

OFFICE OF THE BUDGET, COMPTROLLER OPERATIONS

Use of Variance Analysis in CAFR Template Preparation

Overview

Attached is an explanation of the use of Variance Analysis for all fund types and General Fund business areas, specific percentage and dollar thresholds, and a sample comparative balance sheet. This guidance is to assist the preparer in using the Balance Sheet Current & Prior for analyzing variances in balance sheet accounts, revenues and expenditures/expenses from the 2003 FY, period 16 to the 2004 FY, period 16. Period 16 is utilized to pick-up all prior year adjustments, including auditor adjustments both GAAP and Single Audit.

When preparers have completed the Balance Sheet Current & Prior for the 2004 FY, period 16 (full accrual only), it should be sent via e-mail to:

Lauren Dungan	ldungan@state.pa.us
Mary Michaels	Mary_Michaels@auditorgen.state.pa.us
Allison Morgan	Allison_Morgan@auditorgen.state.pa.us

The files sent via e-mail should be named using the following naming convention:

General Fund Type Templates - Use the fund type number and business area.
Example 001-10.xls

All Other Fund Type Templates - Use the fund type number.
Example 117.xls

Note: Files for major and significant fund types and business areas are due on August 15, 2005. Files for non-major fund types and business areas are due on September 15, 2005.

Background

Variance analysis serves a useful role in detecting potential errors in financial statement information through a high level review and comparison of financial information. Analytics can be accomplished through the application of ratios, calculation of percentages, **comparison of balances between periods**, development and review of trend data, or other comparative or statistical analysis.

Variance analysis is based on the premise that, given a consistent environment, the financial information should remain consistent from period to period. Thus, when balance sheet amounts or revenue or expense amounts change from period to period, the analysis is intended to determine why such changes occur. Normally, very few amounts remain constant from period to period; however, it would be inefficient to review and support/explain all of the variances that occur each year. Thus the need for some guidance on how to calculate variances and what variances to review.

Use of Variance Analysis in CAFR Template Preparation

Calculation of Variances

The variances to be calculated are the change in each balance sheet (asset and liability) account and revenue and expenditure account both in dollar amounts and percentages from one period to the next. Equity accounts need not be analyzed. For General Fund/Business Area Templates, the analysis should be limited to receivables, payables, revenues and expenditures.

To view an example of the Balance Sheet Current & Prior account-by-account variances that used period 14 data of the 2003 FY, see \\Obmontour\Public_Info\BFM GAAP\2005 GAAP CO Offices file name "analysis variance example. SAP will calculate both the dollar and percentage variances for each account. The template preparer must then aggregate variances by major account categories. These variances should be reviewed at the aggregate level, by major account category, i.e., by all salaries and wages, by all employee taxes, all employee benefits, all utilities, all lease expenses, all maintenance and repairs, etc. Every effort should be made to minimize this task by only aggregating amounts or percentages that appear to aggregate to a material variance. Do not analyze revenues and expenditures by individual G/L. See the Attachment for an example of how variances are summarized.

Once the aggregate variances are calculated, the preparer must then assess which variances are material and, for those material variances, determine the reason(s) for the variance.

Determination of Material Variances

With respect to CAFR production, the auditor's approach to analytical review is based on opinion unit and major programs. A review of the auditor's report shows the opinion units as governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund and the aggregate remaining fund information. The Commonwealth's major funds are the General Fund, Motor License Fund, Tobacco Settlement Fund, Unemployment Compensation Fund, State Worker's Insurance Fund, State Lottery Fund and Tuition Payment Fund.

Material variance explanations must be provided if both of two criteria are met, as follows:

For Major Fund Opinion Units (other than the General Fund)

The following summarizes the values for these six major funds:

FUND		ASSETS	LIABILITIES	FND BAL	REVENUES	EXPEND.
MOTOR LICENSE	FUND #10,07,123	1,827,548	747,931	1,079,617	4,108,799	3,922,315
UNEMPLOYMENT COMP	FUNDS 021/63/64	1,410,670	108,876	1,301,794	2,201,485	2,563,318
STATE LOTTERY	FUND #002	495,654	337,228	158,426	2,437,700	2,421,646
TOBACCO SETTLEMENT	FUND #71	1,275,545	382,527	893,018	571,680	497,271
ST WORKERS INSURANCE	FUND #82	2,224,222	2,017,556	206,666	343,721	435,429
TUITION PAYMENT	FUND #143	1,022,705	1,070,554	(47,849)	298,240	293,737

Use of Variance Analysis in CAFR Template Preparation

Each of these major funds represents an opinion unit. Therefore, thresholds should be established for each fund and for each major category as follows. The percentage difference is the same as for 2004. The proposed dollar value threshold is based on ½ of 1% of the total 2004 Revenue or Expenditure Value, whichever is lesser, and is then rounded.

FUND	
FOR ALL FUNDS ->	% difference of +/- 10% and
MOTOR LICENSE	a \$ variance >\$20M
UNEMPLOYMENT COMP	a \$ variance >\$11M
STATE LOTTERY	a \$ variance >\$12M
TOBACCO SETTLEMENT	a \$ variance >\$2.5M
ST WORKERS INSURANCE	a \$ variance >\$1.7M
TUITION PAYMENT	a \$ variance >\$1.4M

For the General Fund Opinion Unit Business Areas

The General Fund is our largest fund with audited June 30, 2004 modified accrual basis numbers as follows:

FUND		ASSETS	LIABILITIES	FND BAL	REVENUES	EXPEND.
GENERAL	FUND #01	10,463,826	7,457,312	3,006,514	38,814,412	38,165,611

The percentage difference is the same as for 2004. Using the same dollar value logic of ½ of 1% of the total 2004 Revenue or Expenditure Value, whichever is lesser and then rounded, as applied to the other major funds, the thresholds for each General Fund Business Area (GFBA) would be as follows:

FOR ALL GFBA's ->	% difference of +/- 25% and
FOR EACH GFBA	a \$ variance >\$100M

For the Aggregate Remaining Funds Opinion Unit

The Aggregate Remaining Funds (ARF's) Opinion Unit represents the following dollar amounts and percents of the Commonwealth's 6/30/04 modified accrual basis financial statements.

FUND	ASSETS	LIABILITIES	FND BAL	REVENUES	EXPEND.
ARF's	91,095,949	13,471,695	77,624,254	22,435,000	12,318,024
Total All Funds	109,816,119	25,693,679	84,222,440	71,211,037	60,617,351
ARF's as % of All Funds	83%	52%	92%	32%	20%

Of the ARF values, a majority is represented by component units such as PSERS, SERS, PA Property and Casualty, and PA Life and Health. These values are shown below as a % of total ARF's.

Use of Variance Analysis in CAFR Template Preparation

Total ARF's	91,095,949	13,471,695	77,624,254	22,435,000	12,318,024
Total Audited CU's	81,722,224	8,649,176	73,073,048	15,326,802	5,621,231
Audit CU's as % of ARF's	90%	64%	94%	68%	46%

The percentage difference is the same as for 2004. Using the same dollar value logic as applied to the other major funds, the thresholds for each ARF would be as follows:

FOR ALL ARF's ->	% difference of +/- 50% and
FOR EACH gfa	a \$ variance >\$60M

The preparer should explain any aggregate variance that meets or exceeds these two thresholds, i.e., that is greater than or equal to the percentage and greater than or equal to the dollar amount.

Research and Explanation of Major Variances

Once major variances are identified, the preparer must then determine the reason for each major variance. This effort requires knowledge of the program activities and factors affecting those activities such as historic trends, one-time events, economic factors, recent legislation, program changes, revenue enhancements, costs or savings resulting from program changes, or changes in the costs of goods or services needed to operate the program. The template preparer must have a familiarity with the program's operations sufficient to explain each major variance.

Where such knowledge is lacking, the preparer must research the cause for changes. Research efforts may include:

- Inquiries of program operating personnel or fiscal officers.
- Review of program communications.
- Review of newly implemented legislation or regulations
- Consideration of economic factors that may impact the program such as increases in jobs or unemployment or increases in gasoline prices
- A search of factors impacting the program such as higher pharmaceutical costs, a major catastrophe, higher tax rates or higher user fees, new program initiatives, legal matters that may impact program operations, expansion of program services such as new prisons or the award of additional or larger grants, etc.

Once the preparer has performed this research and has an understanding of why a particular variance occurred, the preparer must then document that variance. Such documentation generally consists of a brief, concise narrative that identifies the difference and explains why it occurred. Examples of acceptable explanations are:

- The \$46M increase in revenues from \$567M to \$613M reflects higher user fees enacted to cover the costs of the Bureau of Licensing.

Use of Variance Analysis in CAFR Template Preparation

- The 36% increase in lease costs from \$145M to \$197M resulted from an increase in per square foot lease cost from \$9.50 to \$12.00 as well as a doubling of leased space to accommodate program expansion enabled by the additional funding.
- The 54% decrease in personnel costs reflects a reduction in personnel as a result of the phase out of federal funding for this program. Federal funding decreased from \$168M in FY0203 to \$77M in FY0304.
- The \$13M increase in maintenance and repairs reflects a major renovation of the program's headquarters facilities. (Note: The preparer should further analyze a cost such as this to determine if it is being capitalized as part of the Commonwealth's capital assets. Adjustments may be necessary to properly reflect these amounts.)

Unacceptable explanations of variances include:

- The 83% increase in personnel costs reflects a \$320M increase in these costs from \$385M in FY0203 to \$705M in FY0304. (Fails to provide a reason for why the increase occurred, i.e., what were the operational or environmental factors that caused the increased spending.)
- The \$3.7M increase in grants from \$7.2M to \$10.9M reflects increased spending. (Fails to provide a reason for why the increase occurred, i.e., what were the operational or environmental factors that caused the increased spending.)
- Program revenues were up because more people vacationed in Pennsylvania this year. (Needs more specificity. How did more vacationers lead to higher program revenues? Were more taxes collected? More user fees? Are any statistics available to support the increased revenues?)
- These costs reflect the salaries and benefits for the field offices. (This does nothing to explain the amount or percent of the increase nor does it explain the reason for the increase.)
- The \$34M increase in rental costs reflects a misclassification of repair costs. (While this is a valid reason for the increase, it is a reason that requires corrective action on the part of the preparer, i.e., an adjusting entry to correct the misclassification. The explanation should reference the SAP document where the correction is made.)

In addition to the written explanations as presented on the face of the report, the template preparer should gather and retain, or have ready access to, any documents such as budget documents, copies of acts or federal awards or other papers or files that support the written explanation. The auditors may review this supporting documentation when they do their analytical procedures.

Summary

The use of analytical procedures and the research and documentation of reasons for major variances assists the template preparer in ensuring the accuracy of the information presented in the CAFR template and provides the auditors with comfort that the financial information is reasonable and fairly reflects program operations. This data assists in providing the auditors with the assurances necessary to enable an unqualified opinion on the Commonwealth's Comprehensive Annual Financial Report.