cuts also appear to be controversial. While a clear majority (56.1%) prefer targeted cuts and only 34.6 percent prefer across the board cuts, nearly one in five (17.4%) strongly disagree with the targeted cut approach.

METHODOLOGY

The purpose of this study is to update earlier research on response strategies pursued by public officials when faced with fiscal stress. Our approach is

most similar to Pammer[31] in that a cross-section of municipalities are studied using a combination of survey and secondary-source data. In addition, these two studies rely on factor analysis for the creation of their dependent variables and ordinary least-squares regression for the modeling of response strategies. The studies differ most substantively in terms of time frame (1983 versus 2004) and selection of municipalities for cross-sectional analysis. Pammer[31] focused on large urban cities whereas our sample consists largely of small and medium sized Wisconsin municipalities.

Consistent with the fiscal stress literature we hypothesize that decision-making strategies are a function of socio-economic factors, fiscal conditions and management structure.[32,33] For this analysis, data were derived from three sources; the 2004 survey of Wisconsin incorporated municipalities, annually audited municipal financial reports and the 2000 U.S. Census. The specific variables are described below.

Dependent Variables — Responses to Fiscal Stress

As described in the literature, responses to fiscal stress should be thought of as series of steps taken, meaning that each of the responses we measure cannot be treated in isolation. For instance, Levine, Rubin, and Wolohojian[34] describe the steps taken by the New York city during the 1960s and 1970s; during the city's initial stage of stress, actions taken included covering deficits through short-term debt, covering operating expenditures through long-term debt, select cuts in staff, and delaying maintenance. As New York City's fiscal woes worsened, the administration froze wages, imposed user fees, consolidated and eliminated departments.

Similarly, using factor analysis, Pammer[35] narrowed 32 retrenchment strategies down to five patterns of actions consisting of deferring and borrowing, increasing revenues, reducing spending, productivity improvements and contracting out. Finally, Greiner and Hatry's[36] examination of cities' responses to Proposition 2–1/2 in Massachusetts demonstrated three basic strategies: revenue expansion, productivity/alternative service delivery, and service cuts.

Given the description presented above, a principle components analysis with Varimax Rotation was run on our 20 retrenchment strategies. The analysis revealed five retrenchment strategy dimensions, each with an eigenvalue greater than one that, collectively, account for 56 percent of the variation within the choices. More importantly, each factor has an intuitive appeal consistent with previous research described above. The five dimensions follow:

- *Productivity Improvements/Alternative Service Delivery*: administration supports strategies that emphasize improving productivity through better management, pursuing regional cooperation agreements, consolidating services and pursuing grants from the federal and state government;

- *Increase Revenues*: raising property taxes; adopting and/or increasing existing user fees and charges, creating and/or expanding enterprise funds;
- *Avoidance/Defer and Borrow*: increase short-term debt to meet operating expenditures, drawing down cash reserves to meet daily operations;
- *Service Cuts*: administration supports strategies that emphasize reducing hours for public facilities, eliminating services, laying off workers and a hiring freeze;
- *Reducing Spending*: administration supports strategies that emphasize targeted budget cuts, across the board budget cuts, delaying capital expenditures and delaying routine maintenance expenditures.

Independent Variables

Socio-economic factors

A community's ability to respond to stress has consistently been found to be affected by the community's capacity.[37] For this study, several measures of current of socio-economic characteristics and change between 1990 and 2000 have been included. These variables are:

Housing stock measured as the percentage of homes built before 1939 (Source: 2000 U.S. Census);

- Percent change in population 1990 and 2000 (Source: 2000 U.S. Census);
- The percent change in total property value between 1990 and 2001 (Source: 2003 Audited Financial Report, Wisconsin Department of Revenue);
- Per capita total revenues in 2001 (Source: 2003 Audited Financial Report, Wisconsin Department of Revenue);
- Percent change in total revenues between 1990 and 2000 (Source: Audited Financial Report, Wisconsin Department of Revenue various years);
- Percent change in intergovernmental aid 1990–2001 (Source: Audited Financial Report, Wisconsin Department of Revenue various years);
- Per Capita Income (Source: 2000 U.S. Census).

As described by Pammer,[38] ". . . cities with certain environmental characteristics are more likely to experience financial trouble, which might dictate the extent to which they use a number of retrenchment strategies." While not elaborated by Pammer, we hypothesize that the more severe a community's environment, the more likely they will be forced to respond to fiscal stress by reducing services and cutting spending and less likely they will be able to focus on actions such as productivity improvement, service delivery changes or revenue increases.

Fiscal Stress

Similar to the general socio-economic characteristics that have affected a community's ability to respond to fiscal constraints, so too has the level of fiscal stress facing a community. Measuring fiscal stress has been the focus of numerous reports and studies.[39] This study includes four distinct measures of fiscal stress frequently identified in the literature, they are:

- The community's 2001 tax rate (Source: 2003 Audited Financial Report, Wisconsin Department of Revenue);
- Fiscal stress 1 measured as 2001 total revenues divided by total expenditures (Source: 2004 Audited Financial Report, Wisconsin Department of Revenue);
- Fiscal stress 2 measured as the percent change in total revenues divided by total expenditures between 1990 and 2001 (Source: Audited Financial Report, Wisconsin Department of Revenue various years);
- Fiscal stress 3 measured as the sum of survey responses (See Table 4).[40] Each response is coded using a 5-point scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree.

Management Structure

Another variable hypothesized to impact fiscal behavior is management structure. Studies have suggested that professional public administrators have the capacity to function more efficiently.[41] In this context, it would appear that communities with a professional management staff would be better equipped to negotiate regional cooperation agreements, or pursue grants from the state or federal government. As such, we hypothesize that management structure is associated with retrenchment decision-making.

The most common typology is the comparison of council-manager forms to mayor-council. Such a dichotomy is rarer in Wisconsin as only 20 of the 585 incorporated municipalities have a council-manger form. More frequent are mayor-council forms with a full-time administrator and/or finance director. Even with this more generous measure of municipal government professionalism, only 200 (34 percent) of the cities and villages qualified. The variable is coded as a dummy, where one represents municipalities with a city-manager form of government or mayor-council form with a full-time administrator and/or finance director.[42]

FINDINGS

Of the five regression models, four are statistically significant. Interestingly, the model emphasizing revenue increases is not statistically significant; and is

Table 4. Rotated Component Matrix

	Component				
	Productivity Improvement	Increase Revenues	Avoidance/Defer and Borrow	Service Cuts	Reduce Spending
improved productivity through better mgmt	**.646**	.058	−.261	.099	−.077
contracted out services	.377	.185	.058	.233	.047
consolidated services	**.585**	−.114	.047	.467	.075
pursued regional cooperative agreements	**.739**	−.014	−.036	.019	−.023
reduced hours for public facilities	.048	.088	.264	**.752**	−.036
eliminated services	.107	.043	−.085	**.778**	.175
drawn down cash reserves to meet daily operations	−.282	−.048	**.561**	.381	.243
raised property tax levies	−.187	**.838**	.070	−.014	−.022
adopted/increased user fees/charges	.355	**.684**	−.047	.156	.244
created/expanded enterprise funds	.429	**.529**	.121	.274	−.208
pursued grants from fed/state govt	**.520**	.070	.469	−.138	.219
refinanced outstanding debt	.385	.057	.161	.107	.461
increased short-term debt	.043	.105	**.797**	−.021	.054
delayed routine maintenance expends	−.154	−.060	.456	.099	**.625**
delayed cap expenditures	−.156	−.079	.236	.067	**.656**
laid off workers	.165	.067	−.006	**.686**	.050
hiring freeze	.051	.128	−.332	**.554**	.468
across the board budget cuts	.007	.225	−.051	−.038	**.657**
targeted budget cuts	.153	−.085	−.012	.156	**.662**

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
Rotation converged in 9 iterations.

Table 5. Regression Results for Responses to Fiscal Stress

	Productivity Improvement		Increase Revenues		Avoidance/ Defer and Borrow		Service Cuts		Reduce Spending	
	Std. Beta	T-Value	Std. Beta	T-Value	Std. Beta	T-Value	Std. Beta	T-Value	Std. Beta	T-Value
Socio-Economic Characteristics										
Housing Stock	*–.196*	*–1.82*	–.110	–.96	.136	1.27	.039	.39	–.165	–1.64
Change in Pop. 1990–2001	*.203*	*1.97*	–.163	–1.49	.071	.693	.093	.96	*–.238*	*–2.48*
Change in Prop. Values 1990–2001	*–.215*	*–1.85*	*.210*	*1.71*	.009	.075	–.074	–.68	.081	.749
Per Cap. Total Revenue	.036	.367	–.011	–.102	.051	.526	–.016	–.17	.055	.59
Change in Total Revenue1990–2001	.042	.368	.127	1.06	.122	.903	–.165	–1.56	–.018	–.17
Change Intergov. Aid 1990–2001	.030	.302	–.103	–.98	.021	.218	–.115	–1.24	.018	.20
Per Capita Income	*–.196*	*–1.91*	.080	.74	–.052	–.51	.058	.60	–.056	–.58
Fiscal Stress										
Tax Rate	–.067	–.69	.052	.50	*–.180*	*–1.85*	–.011	–.116	.073	.80
2001 Revenues/2001 Expenses	.033	.363	–.097	–1.57	–.075	–.83	*–.223*	*–2.61*	.068	.80
Chg. Rev/ Chg. Expenses	.012	.132	–.096	–1.00	–.142	–1.57	*–.196*	*–2.30*	*.175*	*2.07*
Perceived Stress	–.020	–.21	.070	.969	*.333*	*3.53*	*.345*	*3.86*	*.462*	*5.19*
Prof. Admin	*.333*	*3.39*	.052	.50	–.105	–1.08	.074	.804	–.091	–.99
N		119		119		119		119		119
F		2.32		1.05		2.49		3.82		3.97
Adj. R^2		.117		.006		.131		.221		.230

consistent with the findings of Pammer.[43] For those statistically significant models, the percent of variance explained ranges from 12 percent (productivity improvement) to 23 percent (spending reductions); results generally stronger than Pammer.[44]

Interestingly, our models are best able to predict support for some of the most severe responses to fiscal stress;[45] service and spending cuts. Agreement on the elimination of services and service cuts in response to fiscal stress are associated with both *perceived* fiscal stress and ratios of revenues to expenditures. The direction of the relationships between fiscal stress and retrenchment strategies are consistent with responses that emphasize service cuts; as stress increases, measured both objectively and subjectively, administration emphasizes service cuts. This is consistent with Levine's[46] prescribed responses to fiscal stress. Communities are less willing to endorse service elimination unless they are facing significant levels of fiscal stress.

The model predicting emphasis on spending cuts is a bit less clear. While the relationship between perceived fiscal stress and emphasis on spending cuts is theoretically consistent, the relationship between change in the ratio of expenditures to revenues is in the opposite direction.

One of the more intriguing results focuses on productivity improvement which emphasizes better management, service consolidation, regional cooperation and the pursuit of state/federal grants as means to cope with fiscal stress. The dependent variable is positively associated with a community having an administrator and/or finance director and population change, while being negatively associated with per capita income, change in property values and the percent of homes built before 1939. Each of these socio-economic variables is in the direction opposite from that which we hypothesized.

In addition, this is the only model where no measures of fiscal stress are associated. One explanation may be that these strategies are only pursued when communities are *not* faced with substantial fiscal constraints. In addition, these types of response strategies are possible only when a community has the professional staff to pursue such complicated matters. These associations lend support for the normative argument that having a professional administrator can help a community avoid or at least steer it through difficult fiscal situations. The mixed associations between socio-economic characteristics and this mix of response strategies needs further analysis.

In general, looking at the right side of the equations, the most consistent variable associated with our response models is the respondents' evaluation of the level of fiscal stress facing their community. What is particularly interesting here is that the self-evaluation is uncorrelated with frequently cited measures of fiscal stress, including the ratio of revenues to expenditures and, again, the self-evaluation variable is, by far, the better predictor. This is consistent with Schick's[47] observation that ". . . because it is perceived rather than real scarcity that determine the budget condition, it is difficult to design precise empirical measures of the different types of scarcity." Our interpretation

of this statement in this context is that scarcity, or the level of fiscal stress facing a community, is to a large degree one of perception more than some objective measure contrived by either academics or third-party evaluators (e.g., bond-rating agencies).[48]

The results suggest that socio-economic characteristics have a marginal effect on response strategies. The percent of homes built before 1939 is negatively associated with the degree to which local officials agree with productivity improvements as a principle response to fiscal stress. On the other hand, the percent change in population is negatively associated with support for spending reductions and positively associated with productivity improvements. Contrary to our expectations, per capita income is negatively associated with agreement on productivity improvements as a means of coping wit fiscal stress.

CONCLUSIONS

The intention of this exploratory study was to draw attention to an area of fiscal administration that has received little attention, retrenchment strategies, despite the meteoric rise in attention given to measuring and identifying government fiscal stress. While we agree that the identification of fiscal stress is certainly important, the understanding of strategies adopted by communities facing fiscal stress is equally important.

The existing literature is limited and in need of further development. The handful of studies that examine retrenchment strategies focused on a particular era (the late 1970s and early 1980s). We are now more than 20 years removed and currently faced with similar fiscal constraints. Our findings are relatively consistent with these earlier works, yet we still cannot say with certainly whether or not anything was learned during the past 20-plus years.

Similarly, a principal aim of earlier works was to determine whether government responses to fiscal stress fit one of three decision-making models: incrementalism, rational/logical, or garbage-can. This analysis cannot and does not put to rest the debate over which strategy best describes the decision-making process during times of fiscal stress. In fact, to a certain degree, the models lend support to each of the three approaches. There is sufficient evidence to suggest that communities respond to fiscal stress in a rational manner, particularly when the crisis is severe enough that a municipality is considering reducing hours of operation for public facilities, the elimination of services, and employee layoffs. Alternatively, the fact that while four of the five models are statistically significant, the percent of variance explained is relatively low provides support for Downs and Rocke's,[49] random-effects, or garbage-can approach to fiscal stress.

Finally, this study demonstrates the importance of including a combination of different sized communities in a cross-sectional analysis. Every study

of fiscal stress to date consists of either case studies or a cross-section of metropolitan cities. While important in their own right, ignored in these studies are the majority of communities that are small to medium sized. This omission masks important findings such as the importance of professional staff during fiscal difficulties. For instance, our study demonstrates that municipalities with either an administrator and/or finance director were more supportive of responding to fiscal stress by improving productivity through better management, service consolidation, regional cooperation and pursuit of federal/state grants.

REFERENCES

1. For a summary see Honadle, B. W., Costa, J.; Cigler, B. Fiscal Health for Local Governments: An Introduction to Concepts, Practical Analysis and Strategies; Elsevier: San Diego, CA, 2004.
2. Nollenberger, K. Evaluating Financial Condition: A Handbook for Local Government, 4th Ed.; International City/County Managers Association: Washington, DC, 2004.
3. Levine, C. H. Organizational Decline and Cutback Management. Public Administration Review, **1978**, *38*, 316–325.; Levine, C. H. More on Cutback Management: Hard Questions for Hard Times, in Managing Fiscal Stress: The Crisis in the Public Sector, Ed. C. H. Levine; Chatham House: 1980 Chatham, N. J,; Levine, C. H.; Rubin, I. S.; Wolohojian, G. G. Resource Scarcity and the Reform Model: The Management Retrenchment in Cincinnati and Oakland, Public Administration Review **1981** *41*(6), 619–628.; Pammer, W. J. Managing Fiscal Strain in Major American Cities: Understanding Retrenchment in the Public Sector; Greenwood Press: New York, 1990.; Wolman, H.; Davis, B. Local Government Strategies to Cope with Fiscal Pressure, in Fiscal Stress and Public Policy, Eds. C. Levine; I. Rubin. Sage Publications: Beverly Hills, CA, 1980.; Downing, R. G. Urban County Fiscal Stress: A Survey of Public Officials' Perceptions and Government Experiences. Urban Affairs Quarterly, **1991**, 24: *2* (December); 314–325.
4. Pagano, M. A. City Fiscal Conditions in 2004. State Tax Notes *34*, (10), 435–439; Maher, C. S.; Deller, S. C. A Survey of the Fiscal Health of Wisconsin Municipalities; The Municipality, League of Wisconsin Municipalities: Madison, WI, December 2004.
5. Pammer, W. J. Managing Fiscal Strain in Major American Cities: Understanding Retrenchment in the Public Sector, Greenwood Press: New York, 1990.
6. Levine, C. H. More on Cutback Management: Hard Questions for Hard Times, in Managing Fiscal Stress: The Crisis in the Public Sector. Ed. C. H. Levine. Chatham House: Chatham, NJ, 1980.

7. Schick, A. Micro-Budgetary Adoptions to Fiscal Stress in Industrialized Democracies. Public Administration Review, **1988**, *48*(January/February): 523–533.
8. Knight, B., Kusko, A., Rubin, L. Problems and Prospects for State and Local Governments. State Tax Notes, **2003**, *29*(6) (August):427–439.; McGuire, T. J.; Steuerle, C. E. A Summary of What We Know — and Don't Know — About State Fiscal Crises. State Tax Notes, **2003** (August):357–361; Reschovsky, A. The Implication of State Fiscal Stress for Local Governments. Paper presented at The Urban Institute Conference on State Fiscal Crises: Causes, Consequences, and Solutions. Washington, DC, 2003 (April).
9. Deller, S. C.; Walzer, N. Structural Shifts in the Treatment of Intergovernmental Aid: The Case of Rural Roads. Journal of Agricultural and Applied Economics, **1995**, *27*(2):522–535.
10. Wildavsky, A. The Politics of the Budgetary Process, 4th Ed.: Little, Brown Publishers: Boston, 1984.
11. Lindblom, C. E. The Science of Muddling Through, in Classics of Public Administration. Eds. Jay M. Shafritz; Albert C. Hyde. The Dorsey Press: Chicago, 1987.
12. Pammer, W. J. Managing Fiscal Strain in Major American Cities: Understanding Retrenchment in the Public Sector; Greenwood Press: New York, 1990.
13. Levine, 1980; Wolman & Davis, 1980; Schick, A. Micro-Budgetary Adoptions to Fiscal Stress in Industrialized Democracies. Public Administration Review, **1988**, *48*(January/February): 523–533.
14. Downs, G. N.; Rocke, D. M. Theories of Budgetary Decision-Making and Revenue Decline. Policy Sciences, **1984**, *16*, 329–347.
15. Also see Yates, D. The Ungovernable City: The Politics of Urban Problems and Policy Making; The MIT Press: Cambridge, MA: 1977.
16. Schick, 1980.
17. Wolman & Davis, 1980.
18. Levine, 1980.
19. Levine, 1980; Levine, C. H.; Rubin, I. S. Wolohojian, G. G. Resource Scarcity and the Reform Model: The Management Retrenchment in Cincinnati and Oakland. Public Administration Review, **1981**, (6): 619–628; Downs, G. N.; Rocke, D. M. Theories of Budgetary Decision-Making and Revenue Decline. Policy Sciences. **1984**, *16*(March):329–347.
20. Pammer, 1990.
21. Downs & Rocke, 1984.
22. Pammer, 1990.
23. Hendrick, R. Revenue Diversification: Fiscal Illusion or Flexible Financial Management. Public Budgeting and Finance. **2002**, *22* (4): 52–72.
24. The operationalization of professional versus non-professional forms of local government has typically been a dichotomy between council-manger forms versus mayor-council forms.

25. Deller, S. C., Hinds, D. G.; Hinman, D. L. Local Public Services in Wisconsin: Alternatives for Municipalities with a Focus on Privatization. Department of Agricultural and Applied Economics Staff Paper Series No. 441, University of Wisconsin-Madison/Extension, June, 1997.
26. Question 1 asked, "Please rate the current financial condition of your city/village"; responses can be found in Figure 1. Question 2 asked, "What are the financial prospects for your city/village for the next five years?", responses can be found in Figure 2. Question 3: "Please check the box that best describes your answers to the following questions:". The responses can be found in Table 2.
27. Including Milwaukee increases the average population of the sample to 11, 712.
28. According to Osborne and Hutchinson (2004), a similar pattern can be found in most other states.
29. Deller, et al., 1997.
30. We would like to thank the anonymous reviewer for the helpful comment on this section.
31. Pammer, 1990.
32. Levine, 1980; Pammer, 1990.
33. Ideally, we would have included measures of the political environment in each of the communities, but data limitations prevented us from doing so. Based on Pammer's (1990) findings, this should not have a significant impact on the models.
34. Levine, et al., 1981.
35. Pammer, 1990.
36. Greiner, J. M.; Hatry, H. Coping with Cutbacks: Agency Responses in 17 Local Governments. In Proposition 21/2: Its Impact on Massachusetts, eds. L. E. Susskind; J. Serio. Cambridge, MA, 1983.
37. Levine, 1980; Pammer, 1990; Hite J.; and Ulbrich, H. Fiscal Stress in Rural America: Some Straws in the Wind. American Journal of Agricultural Economics. December **1986**, 1188–1193; Ward, J. D. Responding to Fiscal Stress: A State-Wide Survey of Local Governments in Louisiana a Research Note. International Journal of Public Administration **2001**, *24*(6) 565–571.
38. Pammer, 1990, p. 61.
39. Honadle, et al., 2004.
40. This variable is a simple cumulative measure of responses to eight measures of fiscal stress (Table 2). Note that for six of the eight questions, the lower the value, the better the fiscal condition. The direction of two questions was reversed for consistency: "we are near our debt level capacity" and "we are faced with unfunded pension liabilities." Due to the question coding, the lower the value, the better a community's fiscal condition. Finally, the validity of this cumulative measure was verified by the strong association between it and responses to the question that asked respondents

to evaluate their current financial condition (Table 1); the Pearson's correlation coefficient was –.517.

41. Hendrick, R. Revenue Diversification: Fiscal Illusion or Flexible Financial Management. Public Budgeting and Finance **2002**, *22* (4): 52–72.
42. Initially an ordinal measure was created where council-manager forms were coded three, mayor-council forms with an administrator and/or finance director coded two and the remaining municipalities were coded one. The findings were consistently insignificant.
43. Pammer, 1990.
44. Pammer, 1990.
45. Levine, 1980.
46. Levine, 1980.
47. Schick, 1980.
48. In fact, we previously analyzed the qualitative measures of fiscal stress derived from this survey and a host of objective quantitative measures obtained through an extensive literature search, we found little to no association between them.
49. Downs & Rocke. 1984.