

How do local government officials perceive fiscal health?

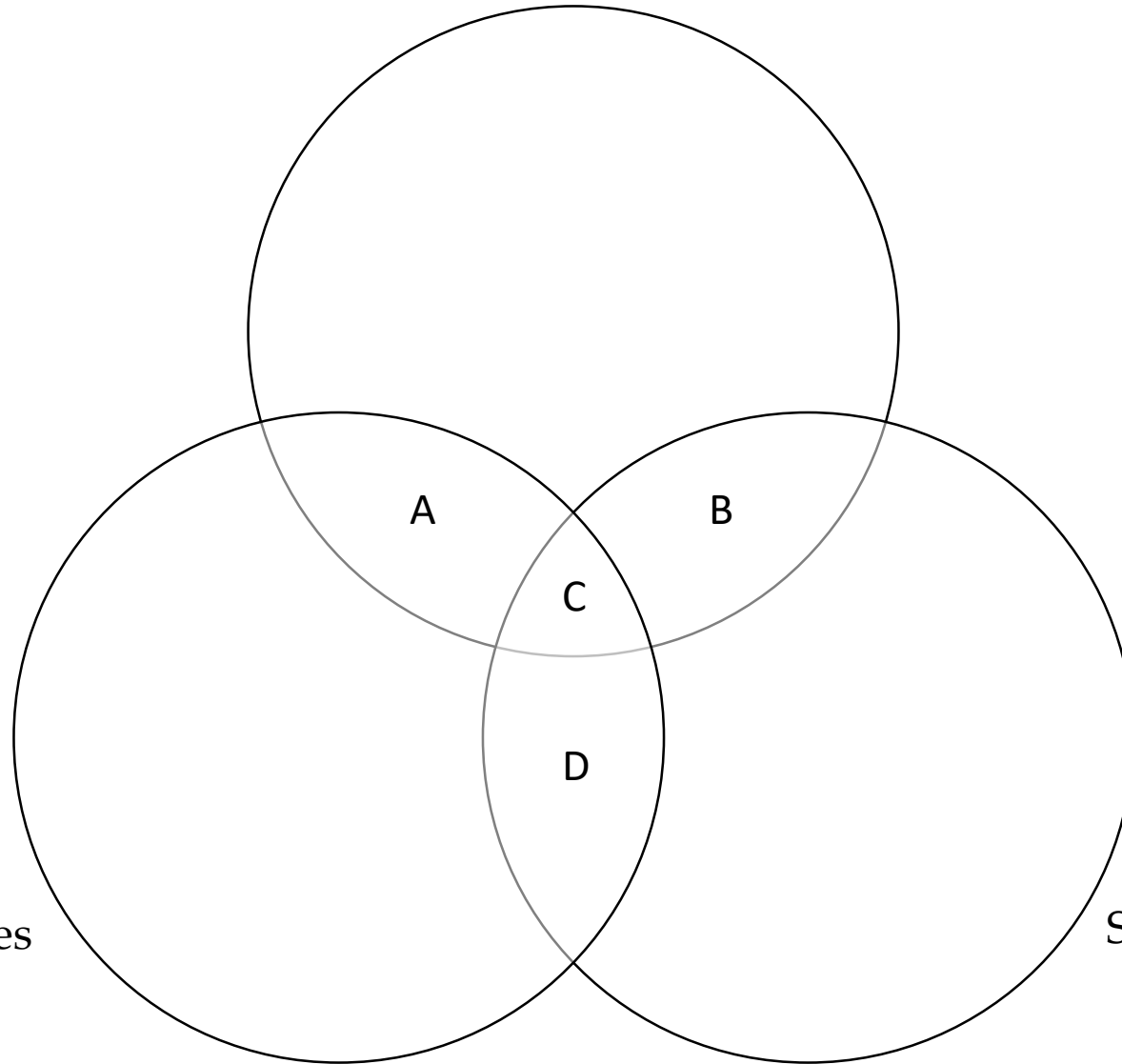
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“True” Fiscal Health



Objective Measures
of Fiscal Health

Subjective Measures
of Fiscal Health

Why might local officials' subjective perceptions differ from objective measures?

- Problems with self-assessment
 - Random/systematic measurement error
 - Local officials are biased
 - Survey/response bias issues
- Problems with objective measures
 - Timing issues—lag in availability of data; annual data; retrospective data
 - Unquantifiable/unmeasured factors—e.g. infrastructure needs, financial management policies, management quality, local political conditions
 - One-size-fits-all approach
 - Mixed results on predictive validity

Existing research

- Surveys (Marlowe 2015, Goldberg and Nieman 2014)
 - Most closely watched indicator: GF balance
 - Biggest threats/stressors: infrastructure costs, insufficient revenue, personnel/retiree costs, debt
- Maher and Deller (2011 and 2013)
 - Financial indicators generally do not perform well in predicting subjective assessments for local governments in WI
- Leiser and Mills (2019)
 - Findings generally corroborate Maher and Deller
 - Evidence of that low-stress vs. high-stress may be more of a difference of kind than a difference of degree

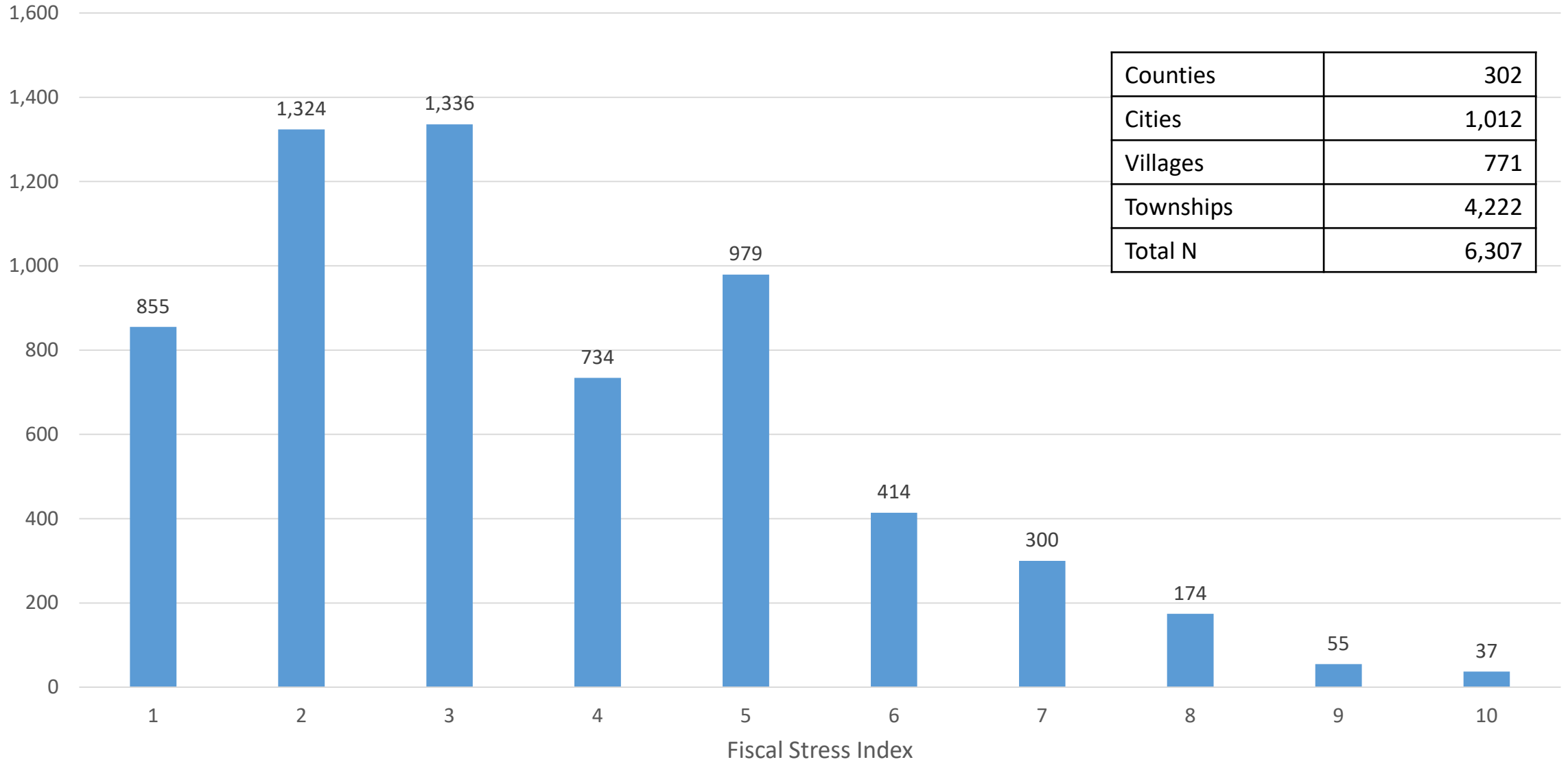
This study—Diving deeper

- New financial data sources
 - MI Treasury (2010-2017)
 - Audits/CAFRs
- More detailed MPPS survey data
 - “Fiscal Stress Index” (1 = Perfect fiscal health ... 10 = Fiscal crisis)
 - “Is unreserved FB too high/too low/about right?”
 - “How much of a problem is cash flow/ability to pay bills?”
- Focus on differences between high-stress and low-stress governments

Descriptive Statistics - Ratios

Ratio	Formula	N	Mean	Std. Dev.	Median
Liquidity	GF Cash and Cash Equiv/GF Total Assets	14,532	0.77	0.26	0.86
SRPosition	Unassigned FB/Total GF Revenue	14,692	1.07	0.98	0.86
Margin	D.Unassigned FB/Total GF Revenue	12,779	0.04	0.55	0.03
FBGrowth	D.Unassigned FB/L.Unassigned FB	12,201	7.08	771.27	0.04
Rev_PC_GF	Total GF Revenue/Population	14,695	345.73	543.61	210.32
Rev_PC_Govtwide	Governmentwide Revenue/Population	14,697	491.11	669.82	339.36
AtoL	GF Total Assets/GF Total Liabilities	12,476	206.95	2,792.28	25.96
PopGrowth	D.Population/L.Population	12,984	0.00	0.07	0.00
TVGrowth	D.TV/L.TV	12,977	0.01	0.07	0.01
TV_Per_Capita	Taxable value / Population	14,833	42,446.98	50,214.01	32,083.25

Fiscal Stress Index: All Responding Units 2013-2017



Counties	302
Cities	1,012
Villages	771
Townships	4,222
Total N	6,307

Predictors of FSI

OLS with year dummies

Two-way fixed effects

	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.
Liquidity	-0.3630***	0.1033	-0.0122	0.1607
SRPosition	-0.3191***	0.0361	-0.3138***	0.0996
Margin	0.2644***	0.0836	0.1723	0.1099
FBGrowth	0.0302***	0.0105	0.0337***	0.0107
Rev_PC_GF	0.0003***	0.0001	0.0001	0.0002
Rev_PC_Governmentwide	0.0001	0.0001	-0.0001	0.0001
AtoL	0.0000	0.0000	0.0000	0.0000
PopGrowth	-1.8440***	0.6040	-0.3454	0.6982
TVGrowth	-0.6039	0.3856	0.1300	0.3887
TV_Per_Capita	0.0000***	0.0000	0.0000	0.0000
City	0.4872***	0.0970		
County	0.4196***	0.1432		
Village	0.5778***	0.0895		
Population	0.0000***	0.0000		
Constant	4.0371***	0.1084		
N	5,110		5,110	
F	44.25***		3.63***	
R-squared (overall)	0.1257		0.0645	
Intra-class correlation			0.5207	

Low vs. High Stress: Two-way FE Models

	Low Stress		High Stress	
	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.
Liquidity	0.4166***	0.1279	-0.0916	0.1904
SRPosition	-0.1339**	0.0653	0.2851	0.2536
Margin	0.0902	0.0733	0.1420	0.2455
FBGrowth	0.0176***	0.0042	0.0318***	0.0038
Rev_PC_GF	0.0001	0.0001	0.0003	0.0003
Rev_PC_Governmentwide	0.0000	0.0001	-0.0001	0.0002
AtoL	0.0000	0.0000	0.0000	0.0003
PopGrowth	-0.3524	0.5578	0.6065	2.1218
TVGrowth	0.5338***	0.1602	-1.7319*	0.9949
TV_Per_Capita	0.0000	0.0000	0.0000	0.0000
Constant	2.3237***	0.1991	5.7288***	0.6122
N	3,496		1,614	
F	5.00***		6.81***	
R-squared (overall)	0.0251		0.0032	
Intra-class correlation	0.5277		0.5108	

Categorical FSI: Low (1-2), Med (3-4), High (5+)

Multinomial logit with year dummies

	Low vs. Medium (Base)		High vs. Medium (Base)	
	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.
Liquidity	0.2529	0.1760	-0.2009	0.1274
SRPosition	0.2385***	0.0490	-0.2179***	0.0635
Margin	-0.1075	0.1251	0.2349	0.1507
FBGrowth	-0.0840*	0.0474	0.0091	0.0162
Rev_PC_GF	-0.0001	0.0002	0.0003	0.0002
Rev_PC_Governmentwide	-0.0003	0.0002	0.0000	0.0001
AtoL	0.0000	0.0000	0.0000	0.0000
PopGrowth	2.0609**	1.0364	-1.5116	1.3552
TVGrowth	-0.5862	0.4343	-1.7178**	0.8278
TV_Per_Capita	0.0000***	0.0000	0.0000***	0.0000
City	-0.8218***	0.1497	-0.0384	0.1432
County	-0.8091***	0.1923	-0.2295	0.1704
Village	-0.7980***	0.1408	0.1410	0.1218
Population	0.0000***	0.0000	0.0000	0.0000
Constant	-0.2764*	0.1627	0.3272**	0.1612
N	5,110			
Chi-squared	620.73***			
Pseudo R-squared	0.0726			

Fund balance

“Thinking about your jurisdiction’s fiscal needs, overall, do you consider your jurisdiction’s unreserved/unassigned general fund balance to be too high, about right, or too low?”

Too high	397
About right	4,323
Too low	1,615
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Total	6,335

Categorical fund balance adequacy

Multinomial logit with year dummies

	Too Low vs. About Right (Base)		High vs. Medium (Base)	
	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.
SRPosition	-0.5924**	0.2398	-0.1073	-0.1073
Margin	0.1028	0.2477	0.3436*	0.3436
FBGrowth	0.0936***	0.0343	-0.0292	-0.0292
One year lags				
SRPosition	-0.5122**	0.2334	0.2520	0.1673
Margin	0.0225	0.1285	0.4076**	0.1729
FBGrowth	0.0169	0.0138	0.0043	0.0209
City	0.0537	0.0886	0.2412	0.1608
County	-0.3581**	0.1445	0.1647	0.2704
Village	0.8376***	0.0905	0.1272	0.1924
Population	0.0000	0.0000	0.0000	0.0000
Constant	-0.2716**	0.1088	-2.8826***	0.1665
N	6,335			
Chi-squared	487.15***			
Pseudo R-squared	0.0794			

Cash solvency

“In your opinion, is your jurisdiction’s cash flow and its ability to pay bills in a timely manner a significant fiscal problem, somewhat of a problem, not much of a problem, or not a problem at all?”

Significant problem	54
Somewhat of a problem	360
Not much of a problem	1,535
Not a problem at all	4,124
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Total	6,073

Categorical cash solvency (Base category = Not a problem at all)

Multinomial logit with year dummies

	Not Much of a Problem		Somewhat of a Problem		Significant Problem	
	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.	Coefficient	Robust Std. Err.
Liquidity	0.1456	0.1954	-0.1268	0.2743	0.7137	0.5212
Quick	0.0000	0.0001	0.0003***	0.0001	-0.0397**	0.0172
SRPosition	-0.1365	0.1033	-0.6725**	0.3016	0.3946	0.8377
FBGrowth	-0.0203	0.0163	0.0087	0.0124	-0.0215	0.0403
One year lags						
Liquidity	-0.3944**	0.1989	-0.8163***	0.2714	-1.1005**	0.4402
Quick	-0.0001	0.0001	-0.0007	0.0006	0.0000	0.0011
SRPosition	-0.2307**	0.1056	-0.3533	0.2892	-1.5611**	0.6588
FBGrowth	-0.0012	0.0092	-0.0247*	0.0148	-0.0114	0.0352
City	0.4283***	0.0874	0.0955	0.1837	0.0874	0.3913
County	0.7687***	0.1508	0.9009***	0.2529	0.4115	0.5611
Village	0.5376***	0.0911	0.7372***	0.1699	0.5322	0.4206
Population	0.0000***	0.0000	0.0000	0.0000	0.0000	0.0000
Constant	-0.5973***	0.1337	-1.1105***	0.2487	-2.4992***	0.4689
N	6,073					
Chi-squared	429.49***					
Pseudo R-squared	0.0586					

Conclusions

- Local officials assessments of various dimensions of fiscal health are nuanced and complex.
 - Care in interpreting coefficients (e.g. FB Growth)
 - Nonlinear relationships
 - Relationships that are stronger/weaker over the range of the dependent variable
- Fund balance is consistently important to assessments of fiscal health, but what makes fund balance “too low” is not simply the opposite of what makes it “too high.”
- Low stress and high stress are likely two distinct concepts, not two values of a single underlying concept of fiscal health.

Percentage of Units Reporting FSI by Type (2010-2017 pooled)

