Using the CAFR Demonstration Taxonomy: A Preparer's Guide

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This Guide has been prepared by the XBRL US State and Local Government Disclosure Modernization Working Group. The Guide is designed to help preparers understand the content and application of the Comprehensive Annual Financial Report (CAFR) Demonstration Taxonomy. As of the date of this publication, the Government Accounting Standards Board (GASB) has not yet reviewed contents of this document and the Demonstration Taxonomy to confirm/clarify proper use of definitions and references sourced from GASB's Government Accounting Research System. It has not been approved by the Government Accounting Standards Working Group (GASB).

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1.0 Introduction

1.1 Intended Audience

The intended audience of this Guide are those persons interested in understanding the intentions and scope of the CAFR Demonstration Taxonomy, and the subset of those persons wishing to use the Demonstration Taxonomy as the basis of preparing an XBRL or Inline XBRL (iXBRL[1]) representation of a Comprehensive Annual Financial Report (CAFR).

Authors of the Guide assume that readers have sufficient knowledge of the financial reporting standards and reporting requirements for a CAFR. We also assume that those readers who intend to prepare an XBRL or iXBRL version of a CAFR filing have sufficient knowledge of XBRL and iXBRL to interpret the technical details in this Guide and suitable software for production of the iXBRL document. We leave it to the many other papers, presentations, videos, and books already published on this topic to provide a preparer's technical education (see material from XBRL.US, XBRL.org) and more background on the effort and value proposition of disclosure modernization in general (see material from Data Coalition at datacoalition.org and the Data Foundation at the datafoundation.org).

The worldwide use of XBRL and iXBRL data-encoding languages created a market for the production of financial reports in these formats. Those wishing to try their hand at preparing a filing are encouraged to consider their software options. Some of the software available significantly reduces the amount of technical knowledge needed to prepare a CAFR filing. A list of XBRL-enabled tools and services can be found on the XBRL US web site (https://xbrl.us/home/learn/tools-and-services/).

1.2 Contents of the Guide

This Guide is broken into three broad sections: Introduction, Preparing a Filing, and Future Considerations. The Introduction shares the Working Group's expectations for the Demonstration Taxonomy, intending to help preparers set realistic expectations for it, too. The second section, Preparing a Filing, uses examples to advise preparers on effective use of the Demonstration Taxonomy. The third section, Future Considerations, collects some of our thinking on what we might change if we revise the Demonstration Taxonomy.

This Guide does not describe the software that may be used to create a filing, disclosure requirements or guidelines regarding these requirements, processes for producing a filing, or authoritative definitions for the elements in the Demonstration Taxonomy (though the

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[1] iXBRL® is a trademark of XBRL International, Inc. All rights reserved. The XBRL® standards are open and freely licensed by way of the XBRL International License Agreement.

Demonstration Taxonomy may include references to authoritative sources for some of its elements). You should refer to appropriate authoritative sources for this information.

1.3 Spirit of the Project

All communication is translation. The goal of effective communication is to minimize ambiguity, include all necessary information, and not introduce any false information along the way. In everyday language, linguistic standards such as a grammar and a common vocabulary help us to communicate with one another. In communicating financial information, we rely on accounting standards and prevalent best practices to represent our common understanding for what we can say and how we can say it.

"Disclosure modernization," or the translation of financial information into a standard data encoding language based on a standard taxonomy, greatly increases the likelihood that we are communicating financial information in a clear, effective way. The movement to disclosure modernization for financial reporting is implemented through data encoding languages. Data encoding languages provide a machine-readable expression of the information we are trying to communicate. This machine-readable expression is often referred to as an open data report (which is a syntax-neutral expression of the idea). The data-encoding language called XBRL (for eXtensible Business Reporting Language) is the dominant machine-readable syntax for open data reports. It is a nonproprietary data encoding language first put into use in 2001 that provides a syntax for expressing financial reporting ideas. XBRL is used in concert with an XBRL taxonomy, which is a dictionary of terms that defines specific financial reporting ideas, and certain types of relationships between the terms (e.g. how numbers foot).

In order to promote practical understanding of how disclosure modernization can work for a CAFR, the Working Group created this Demonstration Taxonomy and sample filings based on it. The purpose of this Demonstration Taxonomy is to provide a way for people to learn about the production and consumption of CAFR data encoded in XBRL. As sample filings become available, we will subsequently be able to demonstrate data extraction and data aggregation from these filings. In some sense our focus is on operational proof—that is, to show that methods for filing a CAFR in XBRL exist and that they work well.

The Demonstration Taxonomy is sufficient for these purposes. It does not yet, however, declare a data architecture for a production-quality taxonomy. With this limitation in mind, we recommend that preparers focus on the function of a taxonomy encoded in XBRL rather than the specific form that this demonstration taxonomy has taken. The purpose of this document is to demonstrate that an operational CAFR can be created and to provide readers with ideas for how a full production-quality taxonomy might be designed and implemented in the future.

The section on "Future Considerations" (below) details many recommendations and considerations for a production-quality taxonomy. Technically inclined readers with an interest in implementation details are directed to that section.

2.0 Preparing a Filing

2.1 Preparing an XBRL filing

A preparer's technical goal is to produce a single artifact: an Inline XBRL (iXBRL) document. In brief, an iXBRL document is a special type of HTML document that has embedded within it data encoded in XBRL. An iXBRL document provides a preparer with both the visual benefits of an HTML document and the data benefits of an XBRL data document.

A fact is a value encoded in XBRL, capturing the context that gives meaning to the value. Let's take the number represented in the text "27,500,000". That text is just a value. The text "27,600,000" encoded in XBRL would have specific context: the unit of measure e.g., reported as US dollars, precision e.g., rounded to the nearest hundred-thousand, tagged with a defined element e.g., as Net OPEB Asset, on an accrual basis. An XBRL fact offers much more control of your financial story than does plain text. Your filing will contain a lot of content, and a subset of that content will also be reported as facts encoded in XBRL.

A preparer will need software that combines the production of the visual document with the production of the XBRL data document. The worldwide use of iXBRL led to the creation of numerous software programs capable of generating documents in this format.

The XBRL portion of a filing is a subset of all the data contained therein.

A preparer can only tag content if there are elements in the taxonomy that are appropriate to that content. The Demonstration Taxonomy contains concepts that cover a subset of the reported values in a CAFR to illustrate the use of data standards to produce and consume CAFR data in XBRL. Future releases of the Taxonomy will contain more elements to cover a larger portion of values reported in a CAFR.
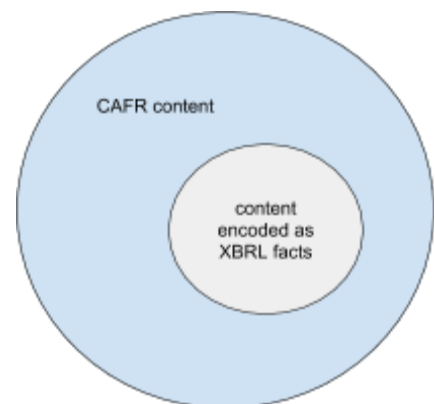
As a preparer using the Demonstration Taxonomy, you may create new elements—i.e., "extension elements." In some cases this need was anticipated and added into the Demonstration Taxonomy, and we have provided places to add details about the name of a fund or component unit. Preparers will need to decide when to create extension elements, and the ability to create extensions needs to be a supported feature of the software you use to create the filing.

This logically leads us to the question: What should a preparer tag based on the Demonstration Taxonomy? The answer is as follows: if a line item element already exists in the taxonomy that appropriately represents a reported value in the CAFR being tagged, the Preparer should tag that value.

2.2 Flow Chart for Tagging Values

Below is a flow chart of a process for identifying and tagging values based on the Demonstration Taxonomy. It assumes a preparer will work through the topics as represented in the Demonstration Taxonomy.
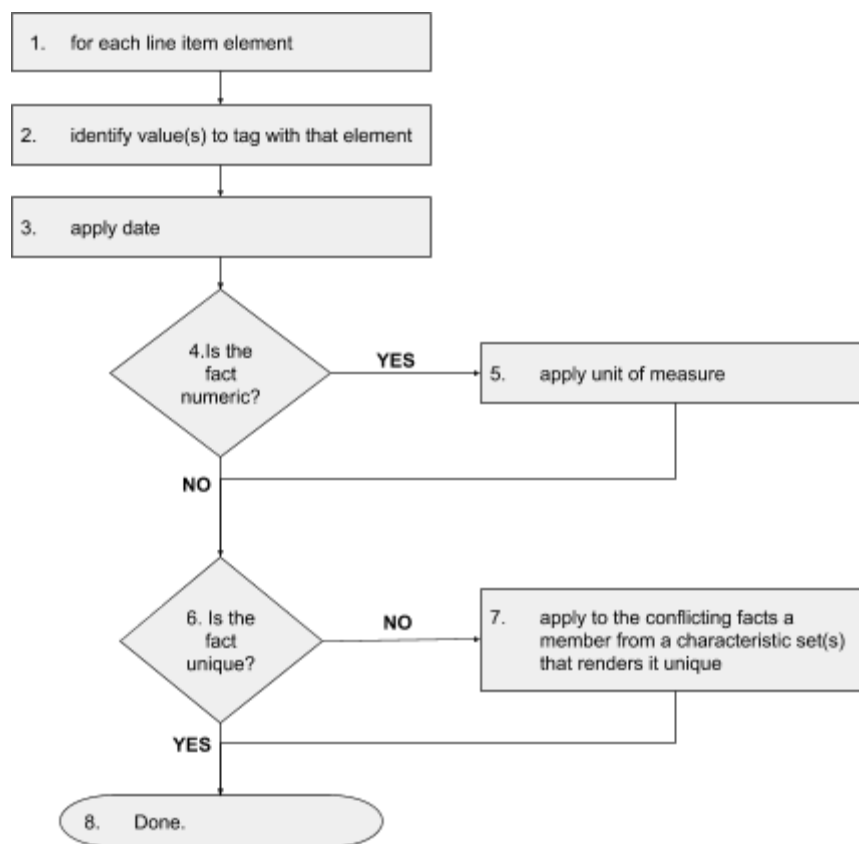
This workflow further assumes a preparer will only tag values for which an element already exists. It advises that a characteristic set (i.e., "[Axis]" element) is used only when necessary to distinguish one fact from conflicting with another due to their having identical tags (i.e.,identical description in XBRL) applied to them. We recommend that a preparer go beyond that minimum because applying additional members from a characteristic set further reduces ambiguity as to what a computer can know about a fact. For example, you may know that a value is reported on an accrual basis, but unless the fact is tagged as such the computer will not know that.

2.3 Scope of the CAFR Demonstration Taxonomy

A taxonomy is a classification system. In the data world, a taxonomy is a classification system for data. The taxonomy defines elements or "tags" that—when associated with a data point—establish context for interpreting the data point. The taxonomy details properties of elements as well as how the elements are related to each other. As an example of a property, an element may be described as context for a monetary value, or the property may be that that the element describes a "debit" or "credit" balance type. As an example of a relationship, an element may be described as a more specialized kind of an element e.g., "current asset" is a specialized kind of "asset."

A data-encoding language may provide multiple ways to represent the properties of and relationships between elements. One can refer to the decisions on representation as the **data model**. Because this is a demonstration taxonomy directed at proving the operational abilities of a CAFR taxonomy, the Working Group decided on a data model sufficient for these purposes.

We did not endeavor to create a model that is sufficient for a production taxonomy, which necessarily must cover many more topics and include many more elements. Instead, our model only needed to be sufficient to capture the details that satisfied these criteria:
1. Can I say X using elements of the taxonomy?
2. Can I find X by querying the filing?
3. Is there just one way to say X?
4. Can I distinguish two facts from each other by a rationally chosen characteristic (e.g., basis of accounting, by related party, etc.)?
5. Can I find facts that have specific shared characteristics (i.e., reported on an accrual basis of accounting)?

Thus, we focused on creating a model that emphasized **granularity** and **flexibility**. A fact is tagged—not with a single monolithic element—but with several tags to create an aggregated meaning/context for knowing the reported value. **Granularity** allows for fine grain cross sections and disaggregation of a data set. For example, instead of tagging a value with a single monolithic element such as "current asset restricted to the transportation fund," we have broken that tag into multiple dimensions such as "asset," "liquidity: current," "classification of fund: transportation," and "restricted." Breaking the single element into these multiple dimensions allows people to query data based on any of the dimensions, so that someone could run a model of all transportation funds, for example. In addition to being granular, the model is **flexible** because it allows people to make additions that wire into the data but that don't alter the data model as a whole.

The CAFR Taxonomy elements have been obtained from three sources:
1. The GASB online Codification.

2. CAFR Standards (including the GFOA Checklist and the Governmental Accounting, Auditing, and Financial Reporting book, or "Blue Book") and their accompanying materials. Our reliance on their material does not imply their approval of our work.
3. Academic research and commonly reported and widely pervasive reporting practice.

Common practice elements are not specifically mentioned in CAFR Standards or their accompanying materials, but are, nonetheless, consistent with CAFR Standards and commonly understood, being frequently disclosed across a range of municipalities or jurisdictions. They have been identified by conducting empirical reviews of CAFR financial statements.

Many elements include references to authoritative literature. However, some elements lack authoritative references because the specificity required by a data model does not yet exist in the standard itself. This gap is understandable because the standards preceded their implementation in a data-encoding language. One of the conclusions demonstrated by this Demonstration Taxonomy is the need to align the standards to meet the needs of disclosure modernization.

The elements of the Demonstration Taxonomy are grouped into the following topics:

1. 1000 - CAFR cover
2. 1100 - CAFR letter of transmittal
3. 1200 - CAFR audit letter
4. 2100 - CAFR statement of net position, government wide, assets and deferred outflows
5. 2200 - CAFR statement of net position, government wide, liabilities and deferred inflows
6. 2300 - CAFR statement of net position, government wide, net position
7. 2500 - CAFR statement of activities, government wide, general revenues
8. 2600 - CAFR statement of activities, government wide, program revenues and expenses
9. 3100 - CAFR balance sheet, governmental funds
10. 3200 - CAFR statement of revenues, expenditures, and changes in fund balance, governmental funds

These elements are grouped by these topics. The Demonstration Taxonomy does not provide elements for complete coverage of a topic, and so it does not prescribe the content or presentation for any topic of a CAFR. It provides a taxonomy for tagging some facts as reported CAFR disclosures. The sample filings reflect this limited coverage.

An XBRL element has many attributes including an ID, a standard label, a documentation label, a reference, a balance type, a data type, and a period type.

attribute	meaning	example
ID	A unique machine-readable identifier	cafr_Assets
standard label	A human-readable label that serves as the default label in the default language.	"Assets"
documentation label	A label whose role is "documentation" and which should provide a human-readable definition.	"Assets are resources with present service capacity that the government presently controls"
reference	A reference to an authoritative source. An element may have multiple references. This is the single most important assertion as to the meaning of an element.	COD B.CS4.8 Codification of Governmental Accounting and Financial Reporting Standards, GASB, 2017-2018, Part B, section CS4, paragraph 8.
balance type	Either "debit" or "credit," it should be the natural balance for a positive value.	debit
data type	Specifies the class of value that may be tagged with the element. This is used for data quality validation.	monetary
period type	Either "duration" or "instant," it represents the type of measurement date. This is used for data quality validation.	duration

The documentation label serves as the definition of the standard label. The reference is the authoritative source and reference. If this reference is correct for the reporting line it should be used; if it is insufficient, then a new (i.e., custom) label may be created. An entity-specific extension element should be created only when there is no sufficient reference in the Demonstration Taxonomy and an extension is needed for your purposes. The Demonstration Taxonomy does not attempt to provide coverage for all values reported in a CAFR or even any particular topic of a CAFR. That is beyond the scope of this Taxonomy.

2.4 Advice for the CAFR Preparer

1000 - CAFR Cover

Let's begin at the beginning, with a sample CAFR cover page.

The items from the CAFR cover page with elements in the Demonstration Taxonomy are:

Element Label	Element ID
Document Title	DocumentTitle
Name of Government	NameOfGovernment
Fiscal End Date	FiscalEndDate
Name of State	NameOfState

For the above image the items would be as follows:

Element Label	Element ID	DocumentValue
Document Title	DocumentTitle	"Comprehensive Annual Financial Report"
Name of Government	NameOfGovernment	"State of Georgia"
Fiscal End Date	FiscalEndDate	"June 30, 2017"
Name of State	NameOfState	"Georgia"

1100 - Letter of Transmittal

Element Label	Element ID
Type of Government	TypeOfGovernment

Date of Transmittal	DateOfTransmittal

Nathan Deal
Governor

Thomas Alan Skelton
State Accounting Officer

December 28, 2017

The Honorable Nathan Deal, Governor of Georgia

The Honorable Members of the General Assembly

Citizens of the State of Georgia

It is my privilege to present the *Comprehensive Annual Financial Report* (CAFR) on the operations of the State of Georgia (State) for the fiscal year ended June 30, 2017, in accordance with the Official Code of Georgia Annotated (O.C.G.A.), Section 50-5B-3(a)(7). The objective of this report is to provide a clear picture of our government as a single comprehensive reporting entity.

This report consists of management's representations concerning the State's finances and management assumes full responsibility for the completeness and reliability of the information presented. This report reflects my commitment to you, the citizens of the State, and to the financial community to maintain our financial statements in accordance with Generally Accepted Accounting Principles (GAAP) applicable to governments as prescribed by the Governmental

For the above image the items would be as follows:

Element Label	Element ID	Document Value
Type of Government*	TypeOfGovernment	"State"
Date of Transmittal	DateOfTransmittal	"December 28, 2017"

*The type of government may be disclosed in a later part of the letter.

1200 - CAFR Audit Letter

Element Label	Element ID
Date of Audit Opinion	DateOfAuditOpinion
Name of Audit Firm	NameOfAuditFirm
Audit Opinion	AuditOpinion

DEPARTMENT OF AUDITS AND ACCOUNTS

270 Washington Street, S.W., Suite 1-156

Atlanta, Georgia 30334-8400

GREG S. GRIFFIN
STATE AUDITOR
(404) 656-2174

Independent Auditor's Report

Opinions

In our opinion, based on our audit and the reports of other auditors, the basic financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund and the aggregate remaining fund information of the State, as of June 30, 2017, and the respective changes in financial position and, where applicable, cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Respectfully submitted,

Greg S. Griff

Greg S. Griffin
State Auditor

December 28, 2017

From the above (excerpted) example:

Element Label	Element ID	Document Value
Date of Audit Opinion	DateOfAuditOpinion	"December 28, 2017"
Name of Audit Firm	NameOfAuditFirm	"Department of Audits and Accounts"
Audit Opinion	AuditOpinion	"Unqualified"

2100 - CAFR Statement of Net Position, Assets and Deferred Outflows

Identify *Financial Reporting Entity*:

Element Label	Element ID
Primary Government Activities [Member]	PrimaryGovernmentActivitiesMember

Component Unit [Member]	`ComponentUnitMember`

When choosing *Primary Government Activities [Member]*, it is also necessary to select the *Activity Type:*

Element Label	**Element ID**
Governmental Type Activity [Member]	`GovernmentalTypeActivityMember`
Business Type Activity [Member]	`BusinessTypeActivityMember`

Next choose a *Basis of Accounting:*

Element Label	**Element ID**
Accrual, Basis of Accounting [Member]	`AccrualBasisOfAccountingMember`

Next choose an *Asset*:

Element Label	**Element ID**
Cash and Cash Equivalents	`CashAndCashEquivalents`
Investments	`Investments`
Receivables, Net	`ReceivablesNet`
Due From Related Party	`DueFromRelatedParty`
Internal Balances Asset/(Liability)	`InternalBalancesAssetLiability`
Net Pension Asset/(Liability)	`NetPensionAssetLiability`
Net OPEB Asset/(Liability)	`NetOpebAssetLiability`
Prepaid Items	`PrepaidItems`
Inventory	`Inventory`
Property Held for Resale	`PropertyHeldForResale`
Other Assets	`OtherAssets`
Capital Assets, Net	`CapitalAssetsNet`
Assets	`Assets`

As appropriate, "Qualify" the asset by choosing additional tags from the following axes:

Axis Name	**Element Label**	**Element ID**
Depreciability	Depreciable *or*	`Depreciable`

	Nondepreciable	Nondepreciable
Liquidity	Current *or* Noncurrent	`Current Noncurrent`
Tangibility	Tangible *or* Nontangible	`Tangible Nontangible`
Restriction of Asset or Liability	Restricted *or* Nonrestricted	`Restricted Nonrestricted`
Reporting Relationship*	Related Party *or* Nonrelated Party	`RelatedParty NonrelatedParty`
Classification of Due To Due From*	Fiduciary Unit *or* Primary Government Activities *or* Component Units *or* Other Government	`FiduciaryUnit PrimaryGovernmentActivities ComponentUnits OtherGovernment`
Classification of Inflows Outflows**	Debt Refunding *or* Derivatives *or* Property Taxes *or* Pensions *or* OPEB *or* Other Classification of Deferred Inflows Outflows	`DebtRefunding Derivatives PropertyTaxes Pensions OPEB OtherClassificationof DeferredInflowsOutflows`

* *Reporting Relationship* and *Classification of Due To Due From* are meant to be used together.

***Classification of Inflows Outflows* is for use with Deferred Outflows or Deferred Inflows only.

	Primary Government			
	Governmental Activities	Business-type Activities	Total	Component Units
Assets				
Cash and Cash Equivalents	$ 2,627,053	$ 1,456,899	$ 4,083,952	$ 624,490
Pooled Investments with State Treasury	3,644,560	802,501	4,447,061	1,459,950
Investments	3,399,022	546,580	3,945,602	2,082,227
Receivables (Net)	5,556,708	649,842	6,206,550	5,431,437
Due from Primary Government	—	—	—	113,852
Due from Component Units	107,809	426,401	534,210	—
Internal Balances	337,570	(337,570)	—	—
Inventories	52,893	31,202	84,095	31,875
Prepaid Items	39,482	60,407	99,889	45,907
Other Assets	33,626	2,265	35,891	160,936
Restricted Assets				
Cash and Cash Equivalents	—	1,744,104	1,744,104	341,972
Pooled Investments with State Treasury	219,510	196,906	416,416	96,188
Investments	—	305,825	305,825	2,035,150
Receivables (Net)	—	—	—	1,155,864
Net Pension Asset	65,313	—	65,313	—
Capital Assets				
Nondepreciable	7,716,640	780,850	8,497,490	2,088,916
Depreciable (Net of Accumulated Depreciation)	14,383,478	10,336,122	24,719,600	1,997,768
Total Assets	38,183,664	17,002,334	55,185,998	17,666,532
Deferred Outflows of Resources	1,604,253	1,041,915	2,646,168	168,013

Example 1: Tag the balance of restricted investments for Business-type activities for the period ending June 30, 2017 ($305,825) (see above image).

It is necessary to select the following items to create a discrete XBRL tag of this item:

Identify *Financial Reporting Entity*:

Primary Government Activities [Member]	`PrimaryGovernmentActivitiesMember`

When choosing *Primary Government Activities [Member]* it is also necessary to select the *Activity Type:*

Business Type Activity [Member]	`BusinessTypeActivityMember`

Next choose a *Basis of Accounting:*

Accrual, Basis of Accounting [Member]	`AccrualBasisOfAccountingMember`

Next choose an *Asset*:

Investments	`Investments`

"Qualify" the asset with the following axes:

Restriction of Asset or Liability	Restricted *or* Nonrestricted	`Restricted Nonrestricted`

In summary, the tag for *Restricted Investments* totalling $305,825 from above is

```
PrimaryGovernmentActivitiesMember
BusinessTypeActivityMember
AccrualBasisOfAccountingMember
Investments
Restricted
```

Additionally, we must also add the tags created for the cover page, plus a Statement of Net Position Table tag (`StatementOfNetPositionTable`)

Element Label	Element ID	Value
Document Title	`DocumentTitle`	Comprehensive Annual Financial Report
Name of Government	`NameOfGovernment`	State of Georgia
Fiscal End Date	`FiscalEndDate`	June 30, 2017

State of Net Position [Table]	StatementOfNetPositionTable

It is necessary to identify the location of the item being tagged to distinguish it from other locations where it may appear in the report (footnotes, statistical section, etc.).

If any of the above items were not tagged, we would not know which Investment was being referred to on the face statement.

2200 - CAFR Statement of Net Position, liabilities and deferred inflows

Proceed with the liabilities and deferred inflows in the same manner, noting that the qualifier sets are different as follows:

Axis Name	Element Label	Element ID
Liquidity	Current *or* Noncurrent	Current Noncurrent
Restriction of Asset or Liability	Restricted *or* Nonrestricted	Restricted Nonrestricted
Reporting Relationship*	Related Party *or* Nonrelated Party	RelatedParty NonrelatedParty
Classification of Due To Due From*	Fiduciary Unit *or* Primary Government Activities *or* Component Units *or* Other Government	FiduciaryUnit PrimaryGovernmentActivities Component Units Other Government
Classification of Inflows Outflows**	Debt Refunding *or* Derivatives *or* Property Taxes *or* Pensions *or* OPEB *or* Other Classification of Deferred Inflows Outflows	Debt Refunding Derivatives Property Taxes Pensions OPEB Other Classification of Deferred Inflows Outflows

* *Reporting Relationship* and *Classification of Due To Due From* are meant to be used together.
***Classification of Inflows Outflows* is for use with Deferred Outflows or Deferred Inflows only.

2300 - CAFR Statement of Net Position, net position

The net position qualifiers are different than what is available for the assets, deferred outflows, liabilities, or deferred inflows.
Available line items are the following:

Element Label	Element ID
Net Investment in Capital Assets	NetInvestmentInCapitalAssets

Net Position Restricted	`NetPositionRestricted`
Net Position Unrestricted	`NetPositionUnrestricted`
Net Position*	`NetPosition`

*Net Position is meant to tag the Total Net Position.

Use the following items to provide context for the Net Position document values:

Axis Name	Element Label	Element ID
Classification of Net Position Restricted	Capital Projects *or* Endowments *or* Natural Resources *or* Debt Service *or* Unemployment Programs *or* Other Classification of Net Position	`CapitalProjectsMember` `EndowmentsMember` `NaturalResourcesMember` `DebtServiceMember` `UnemploymentProgramsMember` `OtherClassifcaitonOfNetPosititi onsRestrictedMember`
Expendability*	Expendable *or* Nonexpendable	`ExpendableMember` `NonExpendableMember`

*The Expendability Axis is to be used with Net Position Restricted.

	Primary Government			
	Governmental Activities	Business-type Activities	Total	Component Units
Net Position				
Net Investment in Capital Assets [1]	18,575,368	7,773,009	23,502,948	3,270,801
Restricted for:				
Bond Covenants/Debt Service	270	—	270	108,276
Capital Projects	—	22,934	22,934	183,535
Guaranteed Revenue Debt Common Reserve Fund	53,776	—	53,776	—
Higher Education	—	232,531	232,531	28,122
Loan and Grant Programs	—	—	—	1,677,049
Lottery for Education	1,137,504	—	1,137,504	—
Motor Fuel Tax Funds	2,943,677	—	2,943,677	—
Other Benefits	—	267,286	267,286	—
Permanent Trusts:				
Nonexpendable	—	193,259	193,259	1,564,200
Expendable	—	564	564	792,126
Unemployment Compensation Benefits	—	1,820,348	1,820,348	—
Other Purposes	878,277	102,639	980,916	718,846
Unrestricted [1]	(5,210,957)	(4,484,701)	(6,850,229)	2,109,641
Total Net Position	$ 18,377,915	$ 5,927,869	$ 24,305,784	$ 10,452,596

Example 2: Tag the balance of Nonexpendable permanent trusts for the Component Units for the period ending June 30, 2017 ($1,564,200). (see above image)

It is necessary to select the following items to create a discrete XBRL tag of this item:

Identify *Financial Reporting Entity*:

Component Units [Member]	`ComponentUnitsMember`

Next choose a *Basis of Accounting:*

Accrual, Basis of Accounting [Member]	`AccrualBasisOfAccountingMember`

Next choose a type of Net Position:

Net Position Restricted	`NetPositionRestricted`

"Qualify" the net position with the following axes:

Classification of Net Position Restricted	Endowments	`EndowmentsMember`
Expendability*	Nonexpendable	`NonExpendableMember`

Note: Even though the line item is presented as "Permanent Trusts" it should be tagged with "Endowments" if the definition per the authoritative reference is correct. The XBRL label does not override the "on paper" presentation of the reporting line, if the reference is correct you may customize the label if you feel the need. The reference is the authority—not the label.

In summary, the tag for *Restricted net position* totalling $1,564,200 from above is

```
ComponentUnitsMember
AccrualBasisOfAccountingMember
NetPositionRestricted
EndowmentsMember
NonExpendableMember
```

Additionally, we must also add the tags created for the cover page, plus a Statement of Net Position Table tag (`StatementOfNetPositionTable`)

Element Label	`Element ID`	Data Point Value
Document Title	`DocumentTitle`	Comprehensive Annual Financial Report
Name of Government	`NameOfGovernment`	State of Georgia
Fiscal End Date	`FiscalEndDate`	June 30, 2017

State of Net Position [Table]	StatementOfNetPositionTable

It is necessary to identify the location of the item being tagged to distinguish it from other locations where it may appear in the report (footnotes, statistical section, etc.).

2500 - CAFR Statement of Activities, general revenues and 2600 - CAFR Statement of Activities, program revenues and expenses

The following 2 sections were created in the taxonomy with only key financial indicators created as line items. For demonstration purposes it is not expected that preparers will be able to tag all items appearing on these statements.
1. 2500 - CAFR Statement of Activities, general revenues
2. 2600 - CAFR Statement of Activities, program revenues and expenses

3100 - CAFR Balance Sheet and 3200 - CAFR Statement of Revenues, Expenditures, and Changes in fund balance

The following 2 sections were created in the taxonomy with only key financial indicators created as line items. For demonstration purposes, it is not expected that preparers will be able to tag all items appearing on these statements.

3. 3100 - CAFR Balance Sheet
4. 3200 - CAFR Statement of Revenues, Expenditures, and Changes in fund balance

For 3100 - CAFR Balance Sheet line items are only available for fund balance as follows:

Element Label	Element ID
Nonspendable Fund Balance	NonspendableFundBalance
Restricted Fund Balance	RestrictedFundBalance
Committed Fund Balance	CommittedFundBalance
Assigned Fund Balance	AssignedFundBalance
Unassigned Fund Balance	UnassignedFundBalance
Fund Balance	TotalFundBalance

Additionally, the following axes were created to provide context for the governmental fund statements:

Axis Name	Element Label	Element ID
Name of Fund	Name of Fund	NameOfFundDomain
Magnitude*	Nonmajor or Major	Nonmajor Major
Classification of Fund Type	General Fund or Capital Projects Fund or Special Revenue Fund or Debt Service Fund or Permanent Fund or Other Governmental Funds	GeneralFundMember CapitalProjectsFundMember SpecialRevenueFundMember DebtServiceFundMember PermanentFundMember OtherGovernmentalFundsMemeber

*Magnitude is to be used with *Classification of Fund Type*.

| | | General Obligation | | |
	General Fund	Bond Projects Fund	Nonmajor Funds	Total
Fund Balances:				
Nonspendable	82,570	—	15,289	97,859
Restricted	4,652,244	1,038,590	272,271	5,963,105
Committed	10,921	—	—	10,921
Assigned	418,815	40,607	33,493	492,915
Unassigned	2,211,442	—	—	2,211,442
Total Fund Balances	7,375,992	1,079,197	321,053	8,776,242

Example 3: Tag the balance of Assigned Fund Balance for the Nonmajor Funds for the period ending June 30, 2017 ($33,493) (see above image).

It is necessary to select the following items to create a discrete XBRL tag of this item:

Identify *Financial Reporting Entity*:

Primary Government Activities [Member]	PrimaryGovernmentActivitiesMember

Identify *Activity Type*:

Governmental Type Activity [Member]	GovernmentalTypeActivityMember

Next choose a *Basis of Accounting:*

Modified Accrual, Basis of Accounting [Member]	ModifiedAccrualBasisOfAccountingMember

Next choose a type of Fund Balance:

Assigned Fund Balance	AssignedFundBalance

"Qualify" the net position with the following axes:

Name of Fund	Name of Fund	NameOfFundDomain
Magnitude*	Nonmajor	Nonmajor
Classification of Fund Type	Other Governmental Funds	OtherGovernmentalFundsMember

In summary, the tag for *Assigned Fund Balance* totalling $33,493 from above is
PrimaryGovernmentActivitiesMember

```
GovernmentalTypeActivityMember
ModifiedAccrualBasisOfAccountingMember
AssignedFundBalance
NameOfFundDomain
Nonmajor
OtherGovernmentalFundsMember
```

Additionally, we must also add the tags created for the cover page, plus a Balance Sheet, Governmental Funds table tag (`BalanceSheetGovernmentalFundsTable`)

Element Label	`Element ID`	Data Point Value
Document Title	`DocumentTitle`	Comprehensive Annual Financial Report
Name of Government	`NameOfGovernment`	State of Georgia
Fiscal End Date	`FiscalEndDate`	June 30, 2017

State of Net Position [Table]	BalanceSheetGovernmentalFundsTable

It is necessary to identify the location of the item being tagged to distinguish it from other locations where it may appear in the report (footnotes, statistical section, etc.).

2.5 Other Preparation Advice

2.5.1 Identifying the source and description of a CAFR Taxonomy element

GARS references have been added as a tool to identify references and descriptions for all items for which the Working Group found them.

2.5.2 Accessing tagged information

XBRL and Inline XBRL allow users of CAFR financial statements to access tagged information.

2.5.3 Examples illustrating the use of the CAFR Taxonomy

The Working Group has tagged CAFRs from various jurisdictions using the CAFR Taxonomy. The resulting XBRL and iXBRL files are published on the Working Group's website (https://xbrl.us/home/government/state-and-local-government/).

2.5.4 CAFR sections included in this demonstration taxonomy

Select information from the

a.   Cover
b.   Letter of Transmittal
c.   Audit Opinion Letter

d. Statements
   i. Statement of Net Position
   ii. Statement of Activities
   iii. Balance Sheet
   iv. Statement of revenues, expenditures, and changes in fund balance

By definition, items d (i) and d (ii) above are *Government-wide* statements and reported using the full accrual basis of accounting. Items d (iii) and d (iv) are *Governmental fund* statements and reported using a modified accrual basis of accounting. For purposes of this demonstration taxonomy, it is assumed that the tagged report is a full CAFR (versus a Basic Financial Statement).

2.5.6 When the available members do not fit your reporting

XBRL and iXBRL allow for extensions to be created in cases where available line items and axes do not "fit" the presentation or reporting of the information. Use of extensions should be minimized as they make it more difficult to compare information across jurisdictions or between reporting years.

Given the limitations of this Demonstration Taxonomy, we anticipate that extensions will be required for most tagging projects. Although the working group's policy is to deter the use of extensions, this will only be possible once a more complete, production-level CAFR taxonomy is available. To the extent possible, we encourage preparers to limit extensions to adding members to an existing Axis.

2.5.7 Other Element Attributes

Period Attributes

Element Label	Period Attribute
Disposals, Capital Assets	duration
Capital Assets	instant

Period attributes can be either Duration or Instant. Items on the balance sheet are an "instant" attribute; income statement items are "duration." XBRL production software should handle this.

Balance Attributes

The balance attribute of an element indicates whether the item is normally a debit or credit, as shown below.

	Statement of Net Position	Statement of Activities	Statement of Cash Flows
Debit Balance Attribute	Increase in assets	Expense	Cash Inflows
Credit Balance Attribute	Increase in Liabilities/Net Position	Income	Cash Outflows

In a human-readable report (e.g. a PDF, Word, or Excel file) it might be preferable to bracket expenses or liabilities to remind readers how a value tagged with this element relates to a computed total, which itself is tagged with an element with a specified balance type. In XBRL each line item is assigned a default balance attribute ("debit" or "credit") which operates in the computation of Net Position, therefore eliminating the need to apply brackets or a "minus" sign to a number that is perceived as negative.

Negated labels—presentation

When preparing a CAFR in XBRL, a preparer may prefer for a debit balance to appear as a deduction to arrive at a computed value. Expense has a natural balance of debit, but may appear bracketed to allow readers to understand the deduction from revenue to arrive at Net Position as follows:

XBRL file (using standard labels)		Human-readable report (using negated labels):	
Revenue	1,000	Revenue	1,000
Expense	200	Expense	(200)
Net Position	800	Net Position	800

In the above table, the XBRL file on the left recognizes that the reported fact "Expense" has a debit balance attribute and does not require a negative or bracketed value to compute the Net Position total correctly.

3.0 Future Considerations

The approach taken with the Demonstration Taxonomy is but one approach at this moment in time. There are many changes that may be considered with regard to a production quality CAFR taxonomy and even a future version of a demonstration taxonomy. The most significant potential change is in the architecture, and that's where this section begins.

3.1 Taxonomy Architecture

XBRL represents a syntactical standard. What we express in the standard reflects a particular model for representing government accounting standards and the disclosure components of a CAFR. There are many choices we could have made with regard to this model. As we noted earlier in this Guide, we did not attempt to create a perfect model. Instead, we focused on granularity and flexibility in support of an operational proof of disclosure modernization for state and local government reporting.

In the disclosure modernization community there are a number of proposals for how to model financial reports. We could have aligned our model as closely as possible with one that already exists. Going forward, as we consider long-term needs for a production-quality taxonomy for state and local government reporting, we would want to take into account the model or models that are used for grant reporting in the US (especially models that will arise as the result of pending federal legislation for grant reporting and single audits); proposed models for normalizing corporate reporting in the United States; and models for international financial reporting standards and other government reporting standards. Let us just say that with the demonstration taxonomy there is still much more work to be done.

3.2 Data Quality Validation

An important aspect of a taxonomy is creating the opportunity for automated verification of data quality. This taxonomy could include more calculation assertions and XBRL formulas that could validate some aspects of data quality. Though it would have been useful to include these validations in our demonstration taxonomy, time did not allow us to include this step. We expect that a subsequent version of the demonstration taxonomy, and certainly a production-quality taxonomy, will incorporate into its design the capture of data that allows for automated verification of data quality. In the future, automated data validation will provide critical benefits for both filers and data consumers.

3.3 Process for Inclusion of Elements

As we noted above, we included a minimal number of elements based on the small number of subject matter experts contributing to this project and our limited goals for the Demonstration Taxonomy. We anticipate a more rigorous process for a production-quality taxonomy.

Ideally, identifying and defining elements would be based on authoritative standards as to the identification and definition of elements. Best practices may also identify needs for coverage, though it won't be a union of what the approximately 30,000 CAFRs report; that would be unwieldy and undermine achieving the goals of improving report consistency and quality, and facilitating automation for report generation and data consumption as is happening in corporate reporting. Therefore, we believe a taxonomy should first start with the authoritative standards, and then incorporate best practices that are prevalent and widely used and which satisfy a review process yet to be determined.

3.4 Entity Identifiers

There is currently no national standard for uniquely identifying a state, local government, special district, or other governmental entity. On the corporate side there are CIK numbers. There is also a strong effort for a global legal entity identifier for all legal entities. A future version of the Demonstration Taxonomy may incorporate element(s) from the LEI taxonomy (see https://taxonomies.xbrl.org/taxonomy/14)

In an XBRL filing the specification of the reporting entity is comprised of two value: a value for the identifier scheme, and the value for the identifier. For corporate reporting in the US the scheme is specified by a URL: `http://www.sec.gov/CIK`. The value is the 10-digit CIK number. For the Demonstration Taxonomy, we are use the scheme "`http://harvester.census.gov/GID`" and the value is the GID for the reporting governmental entity. With approximately 90,000 local governments, and no other consistent standard, this seems like the best choice even if these are not provided for the 50 states and eight territories. For those, please refer to the table below.

The Census list I provided only included local governments. Here is a list of IDs I would recommend for state governments:

AL State of Alabama	01000000000000	NM State of New Mexico	32000000000000
AK State of Alaska	02000000000000	NY State of New York	33000000000000
AZ State of Arizona	03000000000000	NC State of North Carolina	34000000000000
AR State of Arkansas	04000000000000	ND State of North Dakota	35000000000000
CA State of California	05000000000000	OH State of Ohio	36000000000000
CO State of Colorado	06000000000000	OK State of Oklahoma	37000000000000
CT State of Connecticut	07000000000000	OR State of Oregon	38000000000000
DE State of Delaware	08000000000000	PA Commonwealth of Pennsylvania	39000000000000
DC District of Columbia	09000000000000	RI State of Rhode Island	40000000000000
FL State of Florida	10000000000000	SC State of South Carolina	41000000000000

GA State of Georgia	11000000000000	SD State of South Dakota	42000000000000
HI State of Hawaii	12000000000000	TN State of Tennessee	43000000000000
ID State of Idaho	13000000000000	TX State of Texas	44000000000000
IL State of Illinois	14000000000000	UT State of Utah	45000000000000
IN State of Indiana	15000000000000	VT State of Vermont	46000000000000
IA State of Iowa	16000000000000	VA State of Virginia	47000000000000
KS State of Kansas	17000000000000	WA State of Washington	48000000000000
KY State of Kentucky	18000000000000	WV State of West Virginia	49000000000000
LA State of Louisiana	19000000000000	WI State of Wisconsin	50000000000000
ME State of Maine	20000000000000	WY State of Wyoming	51000000000000
MD State of Maryland	21000000000000	AS American Samoa	60000000000000
MA State of Massachusetts	22000000000000	FM Federated States of Micronesia	64000000000000
MI State of Michigan	23000000000000	GU Guam	66000000000000
MN State of Minnesota	24000000000000	MH Republic Of The Marshall Islands	68000000000000
MS State of Mississippi	25000000000000	MP Northern Mariana Islands	69000000000000
MO State of Missouri	26000000000000	PW Palau	70000000000000
MT State of Montana	27000000000000	PR Commonwealth of Puerto Rico	72000000000000
NE State of Nebraska	28000000000000	VI Virgin Islands	78000000000000
NV State of Nevada	29000000000000		
NH State of New Hampshire	30000000000000		
NJ State of New Jersey	31000000000000		

3.5 Specifying the State

The demonstration taxonomy has a free-form entry for the state. A future version of the demonstration taxonomy could use the extensible enumerations feature of XBRL to improve data quality by limiting the choice of states to a fixed set of values e.g. two letter state codes. The specification for extensible enumerations is available here: http://www.xbrl.org/Specification/ext-enumeration/REC-2014-10-29/ext-enumeration-REC-2014-10-29.html

3.6 Magnitude

The demonstration taxonomy relies on the professional expertise of the preparer to qualify the magnitude of funds. Future iterations of the taxonomy should consider incorporating validation

checks to ensure magnitude requirements (i.e., ratio of individual fund balances as a percent to all funds) are adhered to when classifying funds as either major or nonmajor.

There is also discussion about whether a magnitude validation check should be included in the taxonomy because it reflects a disclosure checklist step rather than a disclosed fact.

3.7 Long Term Maintenance

Sustainability of the production taxonomy: in order to maintain the taxonomy, a designated authoritative body or professional organization must be dedicated to monitoring requests; reconciling discrepancies; updating the taxonomy, documentation and related resources; notifying the public of the changes, etc.

3.8 Use of Dimensions

XBRL dimensions provide a powerful mechanism to represent a fact from multiple perspectives. A special type of element ending in "Axis" indicates its use as a dimension. A dimension allows the taxonomy designer to specify how line-item elements may be disaggregated for a point of view represented by the dimension. We refer to one of dimensions as a "qualifier set" because the dimension represents a set of choices that qualify facts—i.e., distinguish one fact from another for a semantically significant reason.

The Demonstration Taxonomy, for example, uses dimensions to represent the basis of accounting for a fact. Incorporating the basis of accounting into each line item creates difficulties in modeling, tagging, and data consumption. By representing this qualification as a dimension we provide a granularity that simplifies tagging, improves flexibility, and enhances the details by which a data consumer can query for data.

Dimensions may imply that a total can be calculated across the members. This would be true for the dimension "Name of Program or Function [Axis]." However, this is not true for all dimensions. For example, it is obviously not true that one should total across the "Basis of Account [Axis]."

But "with great power comes great responsibility"—i.e., the responsibility to use dimensions in a responsible and semantically consistent way. A critical question for the taxonomy designer is whether or not a qualifier's set of choices should be represented by unique line items or by a dimension. Not without some controversy, we applied the following criteria:
1. Is there a set of modifiers (each of which is identified as a "Member" of the qualifier set)?
2. Are these modifiers applicable to more than a few line items and do they retain the same meaning when applied to each and every applicable line item?
3. Will a data consumer want to call out data by a member of a qualifier set?
4. Is there an inexhaustible list of possible members?

If criteria 1 through 4 are satisfied, then we should represent the modifier set as a dimension. Criteria 4 is a bonus as it just makes it obvious that line items will not suffice (e.g., name of a fund).

There's an additional consideration about how to group these elements into tables. For example, it is important to create a table to show whether some of these modifiers are prohibited from being combined with some line items.

The use of dimensions remains an open issue.