# eRA Project Update

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# Outline

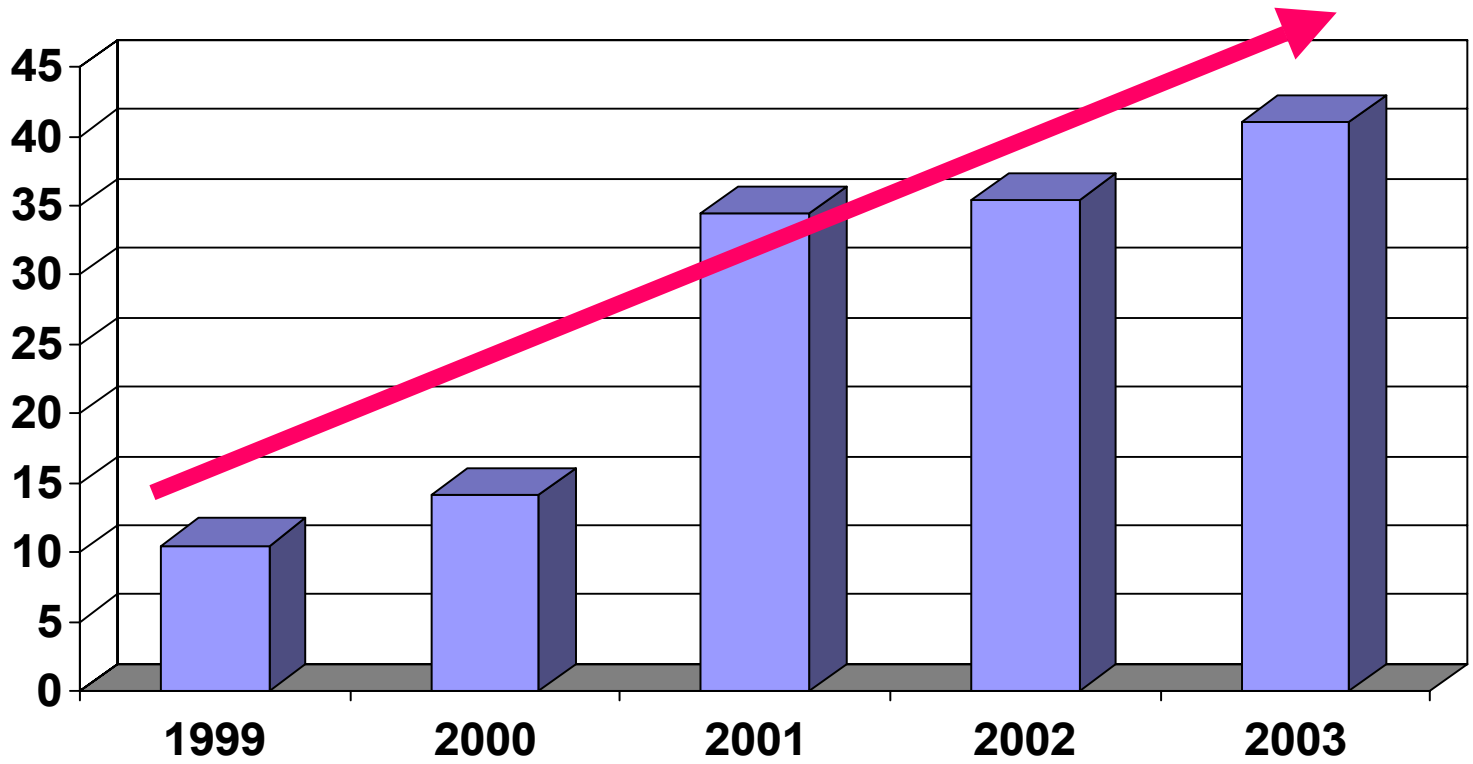
- Assessment
- Initial Findings of 2001
- CY 2002 Initiatives
- Progress
- Analysis of March 2003 Release
- Current Projects
- Challenges
- Current Initiatives

# Assessment

- Return on Investment (OMB 300):
  - 1.5 (50%) over 7 years (FY 2002 – FY 2008)
  - J2EE Migration
- Implementation of cost & schedule PM infrastructure in a dynamic environment
  - Evolving ability to baseline, monitor and forecast costs
  - Initial capacity to provide analysis from granular tracking of project data
  - Institution of a PM processes and practices across project modules

# Initial Findings (Nov 2001)

Classic symptoms of rapidly growing project:




Project Growth (millions)

# Initial Findings (Nov 2001)

Classic symptoms of rapidly growing project:

- Limited project information availability—alignment across models/sources uneven
  - Lack of detailed cost & resource information
- PM skill set partially developed
- Institutionalization of roles throughout organization structure is evolving
- Project procedures, practices not standardized or fully documented.

# Initiatives

- Define roles and responsibilities across project
- Refine business planning processes
- Institute a centralized project tracking system
  - communicate issues, status
- Conduct periodic team reviews
- Improve cost estimation capabilities
- Track granular level project reporting data

# Roles & Responsibilities

- Drafting of a Project Management Plan (PMP)
  - Cover key management processes
  - Define roles & responsibilities
- Transform project from “person” to “title” based responsibilities
- April 2002 - Initial Draft
- CY 02 - Period of change
  - Significant personnel changes:
    - Role of Analyst
    - Iteration Manager
    - Deployment Manager
- Final Draft to be completed by May 1

# Refine Business Planning Processes *(Operational level)*

- Establish requirements management, configuration management, and change management structures
  - Blueprint Technologies
- Rational Unified Process (RUP)—process framework
- Began implementing SEI/CMM Level II requirements
- Change from waterfall to iterative lifecycle—Release management
- Installation of *RequistePro*—requirements management software tool
- Weekly CCB meetings

# Configuration Control Board (CCB)

- eRA Operations Manager—Chair
- Membership includes
  - Architect
  - Development
  - Operations
  - Quality Assurance—Testing
  - Deployment Manager
  - Relevant
    - Developers
    - Analyst

# Project Tracking System

- Standardize work breakdown structure (wbs); project phases; milestones; deliverables, etc…
- Evaluated COTS products
- Decided on PlanView
  - Ability to modify around eRA processes
  - User friendly
  - Resource management, financial management, baseline, gap analysis, assess risk, etc…..
- Installation underway—Pilot w/ July Release
- Assist with OMB Circular A-11 & OMB 300

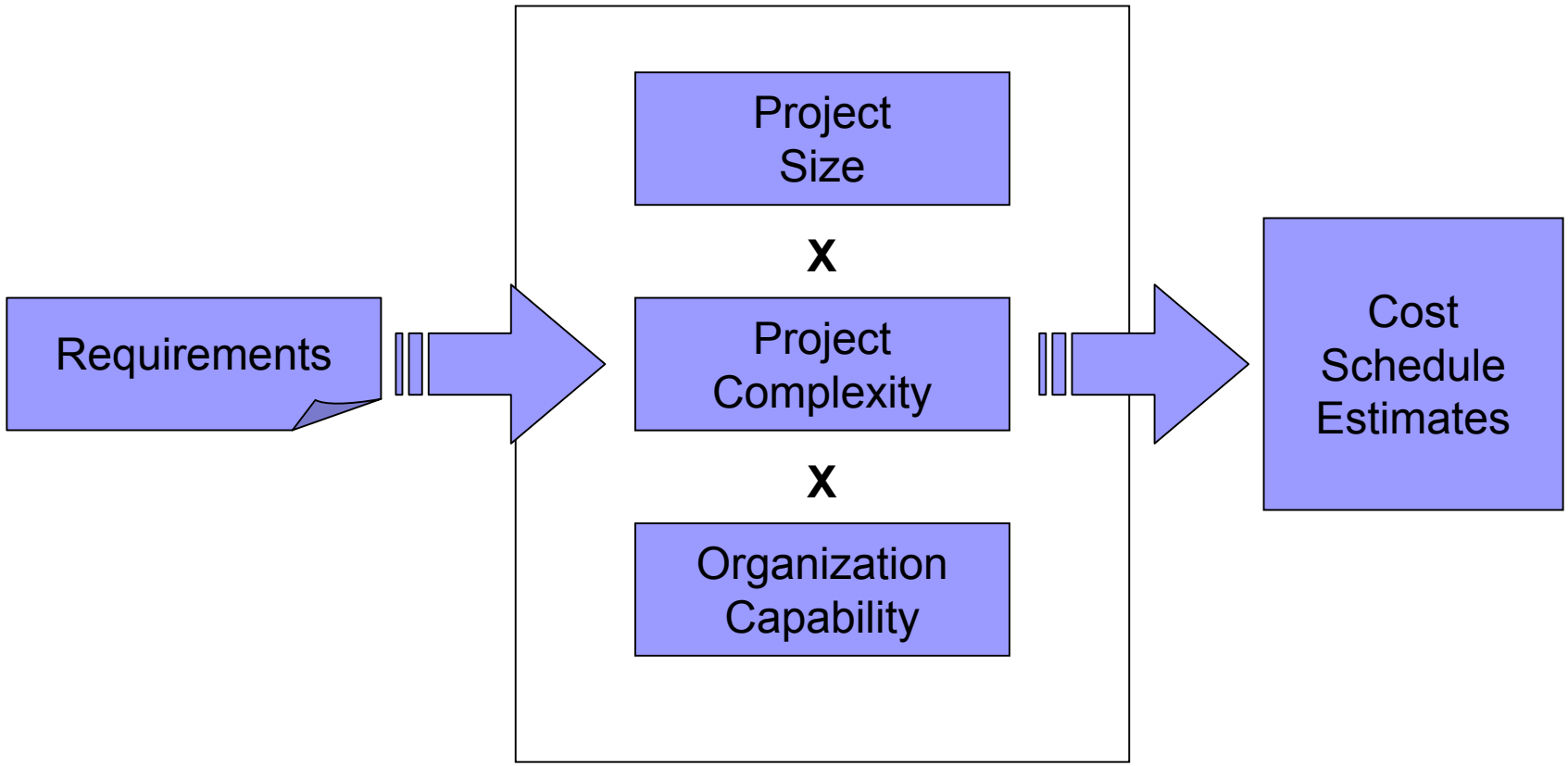
# Cost Estimation Capabilities

2-Tier Approach:

- Baseline requirements
  - Estimate based on historical cost & current requirements
- Function Point Analysis
  - Internationally recognized methodology for measuring software projects “size”
    - FP = Software unit: cubic foot, pound, gallon, etc…
  - *Cost Xpert*—Industry accepted modeling tool

# Function Point Analysis

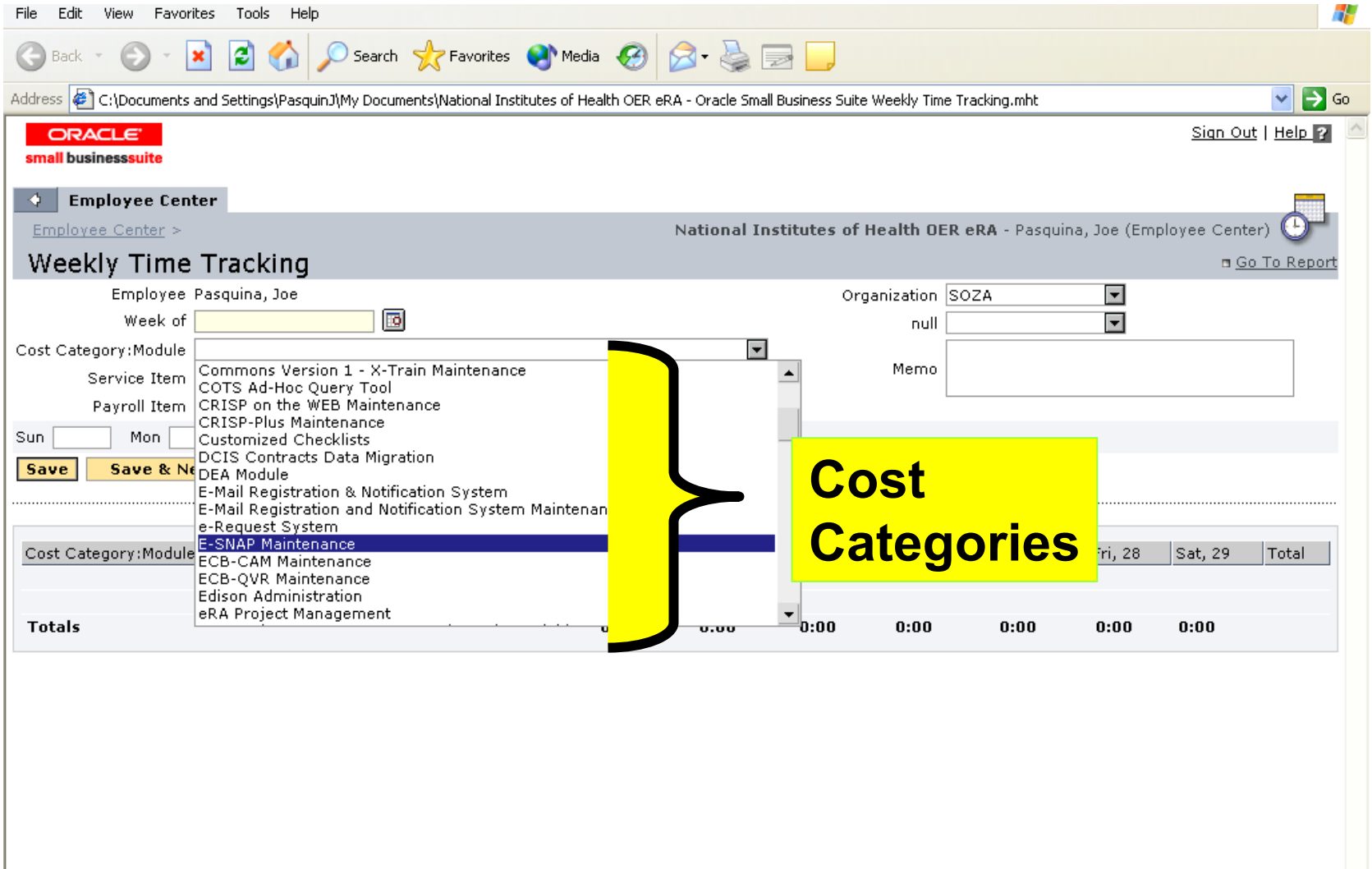
Quantitative and Qualitative Elements



# Tracking Granular Project Data

- Implemented Oracle Small Business Suite (SBS)
- Online time tracking system—all project team members
- Data collected weekly

# Oracle SBS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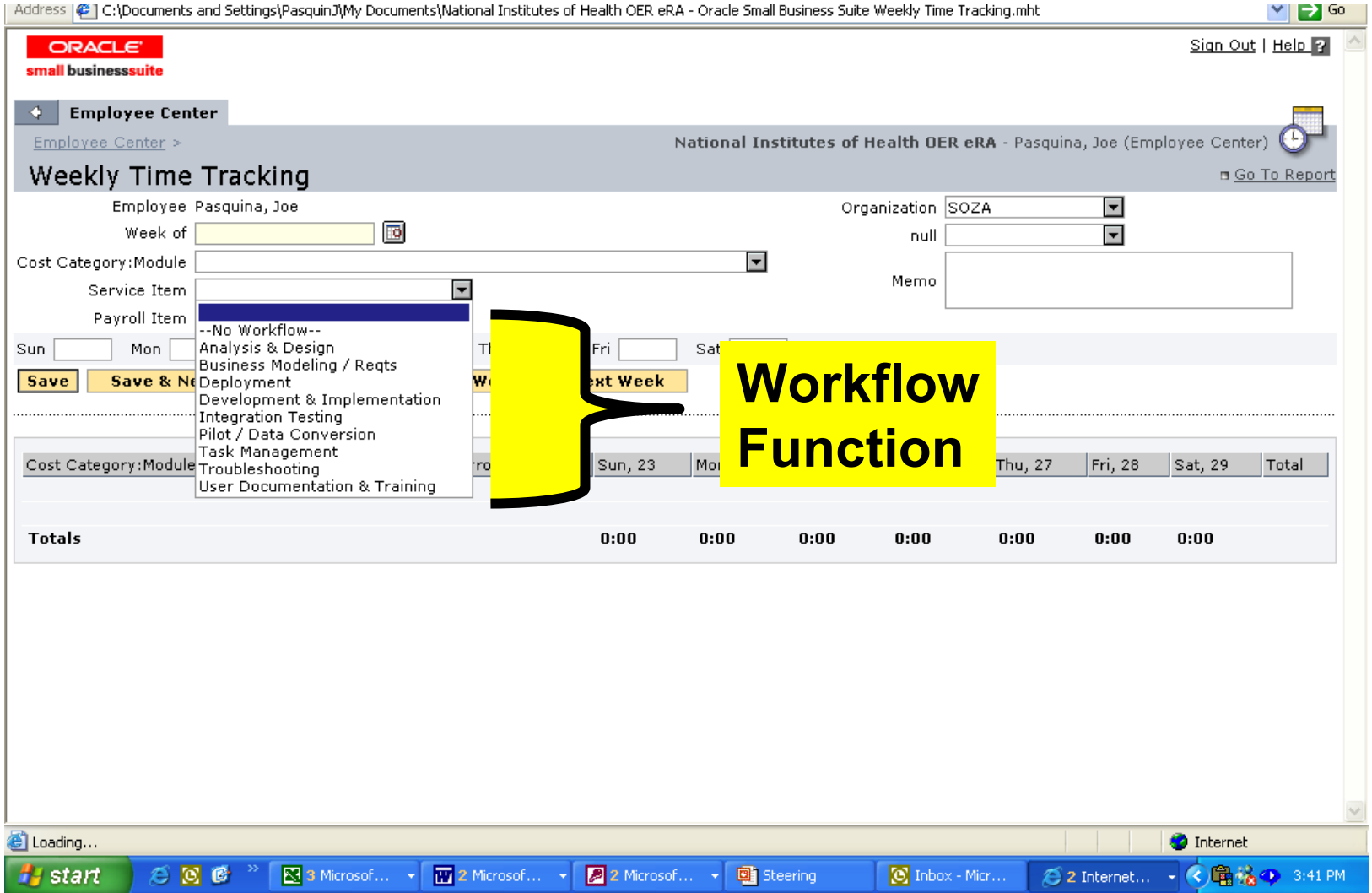
Cost Categories

# Oracle SBS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Integration Testing
Pilot / Data Conversion
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Troubleshooting
User Documentation & Training
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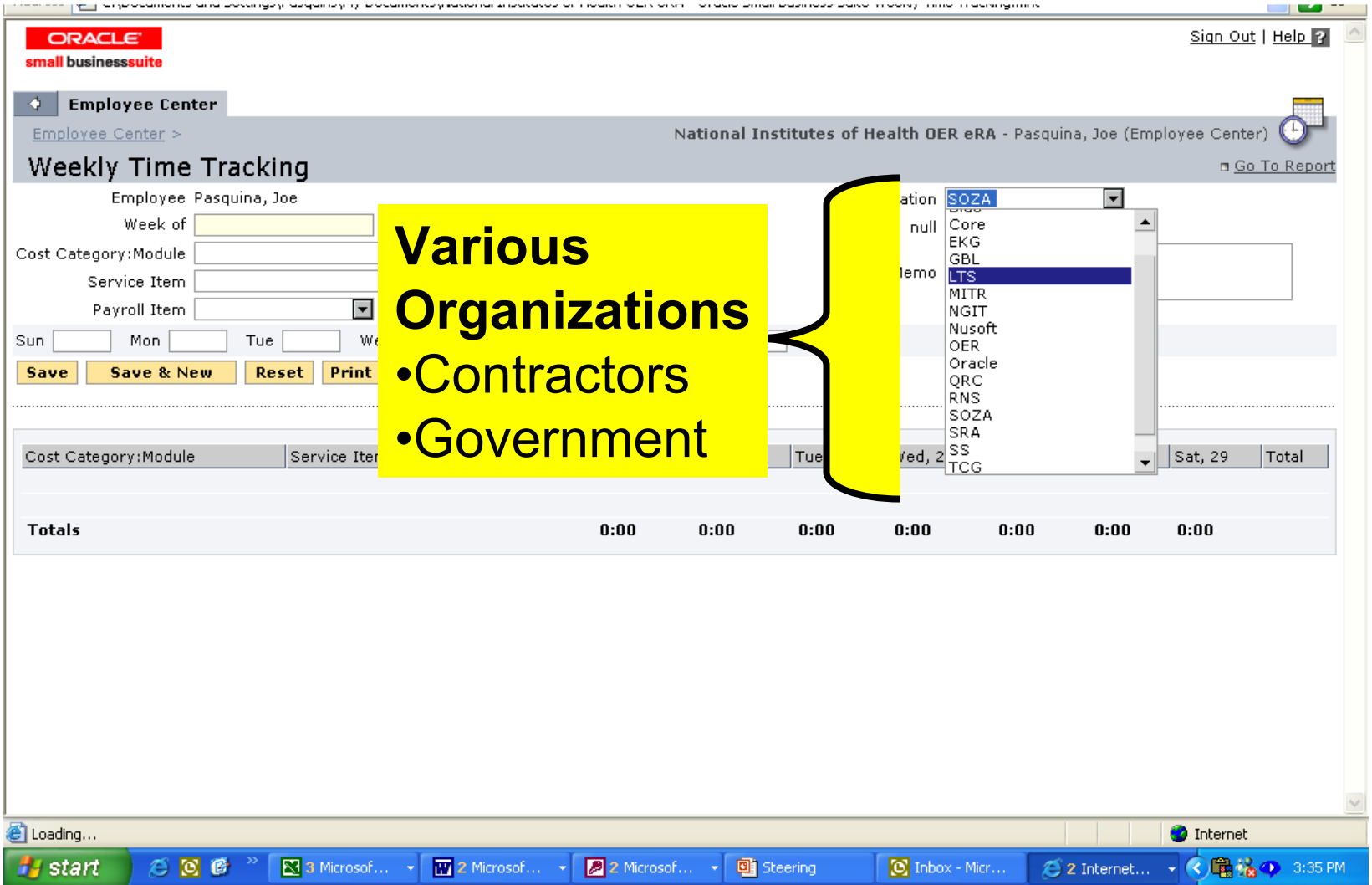
# Oracle SBS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GBL
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MITR
NGIT
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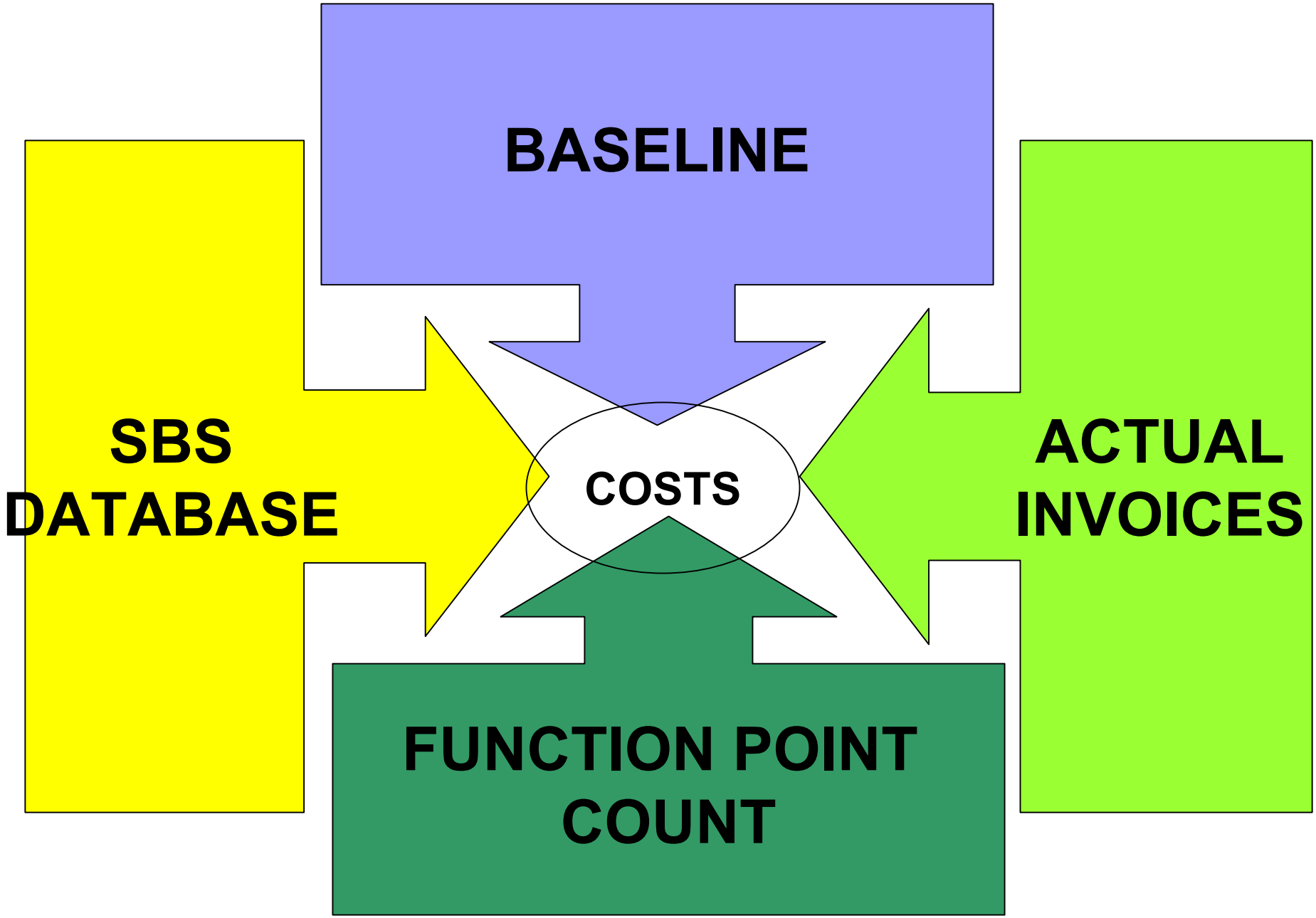
3:35 PM

# Tracking Granular Project Data

## eRA Cost Tracking Database

- MS Access Database:
  - 126 Cost Categories—93 Active
  - 297 employees
    - 58 government
    - 239 contractors
  - 134 invoices
  - 28 contracts
  - 22 contractors + government
  - 127 labor categories (rates)


BASELINE
SBS DATABASE
COSTS
ACTUAL INVOICES
FUNCTION POINT COUNT

# March 2003 Release—Analysis

- 26 cost modules tracked
  - Maintenance projects
  - Development projects
- ≈$1.8 million baseline
- SBS data ≈ $1.9 million
- Invoiced $600K: 2-month lag
  - Most Dec
  - Partial Jan
  - Little Feb
  - No March

# March 2003 Release

- Comparing SBS vs. Invoice—December
- Strong correlation within the modules (97%)
- 2 outlier modules (<10%)
- SBS = $318K
- Invoice = $292K
  - + 9%

# March 2003 Release

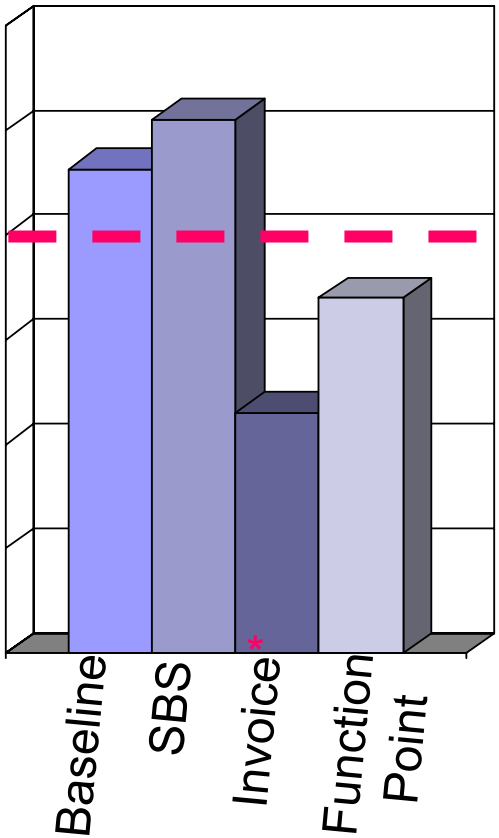
| Module Category | December | |
|---|---|---|
| | SBS | Invoice |
| Committee Management Fast Track | $ 97,075.91 | $ 92,471.54 |
| CRISP on the WEB Maintenance | $ 7,091.45 | $ 8,874.00 |
| GM Closeout Maintenance | $ 2,787.13 | $ 1,740.85 |
| GM Maintenance | $ 20,482.86 | $ 20,118.22 |
| Grants Payment Management Maintenance | $ 15,283.68 | $ 16,659.39 |
| Grants Update Module (GUM) Maintenance | $ 775.02 | $ 775.02 |
| ICO Maintenance | $ 11,180.95 | $ 13,018.63 |
| ICSTORe Maintenance | $ 336.40 | $ 379.19 |
| IM Module | $ 1,278.90 | $ 1,510.96 |
| IRDB Maintenance | $ 21,861.81 | $ 12,494.77 |
| Person Module Maintenance | $ 5,936.88 | $ 5,939.90 |
| Receipt and Referral Maintenance | $ 23,954.80 | $ 20,218.87 |
| Review - Internet-Assisted Review | $ 17,569.34 | $ 35,362.99 |
| Review Module Maintenance | $ 11,365.22 | $ 11,111.22 |
| Type 4's, 6's, and 7's Module | $ 1,277.92 | $ 3,024.52 |
| Type 5s Module Maintenance | $ 2,014.57 | $ 4,102.30 |
| | | |
| **TOTALS** | **$ 240,272.84** | **$ 247,802.37** |

# March 2003 Release—Analysis

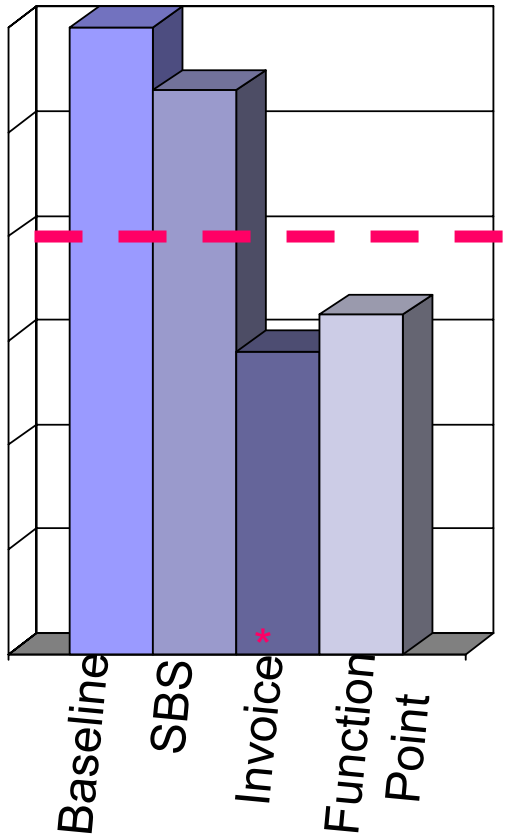
- Function Point Counted Several Modules
  - Peer Review Module
  - Receipt & Referral
  - Grants Management
    - GM Closeout
    - GM Maintenance

# March Release Examples

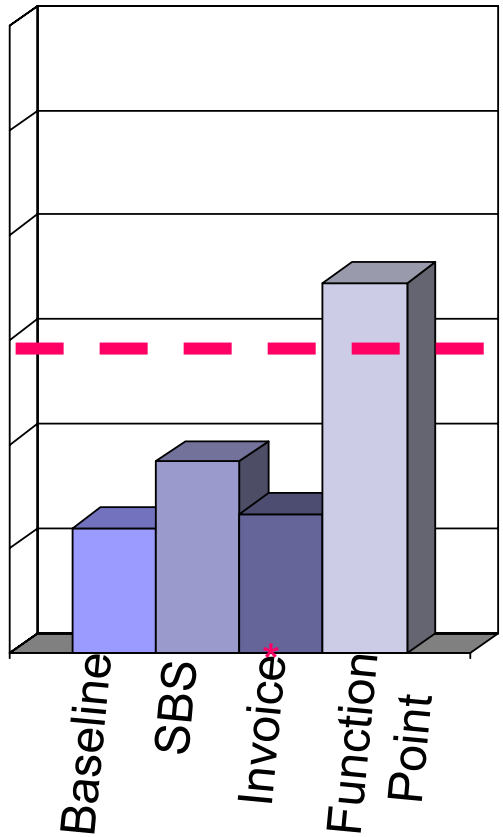
## Receipt & Referral




## Grants Management




## Peer Review




*Note: Not all invoices have been received*

# Current Projects

- April 2003
  - CGAP & XML Specs
  - iEdison redesign
- July 2003
  - J2EE customizable checklist & query tool
  - Person Module redesign
- Additional July 2003 requirements under review

# Current Challenges

- Ability to project user requirements beyond 3-month window limits ability to forecast costs
- Ability to resource level and monitor scope creep still evolving
- SBS and Cost Tracking Database reaching functional limits

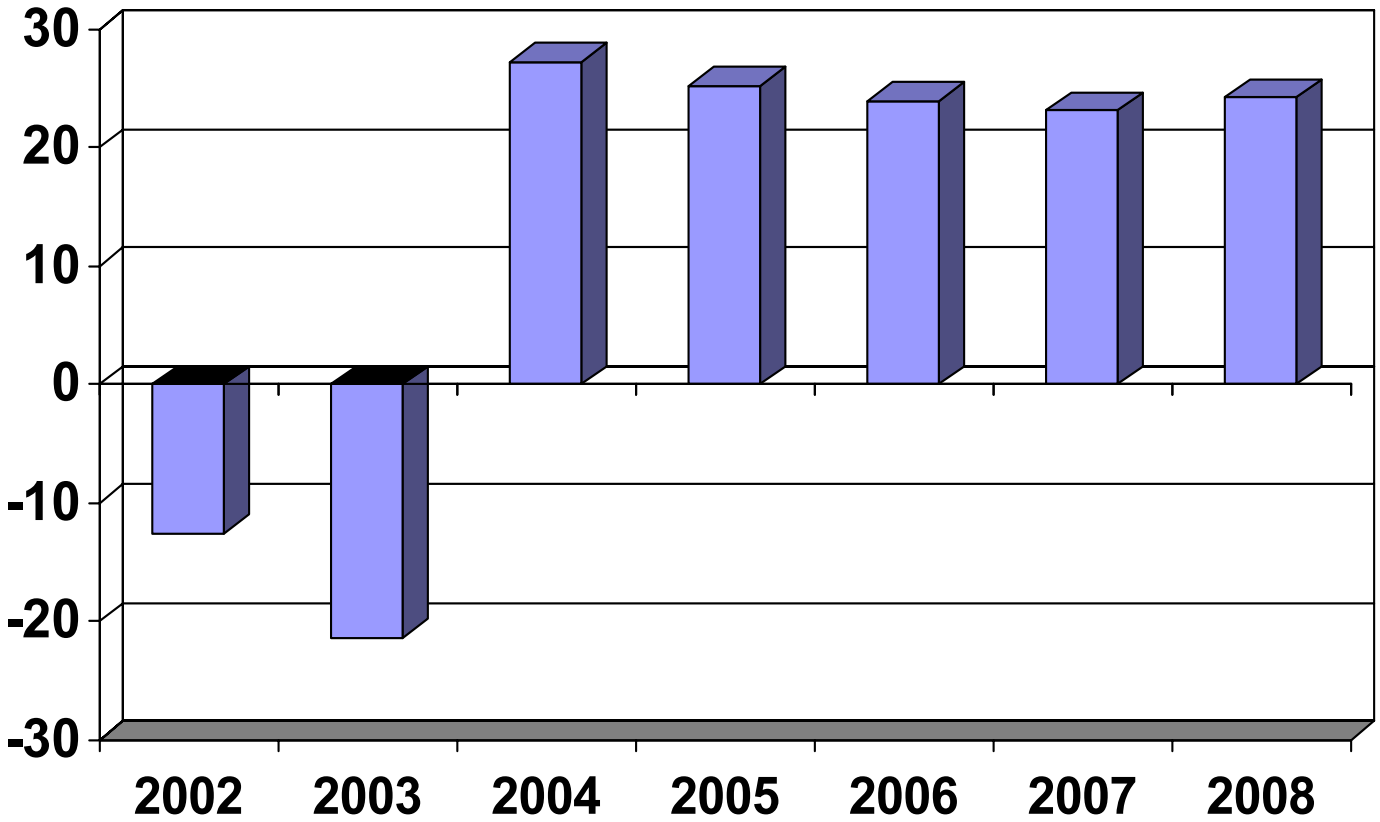
# CY 2003 Initiatives

- Calibrate baselines across all modules
- Finalize Project Management Plan
- Migrate Oracle SBS & eRA Cost Tracking Database to PlanView
- Refine cost estimating models
- Independent cost & schedule estimates across all models
- Further expand SEI/CMM Level II capabilities
  - Build repeatable processes
- Emphasize cost control and contractor invoicing

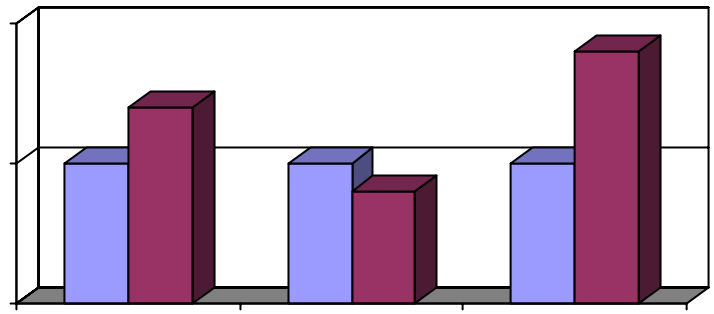
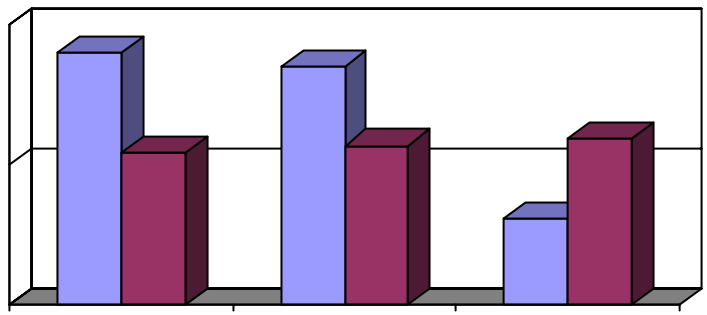
Questions???

# Assessment – eRA Project

Return on Investment: 1.5




*Source: OMB 300*

# Cost & Schedule Assessment

Early in