



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
September 2000*



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



Two Types of Cost-Benefit Models

Functional Model

- ✓ Works well for start-up projects under FSA88 and PRWORA
- ✓ Provides insight into task detail

Revenue Stream Model

- ✓ Works well for post-implementation monitoring and enhancement projects
- ✓ Provides summary of project progress

Two Types of Cost-Benefit Models: A View

	Functional Model	Revenue Stream Model
Data level	Task level data	Project level data
Frequency	Capture data monthly Summarize quarterly Report annually	Report annually
Requires	Dedicated process and data Specialized training	Uses data from OCSE Forms No specialized training
Accuracy	Accurate at task level Less accurate for multi-task, multi-year projects Difficult to reconcile task-level and project-level data	Not accurate for task level data Easy to summarize multi- task, multi-year projects Uses only project-level data
Level of effort	High maintenance	Little time and effort required



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



Cost-Benefit Analysis: Revenue Stream Model

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
- ✓ 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 inflation index prior to implementation or on historical data**
- ✓ **Total system development/enhancement cost is identified from Annual APD Updates**
- ✓ **The IAPD identifies the system 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 inflation index to project (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: Setting Up The RSM

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



Sources for Base Year Data

Child Support Enforcement
Annual Reports to Congress



Sources for Base 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 'OFFICE OF CHILD SUPPORT ENFORCEMENT' is prominently displayed, followed by a secondary navigation bar with links for Home, Program Information, News, Publications, Policy, State Links, OCSE Search, and Help. The main content area features a colorful graphic of the letters 'OCSE' with children's figures, a welcome message, and several links: '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 including handbooks, EPLS information, state systems, NECSRS search, financial institution data match, tribal resources, and an interstate roster and referral guide. On the right side, there is a blue box for the '13th Annual Training Conference' with an 'Online Registration' link.



[Forms, Reports & Other Resources](#)



Sources for Base 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](#)

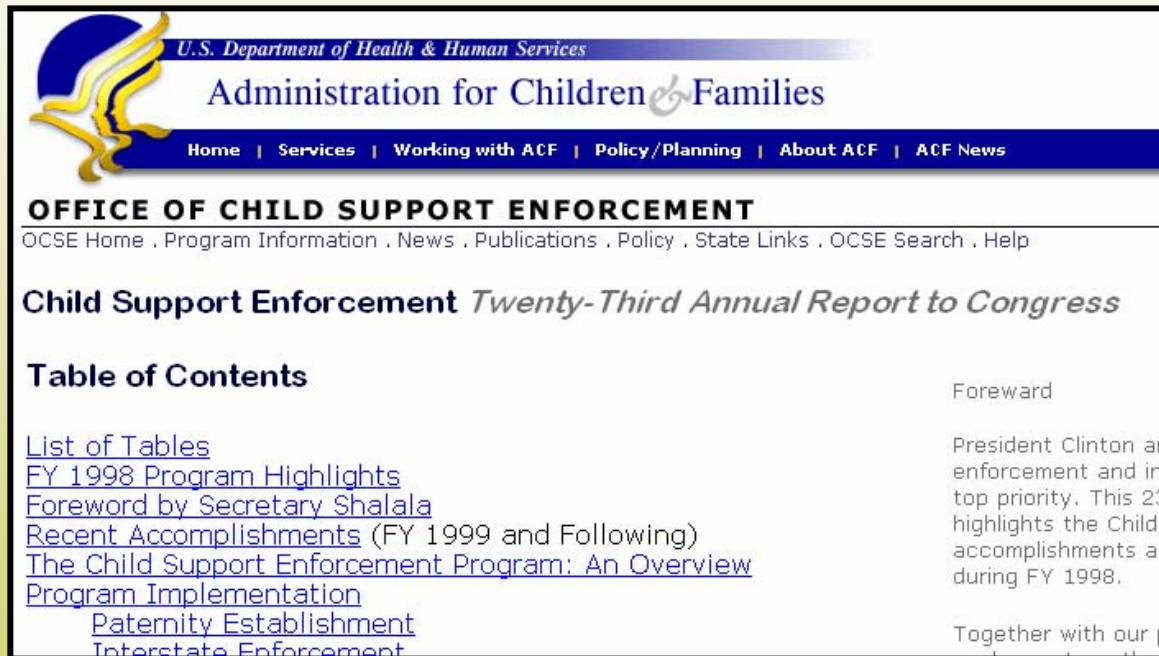
[1999 Statistics, September 2000](#)

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

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



Sources for Base Year Data



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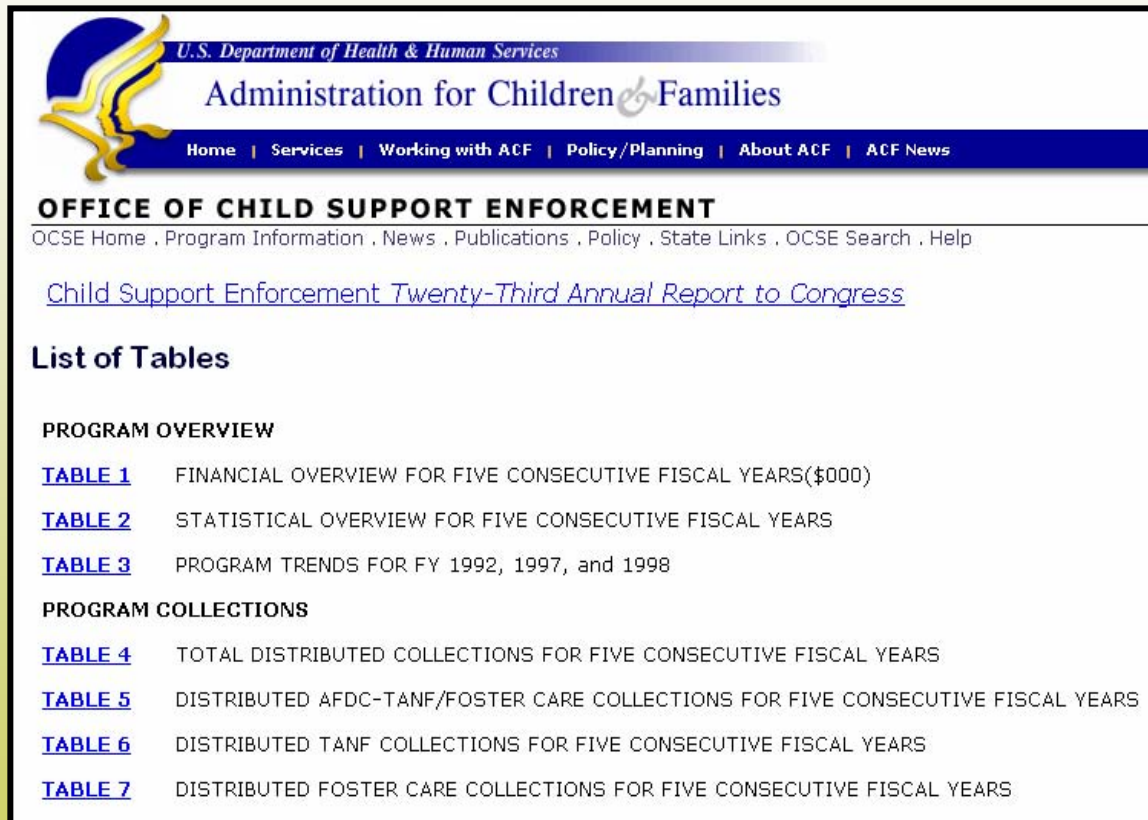
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Child Support Enforcement *Twenty-Third Annual Report to Congress*

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Foreword by Secretary Shalala	
Recent Accomplishments (FY 1999 and Following)	
The Child Support Enforcement Program: An Overview	
Program Implementation	
Paternity Establishment	Together with our partners, we will continue to work to ensure that every child has the support and care they need to thrive.
Interstate Enforcement	

Sources for Base Year Data



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Sources for Base Year Data



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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
NATIONWIDE TOTALS	\$9,850,159,410	\$10,827,167,179	\$12,019,789,424	\$13,363,971,702	\$14,347,706,681

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

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



Sources for Base Year Data

RSM Data Sources – a desk reference tool

Cost Benefit Analysis – Revenue Stream Model						
± Data Sources by Year, FFY 1991 – FFY 2001						
FFY	Data	Source	Table	Table Name	Data Years	OCSE Form
1991 Sixteenth Annual Report to Congress for the Period Ending September 30, 1991* – or OCSE Forms						
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
1992 Seventeenth Annual Report to Congress for the Period Ending September 30, 1992* – or OCSE Forms						
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
1993 Eighteenth Annual Report to Congress for the Period Ending September 30, 1993* – or OCSE Forms						
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
1994 Nineteenth Annual Report to Congress for the Period Ending September 30, 1994* – or OCSE Forms						
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



Base Year Growth Rate Data

Growth Data

Used To Calculate Rates Of Growth Of **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



Sources for Base Year Growth Rate Data

Growth Formulas

Caseload and Collections Growth Rates

2002 Caseload Growth Rate = $(2002 \text{ Caseload} - 2001 \text{ Caseload}) / 2001 \text{ Caseload}$

2001 Caseload Growth Rate = $(2001 \text{ Caseload} - 2000 \text{ Caseload}) / 2000 \text{ Caseload}$

2000 Caseload Growth Rate = $(2000 \text{ Caseload} - 1999 \text{ Caseload}) / 1999 \text{ Caseload}$

(3-yr) Caseload Growth Rate =

$((2000 \text{ Growth Rate} + 2001 \text{ Growth Rate} + 2002 \text{ Growth Rate}) / 3) / 100$



Sources for Base Year Data

Growth Formulas

Admin and ADP O & M Growth Rates

2002 Growth Rate = (2002 Inflation Index)

2001 Growth Rate = (2001 Inflation Index)

2000 Growth Rate = (2000 Inflation Index)

(3-yr) Inflation Index Growth Rate =

$((2000 \text{ Growth Rate} + 2001 \text{ Growth Rate} + 2002 \text{ Growth Rate}) / 3) / 100$



Base Year 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 APD



Using The Revenue Stream Model

Creating an RSM

- ✓ Gather data from OCSE reports and APD's
Enter data to RSM data-entry dialogs
- ✓ Print out benefit year worksheets
- ✓ Summarize progress in CBA section narrative

Yearly updates to RSM data

- ✓ Update RSM with actual prior year caseload and collections data, and administrative and ADP costs
- ✓ Print out benefit year worksheets
- ✓ Summarize progress in CBA section narrative.



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
- ✓ ADP Operations and Maintenance Cost

Growth Data

- ✓ Rates of growth

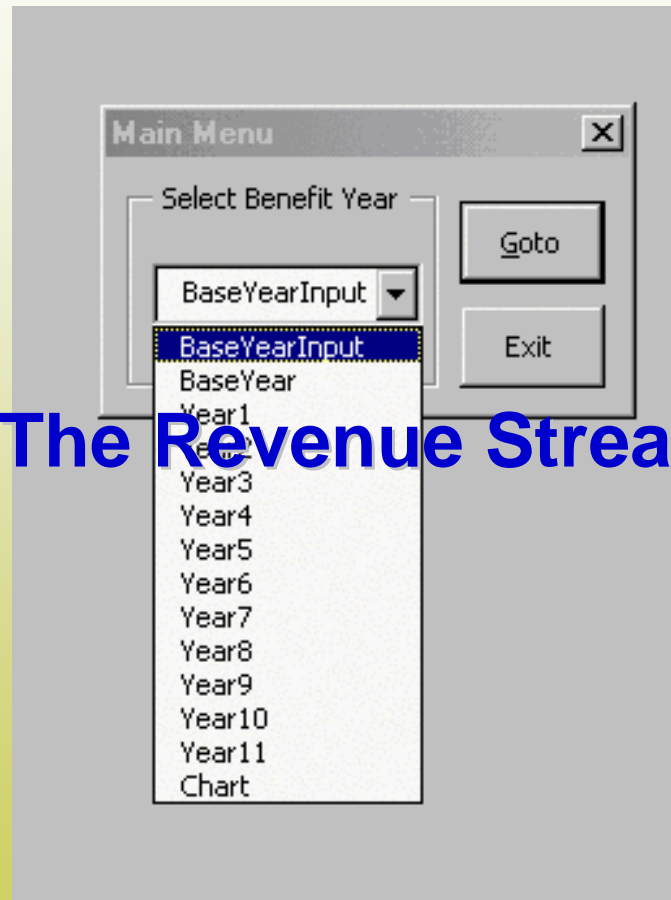


U.S. Department of Health & Human Services

Administration for Children & Families

±

Open The Revenue Stream Model Main Menu



Using The Revenue Stream Model



Enter Data To RSM Base Year Input Screen

Input Revenue Stream Data [X]

Input Actual Base Year Data

System Development Cost	<input type="text"/>
Base Year Annual Caseload	<input type="text"/>
Base Year Annual Collections	<input type="text"/>
Base Year Annual Admin Cost	<input type="text"/>
Base Year Annual ADP Cost	<input type="text"/>
Base Year Date (10/01/yyyy)	<input type="text" value="10/01/2000"/>
Expected System Life in Yrs	<input type="text"/>
State / Project Name	<input type="text"/>

State Name and/or Project or Scenario Name

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	<input type="text"/>
Annual Collections Growth	<input type="text"/>
Annual Admin Growth (%)	<input type="text"/>
Annual ADP Growth (%)	<input type="text"/>



Input Revenue Stream Data [X]

Input Actual Base Year Data

System Development Cost	<input type="text" value="82294578"/>
Base Year Annual Caseload	<input type="text" value="312503"/>
Base Year Annual Collections	<input type="text" value="240386560"/>
Base Year Annual Admin Cost	<input type="text" value="55998417"/>
Base Year Annual ADP Cost	<input type="text" value="8664882"/>
Base Year Date (10/01/yyyy)	<input type="text" value="10/01/1997"/>
Expected System Life in Yrs	<input type="text" value="11"/>
State / Project Name	<input type="text"/>

Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	<input type="text" value="0.052"/>
Annual Collections Growth	<input type="text" value="0.116"/>
Annual Admin Growth (%)	<input type="text" value="0.0273"/>
Annual ADP Growth (%)	<input type="text" value="0.0273"/>

How The Model Works

Input Revenue Stream Data ✕

Input Actual Base Year Data

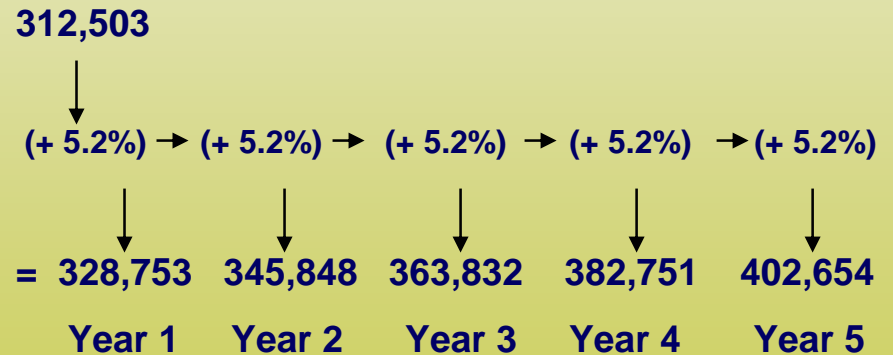
System Development Cost	82294578
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Annual Admin Cost	55998417
Base Year Annual ADP Cost	8664882
Base Year Date (10/01/yyyy)	10/01/1997
Expected System Life in Yrs	11
State / Project Name	Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	0.052
Annual Collections Growth	0.116
Annual Admin Growth (%)	0.0273
Annual ADP Growth (%)	0.0273

1. 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%	=	328,753	345,848	363,832	382,751
240,386,560	+	11.60%	=	268,271,401	299,390,884	334,120,227	372,878,173
55,998,417	+	2.73%	=	57,527,174	59,097,666	60,711,032	62,368,443
8,664,882	+	2.73%	=	8,901,433	9,144,442	9,394,085	9,650,544
Base Year Notes:							
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				8,664,882			
Base Year				10/01/1997			
Projected Growth Rates:							
Annual Caseload Growth (%)				5.20%			
Annual Collections Growth (%)				11.60%			
Annual Admin Growth (%)				2.73%			
Annual ADP Growth (%)				2.73%			
Annual Amortization Rate (%)				8.03%			

How The Model Works

2. RSM projects system costs for each year by
...amortizing Development Cost over the years of system life ...

Input Actual Base Year Data	
System Development Cost	82294578
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Annual Admin Cost	55998417
Base Year Annual ADP Cost	8664882
Base Year Date (10/01/yyyy)	10/01/1997
Expected System Life in Yrs	11
State / Project Name	Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)	
Annual Caseload Growth (%)	0.052
Annual Collections Growth	0.116
Annual Admin Growth (%)	0.0273
Annual ADP Growth (%)	0.0273

82,234,576

(divided by)

11 = 7,481,325 amortized amount

How The Model Works

...and adding (actual or projected)
 ADP O&M

Input Revenue Stream Data

Input Actual Base Year Data

System Development Cost	82294578
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Annual Admin Cost	55998417
Base Year Annual ADP Cost	8664882
Base Year Date (10/01/yyyy)	10/01/1997
Expected System Life in Yrs	11
State / Project Name	Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	0.052
Annual Collections Growth	0.116
Annual Admin Growth (%)	0.0273
Annual ADP Growth (%)	0.0273

ADP O&M **8,664,882**

Plus growth **+ 2.73%**

8,901,433 Year 1 projection

How The Model Works

...and adding (actual or projected)
ADP O&M

... to calculate annual system costs

Input Revenue Stream Data

Input Actual Base Year Data

System Development Cost	82294578
Base Year Annual Caseload	312503
Base Year Annual Collections	240386560
Base Year Annual Admin Cost	55998417
Base Year Annual ADP Cost	8664882
Base Year Date (10/01/yyyy)	10/01/1997
Expected System Life in Yrs	11
State / Project Name	Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	0.052
Annual Collections Growth	0.116
Annual Admin Growth (%)	0.0273
Annual ADP Growth (%)	0.0273

82,234,576

(divided by)

11 = 7,481,325 amortized amount

plus

ADP O&M 8,901,433 Year 1 projection

**16,382,207 annualized system
cost for Year 1**



How The Model Works

RSM projects annualized 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
Annual Caseload	328,753	345,848	363,832	382,751	402,654	423,592	445,619
Annual Collections	268,271,401	299,390,884	334,120,227	372,878,173	416,132,041	464,403,358	518,274,148
Annual Admin Costs	57,527,174	59,097,666	60,711,032	62,368,443	64,071,101	65,820,242	67,617,135
Annual ADP Operations & Maintenance Costs	8,901,433	9,144,442	9,394,085	9,650,544	9,914,004	10,184,656	10,462,697
Annual Amortization of System Development Cost	16,382,758	16,625,767	16,875,410	17,131,869	17,395,329	17,665,981	17,944,022
Base Year Notes:							
System Development Cost	82,294,578						
Annual Caseload	312,503						
Annual Collections	240,386,560						
Annual Admin Cost	55,998,417						
Annual ADP O&M Cost	8,664,882						
Base Year	10/01/1997						
Projected Growth Rates:							
Annual Caseload Growth (%)	5.20%						
Annual Collections Growth (%)	11.60%						
Annual Admin Growth (%)	2.73%						
Annual ADP Growth (%)	2.73%						
Annual Amortization Rate (%)	3.03%						
				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

	Projected Oct-1998	Projected Oct-1999
Annual Caseload	328,753	345,848
Annual Collections	268,271,401	299,390,884
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%
Base Year and Current Year Collection Difference	27,884,841	59,004,324
Benefits Attributed To Automation	6,100,910	12,954,935
Total Accum Annual Costs	91,196,011	100,340,453
Total Accum Annual Benefits	6,100,910	19,135,845
Breakeven Amount		
Breakeven Month		
Breakeven Ratio	6.76%	19.07%
Base Year Notes:		
System Development Cost	92,294,570	
Annual Caseload	312,503	
Annual Collections	240,386,560	
Annual Admin Cost	55,990,417	
Annual ADP O&M Cost	8,664,002	
Base Year	10/01/1997	

3. RSM calculates benefits in terms of the increase between

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

27,884,841 Collections

How The Model Works

4. The RSM attributes benefits according to the ratio between Net Administrative costs and Annualized 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

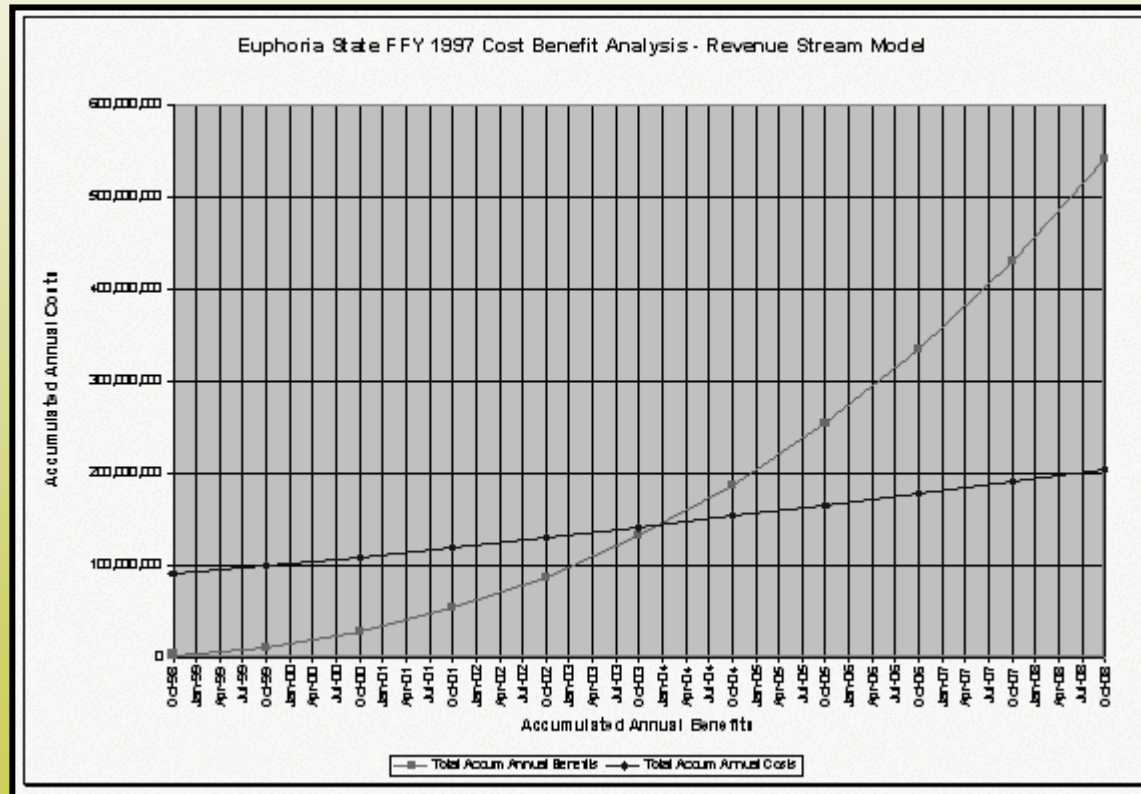
5. The RSM accumulates costs and benefits each year...

	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	485,442,570
Annual Admin Costs	58,987,718	60,598,083	62,252,411	63,951,902	65,697,799	67,491,339	69,333,880
Annual ADP Operations & Maintenance		8,917,885	9,161,343	9,411,448	9,668,381	9,932,328	10,203,275
Annual Amortization of ADP 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
Total Accum Annual Costs	90,975,475	99,893,360	109,054,703	118,466,151	128,134,532	138,066,860	148,271,035
Total Accum Annual Benefits	2,344,944	10,875,599	26,186,959	48,939,597	79,866,817	119,782,598	169,590,684
Breakeven Amount						144,686,511	
Breakeven Month						Apr-2004	
Breakeven Ratio	2.58%	10.89%	24.01%	41.31%	62.33%	86.76%	114.00%

... identifying progress toward breakeven as a percentage

How The Model Works

6. The RSM also charts breakeven data automatically.





RSM Yearly Updates: The 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 ...

Euphoria State FFY 1997 Cost Benefit Analysis - Revenue Stream Model for Year 2

	Actual Oct-1998	Actual Oct-1999	Projected Oct-2000	Projected Oct-2001	Projected Oct-2002	Projected Oct-2003
Annual Caseload	310,015	318,026	334,563	351,960	370,262	389,516
Annual Collections	251,289,914	274,795,516	306,671,796	342,245,724	381,946,228	426,251,990
Annual Admin Costs	58,987,718	65,840,065	67,637,499	69,484,003	71,380,916	73,329,615
Annual ADP Operations & Maintenance Costs	8,680,897	8,206,285	8,430,317	8,660,465	8,896,896	9,139,781
Annual Amortization of System Development	16,162,222					
ADP to Admin (%)	27.40%					
Base Year and Current Year Collection Difference	10,903,354					
Benefits Attributed To Automation	2,987,443					
Total Accum Annual Costs	90,975,475					
Total Accum Annual Benefits	2,987,443					
Breakeven Amount						
Breakeven Month						Jan-2004
Breakeven Ratio	3.28%					
Base Year Notes:						
System Development Cost	82,294,578					
Annual Caseload	312,503					
Annual Collections	240,386,560					
Base Year	10/01/1997					
Projected Growth Rates						
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%					

Input Revenue Stream Data [X]

Input Actual Benefit Year Data

Annual Caseload Figures:

Annual Collection Figures:

Annual Admin Figures:

Annual ADP Figures:

RSM Update Process

Update the total
system
development
cost



Input Revenue Stream Data [X]

Input Actual Base Year Data

System Development Cost	8856334
Base Year Annual Caseload	312500
Base Year Annual Collections	240386560
Base Year Annual Admin Cost	55998417
Base Year Annual ADP Cost	8664882
Base Year Date (10/01/yyyy)	10/01/1997
Expected System Life in Yrs	11

State / Project Name

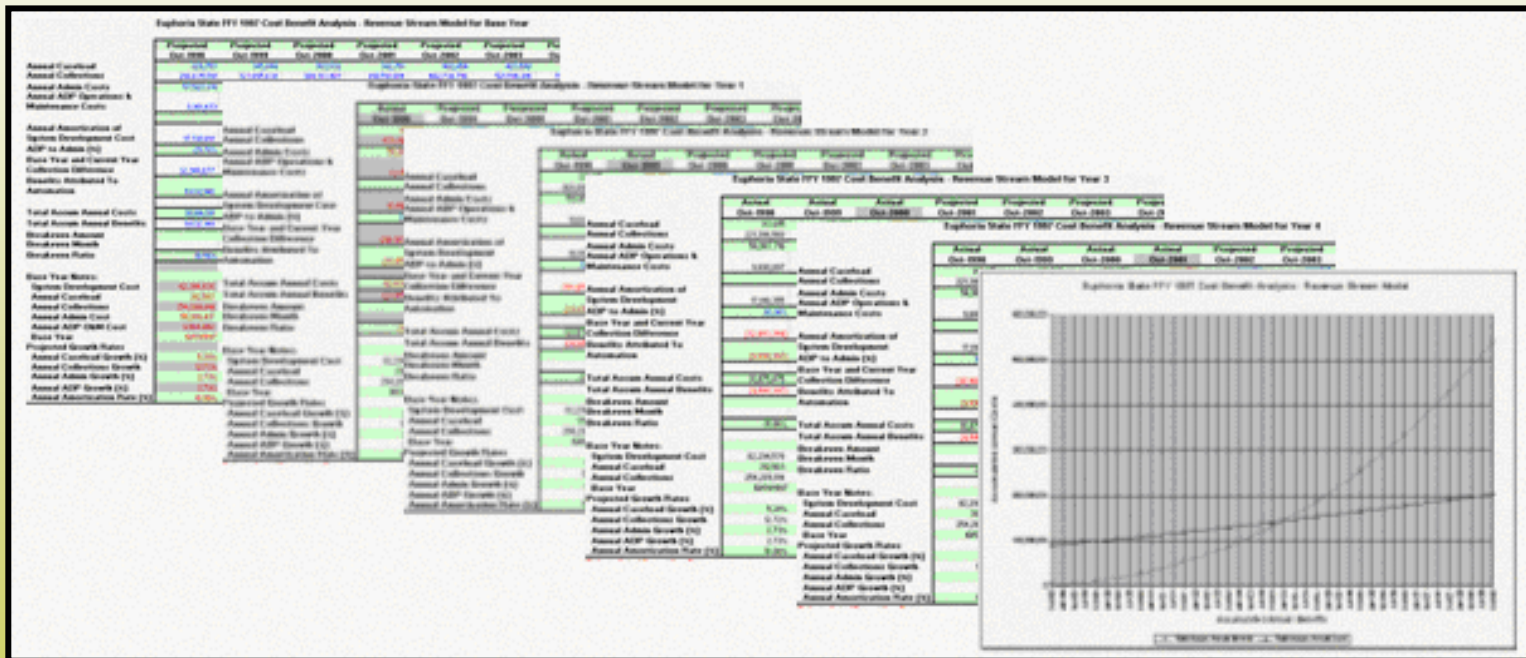
Euphoria State FFY 1997

Input Projected Growth Rates (0.05 = 5%)

Annual Caseload Growth (%)	0.052
Annual Collections Growth	0.116
Annual Admin Growth (%)	0.0273
Annual ADP Growth (%)	0.0273

RSM Update Process

Print out all RSM Benefit Years to-date and the Chart





RSM Update Process

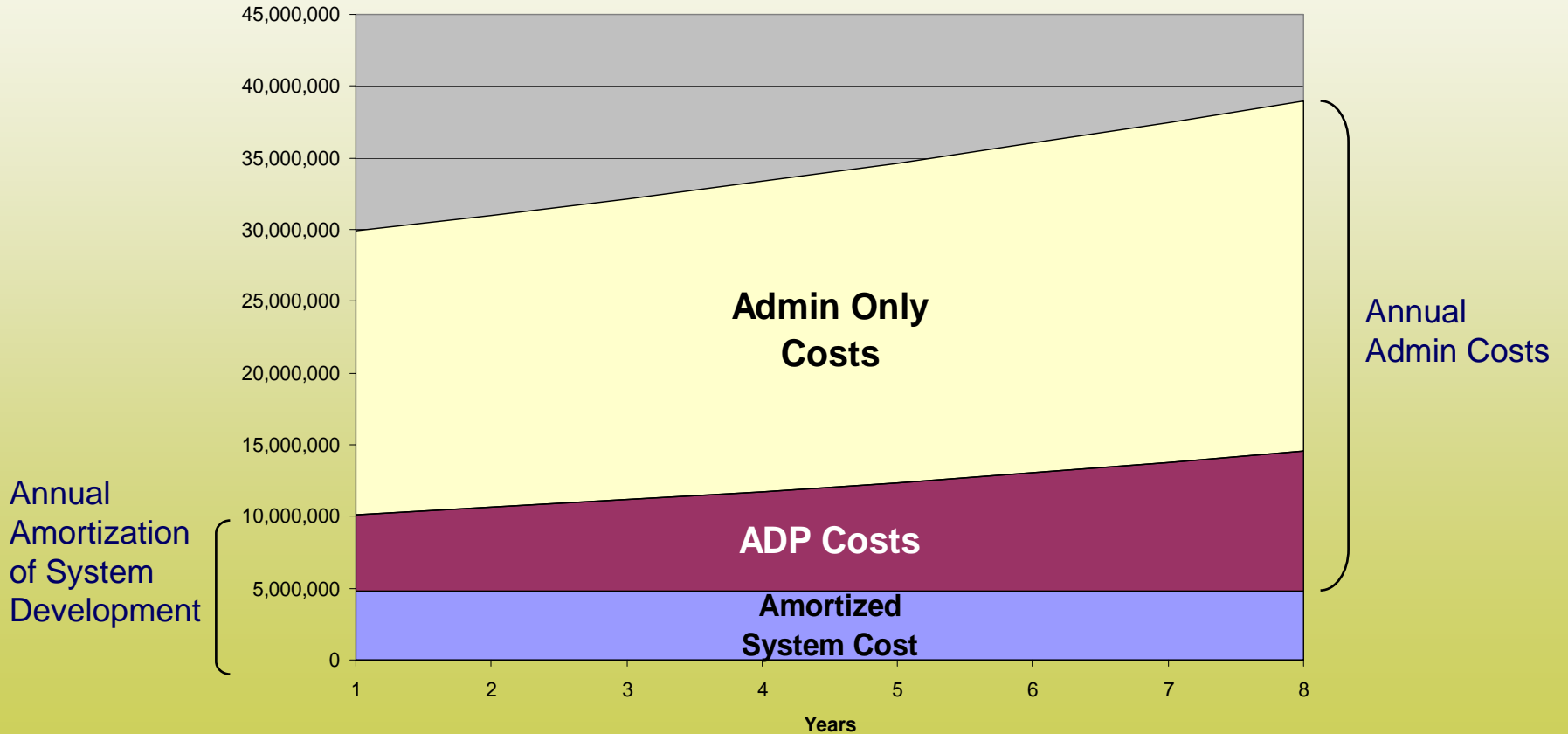
And ...

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!!!!

RSM Update Process

Revenue Stream - ADP to Admin Percentage

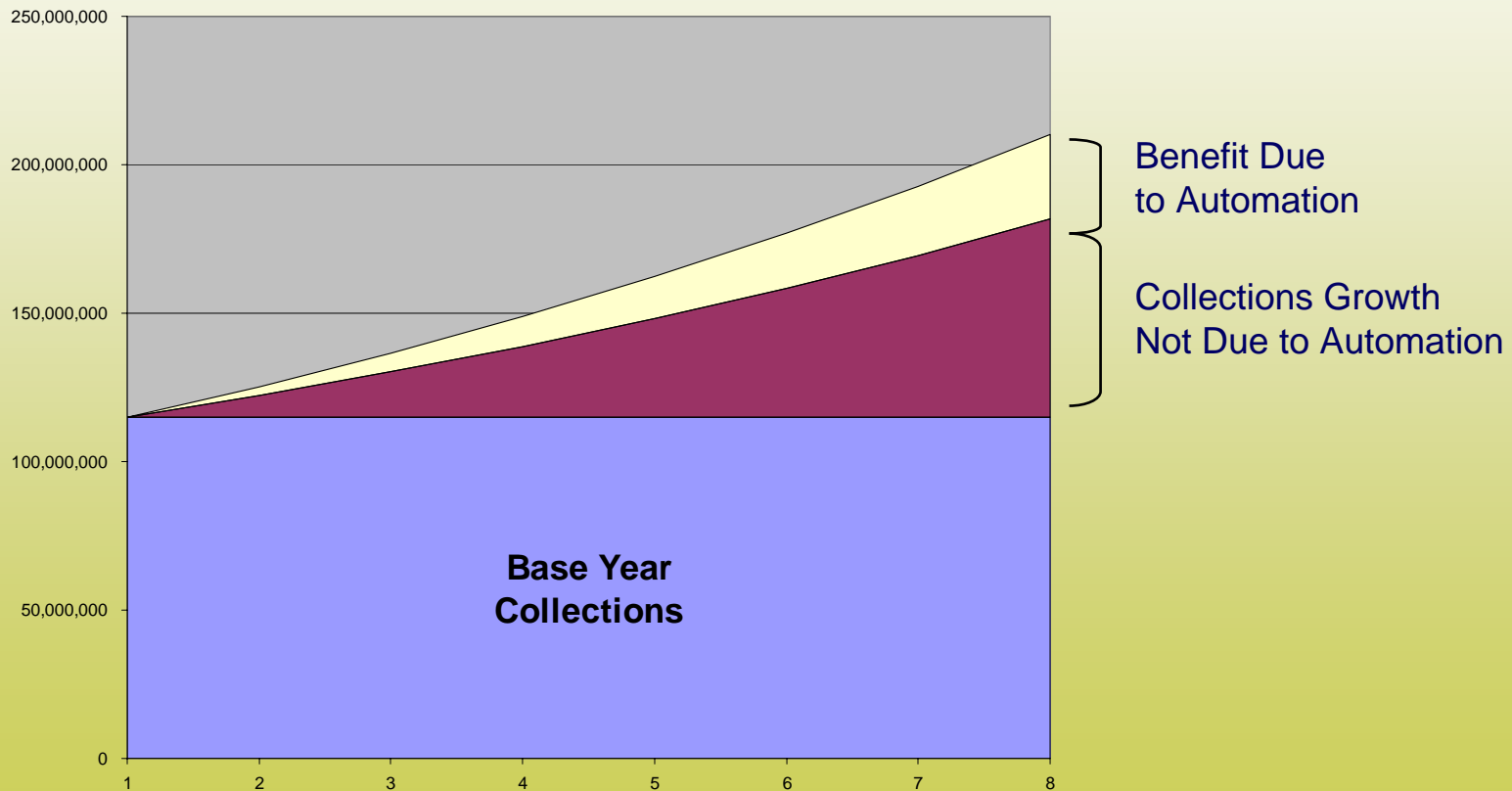
ADP to Admin % = Annual Amortization of System Development/Annual Admin costs



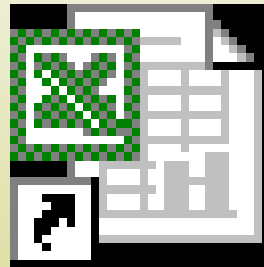
RSM Update Process

Revenue Stream - Benefit Attributed to Automation

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



Let's Go Use The RSM For The State of Euphoria



State of Euphoria.Ink



End of the Session

Questions