Local Fiscal Stress

State Austerity Policy & Creative Local Response

WHAT CAUSES LOCAL FISCAL STRESS? WHAT CAN BE DONE ABOUT IT?

Austin M. Aldag, Mildred E. Warner
Department of City and Regional Planning
Cornell University, Ithaca, New York

Yunji Kim
Department of Urban and Regional Planning
University of Wisconsin: Madison

MAY 2017

INTRODUCTION

Local governments in New York State are under fiscal stress. A 2017 survey of New York State local governments finds the primary sources of this stress come from state level policy–shifting service and expenditure responsibilities to local government and restricting their ability to raise revenue and innovate in service delivery. Local governments provide the services critical to economic development and quality of life. To continue providing these key public services for their constituents, local governments in New York State must possess adequate budgetary and political authority to address fiscal stress. To do so requires a state partner.

Focus groups were conducted in Fall 2015 with towns, villages, cities and counties across the state to uncover the causes of fiscal stress, and local revenue and service delivery responses (Anjum et al., 2015). The focus group results were used to design survey questions. A statewide online survey was conducted in March 2017 by the Survey Research Institute of Cornell University. All cities, counties, towns, and villages in New York State (excluding New York City) were surveyed regarding sources of and responses to fiscal stress.

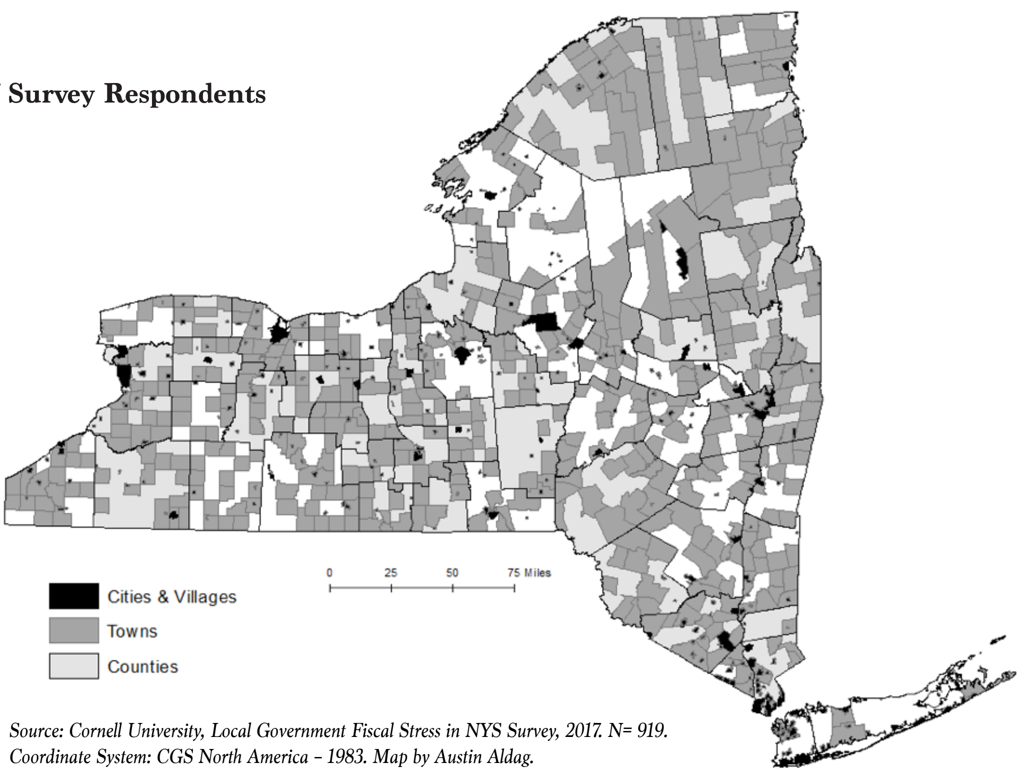
There are 1,593 general purpose municipal governments in New York State. Fifty-eight percent responded to this survey (See Table 1). Elected officials, such as mayors, town supervisors, or county executives, comprised 86 percent of the respondents, and the remaining 14 percent were appointed officials (such as county administrators, city managers, town or village clerks, etc.). Cities and villages had the highest response rate; followed by towns and then counties. Respondents also show broad geographical representation across the state. Figure 1 maps all cities, counties, towns, and villages who responded to the survey.

Table 1: Reponses Rate

Category	Cities	Counties	Towns	Villages	Total
Total NYS	62	57	932	542	1,593
Survey Respondents	47	30	509	333	919
Response Rate	76%	53%	55%	61%	58%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017.

Figure 1: Map of Survey Respondents



Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017. N= 919.
Coordinate System: CGS North America – 1983. Map by Austin Aldag.

Cornell University partnered with the New York Conference of Mayors and the New York State Association of Towns for this study. Funding for the survey was provided by the USDA Hatch and Smith Lever funds administered by the NYS Agricultural Experiment Station and the Cornell Institute for Social Sciences. We would like to thank Chris Anderson, Mack Cook, Ron Deustch, Jerry Faiella, Tyler Keegan, Mark Lavigne, Warren Lucas, Joe Mareane, Chuck Rankin and Barbara VanEpps for their helpful comments on survey design.
Additional information can be found at http://www.mildredwarner.org/restructuring/fiscal-stress.

LEVELS OF FISCAL STRESS

What level of fiscal stress do local governments in New York State face? We asked respondents to assess their government's level of fiscal stress on a scale of none to significant; which is similar to the categories used by the New York State Comptroller's Office (See Table 2). Almost half of the respondents to our survey indicated they are under severe (10 percent) or moderate (37 percent) fiscal stress. While cities and counties feel stress most strongly (77 percent of cities and 58 percent of counties reported either moderate or significant fiscal stress), towns and villages are feeling the fiscal pressure as well; 45 percent of towns and 42 percent of villages rank their fiscal stress as either moderate or significant.

These rates are much higher than those reported by the NYS Comptroller. In 2015, the Comptroller reported 11 units of local government were under significant fiscal stress, 18 under moderate stress, and 30 were susceptible to fiscal stress. Also, compared to our 2013 survey (Homsy et al., 2013) we find that cities and counties are less likely to report significant fiscal stress, while villages and towns are more likely to do so. Fiscal stress involves an assessment of both current and future finance. Cities and counties in 2013 already recognized the fiscal challenges which the tax cap would create, whereas towns and villages, despite being more dependent on the property tax cap, did not realize at the outset how serious the financial implications of the tax cap would be, but they do now.

Table 2: Local Governments' Self-Reported Levels of Fiscal Stress

Stress Level	All	Cities	Counties	Towns	Villages
Significant	10%	31%	29%	6%	10%
Moderate	37%	46%	29%	39%	32%
Weak	34%	23%	38%	35%	34%
None	19%	0%	4%	19%	24%
N	**766**	**39**	**24**	**431**	**272**

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017.

DRIVERS OF FISCAL STRESS

What leads local governments in New York State to have such high levels of self-assessed fiscal stress? To answer this question, we asked what factors contribute to local government fiscal stress (See Figure 2). We found that the drivers of stress arise mostly from state-level policy. The top three contributors to fiscal stress that local governments identified were stagnant state aid, state mandates, and the property tax cap.

Counties emphasize state mandates more than any other government type, with all responding counties reporting state mandates were moderate or significant contributors to their fiscal stress. This is because counties are charged with carrying out many state functions, and paying for them with local tax dollars. Cities identified stress from pensions, benefits, and poverty because they normally provide more services for dependent populations and are more likely to have a professional work force.

Aging infrastructure was the fourth most mentioned factor of fiscal stress (reported by 80 percent of respondents), and it ranked second for both cities and counties. New York has aging infrastructure and renewing that infrastructure is a key concern of local governments (Burgess et al., 2014, Anjum et al., 2015).

IMPACT OF THE TAX CAP ON LOCAL FISCAL STRESS

New York State instituted a tax cap in 2011 and research finds the effects of the tax cap deepen over time (Xu and Rivera, 2014). When asked about the current and future budgetary impacts of the tax cap, local governments across the state indicated that they will be impaired either moderately or significantly (See Table 3). This was consistent across government type. Only one percent said the tax cap would improve their budgetary needs currently or in the future.

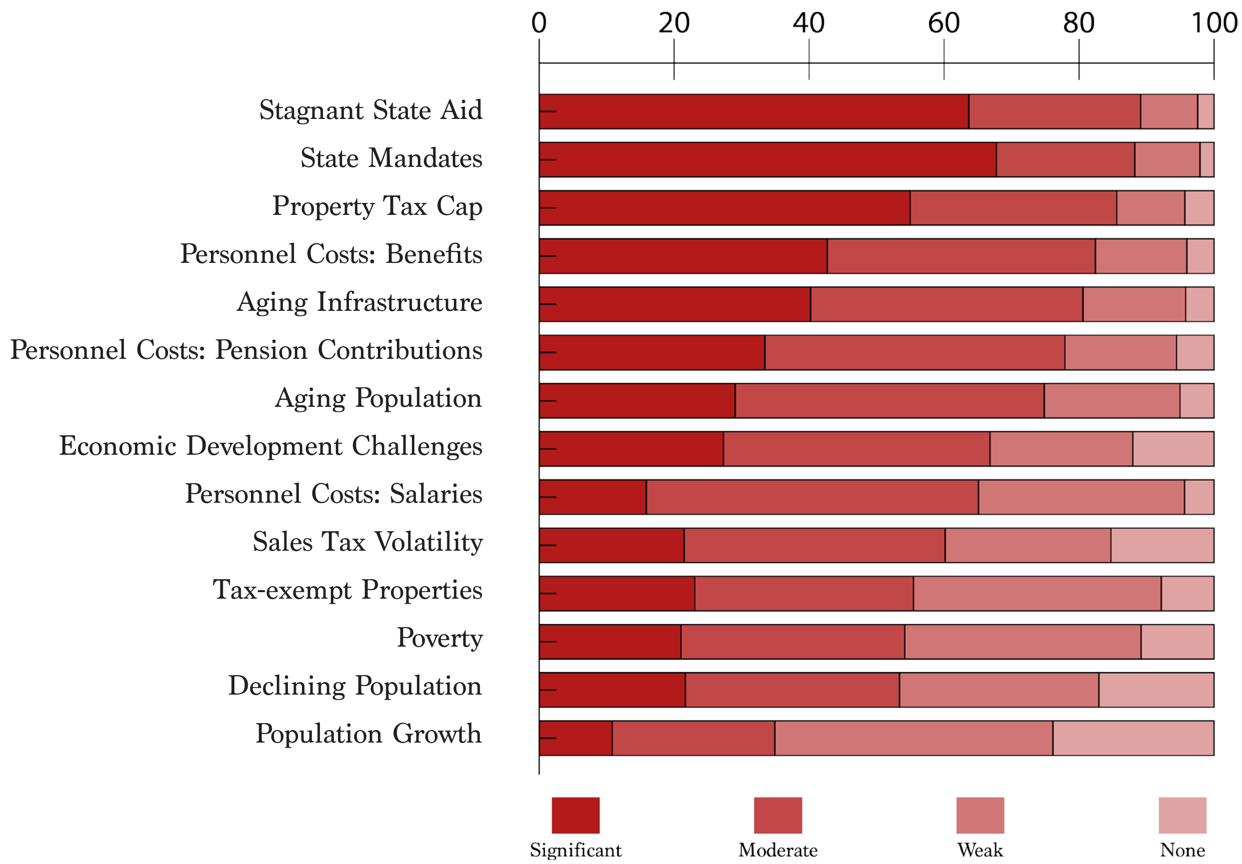
Future budgetary needs are the biggest casualty of fiscal stress, with 53 percent of respondents indicating that they would be significantly impaired. When comparing current and future impacts, local government leaders are especially concerned about the longer-term effects of the property tax cap on their ability to meet future needs.

Table 3: Tax Cap's Effect on Current vs. Future Budgetary Needs

	Current	Future
Significantly Impaired	30%	53%
Moderately Impaired	47%	35%
Minimal/no impact	23%	12%
Moderately Improved	1%	1%
Significantly Improved	0%	0%
N	**879**	**875**

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017.

Figure 2: Factors Contributing to Fiscal Stress



Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017. N=874.

Beyond the general effect of the tax cap, the survey asked which services are most affected. Respondents report that infrastructure and planning are the most affected budget needs (See Table 4). Cuts to infrastructure, economic development, and planning will have long term impacts. Recreation and elder services are also being cut (especially in cities, where 41 percent reported cuts). Social services are least likely to be affected by fiscal stress; because state mandates require these services despite local budgetary limitations.

Table 4: Budgetary Needs Most Affected by Fiscal Stress

Infrastructure	Planning	Recreation	Elder Services	Social Services
86%	63%	26%	19%	10%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N= 766, multiple responses allowed.

The tax cap, passed in 2011 and implemented in 2012, is one of the primary causes of fiscal stress in New York State and may be one of the easiest to fix. Research from other states with tax caps finds most states exempt infrastructure, capital expenditures, emergency expenditures, and pensions (Chang and Wen, 2014). Survey respondents were asked which reforms they would like to see to the tax cap (See Table 5). Local government officials would like to see capital expenditures, emergency expenditures, and pension payments exempted from the tax cap. This is common practice for other states with tax caps, and it recognizes the responsibility of local government to meet infrastructure needs, emergency needs, and serve as a responsible employer. A large majority, 58 percent, also recommended a straight 2 percent growth factor in the tax cap formula. Currently, the growth factor is either 2 percent or the rate of inflation, whichever is lower. In recent years the cap has been closer to zero percent due to low inflation. Costs of materials and services rise, and a zero-level cap does not permit governments to meet their budgetary needs.

Table 5: Desired Reforms to the Tax Cap

Desired Reform	Percent Yes
Exempt Capital Expenditures	67%
Set 2% Growth Factor	58%
Exempt Emergency Expenditures	55%
Exempt Pension Payments	55%
Exempt Special Districts	35%
Exempt PILOTS from growth factor	32%
Exempt Tax-exempt Land from growth factor	29%
No Desired Change	3%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=889. Multiple responses allowed.

Table 6: Responses to Fiscal Stress: Expenditures and Revenues

	All	Cities	Counties	Towns	Villages
Apply for Grants	50%	76%	52%	44%	21%
Defer Capital Expenditures	46%	62%	45%	44%	47%
Personnel Cuts	35%	56%	72%	32%	34%
Reduce Personnel Benefits	28%	31%	45%	30%	22%
Consider Government Consolidation	26%	47%	48%	26%	21%
Increase Collection Efforts	19%	51%	24%	11%	27%
Sell Assets	9%	24%	28%	9%	7%
Consider Bankruptcy	0%	0%	2%	0%	0%
N	**855**	**45**	**29**	**471**	**310**

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=855. Multiple responses allowed

Uncertainty in the level of the cap makes budgetary planning difficult. Thirty-eight percent of respondents reported overriding the tax cap. Of those, 33 percent did so because of budget uncertainty due to the tax levy growth factor calculations. Other reasons for overrides were: to maintain services (reported by 72 percent), to cover the increases in costs for employee benefits (reported by 60 percent), and to maintain long-term capital investments (reported by 40 percent).

HOW ARE LOCAL GOVERNMENTS RESPONDING TO FISCAL STRESS?

On the revenue side, the most common response to fiscal stress is to apply for more grants (50 percent). The effectiveness of this revenue raising strategy depends on the level of available state or national grants. Increased efforts to collect taxes, fees and fines was reported by 19 percent of respondents and 51 percent of cities. On the expenditure side, deferring capital expenditures was the most common response, reported by 46 percent of respondents, and is the highest among cities (62 percent). This shows the crowding out effect of fiscal stress on future planning and development. Efforts to cut personnel expenses and benefits were also common responses, especially among cities and counties (56 and 72 percent, respectively). Consideration of consolidation was also highest among cities and counties (47 and 48 percent, respectively).

The survey found that some counties are reducing their level of tax sharing with other jurisdictions. 75 percent of responding municipalities report their county government has cut or eliminated sales tax sharing, and 31 percent of those respondents report their counties are likely to share less or eliminate sales tax sharing in the near future. Counties can play a constructive role in helping to develop responses that serve the entire county, or they can focus primarily on their own needs and worsen the conditions facing the towns, villages and cities within their borders. Downloading austerity from one level of government to the next is one way of pushing fiscal stress to the next lower unit in the federalism hierarchy—whether from national to state, state to local, or from county to city, town or village. But the buck stops with the lowest level of local government.

The survey also asked respondents to identify groups actively involved in developing local responses to fiscal stress (See Table 7). Across all government types, respondents report county governments have been most involved in strategizing a way forward (37 percent). Towns report county governments as a partner more than cities or villages (43 percent). State government support was only reported by 23 percent of local governments. When broken down by government type, 31 percent of cities (not shown) report assistance from their business community. The business community recognizes the need for a strong, financially viable local government to promote economic development and foster a high quality of life.

Table 7: Groups Helping Local Government Develop Responses to Fiscal Stress

	Percent Yes
County Gov.	37%
State Gov.	23%
Council of Govs.	19%
Business Community	7%
Labor Unions	7%
Neighborhood Groups	4%
Non-Profits	4%
Colleges	2%
Religious Groups	1%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=855.

Table 8: Responses to Fiscal Stress: Service Delivery

	All	Cities	Counties	Towns	Villages
Explore Additional Sharing Agreements	52%	60%	72%	51%	52%
Increase User Fees	39%	62%	45%	31%	47%
Reduce Services	23%	33%	55%	21%	21%
Adopt New User Fees	21%	31%	17%	19%	22%
Consolidate Departments	20%	40%	59%	18%	17%
Use Volunteers for Services	13%	20%	14%	13%	11%
Eliminate Services	8%	22%	34%	7%	4%
Privatize Services	6%	13%	28%	6%	3%
N	**855**	**45**	**29**	**471**	**310**

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=855. Multiple responses allowed.

Besides revenue and expenditures, the survey asked about responses in terms of service delivery (Table 8). The most popular response is to explore additional service sharing agreements (52 percent) in order to achieve optimal economies of scale. Cities and counties are the most active in searching out new sharing opportunities (60 and 72 percent). Counties are reducing services (55 percent), and cities are the most likely to increase current user fees (62 percent) and adopt new user fees (31 percent). Increasing user fees is only an option in more urbanized places. While user fees can promote efficiency, they do not lower costs; they just shift the cost of services to users. Consolidating departments is also common, especially among cities (40 percent) and counties (59 percent). Overall, local governments are reluctant to reduce (23 percent) or eliminate (8 percent) services. Privatization is the least popular response to fiscal stress (6 percent).

While all units of government are now applying for additional grants, deferring capital expenditures and exploring sharing agreements, cities and counties in particular are exploring all the options on the table at a higher level than towns and villages.

To determine which services are most affected by fiscal stress, the survey asked about 21 services across four general areas. For each service, the survey asked if the service was cut back, the nature of the cutback, and if there was community opposition to the cut. Table 9 reports the overall responses by service sector.

Table 9: Service Cut Backs by Sector

	Public Works & Transit (7 services)	Public Safety (6 services)	Health & Human Services (5 services)	Economic Development, Planning, and Public Relations (3 services)	All Services (21 services)
% Reporting a Cutback	8 %	5%	4%	5%	6%
Reduced Frequency/ hours	32%	24%	20%	26%	31%
Reduced Staff	23%	38%	29%	26%	23%
Reduced Budget	52%	47%	57%	57%	52%
Eliminated Service	5%	16%	13%	12%	5%
Community Opposition Present	61%	56%	67%	50%	60%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=833.

There are very few reductions in services by sector. Cuts were most likely to be reported in public works and public safety—two of the largest budget categories for local governments. The most common response is to reduce service's budget. This is a common theme across all 21 services in the survey, and 52 percent of respondents report reducing budgets (see Table 9). Reduced staffing and reduced frequency of service are the next most common responses. Elimination of services is rare. Local governments are pragmatic and try to maintain services even in the face of fiscal stress and austerity (Kim and Warner, 2016). Even though cuts were limited, respondents report community opposition to those cuts, especially in public works and human services, the services most visible to residents.

Looking more closely at the 21 individual services reported in the survey we find road repair, police, youth recreation and public relations/online services are the services most likely to be cut back (See Table 10). Road repair, police and recreation service cuts are the most visible to residents, and the majority of respondents report community opposition to those cuts. Road repair has taken the biggest hit. Over 89 percent of local governments provide this service, and 28 percent report a cutback because of fiscal stress. Budget cuts in road repair, in particular, are significant because they account for a substantial amount of local governments' budgets across the state. According to FY 2015 Comptroller data, transportation, which includes services such as snow removal, road repair, and public transit, make up approximately 10 percent of local governments' total budgets. In police, staff cutbacks were more likely to be reported (61 percent), and in youth recreation both staff and budget cutbacks were reported. With budget and staffing cutbacks local governments attempt to maintain the service with fewer resources. But these cutbacks can result in lower quality service, and the majority of respondents report citizen opposition to these service cuts.

Table 10: A Closer Look at Service Cut Backs

	Road Repair	Police	Youth Recreation	PR/Online Services
Service Provided	89%	34%	41%	53%
Cut back because of fiscal stress	28%	10%	11%	8%
Reduced frequency / hours	20%	35%	28%	35%
Reduced staff	20%	61%	42%	11%
Reduced budget	68%	49%	51%	46%
Eliminated service	1%	10%	12%	19%
Community opposition present	56%	64%	64%	52%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=747.

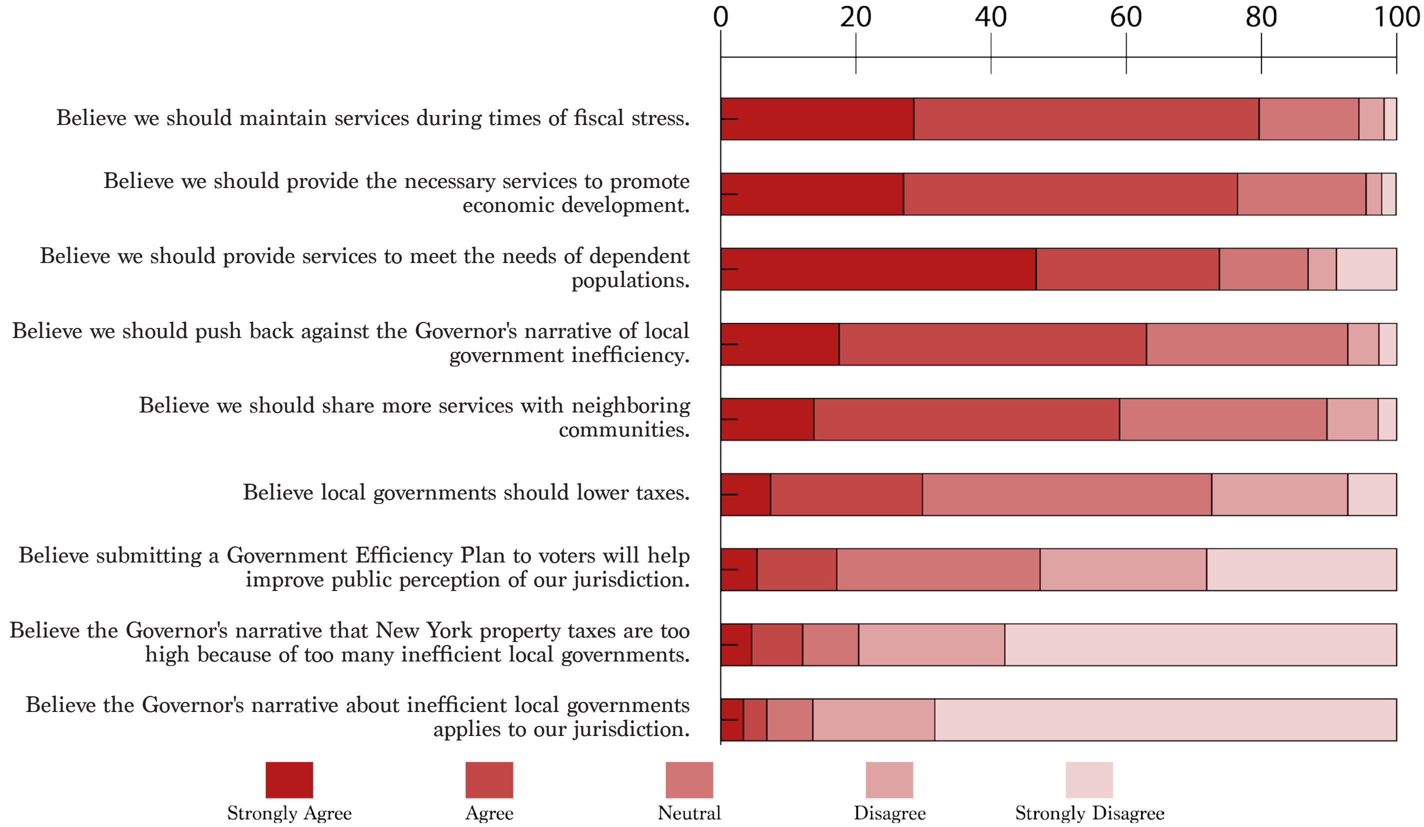
The last section of the survey invited respondents to offer case examples of efforts to reduce costs, raise revenues or innovate in service delivery. Innovations included sharing services and staff across jurisdictions (dispatch, tax assessment and collection, road plowing and paving) and exploring new technology in service delivery (digitization of records). New revenue sources focused on addressing vacant properties and code violations and implementing fees for waste collection, parks and recreation and cell towers. Service reductions included reducing frequency of road repair and brush pickup, delaying capital expenditures and cutting staff. Cuts to EMS, roads and recreation were the most commonly reported.

UNDERSTANDING LOCAL FISCAL STRESS

Public understanding of local government fiscal stress has been dominated by the Governor's narrative of too many, inefficient units of local government (Keegan, 2017). In this survey, we measured local governments' perceptions of the attitudes of both the governing board and members of the community (See Figure 3 and Figure 4). Survey respondents reported the governor's narrative is not supported by local governing boards or community members. While 13 percent of respondents reported their community members believe the Governor's narrative of too many inefficient local governments, less than 7 percent reported their governing boards felt this applied to their jurisdiction. In fact, the clear majority of respondents report that both their governing boards (74 percent) and communities (54 percent) believe they should push back against the governor's narrative.

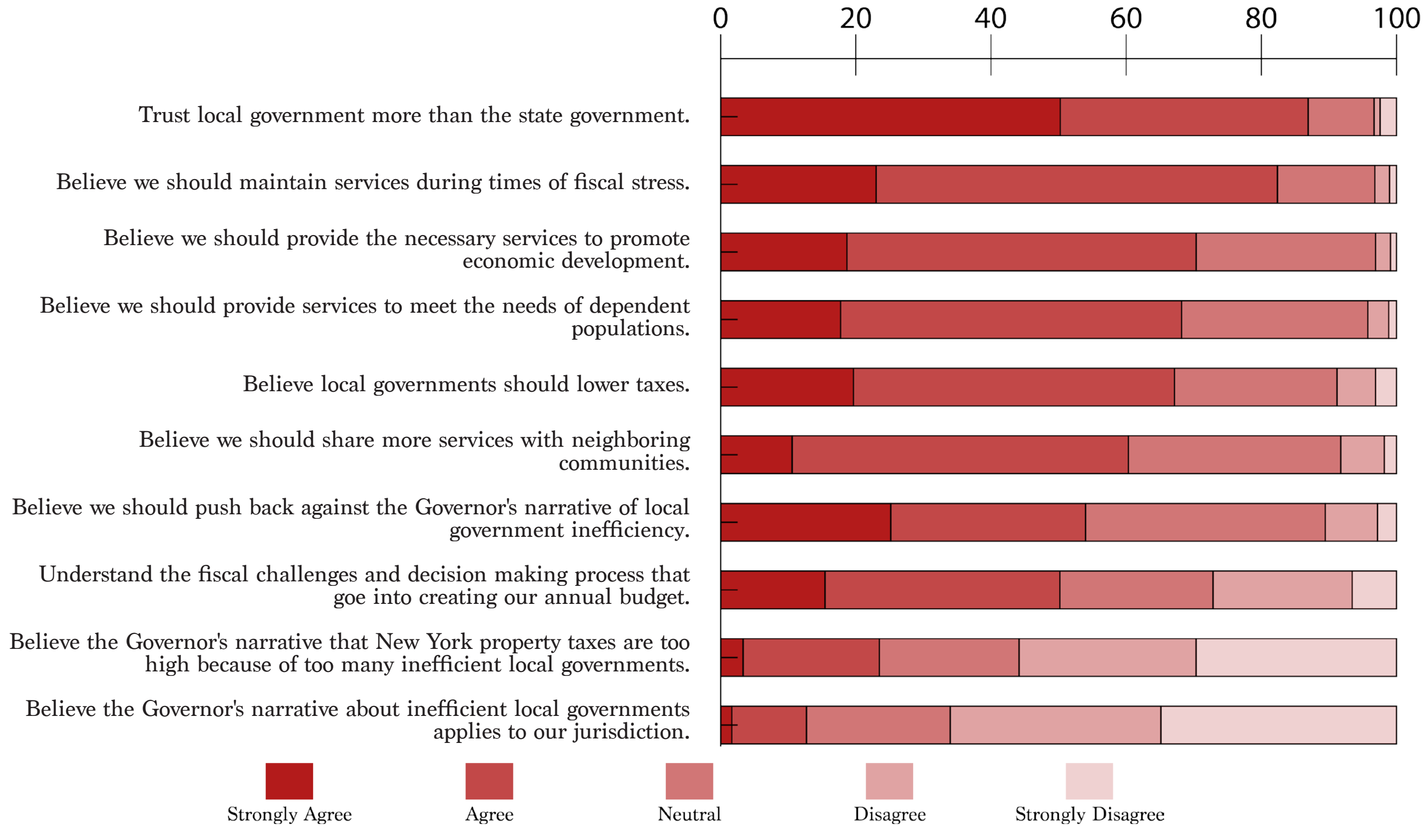
Both governing boards and community residents see the greater complexity of the issue. Less than 20 percent of governing boards believe the government efficiency plans were effective, but a majority of respondents report both their community and governing boards are supportive of more service sharing. While most respondents report their communities want to see lower taxes, they do not want to see service cuts. 81 percent of respondents report both their communities and their governing boards believe they should maintain services in times of fiscal stress. Both governing boards and communities support the role of local government in providing the services necessary for economic development (80 percent gov. board, 71 percent community) and to meet the needs of dependent populations (76percent gov. board, 68 percent community). The strong congruence in results shows the close connection local governments have with their constituents. 87 percent of respondents report their communities trust local government more than the state; this is because local governments provide the critical services needed for daily life.

Figure 3. Attitudes of Governing Boards



Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N= 809.

Figure 4. Attitudes of Community Members



Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N=779

The challenge lies in both the fiscal reality—the need to pay for critical services—and the political reality—the need to shift the narrative to a more accurate story about the causes of high taxes in New York State. While 67 percent of respondents report their communities would like to see lower taxes, only 29 percent report their governing boards support lowering taxes. This is because governing boards understand the fiscal and service realities local governments face. But only half of respondents report that their communities understand the fiscal challenges and decision making process that go into creating the annual budget. Local governments have an important educational role to play—beyond that of service provision. But we see fiscal stress is causing local government to cut the economic development, planning and public relations services that may be most critical to long term fiscal sustainability (See Table 10).

Coalitions at the local level can help generate an alternative narrative about the true causes of local government fiscal stress. The survey asked respondents which groups have been involved in pushing back against the narrative that high taxes are simply a result of too many inefficient local governments (See Table 14). The business community is the most common partner in resisting the Governor's narrative, reported by 17 percent of respondents especially cities, counties and towns. Neighborhood groups are next (12 percent). These two groups recognize the role of local government in promoting economic development and quality of life. Non-profit organizations, unions, and religious groups, are not active partners in this effort, although almost one third of counties report a partnership with non-profit organizations (29 percent) and unions (32 percent).

Local governments recognize the need to address fiscal stress. But there are barriers to doing so. As reported in the factors contributing to stress (See Figure 2), many of the barriers to addressing fiscal stress are also closely tied to state-level policy (See Table 15). The top barriers were state mandated procedures, reported by 75 percent of respondents, state mandated services, reported by 71 percent, and reductions in Aid and Incentives to Municipalities (AIM) funding, reported by 53 percent. Thus, while the State blames local governments as the source of the problem, local governments point back to state policy as the primary cause of fiscal stress and barrier to addressing it. Local governments are caught in a vice. Citizens want services maintained, but would like tax relief. The state requires services and costly procedures, but has cut aid and limits local ability to innovate. Local governments are willing to innovate, but they lack the funds for innovation (27 percent) and are not even allowed to earn interest on invested surplus funds (45 percent). Respondents report minimal community and union opposition. The will, interest and support to address fiscal stress lies at the local level. The challenge is getting a thoughtful State response to the real causes of local fiscal stress.

In the final part of the survey respondents outlined 85 innovations in service delivery and raising new revenues. Service innovations included creating a health care consortium to bring down rates and costs for employees, collecting recyclables, the digitalization of all public records, and municipal court consolidation. On the revenue side, respondents reported leasing municipal land for cell towers, vacant building registration, and the establishment of a water and sewer enterprise fund. Such innovations require resources for planning and design but 27 percent of local governments report they lack the funds to do so. Fiscal stress can undermine the capacity of local governments to address fiscal stress and plan for the future. The ability of local governments to do what they do best, plan and pragmatically solve problems, is at risk.

Table 14: Community Groups Resisting Governor's Narrative

	All	Cities	Counties	Towns	Villages
Business Community	17%	22%	29%	19%	11%
Neighborhood Groups	12%	20%	7%	13%	8%
Labor Unions	9%	20%	32%	8%	6%
Non-profits	8%	5%	29%	8%	7%
Religious Groups	3%	2%	0%	4%	1%
N	**824**	**41**	**28**	**456**	**299**

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017.

Table 15: Barriers to Addressing Fiscal Stress

	Percent Yes
State Mandated Procedures	75%
State Mandated Services	71%
Reduced AIM Funding	53%
Unable to Earn Interest Earned on Invested Surplus Funds	45%
Lack of Funds for Innovation	27%
Loss of Revenue due to Tax Abatements	22%
Cost of Designing Service Delivery	19%
Union Opposition	17%
Community Opposition	10%

Source: Cornell University, Local Government Fiscal Stress in NYS Survey, 2017, N= 824.
Multiple responses allowed.

CONCLUSION

What are the causes of local fiscal stress and what can be done about them? While the political narrative is a simple one of too many inefficient local governments, our survey finds the key causes are generated by the State. After the Great Recession, New York State cut aid to localities and pushed down additional expenditure responsibilities to local governments. It has also limited local governments' revenue raising powers with the implementation of a tax cap. These three state actions are the primary factors contributing to local government fiscal stress.

What can be done? Local governments are trying to maintain services and seek economic savings through reductions in staffing or service frequency. Service reductions are primarily in public works, public safety, and recreation services. These are services which are highly valued by residents and critical to economic development and quality of life in both the short and long term. Local governments are also seeking new revenue sources: grants, user fees and investments.

There are no simple solutions. What is needed is a new state partnership. New York State decentralizes more expenditure and service responsibility onto local governments than any other states, except Nevada (Xu and Warner, 2015). State aid to municipalities plummeted and then flat lined after the Great Recession (Kim, 2016). What is needed now is a new state partnership where the state assumes more expenditure responsibility for the services it mandates, and allows local governments to generate additional revenue and explore innovative approaches to service delivery. This requires more flexibility and authority for local governments. Under current state policy, local governments lack the financial and political capacity to address the fiscal crisis on their own.

BIBLIOGRAPHY

Anjum et al. (2015). "Facing Fiscal Challenges: Moving Toward a New York State and Local Government Partnership." Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Burgess et al. (2014). "Chronic Underfunding for Transportation: New York State's Response to Local Infrastructure Needs." Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Chang, H. and C. Wen (2014). "Tax Caps in Other States: Lessons for New York." Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Homsy, G., B. Qian, Y. Wang and M. Warner (2013). "Shared Services in New York State: A Reform that Works, Summary of Municipal Survey in NYS, 2013," Shared Services Project, Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Keegan, Tyler (2017). "Designed to Fail: How Superficial Reform Fails to Address New York's Broken System of Local Government." Unpublished thesis, Department of City and Regional Planning, Cornell University, Ithaca, NY.

Kim, Yunji (2017) "Local Government Revenues and Services After the Great Recession." Unpublished PhD Dissertation, Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Kim, Yunji and Mildred E. Warner (2016). "Pragmatic Municipalism: Local Government Service Delivery in the Great Recession." *Public Administration: An International Quarterly*, 94(3): 789-805.

Riviera, R. and Y. Xu (2014). "Tax Cap Impact Analysis." Department of City and Regional Planning, Cornell University, Ithaca, NY. Link.

Xu, Yuanshuo and Mildred Warner (2015) "Understanding Employment Growth in the Recession: The Geographic Diversity of State Rescaling," *Cambridge Journal of Regions, Economy and Society*, 8(2): 359-377.