

The Recipient Counts Worksheet

Click on the Recipient Counts menu option to open the Recipient Counts worksheet, as shown in Figure 30.

	A	B	C	D	E	F	G	H	I	J	K	L	M
	CAM-TOOL MENU SYSTEM	?	Recipient Counts		Assign BENEFITING PROGRAMS Worksheet Recipient Counts		Modify Recipient Counts by Program		Calculate Shared Usage Level of Effort (LOE)				
1	System Information		CAM-TEST Project										
2			FUNCTIONAL_MODULE	SUB_MODULE	DETAIL	USAGE_TYPE	WEIGHT_TYPE	WEIGHT	BASE_VALUE	NUM_SMALL	NUM_LARGE	SNAP	TANF
3	Benefiting Programs		Alerts	Management	Mgt Alert 1	Shared		20	1	3	X	X	
4			Alerts	Management	Mgt Alert 2	Shared		25	2	2	X	X	
5	Allocation Structure		Alerts	Management	Mgt Alert 3	Shared		10	1	1	X	X	
6			Alerts	Staff	Staff Alert 1	Shared		5	2	2	X	X	
7	Functional Modules		Alerts	Staff	Staff Alert 2	Shared		5	0	3	X	X	
8			Alerts	Staff	Staff Alert 3	Shared		12	1	4	X	X	
9	Sub_Modules		Assessment	Eligibility Verification	None	Shared		150	3	3	X	X	
10			Assessment	Searches	None	Shared		125	3	3	X	X	
11	Details		Case Management	Participant Data	Person data	Shared		100	7	4	X	X	
12	Weighting System		Case Management	Participant Data	Education	Shared		100	6	1			
13			Case Management	Participant Data	Employment	Shared		100	3	3	X	X	
14	USAGE AND CAP		Case Management	Participant Data	Grants	Shared		75	5	4	X	X	
15			Case Management	Child and Adult Services	None	Shared		120	3	3	X	X	
16	All System Usage		Case Management	Means Tested Services	Interactive Review	Shared		100	3	3	X	X	
17	Recipient Counts		Case Management	Means Tested Services	Integration with XNDS	Shared		100	3	3	X	X	
18			Case Management	Means Tested Services	Interface Controllers Office	Shared		75	4	3	X	X	
19	Shared Usage LOE		Case Management	Means Tested Services	Overpayments Analysis	Shared		120	4	3	X	X	
20			Case Management	Means Tested Services	Quality Control Reviews	Shared		200	4	3	X	X	
21	Cost Allocation Plan		Eligibility	Eligibility Determination	None	Shared		12	3	3	X	X	
22			Financial	Obligations Management	None	Shared		275	4	4	X	X	
23	Child Welfare CAP		Financial	Payment Processing	None	Shared		200	5	4	X	X	
24	OPTIONAL		Financial	Deposit Processing	None	Shared		200	5	4	X	X	
25			Intake	Customer Info Inq	None	Shared		100	7	4	X	X	
26	Program Summary		Intake	Customer Info Maint	None	Shared		100	7	4	X	X	
27			Intake	Financial Affidavit	None	Shared		100	4	4	X	X	
28	Format All System Usage		Interfaces	INT1	None	Direct		50	0	1			
29			Interfaces	INT2	INT2 for TANF	Direct		50	0	1			X
30	Format Shared Usage		Interfaces	INT2	INT2 for CSE	Direct		50	0	1			
31			Interfaces	INT3	INT3 for TANF	Direct		50	0	1			X

Figure 30 Recipient Counts Worksheet – Copied from All System Usage

Overview. This worksheet documents the number of benefiting program recipients that use each system component in order to determine the “fair share” contribution for small and large programs.

Data is copied to this worksheet from the All System Usage Worksheet. Command buttons on this worksheet convert usage indicators (Xs) to recipient counts identified on the Benefiting Programs worksheet, and allow you to selectively modify numbers of recipients. Finally, a command button calculates usage shares for system components for display on the Shared Usage LOE worksheet.

1. Data Copied To Worksheet.

Functional Module, Sub_Module, Detail, Usage Type, Weight Type, Weight, Base Value, Num Small, Num Large, and Benefiting Programs are copied onto this worksheet from the All System Usage Worksheet, by use of the command button **Copy for Recipient Counts**.

2. Command Buttons

- **Assign the Benefiting Programs Worksheet Recipient Counts** command button. Clicking this command button replaces the usage="X" markers in the benefiting program columns with the recipient counts you identified on the Benefiting Programs Worksheet. For example, where the Medicaid (MED) program has 500,000 recipients on the Benefiting Programs worksheet, all of the usage="X" markers under the MED column will be replaced with the value of 500,000.

Clicking on the button displays a confirming message box, asking "Are you sure that you want to assign recipient counts from the Benefiting Programs worksheet?"

Clicking **Yes** starts the action to copy recipient counts from the Benefiting Programs worksheet, replacing each "X" with the actual recipient count for that program.

Clicking **No** closes the message box; you will remain in the System Recipient Counts Worksheet.

In Figure 31 below, each cell with usage="X" has been assigned the recipient counts that you entered on the Benefiting Programs worksheet.

	A	B	C	D	E	F	G	H	I	J	K	L	M
	CAM-TOOL MENU SYSTEM		Recipient Counts		Assign BENEFITING PROGRAMS Worksheet Recipient Counts		Modify Recipient Counts by Program		Calculate Shared Usage Level of Effort (LOE)				
1	System Information		CAM-TEST Project										
2			FUNCTIONAL_MODULE	SUB_MODULE	DETAIL	USAGE_TYPE	WEIGHT_TYPE	WEIGHT	BASE_VALUE	NUM_SMALL	NUM_LARGE	SNAP	TANF
3	Benefiting Programs		Alerts	Management	Mgt Alert 1	Shared			20	1	3	500000	465000
4			Alerts	Management	Mgt Alert 2	Shared			25	2	2	500000	
5	Allocation Structure		Alerts	Management	Mgt Alert 3	Shared			10	1	1	500000	
6			Alerts	Staff	Staff Alert 1	Shared			5	2	2	500000	465000
7	Functional Modules		Alerts	Staff	Staff Alert 2	Shared			5	0	3	500000	465000
8			Alerts	Staff	Staff Alert 3	Shared			12	1	4	500000	465000
9	Sub_Modules		Assessment	Eligibility Verification	None	Shared			150	3	3	500000	465000
10			Assessment	Searches	None	Shared			125	3	3	500000	465000
11	Details		Case Management	Participant Data	Person data	Shared			100	7	4	500000	465000
12	Weighting System		Case Management	Participant Data	Education	Shared			100	6	1		
13			Case Management	Participant Data	Employment	Shared			100	3	3	500000	465000
14	USAGE AND CAP		Case Management	Participant Data	Grants	Shared			75	5	4	500000	465000
15			Case Management	Child and Adult Services	None	Shared			120	3	3	500000	465000
16	All System Usage		Case Management	Means Tested Services	Interactive Review	Shared			100	3	3	500000	465000
17			Case Management	Means Tested Services	Integration with XNDS	Shared			100	3	3	500000	465000
18	Recipient Counts		Case Management	Means Tested Services	Interface Controllers Office	Shared			75	4	3	500000	465000
19	Shared Usage LOE		Case Management	Means Tested Services	Overpayments Analysis	Shared			120	4	3	500000	465000
20			Case Management	Means Tested Services	Quality Control Reviews	Shared			200	4	3	500000	465000
21	Cost Allocation Plan		Eligibility	Eligibility Determination	None	Shared			12	3	3	500000	465000
22			Financial	Obligations Management	None	Shared			275	4	4	500000	465000
23	Child Welfare CAP		Financial	Payment Processing	None	Shared			200	5	4	500000	465000
24			Financial	Deposit Processing	None	Shared			200	5	4	500000	465000
25	OPTIONAL		Intake	Customer Info Inq	None	Shared			100	7	4	500000	465000
26	Program Summary		Intake	Customer Info Maint	None	Shared			100	7	4	500000	465000
27	Format All System Usage		Intake	Financial Affidavit	None	Shared			100	4	4	500000	465000
28			Interfaces	INT1	None	Direct			50	0	1		
29	Format Shared Usage		Interfaces	INT2	INT2 for TANF	Direct			50	0	1		465000
30			Interfaces	INT2	INT2 for CSE	Direct			50	0	1		
31	Help Menu		Interfaces	INT3	INT3 for TANF	Direct			50	0	1		465000

Figure 31 Recipient Counts Worksheet – Assign Recipient Counts

- **Modify Recipient Counts by Program** command button.

This command button modifies recipient counts for selected system components.

NOTE: In most cases, modifying recipient counts at this level of detail will have only a small impact on the cost allocation “fair share” for small and large programs. The function is included for the rare instances in which it would be cost effective to capture costs in such detail.

Click this button to modify selected recipient counts when you need to capture the specific number of program recipients that would actually benefit from a particular system component. For example, MED (e.g., Medicare) may have a total recipient count of 500,000 but you wish to show that only 225,000 of the program recipients would get beneficial use of certain system components. The benefiting programs involved in the cost allocation would need to determine and justify modified recipient counts by system component.

Clicking this button opens the “Modify Recipient Counts” userform shown in Figure 32.

System Component	Category	Service	Usage
Alerts	Management	Mgt Alert 1	Shared
Alerts	Management	Mgt Alert 2	Shared
Alerts	Management	Mgt Alert 3	Shared
Alerts	Staff	Staff Alert 1	Shared
Alerts	Staff	Staff Alert 2	Shared
Alerts	Staff	Staff Alert 3	Shared
Assessment	Eligibility Verification	None	Shared
Assessment	Searches	None	Shared
Case Management	Participant Data	Person data	Shared
Case Management	Participant Data	Education	Shared
Case Management	Participant Data	Employment	Shared
Case Management	Participant Data	Grants	Shared
Case Management	Child and Adult Services	None	Shared
Case Management	Means Tested Services	Interactive Review	Shared
Case Management	Means Tested Services	Integration with XNDS	Shared
Case Management	Means Tested Services	Interface Controllers Office	Shared
Case Management	Means Tested Services	Overpayments Analysis	Shared
Case Management	Means Tested Services	Quality Control Reviews	Shared
Eligibility	Eligibility Determination	None	Shared
Financial	Obligations Management	None	Shared
Financial	Payment Processing	None	Shared
Financial	Deposit Processing	None	Shared
Intake	Customer Info Inq	None	Shared
Intake	Customer Info Maint	None	Shared
Intake	Financial Affidavit	None	Shared
Interfaces	INT1	None	Direct
Interfaces	INT2	INT2 for TANF	Direct

Figure 32 Modify Recipient Counts

- **Benefiting Program dropdown.** This dropdown lists Benefiting Program abbreviations. Select a Benefiting Program to manually assign recipient counts for one or more system components.
- **Total Selected Items display field.** Total of system components currently highlighted.
- **Highlight Items to Modify Counts button.** Clicking this button opens a confirmation box asking whether you wish to highlight the system components currently used by this benefiting program.

Clicking **Yes** will highlight all system components currently indicated for usage by the selected benefiting program.

Clicking **No** is not recommended. "No" closes the message box without highlighting current usage. Use this function only when you wish to reassign all recipient counts for the benefiting program manually.

- **Please Select Items.** Highlight the system components to be assigned a specific recipient count. Click anywhere on a program component row to toggle a highlight on or off.
- **Select All button.** Click to highlight all of the listed system components.
- **Clear Selections button.** Click to remove all highlights from system components.
- **Recipient Count entry.** Enter the specific recipient count to be assigned to the highlighted components.

- **Add Recipient Counts.** Click to update the recipient counts on the Shared Usage LOE worksheet and to recalculate the total number of recipients displayed in the Total column.
- **Calculate Shared Usage Level of Effort (LOE) command button.**

When recipient counts are complete, this command button will perform automated calculations to determine the final cost allocation “fair share” (i.e. percentages) for the benefiting programs, and display results on the Shared Usage LOE Worksheet.

Copied data: Functional Module, Sub_Module, Detail, Usage Type, Weight Type, Weight, Base Value, Num Small, Num Large, and Benefiting Program columns.

Clicking this button opens an Alert message box warning "All information in the Shared Usage LOE worksheet will be deleted! Any costs designated on SubModules Worksheet as Direct Cost will be removed from shared cost calculations. These will be referenced separately on the Cost Allocation Plan worksheet for your reference. Are you sure that you want to calculate shared usage LOE?"

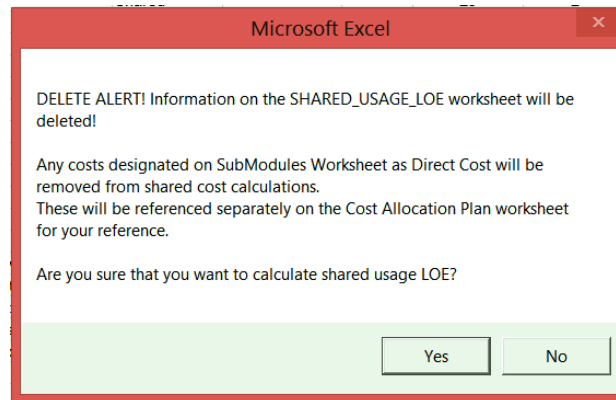


Figure 33 Direct Cost Submodule Alert

Clicking **Yes** starts the automated calculations detailed below, then displays the results on the Shared Usage LOE Worksheet.

Clicking **No** closes the message box; you will remain in the System Recipient Counts Worksheet.

3. Worksheet Calculations -- Shared Usage LOE

- **Overview.**
 - **Shared Usage.** Where a system component will be used only by large programs, the usage share for that system component will be divided equally among the large programs using that component.

Where a system component will be used only by small programs, recipient counts will be used to calculate the specific usage share for each benefiting small program.

Where a system component will be used by both small and large programs, the CAM-TOOL first calculates the share for each small program. After all small programs are processed, the remaining percent of usage is divided into equal shares for the large programs.

- **Components Identified for Direct Use.** For any system component with a usage designation of Direct, the CAM-TOOL makes a further assessment. The CAM-TOOL determines whether the assignment as Direct was made at the Detail module level, or at the Sub_Module level. If the Direct assignment was made at the Detail module level, the module is included in shared usage calculations. (This would be the case where one specific Report of several is used only by one program.)

If you designated the component as Direct at the SubModule level, on the Sub_Module Worksheet, you must handle and track the cost for development as a separate budget item outside the scope of the cost allocation plan. In order to account for all development effort, the CAM-TOOL will carry a direct-cost SubModule through all of the usage calculations. Then, at this point, as noted in the Warning message, the SubModule system component will be removed from shared cost allocation calculations and listed separately on the Cost Allocation Plan as “Excluded from Cost Allocation”.

NOTE: A function may have been incorrectly designated as Direct on the Sub_Module Worksheet. If so, you will need to correct the status on the SubModule Worksheet, and step through CAM-TOOL functions on the All System Usage worksheet and Recipient Counts worksheet. Once corrections have been made, re-run the Calculated Shared Usage Level of Effort (LOE) command button.

- **Shared Usage Data Operations.**

The steps below illustrate the origins of the data used in this calculation, and the operations that provide results on the Shared Usage LOE worksheet. This calculation example has been set up with the following assumptions:

- There are 5 benefiting programs: 3 are large programs (FS, MED, TANF) and 2 are small programs (Program 4 and Program 5).
- There are no programs with a “direct” benefit.
- The Allocation Base is development hours.

(1) CAM-TOOL Set-Up Steps and Dataflow

- **Preparation Step 1:** The CAM-TOOL data for this calculation originated on the Benefiting Programs Worksheet, which documented the benefiting programs (2 Small programs and 3 Large programs), and recipient counts for each program (see Figure 34).

PROGRAM_ABBREV	PROGRAM	PROGRAM_SIZE	RECIPIENT_COUNTS
FS	Food Stamps	Large	500,000
TANF	TANF	Large	465,000
MED	MEDICAID	Large	500,000
PROGRAM 4	PROGRAM 4	Small	750
PROGRAM 5	PROGRAM 5	Small	900

Figure 34 Preparation Step 1

- **Preparation Step 2:** CAM-TOOL data for this calculation includes the program usage assigned on the All System Usage worksheet, as shown below. (The base values and weights assigned on the All System Usage worksheet are addressed in Calculation Step 3 below.)

Note: Program 4 will benefit from Alert AL1, AL2, and AL4, as shown by the usage=Xs. The **Total** column shows that a total of 4 programs will benefit from Alert AL1, 4 programs will benefit from Alert AL2, and 4 programs will benefit from Alert AL4.

Functional Module	Sub_Module	Detail	Usage Type	Num Small	Num Large	FS	TANF	MED	Program 4	Program 5	Totals
Alerts	Management	AL1	Shared	1	3	X	X	X	X		4
Alerts	Management	AL2	Shared	2	2	X		X	X	X	4
Alerts	Management	AL3	Shared	1	1	X				X	2
Alerts	Staff	AL4	Shared	2	2	X	X		X	X	4
Alerts	Staff	AL5	Shared	0	3	X	X	X			3

Figure 35 Preparation Step 2

- **Preparation Step 3:** The CAM-TOOL dataflow continued to the Recipient Counts worksheet. Recipient counts from the Benefiting Programs worksheet were inserted to system functions used by each program, replacing each usage=X. Note in Figure 36 below that Program 4 now shows a recipient count of 750 for Alerts AL1, AL 2, and AL4.

Note: the **Total** column has recalculated to total the recipient counts: a total of 1,465,570 recipients will benefit from Alert AL1; 1,001,650 recipients will benefit from Alert AL2; and 966,650 recipients will benefit from Alert AL4.

Functional Module	Sub_Module	Detail	Num Small	Num Large	FS	TANF	MED	Program4	Program5	Total
Alerts	Management	AL1	1	3	500,000	465,000	500,000	750		1,465,750
Alerts	Management	AL2	2	2	500,000		500,000	750	900	1,001,650
Alerts	Management	AL3	1	1	500,000				900	500,900
Alerts	Staff	AL4	2	2	500,000	465,000		750	900	966,650
Alerts	Staff	AL5	0	3	500,000	465,000	500,000			1,465,000

Figure 36 Preparation Step 3

(2) Calculate Shared Usage Level of Effort (LOE) command button calculations.

- **Calculation Step 1:** It is at this point that calculations begin for the command button Calculate Shared Usage Level of Effort (LOE). Calculations are repeated for each row of system components.

The first step calculates recipient count percentages for each small program that uses a program component. This is determined by dividing the small program recipient counts by the total recipients that will benefit from the system component. For Alerts, the recipient count percentages are calculated as follows:

Preparation Step 3 above showed Program 4 has 750 of the total 1,465,570 recipients who will benefit from Alert AL1. Program 4 also has 750 of the total 1,001,650 recipients of Alert AL2; and has 750 of the 966,650 recipients of Alert AL4.

Preparation Step 3 also showed Program 5 has 900 of the total 1,001,650 recipients who will benefit from Alert AL2; has 900 of the total 500,900 recipients of Alert AL3; and has 900 of the 966,650 recipients of Alert AL4.

Recipients count percentages shown in Figure 37 were calculated as follows:

Program 4, Alert AL1: percent of recipients calculates as $750/1,465,750 = 0.0005$.
 Program 4, Alert AL 2: percent of recipients calculates as $750/1,001,650 = 0.0007$.
 Program 4, Alert AL 4: percent of recipients calculates as $750/966,650 = .0008$.

Program 5, Alert AL 2: percent of recipients calculates as $900/1,001,650 = 0.0009$.
 Program 5, Alert AL 3: percent of recipients calculates as $900/500,900 = 0.0018$.
 Program 5, Alert AL 4: percent of recipients calculates as $900/966,650 = .0009$.

Functional Module	Sub_Module	Detail	Num Small	Num Large	FS	TANF	MED	Program4	Program5	Total
Alerts	Management	AL1	1	3				0.0005		1
Alerts	Management	AL2	2	2				0.0007	0.0009	1
Alerts	Management	AL3	1	1					0.0018	1
Alerts	Staff	AL4	2	2				0.0008	0.0009	1
Alerts	Staff	AL5	0	3						1

Figure 37 Calculation Step 1

- **Calculation Step 2:** Second, the CAM-TOOL calculates the recipient count percentage for large programs.

The usage for small programs is subtracted from the maximum decimal total of 1.

For Alert AL2, there are 2 small programs under Num Small (Program 4 and Program 5).

Program 4's recipient count percentage is .0007, and Program 5's recipient count percentage is .0009. The calculation subtracts these shares from 1:
 $1 \text{ (i.e., 100\% of the Total)} - [.0007 + .0009] = .9984$.

After subtracting small programs, the remaining usage percentage is .9984.

The remaining usage percentage is divided equally among the number of large programs, as shown in Figure 38.

For Alert AL2 , there are 2 large programs under Num Large (FS and MED).

The 2 large programs divide the usage percentage of .9984 (i.e., .9984/2) or .4992.

Functional Module	Sub_Module	Detail	Num Small	Num Large	FS	TANF	MED	Program4	Program5	Total
Alerts	Management	AL1	1	3	.3332	.3332	.3332	0.0005		1
Alerts	Management	AL2	2	2	.4992		.4992	0.0007	0.0009	1
Alerts	Management	AL3	1	1	.9982				0.0018	1
Alerts	Staff	AL4	2	2	.49915	.49915		0.0008	0.0009	1
Alerts	Staff	AL5	0	3	.33333	.33333	.33333			1

Figure 38 Calculation Step 2

- **Calculation Step 3:** The third calculation determines the overall share of usage for each benefiting program. This calculation factors in Base Value and Weight data, and transforms the recipient count percentages into a program-level share of the development effort for each system component.

In our example, the allocation base for cost allocation is software development hours. The Base Values are the estimated development hours; there is no additional weighting system.

To illustrate the calculation, in Figure 39 we have added the Base Value and Weight columns next to the recipient count percentages they will act on.

Functional Module	Sub_Module	Detail	Base Value	Weight	FS	TANF	MED	Program4	Program5	Total
Alerts	Management	AL1	20		.3332	.3332	.3332	0.0005		1
Alerts	Management	AL2	25		.4992		.4992	0.0007	0.0009	1
Alerts	Management	AL3	10		.9982				0.0018	1
Alerts	Staff	AL4	5		.49915	.49915		0.0008	0.0009	1
Alerts	Staff	AL5	5		.33333	.33333	.33333			1

Figure 39 Calculation Step 3

The CAM-TOOL calculates “base value” and “weighting system” allocations differently.

Calculation for Base Values: The CAM-TOOL multiplies the base value for each system function by the benefiting program’s percentage of usage (base value ‘times’ recipient count percentage). We will step through the calculation for Alert AL2. In Figure 40 below, Alert AL2 has a base value of 25 (development hours).

As a large program, the FS usage percentage is .4992. Of the 25 development hours needed by AL2, the FS share should be:
 25 multiplied by .4992 = 12.48, highlighted in Figure 40 below.

As a large program, the MED usage percentage is .4992. Of the 25 development hours needed by AL2, the MED share should be:
 25 multiplied by .4992 = 12.48.

A small program, Program 4 recipient percentage is .0007. Of the 25 development hours needed by AL2, the Program 4 share should be:
25 multiplied by .0007 = 0.0175.

A small program, Program 5 recipient percentage is .0009. Of the 25 development hours needed by AL2, the Program 5 share should be:
25 multiplied by .0009 = 0.0225.

Functional Module	Sub_Module	Detail	Base Value	Weight	FS	TANF	MED	Program4	Program5	Total
Alerts	Management	AL1	20		6.664	6.664	6.664	0.01		20
Alerts	Management	AL2	25		12.48		12.48	0.0175	0.0225	25
Alerts	Management	AL3	10		9.982				0.018	10
Alerts	Staff	AL4	5		2.4955	2.4955		0.004	0.0045	5
Alerts	Staff	AL5	5		1.6665	1.6665	1.6665			5

Figure 40 Calculation Step 3 Base Values

NOTE: Calculation for Weight Values. Where a weighting system is used, the CAM-TOOL also factors the weight value into the calculation: multiplying base value 'times' weight 'times' recipient count percentage to calculate each program's usage share of every system component.

- **Calculation Step 4:** Finally, the command button inserts the new calculated data results into the Shared Usage LOE worksheet.

4. Required Fields needed for the CAM-TOOL automated calculations.

- Functional Module
- Sub_Module
- Detail
- Program Abbrev
- Usage Type (calculated from All System Usage worksheet)
- Weight Type (if used in this scenario)
- Weight (if used in this scenario)
- Base Value
- Num_Small (calculated from All System Usage worksheet)
- Num Large (calculated from All System Usage worksheet)
- Usage (copied from All System Usage; replaced with Recipient Counts)