

The background of the slide features abstract, overlapping green geometric shapes, primarily triangles and polygons, in various shades of green, creating a modern, layered effect.

The U.S. GAAP Governmental Taxonomy Prototype: *Life Beyond Excel Spreadsheets & PDFs*

Presented by

Shannon Sohl, PhD, CPA- NIU Center for Governmental Studies Senior Research Associate

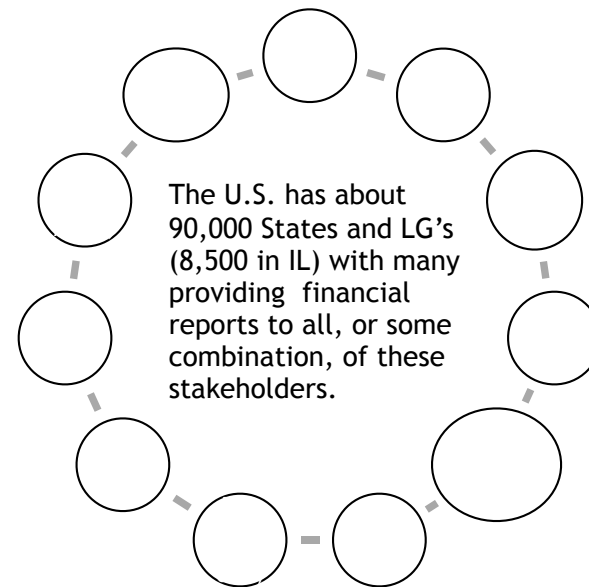
Marc Joffe (???)

Overview

- ▶ Describe the current state of reporting
- ▶ Demonstrate increased semantics and standardization
- ▶ Demonstrate machine-readability
- ▶ Demonstrate data re-usability

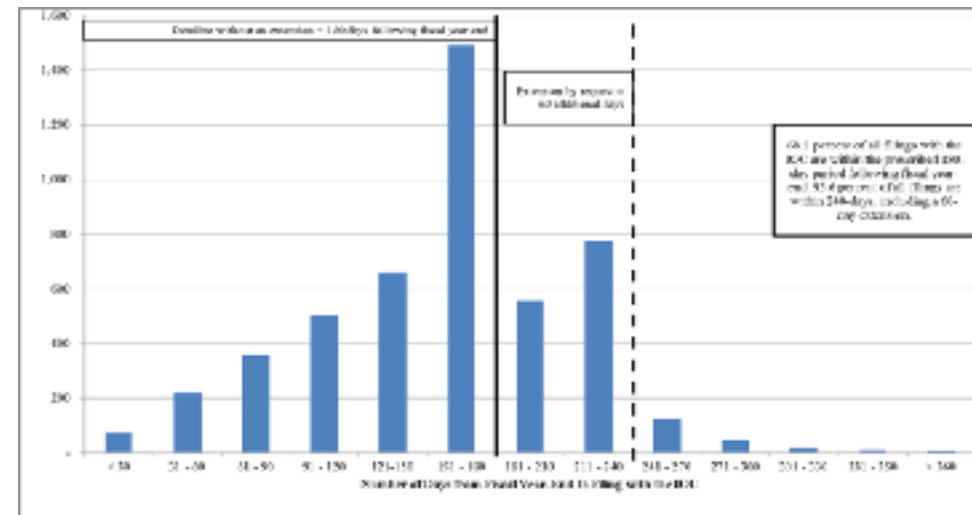
It's time for a change!

Many Consumers of Financial Information with Different Needs



The scope of CAFRs...are accountability tools with many stakeholders of which much of the information has to be re-formatted or reshuffled to meet the reporting requirements of those they are submitting information. Reporting to all accountability holders in a given year can be quite cumbersome and time consuming.

Reporting Lag in Illinois



In fact, reporting takes, on average, 179 days to produce reports at the Comptroller's site in Illinois. About a third of our local governments report past 180 days.

Real Example of a Typo

Changes in Net Position

Governmental Activities		Business-Type Activities		Total
2014	2015	2014	2015	2015
Revenues and Net Transfers				

Annual Audits are crafted via dozens of Excel sheets and posted as PDFs. Manual creation of reports leads to copy and paste errors.

7

Discretion in Reporting Concepts Example: An IL County

Variation in reporting a basic concept, **Cash** related concepts:

- Cash and Cash Equivalents (21%)
- Cash and Investments (69%)
- Cash
- Investments
- Deposits
- Broken down by Demand Deposits and Certificate Deposits

90%

10%

90% of municipalities reported either Cash and CE or Cash and Investments. Three other concepts were used for the remaining 10%.

Typically there are four to five type of General Governmental Activities line items. We found 26 different concepts in this section for this county.

Debit balance (b&w)

Reported with assets (b&w)

Positive balance (b&w)

Short term or long term asset? (what if you have held that asset for 2 years now?)

This is a real question the GASB is considering. Land held for resale does not have a clear definition. This is where a data dictionary can be helpful.

Discretion in Reporting Concepts

An IL County (continued)

Variation in reporting *General Government Activities*:

26 different concepts reported just in municipalities alone even though, on average each entity reports only four types of General Government Activities concepts. Most frequently reported in County X's municipalities include:

- ▶ General Government (76%)
- ▶ Public Safety (71%)
- ▶ Highways and Streets (37%)
- ▶ Interest (32%)
- ▶ Culture & Recreation (29%)
- ▶ Public Works (29%)

90% of municipalities reported either Cash and CE or Cash and Investments. Three other concepts were used for the remaining 10%.

Typically there are four to five type of General Governmental Activities line items. We found 26 different concepts in this section for this county.

Debit balance (b&w)
Reported with assets (b&w)
Positive balance (b&w)
Short term or long term asset? (what if you have held that asset for 2 years now?)
This is a real question the GASB is considering. Land held for resale does not have a clear definition. This is where a data dictionary can be helpful.



And even if standardization, data linkage and validation were achieved, we are still left with PDFs.

Reporting Is Cumbersome, Costly and Not Timely

PDF

City of St. Petersburg, Florida Statement of Net Position September 30, 2016

	Governmental Activities	Business-Type Activities	Total	Component Unit
Assets				
Cash and Cash Equivalents	\$ 63,647,877	\$ 11,414,137	\$ 75,062,014	\$ 3,000
Investments	227,602,620	141,420,753	379,023,373	67,800
Receivables - Net of Allowance for Uncollectibles	22,734,889	18,723,831	41,458,720	-
Internal Receivables	22,708,810	(22,708,810)	-	-
Due from Other Governmental Agencies	14,788,801	3,142,473	17,931,274	-
Inventories	1,303,579	1,303,320	2,606,899	-
Property Held for Resale	2,251,375	-	2,251,375	-
Prepays and Deposits	3,185,917	103,311	3,289,228	-
Contract Receivable from Other Governmental Agency	-	14,812,527	14,812,527	-
Restricted Assets:				
Cash and Cash Equivalents	3,188,428	44,800,183	47,988,611	-
Investments	48,648,211	37,881,788	86,529,999	-
Net Pension Asset	12,214,426	-	12,214,426	-
Capital Assets, Not Depreciable				
Land	120,647,417	23,789,081	144,436,498	-
Construction in progress	8,099,893	33,421,682	41,521,575	-
Capital Assets, Depreciable, Net				
Buildings and Systems	68,571,035	130,133,001	198,704,036	-
Improvements other than Buildings	158,313,302	25,007,031	183,320,333	-
Machinery and Equipment	33,879,257	3,788,731	37,667,988	-
Utility Systems	-	602,841,643	602,841,643	-
Other Assets - Intangible	2,100,000	-	2,100,000	-
Total Assets	814,299,145	1,085,413,043	1,899,712,188	70,807

And looking for data such as cash and cash equivalents within a PDF is clumsy, especially within those PDFs scanned into a report repository.


The background of the slide features an abstract design composed of various shades of green. On the right side, there are several overlapping, semi-transparent geometric shapes, primarily triangles and quadrilaterals, creating a layered effect. On the left side, there is a single, solid green triangle. The central area of the slide is a plain, light gray rectangle where the text is located.

Information gains meaning & structure!

XBRL for Governmental Reporting

- ▶ Used in more than 50 countries and
- ▶ Millions of paper reports are being replaced by digital reports each year
- ▶ eXtensible Business Reporting Language (XBRL)
 - ▶ Clear definitions: authoritatively defined
 - ▶ Increased validity: Business rules allow for greater testing of information
 - ▶ Ease in sharing: platform-independent
 - ▶ Digital: like going from film photography to digital photography

Source: www.xbrl.org

Provided by The Center for Governmental Studies at Northern Illinois University Under Creative Commons CC BY-NC-SA 4.0 License					U.S. GAAP Governmental Taxonomy (UGGT)						
											
Concept	Locations		Labels		Definitions	References		Properties			
	Statement	Statement Section	Standard Label	Total Label		Publisher	Period Type	Balance	XBRL Type	Abstract	Sign
Cash	Net Position	Current Assets	Cash	Cash, Total	Currency, coins, checks, money orders, and bankers' drafts on hand or on deposit with an official or agent designated as custodian of cash or demand deposits with financial institutions.	GFOA	Instant	Debit	xbri:monetary/Item Type	FALSE	Only Positive
Cash Equivalents	Net Position	Current Assets	Cash Equivalents, at Carrying Value	Cash Equivalents, at Carrying Value, Total	Amount of short-term, highly liquid investments such as Treasury bills, commercial paper, and money market funds that are both readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates. Generally, only investments with original maturities of three months or less meet this definition.	Center for Governmental Studies	Instant	Debit	xbri:monetary/Item Type	FALSE	Only Positive
Cash and Cash Equivalents	Net Position	Current Assets	Cash and Cash Equivalents	Cash and Cash Equivalents, Total	Calculated: Cash plus Cash Equivalents	Center for Governmental Studies	Instant	Debit	xbri:monetary/Item Type	FALSE	Only Positive
Investments	Net Position	C+N Asset	Investments	Investments, Total	A security or other asset that (a) a government holds primarily for the purpose of income or profit and (b) has present service capacity based solely on its ability to generate cash or to be sold to generate cash.	GASB72	Instant	Debit	xbri:monetary/Item Type	FALSE	Only Positive

The first step of our initiative was to begin developing a dictionary to defined commonly reported concepts in the statement of net position. For instance, if you look at the concept “cash and cash equiv.” you will not that it is found in the statement of Net Position as a current asset, see the standard label, how it is derived, that it is an “instant” type (as of...); is not a header and is only a positive balance.

The screenshot displays a financial statement for the City of St. Petersburg, Florida, dated September 30, 2015. The main window shows a table with columns for Line Item, Description, Governmental Activities, Business Type Activities, Total, and Debits & Credits. The table lists various assets and liabilities, including Cash and Cash Equivalents, Investments, Receivables, and Payables. A blue callout box labeled "Fix Ty" points to the "Statement of Net Position (Abstract)" in the navigation pane.

Line Item	Description	Governmental Activities	Business Type Activities	Total	Debits & Credits
1	Assets				
2	Cash and Cash Equivalents	11,444,100	11,444,100	22,888,200	1,000
3	Investments	1,111,111	1,111,111	2,222,222	12,500
4	Receivables - Net of Allowance for Doubtful Accounts	25,714,286		25,714,286	
5	Due from Other Governmental Agencies	22,769,230		22,769,230	
6	Due from Other Governmental Agencies	11,788,000		11,788,000	
7	Prepaid Insurance	1,000,000		1,000,000	
8	Prepaid Insurance - Results	2,311,270		2,311,270	
9	Prepaid Insurance - Results	2,311,270		2,311,270	
10	Prepaid Insurance - Results	2,311,270		2,311,270	
11	Prepaid Insurance - Results	2,311,270		2,311,270	
12	Prepaid Insurance - Results	2,311,270		2,311,270	
13	Prepaid Insurance - Results	2,311,270		2,311,270	
14	Prepaid Insurance - Results	2,311,270		2,311,270	
15	Prepaid Insurance - Results	2,311,270		2,311,270	
16	Prepaid Insurance - Results	2,311,270		2,311,270	
17	Prepaid Insurance - Results	2,311,270		2,311,270	
18	Prepaid Insurance - Results	2,311,270		2,311,270	
19	Prepaid Insurance - Results	2,311,270		2,311,270	
20	Prepaid Insurance - Results	2,311,270		2,311,270	
21	Prepaid Insurance - Results	2,311,270		2,311,270	
22	Prepaid Insurance - Results	2,311,270		2,311,270	
23	Prepaid Insurance - Results	2,311,270		2,311,270	
24	Prepaid Insurance - Results	2,311,270		2,311,270	

The XBRL Detail Tagging window shows a list of tags and their corresponding values. The navigation pane on the right shows a hierarchy of financial statements, including the Statement of Net Position (Abstract) and the Statement of Net Position (Table).

Here cash and cash equiv. is digitized where the business rules and definitions are now associated with the concept.

Information becomes machine-readable!

Financial Statements	Statement of Net Position (Details)	Sep. 30, 2016 USD (\$) USD (\$)
State of Net Position, Revenue Statement	Cash and Cash Equivalents	\$ 75,962,014
Notes Tables	Investments	319,323,283
Notes Details	Allowance for Doubtful Accounts Receivable, Current	39,528,500
Statement of Net Position (Details)	Internal Balances	0
Statement of Activities (Details)	Due from Other Governmental Agencies	20,931,854
All Reports	Inventories	2,610,899
Funding Log	Property Held for Sale	2,201,375
	Prepays and Deposits	3,269,228
	Contract Receivable from Other Governmental Agency	14,612,527
	Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents	47,995,611
	Investments, Restricted	86,609,500
	Net Pension Asset	12,214,424
	Land, Not Depreciable	150,336,498
	Construction in Progress, Not Depreciable	31,451,575
	Building and Systems, Depreciable	215,704,036
	Improvements other than Buildings	180,320,333
	Property, Plant and Equipment, Net	42,176,488
	Utility Systems	602,641,843
	Other Intangible Assets, Net	2,100,000
	Total Assets	1,969,679,788

Because the cash and cash equivalents concept is now digitized it can also be used to populate statements and tables where it must be reported. The reader can click on the concept for its definition and the preparer can be prevented from reporting errors (i.e., a negative cash balance).

wdesk Calculation Report		Sections	Report Validation	Status Log	Help
		Program Type Activities (Member)	Governmental Activities (Member)		
	9/30/2018	9/30/2018	9/30/2018		
Cash and Cash Equivalents	debit + 28,252,111.6	17,474,182	89,867,892		
Cash, Cash Eq. Equivalents, Restricted Cash and Restricted Cash Equivalents	debit + 97,885,411	44,806,102	0,195,428		
Investments, RESTRICTED	debit + 86,608,560	37,197,288	49,578,271		
Net Pension Asset	debit + 12,274,424	0	12,274,424		
Land, Net Depreciable	debit + 120,336,498	26,756,001	120,547,417		
Construction in Progress, Net Depreciable	debit + 21,451,515	23,427,184	0,025,860		
Building and Systems, Depreciable	debit + 278,114,188	196,139,000	86,671,086		
Improvements other than Buildings	debit + 180,660,202	25,000,001	155,212,368		
Property, Plant and Equipment, Net	debit + 42,175,488	8,108,257	32,678,257		
Utility Systems	debit + 622,653,862	622,653,862	0		
Other Intangible Assets, Net	debit + 2,125,000	0	2,125,000		
Investments	debit + 575,525,280	141,420,758	237,000,568		
Receivables, Net of Allowance for Uncollectibles	debit + 28,628,600	18,768,860	20,734,868		
Internal Balances	debit + 0	22,753,810	22,756,810		
Due from Other Governmental Agencies	debit + 20,051,854	6,142,462	11,790,401		
Inventories	debit + 3,610,888	1,208,266	3,236,678		
Property Held for Sale	debit + 2,231,202	0	2,231,202		
Prepays and Deposits	debit + 3,150,228	100,311	3,158,317		
Contract Receivable from Other Governmental Agency	debit + 14,612,682	14,612,682	0		
Assets GASE	debit + 1,058,675,798	1,048,413,643	814,288,148		
Asset Total	1,058,675,798	1,058,413,643	814,288,148		

Because cash and cash equivalents is now digitized it can also be used for a variety of calculations such as the quick ratio and linked to other parts of the report or even other reports without fear of Excel links breaking.

show machine-readable information

equivalentsRestrictedCashAndRestrictedCashEquivalents contextRef="FI2016Q4" id="Fact-F2" unitRef="usd">47995611</us-gaap:CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents>

equivalentsRestrictedCashAndRestrictedCashEquivalents contextRef="FI2016Q4_stp_ProgramAreaAxis_stp_BusinessTypeActivitiesMember" decimals="0" id="Fact-F3" unitRef="usd">44809183</us-gaap:CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents>

> <us-gaap:CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents contextRef="FI2016Q4_stp_ProgramAreaAxis_stp_GovernmentalProgramsMember" decimals="0" id="Fact-F4" unitRef="usd">3186428</us-gaap:CashCashEquivalentsRestrictedCashAndRestrictedCashEquivalents>

> <us-gaap:Investments contextRef="FI2016Q4" decimals="0" id="Fact-F5" unitRef="usd">379323283</us-gaap:Investments>

> <us-gaap:Investments contextRef="FI2016Q4_stp_ProgramAreaAxis_stp_BusinessTypeActivitiesMember" decimals="0" id="Fact-F6" unitRef="usd">141420733</us-gaap:Investments>

> <us-gaap:Investments contextRef="FI2016Q4_stp_ProgramAreaAxis_stp_GovernmentalProgramsMember" decimals="0" id="Fact-F7" unitRef="usd">237902550</us-gaap:Investments>

These are a machine-readable representation of 6 facts in the XBRL syntax. There's a reason these are called machine-readable. Only machines should have to read this!

Information becomes re-usable!



Ratios and Trends

PURPOSE: Analyzing key financial ratios and trends over several years enables the City to have a clearer picture of where it has been and where it is going. All ratios are based on governmental funds financial data.

CITY TRENDS AND RATIOS:	2016	2015	2014	2013	2012
Available Fund Balance to Expenditures	18.72%	15.65%	13.84%	11.86%	10.74%
Quick Ratio	851.83%	842.37%	677.59%	726.79%	628.28%
Operational Liquidity	1053.89%	821.63%	764.41%	708.49%	588.88%
Debt per Population	\$ 603	\$ 435	\$ 435	\$ 468	\$ 520
Revenue per Population	\$ 1,082	\$ 1,098	\$ 984	\$ 963	\$ 942
Expenditure per Population	\$ 1,109	\$ 1,095	\$ 1,040	\$ 968	\$ 1,110

Available Fund Balance to Expenditure Trend: Percentages decreasing over time may indicate unstructured budgets that could lead to future budgetary problems for the City, even if the current fund balance is positive. The benchmark for comparable cities in Florida is 15.04% in fiscal year 2015 (1).

Quick Ratio: Percentages decreasing over time may indicate that the City has overextended itself in the long run or may be having difficulty raising the cash needed to meet its current needs. A ratio of 100% or higher is desired. The benchmark for comparable cities in Florida is 803.85% in fiscal year 2015 (1).

Where do we go from here?

- ▶ Completion of the taxonomy
- ▶ More use cases
- ▶