

MULTI-YEAR LABOR ENCUMBERING TRAINING GUIDE





Multi-Year Labor Encumbering

Training Guide

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Acknowledgements

Portions of this manual are based on Ellucian Banner System, Release 8.2.

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Course Information

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TABLE OF CONTENTS

Overview	1
Setup for Multiple Year Labor Encumbering.....	2
Date Logic	4
Start Date.....	4
End Date.....	4
Setup and Maintenance of Dates used in Multiple Year Encumbrance Calculations	6
Research Accounting Fund Maintenance Form (<i>FZMRFND</i>)	6
Grant Maintenance Form (<i>FZAGRNT</i>)	7
Use of Grant Dates in Multi-Year Labor Encumbering Example	8
Encumbrance Calculation Examples	9
Example 1 – Multiple Year Projection with a Change in the Labor Distribution during the Current Fiscal Year	9
Example 2 – Multiple Year Projection with a Job End Date Prior to End of Grant Funding Period	9
Example 3 – Multiple Year Projection with Multiple Labor Distribution C-FOAPs.....	10
Multiple Year Encumbrance Data in Banner	11
Grant Inception to Date Form (<i>FZIGITD</i>).....	11
Detail Encumbrance Activity Form (<i>FGIENCD</i>).....	12
Reports.....	14
Appendix A: Support and Resources	15

Overview

Encumbrances provide financial forecasting functionality that users currently use to manage funds over the course of a fiscal year or project. Encumbrances can be used to earmark funding for specific purposes, such as anticipated salary or purchases. Encumbrances reduce the budget balance available for the associated Fund, Organization, and Program code accounting string combination.

Payroll encumbrances are created from job records entered into the **Employee Jobs Form (NBAJOBS)** or the **HR Front End (HRFE)**. An encumbrance is created for each employee job record based on the beginning and end date of the job (if applicable based on employee class). The Banner labor and fringe encumbrance functionality was previously limited to the current fiscal year (through June 30). However, grant funds and federal appropriations typically span multiple fiscal years. This multi-year labor encumbrance enhancement creates separate labor encumbrances representing labor and fringe charges to be incurred in future fiscal years. This feature gives users a reliable method for tracking and managing future salary charges on grant funds and federal appropriations which span multiple fiscal years.

Setup for Multiple Year Labor Encumbering

The setup and maintenance required for multiple year labor encumbrances is transparent to most users and does not require business process changes in the departmental units. Payroll encumbrances are created from job records entered on **NBAJOBS** or the **HR Front End**. However, anticipated labor charges on grant funds are now obligated for the entire project or funding period of the grant.

The following describes how grant and federal appropriation funds are identified for multiple year labor encumbering in Banner.

The new enhancement includes an **Encumber Multi Year Labor** checkbox on the **Fund Type Maintenance form (FTMFTYP)** in Banner. All sponsored project fund types: 4A, 4C, 4E, and 4G are set up to encumber multi-year labor. Federal appropriations (Fund Type 4Y) also has this configuration.

Oracle Developer Forms Runtime - Web: Open > FTMFTYP

File Edit Options Block Item Record Query Tools Help

Fund Type Maintenance FTMFTYP 8.0 (BAN8MYE) (NONE)

Chart of Accounts: [1] Fund Type: 4A Title: Sponsored Prog-US Gov G & C Last Activity: 30-NOV-2009

Effective Date: 30-NOV-2009 Termination Date: Next Change:

Internal Fund Type: 40 Current Restricted Predecessor Fund Type: 40 Current Restricted

Capitalization Fund: Capitalization Equity Account: Default Override: Fund

Encumber Multi Year Labor

Keys	Budget Control
Fund:	
Organization:	
Account:	
Program:	
Control Period:	
Severity Control:	

Encumbrance Budget Override

Overrides exist for Encumbrance and Budget Roll for this Fund Type.

Record: 1/? ... | List of Valu... | <OSC>

Multi-Year Labor Encumbering

In addition to the Multi Year checkbox on **FTMFTYP**, there is a new **Encumber Multi Year Labor** checkbox on **FZMRFND**, a form used to set up grant funds. The Multi-Year indicator defaults from the fund type so all sponsored project funds, by default, encumber all future salary charges (regardless of the fiscal year the salary charges are incurred). The Grants Office has the option to uncheck the box for individual funds. **(No action is needed by the departmental units.)** Certain federal appropriations also have this box checked.

The screenshot shows the Oracle Developer Forms Runtime interface for the FZMRFND form. The window title is "Oracle Developer Forms Runtime - Web: Open > FZMRFND". The menu bar includes File, Edit, Options, Block, Item, Record, Query, Tools, and Help. The toolbar contains various icons for navigation and editing. The main form area is titled "Research Accounting Fund Maintenance Form FZMRFND 8.0 [MC;50.3] (BAN8MYE) (1UTUC)".

The form contains the following sections and fields:

- Chart of Accounts:** Fund: ALR01F, Study of Aging Fund; Grant: ALR01, Study of Aging
- Effective Date:** 21-DEC-2009; **Termination Date:** (empty); **Next Change Date:** (empty)
- Budget Period Start Date:** 01-JUN-2009; **Budget Period End Date:** 31-MAY-2010
- Encumber Multi Year Labor:** (highlighted with a red circle)
- Cost Share Basis:** (empty); **Cost Share Rate Code:** (empty)
- Cost Share Credit Account:** (empty); **Cost Share Distribution From Code:** (empty)
- Billing Information:**
 - Billed Accounts Receivable:** 53002, Accounts Receivable Billings
 - Cash Receipt Bank Code:** GA; **Retainage Accounts Receivable:** (empty)
 - Revenue Account:** 303010; **Retainage Amount:** (empty)
 - Unbilled Accounts Receivable:** 53001; **Retainage Percent:** (empty)
- Indirect Cost Codes:**

Basis	Rate	Charge	Distribution
1MTD1	50.00	198130	1244

Date Logic

The multiple year encumbering process uses various Finance and HR dates to determine the start and end dates of the encumbrance calculation. It is important for units to have a working knowledge of the date logic used to calculate salary and fringe encumbrances.

Start Date

The multiple year encumbering process uses the logic below to determine the encumbrance start date.

Encumbrance Start Date is the greater of:

- 1st day of the current fiscal year
- **NBAJOBS** Job Begin Date
- **NBAJOBS** Contract Begin Date
- **NBAJOBS** Labor distribution change
- **NBAJOBS** Latest recast date (most common) –
on the Job Labor Distribution tab, this is the Banner process that tracks the next work days not yet paid.

End Date

The multiple year encumbering process uses the logic below to determine the encumbrance end date.

1. If the Budget Period End Date on the **Research Accounting Fund Maintenance Form (FZMRFND)** is populated, the encumbrance end date is the earliest of the following:
 - **FZMRFND** Budget Period End Date (most common)
 - **FZMFUND** Termination Date
 - **NBAJOBS** Encumbrance Override End Date
 - **NBAJOBS** Job labor distribution FOAPAL changes in the active FY
 - **NBAJOBS** Contract End Date
 - **NBAJOBS** Job End Date
 - Maximum Fiscal Year defined on Fiscal Year form, **NBAFISC**
 - Maximum Payroll Year/Payroll ID defined on Payroll Calendar Rules form, **PTRCALN**

Multi-Year Labor Encumbering

2. If Budget Period End Date on **FZMRFND** is NOT populated, and the Project End Date on **FZAGRNT** is populated, the encumbrance end date is the earliest of the following:
 - **FZAGRNT** Project End Date
 - **FZMFUND** Termination Date
 - **NBAJOBS** Encumbrance Override End Date
 - **NBAJOBS** Job labor distribution FOAPAL changes in the active FY
 - **NBAJOBS** Contract End Date
 - **NBAJOBS** Job End Date
 - Maximum Fiscal Year defined on Fiscal Year form, **NBAFISC**
 - Maximum Payroll Year/Payroll ID defined on Payroll Calendar Rules form, **PTRCALN**

3. If the **FZMRFND** Budget Period End Date and the **FZAGRNT** Project End Date are not populated, no MYE is calculated. The earliest of the following is used when calculating the end of the current year encumbrance:
 - **FZMFUND** Termination Date
 - **NBAJOBS** Encumbrance Override Date
 - **NBAJOBS** Job labor distribution FOAPAL changes in the active FY
 - **NBAJOBS** Contract End Date
 - **NBAJOBS** Job End Date
 - End Date of the Active Fiscal Year

Setup and Maintenance of Dates used in Multiple Year Encumbrance Calculations

In most cases, two dates that the Grants Office maintains are the dates used for encumbrance end date calculations: the **Grant Budget End Date** on **FZMRFND** and the **Grant Project End Date** on **FZAGRNT**. The definitions and process for entering and maintaining these dates is as follows:

Research Accounting Fund Maintenance Form (FZMRFND)

Oracle Developer Forms Runtime - Web: Open > FZMRFND

File Edit Options Block Item Record Query Tools Help

Research Accounting Fund Maintenance Form FZMRFND 8.0 [MC;50.3] (BAN8MYE) (1UTUC)

Chart of Accounts: 1

Fund: ALR01F Study of Aging Fund Grant: ALR01 Study of Aging

Effective Date: 21-DEC-2009 Termination Date: Budget Period End Date: 31-MAY-2010 Next Change Date:

Budget Period Start Date: 01-JUN-2009

Encumber Multi Year Labor

Cost Share Basis: Cost Share Rate Code: Cost Share Credit Account: Cost Share Distribution From Code:

Billing Information

Billed Accounts Receivable: 53002 Accounts Receivable Billings

Cash Receipt Bank Code: GA Retainage Accounts Receivable: Retainage Amount: Retainage Percent:

Revenue Account: 303010

Unbilled Accounts Receivable: 53001

Indirect Cost Codes

Basis	Rate	Charge	Distribution
1MTD1	50.00	198130	1244

Enter Chart of Accounts.

FZMRFND: Budget Period End Date

- Represents the obligated funding period.
- Grants Office maintains as the funding period changes.

Grant Maintenance Form (FZAGRNT)

The screenshot shows the Oracle Developer Forms Runtime interface for the FZAGRNT form. The window title is "Oracle Developer Forms Runtime - Web: Open > FZAGRNT". The menu bar includes File, Edit, Options, Block, Item, Record, Query, Tools, and Help. The toolbar contains various icons for navigation and editing. The main form area is titled "Grant Maintenance Form FZAGRNT 8.2 [MC:52.0] (BAN8MYE) (1UIUC)".

At the top, there are dropdown menus for "Grant:" (ALR01), "Proposal:" (empty), and "Text Exists:" (N). Below this is a tabbed interface with tabs for "Main", "Grant Agency", "Location", "Cost Code", "Personnel", "Billing", "User Defined Data", and "Effort Reporting". The "Main" tab is active.

The form fields are organized into sections:

- Chart of Accounts:** A dropdown menu showing "244000" and "Physics".
- Long Title:** "Study of Aging"
- Title:** "Study of Aging"
- Agency:** "@01545333 National Association for Sport & Physical Education" with a checkbox for "Requires Effort Certification".
- Principal Investigator ID:** "651146716 Kamerer, John J."
- Project Start Date:** "01-JUN-2009"
- Project End Date:** "31-MAY-2014" (circled in red)
- Termination Date:** (empty)
- Expenditure End Date:** (empty)
- Status:** "N" with a dropdown for "New" and a checkbox for "Pass Through Indicator".
- Status Date:** "21-DEC-2009"
- Alternate Description:** (empty)
- Current Amount:** (empty)
- Cumulative Amount:** (empty)
- Maximum Amount:** "50,000.00"
- Total Recipient Share:** (empty)
- Related Grant:** (empty)
- Grant Type:** "8" with a dropdown
- Category:** "G" with a dropdown
- Sub Category:** "1100" with a dropdown
- CFDA Number:** (empty)
- Sponsor ID:** (empty)

At the bottom of the form, there is a small text box that says "Enter Chart of Accounts: LIST is available".

FZAGRNT: Project End Date

- Reflects the entire project period of the grant.

Use of Grant Dates in Multi-Year Labor Encumbering Example

A sponsored project award has a five year period of performance: 6/01/2009 through 5/31/2014, with budget currently obligated for the first year. The Grants Office enters Project and Budget End Dates as follows:

- **FZAGRNT** Project Start Date: 6/01/2009
- **FZAGRNT** Project End Date: 5/31/2014
- **FZMRFND** Budget Period Start Date: 6/01/2009
- **FZMRFND** Budget Period End Date: 5/31/2010
(Grants Office updates as additional years of funding are obligated.)

In most cases, the multiple year encumbering process for this example encumbers salary and fringe through 5/31/2010. However, as described previously, other factors such as a job end date earlier than 5/31/2010, a terminated fund, etc., will impact the encumbrance calculation end date.

Encumbrance Calculation Examples

Example 1 – Multiple Year Projection with a Change in the Labor Distribution during the Current Fiscal Year

The fiscal year is 7/1/2009 to 6/30/2010.

An employee is appointed to a position as of 7/1/2009, paid monthly, with an annual salary of \$60,000, and charged to one C-FOAP funded from institutional funds. Assign Salary is \$5,000 (salary per pay period from NBAJOBS).

The employee is assigned to work under a grant effective 2/16/2010. Therefore, a labor distribution change is entered effective 2/16/2010 moving from institutional funds to a grant fund. The grant obligated funding period runs for two years from 10/16/2009 to 9/15/2011.

Encumbrance process is run with a Recast Date of 1/16/2010.

The encumbrance calculation determines that, as of the Recast Date, the 7/1/2009 institutional C-FOAP has a current encumbrance amount of \$5,000 (Assign Salary x Number of Pays left = \$5000 x 1). The encumbrance process also determines that the 2/16/2009 FOAPAL has a current encumbrance amount of \$22,500.00 (Assign Salary x Number of Pays left = \$5,000 x 4.5), and a future encumbrance of \$72,500 (Assign Salary x Number of Pays left = \$5,000 x 14.5).

Example 2 – Multiple Year Projection with a Job End Date Prior to End of Grant Funding Period

The fiscal year is 7/1/2009 to 6/30/2010.

An employee is appointed to one C-FOAP with a grant fund on 7/1/2009 with an **NBAJOBS** Job End Date of 3/15/2011. The employee is paid monthly with an annual salary of \$12,000. Assign Salary is \$1,000.

The grant fund has obligated funding through 5/15/2011. The Budget Period End Date on **FZMRFND** is 5/15/2011. Encumbrance process is run with a Recast Date of 1/16/2010.

The calculation determines that, as of the Recast Date, the current encumbrance amount for this employee for this fiscal year is \$5,500 (Assign Salary x Number of Pays left = \$1000 x 5.5). The process also determines that the future encumbrance is \$8,500 (Assign Salary x Number of Pays left = \$1,000 x 8.5).

The grant funding period allows for another two pays through 5/15/2011, but because a Job End Date of 3/15/2011 exists, the future year encumbrance is limited to that date.

Example 3 – Multiple Year Projection with Multiple Labor Distribution C-FOAPs

The fiscal year is 7/1/2009 to 6/30/2010.

An employee is appointed to a position as of 9/1/2009, paid monthly, with an annual salary of \$60,000, and the Assign Salary is \$5,000. The labor distribution is assigned to one institutional fund at 66.67% and one grant fund at 33.33%.

The grant funding period runs from 9/16/2009 to 8/15/2012.

The encumbrance process is run with a Recast Date of 9/16/2009. The calculation determines that, as of the Recast Date, the current encumbrance of the job is \$47,500 (Assign Salary x Number of Pays left = \$5,000 x 9.5). The process also determines that the future encumbrance for the grant funded portion is 42,495.75 (Assign Salary x Number of Pays left x Grant C-FOAP% = \$5,000 x 25.5 x .3333).

Multi-Year Labor Encumbering

Multiple Year Encumbrance Data in Banner

Future year encumbrances post to Banner within the currently active fiscal year and period.

Grant Inception to Date Form (*FZIGITD*)

Account Type	Adjusted Budget	Activity	Commitments	Available Balance
120000 E Materials and Supplies	80,000.00	0.00	0.00	80,000.00
124000 E Laboratory/Scientific Supplies	0.00	5,092.23	0.00	-5,092.23
140000 E Services	32,000.00	0.00	0.00	32,000.00
163000 E Capitalized Equipment >4999	22,500.00	0.00	0.00	22,500.00
163060 E Cap Non-Electron Sci/Lab Eq >4999	0.00	19,858.91	0.00	-19,858.91
198132 E Fac and Adm Costs-MTDC UIUC FY0	167,482.00	7,433.32	22,057.47	137,991.21
210000 L Personnel Services	138,597.00	0.00	0.00	138,597.00
211300 L Administrative/Professional Salary	0.00	9,554.78	42,735.94	-52,290.72
219000 L Benefit Costs	35,697.00	0.00	0.00	35,697.00
219120 L SURS Retirement Benefit	0.00	929.68	4,158.21	-5,087.89
219210 L Medicare Matching	0.00	132.67	619.68	-752.35
219220 L Employer Paid Health/Life Insurance	0.00	1,945.36	8,701.04	-10,646.40
219240 L Workers Compensation	0.00	8.03	0.00	-8.03
219260 L Termination Sick Leave Other	0.00	68.79	0.00	-68.79
Net Total:	476,276.00	45,023.77	78,272.34	352,979.89

Encumbrances for current and future years for a specific grant C-FOAP can be viewed in total using the *FZIGITD* form.

Multi-Year Labor Encumbering

Detail Encumbrance Activity Form (*FGIENCD*)

The **Detail Encumbrance Activity Form (*FGIENCD*)** is used to query detailed transaction activities against encumbrances. The form displays useful information such as encumbrance status, creation date, and overall balance. With the multiple year encumbering enhancement, details of both current and future year labor and fringe are available and delineated by unique encumbrance item numbers.

Current Fiscal Year Encumbrance Item Numbers	
0	Gross Salary
11	Medicare
12	OASDI
13, 14, 15	Retirement
16	Federal Retirement
17, 18, 19	Health, Life, Dental
20	Urbana Grad Assistant Health Benefit
21	Chicago Grad Assistant Health Benefit

Multi-Year Labor Encumbering

Future Fiscal Year Encumbrance Item Numbers	
3	Future Year Gross Salary
31	Medicare
32	OASDI
33, 34, 35	Retirement
36	Federal Retirement
37, 38, 39	Health, Life, Dental
40	Urbana Grad Assistant Health Benefit
41	Chicago Grad Assistant Health Benefit

Reports

Several reports incorporate future year encumbrance data and dates used in multiple year encumbrance calculations.

- **Asset/Liability Detail and Summary Statements** and the **Revenue/Expense/Transfer Detail and Summary Statements**: Budget Period Start and End Dates from **FZMRFND** are available.
- **Revenue/Expense/Transfer Detail and Summary Statements Inception to Date**: Reflects total (current and future year) encumbrances.
- **HRPAY00098 Payroll Encumbrance by Person Pay Period**: **FZAGRNT** Project Start and End Dates, **FZMRFND** Budget Period Start and End Dates, and Fund termination date are available. Current and future year personnel encumbrance totals are separated.
- **HRPAY00102 Payroll Encumbrance by Person Month End**: **FZAGRNT** Project Start and End Dates, **FZMRFND** Budget Period Start and End Dates, and Fund termination date are available. Current and future year personnel encumbrance totals are separated.

Appendix A: Support and Resources

For questions, contact your university Grants and Contracts office or University Accounting and Financial Reporting.

- **Urbana Grants & Contracts**
Post Award at gcopostuiuc@uillinois.edu or 217-333-2186
- **Chicago Grants & Contracts**
at gcopost1@uillinois.edu or 312-996-3373
- **Springfield Grants & Contracts**
Rebecca Jones at rjone1@uis.edu or 217-206-7849
- **University Accounting and Financial Reporting**
Nick Unser at nicku@uillinois.edu or 217-244-6676 or
David Andersen at danderse@uillinois.edu or 217-333-7460