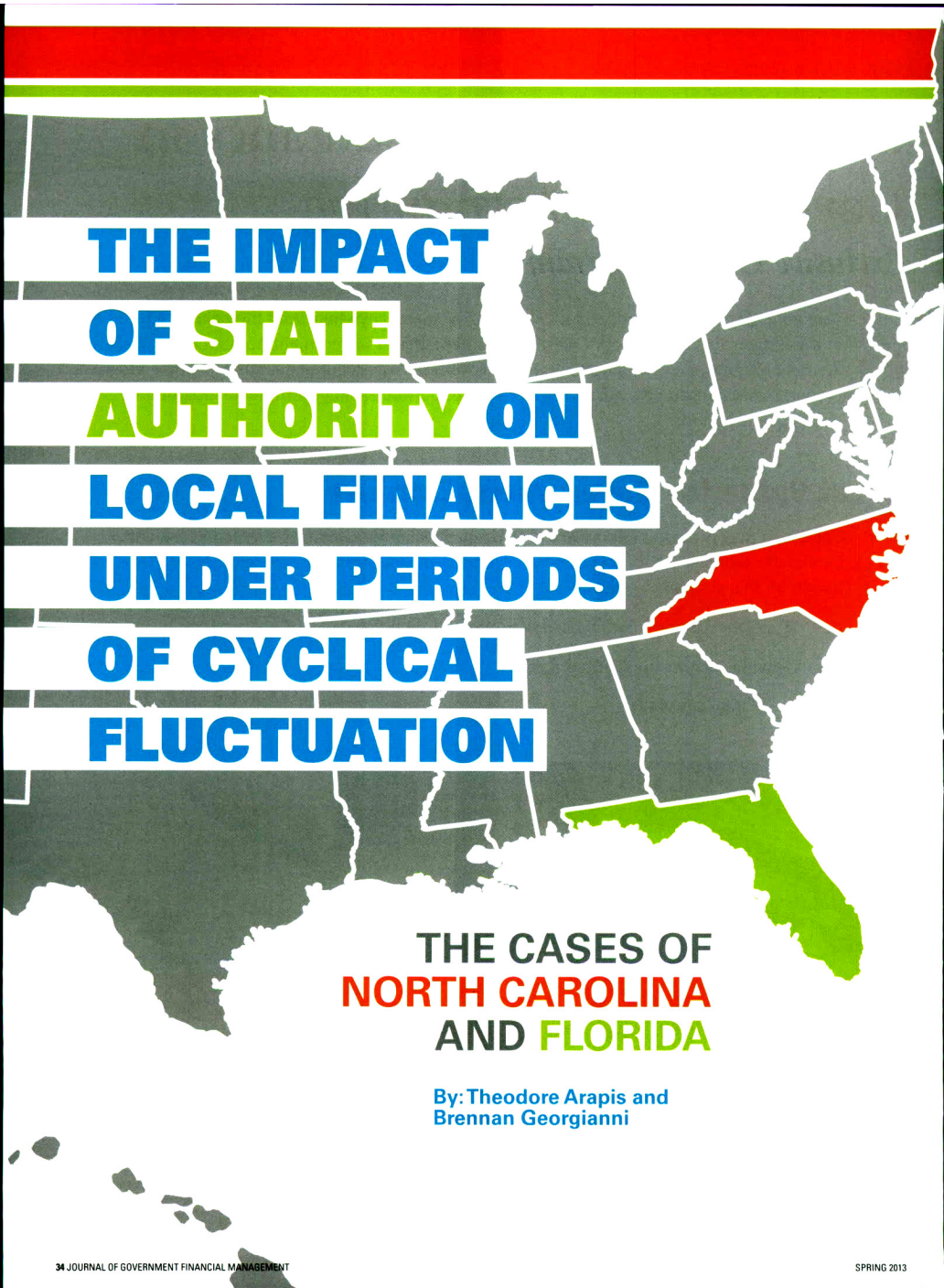


THE IMPACT OF STATE AUTHORITY ON LOCAL FINANCES UNDER PERIODS OF CYCLICAL FLUCTUATION

THE CASES OF NORTH CAROLINA AND FLORIDA

By: Theodore Arapis and Brennan Georgianni

Local fiscal condition is more than just a local concern.[1] A locality's poor financial condition could trigger statewide effects hurting state bond ratings and regional economies.[2] In recent years, state governments have increased financial oversight on their localities as economic fluctuation and fiscal federalism have pushed local economies to their limits.[3]

According to the literature, most state governments respond to local fiscal problems after the crisis surges.[4] A small number of state governments apply a proactive approach as they use "early warning systems" to predict fiscal threats before they escalate to a financial crisis.[5] In particular, Florida uses the International City/County Management Association's (ICMA) index; Ohio utilizes Brown's "10-point financial condition test," while Kentucky, Maryland, New Hampshire, New Jersey, New Mexico, North Carolina and Pennsylvania have developed their own warning systems.[6]

Depending on what type of action a state takes once local fiscal problems are diagnosed, the proactive states are categorized into strong or weak authority.[7] Strong-authority states such as North Carolina have written legislation enabling them to impose fiscal sanctions to correct financial problems of their local governments.[8] The Local Government Commission (LGC), established by the 1931 Local Government Finance Act, oversees the financial oversight of all North Carolina local governments.[9] LGC's mission regulates local government debt and financial reporting. The LGC ensures that localities create debt that is reasonable and manageable. Further, the LGC continuously monitors the financial health of local governments and provides assistance to localities when needed.[10]

Weak-authority states like Florida, are limited to recommending measures but not requiring fiscally troubled localities to "straighten their financial course" following their suggestions.[11] In Florida, the Joint Legislative Committee (JLAC) with the help of the Auditor General's Office has held responsibility for monitoring local finances and auditing procedures since 1967. Fiscal emergency is defined by the criteria established by state statute under and the Auditor General's Office.[12]

Literature indicates that most studies have focused on examining and assessing "early warning systems," and the indexes to predict fiscal stress. Surprisingly, the impact of state intervention authority on local fiscal condition has not gained the attention of academicians. Are localities in strong-authority states more fiscally sound than localities in weak-authority states? We answer this question by studying a homogeneous sample of 56 small- to medium-sized municipalities (populations of 10,000 to 50,000) from North Carolina (strong-authority state), and Florida (weak-authority state).

To assess the finances of the selected local governments, we used Brown's "10-point test of financial condition." This test is performed during fiscal years 2006, 2008 and 2010, to capture the effects of the business cycle on local finances. Fiscal year 2006 represents the booming phase; 2008, the recession; and 2010, the recovery phase. We speculated that North Carolina's strong authority assists its municipalities to achieve a better financial condition than Florida municipalities, no matter the time period.

RESEARCH METHODS

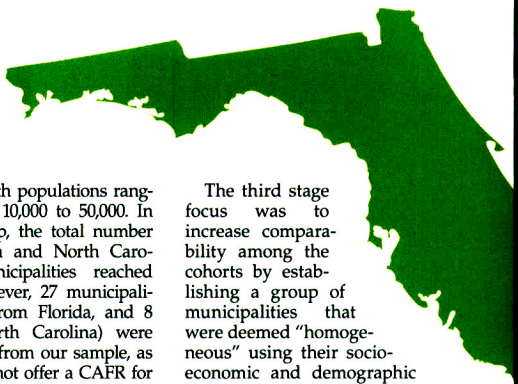
Using public finance literature, a variety of comparative studies of local governments' financial condition was uncovered. In comparative studies, data reliability and validity strongly depends on the characteristics of the sample. Therefore, building a homogeneous sample was essential.[13] Although the literature provided minimal guidance on building homogeneous cohorts, we designed a three-stage process to produce a highly comparable sample.

Figure 1:
HOMOGENIZATION PROCESS

STAGE 1
Selection of:
1. Strong & weak authority states
2. Cities based on population

STAGE 2
Screen Cities for:
1. Council-Manager form
2. Finance Department
3. Metropolitan status

STAGE 3
Screen Cities for:
1. Demographics
   Percentage of population under 18 & over 65
2. Socio-economic variables
   Level of education; Income per capita; Unemployment rate



In the first stage, we selected a strong and a weak-authority state, and grouped their local governments based on their population size. An important concern in the first stage was to select states that are part of the same region. Following Coe's[14] "state-authority categorization," we selected North Carolina as the strong-authority state and Florida as the weak-authority state. This option, although imperfect, was the most practical. Both North Carolina and Florida offered Comprehensive Annual Financial Reports (CAFRs) for the examined years of this study, and followed the Generally Accepted Accounting Principles (GAAP) established by the Governmental Accounting Standards Board (GASB).

Once the states were selected, we grouped local governments based on their population. The focus of this study was on small and midsize municipalities; as a result, we established one group with populations ranging from 10,000 to 50,000. In this group, the total number of Florida and North Carolina municipalities reached 174. However, 27 municipalities (19 from Florida, and 8 from North Carolina) were excluded from our sample, as they did not offer a CAFR for one or more of this study's time periods. This brought our sample down to 147 municipalities; 92 from Florida and 55 from North Carolina.

The effort to increase the homogeneity of our pre-established population group was demonstrated during the second and third stage of our cohort selection process. In the second stage, we screened all 147 North Carolina and Florida municipalities for certain governmental characteristics. Initially, we sorted the examined local governments based on their form of government (mayor/council, manager/council) as several pieces of literature cite that governance structure could affect financial management practices.[15]

During this second stage, we also examined whether the council manager-led municipalities had a Finance Department. We believed that municipalities with a Finance Department would have a greater capacity to monitor their finances and to sustain a healthier financial condition. Additionally, our municipalities were screened for metropolitan status as the higher service demand of metropolitan municipalities could affect their finances.[16] Screening the municipalities for the selected governmental characteristics decreased the sample by approximately 45 percent, from 147 to 80 municipalities. Among these, 43 were from Florida and 37 from North Carolina.

The third stage focus was to increase comparability among the cohorts by establishing a group of municipalities that were deemed "homogeneous" using their socio-economic and demographic characteristics. We screened our sample using a series of demographic and socio-economic variables. Demographic variables such as "percent of population over the age of 65" could place a greater financial burden on local governments.[17] Likewise, we assumed that the percent of population "under the age of 18," could also impact local finances mainly due to high service needs (e.g., education). The literature indicated a negative relationship between ethnic diversity and local fund balance.[18]

Three variables were used to connect socio-economic factors: level of education, income per capita and unemployment rate. The level of education was expected to have positive correlations with local finances because educated individuals are often exposed to higher-income jobs. When Wagner[19] examined factors affecting budget stabilization funds, he found that income per capita had an additive effect on fund balance while a siphoning effect appears between unemployment rate and fund balance.

Although, different techniques could be applied when examining the location and variation of information in data sets, we used box plots. Box plots best displayed the data using the median and both lower and upper quartiles (25th and 75th percentiles). It was easy to identify and distinguish the mild and extreme outliers. All identified outliers located outside the box plot were excluded from the analysis.

Table 1 provides a description of our cohorts after the homogenization process was complete. Our final sample included 56 municipalities. Florida contained 25, and 31 were from North Carolina, with a council-/manager-led government. In addition, all 56 municipalities have a Finance Department that was tied to the metropolitan statistical areas. The average population for all cohorts was 20,845. The cohorts' population "under 18 years of age" ranged from 14.8-35.3 percent. On average, 24.4 percent of our sample's population was "under 18 years of age" with a standard deviation of 4.4 percent. The percentage of the population "over 65 years of age," averaged 13.9 percent, with a standard deviation of 5.9 percent. On average, approximately one out of four residents was identified as non-white, with 86 percent graduated high school. Income per capita averages to $25,954 with a minimum of $15,326, and a maximum of $46,103. The average rate for unemployment was 10.5 percent, with a standard deviation of 2 percent.

SELECTING FINANCIAL INDICATORS

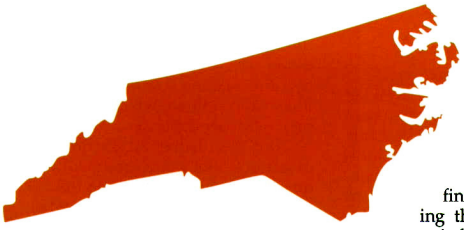
The literature provided a wide variety of ways to assess the financial condition of local governments. Little agreement exists to show which indicators best assess financial condition, Brown's "10-point test of financial condition," was a useful method for our study. It is a user-friendly index designed to measure the financial condition of municipalities with populations measuring smaller than 100,000. Brown's test also included a scoring procedure that was helpful to compare the financial condition of local governments. Further, all financial data was adjusted for inflation using the Consumer Price Index with 2010 as the base year, which increases the reliability of our comparisons.

Table 2 provides a description of Brown's 10 indicators. The first three ratios describe the revenue side of a governmental entity, while ratio four identifies expenditures. Ratios five through seven focused on the operating position of the governmental entity. The remaining ratios, eight through 10 showed the financial condition. On the contrary, indicators two, five, six and seven offered good financial condition, which entailed a high ratio (See Table 2).

After calculating all 10 financial indicators, cities are grouped into quartiles and points ranging from -1 to +2 for each city. For example, when a city's ratio falls within the most favorable quartile (75 to 100th percentile), the city receives 2 points; while cities with ratios placed in the least favorable quartile (0 to 25th percent) receive -1 point. The municipalities overall score is determined after all individual scores for each indicator are aggregated. Municipalities with a total score of -5 or less are "among the worst" of the sample. Municipalities scoring between -4 and 0 were "worse than most" municipalities in our sample. A score between 1 and 4 would place the municipality in the "about average" category. "Better than most municipalities" were the ones scoring 5 to 9 points while "among the best" would be municipalities with 10 or more points.

Table 1: DESCRIPTIVE STATISTICS FOR OUR COHORTS

Variable	Observed	Mean	Std. Dev.	Minimum	Maximum
Population	56	20,845.39	9,434.97	10,109.00	45,704.00
Percentage of population under 18	56	24.41	4.42	14.80	35.30
Percentage of population over 65	56	13.97	5.96	4.20	29.40
Percentage of non-whites	56	27.36	13.78	5.90	60.80
Percentage of high school graduates	56	86.13	7.50	68.80	98.10
Income per capita	56	25,954.43	6,630.21	15,326.00	46,103.00
Unemployment rate	56	10.58	2.00	6.10	17.00



FINDINGS

An examination of Table 3 indicates interesting results. First, neither North Carolina nor Florida have municipalities that belong in the "among the worst" category. During the booming year of 2006, 19 percent of North Carolina's municipalities had "worse than most" financial condition. In the same year, only 12 percent of Florida's municipalities had a similar financial condition. Surprisingly, North Carolina municipalities have improved their financial condition during the tougher economic periods. In 2008 and 2010, only 10 percent of North Carolina municipalities were financially "worse than most" municipalities. Clearly, the Great Recession of 2008 had a harder impact on Florida municipalities as one-third of them belonged to the "worse than most" category. The recovery though, positively affected Florida municipalities as in 2010 only 12 percent of them remained in the "worse than most" category.

Additionally, more Florida than North Carolina municipalities have "about average" financial condition no matter the time period. During the booming phase of 2006 for instance, 44 percent of Florida municipalities had an "about average" financial condition compared to 16 percent of North Carolina municipalities. This picture did not change during or after the Great Recession, and Florida municipalities retain their lead in this category. When examining the percent of municipalities with "better than most" financial condition, North Carolina localities are doing better than Florida municipalities in 2006, and worse in 2008 and 2010.

North Carolina municipalities

Table 2: BROWN'S 10-POINT TEST OF FINANCIAL CONDITION

	Ratio	Definition
1.	Total Revenues per capita	Total government revenues/Population
2.	Total general fund own source revenues/Total general fund revenues	(Total general fund revenues - Intergovernmental revenues)/Total general fund revenues
3.	General fund sources from other funds/ Total general fund sources	General fund operating transfers in/(Total general fund revenues + Operating transfers in)
4.	Operating expenditures/Total expenditures	(Total general expenditures + Total special revenue expenditures + Total debt service fund expenditures)/Total governmental expenditures
5.	Total revenues/Total expenditures	Total governmental revenues/Total governmental expenditures
6.	Unreserved general fund balance/ Total general fund revenues	(Unreserved designated + Unreserved undesignated fund balance)/Total general fund revenues
7.	Total general fund cash & investments/ Total general fund liabilities	(The components are self explanatory)
8.	Total general fund liabilities/total general fund revenues	(The components are self explanatory)
9.	Direct long-term debt per capita	General Obligation Debt/Population
10.	Debt service/total revenues	Total Debt Service Expenditures/Total Governmental Revenues

have a distinct lead in the category of municipalities with "among the best" financial condition. In the booming period of 2006, one out of four North Carolina municipalities had a financial condition that placed them among the best of our sample. Surprisingly, more North Carolina municipalities were able to improve their financial condition in 2008 defying the economic uncertainty of this time period. In 2008, 39 percent of North Carolina municipalities were part of the best financial condition category. North Carolina municipalities were also able to retain this percentage during the recovery period of 2010.

The picture was different for Florida municipalities. Few Florida municipalities had a financial condition that allowed them to enter the "among the best" category no matter the time period. The recession of 2008 impacted the financial condition of Florida municipalities the most, as only 4 percent of the examined Florida municipalities were able to make it in this category. Although, the percentage of Florida municipalities with "among the best" financial condition for the other two time periods was better, it was still low when compared to North Carolina municipalities.

CONCLUSIONS

Table 3 showed that the financial condition of Florida municipalities was worse during the recession of 2008 while improved during the economic boom of 2006, and the recovery of 2010. In 2008, more Florida municipalities are doing financially "worse than most" municipalities than in 2006 and 2010. Likewise, when examining the percent of Florida municipalities with "about average," "better than most," and "among the best" financial condition, one can observe that fewer municipalities are doing as well financially during the recession of 2008 than in 2006 and 2010 (See Table 3).

The results also indicated that North Carolina municipalities were doing better in several categories after the economic boom of 2006. Surprisingly, the percentage of North Carolina municipalities in the "worse than most" category had decreased after 2006. Further, more North Carolina municipalities were financially "about average" during and after the 2008 recession than during the 2006 booming. The most noteworthy though, is that the percentage of North Carolina municipalities had stunningly increased in the "among the best" financial condition category after 2006.

Table 3: FINANCIAL CONDITION OF FLORIDA AND NORTH CAROLINA MUNICIPALITIES

	Florida Municipalities			North Carolina Municipalities		
	2006	2008	2010	2006	2008	2010
Among the worst	0%	0%	0%	0%	0%	0%
Worse than most	12%	32%	12%	19%	10%	10%
About average	44%	32%	36%	16%	29%	29%
Better than most	36%	32%	44%	42%	23%	23%
Among the best	8%	4%	8%	23%	39%	39%

In conclusion, a state's intervention authority is critical in protecting local finances from economic fluctuation. While Florida's weak authority allowed the economic cycle to influence the financial condition of its municipalities, North Carolina's strong authority defied the effects of the economic cycle as its municipalities have improved their financial condition during and after the recession of 2008. North Carolina municipalities sustained their improved financial condition past 2006, as the percentage for 2008 and 2010 remained stable for all categories. Overall, North Carolina's ability to intervene in local finances positively impacted local financial condition during periods of economic fluctuation. ∎

End Notes

1. D. Berman, "Takeovers of Local Government: An Overview and Evaluation of State Policies," *Publius*, Vol. 25 Issue 3, 1995, pp. 55-70; B.W. Honadle, "The State's Role in U.S. Local Government Fiscal Crises: A Theoretical Model and Results of a National Survey," *International Journal of Public Administration*, Vol. 26 No.13, 2003, pp. 1431-1472; J. Stonecash, "The Politics of State-Local Fiscal Relations," in *Governing partners: State-local relations in the United States*, Boulder, Colo.: Westview Press, 1998.

2. C. K. Coe, "Preventing Local Government Fiscal Crisis: emerging Best Practices," *Public Administration Review, Vol. 68 No. 4, 2008, pp. 759-767*; Honadle, ibid; P. Kloha, S.C. Weissert, R. Kleine, "Someone to watch over me: State Monitoring of Local Fiscal Conditions," *The American Review of Public Administration*, vol.35 no. 3, 2005, pp. 236-255.

3. R. Hendrick, "Assessing and Measuring the Fiscal Health of Local Governments: Focus on Chicago Suburban Municipalities," *Urban Affairs Review*, Vol. 40 No. 1, 2004, pp. 78-114; Kloha, Weissert, and Kleine, ibid; J.H. Svara, *Official Leadership in the City: Patterns of Conflict and Cooperation*, Oxford University Press. 1990.

4. Kloha, Weissert, and Kleine, ibid.

5. K.W. Berman, *"Local government and the states: Autonomy, politics and policy,"* Malden, MA: Blackwell Publishers, 2003.

6. Coe, ibid.

7. Coe, ibid.

8. Coe, ibid.

9. Local Government Commission, Department of State Treasurer

10. Local Government Commission, ibid.

11. Coe, ibid.

12. Fla. Stat. Ann. §218.503.1(a-d).

13. C. Coe, "Government Benchmarking: Lessons from Two Major Multi-Government Efforts," *Public Administration Review*, 50 no. 2, 1999, pp. 110-123; S. Sohl, M.T. Peddle, K. Thurmaier, C. Wood, G. Kuhn, "Measuring the Financial position of Municipalities: Numbers Do Not Speak for Themselves," *Public Budgeting and Finance*, Vol. 29 No.3, 2009, pp. 74-96; J.L. Zafra-Gomez, A.M. Lopez-Hurnandez, A. Hernandez-Batista, "Developing a Model to Measure Financial Condition in Local Government: Evaluating Service Quality and Minimizing the Effects of the Socioeconomic Environment: An Application to Spanish Municipalities," *The American Review of Public Administration*, Vol. 39 No.4, 2009, pp. 425-449.

14. Coe, ibid.

15. R. Hendrick, "The Role of Slack in Local Government Finances," *Public Budgeting and Finance*, Vol. 26 No.1, 2006, pp. 14-46; J.H. Svara, *Official Leadership in the City: Patterns of Conflict and Cooperation*, Oxford University Press. 1990.

16. J. Marlowe, "The Local Fund Balance: Explanations and Implications," ProQuest Information and Learning Company, 2004.

17. Marlowe, ibid.

18. Marlowe, ibid; L.M. Stewart, "Examining Factors that Impact Mississippi Counties' Unreserved Fund Balance during Relative Resource Abundance and relative Resource Scarcity," *Public Budgeting and Finance*, Vol. 29 No.4, 2009, pp. 45-73.

19. R.E. Wagner. "Revenue, Structure, Fiscal Illusion and Budgetary Choice," *Public Choice*, Vol. 25. 1976, pp. 45-61.

Theodore Arapis is an Assistant Professor at Villanova University where he teaches Financial Management and Statistics in the graduate program of Public Administration. His research interests focus on state and local financial management, budget system reforms, and the American state bureaucracy.

Brennan Georgianni graduated from Auburn University in 2012 and received a Bachelor of Arts degree in Political Science. He recently interned for Congressman John Campbell representing California's 48th congressional district.