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**Accounting Series**

# Accounting For Leave And Fringe Benefits In Revolving Funds

GAO

United States General Accounting Office

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## FEDERAL GOVERNMENT ACCOUNTING SERIES

This is the fifth in a series of pamphlets on Federal Government accounting.

### GENERAL INFORMATION

- No. 1 — Accounting Principles and Standards for Federal Agencies. 1978.
- No. 2. — Frequently Asked Questions About Accrual Accounting in the Federal Government. 1970.

### ILLUSTRATIVE ACCOUNTING PROCEDURES FOR FEDERAL AGENCIES

- No. 3. — Accounting for Accrued Expenditures. 1969.
- No. 4. — Guidelines for Accounting for Automatic Data Processing Costs. 1978.
- No. 5. — Accounting for Leave and Fringe Benefits in Revolving Funds. 1983.

# Accounting For Leave And Fringe Benefits In Revolving Funds

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## INTRODUCTION

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Title 2 of the General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies provides that when employees accrue rights to take leave with pay in the future, the Government incurs a current cost and a liability measured by the salary cost of time that may be taken on leave. This title also provides that adequate cost accounting is required when full recovery of cost from customers or users of services is a statutory requirement, when reimbursement for services performed is to be at cost, and when sales prices are primarily based on cost.

This pamphlet illustrates one of several acceptable methods of accounting for leave and fringe benefits of employees of a revolving fund activity. The method and accounting entries in this pamphlet are not mandatory, but you should follow the principles they illustrate. The illustrative procedures empha-

size that leave and fringe benefits costs must be recovered and also provide examples of acceptable means of recovery. This pamphlet is applicable to both public enterprise and intragovernmental revolving funds. It also applies to any trust revolving fund that accounts for leave and fringe benefits of its employees unless the trust revolving fund is required by law to account for its operation differently, for example, those subject to the Corporation Control Act. The cost concepts and accounting techniques explained in this pamphlet can be applied to appropriation financed and other activities requiring cost information for management purposes such as comparing costs, developing greater cost consciousness within an agency, and establishing and measuring productivity standards.

A Federal agency's revolving fund is one authorized by law to finance

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continuing operations. Revolving funds are intended to be self-sustaining with customers reimbursing the funds for all costs or a portion of costs incurred in providing goods and services. Revolving funds, therefore, must include in customers' bills the cost of estimated earned annual leave, other anticipated leave, and fringe benefits. This pamphlet provides guidance on one method of costing and billing for such items. Current practice differs from past practice in these respects:

1. Now, all annual leave of revolving fund employees is treated as funded, eliminating the requirement in Title 2 of our Policy and Procedures Manual that "Agencies shall separate funded from unfunded accrued annual leave liability in their revolving fund accounts." However, agencies may maintain memorandum accounts or records for the unfunded annual leave liability when groups of employees are

transferred to revolving fund activities without accompanying leave payments. These amounts can later be used to reduce the amount of leave liability payable to the Treasury when groups of employees are transferred from the funds. We will revise title 2 accordingly.

2. Now, no obligation for annual leave will be recorded as it is earned. Instead the obligation will be recorded when annual leave taken is included in salaries earned by the employee and when amounts become due and payable for terminal leave. Section 25.1A of Office of Management and Budget Circular No. A-34, which required obligating "funded annual leave in revolving funds" was revised accordingly.

You may address questions on the information in this booklet to the Financial Systems Group, Accounting and Financial Management Division, U.S. General Accounting Office, 441 G Street, NW., Washington, D.C. 20548.

*Charles A. Bowster*

Comptroller General  
of the United States

# ACCOUNTING FOR LEAVE IN REVOLVING FUNDS

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## Establishing Leave Liability

When employees are transferred to a newly established revolving fund activity or when groups of employees along with their functions are transferred under a reorganization from other Government organizations to a revolving fund, initial capitalization of the new fund and the assets transferred to an existing fund ordinarily will be sufficient to provide for full or partial funding of the annual leave liability assumed by the fund. In such instances, the liability for annual leave earned at the former organization but unused will be recorded in a liability account in one of the following ways depending on the amount of cash and other assets received.

*To record receipt of cash (or agreed-upon equivalent assets such as inventories or equipment) for the full funding of accrued leave of employees transferred from another activity, such liability could be recorded as follows:*

1

<i>Cash/other assets</i>	<i>\$ XXX</i>
<i>Accrued annual leave liability</i>	<i>\$ XXX</i>

When the transfer is between revolving fund activities and the value of the accrued annual leave is significant, payment in the form of cash or equivalent assets should be made to the receiving revolving fund for the accrued annual leave of the transferred employees.

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*To record receipt of cash (or agreed-upon equivalent assets) and the accrued leave liability when the assets received are less than the amount of the liability assumed, the entry should be:*

2

<i>Cash/other assets</i>	<i>\$ XXX</i>	
<i>Invested capital</i>	<i>\$ XXX</i>	
<i>Accrued annual leave liability</i>		<i>\$ XXX</i>

The following entry might also be applicable.

*To record accrued annual leave earned by employees transferred to a revolving fund activity without payment or other consideration for the accrued leave liability, the entry might be:<sup>1</sup>*

3

<i>Invested capital</i>	<i>\$ XXX</i>	
<i>Accrued annual leave liability</i>		<i>\$ XXX</i>

<sup>1</sup>In the event groups of employees but no functions are transferred to a revolving fund without payment, a nonrecurring loss on the amount of annual leave liability assumed should be recognized in the fund's accounts and operating statement

This usually would be the case when employees are received from appropriation-financed activities.

*The transferring fund could enter payment to the gaining activity for leave of groups of employees as follows:*

4

<i>Accrued annual leave liability</i>	<i>\$ XXX</i>	
<i>Cash/other assets</i>		<i>\$ XXX</i>

If cash or acceptable assets are not available, an account payable should be established until payment is made.

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When a revolving fund activity loses a group of employees through reorganization without having to pay for accrued annual leave (as when employees are transferred to an appropriation-financed activity), cash equal to the accrued leave value will be transferred to the Treasury as miscellaneous receipts. If, however, cash or equivalent assets were not received by the revolving fund when groups of employees previously were transferred in, the transfer of funds to miscellaneous receipts may be reduced by the amount of leave liability originally assumed by the fund.

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## Transfers Of Individual Employees

The leave liability account need not be adjusted and funds need not be transferred for individual transfers of employees to and from revolving fund activities. The leave adjustments for these employees will automatically be included in the accrued annual leave liability adjustments at fiscal yearend.

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## Recording Transactions During Operation

At the beginning of a month, if a payroll obligation is recorded, it must include the estimated amount of salaries to be earned whether the employees are in a work or leave status.

*To record such obligation including leave estimated to be taken, the entry might be:*

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5

<i>Unobligated allotments</i>	\$ XXX	
<i>Unliquidated obligations</i>		\$ XXX

Title 2 of the GAO Policy and Procedures Manual for Guidance of Federal Agencies provides that when employees earn annual leave, the Government incurs a current cost and a liability. Such cost constitutes an element of personnel compensation earned while in a duty status regardless of when the leave is actually used. The cost and liability should be recognized and recorded in the accounts at least monthly.

Unlike annual leave, sick leave as well as other types of leave are not recorded as a liability as they are earned. Instead the cost and liability for sick leave and the other types of leave should be recognized and recorded at least monthly as an element of personnel costs on the basis of estimated leave to be taken. Such liability should be credited to a clearing account which is closed out at fiscal yearend.

The method for determining the cost of leave is explained later in this pamphlet. (See pp. 9-14.) The entries for recording leave may be as follows.

*To record the estimated value of annual leave earned during the month the entry might be:*

6

<i>Operating expense</i>	\$ XXX	
<i>Accrued annual leave liability</i>		\$ XXX

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*To record the value of sick and other types of leave estimated to be taken during the month the entry might be:*

7

<i>Operating expense</i>	<i>\$ XXX</i>
<i>Provision for sick and other types of leave (clearing account)</i>	<i>\$ XXX</i>

When annual, sick, and other types of leave are taken, the leave liability account or clearing account should be charged.

*To record annual, sick, or other types of leave actually taken the entry might be:*

8

<i>Accrued annual leave liability</i>	<i>\$ XXX</i>
<i>Provision for sick and other types of leave (clearing account)</i>	<i>\$ XXX</i>
<i>Salaries payable/cash</i>	<i>\$ XXX</i>

*Also, record reduction of the allotment by the amount of the accrued expenditure:*

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9

<i>Unobligated allotments</i>	<i>\$ XXX</i>	
<i>(for payroll including</i>		
<i>leave taken)</i>		
<i>Expended appropria-</i>		
<i>tions</i>		<i>\$ XXX</i>

*And, if a payroll obligation was established, record the liquidation of the applicable portion of the amount obligated:*

10

<i>Unliquidated obligations</i>	<i>\$ XXX</i>	
<i>Unobligated allotments</i>		<i>\$ XXX</i>

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## Yearend Adjustments In Leave Accounts

As previously mentioned, sick leave and other types of leave are credited to a clearing account.

*Any fiscal yearend balance in the clearing account for this leave will be closed out with an entry such as:*

<i>Provision for sick and other types of leave (clearing account)</i>	<i>\$ XXX</i>	
<i>Expense (or profit or loss)</i>		<i>\$ XXX</i>

The balances in the clearing account should be reviewed periodically during the year to determine if the factor used to accrue sick and other types of leave is reasonable. If the estimates recorded were too high or too low the factor should be adjusted to minimize future differences and to avoid major adjustments at yearend.

If a factor is used to accrue leave during the year, the amount in the annual leave liability account may differ from that derived from the inventory of actual annual leave balances. This is due to the variances which affect the accrual, including changes in the number of employees, salary rates, or leave categories, and other items such as leave lost due to statutory limitations. This factor also should be reviewed periodically during the year and revised as necessary to avoid major adjustments at yearend.

At the end of the fiscal year, the annual leave liability account will be adjusted.<sup>1</sup>

<sup>1</sup>Adjustment must be made at fiscal yearend to accurately record and report the leave costs and related liabilities. Adjustments also may be made at other times, such as at the end of the leave year, to record known forfeited leave.

*If the leave liability account totals more than the actual value of annual leave owed, the leave account might be reduced as follows:*

<i>Accrued annual leave liability</i>	<i>\$ XXX</i>	
<i>Expense (or profit or loss)</i>		<i>\$ XXX</i>

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If the opposite occurs, the leave liability account should be increased and an expense (or profit or loss) account should be adjusted.

*To record earned leave not previously recorded, the entry might be:*

13

<i>Expense (or profit or loss)</i>	<i>\$ XXX</i>	
<i>Accrued annual leave liability</i>		<i>\$ XXX</i>

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## One-Time Adjustment From Past To Current Practice

Activities which have established separate funded and unfunded liability accounts and recorded obligations for funded accrued annual leave under the past practice should make a one-time adjustment.

*To establish a single accrued annual leave account, the entries might be:*

14

<i>Accrued annual leave liability (unfunded)<sup>1</sup></i>	<i>\$ XXX</i>	
<i>Accrued annual leave liability (funded)</i>	<i>\$ XXX</i>	
<i>Accrued annual leave liability</i>		<i>\$ XXX</i>

<sup>1</sup>If an entry was not made originally for the amount of the unfunded annual leave liability, the Investment Account should be debited for the current amount of such leave.

# DETERMINING LEAVE AND FRINGE BENEFIT COSTS AND BILLING CUSTOMERS

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Labor charges to customers are based upon the number of working hours spent in providing the goods and services. The charges should include a proportionate share of the total cost of leave and fringe benefits. A common method for determining leave costs to be billed customers is to apply to the base labor cost a predetermined charge, expressed as a percentage of labor costs. There are several acceptable methods for computing the leave charge; one is outlined here.

The following illustration shows the computation of leave costs for employees whose work hours are charged directly for the furnishing of the goods and services. The steps enumerated below also apply to employees whose leave costs are accounted for as indirect charges.

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## STEP 1

### Determining Productive Time

The first step is to compute productive time in days.

*Total days in year* 365.0

*Less nonproductive days:<sup>1</sup>*

<i>Annual leave</i>	20.0	
<i>Sick leave</i>	8.0	
<i>Holidays</i>	9.0	
<i>Other leave</i>	0.5	
<i>Weekends</i>	104.0	141.5

*Total productive days* 223.5

<sup>1</sup>Nonproductive days, aside from holidays and weekends, are the days when various types of leave, including annual are estimated to be taken. Estimates are based on experience, modified to whatever extent management deems necessary. Other nonproductive days such as training, if material, should be included in the computation.

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## Leave Time As A Percentage Of Productive Time

## STEP 2

After productive days are determined, leave time as a percentage of productive time can be computed. In computing this for sick leave, holidays, and other leave, use the same number of days as used to determine productive days:

$$\begin{array}{l} \text{Sick} \qquad \qquad \qquad 8 \div 223.5 = .0358 \text{ (3.6\%)} \\ \text{Holiday and other} \quad 9.5 \div 223.5 = .0425 \text{ (4.3\%)} \end{array}$$

In computing the percentage for annual leave, the days of leave will not be the days expected to be taken as used in determining the number of productive days. Instead, the days of annual leave will be the net earned days for which payment must be made. The formula is:

*Average number of days expected to legally accrue based on composition of work force including changes in leave categories.*

Minus

*Average number of days expected to be lost.<sup>1</sup>*

Plus or Minus

*Average number of days of estimated or earned leave to be added or subtracted due to expected changes during the year in the composition of the workforce.*

<sup>1</sup>Unlikely to be material since passage of Public Law 93-181 (5 U.S.C. 6304 (d)) permitting leave to be restored under certain circumstances

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For this example, the net earned days of annual leave is established as 19.8,<sup>1</sup> as against 20 nonproductive days used in step one for annual leave expected to be taken. The annual leave time as a percentage of productive time becomes:

$$19.8 \div 223.5 = .0886 (8.9\%)$$

<sup>1</sup>Based on 20.2 days expected to be earned minus 0.4 days earned leave expected to be subtracted due to anticipated changes in the composition of the activity's workforce.

*The composite leave percentage becomes 16.8% (3.6% + 4.3% + 8.9%)*

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## STEP 3

## Rate Of Pay Per Hour

The next step is to compute the hourly rate of pay. This rate multiplied by the number of hours to perform the job determines the base labor cost. Then the leave percentage is applied to the base labor cost to arrive at the amount of the accrued leave liability and the leave amount to bill the customer.

To determine the hourly rate of pay for general schedule employees, divide the base annual salary by 2080;<sup>2</sup> for wage board employees, use the hourly pay scale for regular time.

For example, if the salary of a general schedule employee is \$14,500, the rate of pay per hour is \$6.97 ( $\$14,500 \div 2080$ ).

Since a wage board employee's salary is expressed on an hourly basis, no computation is necessary. Thus, if a wage board employee had a regular time pay scale of \$6.75 per hour, this is the rate used in determining the base labor cost.

<sup>2</sup>Currently, Federal employee hourly pay is based on a work year of 260 days, or 2080 hours. In some years, there are 261 or 262 work days. Accordingly, in 1984 and 1985, Federal pay will be computed on the basis of the average work hours in a calendar year—2087.

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## Billing Customer

## STEP 4

If the two above employees did a job that took each of them 10 hours, the base labor cost would be:

$$\$67.50 + \$69.70 = \$137.20$$

The customer's bill should include an amount of \$160.25 (\$137.20 plus 16.8%) consisting of labor and accrued leave costs.

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## Recording Leave Categories Separately

## STEP 5

Monthly entries are made to record all accrued leave costs. (See pp. 4 and 5.) The method for computing the amounts to be recorded are as follows:

*Annual*                    *\$12.21 (\$137.20 x .089)*

*Sick*                        *4.94 (\$137.20 x .036)*

*Holiday and other*    *5.90 (\$137.20 x .043)*

*\$23.05*

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## Adjustment Of Productive Days

In the foregoing example, the computation for productive days did not reflect the time expected to be worked on overtime and premium time such as on holidays. When the hours worked on overtime and premium time is included in the jobs and it is expected that the amount would be material, recognition should be given to this

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additional productive time in computing leave accruals and customer billings. The failure to adjust for the added productive time would result in customer overbillings. The following illustrates how overtime and holiday work is handled and its effect on the leave factor.

*Productive days =*

*Days in year*

*Minus*

*Weekends*

*Minus*

*Days of leave expected to be taken*

*Plus*

*Days of overtime expected to be worked*

*Plus*

*Days of premium time expected to be worked.*

If, in our example, we assumed that 1.1 days of overtime and 0.6 days of premium time would be worked, the following changes occur in steps one and two:

<i>Total days in year</i>	<i>365.0</i>
<i>Add overtime days</i>	<i>1.1</i>
<i>Add premium days</i>	<i>0.6</i>
<i>Less nonproductive days (see step 1)</i>	<i><u>141.5</u></i>
<i>Total productive days</i>	<i><u><u>225.2</u></u></i>

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*Leave as a percentage of productive time:*

*Annual*

$$19.8 \div 225.2 = .0879 \text{ (8.8\%)}$$

*Sick*

$$8.0 \div 225.2 = .0355 \text{ (3.6\%)}$$

*Holiday and other*

$$9.5 \div 225.2 = .0422 \text{ (4.2\%)}$$

*Composite leave*

$$\text{percentage} = \underline{.1656} \text{ (16.6\%)}$$

The composite leave percentage is applied to the base labor cost determined earlier to compute the leave costs and leave liability and to bill the customer for such costs. Moreover, each of the leave percentages is applied to the base labor cost to determine the amounts to be recorded in the cost and liability accounts for each type of leave. It should be recognized that there is no need to recompute the hourly rate of pay for the added productive time.

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## Effect Of Pay Changes On Rates

Increases or decreases in the current leave accrual costs due to individual or blanket pay adjustments are automatically taken care of through application of the accrual rate to the adjusted pay rate. However, the amount of the liability for annual leave due employees at the time of the pay adjustments should be corrected to reflect the amount due under the adjusted rates. The value of these leave adjustments shall be costed that same fiscal year.

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## Accruing And Billing For Fringe Benefits

The method outlined here for accruing leave and billing customers also applies to accruing and billing for fringe benefits. Fringe benefits should be determined and expressed as a percentage of the hourly rate of pay. For billing purposes, these percentages are often added to the leave percentage to make a composite factor by which to multiply the base labor cost (hourly rate of pay times hours to do the job) to compute the labor charge.

While overtime and other premium time rates are not used to determine leave and fringe benefit accruals, the additional amount paid for doing a job on overtime or premium time should be included in the bill if the overtime or premium time work was requested by the customer to meet a deadline.

However, if the activity chose overtime to make up for equipment downtime or to reduce backlogs, the customer would not be billed directly for the additional cost of the overtime. Instead, overtime and premium time costs would be determined and expressed as a percentage of the hourly rate of pay and treated in the same manner as other types of leave.

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## Adjustment Of Billing Rates

Inclusion in billing rates of estimated charges such as leave and overtime may result in overrecovery or underrecovery of actual expenses in an operating year. Unless required otherwise by the legislation establishing the fund, the billing rates computed for the following year must be increased by the prior year underrecovery or decreased by the prior year overrecovery in order to maintain the revolving fund on a cost recovery basis.