# Financial Condition Analysis November 2018 William C. Rivenbark Gregory S. Allison www.sog.unc.edu

#### **Presentation outcomes**

- 1. Understand the purpose and design of model
- 2. Calculate and interpret financial indicators for the general fund
- 3. Calculate and interpret financial indicators for an enterprise fund
- 4. Communicate financial condition of a local government

UNC

0000000000000000

#### **Purpose of model**

- To provide local officials with a systematic, comprehensive, and manageable approach to analyze financial condition within the context of trend and benchmark data
- To provide local officials with a systematic, comprehensive, and manageable approach to communicate financial condition to elected officials

UNC

#### **Design of model**

- 1. Provides trend and benchmark data for the general fund
  - Measures financial resources on the modified accrual basis of accounting
  - Analyzes three dimensions of resource flow and three dimensions of resource stock

UNC

000000000000000

#### **Design of model**

- Provides trend and benchmark data for governmental activities
  - Measures economic resources on the accrual basis of accounting
  - Analyzes four dimensions of resource flow and four dimensions of resource stock
- 2. Does not include business-type activities because enterprise funds already use accrual basis of accounting

UNC

0000000000000000

#### **Design of model**

- Provides trend and benchmark data for water & sewer fund and electric fund
  - Measures economic resources on the accrual basis of accounting
  - Analyzes four dimensions of resource flow and four dimensions of resource stock
- All local governments have a general fund and governmental activities— only selected local governments have a water & sewer fund and/or an electric fund

UNC

#### **Design of model**

- 1. Selecting benchmark peers
  - Similar services
  - Population
  - Geography
  - Tax base
  - Bond rating
  - Other criteria

UNC

0000000000000000

#### Financial condition of general fund

| Resource Flow (operating statement) |                         |
|-------------------------------------|-------------------------|
| Financial Dimension                 | Financial Indicator     |
| Service obligation                  | Operations ratio        |
| Dependency                          | Intergovernmental ratio |
| Financing obligation                | Debt service ratio      |
|                                     |                         |

<u>| UNC</u>

#### **Operations ratio**

- Used to analyze the financial dimension of service obligation, which determine whether or not annual revenues were sufficient to pay for annual operations
- Total revenues are divided by total expenditures (plus transfers to debt service fund and less proceeds from capital leases and installment purchases)

<u>UNC</u>

| Operations ratio   |   |
|--|---|
|  |   |
| 44,614,463   |   |
| 41,200,019 = 1.08  | - |
| ,,   |   |
| Benchmark  |   |
| ■1.0 or higher   |   |
|  |   |
|  |   |
|  |   |
| <u>  UNC</u>   |   |
|  |   |
|  |   |
|  |   |
|  | 1 |
| l  |   |
| Intergovernmental ratio  |   |
|  |   |
| <ul> <li>Used to analyze the financial dimension of</li> </ul>   |   |
| dependency, which determines the extent to                       |   |
| which a government is reliant on other governments for resources |   |
| Intergovernmental revenue (unrestricted and                      |   |
| restricted) is divided by total revenue                          |   |
|  |   |
|  |   |
|  |   |
| <u> </u>   |   |
|  |   |
|  |   |
|  |   |
|  | 1 |
|  |   |
| Intergovernmental ratio  |   |
|  |   |
| (2,165,377 + 787,532) = 7 percent                                |   |
| 44,614,463 = 7 percent   |   |
|  |   |
| Benchmarks   |   |
| ■Trend analysis  |   |
| ■Selected peers  |   |
|  |   |
|  |   |
| ©   UNC  |   |

#### **Debt service ratio**

- Used to analyze the financial dimension of financing obligation, providing feedback on service flexibility with the amount of expenditures committed to annual debt service
- Debt service (principle & interest and transfers to debt service fund) is divided by total expenditures (plus transfers to debt service fund and less proceeds from capital leases and installment purchases)

UNC

0000000000000000

#### **Debt service ratio**

(992,686 + 100,500) 41,200,019 = 3 percent

**Benchmarks** 

- Selected peers
- ■Internal policy

UNC

0000000000000000

#### Financial condition of general fund

| Resource Stock (balance sheet) |  |  |
|--------------------------------|--|--|
| Financial Dimension            | Financial Indicator                        |  |
| Liquidity                      | Quick ratio                                |  |
| Solvency                       | Fund balance as percentage of expenditures |  |
| Leverage                       | Debt as a percentage of assessed value     |  |

1 UNC .....

#### **Quick ratio**

- Used to analyze the financial dimension of liquidity, which is a government's ability to address its short-term obligations
- Divide cash & investments by current liabilities (not including deferred inflows of resources)

UNC

000000000000000

#### **Quick ratio**

 $\frac{33,184,361}{(2,707,424-390,666)} = 14.32$ 

**Benchmarks** 

- ■Trend analysis
- Selected peers

UNC

0000000000000000

### Fund balance as percentage of expenditures

- Used to analyze the financial dimension of solvency, which represents a government's ability to address long-term obligations
- Available fund balance is divided by total expenditures (less proceeds from capital leases and installment purchases) plus transfers out

UNC.

## Fund balance as percentage of expenditures 34,366,115 - (409,899 + 3,771,100) = 68.14 percent 41,200,019 + 3,095,796 Benchmarks ■Internal policy ■Population average 0000000000000000 Debt as percentage of assessed value • Used to analyze the financial dimension of leverage, which represents the extent to which a government relies on tax-supported debt • Tax-supported, long-term debt is divided by assessed value 0000000000000000 Debt as percentage of assessed value 1,626,063 = .03 percent 4,727,215,708 Benchmarks ■Internal policy ■State law is 8 percent

## Financial condition of water & sewer fund (enterprise fund) Resource Flow (operating statement) Financial Dimension Financial Indicator

|     | Resource Flow (operating statement) |                                |     |
|-----|-------------------------------------|--------------------------------|-----|
|     | Financial Dimension                 | Financial Indicator            |     |
|     | Interperiod equity                  | Total margin ratio             |     |
|     | Financial performance               | Percent change in net position |     |
|     | Self-sufficiency                    | Charge to expense ratio        |     |
|     | Financing obligation                | Debt service ratio             |     |
|     |                                     |                                |     |
| NC. | THEATHER .                          | 0000000000000                  | ם נ |

#### **Total margin ratio**

- Used to analyze the financial dimension of interperiod equity, which addresses whether or not a local government lived within its financial means
- Total resource inflow is divided by total resource outflow
  - Operating revenues/expenses, nonoperating revenues/expenses, and transfers in/out

<u>□ | UNC</u>

#### **Total margin ratio**

 $\frac{22,956,285+135,513+103,605+885,000}{18,504,813+378,238+1,177,699+2,026,735}=1.09$ 

Benchmark

■1.0 or higher

UNC.....

#### Percent change in net position

- Used to analyze the financial dimension of financial performance, which provides the magnitude of a government's financial position improved or deteriorated as a result of resource flow
- Change in net position is divided by net position, beginning

UNC

0000000000000000

#### Percent change in net position

2,095,579 97,687,900 = 2.15 percent

Benchmark •0 percent or higher

I UNC

0000000000000000

#### Charge to expense ratio

- Used to track the financial dimension of selfsufficiency, which addresses the extent to which service charges covered total expenses
- Service charges are divided by total expenses

UNC.

### Charge to expense ratio 22,483,696 = 1.12 18,504,813 + 378,238 + 1,177,699 Benchmarks ■1.0 or higher ■Trend analysis ■Policy decision 0000000000000000 **Debt service ratio** • Used to track the financial dimension of financing obligation, providing feedback on service flexibility with the amount of expenses committed to annual debt service • Debt service (principal and interest payments) divided by total expenses plus principal 0000000000000000 **Debt service ratio** 3,237,838 + 1,177,699 18,504,813 + 378,238 + 1,177,699 + 3,237,838 = .19 **Benchmarks** ■Trend analysis Selected peers ■Policy decision 0000000000000000

# Financial condition of water & sewer fund (enterprise fund) Resource Stock (balance sheet) Financial Dimension Financial Indicator Liquidity Quick ratio Solvency Net positon ratio Leverage Debt to assets ratio Capital Capital assets condition ratio

#### **Quick ratio**

- Used to track the financial dimension of liquidity, which provides feedback on a government's ability to address short-term obligations
- Cash & investments are divided by current liabilities (not including deferred revenues)

| m UNC | 000000000000000 |
|-------|-----------------|

#### **Quick ratio**

18,980,767 5,482,360 -(556,075 + 44,028 + 156,822) = 4.02

#### Benchmarks

- ■2.0 or higher
- ■Trend analysis

UNC.....

#### **Net positon ratio**

- Used to track the financial dimension of solvency, which provides feedback on a government's ability to address long-term obligations
- Unrestricted net position is divided by total liabilities

UNC

0000000000000000

#### **Net position ratio**

19,464,584 40,503,183 = .48

Benchmarks

- ■Trend analysis
- Selected peers

UNC

0000000000000000

#### **Debt to assets ratio**

- Used to analyze the financial dimension of leverage, which is the extent to which total assets are financed with long-term debt
- Long-term debt is divided by total assets

UNC

## Debt to assets ratio 36,764,581 = .26 140,286,662 Benchmarks ■Trend analysis ■Selected peers 0000000000000000 Capital assets condition ratio • Used to analyze the financial dimension of capital, representing the remaining useful life of capital assets assigned to governmental activities • Accumulated depreciation is divided by assets being depreciation and then subtracted from 1 0000000000000000 Capital assets condition ratio 1- 65,945,575 = .61 169,520,756

Benchmarks

0000000000000000

Trend analysisSelected peers



## To help elected officials grasp financial condition you have to first teach Financial Condition 101

- · Key differences in governmental accounting
- Financial position vs. financial condition
- · Key parts of financial condition model
- · How peers were selected

UNC SERBOOL CO CO

0000000000000000

## To make it stick, you have to tell a story.

- Structure and order your story.
- The critical few issues rather than many.
- Policy implications and choices.

UNC

