

DEPARTMENT OF HEALTH AND HUMAN SERVICES
ADMINISTRATION FOR CHILDREN AND FAMILIES

HELP GUIDE

REVENUE STREAM MODEL
COST/BENEFIT ANALYSIS ILLUSTRATED
FOR CHILD SUPPORT ENFORCEMENT SYSTEMS

AUGUST 2000
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CHANGE SHEET

Date	Change
March 15, 2001	<p>Provided <u>System Development Costs</u> clarification in paragraph <u>Model Description</u>.</p> <p>To prevent the loss of base year projections, with actual Year1 data input. Added an additional <u>Base Year</u> data screen.</p> <p>Updated the <u>Revenue Stream Model Tutorial</u> to reflect changes made in the model.</p> <p>The original <u>Revenue Stream Model.xls</u>, file is renamed <u>Revenue Stream Model V2.xls</u> to reflect the current version.</p> <p>The only opportunity to save will be on 'Exit' from <u>Revenue Stream Model V2.xls</u>.</p>

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BENEFIT ANALYSIS - REVENUE STREAM MODEL

Introduction

The Revenue Stream Model is an acceptable alternate methodology of modeling system benefits. This model estimates the increase in revenue, due to automation for the system as a whole, without trying to determine what new system function caused the increase. These costs and benefits do not correspond to those in Chapter 2 of Companion Guide 3.

The strengths of this model are that it is easy to predict, measure and verify the changes in revenue; and that it will include benefits from all automation improvements, even those that are difficult to predict and/or quantify. The weakness of the model is that it does not differentiate between the benefits of individual system enhancements. For example, the Model will not differentiate between the increase in collections due to improved Interstate Enforcement, Wage Withholding, Driver's License Suspension or Passport Denial. In addition, the model may include some revenues that are not due to automation, such as, re-organizations, program changes, enhanced training, etc.

Model Description

Based on historical data the model makes a prediction on the rate of collections-growth. A percentage of this collections-growth is defined as a benefit revenue stream. The benefit revenue stream percentage is the ratio of the system's annual operation and maintenance costs plus the amortized system development costs to the total administrative costs of the system. When the cumulative benefit from the benefit revenue stream exceeds the cumulative costs of system development plus ongoing operations and maintenance costs, the system has paid for itself or broken even. The State may want to run the model using various base year and growth rate scenarios to maximize the breakeven point.

Convenient resources to verify Annual State input data are the State Box Scores, Total Distributed Collections, Total Administrative Expenditures, and Total ADP Expenditures included in the CSE Annual Reports to Congress. The 18th through the 23rd Annual Reports to Congress and the 1999 Preliminary Statistics Sept 2000 are located on the OCSE WEB Site at www.acf.dhhs.gov/programs/cse/prgrpt.htm.

The following descriptions provide guidance essential to data preparation and determining growth estimates. The descriptions also provide insight about how the model performs the calculations necessary to predict the breakeven point. Although, the States may choose any comparable base-year, for the following examples, the model uses 1999 as the base-year and 8 years as the expected life of the system.

Separation of System Life Cycle Costs

For the purposes of the Revenue Stream Model, all System Life Cycle Cost (LCC) are categorized as either **System Development Costs** or **ADP Operations and Maintenance (O&M) Costs**.

The **System Development Costs** are the total costs for developing the current system over its estimated life span. System Development Costs include both actual and estimated costs

involved with system planning, concept design, hardware and software implementation and installation, and system test and training. Do not confuse these costs with sustaining costs, such as **Annual ADP Operations and Maintenance (O&M) Costs**, described later in this document.

When separating System Life Cycle Cost (LCC), into System Development Costs or Annual ADP Operations and Maintenance (O&M) Costs, take care to ensure that Life Cycle Costs are not counted twice.

The Revenue Stream Model calculates the **ADP to Admin Percentage** using the ratio between actual **Annual ADP Operations and Maintenance (O&M) Costs** projected over the system life span and the **System Development Costs** amortized over the system life span.

Annual Caseload Growth

The **Annual Caseload Growth** is determined by calculating the average increase in **Annual Caseload** for the program over three previous years.

$$1999 \text{ Growth Rate} = (1999 \text{ Annual Caseload} - 1998 \text{ Annual Caseload}) \div 1998 \text{ Annual Caseload}$$

$$1998 \text{ Growth Rate} = (1998 \text{ Annual Caseload} - 1997 \text{ Annual Caseload}) \div 1997 \text{ Annual Caseload}$$

$$1997 \text{ Growth Rate} = (1997 \text{ Annual Caseload} - 1996 \text{ Annual Caseload}) \div 1996 \text{ Annual Caseload}$$

$$\text{Annual Caseload Growth} = ((1997 \text{ Growth Rate} + 1998 \text{ Growth Rate} + 1999 \text{ Growth Rate}) \div 3) \times 100$$

Note that trends in caseload growth do not affect the Revenue Stream Model, because they are not employed in the cost benefit calculations. However, trends are useful in helping to pinpoint anomalies such as a large one-time jump in caseload growth due to legislative changes. A distinct increase in Annual Caseload Growth could result in a corresponding one-time boost in the cost of Annual ADP Operations and Maintenance, which is a major component of this cost benefit model. If an anomaly like this causes significant fluctuations in annual caseload growth in your model, ensure that it is addressed in the assumptions submitted with the Cost Benefit Analysis section of the Advance Planning Document.

Annual Caseload

The **Annual Caseload** is the total caseload from AFDC-TANF/Foster Care, Arrears and Non-AFDC-TANF sources for each year. The Model projects the **Annual Caseload** for each year of the estimated systems life by taking the prior year **Annual Caseload** and multiplying by the **Annual Caseload Growth** rate.

$$\text{Annual Caseload for 1999} = \text{Actual}$$

$$\text{Annual Caseload for 2000} = \text{Annual Caseload for 1999} \times (1 + (\text{Annual Caseload Growth} \div 100))$$

$$\text{Annual Caseload for 2001} = \text{Annual Caseload for 2000} \times (1 + (\text{Annual Caseload Growth} \div 100))$$

Etc.

Annual Collections Growth

The **Annual Collections Growth** is determined by calculating the average increase in **Annual Collections** for the program over three previous years.

$$1999 \text{ Growth Rate} = (1999 \text{ Annual Collections} - 1998 \text{ Annual Collections}) \div 1998 \text{ Annual Collections}$$

$$1998 \text{ Growth Rate} = (1998 \text{ Annual Collections} - 1997 \text{ Annual Collections}) \div 1997 \text{ Annual Collections}$$

$$1997 \text{ Growth Rate} = (1997 \text{ Annual Collections} - 1996 \text{ Annual Collections}) \div 1996 \text{ Annual Collections}$$

$$\text{Annual Collections Growth} = (1997 \text{ Growth Rate} + 1998 \text{ Growth Rate} + 1999 \text{ Growth Rate}) \div 3 \times 100$$

Again, address significant fluctuations in collection growth calculations in the assumptions submitted with the Cost Benefit Analysis section of the Advance Planning Document.

Annual Collections

The **Annual Collections** are the total amount of collections distributed during the year on behalf of AFDC TANF/Foster Care and Non-AFDC-TANF. The Model projects the **Annual Collections** for each year of the estimated systems life by taking the prior year **Annual Collections** and multiplying by the **Annual Collection Growth** rate.

Annual Collections for 1999 = Actual

Annual Collections for 2000 = Annual Collections for 1999 \times (1 + (Annual Collections Growth \div 100))

Annual Collections for 2001 = Annual Collections for 2000 \times (1 + (Annual Collections Growth \div 100))

Etc.

Annual Administration Costs

The **Annual Administration Costs** are the total expenditures to administration the Child Support Enforcement program that are eligible for Federal funding during the year. The Model projects the **Annual Administration Costs** for each year of the systems projected life by taking the prior year **Annual Administration Costs** and multiplying by the **Annual Administration Growth** rate.

Annual Admin Costs for 1999 = Actual

Annual Admin Costs for 2000 = Annual Admin Costs for 1999 \times (1 + (Annual Admin Growth \div 100))

Annual Admin Costs for 2001 = Annual Admin Costs for 2000 \times (1 + (Annual Admin Growth \div 100))

Etc.

Note that the **Annual Administration Growth** percentage is usually tied to the rate of inflation. However, your Annual Administration Growth projections should account for any anticipated legislative increases in funding, such as large staffing expenditures. Again, address significant fluctuations in Annual Administration Growth calculations in the assumptions submitted with the Cost Benefit Analysis section of the Advance Planning Document.

Annual ADP Operations and Maintenance (O&M) Costs

The **Annual ADP Operations and Maintenance (O&M) Costs** are the State's total operations and maintenance expenditures to administer the Child Support Enforcement program during the year. The Model projects the **Annual ADP O&M Costs** for each year of the estimated systems life by taking the prior year **Annual ADP O&M Costs** and multiplying by the **Annual ADP Growth percentage** rate.

Annual ADP O&M Costs for 1999 = Actual

Ann ADP O&M Costs for 2000 = Ann ADP O&M Costs for 1999 \times (1 + (Ann ADP Growth \div 100))

Ann ADP O&M Costs for 2001 = Ann ADP O&M Costs for 2000 \times (1 + (Ann ADP Growth \div 100))

Etc.

Note that the Annual ADP Growth percentage is usually tied to the rate of inflation. However, your Annual ADP Growth projections should account for any anticipated legislative increases in funding. Address significant increases in the Annual ADP O&M Growth rate in the assumptions submitted with the Cost Benefit Analysis section of the Advance Planning Document.

Annual Amortization of System Development Costs

The **Annual Amortization of System Development Costs (AASD)** is the **System Development Costs** amortized over the projected **Estimated System Life** plus the **Annual ADP O&M Costs**. Note that the projected **Estimated System Life** is normally set at eight years. The model will accommodate projections from a minimum of seven to a maximum of eleven years.

Annual Amortization Rate = $1 \div \text{Estimated System Life in Years}$
 Annual System Development Cost = $\text{System Development Cost} \div \text{Annual Amortization Rate}$
 AASD for 2000 = $\text{Annual System Development Cost} + \text{Annual ADP O\&M Costs for 2000}$
 AASD for 2001 = $\text{Annual System Development Cost} + \text{Annual ADP O\&M Costs for 2001}$
 AASD for 2002 = $\text{Annual System Development Cost} + \text{Annual ADP O\&M Costs for 2002}$
 Etc.

ADP to Admin Percentage

The **ADP to Admin Percentage** is projected for each year of the system's estimated life by dividing the **Annual Amortization of System Development (AASD)** by the **Annual Administration Costs** for each year into.

ADP to Admin Percentage for 2000 = $(\text{AASD for 2000} \div \text{Annual Admin Cost for 2000}) \times 100$
 ADP to Admin Percentage for 2001 = $(\text{AASD for 2001} \div \text{Annual Admin Cost for 2001}) \times 100$
 ADP to Admin Percentage for 2002 = $(\text{AASD for 2002} \div \text{Annual Admin Cost for 2002}) \times 100$
 Etc.

Base Year and Current Year Collections Difference

The **Base Year and Current Year Collections Difference** is calculated for each year of the system's projected life by subtracting the **Base Year Annual Collections** from the **Current Year Annual Collections**.

Collection Difference for 2000 = $\text{Total Collections for 2000} - \text{Total Collections for 1999}$
 Collection Difference for 2001 = $\text{Total Collections for 2001} - \text{Total Collections for 1999}$
 Collection Difference for 2002 = $\text{Total Collections for 2002} - \text{Total Collections for 1999}$
 Etc.

Benefits Attributed to Automation

The **Benefits Attributed to Automation (BAA)** is calculated for each year of the system's projected life as a share of the total revenue increase, by multiplying the **Collections Difference** and the **ADP to Admin Percentage** for each year.

BAA for 2000 = $(\text{Collections Difference for 2000} \times \text{ADP to Admin Percentage for 2000}) \div 100$
 BAA for 2001 = $(\text{Collections Difference for 2001} \times \text{ADP to Admin Percentage for 2001}) \div 100$
 BAA for 2002 = $(\text{Collections Difference for 2002} \times \text{ADP to Admin Percentage for 2002}) \div 100$

Etc.

Accumulated Annual Costs

The **Accumulated Annual Costs (AAC)** attributable to the system is calculated for each year of the system's projected life. This is the actual non-amortized total System Development Cost plus the Annual ADP O&M Costs for each year.

AAC for 2000 = System Development Cost + Annual ADP O&M Costs for 2000

AAC for 2001 = AAC for 2000 + Projected Annual ADP O&M Costs for 2001

AAC for 2002 = AAC for 2001 + Projected Annual ADP O&M Costs for 2002

Etc.

Accumulated Annual Benefits

The **Accumulated Annual Benefits (AAB)** attributable to the system is calculated for each year of the system's projected life.

AAB for 2000 = Benefits Attributed to Automation for 2000

AAB for 2001 = AAB for 2000 + Benefits Attributed to Automation for 2001

AAB for 2002 = AAB for 2001 + Benefits Attributed to Automation for 2002

Etc.

Breakeven Point

When the **Accumulated Annual Benefits** exceed the **Accumulated Annual Costs**, then the system has broken even. These values are tracked monthly to identify the earliest possible breakeven date.

Model Parameters

Estimates used in the model should fall within the following parameters, based on national historical data from 1993 to 1997 in OCSE's Twenty-Second Annual Report to Congress. The 18th through the 23rd Annual Reports to Congress and the 1999 Preliminary Statistics Sept 2000 are on the OCSE WEB Site at www.acf.dhhs.gov/programs/cse/prgrpt.htm.

3% to 6% for Annual Caseload Growth Rate

3% to 10% for Annual Collections Growth Rate

Inflation Rate \pm 2% for Annual Administration Growth Rate

Inflation Rate \pm 1% for Annual ADP Growth Rate

10% to 40% for percent of ADP to Administration Costs

The State must supply a justification for values that fall outside these parameters.

REVENUE STREAM MODEL SPREADSHEET

The Microsoft Excel 97 application accompanying this help guide contains an integrated spreadsheet designed for entering and summarizing Child Support Enforcement Cost/Benefit Analysis data. The application consists of one database or file. The application will amortize the cost of system development up to 11 years, calculate the annual benefit, calculate the cumulative benefit, calculate the cumulative costs, and show the breakeven point. When the State updates the spreadsheet with actual cost and revenue values each year, the spreadsheet will recalculate the breakeven point based on the new values.

Before running *revenue stream model v2.xls* make two copies of the application. Name one copy *Your State Name RSM v2.xls* and the other copy *Tutorial RSM v2.xls*:

- The *Your State Name RSM v2.xls* file will be included as part of the Advanced Planning Document, while
- The *Tutorial RSM v2.xls* file will become the training application used in this tutorial.

Do not use the *Tutorial RSM v2.xls* application to input actual State data because prior-year formulas are disabled by the entry of the annual Year 1 through Year 11 data.

This application uses macros in its normal operation. Uncheck the *AutoSave* feature in *Tools* and uncheck the *Macro Virus Protection* in *Tools / Options / General* before running the application or answer *Enable Macros* when the Excel warning message appears.

Revenue Stream Model Tutorial

Step 1 - Open the saved *Tutorial RSM v2.xls* program to start the application. If the Excel Macro warning message appears, answer *Enable Macros* to continue. The Main Menu screen in Figure 1 will appear as the initial screen. From the Main Menu the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select the 'Pull-Down Menu' and continue to Step 2.

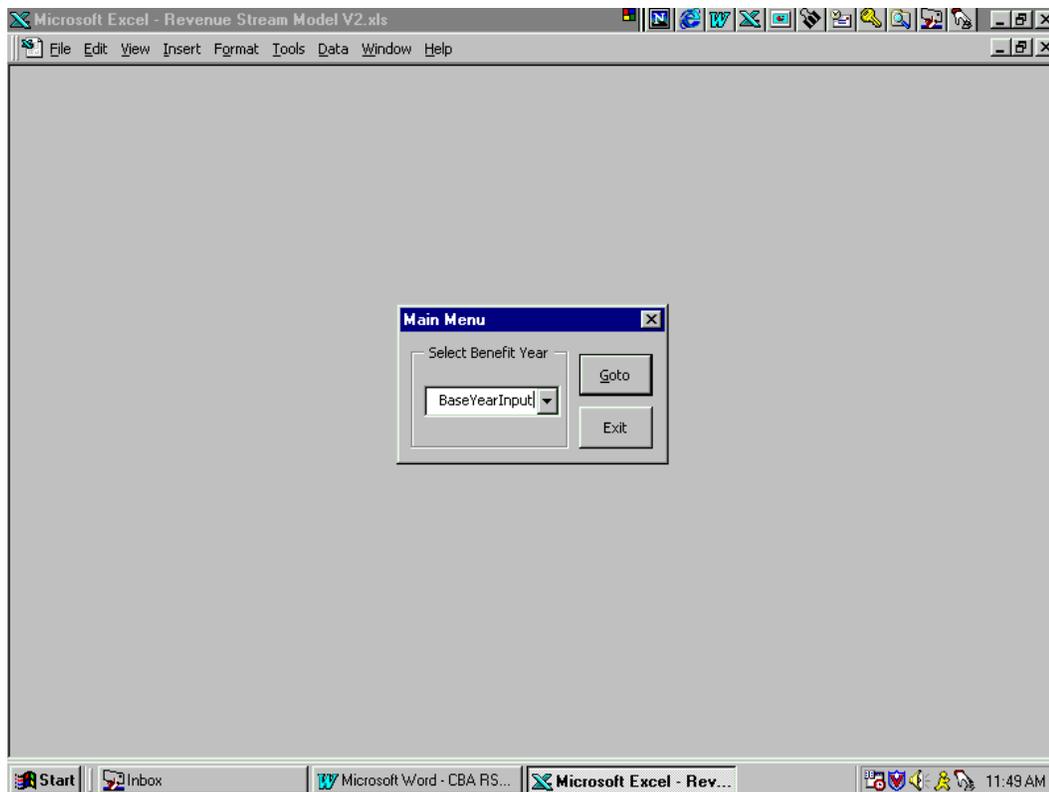


Figure 1 RSM Main Menu

Step 2 - When the 'Pull-Down Menu' is selected from the Main Menu, the screen in Figure 2 appears. From Figure 2 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select an option from the Pull-Down Menu.

For purposes of this step, click on 'Base Year Input' and continue to Step 3.

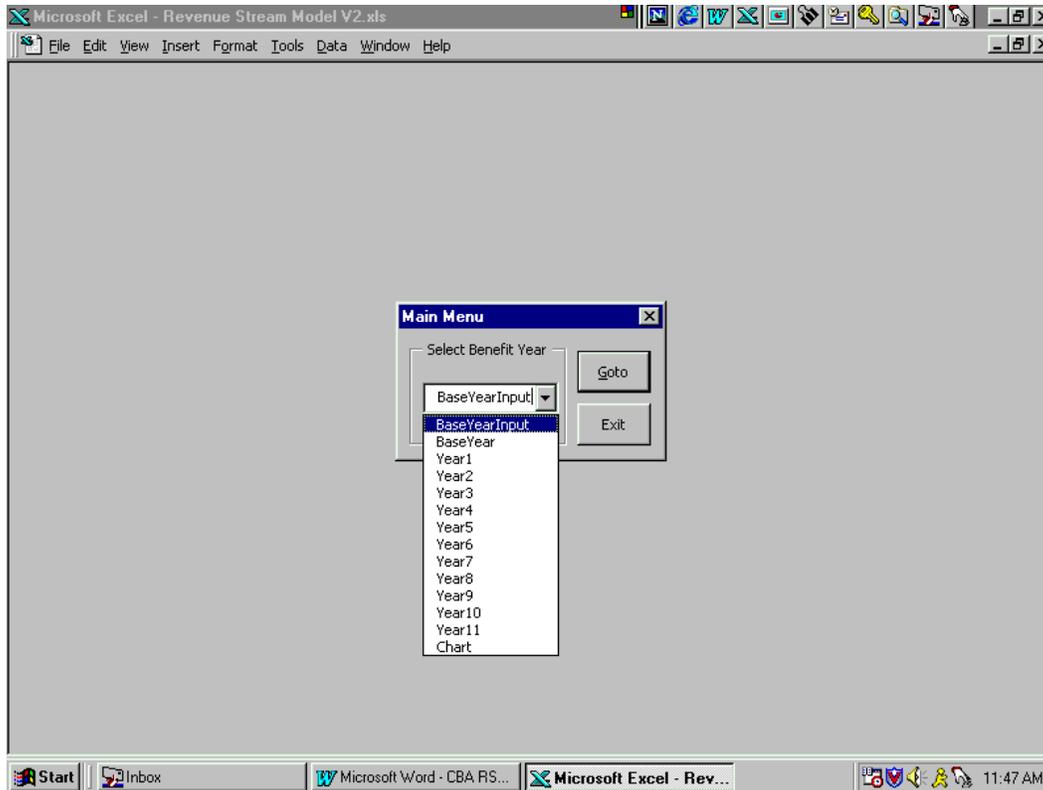


Figure 2 Select Base Year Data Input Menu

Step 3 - When 'Base Year Input' is selected from the Pull Down Menu, the screen in Figure 3 appears. From Figure 3 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the highlighted Base Year Input screen (See Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select 'Go To' and continue to Step 4.

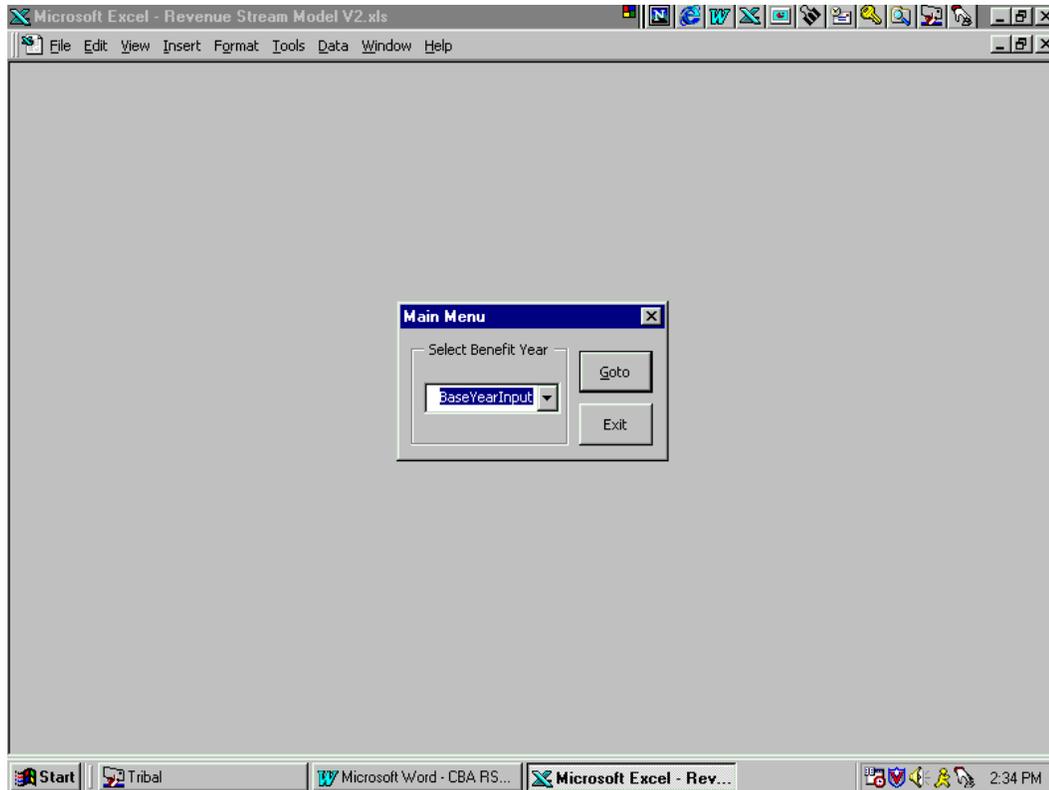


Figure 3 Go To Base Year Data Input Screen

Step 4 - When ‘Go To Base Year Input’ is selected from the Main Menu, the screen in Figure 4 appears. From Figure 4 the Analyst can:

- Select ‘X’, to return to the Main Menu (See Step 5), or
- Input/Change Base Year data and Growth Rates as defined in ‘Benefit Analysis – Revenue Stream Model’. For purposes of this example use Figure 4 data,

(1) Input Base Year Data,

- System Development Costs,
- Base Year Annual Caseload,
- Base Year Annual Collections,
- Base Year Annual Admin Costs,
- Base Year Annual ADP Costs,
- Base Year Date (Fiscal Year, i.e., 10/01/yyyy),
- Estimated Life of the System in Years (Ranges are 7yrs to 11 yrs, normally 8yrs), and
- State’s Full Name.

- Annual Caseload Growth,
- Annual Collections Growth,
- Annual Admin Growth, and
- Annual ADP Growth.

(2) Input Growth Rates,

For purposes of this step, input the screen data and select ‘X’ on the input screen, to return to the Main Menu. Continue to Step 5.

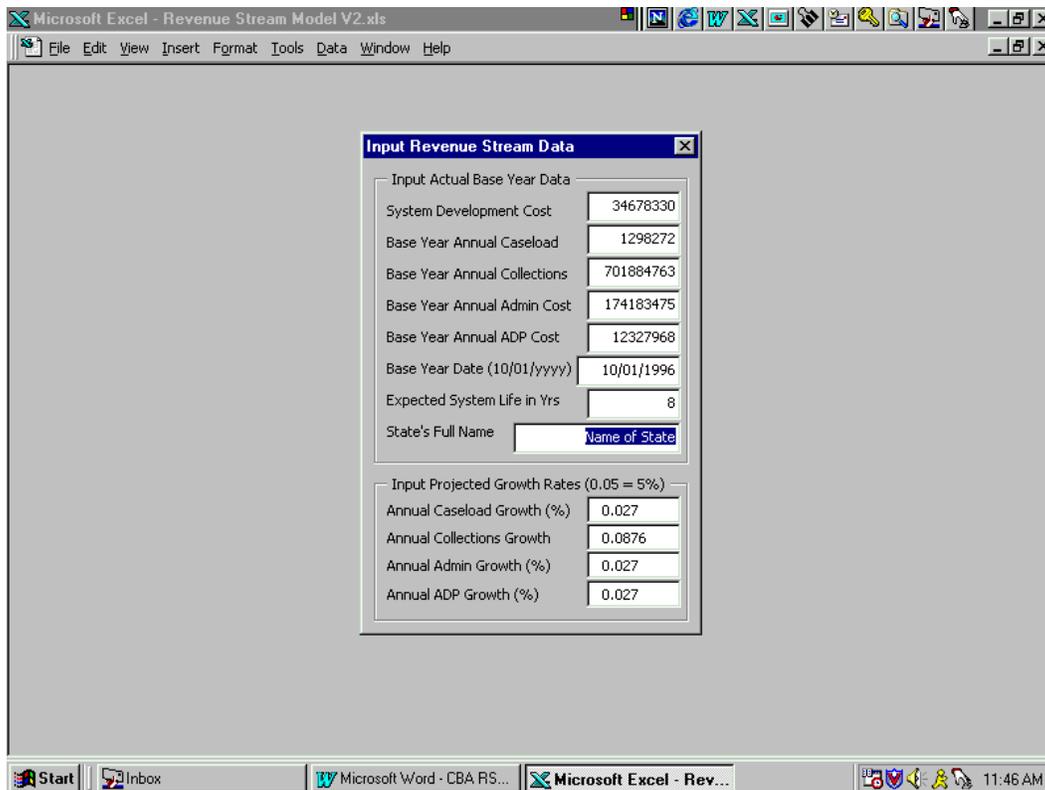


Figure 4 Input Base Year Data Screen

Step 5 - When 'X' is selected from the Input Base Year Data screen, Figure 5 appears as the screen. From Figure 5 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (Go Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select the 'Pull-Down Menu' and continue to Step 6.

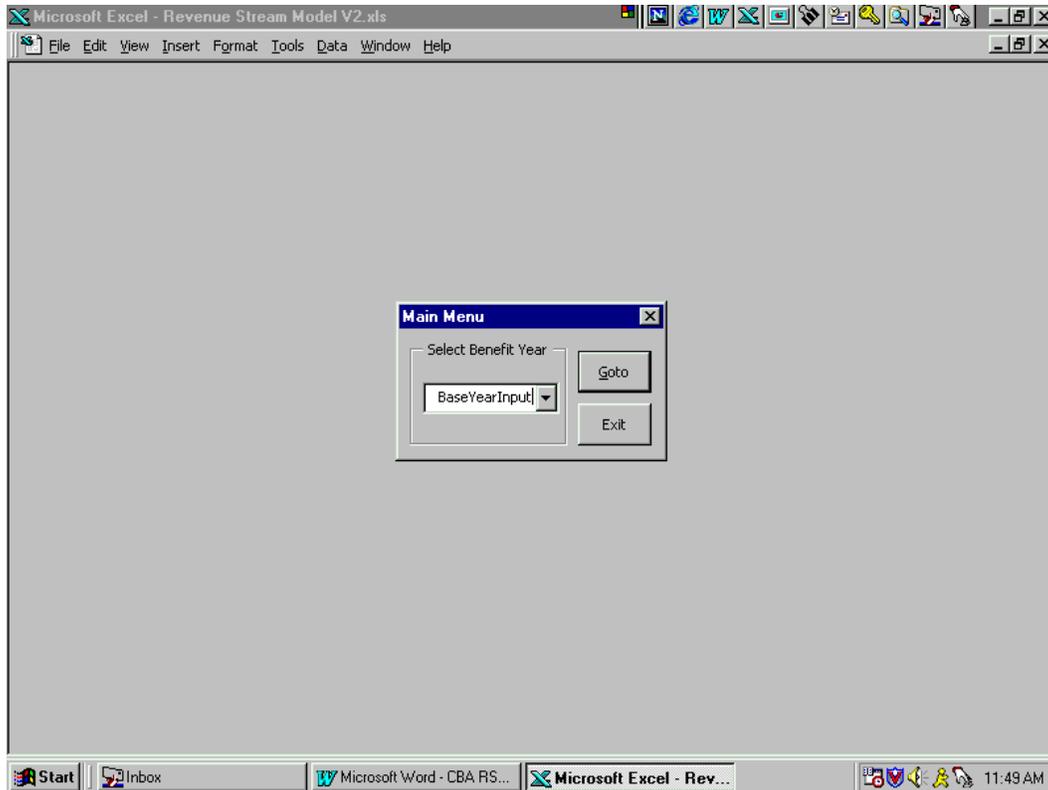


Figure 5 Return to RSM Main Menu

Step 6 - When the 'Pull-Down Menu' is selected from the Main Menu, the screen in Figure 6 appears. From Figure 6 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select an option from the Pull-Down Menu.

For purposes of this step, click on 'Base Year' and continue to Step 7.

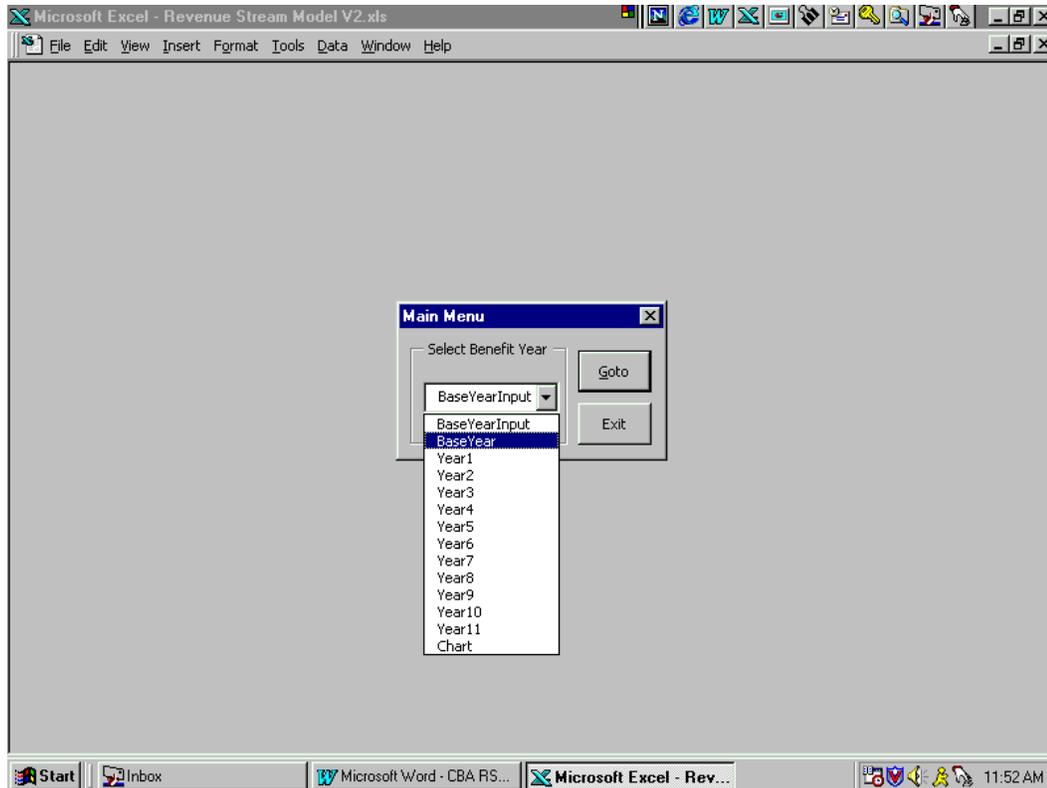


Figure 6 Select Base Year Review Menu

Step 7 - When 'Base Year' is selected from the Pull-Down Menu, the screen in Figure 7 appears. From Figure 7 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the highlighted Base Year Review screen (See Step 8), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select 'Go To' and continue to Step 8.

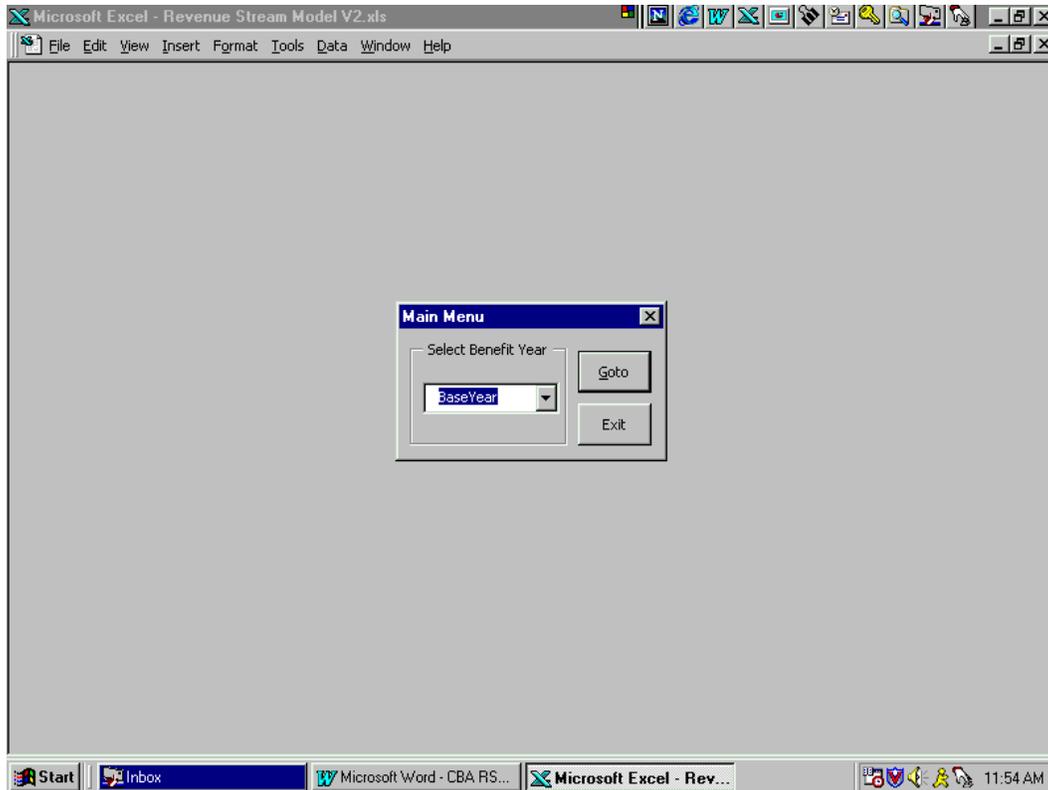


Figure 7 Go To Base Year Review Screen

Step 8 - When 'Go To Base Year' is selected from the Main Menu, the screen in Figure 8 appears. From Figure 8 the Analyst can:

- Select 'Yes', to print a preview of Base Year data (See Step 9), or
- Select 'No', to by-pass printing a preview of Base Year data and continue to Step 10.

For purposes of this step, select 'Yes' on the Print Data Dialog Box and continue to Step 9.

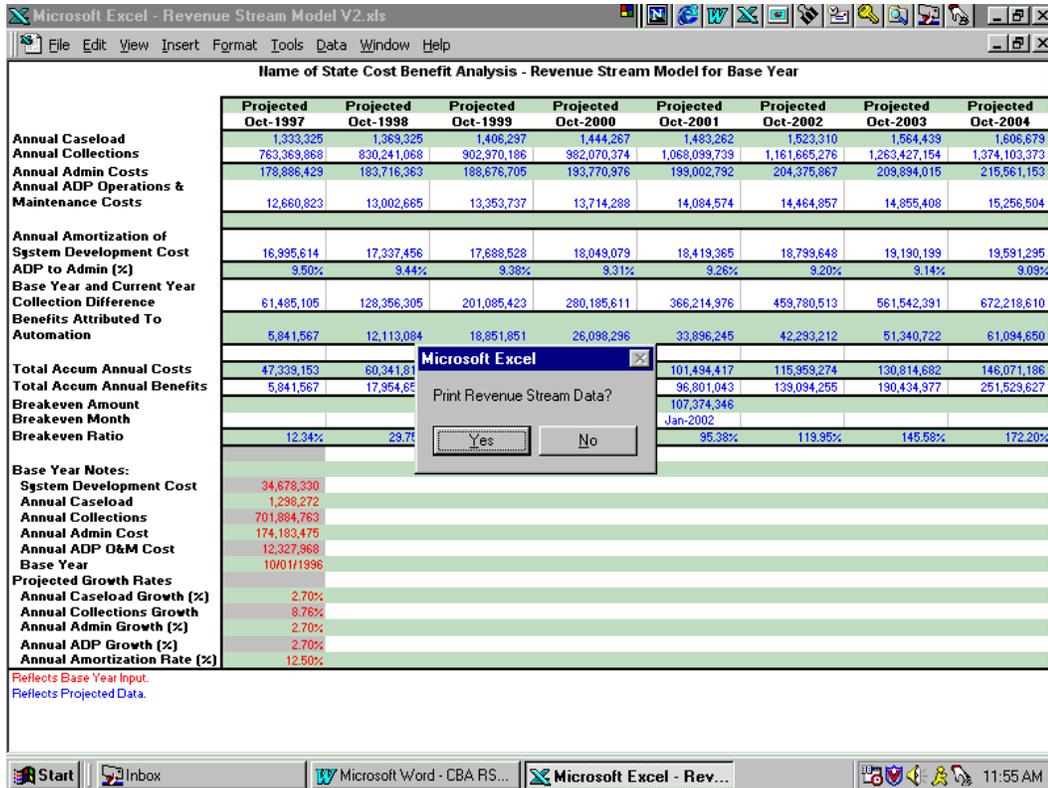


Figure 8 Print Base Year Review Option Menu

Step 9 - When ‘Yes’ is selected from the Print Data Dialog Box, the screen in Figure 9 appears. From Figure 9, the Analyst can select any activated item on the menu bar.

Note: Selecting ‘Page Break Preview’ is not recommended, because it will change the spreadsheet views. If this should happen, the print view screen will automatically close and return to the Main Menu. To recover repeat Steps 6 through Step 9 and select ‘Normal View’.

- Select ‘Print’, to print Base Year data, or
Note: After various print messages, the program returns to the Main Menu data screen.
- Select ‘Close’, to return to the Main Menu.

For purposes of this step, select ‘Print or Close’ and continue to Step 10.

The screenshot shows a Microsoft Excel window titled 'Revenue Stream Model V2.xls'. The menu bar includes 'Next', 'Previous', 'Zoom', 'Print...', 'Setup...', 'Margins', 'Page Break Preview', 'Close', and 'Help'. The main window displays a table titled 'Name of State Cost Benefit Analysis - Revenue Stream Model for Base Year'. The table has columns for 'Projected' data from 'Oct-1997' to 'Oct-2004'. The rows list various costs and benefits, including 'Annual Caseload', 'Annual Collections', 'Annual Admin Costs', 'Annual ADP Operations & Maintenance Costs', 'Annual Amortization of System Development Cost ADP to Admin (%)', 'Base Year and Current Year Collection Difference', 'Benefits Attributed To Automation', 'Total Accum Annual Costs', 'Total Accum Annual Benefits', 'Breakeven Amount', 'Breakeven Month', 'Breakeven Ratio', and 'Base Year Notes'.

	Projected Oct-1997	Projected Oct-1998	Projected Oct-1999	Projected Oct-2000	Projected Oct-2001	Projected Oct-2002	Projected Oct-2003	Projected Oct-2004
Annual Caseload	1,384,625	1,386,325	1,406,267	1,444,087	1,481,262	1,520,810	1,564,436	1,612,616
Annual Collections	783,359,689	830,241,069	902,970,196	982,070,374	1,069,066,739	1,161,069,276	1,261,427,154	1,374,103,373
Annual Admin Costs	174,950,438	183,718,383	194,970,703	198,770,676	199,022,762	204,370,667	209,884,875	216,581,188
Annual ADP Operations & Maintenance Costs	12,660,823	13,002,665	13,393,737	13,774,288	14,094,674	14,464,857	14,895,405	15,295,604
Annual Amortization of System Development Cost	16,995,614	17,337,456	17,689,626	18,046,079	18,416,365	18,796,646	19,180,199	19,569,295
ADP to Admin (%)	8.23%	8.44%	8.39%	8.31%	8.26%	8.20%	8.14%	8.07%
Base Year and Current Year Collection Difference	61,485,105	128,366,305	201,055,423	283,195,611	369,214,676	459,760,513	551,642,391	672,218,610
Benefits Attributed To Automation	5,841,697	12,113,284	18,891,891	26,058,268	33,868,245	42,268,212	51,340,722	61,034,890
Total Accum Annual Costs	47,398,193	60,324,318	73,395,655	87,400,643	101,464,417	116,660,374	133,014,299	148,071,188
Total Accum Annual Benefits	6,241,697	17,584,591	36,306,302	62,324,768	95,791,141	136,044,295	194,434,277	261,194,697
Breakeven Amount					107,374,340			
Breakeven Month					Jan-2002			
Breakeven Ratio	12.34%	26.76%	40.94%	71.37%	95.36%	118.95%	145.86%	172.33%
Base Year Notes:								
System Development Cost	34,676,330							
Annual Caseload	1,268,272							
Annual Collections	701,884,738							
Annual Admin Cost	174,954,415							
Annual ADP O&M Cost	12,307,665							
Base Year	10,011,558							
Projected Growth Rates Notes:								
Annual Caseload Growth (%)	2.70%							
Annual Collections Growth (%)	8.78%							
Annual Admin Growth (%)	2.70%							
Annual ADP Growth (%)	2.70%							
Annual Amortization Rate (%)	12.93%							

Figure 9 Print Base Year Review Screen

Step 10 - When 'No' is selected from the Print Base Year Option Menu or 'Close or Print' is selected from the Print Base Year Preview screen, Figure 10 appear as the screen. From Figure 10 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select the 'Pull-Down Menu' and continue to Step 11.

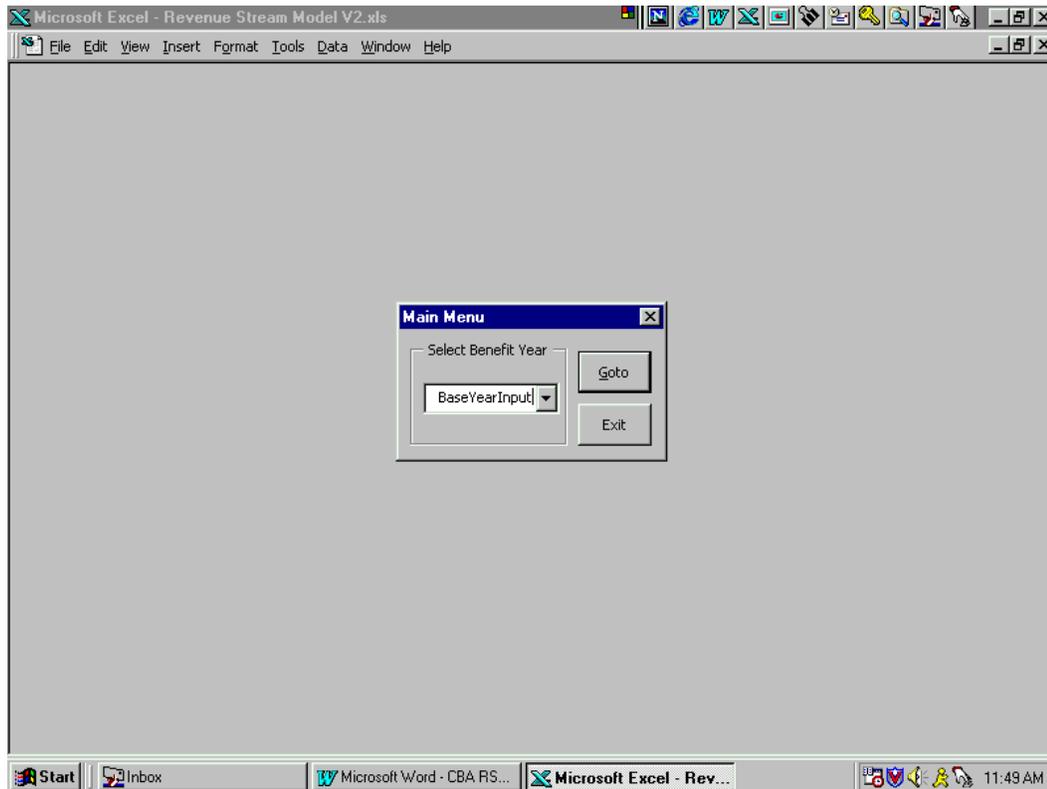


Figure 10 Return to RSM Main Menu

Step 11 - When the 'Pull-Down Menu' is selected from the Main Menu, the screen in Figure 11 appears. From Figure 11 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select an option from the Pull-Down Menu.

For purposes of this step, click 'Year 1' and continue to Step 12.

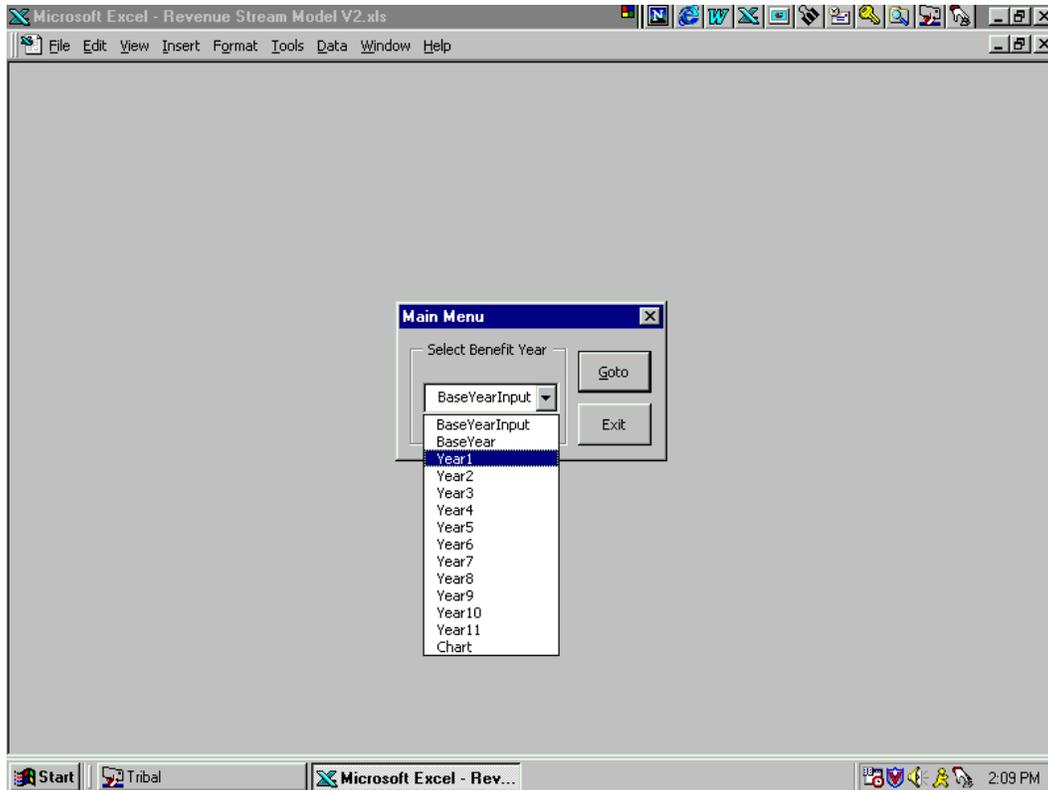


Figure 11 Select Year 1 Data Input Menu

Step 12 - When 'Year 1' is selected from the Pull Down Menu, the screen in Figure 12 appears. From Figure 12 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the highlighted Year 1 Input screen (See Step 13), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select 'Go To' and continue to Step 13.

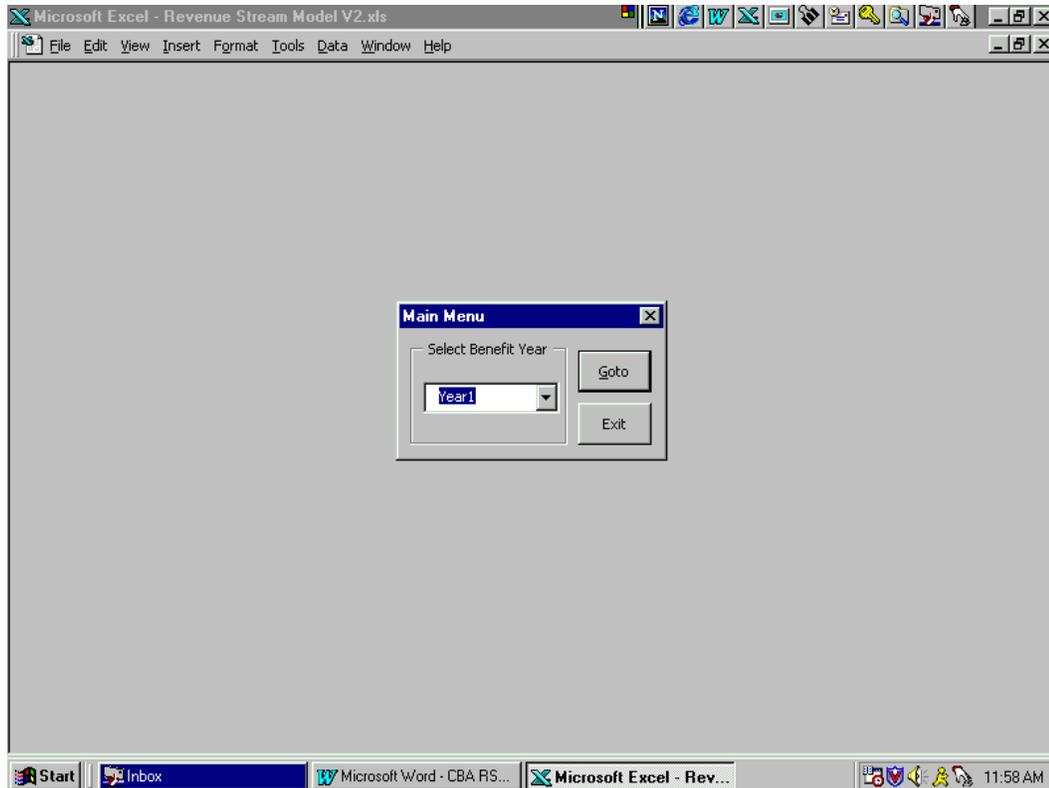


Figure 12 Go To Year 1 Data Input Screen

Step 13 - When ‘Go To Year 1’ is selected from the Main Menu, the screen in Figure 13 appears. From Figure 13 the Analyst can:

- Select ‘Yes’, to input Year 1 data (See Step 14), or
- Select ‘No’, to by-pass inputting Year 1 data and continue to Step 15.

For purposes of this step, select ‘Yes’ on the Input Data Dialog Box and continue to Step 14.

The screenshot shows a Microsoft Excel spreadsheet titled "Name of State Cost Benefit Analysis - Revenue Stream Model for Year 1". The spreadsheet contains a table with columns for "Actual Oct-1997" and "Projected" data for years Oct-1998, Oct-1999, Oct-2000, Oct-2001, Oct-2002, Oct-2003, and Oct-2004. The rows include various cost and benefit categories such as Annual Caseload, Annual Collections, Annual Admin Costs, Annual ADP Operations & Maintenance Costs, Annual Amortization of System Development Cost, Base Year and Current Year Collection Difference, Benefits Attributed To Automation, Total Accum Annual Costs, Total Accum Annual Benefits, Breakeven Amount, Breakeven Month, and Breakeven Ratio. Below the table, there are "Base Year Notes" and "Projected Growth Rates". A dialog box titled "Microsoft Excel" is overlaid on the spreadsheet, asking "Input Revenue Stream Data?" with "Yes" and "No" buttons.

	Actual Oct-1997	Projected Oct-1998	Projected Oct-1999	Projected Oct-2000	Projected Oct-2001	Projected Oct-2002	Projected Oct-2003	Projected Oct-2004
Annual Caseload	1,333,325	1,369,325	1,406,297	1,444,267	1,483,262	1,523,310	1,564,439	1,606,679
Annual Collections	763,369,868	830,241,068	902,970,186	982,070,374	1,068,099,739	1,161,665,276	1,263,427,164	1,374,103,373
Annual Admin Costs	178,886,429	183,716,363	188,676,705	193,770,976	199,002,792	204,375,867	209,894,015	215,561,153
Annual ADP Operations & Maintenance Costs	12,660,823	13,002,665	13,353,737	13,714,288	14,084,574	14,464,857	14,855,408	15,256,504
Annual Amortization of System Development Cost	16,995,614	17,337,456	17,688,528	18,049,079	18,419,365	18,799,648	19,190,199	19,591,295
ADP to Admin (%)	9.50%	9.44%	9.38%	9.31%	9.26%	9.20%	9.14%	9.09%
Base Year and Current Year Collection Difference	61,485,105	128,356,305	201,085,423	280,185,611	366,214,976	459,780,513	561,542,391	672,218,610
Benefits Attributed To Automation	5,841,567	12,113,084	18,851,851	26,098,296	33,896,245	42,293,212	51,340,722	61,094,650
Total Accum Annual Costs	47,339,153	60,341,81						
Total Accum Annual Benefits	5,841,567	17,954,65						
Breakeven Amount								
Breakeven Month								
Breakeven Ratio	12.34%	29.7%						
Base Year Notes:								
System Development Cost	34,678,330							
Annual Caseload	1,298,272							
Annual Collections	701,884,763							
Base Year	10/01/1996							
Projected Growth Rates								
Annual Caseload Growth (%)	2.70%							
Annual Collections Growth	8.76%							
Annual Admin Growth (%)	2.70%							
Annual ADP Growth (%)	2.70%							
Annual Amortization Rate (%)	12.50%							

Figure 13 Select Year 1 Input Data Menu

Step 14 - When 'Yes' is selected from the Input Data Dialog Box, the screen in Figure 14 appears. From Figure 14 the Analyst can:

- Select 'X', to access the print Year 1 option menu (See Step 15), or
- Input/Change Year 1 data. In an actual CBA, you would use the actual values for the project. For purposes of this example use Figure 14 data,
 - Annual Caseload Figures,
 - Annual Collection Figures,
 - Annual Admin Figures, and
 - Annual ADP O&M Figures.

For purposes of this step, input the screen data and select 'X' on the input screen to continue to the print Year 1 option menu. Continue to Step 15.

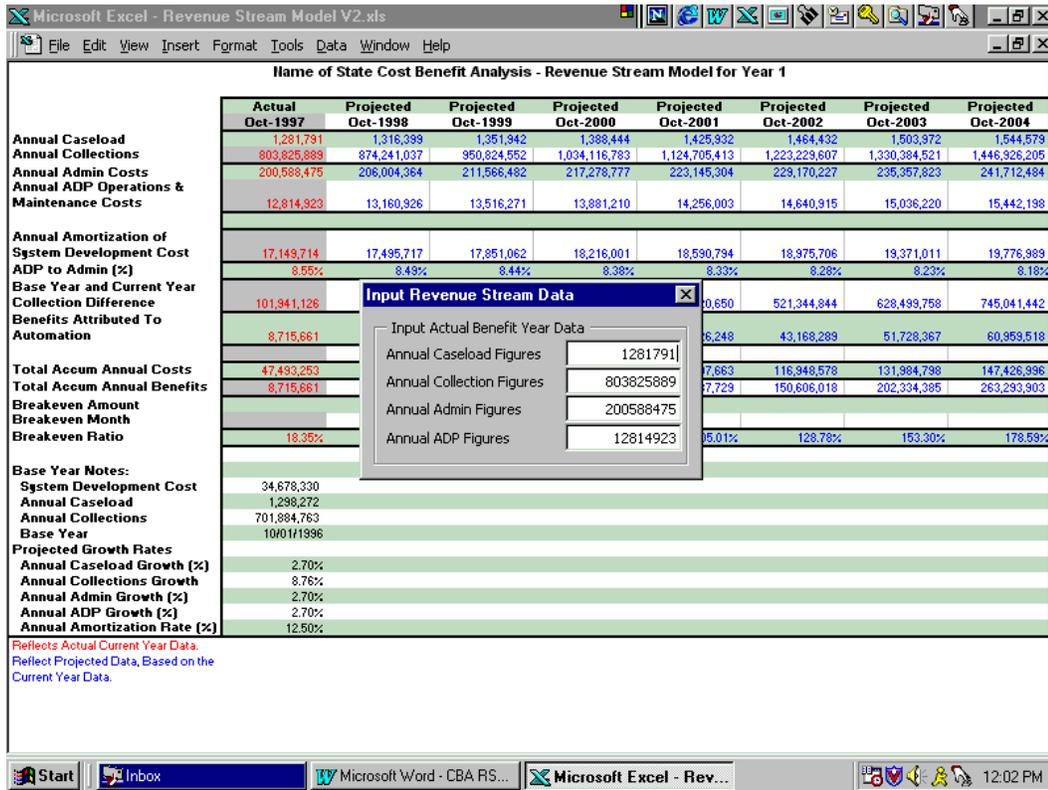


Figure 14 Input Year 1 Data Screen

Step 15 - When ‘No’ is selected from the Input Data Dialog Box or the ‘X’ is selected from the Input Data Menu, Figure 15 appears as the screen. From Figure 15 the Analyst can:

- Select ‘Yes’, to print a preview of Year 1 data (See Step 16), or
- Select ‘No’, to by-pass printing a preview of Year 1 data and continue to Step 17.

For purposes of this step, select ‘Yes’ on the Print Data Dialog Box and continue to Step 16.

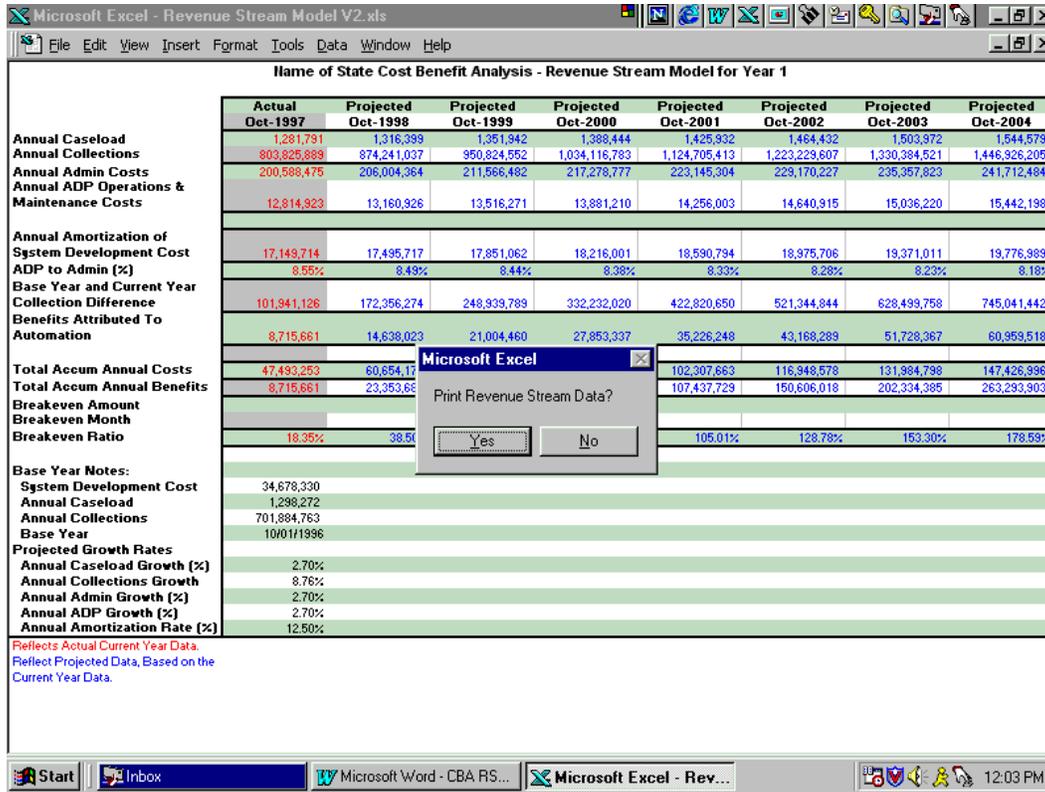


Figure 15 Print Year 1 Review Option Menu

Step 16 - When ‘Yes’ is selected from the Print Data Dialog Box, the screen in Figure 16 appears. From Figure 16, the Analyst can select any activated item on the menu bar.

Note 1: Selecting ‘Page Break Preview’ is not recommended, because it will change the spreadsheet views. If this should happen, the print view screen will automatically close and return to the Main Menu. To recover repeat Steps 11 through Step 16 (Answer ‘No’ at step 13 to by-pass data entry) and select ‘Normal View’.

Note 2: Notice that the Break Even Point has changed from Step 8.

- Select ‘Print’, to print Year 1 data, or
Note: After various print messages, the program returns to the Main Menu data screen.
- Select ‘Close’, to return to the Main Menu.

For purposes of this step, select ‘Print or Close’ and continue to Step 17.

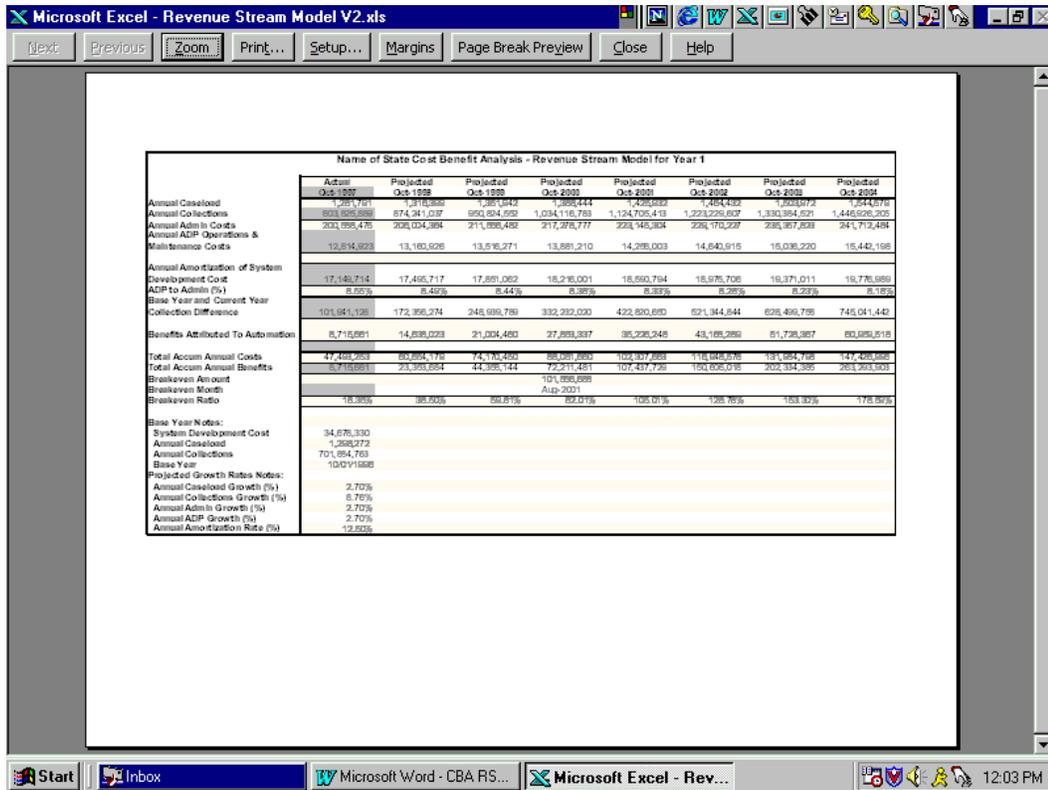


Figure 16 Print Year 1 Review Print Screen

Step 17 - When 'No' is selected from the Print Data Dialog Box or 'Close or Print' is selected from the Print Year 1 Preview screen, Figure 17 appears as the screen. From Figure 17 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select the 'Pull-Down Menu' and continue to Step 18.

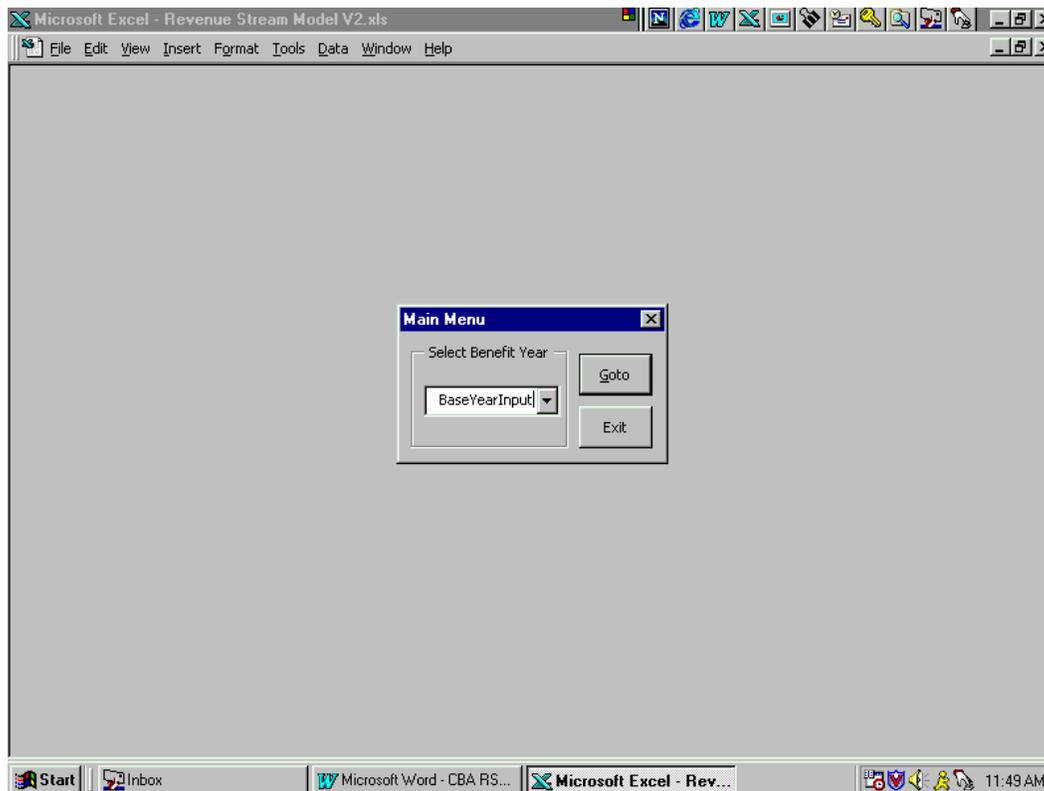


Figure 17 Return to RSM Main Menu

Step 18 - When the 'Pull-Down Menu' is selected from the Main Menu, the screen in Figure 18 appears. From Figure 18 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select an option from the Pull-Down Menu.

For purposes of this step, click on 'Chart' and continue to Step 19.

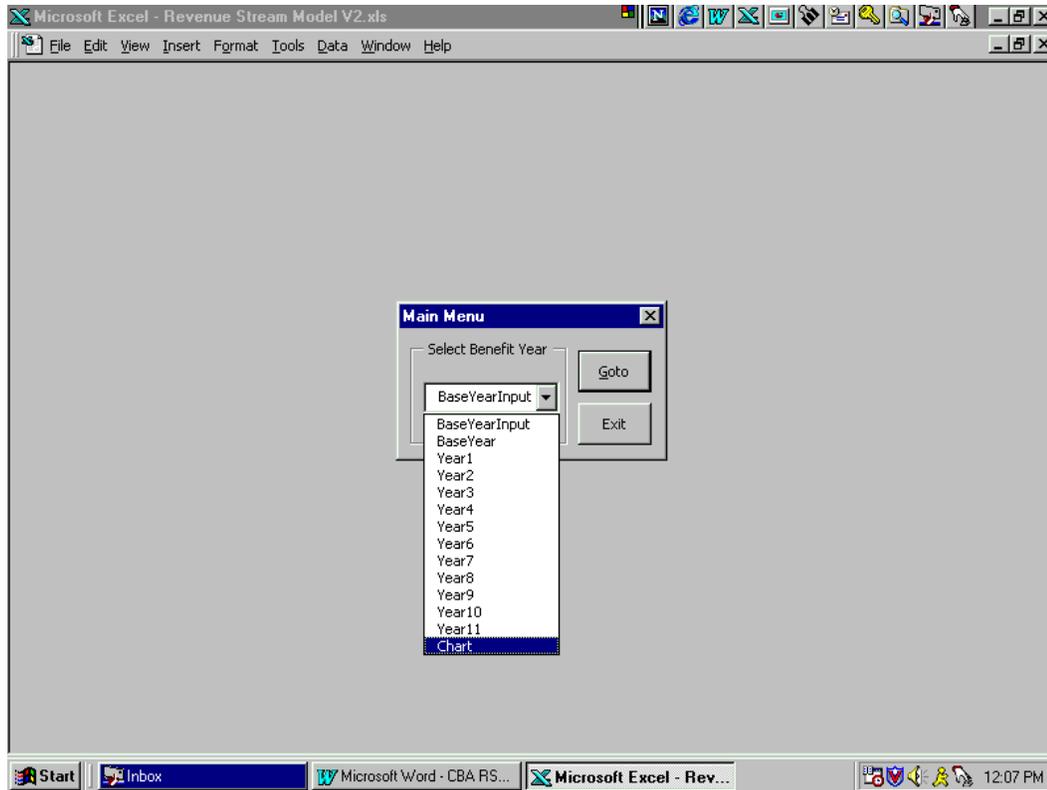


Figure 18 Select Chart Review Menu

Step 19 - When 'Chart' is selected from the Pull-Down Menu, the screen in Figure 19 appears. From Figure 19 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the highlighted Chart Review screen (See Step 20), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select 'Go To' and continue to Step 20.

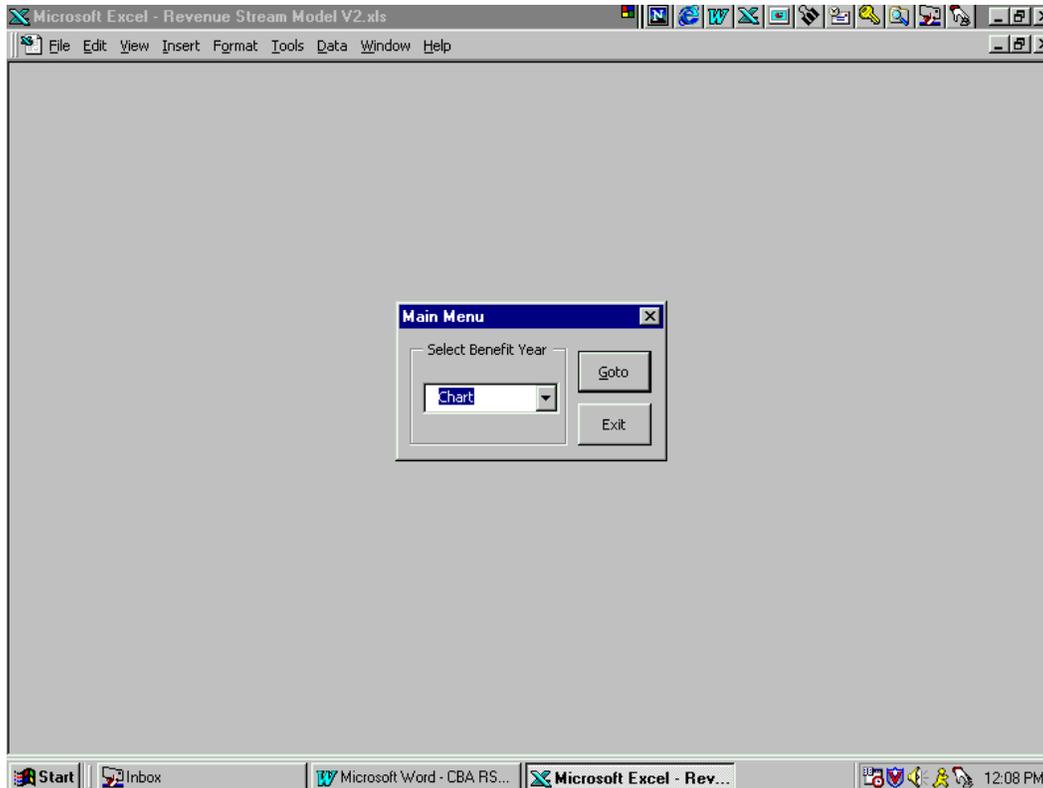


Figure 19 Go To Chart Review Screen

Step 20 - When ‘Go To Chart’, is selected from the Main Menu, the screen in Figure 20 appears. From Figure 20 the Analyst can:

- Select ‘Yes’, to print a preview of Chart data, or
- Select ‘No’, to by-pass printing a preview of Chart data and continue Step 21.

Note: This Chart shows the breakeven point for the project, the point in time in which cumulative benefits exceed the cumulative costs.

For purposes of this step, select ‘No’ on the Print Chart Dialog Box and go to Step 21.

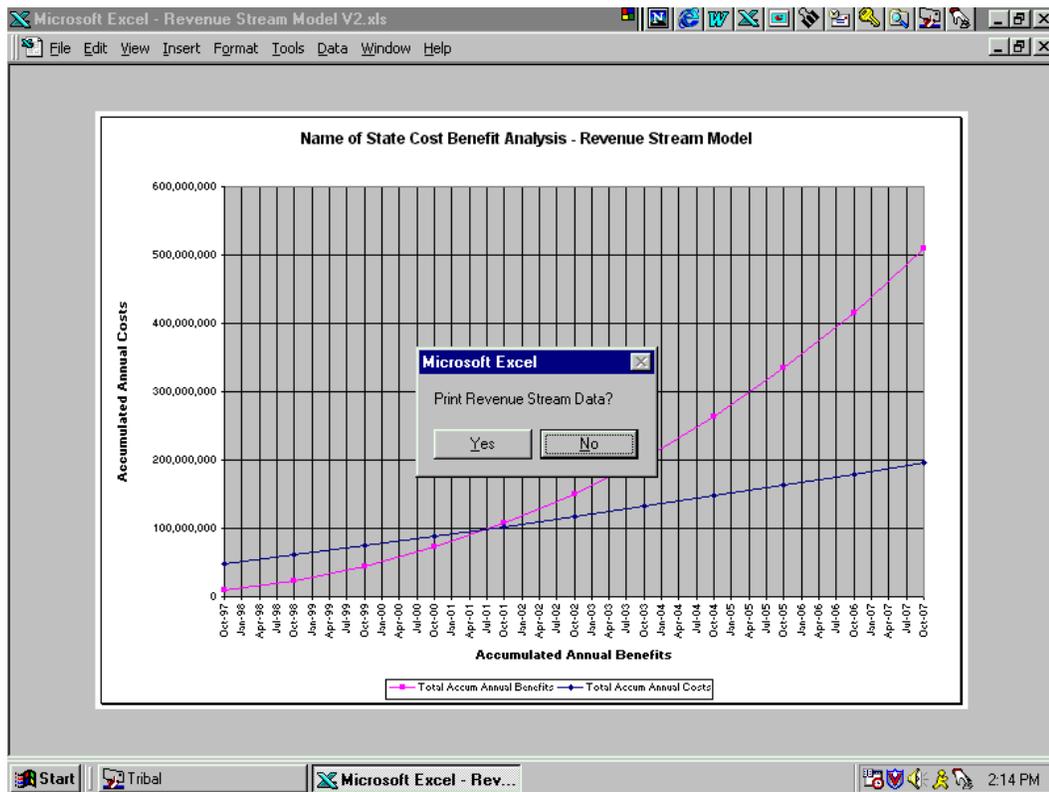


Figure 20 Print Chart Review Option Menu

Step 21 - When 'No', is selected from the Print Chart Dialog Box, the screen in Figure 21 appears. From Figure 21 the Analyst can:

- Select 'Exit', to close the application (See Step 22), or
- Select 'Go To', to access the Base Year Input screen (See Step 4), or
- Select additional Main Menu options from the Pull-Down Menu.

For purposes of this step, select 'Exit' from the Main Menu and continue to Step 22.

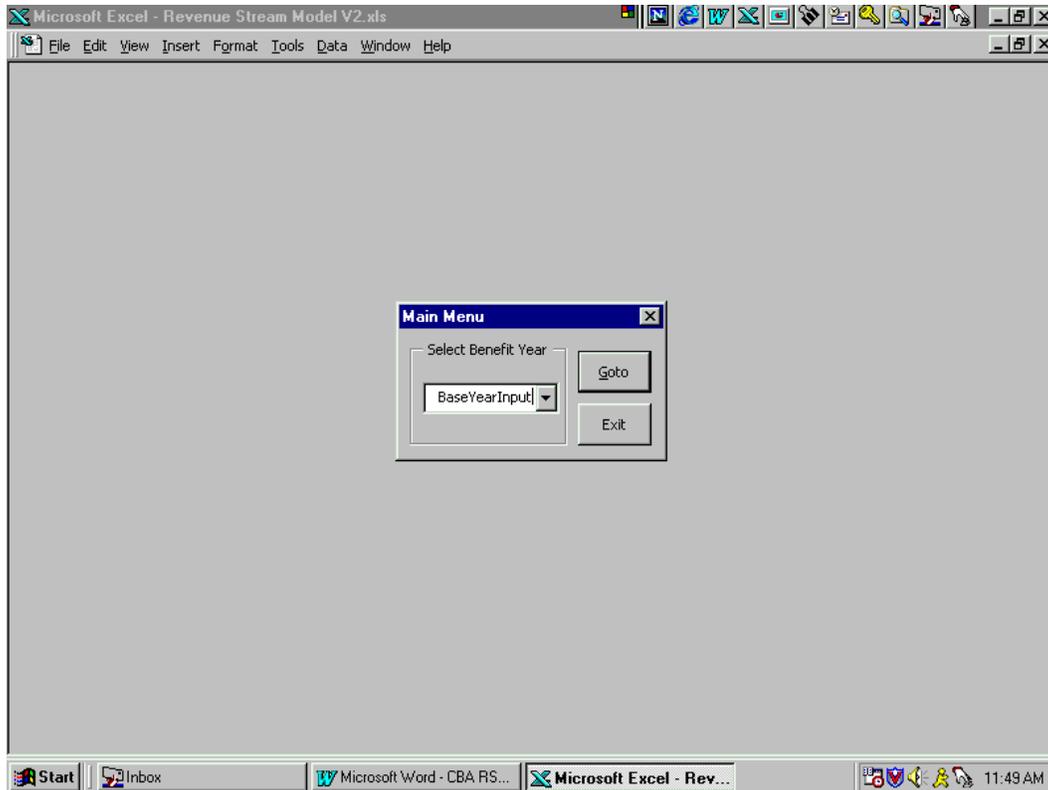


Figure 21 Return to RSM Main Menu

Step 22 - When 'Exit' is selected from the Main Menu, the screen in Figure 22 appears. From Figure 22 the Analyst can:

- Select 'Yes', to save changes and close the application, or
- Select 'No', to close the application without saving, or
- Select 'Cancel', to keep the application open without saving.

Caution: Unless you are familiar with Visual Basic selecting 'Cancel' is not recommended, because the application is vulnerable to corruption. If this should happen, close the application by clicking the 'X' or 'Close' and answer 'No' when asked to save.

For purposes of this step, select 'Yes' or 'No' to exit the application.

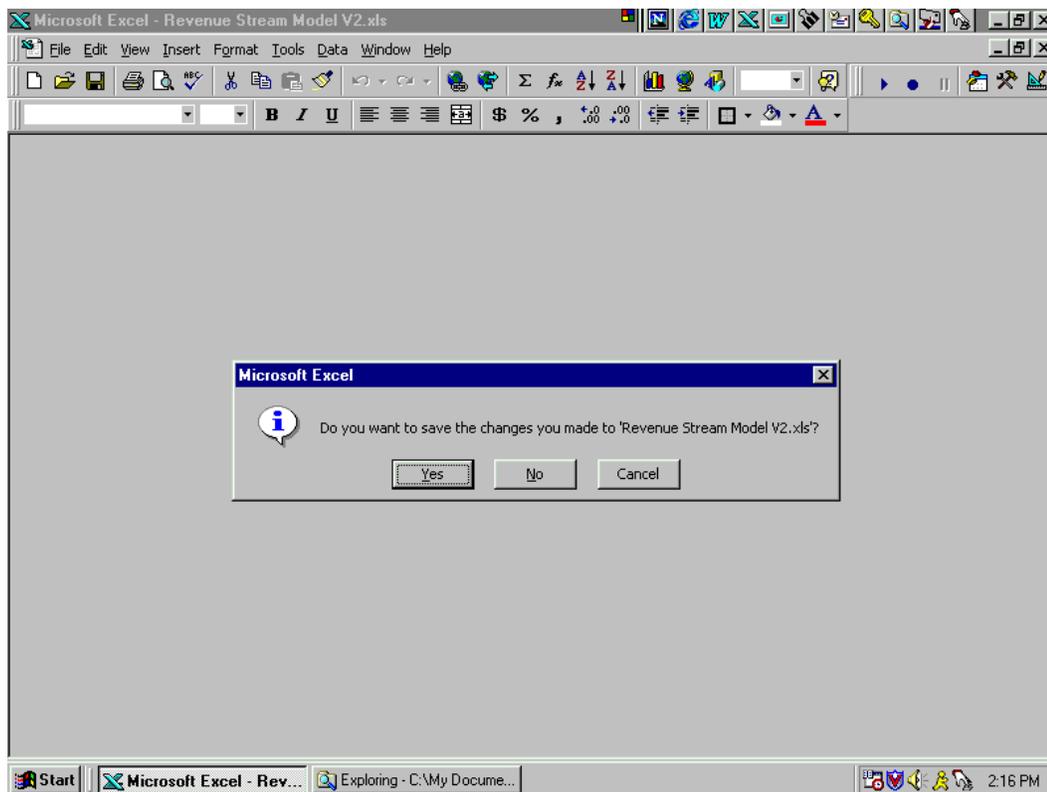


Figure 22 Select Exit and Save Changes Option Menu

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