



U.S. Department of Health & Human Services

Administration for Children & Families

# **Cost/Benefit Analysis**

for

## **Child Support Enforcement Systems (CSES)**

***Companion Guide 3:  
Cost/Benefit Analysis Illustrated  
for Child Support Enforcement Systems  
revised August 2004***

a presentation of the Office of Child Support Enforcement



# Cost-Benefit Analysis In The APD Process

---

**PAPD** Feasibility Study – a means to compare alternatives in order to select one

**IAPD** A plan and process to measure costs/benefits and calculate breakeven

**APDU** Measures projected and actual costs and benefits each year, explaining variances from original plan, and calculates breakeven

## After PRWORA Certification

---

### **With a New or Replacement System**

- ✓ A new system transfer always requires an IAPD that includes a Feasibility Study, Alternatives Analysis and a Cost-Benefits Analysis (CBA).

### **CSES Enhancement**

- ✓ Can be treated as a continuation of the existing system and thus of the existing APD, with update of existing APD and CBA, or State may opt to open a new APD, and thus a new CBA



# Cost-Benefit Analysis: **Cost Elements**

---

## Recurring

- ✓ All costs related to system operations and maintenance (**O&M**): lease and maintenance of site, facility, equipment and software, travel, training, supplies, security, salary and benefits, support services

## Non-Recurring

- ✓ All costs related to **System Development**: design, development, testing, conversion, studies, procurement, implementation, new facilities and equipment



# Cost-Benefit Analysis: **Benefit Elements**

---

## Quantitative

- ✓ Increased Revenue – i.e., collections (expected to be sufficient for CSE systems to breakeven)
- ✓ Reduced Costs

## Qualitative

- ✓ Customer/Client Satisfaction
- ✓ Improved Morale
- ✓ Avoiding Technology Obsolescence, Etc.



## **Cost-Benefit Analysis: Cost-Benefit Monitoring**

---

- ✓ **Actual costs and benefits must be monitored and reported-on at least yearly**
- ✓ **Costs and Benefits must be measured against the baseline used in the IAPD**
- ✓ **Variances over 10% should be explained by including any supporting documentation**

## **Cost-Benefit Analysis: The Breakeven Point**

---

- ✓ **Occurs when cumulative benefits from system exceed cumulative costs over same period**
- ✓ **Reported in Annual APDU (AAPDU)**
- ✓ **Verified by OCSE**
  
- ✓ **Further APDU's are not required when:**
  - CSES is federally, unconditionally certified,
  - All outstanding, significant CSES development is complete, and
  - OCSE has verified breakeven data in AAPDU

# **Cost-Benefit Analysis: Two Benefit Models**

---

## **The Functional Model**

- ✓ Provides detailed measurements specific to task-level effort
- ✓ Provides insight into specifically where system revenues and cost savings are derived

## **The Revenue Stream Model (RSM)**

- ✓ Provides summary view of project progress toward breakeven
- ✓ Uses summary data required for OCSE Forms; relatively easy to develop, measure, and verify





*U.S. Department of Health & Human Services*

Administration for Children & Families

# **Cost/Benefit Analysis**

for

## **Child Support Enforcement Systems (CSES)**

### **The Revenue Stream Model**

### **The *New* Version 4**



## Revenue Stream Model: **Application Changes**

---

- ✓ Added Data Validation
- ✓ Allows For Printing Of Multiple Years
- ✓ Allows Up To 15 Years Of Data
- ✓ Recovers Original Projections
- ✓ No Change To Data Needed
- ✓ No Change In Basic Functionality
- ✓ No Change In Basic Operations
- ✓ Still Has A Similar Look And Feel

# Revenue Stream Model: **Screen Changes**

---

## Main Menu

- ✓ All Years Visible on Menu
- ✓ Print 1 to 15 Separate Benefit Years
- ✓ Print Multiple Copies

## Baseline Data Input - New Groupings

- ✓ Project Data
- ✓ Base Year Data
- ✓ Baseline Growth Rates

# Revenue Stream Model: **Screen Changes**

---

## Benefit Years

- ✓ All Baseline Data Shows on Screen
- ✓ 'Projected' Changes to 'Actual' Automatically
- ✓ Restores Original Projections
- ✓ Can Now Print from the Input Menu

## Chart - Includes New Data

- ✓ Project Data
- ✓ Growth Rates
- ✓ Last Year of Data Entered
- ✓ Offers Breakeven Statistics

## Revenue Stream Model: **Summary Data**

---

### The RSM Uses Summary Data

- ✓ Annual caseload and collections as identified in APD and OCSE Forms 157 and 34A
- ✓ Net Administrative costs, ADP O&M costs as identified in APD and OCSE Form 396A
- ✓ Total system development/enhancement as identified in IAPD (*planning through installation*)
- ✓ Operational life of system identified in IAPD
- ✓ The year prior to system implementation is used as the RSM Base Year



## Revenue Stream Model: **Cost Data**

---

- ✓ ***Growth*** of Net Administrative operating costs and ADP Operations and Maintenance costs is estimated based on an inflation index set prior to implementation or on other historical data
- ✓ ***Total systems costs*** for development/enhancement is identified from Annual APD Updates – it's these costs that will be tracked in the Revenue Stream Model (RSM)



## Revenue Stream Model: **Benefits Data**

---

- ✓ **Growth of revenue (collections) is estimated by the model based on historical collections data and historical collections growth data leading up to the CSES' implementation**
- ✓ **The IAPD's CBA (Revenue Stream Model) provides the vehicle that will track benefits growth and accumulation automatically**
- ✓ **RSM is automated and can be easily printed for submission in Annual APD Updates**

## **Revenue Stream Model: What The RSM Does**

---

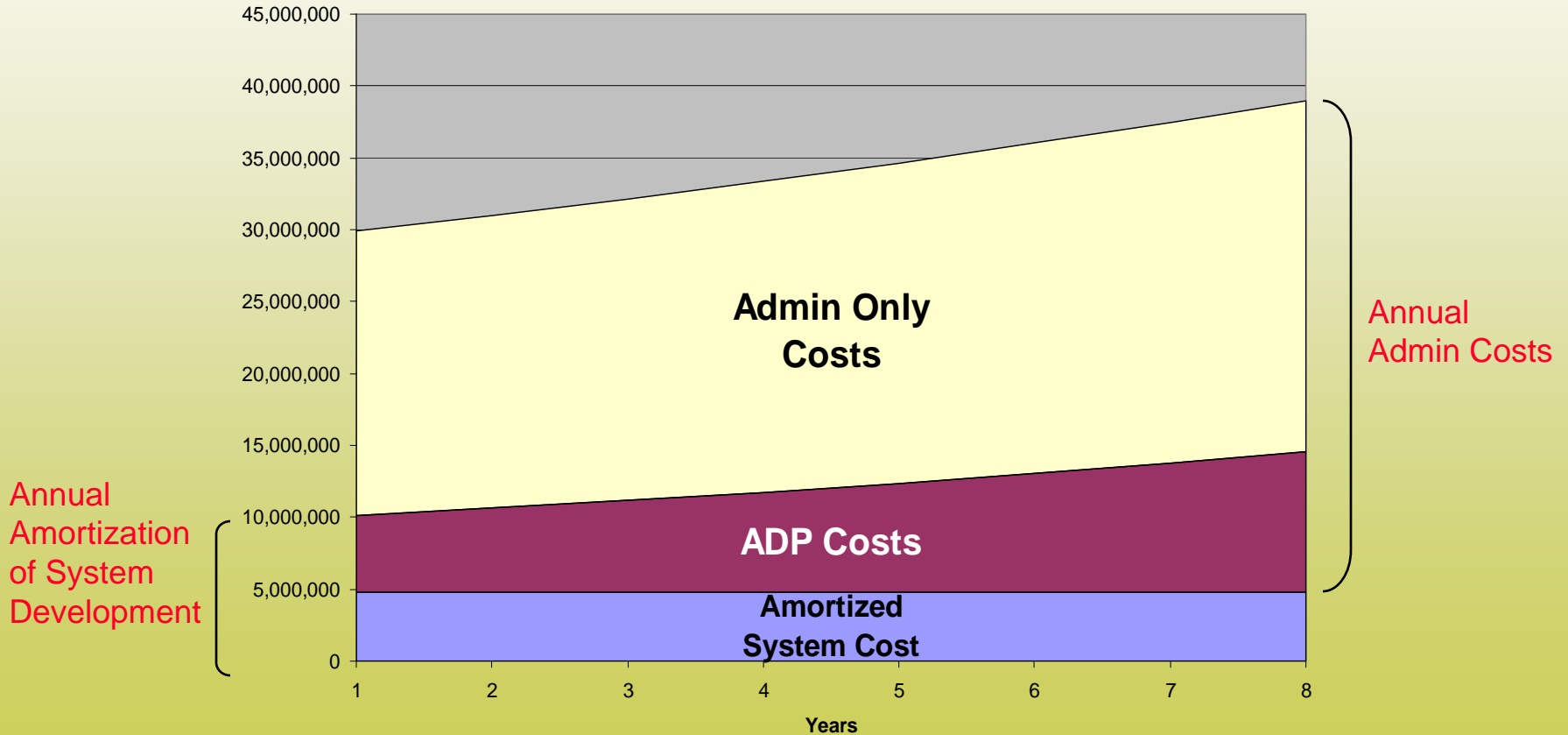
- ✓ **Tracks actual costs and benefits**
- ✓ **Applies growth factors based on historical data or an inflation index to predict future costs/benefits**
- ✓ **Amortizes costs of system development/enhancement over the projected system life**
- ✓ **Calculates the proportion of all revenue increases that are attributable to automation**
- ✓ **Projects breakeven point for costs and benefits**



# Revenue Stream Model: What The RSM Does

## Revenue Stream - ADP to Admin Percentage

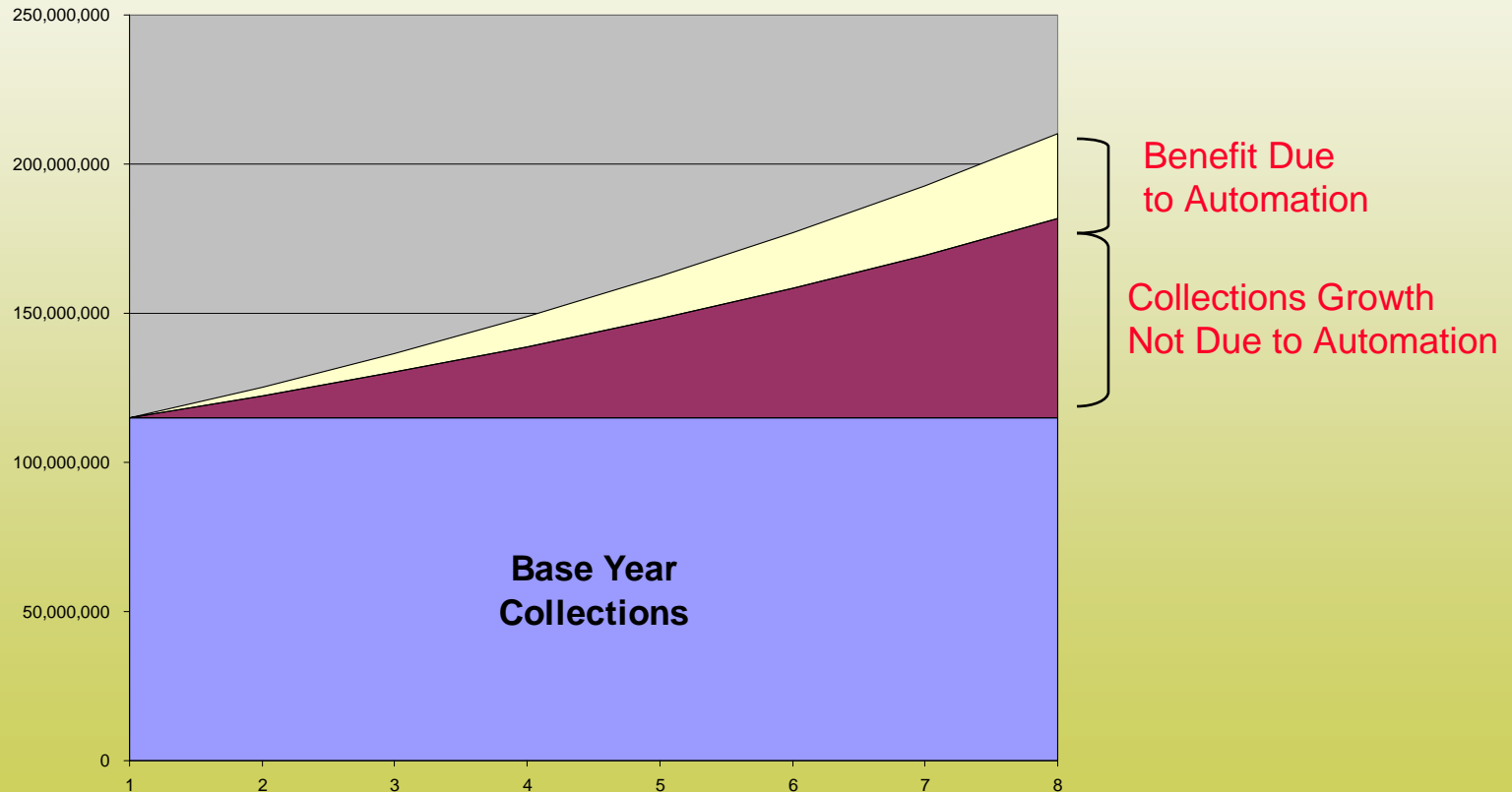
ADP to Admin % = Annual Amortization of System Development/Annual Admin costs



# Revenue Stream Model: What The RSM Does

## Revenue Stream - Benefit Attributed to Automation

Benefit Attributed to Automation = Collection Difference x ADP to Admin %





U.S. Department of Health & Human Services

Administration for Children & Families

# Building Your Cost Benefit Analysis

*Using the Revenue Stream Model*

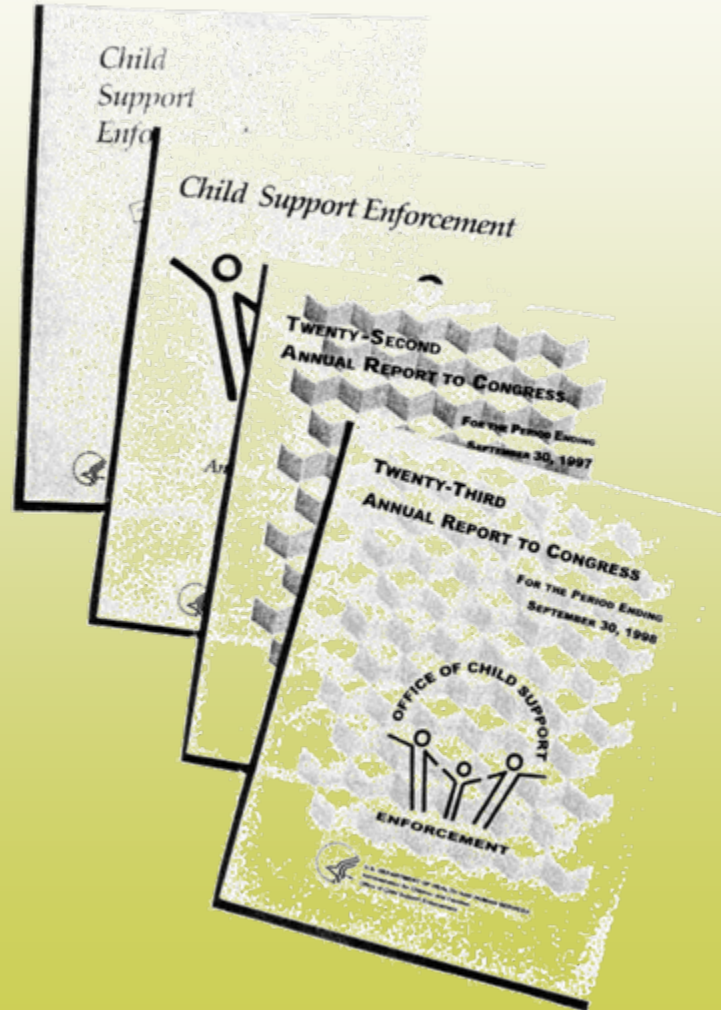
# Revenue Stream Model: **Setting Up the RSM**

---

- ✓ **Project Cost Data**
  - System Development Cost
  - System Life (in Years)
  - Operations and Maintenance for Base Year
- ✓ **Program Caseload, Collections and Net Administrative Cost**
  - Annual Caseload for Base Year
  - Annual Collections for Base Year
- ✓ **Growth Rate Data 3 to 5 Years Prior to Year One of Operation of the CSES (up to and including the Base Year)**

# RSM Set Up: Sources for Prior Year Data

Child Support Enforcement  
Annual Reports to Congress



# RSM Set Up: Sources for Prior Year Data

OCSE Website: <http://www.acf.hhs.gov/programs/cse/>



The screenshot shows the official website of the Office of Child Support Enforcement (OCSE). At the top, it features the U.S. Department of Health & Human Services logo and the Administration for Children & Families name. A navigation bar includes links for Home, Services, Working with ACF, Policy/Planning, About ACF, and ACF News. Below this, the text reads 'OFFICE OF CHILD SUPPORT ENFORCEMENT' followed by a list of links: OCSE Home, Program Information, News, Publications, Policy, State Links, OCSE Search, and Help. A large graphic of the letters 'OCSE' with cartoon children is displayed. The main heading is 'Welcome to the Federal Office of Child Support Enforcement Home Page'. Below this are links for 'Questions?', 'What's New', and 'If you are seeing pop-up messages on our site...'. A section titled 'Facts & Descriptions' provides a list of resources: Handbooks and Fact Sheets, FPLS / Employer Info / New Hire / Qtrly Wage & Unemp. Ins., State Systems, National Electronic Child Support Resources (NECSRS) - Search, Financial Institution Data Match, OCSE Tribal Resources, and Online Interstate Roster and Referral Guide (IRG). On the right side, there is a blue box for the '13th Annual Training Conference' with 'Online Registration'.



[Forms, Reports & Other Resources](#)

# RSM Set Up: Sources for Prior Year Data



## [OCSE Virtual Library of Training Materials](#)

### [Selected ACF/OCSE Forms](#)

### **OCSE Annual Reports and Statistics**

[Child Support Enforcement \(CSE\) FY 2002 Preliminary Data Report](#)

[FY 2001 Annual Statistical Report](#)

[FY 2001 Data Preview Report - September 2002](#)

[Annual Statistical Report For Fiscal Years 1999 and 2000](#)

[2000 Preliminary Statistics, August 2001](#)

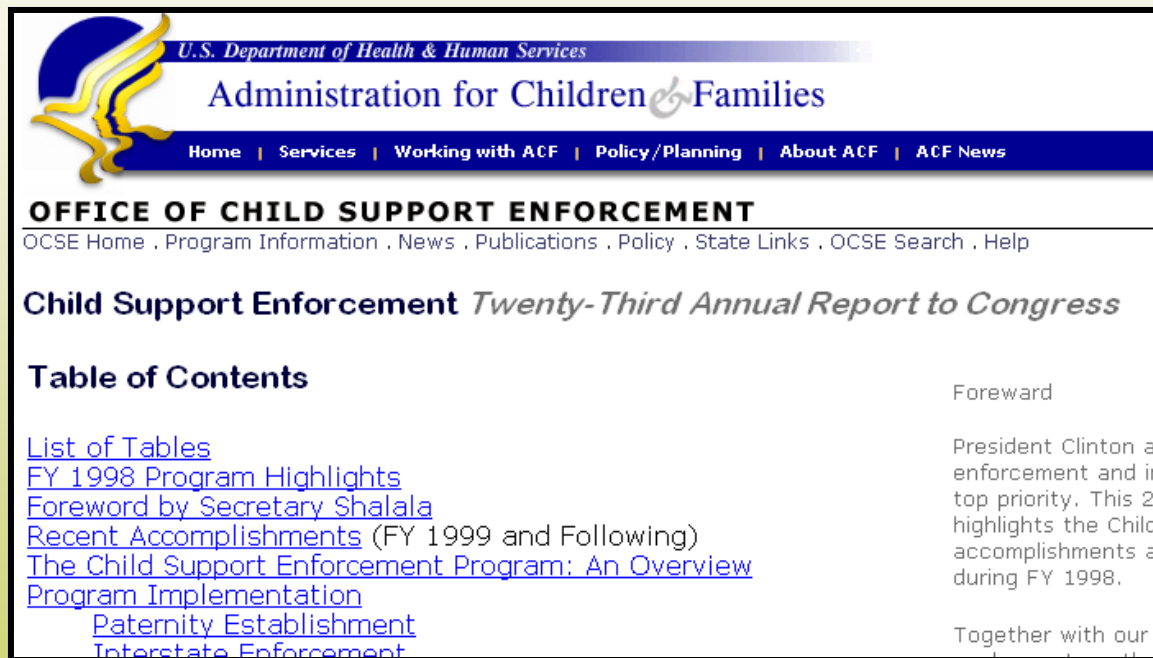
[1999 Statistics, September 2000](#)


[23rd Annual Report](#)    [22nd Annual Report](#)    [21st Annual Report](#)

[20th Annual Report](#)    [19th Annual Report](#)    [18th Annual Report](#)



# RSM Set Up: Sources for Prior Year Data



 U.S. Department of Health & Human Services  
Administration for Children & Families

[Home](#) | [Services](#) | [Working with ACF](#) | [Policy/Planning](#) | [About ACF](#) | [ACF News](#)

---

**OFFICE OF CHILD SUPPORT ENFORCEMENT**

[OCSE Home](#) . [Program Information](#) . [News](#) . [Publications](#) . [Policy](#) . [State Links](#) . [OCSE Search](#) . [Help](#)


**Child Support Enforcement** *Twenty-Third Annual Report to Congress*

**Table of Contents**

<a href="#">List of Tables</a>	Foreward
<a href="#">FY 1998 Program Highlights</a>	President Clinton announced that child support enforcement and interstate enforcement are his top priority. This 23-page report highlights the Child Support Enforcement Program's accomplishments and challenges during FY 1998.
<a href="#">Foreword by Secretary Shalala</a>	
<a href="#">Recent Accomplishments (FY 1999 and Following)</a>	
<a href="#">The Child Support Enforcement Program: An Overview</a>	
<a href="#">Program Implementation</a>	
<a href="#">Paternity Establishment</a>	Together with our partners in the private sector, we are working to improve the quality of child support enforcement.
<a href="#">Interstate Enforcement</a>	



# RSM Set Up: Sources for Prior Year Data



 U.S. Department of Health & Human Services  
Administration for Children & Families

[Home](#) | [Services](#) | [Working with ACF](#) | [Policy/Planning](#) | [About ACF](#) | [ACF News](#)

**OFFICE OF CHILD SUPPORT ENFORCEMENT**  
[OCSE Home](#) . [Program Information](#) . [News](#) . [Publications](#) . [Policy](#) . [State Links](#) . [OCSE Search](#) . [Help](#)

[Child Support Enforcement Twenty-Third Annual Report to Congress](#)

**List of Tables**

**PROGRAM OVERVIEW**

[TABLE 1](#) FINANCIAL OVERVIEW FOR FIVE CONSECUTIVE FISCAL YEARS(\$000)  
[TABLE 2](#) STATISTICAL OVERVIEW FOR FIVE CONSECUTIVE FISCAL YEARS  
[TABLE 3](#) PROGRAM TRENDS FOR FY 1992, 1997, and 1998

**PROGRAM COLLECTIONS**

[TABLE 4](#) TOTAL DISTRIBUTED COLLECTIONS FOR FIVE CONSECUTIVE FISCAL YEARS  
[TABLE 5](#) DISTRIBUTED AFDC-TANF/FOSTER CARE COLLECTIONS FOR FIVE CONSECUTIVE FISCAL YEARS  
[TABLE 6](#) DISTRIBUTED TANF COLLECTIONS FOR FIVE CONSECUTIVE FISCAL YEARS  
[TABLE 7](#) DISTRIBUTED FOSTER CARE COLLECTIONS FOR FIVE CONSECUTIVE FISCAL YEARS

# RSM Set Up: Sources for Prior Year Data



U.S. Department of Health & Human Services  
Administration for Children & Families

[Home](#) | [Services](#) | [Working with ACF](#) | [Policy/Planning](#) | [About ACF](#) | [ACF News](#)

**OFFICE OF CHILD SUPPORT ENFORCEMENT**  
[OCSE Home](#) . [Program Information](#) . [News](#) . [Publications](#) . [Policy](#) . [State Links](#) . [OCSE Search](#) . [Help](#)

U.S. Department of Health and Human Services  
Administration for Children & Families  
Office of Child Support Enforcement

**TABLE 4**  
Child Support Enforcement *Twenty-Third Annual Report to Congress*  
**TOTAL DISTRIBUTED COLLECTIONS FOR FIVE CONSECUTIVE FISCAL YEARS**

STATE	1994	1995	1996	1997	1998
ALABAMA	\$127,908,477	\$141,212,499	\$157,887,352	\$170,581,427	\$172,407,203
ALASKA	45,851,252	51,734,216	57,708,433	64,919,032	64,262,422
ARIZONA	77,418,716	93,811,661	113,480,816	132,048,847	144,347,745
ARKANSAS	55,214,883	63,875,135	79,432,115	91,457,022	99,373,428
CALIFORNIA	811,493,194	857,281,903	1,034,409,497	1,174,214,624	1,372,354,157
COLORADO	80,288,154	91,869,504	108,259,298	123,564,692	140,311,116
CONNECTICUT	98,447,867	113,734,197	125,234,393	141,543,436	154,373,662
DELAWARE	29,663,335	31,550,990	35,394,565	38,616,387	42,005,824
DISTRICT OF COLUMBIA	24,078,544	26,040,357	27,791,253	29,906,318	32,715,624
FLORIDA	327,296,405	374,014,543	411,799,338	484,630,121	507,112,518



WASHINGTON	340,488,236	375,257,202	407,002,297	451,730,094	474,432,883
WEST VIRGINIA	54,401,779	72,796,255	84,232,843	98,147,954	109,384,212
WISCONSIN	380,584,443	427,487,251	440,238,715	459,882,115	499,272,091
WYOMING	16,183,772	17,349,792	25,020,548	28,682,650	33,110,055
<b>NATIONWIDE TOTALS</b>	<b>\$9,850,159,410</b>	<b>\$10,827,167,179</b>	<b>\$12,019,789,424</b>	<b>\$13,363,971,702</b>	<b>\$14,347,706,681</b>

SOURCE: FORM OCSE-34 (4/93) LINE 14(A + B + C)

SOURCE: FORM OCSE-34 (4/93) LINE 14(A + B + C)



# RSM Set Up: Sources for Prior Year Data

## RSM Data Sources –A Desk Reference Tool

<b>Cost Benefit Analysis – Revenue Stream Model</b>						
<b>Data Sources by Year, FFY 1991 – FFY 2001</b>						
<b>FFY</b>	<b>Data</b>	<b>Source</b>	<b>Table</b>	<b>Table Name</b>	<b>Data Years</b>	<b>OCSE Form</b>
<b>1991 Sixteenth Annual Report to Congress for the Period Ending September 30, 1991* – or OCSE Forms</b>						
1991	Caseload	AR*	34	Average Annual CSE Caseload ...	1987 – 1991	Before 1991: OCSE 56 Line 4 (A+B+C) 1991: OCSE 156 lines 4 & 5 (A+B+C)
1991	Collections	AR*	4	Total Distributed Collections ...	1987 – 1991	OCSE 34, Line 13 (A + B + C)
1991	Net Admin	131	--	All Other Expenditures (at regular FFP rate)	1991	OCSE 131 (Part 1) Line 9
1991	ADP O&M	131	--	Other ADP Expenditures (at regular FFP rate)	1991	OCSE 131 (Part 1) Line 7
<b>1992 Seventeenth Annual Report to Congress for the Period Ending September 30, 1992* – or OCSE Forms</b>						
1992	Caseload	AR*	32	Average Annual CSE Caseload FY 1992	1992	OCSE 156 lines 4 & 5 (A + B + C)
1992	Collections	AR*	4	Total Distributed Collections for ...	1988 – 1992	OCSE 34, Line 13 (A + B + C)
1992	Net Admin	131	--	All Other Expenditures (at regular FFP rate)	1992	OCSE 131 (Part 1) Line 9
1992	ADP O&M	131	--	Other ADP Expenditures (at regular FFP rate)	1992	OCSE 131 (Part 1) Line 7
<b>1993 Eighteenth Annual Report to Congress for the Period Ending September 30, 1993* – or OCSE Forms</b>						
1993	Caseload	AR*	32	Average CSE Caseload by ... FY 1993	1993	OCSE 156 lines 4 & 5 (A + B + C)
1993	Collections	AR*	4	Total Distributed Collections for ...	1989 – 1993	OCSE 34, Line 13 (A + B + C)
1993	Net Admin	131	--	All Other Expenditures (at regular FFP rate)	1993	OCSE 131 (Part 1) Line 9
1993	ADP O&M	131	--	Other ADP Expenditures (at regular FFP rate)	1993	OCSE 131 (Part 1) Line 7
<b>1994 Nineteenth Annual Report to Congress for the Period Ending September 30, 1994* – or OCSE Forms</b>						
1994	Caseload	AR*	32	Average CSE Caseload by ... FY 1993	1994	OCSE 156 lines 4 & 5 (A + B + C)
1994	Collections	AR*	4	Total Distributed Collections for ...	1990 – 1994	OCSE 34, Line 14 (A + B + C)
1994	Net Admin	131	--	Net Administrative Expenditures	1994	OCSE 131 (Part 1) Line 9
1994	ADP O&M	131	--	Other ADP Expenditures (at regular FFP rate)	1994	OCSE 131 (Part 1) Line 7

# RSM Set Up: **Growth Rate Data**

---

## Growth Data

Calculate Rates Of Growth Of Your **Net** Program Administrative Costs), System Maintenance and Operations (M&O) Costs, and Caseload and Collections On A Year-to-Year Basis:

- ✓ prior to beneficial use of the system
- ✓ create average using at least 3 prior years
- ✓ use the same years for all calculations

# RSM Set Up: **Growth Rate Data**

---

## Growth Parameters

- ✓ Caseload Growth % (3-10%)
- ✓ Collections Growth % (3-10%)
- ✓ Administration Cost Growth % (inflation +/- 2%)
- ✓ Annual ADP Cost Growth % (inflation +/- 1%)
- ✓ Variances outside these parameters need to be explained in your Annual APD submission

# RSM Construction and Use: **An Exercise**

---

## Project Data

- ✓ System Development Cost
- ✓ System Life
- ✓ Base Year for RSM

## Base Year Data

- ✓ Annual Caseload
- ✓ Annual Collections
- ✓ Net Administration Cost (All \$ minus systems \$)
- ✓ ADP Operations and Maintenance Cost

## Growth Data

- ✓ Rates of growth

# Open The Revenue Stream Model Main Menu

## Using The Revenue Stream Model

Revenue Stream Model Main Menu

**View or Enter Data**

Baseline Data	FFY
Base Year	1997
Benefit Year 1	1998
Benefit Year 2	1999
Benefit Year 3	2000
Benefit Year 4	2001
Benefit Year 5	2002
Benefit Year 6	2003
Benefit Year 7	2004
Benefit Year 8	2005
Benefit Year 9	2006
Benefit Year 10	2007
Benefit Year 11	2008
Benefit Year 12	2009
Benefit Year 13	2010
Benefit Year 14	2011
Benefit Year 15	2012
RSM Chart	

**Print One or More Benefit Years**

- Base Year
- Benefit Year 1
- Benefit Year 2
- Benefit Year 3
- Benefit Year 4
- Benefit Year 5
- Benefit Year 6
- Benefit Year 7
- Benefit Year 8
- Benefit Year 9
- Benefit Year 10
- Benefit Year 11
- Benefit Year 12
- Benefit Year 13
- Benefit Year 14
- Benefit Year 15
- RSM Chart

Select All / Clear All

# Copies to Print

Save and Close

Close without Saving

Print

# Input Baseline Data

**Input Baseline Data**

**Project Data**  
 Identify State and Project or Scenario  
  
 Base Year (FFY) End Date 9/30/YYYY   
 Expected System Life in Years   
 Total System Development Cost

**Baseline Growth Rates (0.05 = 5%)**  
**Growth in Values Prior to Benefit Year 1**  
 Average Caseload Growth Rate   
 Average Collections Growth Rate   
**Inflation Index Growth**  
 Net Admin Growth Rate   
 ADP O&M Growth Rate

**Base Year Data**  
 Base Year Annual Caseload   
 Base Year Annual Collections   
 Base Year Net Admin Cost   
 Base Year ADP O&M Cost



**Input Baseline Data**

**Project Data**  
 Identify State and Project or Scenario  
  
 Base Year (FFY) End Date 9/30/YYYY   
 Expected System Life in Years   
 Total System Development Cost

**Baseline Growth Rates (0.05 = 5%)**  
**Growth in Values Prior to Benefit Year 1**  
 Average Caseload Growth Rate   
 Average Collections Growth Rate   
**Inflation Index Growth**  
 Net Admin Growth Rate   
 ADP O&M Growth Rate

**Base Year Data**  
 Base Year Annual Caseload   
 Base Year Annual Collections   
 Base Year Net Admin Cost   
 Base Year ADP O&M Cost



# How The Model Works

**Project Data**  
Identify State and Project or Scenario

Base Year (FFY) End Date 9/30/YYYY

Expected System Life in Years

Total System Development Cost

**Base Year Data**

Base Year Annual Caseload

Base Year Annual Collections

Base Year Net Admin Cost

Base Year ADP O&M Cost

**Baseline Growth Rates (0.05 = 5%)**

**Growth in Values Prior to Benefit Year 1**

Average Caseload Growth Rate

Average Collections Growth Rate

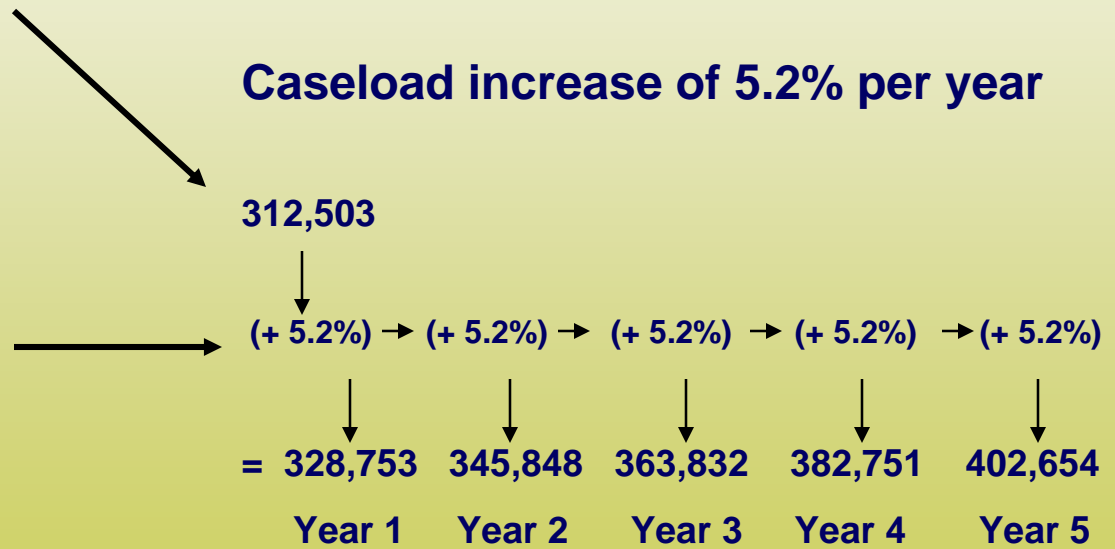
**Inflation Index Growth**

Net Admin Growth Rate

ADP O&M Growth Rate

RSM applies Growth Rates to Base Year values...

Caseload increase of 5.2% per year



# How The Model Works

... to estimate Caseload, Collections, Admin, and ADP O&M for all years

				Projected Oct-1998	Projected Oct-1999	Projected Oct-2000	Projected Oct-2001
312,503	+	5.20%	=	<b>Annual Caseload</b>			
240,386,560	+	11.60%	=	328,753	345,848	363,832	382,751
55,998,417	+	2.73%	=	<b>Annual Collections</b>			
8,664,882	+	2.73%	=	268,271,401	299,390,884	334,120,227	372,878,173
				<b>Annual Admin Costs</b>			
				57,527,174	59,097,666	60,711,032	62,368,443
				<b>Annual ADP Operations &amp; Maintenance Costs</b>			
				8,901,433	9,144,442	9,394,085	9,650,544
<b>Base Year Notes:</b>							
System Development Cost				62,294,576			
Annual Caseload				312,503			
Annual Collections				240,386,560			
Annual Admin Cost				55,998,417			
Annual ADP O&M Cost				6,664,662			
Base Year				10/01/1997			
<b>Projected Growth Rates:</b>							
Annual Caseload Growth (%)				5.20%			
Annual Collections Growth (%)				11.60%			
Annual Admin Growth (%)				2.73%			
Annual ADP Growth (%)				2.73%			
Annual Amortization Rate (%)				9.03%			

# How The Model Works

**Project Data**

Identify State and Project or Scenario

NewState - CSES - FFY 1997

Base Year (FFY) End Date 9/30/YYYY 1997

Expected System Life in Years 11

Total System Development Cost 82294578

**Base Year Data**

Base Year Annual Caseload 312503

Base Year Annual Collections 240386560

Base Year Net Admin Cost 55998417

Base Year ADP O&M Cost 8664882

The RSM projects system costs by ... amortizing development cost over the years of system life ...

**82,234,576**

*(divided by)*

**11 = 7,481,325 amortized amount**

# How The Model Works

**Project Data**  
Identify State and Project or Scenario

Base Year (FFY) End Date 9/30/YYYY

Expected System Life in Years

Total System Development Cost

**Base Year Data**

Base Year Annual Caseload

Base Year Annual Collections

Base Year Net Admin Cost

Base Year ADP O&M Cost

**Baseline Growth Rates (0.05 = 5%)**

**Growth in Values Prior to Benefit Year 1**

Average Caseload Growth Rate

Average Collections Growth Rate

**Inflation Index Growth**

Net Admin Growth Rate

ADP O&M Growth Rate

...and calculating each year's  
ADP O&M

ADP O&M      8,664,882

Plus growth      + 2.73%

8,901,433 Year 1 projection

# How The Model Works

The RSM calculates *Annual System Cost* as the sum of the amortized Development Cost plus that year's O&M.

Project Data	
Identify State and Project or Scenario	
NewState - CSES - FFY 1997	
Base Year (FFY) End Date 9/30/YYYY	1997
Expected System Life in Years	11
Total System Development Cost	82294578
Base Year Data	
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Net Admin Cost	55998417
Base Year ADP O&M Cost	8664882

<b>Development</b>	<b>82,234,576</b>
	<i>(divided by)</i>
<b>System Life</b>	<b>11 = 7,481,325 amortized development</b>
	<i>plus</i>
<b>ADP O&amp;M</b>	<b><u>8,901,433</u> projection</b>
<b>Annual System Cost</b>	<b>16,382,207</b>

# How The Model Works

The RSM projects annual system costs for each year ...

	Projected Oct-1998	Projected Oct-1999	Projected Oct-2000	Projected Oct-2001	Projected Oct-2002	Projected Oct-2003	Projected Oct-2004
<b>Annual Caseload</b>	328,753	345,848	363,832	382,751	402,654	423,592	445,619
<b>Annual Collections</b>	268,271,401	299,390,884	334,120,227	372,878,173	416,132,041	464,403,358	518,274,148
<b>Annual Admin Costs</b>	57,527,174	59,097,666	60,711,032	62,368,443	64,071,101	65,820,242	67,617,135
<b>Annual ADP Operations &amp; Maintenance Costs</b>	8,901,433	9,144,442	9,394,085	9,650,544	9,914,004	10,184,656	10,462,697
<b>Annual Amortization of System Development Cost</b>	16,382,758	16,625,767	16,875,410	17,131,869	17,395,329	17,665,981	17,944,022
<b>Base Year Notes:</b>							
System Development Cost	82,294,578						
Annual Caseload	312,503						
Annual Collections	240,386,560						
Annual Admin Cost	55,938,417						
Annual ADP O&M Cost	8,664,882						
Base Year	10/01/1997						
<b>Projected Growth Rates:</b>							
Annual Caseload Growth (%)	5.20%						
Annual Collections Growth (%)	11.60%						
Annual Admin Growth (%)	2.73%						
Annual ADP Growth (%)	2.73%						
Annual Amortization Rate (%)	9.09%						
				7,481,325			
					• 8,901,433 = 16,382,758		
					• 9,144,442 = 16,625,767		
					• 9,394,085 = 16,875,410		
					• 9,650,544 = 17,131,869		

# How The Model Works

RSM calculates benefits in terms of the collections increase between the Base and Current Years

	Projected Oct-1998	Projected Oct-1999
Annual Caseload	328,753	345,848
<b>Annual Collections</b>	<b>268,271,401</b>	<b>299,390,884</b>
Annual Admin Costs	57,527,174	59,097,666
Annual ADP Operations & Maintenance Costs	8,901,433	9,144,442
Annual Amortization of System Development Cost	16,302,750	16,625,767
ADP to Admin (%)	22.17%	21.96%
<b>Base Year and Current Year Collection Difference</b>	<b>27,884,841</b>	<b>59,004,324</b>
Benefits Attributed To Automation	6,180,910	12,954,935
Total Accum Annual Costs	31,196,011	100,340,453
Total Accum Annual Benefits	6,180,910	19,135,845
Breakeven Amount		
Breakeven Month		
Breakeven Ratio	6.76%	19.07%
Base Year Notes:		
System Development Cost	02,294,570	
Annual Caseload	312,503	
<b>Annual Collections</b>	<b>240,386,560</b>	
Annual Admin Cost	55,990,417	
Annual ADP O&M Cost	8,664,002	
Base Year	10,000,000	

240,386,560 Base Year and  
268,271,401 Current Year

27,884,841 Collections

# How The Model Works

The RSM attributes benefits according to the ratio between Net Administrative costs and Annual System costs . . .

	Projected Oct-1998
Annual Caseload	320,753
Annual Collections	260,271,401
Annual Admin Costs	57,527,174
Annual ADP Operations & Maintenance Costs	8,901,433
Annual Amortization of System Development Cost	16,382,758
ADP to Admin (%)	22.17%
Base Year and Current Year Collection Difference	27,884,841
Benefits Attributed To Automation	6,100,910
Total Accum Annual Costs	31,196,011
Total Accum Annual Benefits	6,100,910
Breakeven Amount	
Breakeven Month	
Breakeven Ratio	6.70%

57,527,174

= .2217 or 22.17%

16,382,758



# How The Model Works

... and calculates the portion of benefits attributable to automation for each year ...

$$\begin{array}{r}
 22.17\% \\
 \times \underline{27,884,841} \\
 \hline
 6,180,190
 \end{array}$$

	Projected Oct-1998	Projected Oct-1999	Projected Oct-2000
Annual Caseload	328,753	345,848	363,832
Annual Collections	268,271,401	299,390,884	334,120,227
Annual Admin Costs	57,527,174	59,097,666	60,711,032
Annual ADP Operations & Maintenance Costs	8,901,433	9,144,442	9,394,085
Annual Amortization of System Development Cost	16,302,750	16,625,767	16,075,410
ADP to Admin (%)	22.17%	21.96%	21.75%
Base Year and Current Year Collection Difference	27,884,841	59,004,324	93,733,667
Benefits Attributed To Automation	6,180,910	12,954,935	20,387,506
Total Accum Annual Costs	91,196,011	100,340,453	103,734,530
Total Accum Annual Benefits	6,100,910	19,135,045	39,523,351
Breakeven Amount			
Breakeven Month			
Breakeven Ratio	6.76%	19.07%	36.02%

# How The Model Works

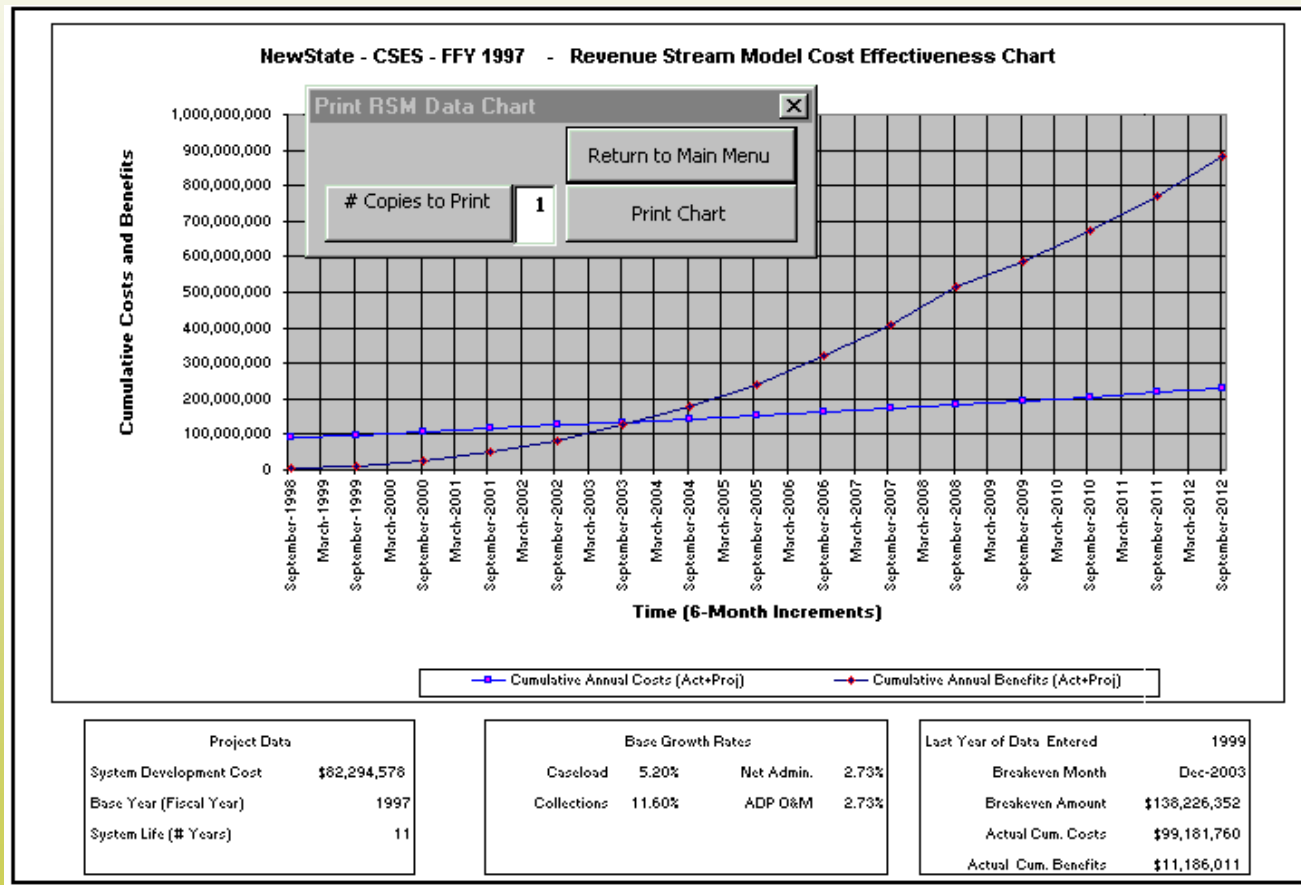
The RSM accumulates costs and benefits each year...

	Actual Oct-1998	Projected Oct-1999	Projected Oct-2000	Projected Oct-2001	Projected Oct-2002	Projected Oct-2003	Projected Oct-2004
Annual Caseload	310,015	326,136	343,095	360,936	379,705	399,450	419,195
Annual Collections		280,439,544	312,970,531	349,275,113	389,791,026	435,006,785	485,422,574
Annual Admin Costs	58,987,718	60,598,083	62,252,411	63,951,902	65,697,799	67,431,339	69,154,879
Annual ALP Operations & Support		8,917,885	9,161,343	9,411,448	9,668,381	9,932,328	10,203,275
Annual Amortization of ALP to Admin (%)	21.51%	21.30%	21.09%	20.90%	20.70%	20.51%	20.32%
Base Year and Current Year Benefits Attributed To Automation	2,344,944	8,530,655	15,311,360	22,752,638	30,927,220	39,915,781	49,804,342
<b>Total Accum Annual Costs</b>	<b>90,975,475</b>	<b>99,893,360</b>	<b>109,054,703</b>	<b>118,466,151</b>	<b>128,134,532</b>	<b>138,066,860</b>	<b>148,270,154</b>
<b>Total Accum Annual Benefits</b>	<b>2,344,944</b>	<b>10,875,599</b>	<b>26,186,959</b>	<b>48,939,597</b>	<b>79,866,817</b>	<b>119,782,598</b>	<b>169,590,963</b>
<b>Breakeven Amount</b>						<b>144,686,511</b>	
<b>Breakeven Month</b>						<b>Apr-2004</b>	
<b>Breakeven Ratio</b>	<b>2.58%</b>	<b>10.89%</b>	<b>24.01%</b>	<b>41.31%</b>	<b>62.33%</b>	<b>86.76%</b>	<b>111.00%</b>

... identifying progress toward breakeven as a percentage

# How The Model Works

The RSM also charts breakeven data automatically.





# RSM Update Process

---

- ✓ Each year, enter data for the prior year
  - Caseload
  - Collections
  - Administrative expenditures (net)
  - ADP Operations and Maintenance
- ✓ Update the total system development cost
- ✓ Print out all RSM Benefit Years to-date and the Chart
- ✓ And update the narrative in CBA Section of APDU



# RSM Update Process

Enter data  
for the  
prior year ...

**NewState - CSES - FFY 1997 Cost Benefit Analysis - Revenue Stream Model for Benefit Year 2**

	Actual FFY 1998	Actual FFY 1999	Projected FFY 2000	Projected FFY 2001	Projected FFY 2002	Projected FFY 2003	Pro
<b>Annual Caseload</b>	310,015	318,026	334,563	351,960	370,262	389,516	
<b>Annual Collections</b>	251,289,914	274,795,516	306,671,796	342,245,724	381,946,228	426,251,990	
<b>Annual Net Admin</b>	58,987,718	65,840,065	67,637,499	69,484,003	71,380,916	73,329,615	
<b>Annual ADP Ops &amp; Maint (O&amp;M) Costs</b>	8,680,897	8,206,285	8,430,317	8,660,465	8,896,896	9,139,781	
<b>Annual System Cost</b>	16,162,222						16,621,106
<b>ADP to Admin (%)</b>	27.40%						22.67%
<b>Base Year and Current Year Collection Difference</b>	10,903,354						185,865,430
<b>Annual Benefit Attributed To Automation</b>	2,987,443						42,128,805
<b>Total Accum Annual Costs</b>	90,975,475						134,309,219
<b>Total Accum Annual Benefits</b>	2,987,443						125,051,795
<b>Breakeven Amount</b>							138,226,352
<b>Breakeven Month</b>							Dec-2003
<b>Breakeven Ratio</b>	3.28%						93.11%
<b>Baseline Data:</b>							
System Development Cost	82,294,578						
Base Year Caseload	312,503						
Base Year Collections	240,388,560						
Base Year Net Admin Cost	55,998,417						
Base Year ADP O&M Cost	8,664,882						
Base Year FFY End Date	9/30/1997						
<b>Projected Growth Rates</b>							
Caseload Growth (%)	5.20%						
Collections Growth (%)	11.60%						
Net Admin Growth (%)	2.73%						
ADP O&M Growth (%)	2.73%						
<b>System Life</b>	11						
<b>Amortization Rate (%)</b>	9.09%						

**Input Benefit Year 2 Data**

Input Actual Benefit Year Data

Annual Caseload

Annual Collection

Annual Net Admin

Annual ADP O&M

Restore Original Projections
Return to Main Menu

# Copies to Print

1

Print Current Year

# RSM Update Process

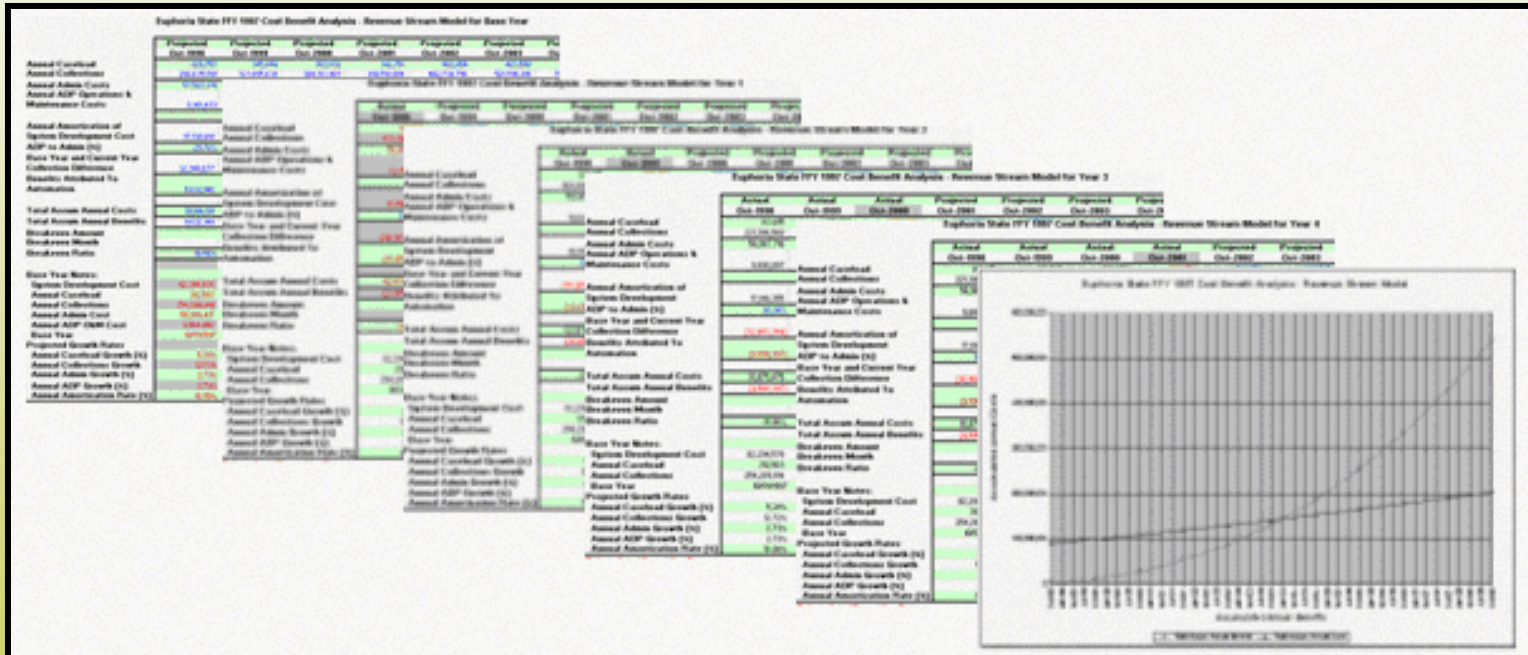
Update the total  
system  
development  
cost



<b>Project Data</b>	
Identify State and Project or Scenario	
NewState - CSES - FFY 1997	
Base Year (FFY) End Date 9/30/YYYY	1997
Expected System Life in Years	11
Total System Development Cost	88856334
<b>Base Year Data</b>	
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Net Admin Cost	55998417
Base Year ADP O&M Cost	8664882

# RSM Update Process

Print out all RSM Benefit Years to-date and the Chart for insertion into your APD Update





# RSM Update Process

---

## **CBA Section of the APD should cover:**

1. Bragging points – e.g., performance incentives
2. RSM key data narrative
  - ✓ Baseline Data changes
  - ✓ Current full year data
  - ✓ Variances from expected
  - ✓ Current collection increase
  - ✓ Current Ratio (Net Admin : O&M)
  - ✓ Current annual cost & benefit
  - ✓ To-date cost & benefit
  - ✓ Breakeven data – date and amount
3. Concluding statement on cost effectiveness / impact
4. RSM



# RSM Update Process

<b>CBA Section</b>	<b>First RSM</b>	<b>Dev APD</b>	<b>Op APD</b>
1. Bragging points	Describe	Changes	Status
2. RSM data			
Baseline changes	Describe	Actual	Actual
Current year data		N/A	Actual
Variances		N/A	Actual
Collection increase		N/A	Actual
Ratio (Admin : O&M)		Projected	Actual
Annual cost & benefit		N/A	Actual
Cum. cost & benefit		N/A	Actual
Breakeven data		Projected	Actual
3. Concluding statement	Describe	Status	Status
4. RSM	BY, Chart	BY, Chart	To Date



## RSM Update Process

---

And ...

Update the narrative in the CBA  
section of the  
APD with whiz-bang statistics and  
narratives that describe all the great  
things the program is  
achieving since the implementation of  
the system!!!!!!



# Constructing A Real Revenue Stream Model

---

# A Demo



## End of the Session

---

# Questions