



# How to Calculate Quarterly Earnings & Apportionment

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Following are three examples of how the apportionment of quarterly earnings is computed, based on 6/30/13 quarter-ending portfolio information.

The first example simply equates the information to a mathematical formula used to compute the earning rate for the entire pool. The formula is a true yield annualized calculation, which is also adjusted to reflect leap year, when necessary.

The second example, using the information derived from the portfolio and verified by calculation, breaks the numbers down to a LAIF percentage participation. As of 6/30/13, the LAIF balance represented 32.28650334% of the total pool.

The third example carries the breakdown further to reflect the individual participation, earnings, and apportionment of a single account in the LAIF. The process of determining the weighted deposits, as well as, the final dollars credited is outlined and adjusted to reflect any appropriate charges.

## QUARTERLY EARNINGS & APPORTIONMENT (POOL)

D = Number of days in the quarter

E = Interest income  $\pm$  sales gain/loss

B = Average quarterly book total

R = Quarterly earnings rate

### Quarterly earnings calculation:

$$[E/D \times *365]/B = R \quad (*366 \text{ when a leap year})$$

For example purposes, figures for quarter ending 6/30/13 will be used throughout as follows:

$$D = 91$$

$$E = 41,229,808.90 + 26,069.42 = 41,255,878.32$$

$$B = 65,988,846,250.59$$

$$R = 0.250765$$

### or stated as a formula:

$$[41,255,878.32/91 \times 365] / 65,988,846,250.59 = 0.250765$$

*Actual Apportionment Rate is figured after charges have been subtracted. The subtraction of charges results in the 0.243573% apportionment rate reported 6/30/13 for LAIF.*

**QUARTERLY EARNINGS & APPORTIONMENT (LAIF)**

Book value x # of days in the quarter = Dollar days of pool

$$65,988,846,250.59 \times 91 = 6,004,985,008,803.60$$

6,004,985,008,803.60 dollar days = 100% of pool

LAIF is 32.28650334% of the pool = 1,938,799,685,363.81 dollar days

D = 1 (Since the book value has been converted to 1 dollar day)

E = 32.28650334% x 41,255,878.32 = 13,320,080.53 (Less charges)

B = 1,938,799,685,363.81 (1 Dollar day)

R = 0.250765 (Less charges)

or stated as a formula:

$$[E/D \times 365]/B = R$$

$$[13,320,080.53 \times 365]/1,938,799,685,363.81 = 0.250765 \text{ (Less charges)}$$

**QUARTERLY EARNINGS & APPORTIONMENT (LAIF/PARTICIPANT)**

**AGENCY: ABC Water District**

Beginning Balance: 500,000

	<u>Transaction Amount</u>	<u>Balance</u>
04/09/13	-5,000	495,000
04/29/13	+5,000	500,000
05/02/13	-10,000	490,000
06/03/13	+10,000	500,000
06/19/13	-20,000	480,000

Ending Balance: 480,000

04/01/13 - 04/09/13	8 Days x 500,000	=	4,000,000	Dollar day
04/09/13 - 04/29/13	20 Days x 495,000	=	9,900,000	Dollar day
04/29/13 - 05/02/13	3 Days x 500,000	=	1,500,000	Dollar day
05/02/13 - 06/03/13	32 Days x 490,000	=	15,680,000	Dollar day
06/03/13 - 06/19/13	16 Days x 500,000	=	8,000,000	Dollar day
06/19/13 - 06/30/13 inc.	<u>12 Days</u> x 480,000	=	<u>5,760,000</u>	Dollar day
	91 Days		44,840,000	Dollar day (Total)

44,840,000.00 Total dollar day  
x 0.00000667321954799 6/30/13 earnings ratio (on quarterly interest statement)  
 299.23 Apportioned earnings

OR

**QUARTERLY EARNINGS & APPORTIONMENT (LAIF/PARTICIPANT)**

D = 1

E = .0000231277116 x 13,320,080.53 = 308.063 (Less charges)  
(% of LAIF x LAIF earnings)

B = 44,840,000.00 (1 dollar day)

R = 0.25 (Less charges)

[E x 365]/B = R

[308.063 x 365]/44,840,000 = 0.250765 (Less charges)

**LAIF CHARGES**

Total charges for LAIF for the quarter were \$382,044.57

ABC Water District is .00231277% of LAIF

ABC Water District share of charges =  
.0000231277116 x 382,044.57 = 8.83

Apportionment will reflect this charge:

ABC Water District computed earnings:	308.06
Less share of charges:	<u>- 8.83</u>
Apportioned earnings:	299.23

Computed earning rate:	0.250765
Less share of charges:	\$ 8.83
Actual earning rate:	0.243573