



**NOAA** NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION  
UNITED STATES DEPARTMENT OF COMMERCE

# Financial Reporting Fluctuation (“Flux”) Analysis

NOAA’s Finance Office

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# What is required?

NOAA Line/Staff Offices (L/SOs) need to provide explanations of changes in activity that resulted in material changes to financial statements and footnotes, including:

- Program/operating expenses
- Outlays
- Obligations (direct vs. reimbursable)
- Undelivered orders
- Reimbursable activity
- Stewardship data



# What is material?

NOAA is required to explain fluctuations in excess of 10% or \$12M (per DOC/OFM).

- **NOTE:** DOC/OFM reserves the right to request explanations for fluctuations below the threshold (e.g. NOAA may make up the majority of the Department-wide flux).



# Where to start?

Most fluctuation analysis begins with the Standard General Ledger (SGL) account, the Financial Statement line item, and/or the footnotes.



# Financial Statement/Footnote Fluctuations and SGL Accounting

- Explain material changes in **program/operating expenses**
  - USSGL Account 6100
  - Statement of Net Cost
  
- Explain material changes in **outlays**
  - USSGL Accounts included:
    - 4802 (E-B) and 4882 (E)
    - 4902 (E) and 4982 (E)
  - Statement of Budgetary Resources (SBR) and SF 133 Report on Budget Execution and Budgetary Resources



# Fluctuations & SGL Accounting (cont.)

- Explain material changes in **obligations (Direct vs. Reimbursable)**
  - USSGL Accounts included:
    - 4801, 4881, 4831, 4802, 4882, 4832 (All are E-B) \*No PY downwards
    - 4901, 4981, 4931, 4902, 4982 (All are E-B) \*No PY downwards
  - Statement of Budgetary Resources (SBR) and SF 133 Report on Budget Execution and Budgetary Resources
- Explain material changes in **undelivered orders**
  - USSGL Accounts included:
    - 4801, 4881, 4831, 4871, 4802, 4882, 4832, 4872 (All are E-B)
  - Statement of Budgetary Resources (SBR) and SF 133 Report on Budget Execution and Budgetary Resources



# What Can Cause Fluctuations?

- Examples of events that can cause fluctuations:
  - Changes in the appropriation (impact on obligation, expense, and/or outlay flux)
  - Increased capitalized property (impact on 6100 flux)
  - Increase of items accrued in one year and outlayed in the next (impact on outlay flux)
  - Increase in current year UDOs expended in following year (impact on 6100 and/or outlay flux)



# Fluctuation Explanations

- Explanations should EXPLAIN WHY the variance exists and not simply identify WHAT components make up the difference.
- Explanations should make sense to individuals outside of NOAA and DOC. Do not use acronyms.
- Please note that all three of the following elements must be addressed when writing each line item flux explanation:
  - 1) What caused the change;
  - 2) Where the change occurred; and
  - 3) When the change occurred.





## Fluctuation Explanations (cont.)

- A breakdown of the “total amount change” must be explained. For example, if the total amount change is \$5 million, a breakdown should be explained as follows:
  - An increase of \$3 million was due to...
  - A decrease of \$2 million was due to...
  - An increase of \$2 million is as a result of...
  - An increase of \$1.5 million was due to...
  - An increase of \$.5 million was due to...
  - Total amount change of \$5 million



# Example – Outlay Fluctuation

Outlay fluctuation on the SBR:

For FYx7 Qtr 2, NOAA had a decrease of (\$287,198) million in outlays, when compared to FYx6 Qtr 2.



## Example – Outlay (cont.)

- Explanation that “needs work” (in Millions):
  - There was a decrease of \$8,000 that can be attributed to the fact that NOAA received a decrease in appropriations in FYx7, when compared to FYx6. As a result, there was a decrease in outlays.
- Good Explanation (in Millions):
  - There was a decrease of \$8,000 for the Suitland Facility. The decrease is due to the completion of the NOAA Satellite Operations Facility (NSOF) construction contract in the 2nd Qtr of FY 2xx6 which resulted in GSA billing the Reimbursable Work Authorizations funded by NOAA, for costs disbursed. Further, the activities on contracts established ... Consequently, there were increases in the disbursements against these contracts during the 2nd Qtr of FY 2xx6.

# Example – Required Supplementary Information Fluctuation



The DOC/OFM requested that NOAA explain a change in a performance goal for Research and Development Investments.



# Example – Required Supplementary Information (cont.)

- Explanation that “needs work”:
  - \$29.3M in costs associated previously with weather and water research during FY x6 have now been transferred into weather and water development costs during FY x7.
- Good explanation:
  - The increase in costs between FY x6 and FY x7 of \$29.3M in weather and water is attributed to an increase of \$40M for the National Weather Services’ Automated Surface Observing System (ASOS). Funds were obligated during the 4<sup>th</sup> quarter of FY x6 with minimal costs being incurred during that timeframe. A decrease in costs of \$10M was as result of the completion of the National Weather Services’ Advanced Weather Interactive Processing System (AWIPS) during the 2<sup>nd</sup> quarter of FY x7.



# Additional Resources

- OMB Circular A-136 Financial Reporting Requirements:  
[http://www.whitehouse.gov/omb/circulars/a136/a136\\_revised\\_2006.pdf](http://www.whitehouse.gov/omb/circulars/a136/a136_revised_2006.pdf)
- DOC Performance and Accountability Report (PAR)  
<http://www.osec.doc.gov/bmi/budget/FY07PAR.htm>
- NOAA System Closing Dates  
<http://www.corporateservices.noaa.gov/%7Ecbs/glinfo.htm>
- USSGL  
<http://fms.treas.gov/ussgl/index.html>
- Financial Statements Branch  
Mark P. Miller, Branch Chief, 301-444-2704, [Mark.P.Miller@noaa.gov](mailto:Mark.P.Miller@noaa.gov)



# Supplemental Information

- SGL
- Budgetary vs. Proprietary Accounting
- Obligations vs. Expenses
- Fluctuation Analyses:
  - Fluctuation Analysis for SGL Account 6100 – Program and Operating Expenses
  - Fluctuation Analysis for Outlays
  - Fluctuation Analysis for Obligations
  - Fluctuation Analysis for Undelivered Orders

# United States Standard General Ledger (USSGL)



- Federal Financial Management Improvement Act of 1996 (FFMIA) – required to implement and maintain financial management systems that comply with the USSGL at the transaction level.
- Provides a uniform Chart of Accounts and technical guidance to be used in standardizing federal agency accounting.
  - The USSGL Supplement (released annually) is composed of five major sections:
    - Chart of Accounts
    - Account Descriptions
    - Accounting Transactions
    - USSGL Attributes
    - Report Crosswalks





# USSGL (cont.)

- Includes both Proprietary and Budgetary Accounts that are self-balancing (total debits = total credits).
  - TWO sets of books:
    - Proprietary – traditional accounting classifications (assets, liabilities, revenues and expenses)
    - Budgetary – accounts to track resources and execution of federal funds
- NOAA is required to use USSGL's standard report crosswalks for each financial statement line item.



# USSGL (cont.)

1010	Fund Balance with Treasury
11xx/12xx	Cash
13xx	Receivables
1410	Advances and Prepayments
15xx	Inventory; Seized, Forfeited and Foreclosed Property; Commodities: Stockpile Materials
16xx	Investments
17xx-18xx	General Property, Plant and Equipment (1720 CWIP)
19xx	Other Assets
21xx	Accrued Liabilities – Other
22xx	Accrued Liabilities – Payroll and Benefits
23xx-24xx	Unearned Revenue
25xx	Debt
26xx	Actuarial Liabilities
29xx	Other Liabilities
3xxx	Net Position



# USSGL (cont.)

4xxx	Budgetary
4450	Unapportioned Authority
4610	Allotments – Realized Resources
4700	Commitments
48XX	Undelivered Orders, includes upward and downward adjustments of prior year Undelivered Orders
49XX	Delivered Orders, includes upward and downward adjustments of prior year Delivered Orders



# USSGL (cont.)

## NON-CASH UDOs

- 4801 Undelivered Orders - Obligations, Unpaid
- 4831 Undelivered Orders - Obligations Transferred, Unpaid
- 4871 Downward Adjustments of Prior-Year Unpaid Undelivered Orders - Obligations, Recoveries
- 4881 Upward Adjustments of Prior-Year Undelivered Orders - Obligations, Unpaid

## CASH UDOs

- 4802 Undelivered Orders - Obligations, Prepaid/Advanced
- 4832 Undelivered Orders - Obligations Transferred, Prepaid/Advanced
- 4872 Downward Adjustments of Prior-Year Prepaid/Advanced Undelivered Orders - Obligations, Refunds Collected
- 4882 Upward Adjustments of Prior-Year Undelivered Orders – Obligations, Prepaid/Advanced

## NON-CASH DOs

- 4901 Delivered Orders - Obligations, Unpaid
- 4931 Delivered Orders - Obligations Transferred, Unpaid
- 4971 Downward Adjustments of Prior-Year Unpaid Delivered Orders - Obligations, Recoveries
- 4981 Upward Adjustments of Prior-Year Delivered Orders - Obligations, Unpaid

## CASH DOs

- 4902 Delivered Orders - Obligations, Paid
- 4972 Downward Adjustments of Prior-Year Paid Delivered Orders - Obligations, refunds Collected
- 4982 Upward Adjustments of Prior-Year Delivered Orders - Obligations, Paid



# USSGL (cont.)

5xxx	Revenue & Other Financing Sources
6xxx	Expenses
6100	Operating Expenses/Program Costs
7xxx	Gains/Losses/Miscellaneous Items
8xxx	Memorandum Accounts



# The Difference Between Budgetary and Proprietary Accounting

- DOC's financial statements reflect both proprietary and budgetary accounting transactions.
- Under the proprietary accrual method of accounting, revenues are recognized when earned; expenses and property capitalizations are recognized when incurred, without regard to the receipt or payment of cash.
- The proprietary accrual basis of accounting provides a matching of costs to the production of goods and services.



# Budgetary and Proprietary Accounting (cont.)

- Budgetary accounting was designed to recognize the obligation of funds according to legal requirements, which, in many cases, is made prior to the occurrence of an proprietary accrual-based transaction.
- Budgetary accounting is essential for compliance with legal constraints and controls over the use of federal funds.



# The Difference Between Obligations and Expenses

## Budgetary Accounting

- + Change in Undelivered Orders (48XX)
- + Change in Unpaid Delivered Orders (Accruals) (49X1)
- + Change in Paid Delivered Orders (Disbursements) (49X2)
- = **\*\*CY Obligations\*\***

## Proprietary Accounting

- Change in Capitalized Property (17XX/18XX)
- + Change in Accruals (2XXX)
- + Disbursements (1010)
- = **\*\*CY Expenses\*\* (6XXX/7XXX)**

NOTE #1 – CY Obligations ties to SF 133, Line 8

NOTE #2 – Not all obligations are expenses. For example:  
Delivered Orders – not all expensed, some capitalized (capitalized property, loans, etc.)  
Undelivered Orders – not included in expenses; are included in CY obligations



# Fluctuation Analysis for SGL Account 6100 – Program and Operating Expenses



- USSGL account 6100 – *Program and Operating Expenses* fluctuation analysis (proprietary activities)
  - Does not compare to the Outlays, Obligations or Undelivered Orders fluctuation analyses (budgetary activities) because different USSGL accounts are used in each of these fluctuation analyses.
- The MARS query provides a comparison of current and prior year USSGL account 6100 balances broken out by object class, program codes and FCFY. L/SOs must use the query results provided by the 6100 Expense query for this fluctuation analysis.
  - Other queries used by L/SOs could include accounts with activity not part of the USSGL account 6100. Additionally, queries that contain or do not contain budgetary or proprietary accounts could also cause problems when compared to the 6100 Expense fluctuation analysis for multiple reasons.



# 6100 – Program and Operating Expenses (cont).

Brief summary of what the 6100 Flux should include/exclude:

- Includes current fiscal year (FY) change in 49X1 Unpaid Expenditures
- Includes current FY 49X2 Paid Expenditures
- Excludes current FY change in 17XX and 18XX capitalized property transactions, including 1720 CWIP transactions
- Excludes current FY interest expenses (63XX accounts) and employer benefit contributions (64XX)
- Excludes all undelivered orders (48XX accounts)



# Fluctuation Analysis for Outlays

- The Outlays fluctuation analysis is based on the outlays line item on the Statement of Budgetary Resources, which is populated by USSGL accounts 49X2 and 48X2 (budgetary cash paid activities)
  - Does not compare to the USSGL account 6100 fluctuation analysis (proprietary activities) or the Obligations fluctuation analysis (budgetary activities) requests because different USSGL accounts are used in each of these fluctuation analyses.
- A CBS query provides a comparison of current & prior year USSGL accounts 49X2 – Expended Obligations Paid and the change in USSGL accounts 48X2 – Paid Undelivered Orders broken out by object class, program codes & FCFY. LOs must use the query results provided by the Outlays query for this fluctuation analysis.
  - Other queries used by LOs could include accounts with activity not part of the Outlays financial statement line item. Additionally, queries that contain or do not contain budgetary or proprietary accounts could also cause problems when compared to the Outlay fluctuation analysis for multiple reasons.



## Outlays (cont.)

Brief summary of what the Outlays Flux would include/exclude:

- Includes current FY change in
  - 48X2 Paid Undelivered Orders; does not include downward PY recovery accounts
  - Includes current FY change in 17XX and 18XX capitalized property transactions (including 1720 CWIP transactions), paid transactions only
- Includes current FY 49X2 Paid Expenditures; does not include downward PY recovery accounts
- Includes current FY 6XXX expenses, paid transactions only
- Excludes current FY change in 49X1 Unpaid Expenditures
- Excludes 48X1 Unpaid Undelivered Orders & 49X1 Unpaid Expenditures



# Fluctuation Analysis for Obligations

- An Obligations fluctuation analysis is currently being developed based on the “obligations incurred” line item on the Statement of Budgetary Resources, which is populated by USSGL accounts 49XX and 48XX (budgetary activities)
  - Does not compare to the USSGL account 6100 fluctuation analysis (proprietary activities) or the Outlays fluctuation analysis (budgetary cash paid activities) requests because different USSGL accounts are used in each of these fluctuation analyses.
- A CBS query provides a comparison of current & prior year changes in USSGL accounts 49X2 – Expended Obligations Paid and the Change in 48X1 – Unpaid Undelivered Orders, 48X2 – Paid Undelivered Orders and 49X1 – Unpaid Expenditures broken out by object class, program codes & FCFY. LOs must use the query results provided by the Obligations query for this fluctuation analysis.
  - Other queries used by LOs could include accounts with activity not part of the Obligations financial statement line item. Additionally, queries that contain or do not contain budgetary or proprietary accounts could also cause problems when compared to the Obligations fluctuation analysis for multiple reasons.



# Fluctuation Analysis for Obligations

Brief summary of what the Obligations Flux would include/exclude:

- Includes current FY change in 48X1 Unpaid Undelivered Orders & 48X2 Paid Undelivered Orders
  - Does not include downward PY recovery accounts
- Includes current FY change in 49X1 Unpaid Expenditures & 49X2 Paid Expenditures
  - Does not include downward PY recovery accounts
- Includes current FY change in 17XX and 18XX capitalized property transactions, including 1720 CWIP transactions, except PY recovery amounts
- Includes current FY 6XXX expenses

# Fluctuation Analysis for Undelivered Orders



- An Undelivered Orders fluctuation analysis is currently being developed based on the Statement of Budgetary Resources, which is populated by USSGL accounts 48XX (budgetary undelivered activities)
  - Does not compare to the USSGL account 6100 fluctuation analysis (proprietary activities), the Outlays fluctuation analysis (budgetary cash paid activities) or the Obligations fluctuation analysis (budgetary expended and unexpended activities – cash paid and accrued) requests because different or only part USSGL accounts are used in each of these fluctuation analyses.
- A CBS query provides a comparison of current & prior year changes in USSGL accounts 48XX – Undelivered Orders balances broken out by object class, program codes & FCFY. LOs must use the query results provided by the Undelivered Orders query for this fluctuation analysis.
  - Other queries used by LOs could include accounts with activity not part of the Undelivered Orders financial statement line item. Additionally, queries that contain or do not contain budgetary or proprietary accounts could also cause problems when compared to the Undelivered Orders fluctuation analysis for multiple reasons.

# Fluctuation Analysis for Undelivered Orders



Brief summary of what the Undelivered Orders Flux would include/exclude:

- Includes current FY change in 48X1 Unpaid Undelivered Orders & 48X2 Paid Undelivered Orders
  - Includes downward PY recovery accounts
- Excludes current FY change in 49X1 Unpaid Expenditures & 49X2 Paid Expenditures
- Excludes current FY change in 17XX and 18XX capitalized property transactions, including 1720 CWIP transactions
- Excludes current FY 6XXX expenses