



South Carolina Public Employee Benefit Authority

# PEBA Operational System Modernization Roadmap

Operational Assessment: Phase III

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## Phase 3 Modernization Roadmap

### 1 Background

Over 8 years ago, with a 20 year old legacy system and a dated technology framework, PEBA's Retirement program began forming independent enterprise technology strategies to address aging, inflexible, and difficult to staff current operational systems. PEBA's creation and the merging of Insurance and Retirement agencies expanded the challenge. With a growing old technology skills shortage across both benefit program operational systems, experienced legacy system staff are nearing or eligible to retire and will soon be aging out of the workforce. Conversely, modern benefit systems present opportunities for agency operational improvements through automation, while at the same time mitigating the technology skills shortages and limitations of the current legacy systems.

The Operational Assessment (OA) project was initiated in 2014 to identify needs, opportunities, and develop a plan to address challenges and seize improvement opportunities through the use of modern technology and business process redesign. The OA project goals include:

- Integrate PEBA benefit program business processes and systems
- Improve business processes, including enhanced automation and self-service
- Increase operational system flexibility
- Leverage industry best practices through industry experts and mature packaged benefit solutions software
- Deliver a higher quality user interface and ability to meet future participant needs
- Create the overall vision of future PEBA operational information systems and support strategies

OA project outcomes, including this Modernization Roadmap, details a 5 year transformation from the current operational processes and legacy system to vastly improved business processes and integrated benefit administration. To build a Roadmap from the current to the future state, the OA project has taken foundational steps defining where PEBA is, where PEBA wants to be, and the changes required to support the agency and best practices vision. Below are key activities that have been accomplished during the OA project:

- OA As-Is Phase
  - Documented detailed As-Is processes and operational limitations
  - Assessed the current legacy systems and IT architecture
  - Documented the data flow between disparate current legacy systems
  - Identified current system short-comings and pain points
- OA To-Be Phase
  - Redesigned key business processes
  - Defined available benefit industry vendors and new technology architecture options

- Investigated current solutions available in the marketplace and organized solution demonstrations and peer agency implementation experience interviews
- Projected future IT and ORD resource demand and service model
- Recommended a future state organizational structure, resource levels, and new operational capabilities required to support operations

This Roadmap document leverages the operational improvement work to date, creating a single umbrella modernization program plan to address current operational issues and achieve the PEBA To-Be vision. It encompasses high level projects needed for business process improvement and technology transformation. The recommended program approach, project scope and dependencies, anticipated timeline, resource requirements, and costs are provided in this consolidated Roadmap.

## 2 Key Modernization Roadmap Constraints & Assumptions

The first activity of the Roadmap development phase identifies planning constraints, key guiding principles and assumptions, and Executive Sponsor modernization program preferences. Below are some of the key constraints identified by Project Sponsors that are incorporated into the Roadmap planning process:

- Modernization planning scope will be limited to those PEBA legacy systems that reside on the aging Adabas/Natural technology infrastructure.
- Only those functions that exist in the current legacy system will be included in the Roadmap program planning scope.
- Other high priority scope, extending current legacy system functionality, will be deferred and identified as future enhancements.
- Additional To-Be scope identified during the OA Big Idea meetings will be prioritized and considered as possible post implementation enhancements.
- PEBA staff will be utilized to the maximum extent in the following key activities:
  - Data conversion
  - Data bridging
  - Report development
  - Form and letter development
  - External data interface development
  - Business user and employer training
  - Change management
- Project implementation will be phased to limit implementation risk, while delivering project results as soon as possible.
- The lowest cost solution, functionality equivalent to the current legacy system, is preferred.
- PEBA will adhere to the selected implementation vendor's "out-of-the-box" functionality and processes, as defined with the vendor offering or as previously implemented at a peer benefit administration agency.

- The current PEBA Insurance Premium Billing and Accounting system will not be included in the Roadmap project scope. In addition, the current SAP general ledger and financial accounting COTS system will continue to be utilized as part of the new system.
- Full time, reassigned business area SMEs will support the Roadmap through the program duration.
- Program funding will be secured in accordance with Modernization Roadmap timeline and cost estimates.

### 3 Assessment Recommendations

Following are some of the key Operational Assessment recommendations that were incorporated into the Roadmap plan:

- **Replace PEBA's current Adabas/Natural systems and architecture** – Implement a flexible architecture and technical infrastructure base that can evolve with PEBA in the future by replacing the current pension administration and insurance enrollment Adabas/Natural systems.
- **Implement a configurable COTS benefit solution utilizing an experienced industry implementation vendor** – Leverage a fully-functional, configurable and industry standard pension and benefit COTS solution. Make use of the solution's pre-built business functions, defined business processes, and existing architecture and business rule framework. Utilizing experienced COTS implementation vendor resources will reduce overall re-systemization program risks and costs, utilizing repeatable vendor project delivery methods.
- **Consolidate employer business functions and data needs across both PEBA retirement and insurance benefit programs** – Expand and streamline PEBA employer interactions and data access while increasing employer data quality. COTS enhanced employer reporting and modern online portal capabilities will enable extended data validations and better employer data.
- **Improve the PEBA participant and employer customer experience** – Eliminate paper-based processes, information processing lags, and the current requirements to supply duplicative data by providing new integrated self-service and communications capabilities. Enhance Contact Center customer service capabilities by implementing modern customer relationship management (CRM) system with integrated customer benefit views, historical PEBA interactions, and personalized information.
- **Consider hosted cloud solutions** – Be open to a government cloud based COTS solution to take advantage of lower infrastructure and support costs, increased flexibility and scalability, and reduced in-house new technology learning curves.

- **Replace the current pension and insurance enrollment workflow solutions with an integrated COTS vendor suggested product** – Avoid development and architectural complexity while leveraging new workflow technology integration and implementation vendor product capabilities.
- **Initiate new project activities in the near term** – Avoid increasing operational risks, rising project costs, and the upcoming loss of institutional knowledge by proceeding with the PEBA modernization program.

## 4 Modernization Roadmap Timeline

### 4.1 Timeline Summary and Assumptions

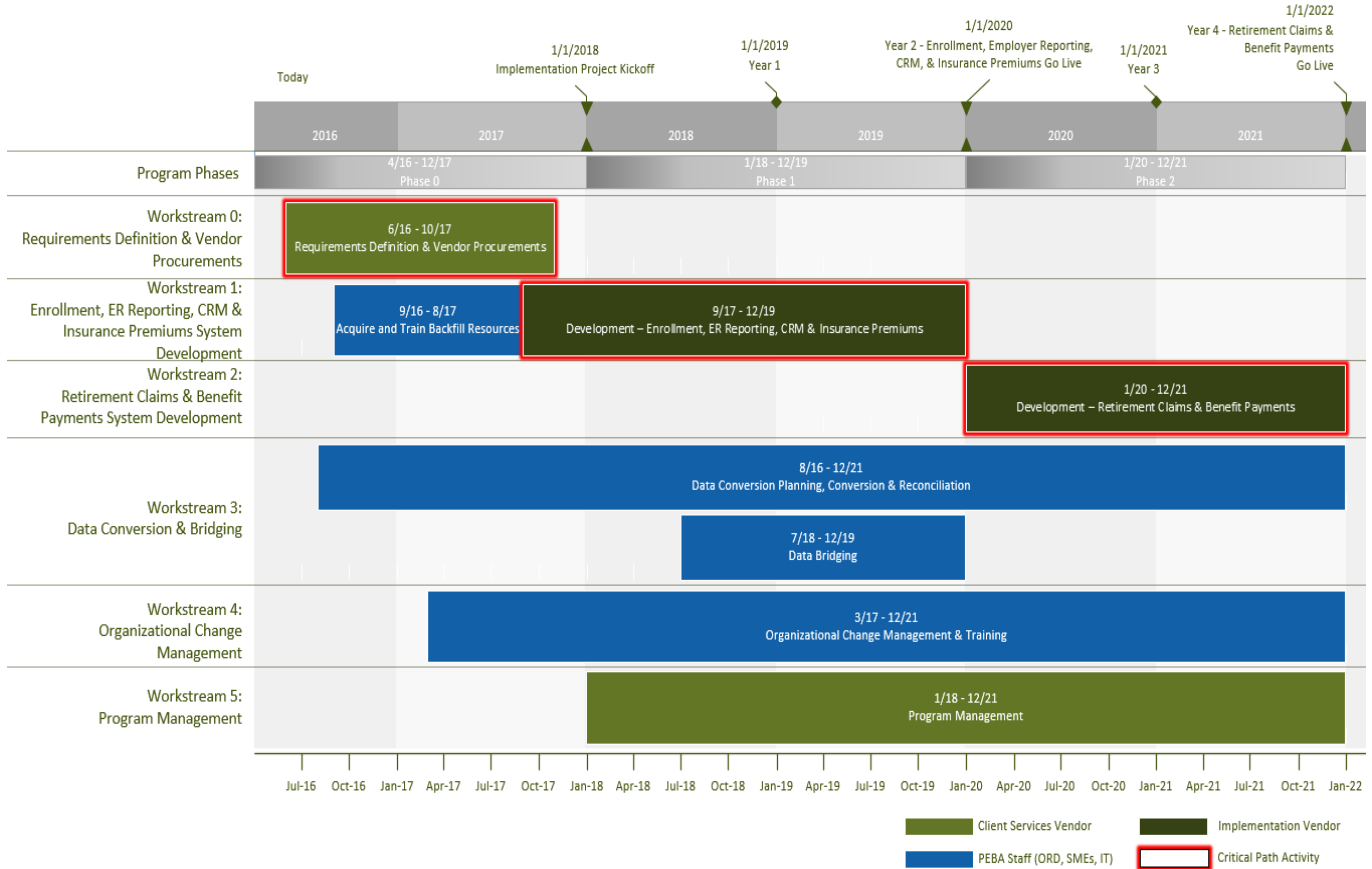
Over an approximate 5 year time period PEBA's modernization program will be executed through five program workstreams. Many workstream activities will be executed concurrently, requiring coordination, common understanding, and program management across the project teams. The following planning assumptions are guidelines used in formulating the Roadmap:

- Initial planning and procurement activities will proceed prior to fiscal year 2018 budget approval.
- A client services vendor will be secured early in the project to guide requirements, RFP creation, data analysis, and planning.
- Data analysis, data audit, and data conversion activities will start prior to implementation vendor selection.
- Experienced PEBA resources will be allocated to the project and their availability aligned with the Roadmap plan.
- Any delay or change in critical path activities will impact budget and timeline estimates.
- Training will occur close to implementation production go-live dates, adhering to a just-in-time training approach.
- Each major system development phase will be followed by a nine month defect resolution warranty period.
- Business process improvements (over-and-above those provided by the implementation vendor) will be done on a priority basis after the initial project implementation is complete.
- PEBA IT/ORD resources will be enabled and will support post implementation system maintenance and operations.

### 4.2 Program Timeline

All program workstream high level descriptions, phases, and durations are provided in the summary Gantt chart below. A more detailed timeline including all phases of the modernization

Roadmap is attached for reference (see *Section 8: Attachments*). Refer to the *Operational Assessment - Modernization Roadmap* Gantt chart for more detail:



Workstream	Duration	Workstream High Level Description
Workstream 0: Requirements Definition & Vendor Procurements	18 Months	This workstream encompasses detailed system requirements definition, implementation planning, RFP creation, vendor procurements, and vendor contracting.
Workstream 1: Enrollment, Employer Reporting, CRM, & Insurance Premiums System Development	27 Months	This workstream verifies and implements functionality associated with participant Enrollment, Employer Reporting, CRM, Insurance Premium Eligibility and Calculations, and maintaining active participants account information. The warranty period begins at workstream completion.
Workstream 2: Retirement Claims & Benefit Payments System Development	24 Months	This workstream implements functionality associated with Retirement, Disability and Death Claims, Refunds, Retiree Insurance and Benefit Payments, Benefit Payroll Maintenance, and Taxes. The warranty period begins at workstream completion.
Workstream 3: Data Conversion & Bridging	65 Months	This workstream analyzes, plans and executes all data conversion, bridging, and data reconciliation activities.
Workstream 4: Organizational Change Management	56 Months	This workstream coordinates training and communication, while managing the transition of stakeholders, participants, employers, and staff to new business processes and operational systems.



Workstream	Duration	Workstream High Level Description
Workstream 5: Program Management	48 Months	This workstream manages project plans, progress, risks, and issues, while overseeing vendors, contracts, and program governance.

## 5 PEBA Operational System Modernization Program Plan

### 5.1 Workstream 0: Requirements Definition and Vendor Procurements

#### 5.1.1 Goals

The goals of the Requirements Definition and Vendor Procurements workstream include:

- Capture functional and technical system requirements at sufficient level of detail to ensure system outcomes that meet business needs
- Create Request for Proposals (RFPs) required for the program
- Leverage industry best practices and expertise
- Clearly evaluate, compare, and select vendor products and services that are appropriate for the program and budget
- Negotiate fair, binding and mutually beneficial vendor contracts with clear expectations and legal protections
- Comply with procurement policies and procedures

#### 5.1.2 Scope

The Requirements Definition and Vendor Procurements workstream contains the activities necessary to document requested system capabilities, prepare RFPs, and to procure appropriate external vendor support. These workstream activities will establish key vendor relationships and prepare the organization for system implementation and required project support activities.

##### Procure Client Services Vendor Support

The first priority activity within the Requirements Definition and Vendor Procurements workstream is selecting a client services vendor (CSV) to facilitate and support program activities. Prior to the Roadmap planning activity, PEBA defined a high level responsibilities of all program participant groups (refer to *High Level Scope and Responsibilities Matrix* attachment for more detail). This baseline not only defines the responsibilities of the CSV, it defines project execution responsibilities of all PEBA vendor partners. CSV responsibilities encompass oversight project management (OPM), program management, detailed requirements definition, testing support, data bridging support, data conversion support, and change management activity. In this early project activity, PEBA will secure the CSV industry expert support.

### **Develop Detailed Functional Requirements**

The CSV will work with PEBA staff to document functional requirements through facilitated work sessions. Prior to initiating requirements documentation work sessions, the CSV and PEBA business analysts will gather all existing operational documentation, business rules, and legacy system documentation and organize it by business processes. The documentation gathered will include OA As-Is and To-Be documentation, administrative rules, summary plan descriptions, business rules, and other PEBA documentation.

### **Develop Detailed Technical Requirements**

In addition to functional requirements, other key requirements must be documented for inclusion in the implementation vendor RFP, including but not limited to database, security, infrastructure/hosting, and system performance requirements. These requirements will also be documented through working sessions with PEBA technical staff, leveraging the CSV's industry experience.

### **RFP Development**

With the documentation of functional and technical requirements, information to acclimate vendors with PEBA's goals and objectives, project approach, implementation requirements, and contractual mandates need to be defined. These additional requirements topics include but are not limited to training, project management, testing, project methodology, project personnel, etc.

After requirements are created, the physical RFP is organized, drafted, and reviewed. The RFP is developed by performing the following activities:

- Review and confirm high level RFP outline
- Define the procurement process and timelines
- Combine all requirements into the RFP format
- Attain external consultation on contract and insurance requirements
- Define evaluation criteria and evaluation worksheet response format
- Define the required response format
- Draft the RFP
- Review, finalize and publish the RFP
- Distribute the RFP

### **Facilitate System Selection**

Once the RFP is published and released, system selection activities are initiated. A defined procurement process will help PEBA clearly evaluate and compare the vendors, their RFP responses, and their fit within PEBA's strategy, culture, and budget. The selected vendor will be validated through reference checks and potential client site visits, leading to highest ranked offer, contract negotiations, and posting of a contract Intent to Award.

## Contracting

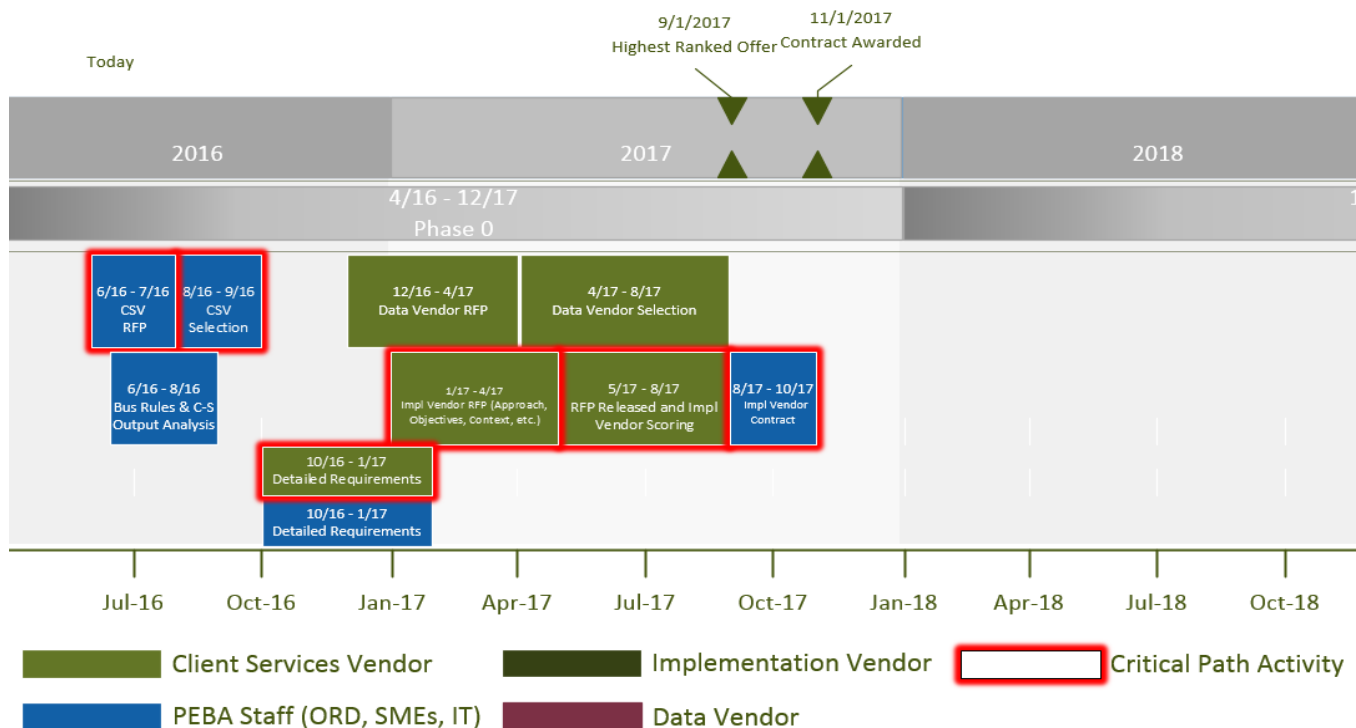
PEBA and an external benefit industry legal firm will have primary responsibility for contract negotiations. The CSV will support PEBA through the process and serve as an advisor on the critical negotiation points and overall system and business impacts. A detailed knowledge of PEBA's business needs, State procurement processes, and extensive benefit industry contract experience will ensure clear, reasonable, and appropriate contract outcomes. The team will work with PEBA legal counsel to ensure that appropriate model contracts and contractual language is included in the RFP.

## Develop RFP and Select Appropriate Data Conversion Vendor

During functional and technical requirements definition, data conversion, bridging, audit, and reconciliation support requirements will be documented. These requirements and data vendor roles will be documented and formulated in an RFP. The same RFP development process, vendor selection, and contracting activity (as specified above) will be customized for securing a data vendor. The CSV will identify credible benefit industry data vendors suitable to support this effort.

### 5.1.3 Duration/Costs

The Requirements Definition and Vendor Procurements workstream activities, phases, and durations are provided in the Gantt chart below:



Initial Requirements Definition and Vendor Procurements workstream costs are estimated in the table below:

Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 0 - Requirements Definition and Vendor Procurements	Client Services Vendor	\$850,000	\$0	\$0	\$0	\$0	\$0
<b>Grand Total</b>		<b>\$850,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

#### 5.1.4 PEBA Resources Requirements

ORD resources are heavily involved in the Requirements Definition and Vendor Procurements workstream. Business area and IT resources will provide critical business knowledge during this workstream, primarily validating and confirming requirements and supporting the procurement and vendor selection processes. No backfilling of PEBA resources will be required, as it is assumed that current staff can be allocated to this workstream without significant operational impact.

PEBA resource demand for the Requirements Definition and Vendor Procurement workstream are estimated and provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 0 - Requirements Definition and Vendor Procurements	PEBA - IT	2.0	0.0	0.0	0.0	0.0
	PEBA - ORD	5.0	0.0	0.0	0.0	0.0
	PEBA - Business	2.5	0.0	0.0	0.0	0.0
<b>Grand Total</b>		<b>9.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

#### 5.1.5 Risks

The Requirements Definition and Vendor Procurements workstream builds a foundation for system modernization. Detailed requirements provides clarity for the vendor community and serves as a blueprint for system needs. Procuring the best-fit solutions and vendors and negotiating strong contract terms is mandated. Risks associated with this workstream are discussed below, along with a remediation strategy:

Risk	Mitigation
Budget approval delays	Proactively communicate project strategy, value, plan, and costs to key state and Board stakeholders

Risk	Mitigation
Use of non-standard requirements and procurement processes	Utilize a CSV with extensive industry, business, and procurement process experience
Poorly written or misunderstood functional requirements	Leverage the CSV experience and industry expertise to ensure requirements are written at sufficient level of detail and in language that is understood by the vendor community
Inadequate business area participation during requirements documentation	<ul style="list-style-type: none"> <li>• Dedicate full time ORD and partial time business area resources to define and clarify requirements</li> <li>• Set a high expectation of SME and business area contributions and assigned work activity</li> </ul>
Onerous state contract terms may limit vendor responses	Proactively work with Procurement and outside legal counsel to define clear contract terms and negotiation strategies
Use of non-standard industry contracting language	Utilize an external legal firm to leverage new benefit system contract form, terms, and overall content
State Procurement process delays	Attain Procurement delegation authority, while also providing Procurement with frequent project progress updates

## 5.2 Workstream 1: Enrollment, Employer Reporting, CRM & Insurance Premiums System Development

### 5.2.1 Goals

- Replace current system Adabas/Natural technology base and functionality for Enrollment, Employer Reporting, Participant Account, and Insurance Premiums business functions
- Implement enhanced contact center CRM functionality
- Minimize data bridging between current and future operational systems
- Ensure high quality development and testing processes are incorporated in the implementation process
- Ensure all functionality meets user acceptance criteria
- Ensure development process is repeatable, consistent, and controlled
- Minimize production operation disruptions for internal staff and external stakeholders

### 5.2.2 Scope

The system development activity in the Enrollment, Employer Reporting, CRM, and Insurance Premiums System Development workstream contains the activities required to design, develop, test, and deploy new system functionality. The development team, led by the selected implementation vendor, will utilize pension and benefit industry standard Agile system development methods to execute the project.

## Requirements Confirmation

Upon implementation vendor contracting, each requirement, business rule and process are reviewed with the implementation vendor. Requirements are reviewed to confirm vendor understanding and to ensure that unambiguous, consistent, and traceable system outcomes are fully documented. The confirmation process will generate, through analysis and facilitated sessions, a COTS Fit-Gap analysis. Each requirement in this process is then logged in the project Requirements Traceability Matrix (RTM).

## Design

In this step, system design specifications are customized. The system design specifications serve as input for solution development and the basis for user acceptance testing. The development team will enhance implementation vendor supplied design artifacts including process documents, technical specifications, and working prototypes (i.e. pages, reports, etc.). These updated specifications define the functional and technical capabilities that will be configured, developed, and eventually tested. Other key design activities during design include the creation or updates of the RTM, test plans, security plans, disaster recovery plan, and system integration plan.

## Development

After signoff of system design documents, the development work (i.e. configuration, coding, and unit testing) begins. This involves configuring parameters, extending security features, customizing business logic, rules, screens, and reports, and verifying unit testing results. This is also the phase where new reports, forms, and letter are created. Incoming and outgoing external interfaces are produced that supply data to PEBA partners. Test plans and test data are prepared to facilitate the verification of unit test results against design specifications. As components are integrated and tested, new business procedures are updated to define the new operational system.

## Test and Integrate

System testing is conducted on the integrated system to confirm compliance with all requirements. System testing includes tests to ensure that the developed system meets all functional and technical requirements, including performance requirements. Security and penetration tests are also performed during system testing.

After all end-to-end system testing is completed, User Acceptance Testing (UAT) is initiated. UAT test cases, conditions, data and test results are prepared prior to UAT test execution. The basis for UAT testing is the artifacts created and decisions made during design. Acceptance testing culminates with Program Sponsor acceptance and approval to move the tested application to the production environment.

## Implementation

Once the system is tested and approved for production, the development team installs the system in the production environment. While installing the system, the development team will update final operations documentation. Final data conversion, reconciliation, and production user security setup are then completed. Appropriate production back-out, cut-over, and contingency plans are

created as part of production readiness activity. When final data conversion reconciliation and the production environment testing is complete, the production system is activated.

### **Warranty**

After the system has been installed in the production environment, the warranty period begins. Defects will be identified and triaged, corrected, retested, and subsequently deployed back to the production environment. During the warranty period, the implementation vendor is obligated to eliminate any application, system, or documentation defects. Warranty time frames and responsibilities will be clearly defined in the implementation vendor contract.

### **Operations and Application Support Maintenance**

The PEBA IT application support team will be responsible for the system and its post implementation day-to-day maintenance activity. In addition to application support,

The enhancement request and prioritization process will be updated to document requested system changes. As new system feature or enhancement requests are defined, change items will be inventoried and prioritized by the PEBA production support team. These change requests will include business benefit, priority, level of effort, and total cost to implement. Business owner and Program Sponsor approval will be required before any enhancement implementation occurs. IT Operations staff will continue to be responsible for operations oversight and managing technical operations documentation, contract compliance, and on-campus PEBA infrastructure. With continuous monitoring responsibilities, IT Operations will ensure that the production environment performs as required.

### **Business Process Improvement & Enhancements**

After production go-live and further acclimation to new business processes and procedures, additional business process improvements will likely be identified. Utilizing system support model based on continuous improvement, processes will be enhanced to achieve higher efficiency, automation, and user satisfaction. System improvements may be incremental processes changes or large scope extensions.

### **Workstream 1 Business Functions**

The Enrollment, Employer Reporting, CRM and Insurance Premiums System Development workstream encompasses the following business functions:

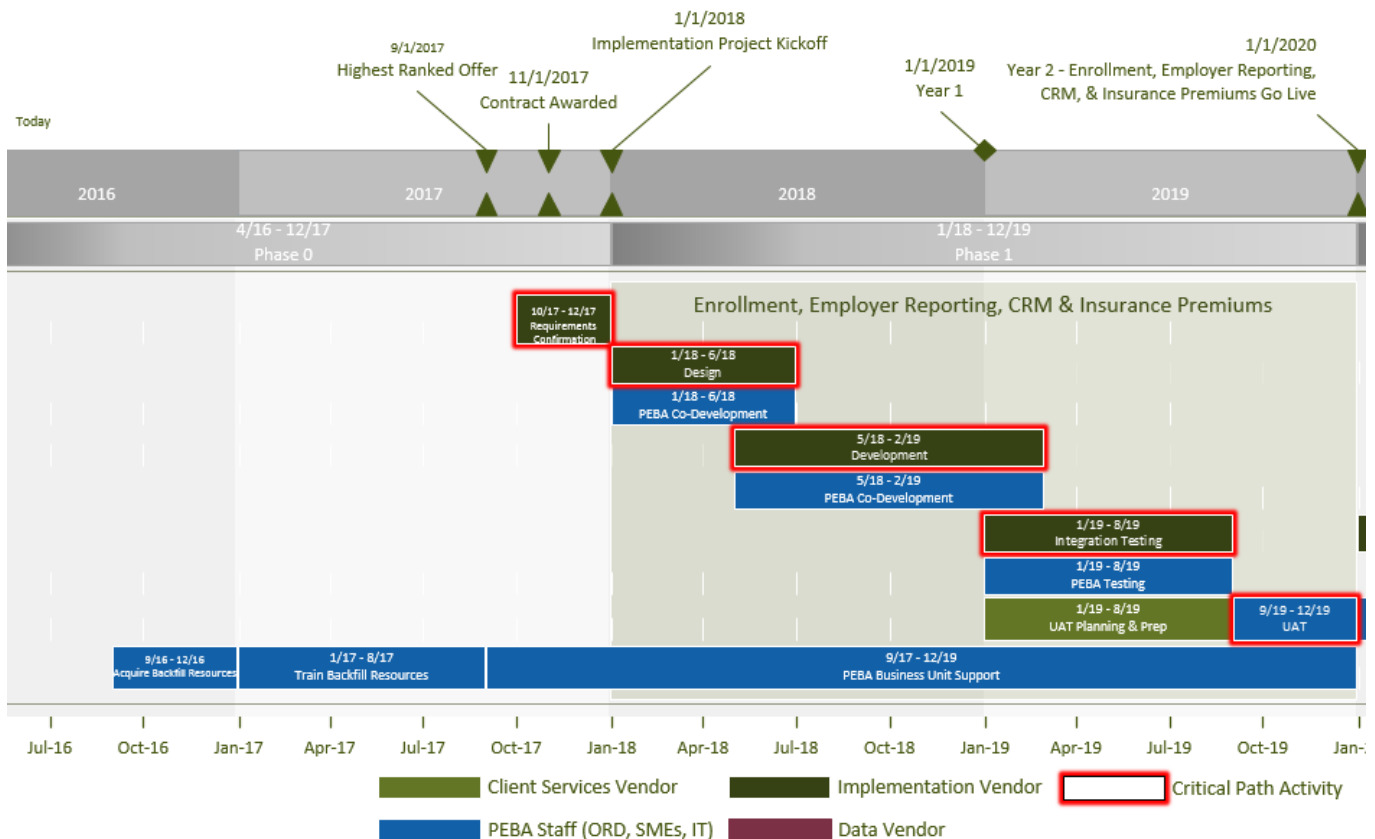
- Retirement and Insurance Enrollment (Active and Retired)
- Person, Participant, and Beneficiary Management
- Employer Setup, Contacts, and Demographics
- Customer Relationship Management
- Employer Reporting
- Service Credit Calculations
- Service Purchase
- Insurance Eligibility and Premium Calculations (Active and Retired)



- Member and Subscriber Account and Status Management
- Insurance Open Enrollment
- General Ledger Integration
- Retirement Cash Receipts
- Insurance TPA Interfaces

### 5.2.3 Duration/Costs

The Enrollment, Employer Reporting, CRM and Insurance Premiums System Development workstream activities, phases, and durations are provided in the Gantt chart below:



Initial Enrollment, Employer Reporting, CRM and Insurance Premiums System Development workstream costs are estimated in the table below:



Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums	Implementation Vendor	\$0	\$5,700,000	\$5,700,000	\$0	\$0	\$11,400,000
	Implementation Vendor - Licensing	\$0	\$1,669,000	\$344,000	\$0	\$0	\$2,013,000
	Implementation Vendor - Hosting	\$0	\$406,000	\$556,000	\$0	\$0	\$963,000
	Other Licensing	\$0	\$78,000	\$105,000	\$0	\$0	\$183,000
	Client Services Vendor	\$0	\$1,024,000	\$1,075,000	\$0	\$0	\$2,099,000
<b>Grand Total</b>		<b>\$0</b>	<b>\$8,876,000</b>	<b>\$7,780,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$16,656,000</b>

#### 5.2.4 PEBA Resources Requirements

PEBA IT co-development resources will be trained in new system development methods and technology and will be an extension to the implementation vendor team. In addition, ORD and business area resources will support implementation vendor design, implementation, and all testing activities.

The Enrollment, Employer Reporting, CRM, and Insurance Premiums System Development workstream PEBA resource estimates are provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	PEBA - IT	0.0	3.0	3.0	0.0	0.0
	PEBA - ORD	0.0	4.5	4.5	0.0	0.0
	PEBA - Business	0.0	6.8	7.6	0.0	0.0
<b>Grand Total</b>		<b>0.0</b>	<b>14.3</b>	<b>15.1</b>	<b>0.0</b>	<b>0.0</b>

#### 5.2.5 Risks

There are numerous modernization program system development risks to manage. Risks associated with this workstream are discussed below, along with a remediation strategy:

Risk	Mitigation
Insufficient internal resources to support normal business operations and modernization program concurrently	<ul style="list-style-type: none"> <li>Acquire and/or cross train backfill resources to support production operations</li> <li>Develop contingency plans for high risk operational areas</li> </ul>



Risk	Mitigation
Unclear decision making authority	Delegate decision making authority to project team members and establish overall project governance
Lack of business area resource priority	Dedicate high performing business area SMEs to project efforts and align individual performance objectives with project objectives
Limited number of resources with PEBA institutional knowledge	Ensure that the most experienced business area SMEs are selected to be core project team members
Insufficient internal technical skills	<ul style="list-style-type: none"> <li>Evaluate necessary technical skills and address identified technical needs in the training plan</li> <li>Incorporate technical training and enablement timeframes in the master project plan</li> <li>Monitor PEBA technical resources throughout the project to ensure sufficient technical acclimation and knowledge transfer</li> </ul>
Limited large scale system development experience	<ul style="list-style-type: none"> <li>Leverage vendor partners with proven pension and benefit system development expertise</li> </ul>
Unclear roles and responsibilities	Document who is responsible, accountable, consulted, and informed (RACI diagram) as each major project activity is planned
Unclear scope and ambiguous requirements	<ul style="list-style-type: none"> <li>Develop clearly defined scope boundaries for each project in the program</li> <li>Define requirements at a sufficient level of detail to ensure clarity</li> </ul>
Offsite development or testing may compromise participant and employer personally identifiable information	Establish guidelines and monitor 3rd party vendor data management processes to ensure adequate protection of PEBA data
Insufficient development timeframes	<ul style="list-style-type: none"> <li>Create a master program plan with timeframes confirmed by all workstream managers</li> <li>Incorporate schedule contingency into each project workstream</li> </ul>
System quality deficiencies	<ul style="list-style-type: none"> <li>Develop and execute a thorough quality management plan and test plan</li> <li>Plans should include dedicated implementation vendor testing resources and thorough user acceptance test planning and execution</li> </ul>
Insufficient internal resources to support normal business operations and modernization program concurrently	<ul style="list-style-type: none"> <li>Acquire and/or cross train backfill resources to support production operations</li> <li>Develop contingency plans for high risk operational areas</li> </ul>

## 5.3 Workstream 2: Retirement Claims and Benefit Payments System Development

### 5.3.1 Goals

The goals of the Retirement Claims and Benefit Payments System Development workstream include:

- Replace current system Adabas/Natural technology base and functionality for Retirement Claims and Benefit Payments business functions
- Minimize data bridging between current and future operational systems

	SC PEBA OPERATIONAL ASSESSMENT	
	Phase 3 Operational IT Systems Modernization	
	PHASE 3 MODERNIZATION ROADMAP	

- Ensure high quality development and testing processes are incorporated in the implementation process
- Ensure all functionality meets user acceptance criteria
- Ensure development process is repeatable, consistent, and controlled
- Minimize production operation disruptions for internal staff and external stakeholders

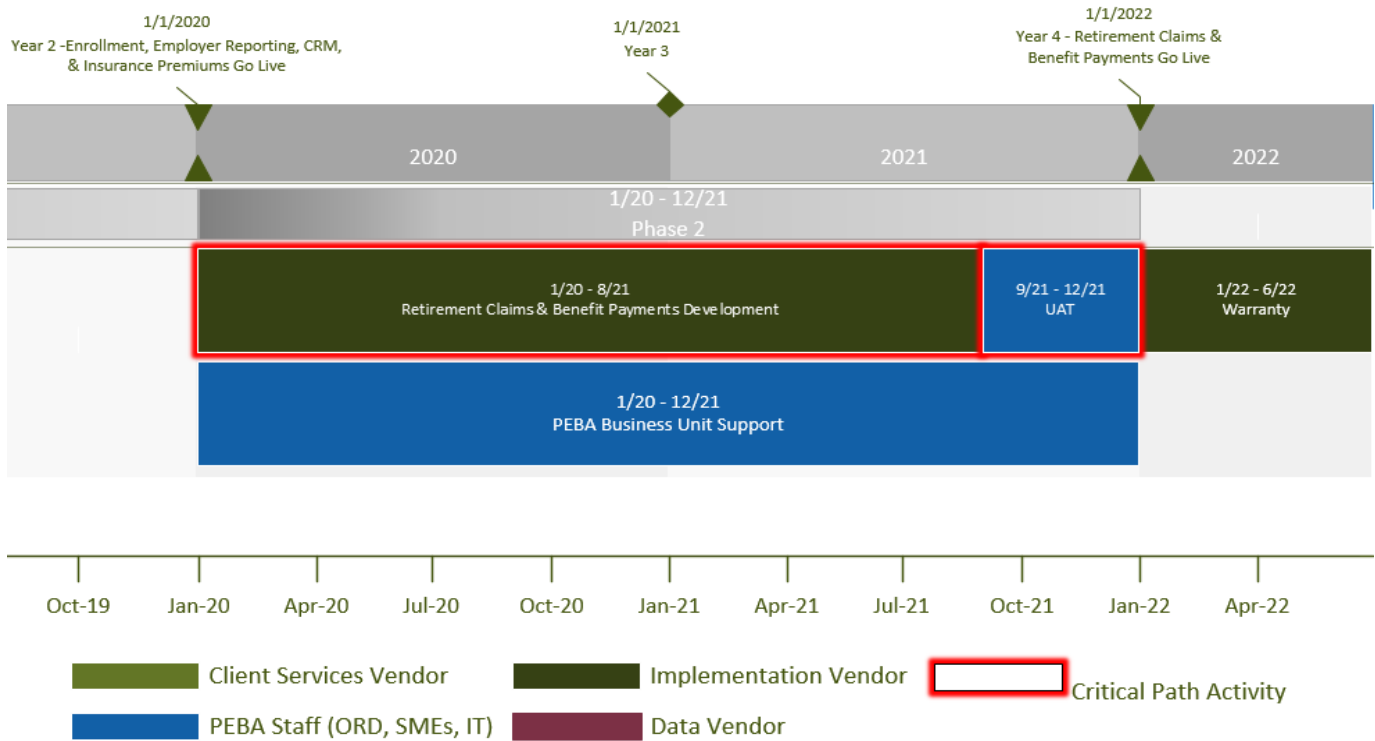
### 5.3.2 Scope

The development process as described in the Enrollment, Employer Reporting, CRM and Insurance Premiums System Development workstream will be repeated in this workstream. Workstream 2 scope will include:

- Retirement Claims (i.e. Refunds, Service Retirement, Disability Retirement)
- Benefit Estimates
- Benefits Payroll
- Deductions
- Payee and Payment Maintenance
- Benefit Adjustments
- COLAs
- 1099s
- Tax Reporting
- Deaths
- Interfaces

### 5.3.3 Duration/Costs

The Retirement Claims and Benefit Payments System Development workstream activities, phases, and durations are provided in the Gantt chart below:



Initial Retirement Claims and Benefit Payments System Development workstream costs are estimated in the table below:

Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 2 - Retirement Claims and Benefit Payments System Development	Implementation Vendor	\$0	\$0	\$0	\$3,800,000	\$3,800,000	\$7,600,000
	Implementation Vendor - Licensing	\$0	\$0	\$0	\$407,000	\$938,000	\$1,344,000
	Implementation Vendor - Hosting	\$0	\$0	\$0	\$619,000	\$619,000	\$1,238,000
	Other Licensing	\$0	\$0	\$0	\$43,000	\$50,000	\$93,000
	Client Services Vendor	\$0	\$0	\$0	\$1,075,000	\$1,075,000	\$2,150,000
<b>Grand Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$5,942,000</b>	<b>\$6,481,000</b>	<b>\$12,424,000</b>

#### 5.3.4 PEBA Resources Requirements

PEBA IT co-development resources will be trained in new system development methods and technology and will be an extension to the implementation vendor team. In addition, ORD and business area resources will support implementation vendor design, implementation, and all testing activities.

The Retirement Claims and Benefit Payments System Development workstream PEBA resource estimates are provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 2 - Retirement Claims and Benefit Payments System Development	PEBA - IT	0.0	0.0	0.0	3.0	3.0
	PEBA - ORD	0.0	0.0	0.0	4.5	4.5
	PEBA - Business	0.0	0.0	0.0	6.8	7.6
<b>Grand Total</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>14.3</b>	<b>15.1</b>

#### 5.3.5 Risks

The same system modernization risks and remediation specified in Workstream 1 apply.

## 5.4 Workstream 3: Data Conversion and Bridging

### 5.4.1 Goals

The goals of the Data Conversion and Bridging workstream include:

- Expose data quality issues and data business rule violations early in the program
- Deliver high quality converted data
- Maintaining integrity of the converted data using rigorous audit and reconciliation controls
- Prioritize and coordinate PEBA data cleansing efforts
- Leverage PEBA staff to perform the majority of conversion and bridging, utilizing vendor experts only when required
- Deliver converted data to the development team prior to testing
- Ensure that converted and bridged data process accurately in the new solution
- Ensure the data bridges provide timely and accurate data, while minimizing duplicative data entry in the legacy system

### 5.4.2 Scope

The data planning, analysis, profiling, conversion, and bridging activities in the Data Conversion and Bridging workstream are required to ensure that cleansed operational data is transitioned into the new system. The activities below define the framework for an effective data conversion and bridging process.

#### Data Conversion Planning & Analysis

The data conversion planning and analysis activity involves collaboratively analyzing and documenting the data needs for a two phased new system implementation. Implementation phasing, as described in the high level program timeline (see *section 4.2: Program Timeline*), will determine the new system data requirement and timing.

Data conversion planning and analysis will identify legacy data sources and classify the legacy data to convert. Documenting the definition, values, and relationships to other legacy data elements is an initial step in the process. From there, file dependencies, the best data source, and initial data conversion rules can be defined. The outcome of this activity will include a high-level file and data mapping, initial conversion rules, and data bridging requirements.

#### Data Profiling

The data vendor will have primary responsibility for planning, defining the approach, and executing data profiling activities. Data profiling activities include an examination and identification of data business rule violations, along with data duplication issues and inconsistencies in the legacy system. The data vendor will identify data problems and define the appropriate processes to correct the issue. Profiling helps not only to define data anomalies and assess the current level of data quality, but it also reconciles data from multiple sources. This reconciliation includes statistics

and information that are gathered on data violations to determine the level of PEBA business rule compliance. Profiling provides key diagnostic information that drive data cleansing requirements.

### Data Cleansing

PEBA will have primary responsibility to perform data cleansing, supported by the data vendor, with the common goal of providing the implementation vendor with standardized and valid new system data for testing. Typically, data cleansing involves loading legacy data from multiple data sources into a staging database and running validation and reconciliation reports. All data cleanup issues are identified, inventoried, prioritized, tracked, and eventually resolved. Programmatic cleansing and manual data cleanup are two methods to cleanse legacy data. A data cleansing plan will be defined, including cleansing items, priority, magnitude, and the recommended cleansing approach.

### Data Conversion

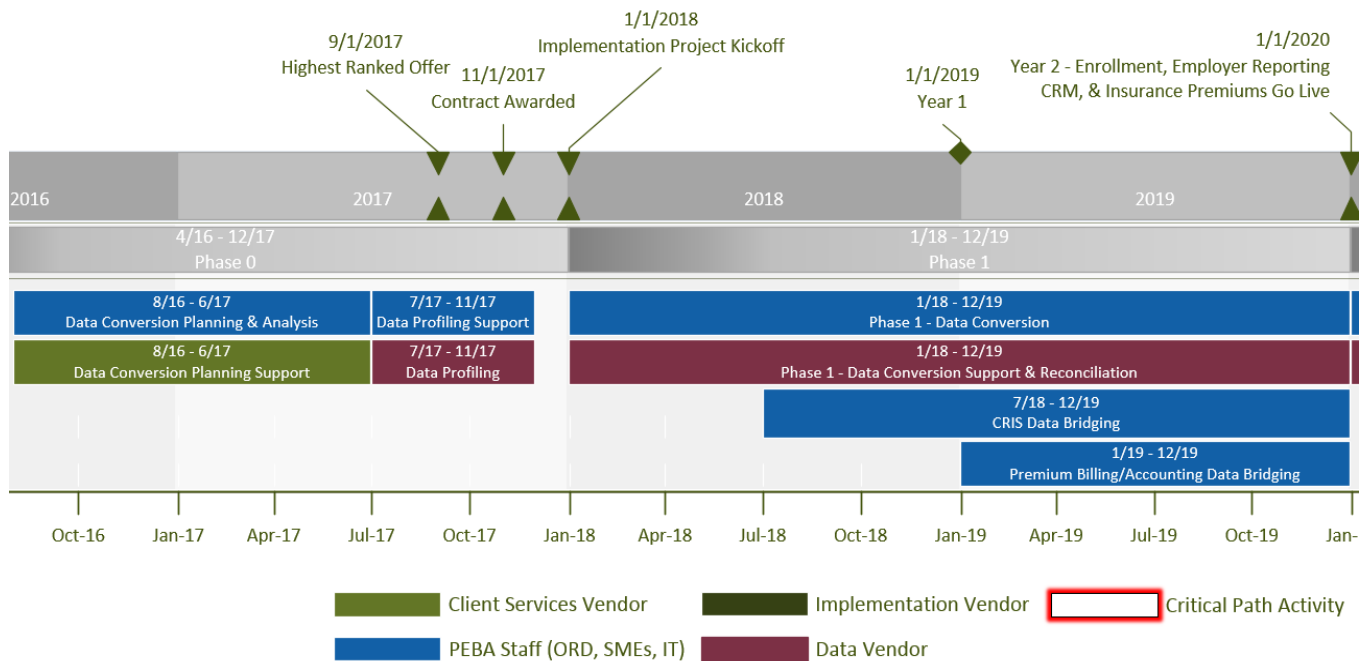
PEBA will have primary responsibility for executing conversion activities with support from the data vendor. The high level data conversion process involves creating detailed data mapping, writing data conversion specifications, developing conversion programs or database scripts, unit and system testing, and verifying converted data results. Data conversion will consist of multiple conversion processes and programs, all producing reconciliation reports and data exceptions. The conversion programs, when completed, are sequenced into a data conversion execution schedule that is used to run mock data conversions. Mock conversion results, when loaded into the new system database, provide visibility to data conversion and data cleansing quality and accuracy.

### Data Bridging

Data bridging will be necessary to connect and synchronize the new system data and the legacy system. Data is passed to and from the new environment applications to keep the data synchronized on a recurring or real-time basis. The bridging team will define required data sources and legacy system functionality that will require bridged data. Similar to the data conversion effort, the bridging team will perform data file and field mapping. Data bridging will continue until all new PEBA system functionality is phased into production. Data bridging scope and legacy system synchronization requirements will depend on the number and scope of project implementation phases. Data bridging activity must be tightly coordinated with implementation vendor development efforts.

### 5.4.3 Duration/Costs

The Data Conversion and Bridging workstream activities, phases, and durations are provided in the Gantt chart below:



Initial Data Conversion and Bridging workstream costs are estimated in the table below:

Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 3 - Data Conversion and Bridging	Client Services Vendor	\$41,000	\$26,000	\$27,000	\$27,000	\$27,000	\$106,000
	Data Vendor	\$328,000	\$219,000	\$263,000	\$263,000	\$263,000	\$1,006,000
<b>Grand Total</b>		<b>\$369,000</b>	<b>\$244,000</b>	<b>\$289,000</b>	<b>\$289,000</b>	<b>\$289,000</b>	<b>\$1,112,000</b>

### 5.4.4 PEBA Resources Requirements

PEBA IT resources will be primarily responsible for Data Conversion and Bridging workstream activities. ORD resources will provide additional design and analysis support for activities in this



workstream. Business area resources will be required to research data issues, support analysis and conversion design activity, resolve data exceptions, and perform data cleanup.

The Data Conversion and Bridging workstream PEBA resource estimates are provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 3 - Data Conversion and Bridging	PEBA - IT	3.0	8.0	8.0	8.0	8.0
	PEBA - ORD	1.0	1.5	1.5	1.5	1.5
	PEBA - Business **	1.5	0.0	0.0	0.0	0.0
<b>Grand Total</b>		<b>5.5</b>	<b>9.5</b>	<b>9.5</b>	<b>9.5</b>	<b>9.5</b>

\*\* Business user data conversion and bridging resource levels are incorporated into the two development workstreams resource counts

#### 5.4.5 Risks

Data conversion and bridging activity are inherently complex and require significant business and legacy system knowledge. Risks associated with this workstream are discussed below, along with a remediation strategy:

Risk	Mitigation
PEBA has deep but concentrated application knowledge across a few individuals	Allocate and prioritize limited legacy expertise to bridging and conversion activities
Specialized and experienced technical resources are nearing retirement age creating a risk of losing key technical resources	<ul style="list-style-type: none"> <li>• Prioritize data transformation activity over the legacy system activities by limiting current system enhancements</li> <li>• Backup resources should be identified and trained to mitigate key person risk</li> <li>• Plan the completion of conversion and bridging activity prior to key resource departures</li> </ul>
Data Audit reveals significant data errors, missing data, and reconciliation issues	To confirm magnitude, schedule the Data Audit works soon as possible
There are unknown data cleansing resource needs that will not be defined until data profiling is complete	Allow for schedule, business user resource, and budget contingency
Data conversion activity may not be complete in time for implementation vendor testing	Assign a PEBA legacy management resource to plan and oversee all data conversion, bridging and quality efforts.
More external data conversion external expertise may be required	Continuously monitor and assess the data conversion, data bridging, and data cleansing scope, findings, and progress

## 5.5 Workstream 4: Organizational Change Management

### 5.5.1 Goals

The goals of the Organizational Change Management workstream include:

- Create a stakeholders and participants communication plan
- Communicate and socialize program messages
- Facilitate program benefit awareness and enthusiasm
- Request and incorporate stakeholder design input
- Enable PEBA training staff to execute the new system training program
- Train business area staff and employers
- Train and enable PEBA technical staff to support co-development

### 5.5.2 Scope

#### Communications Planning

Program communications should occur early in a modernization program, planning program messages, updates, and impacts to all key stakeholder groups. Given impact of the new program, significant effort is required to deliver comprehensive, detailed, and actionable communications. PEBA will have primary responsibility for developing a detailed communications plan to enable the modernization program to achieve change preparedness by promoting program awareness and active stakeholder participation.

The communications plan will segment affected program groups with customized communication to fit unique stakeholder needs. Key stakeholder objectives and communication will be identified for each stakeholder segment along with the timing, packaging, delivery method, and sender. The scale of the modernization program requires change communications to be broken down in to manageable components, allowing the audience to mentally prepare for system changes. This will create openness for additional change, rather than overwhelming stakeholders with too much communication, too soon. Communications should be frequent, constant, and delivered to stakeholders in a well-planned manner.

#### Change Management Planning

The modernization program will have far reaching impact on individual behavior across the organization. The change management plan dedicates resources to the coordination and execution of the “people-side” of system changes. When performed effectively, change management ensures that the reason for the change is understood to be necessary and beneficial to all stakeholders, enabling individuals to adopt desired change behaviors, manage resistance, and reinforce the change. Change management efforts will begin early in the modernization program and will continue throughout all program phases.

PEBA will have primary change management planning responsibilities, with the CSV support. The scope and understanding developed in this planning activity provides the foundation for the

development of a customized and actionable change management plan. The change management plan must be tightly coordinated with the communications plan and the training plan.

### **Employer Integration and Rollout**

Employer process changes will impact PEBA employers as a provider of critical data for PEBA's core business operations. This effort will require substantial project planning efforts and dedicated resources. A key aspect of employer buy-in is to solicit early employer feedback during system design. Employer integration and rollout activities focus on delivering the new employer portal, as well as the redesigned employer reporting, enrollment, and other key new system processes. At its highest level, the employer integration and rollout scope will include the following:

- Communicating and visioning with Employers
- Planning and scoping rollout
- Coordinating payroll files (Employer and Provider)
- Testing and verifying test file uploads
- Training and documentation
- Developing a transition and cutover plan
- Supporting production Implementation

The employer integration planning steps will involve all facets how employers and employer contacts will use new employer functionality. Employer integration requires clear messaging and articulation of the employer self-service vision and value of improved employer reporting and new system processes. In addition to planning and design, employer rollout activities will include training, process and procedure documentation, and elevated support during production cut-over and early post-implementation periods.

### **Business Area Staff Enablement and Training**

A key component of the Organizational Change Management workstream is business user training and enablement activities. Training is a critical tool for building PEBA key stakeholder's knowledge and ability to adopt changes. PEBA resources will have primary responsibility for training business users leveraging a train-the-trainer strategy where implementation vendor resources will train the PEBA trainers that will be responsible for delivering training to the rest of PEBA staff. The implementation vendor and client services vendor will support planning, scheduling, developing training materials, and enabling PEBA training resources.

Training audiences will be identified and a full inventory of training session dates and times will be managed and documented in a detailed training plan. All business users will complete a new system "fundamentals" module. This approach provides users with a baseline understanding of the new system. Additionally, more targeted functional training is provided to business users supporting specific job functions. User workshops will be incorporated into the training plan after users have completed required training modules and had ample opportunity to gain hands-on experience with the new system. Workshops provide an opportunity for feedback and additional team training and hands-on system exposure.

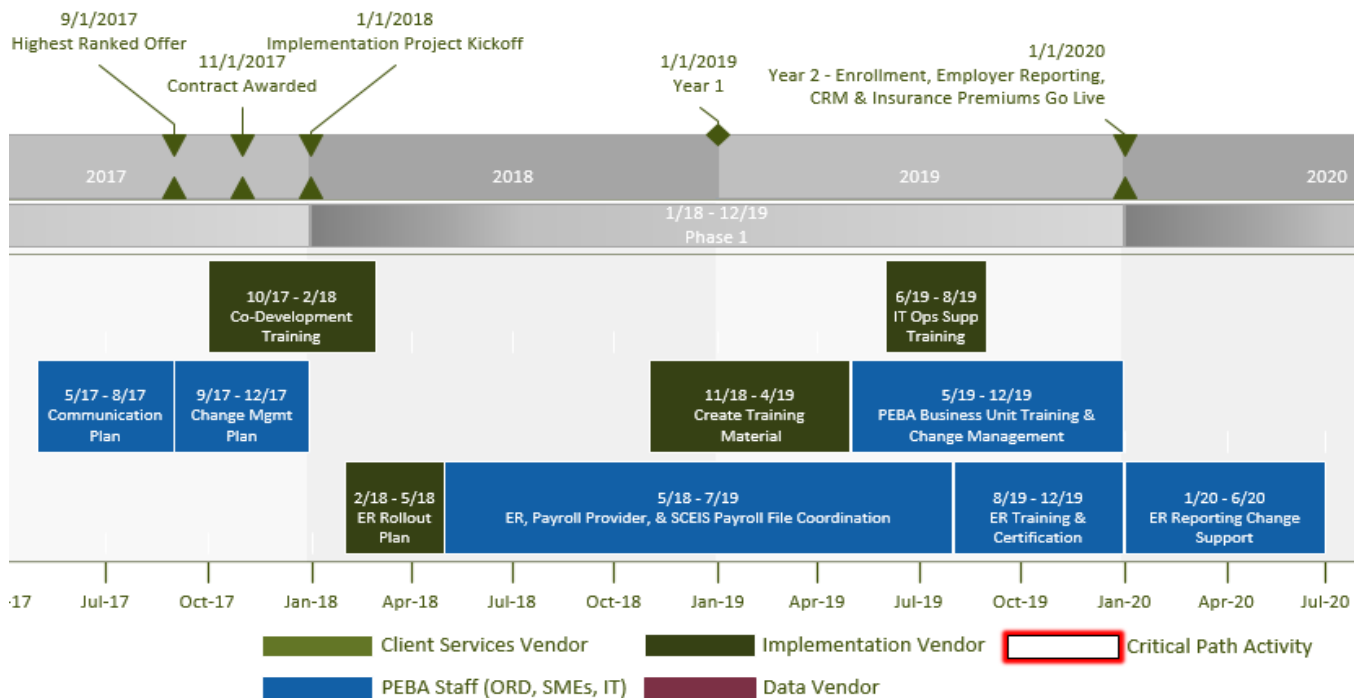
### Technical Staff Enablement and Training

Technical staff, including ORD BA's and IT production support and operations resources, will require training to become proficient in supporting the new system. The training material is highly dependent upon the implementation vendor selected and the selected system maintenance and support strategy. PEBA intends to pursue a model of technical self-sufficiency. As a result, it is expected that ORD and IT resources will be provided extensive training in requirements, design, development and configuration, architecture, and system operations.

Training program content will be defined by the implementation vendor, defining modules, training materials, and co-development knowledge transfer strategies. The implementation vendor training efforts will initially occur in the early stages of the project, with training envisioned to continue beyond implementation until PEBA resources attain sufficient capabilities.

### 5.5.3 Duration/Costs

The Organizational Change Management workstream activities, phases, and durations are provided in the Gantt chart below:





Initial Organizational Change Management workstream costs are estimated in the table below:

Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 4 - Organizational Change Management	Client Services Vendor **	\$0	\$205,000	\$215,000	\$215,000	\$215,000	\$850,000
<b>Grand Total</b>		<b>\$0</b>	<b>\$205,000</b>	<b>\$215,000</b>	<b>\$215,000</b>	<b>\$215,000</b>	<b>\$850,000</b>

\*\* Client services vendor support of Year 0 Organizational Change Management are incorporated into the Requirements Definition and Vendor Procurement (Workstream 0) budget.

#### 5.5.4 PEBA Resources Requirements

PEBA ORD and business area resources will have primary responsibility for Organizational Change Management workstream activities.

The PEBA Organizational Change Management workstream resource estimates are provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 4 - Organizational Change Management **	PEBA - IT	0.8	0.0	0.0	0.0	0.0
	PEBA - ORD	1.0	2.0	2.0	2.0	2.0
	PEBA - Training and Communications	0.7	4.0	4.0	4.0	4.0
<b>Grand Total</b>		<b>2.5</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>	<b>6.0</b>

\*\* Business user training resource levels are incorporated into the two development workstream resource counts.

### 5.5.5 Risks

The people side of change is an easily overlooked aspect of major system modernization programs. The implementation of a new system requires a great deal of change for internal and external stakeholders and their interactions with PEBA. Risks associated with this workstream are discussed below, along with a remediation strategy:

Risk	Mitigation
Inconsistent expectations and lack of clear goals between management and business units	<ul style="list-style-type: none"> <li>• Early communication of management's commitments, goals, and expected outcomes conveyed to all PEBA business areas</li> </ul>
External parties may not be fully informed of the new PEBA program and impact	<ul style="list-style-type: none"> <li>• Customize a program communication plan for each stakeholder group</li> <li>• Create ongoing informative communication to keep stakeholders apprised of program progress, schedule, and value</li> </ul>
Pockets of resistance can form, grow, and ultimately derail a project or prevent change adoption	<ul style="list-style-type: none"> <li>• Craft messages to help user communities understand the necessity for the change and how they will benefit</li> <li>• Establish communication and advocacy networks to deliver messages from trusted sources</li> <li>• Make communication channels available for questions and concerns</li> </ul>
Third party payroll providers may not prioritize file format changes required for the new system	Minimize impact to third parties and possibly accept data in its current file format
Partners cannot provide the data or allocate training time to meet new system development and testing timeline	<ul style="list-style-type: none"> <li>• Schedule employer training in advance and provide dedicated PEBA resources to assist employers</li> <li>• Continually measure each employer's change readiness</li> </ul>

## 5.6 Workstream 5: Program Management

### 5.6.1 Goals

The goals of the Program Management workstream include:

- Ensure that Program outcomes deliver expected benefits
- Establish project governance structure and authority
- Ensure project objectives are delivered within time, resource and budget constraints
- Apply industry expertise and best practice to guide key activities across all workstreams
- Facilitate vendor resource coordination and quality assurance
- Control scope changes and their impact to program schedule and costs
- Efficiently manage project issues and eliminate roadblocks

- Integrate security and risk management throughout the development process

## 5.6.2 Scope

### Program Management

Program Management provides coordinated project management and leadership across all system modernization program workstreams. The program management function applies skill, tools, and techniques to manage multiple concurrent projects that would otherwise be managed independently. Program management focuses on project planning, scope management, program progress and control, resources management, stakeholder management, procurement management, and cost management across all workstreams.

PEBA will be primarily responsible for Program Management activities, with the support of CSV resources. Program management will establish the foundational planning and execution framework for structuring requirements, defining project activity definition, dependencies, and sequencing, formalizing project management standards and templates, and defining project governance. Executive Sponsors, Steering Committee members, and business area executives will guide and confirm program management direction and activities.

### Oversight Project Management

Oversight Project Management (OPM) is a best practice approach used by nearly all pension and benefit modernization programs. Oversight management services provide a third party, independent project review of execution progress and issues, vendor deliverables, testing outcomes, architecture, and product configuration. OPM will also provide coordination of resource plans required to achieve program objectives.

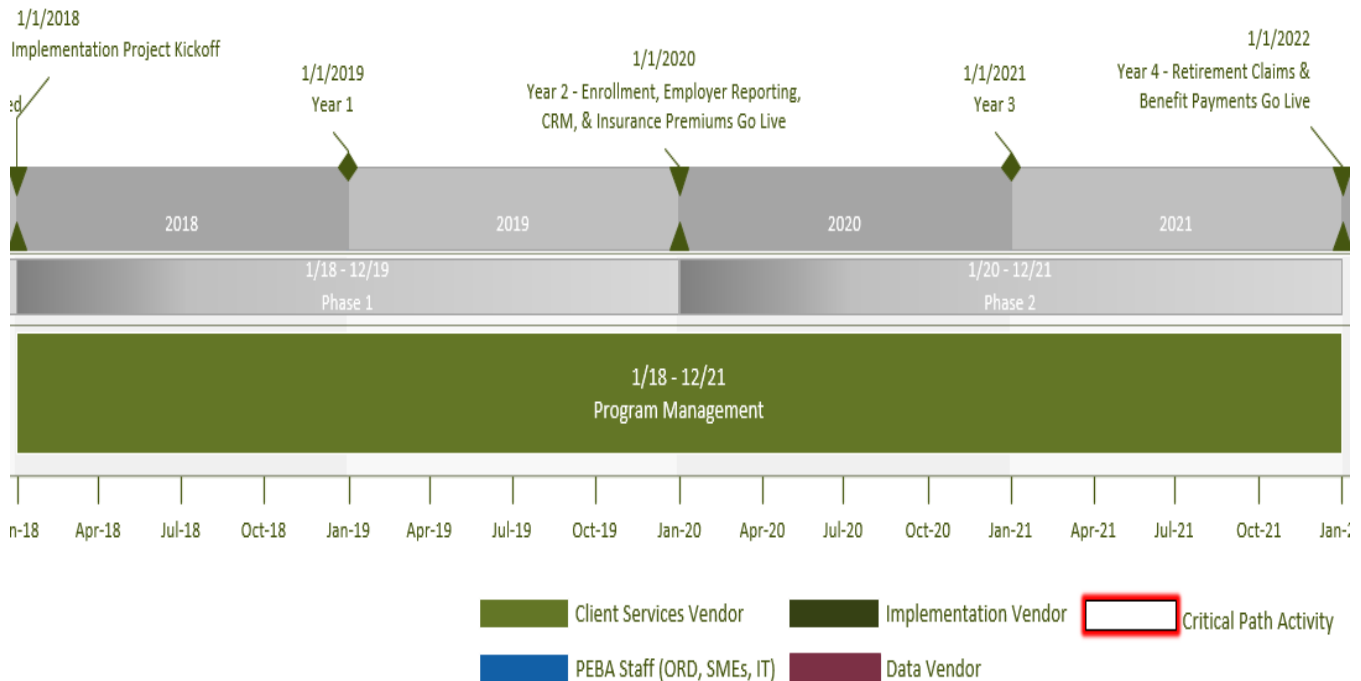
OPM will work closely and collaborate with implementation vendor project managers, data vendor support resources and PEBA project managers. The OPM manages and maintains the master project plan that links project activity across all workstreams. The OPM oversees day-to-day execution of the program schedule and progress. OPM participates in regularly scheduled project planning and status meetings. With multiple vendors executing and supporting concurrent project efforts, the OPM fulfills an essential coordination role.

In the early stages of the program, the OPM will actively participate in requirements confirmation and review, design sessions, and data analysis. As the program progresses, the OPM will be an integral management function coordinating and prioritizing cross team testing, training, infrastructure changes, and operational readiness activities. The OPM will identify risks to the project and develop strategies to mitigate the risks and issues. All change control will be tracked and managed through the OPM. Implementation vendor, data vendor, and other workstream deliverables will also be reviewed, with the OPM providing feedback and commentary to support PEBA deliverable acceptance. In collaboration with the program management function, the OPM will also assist in tracking and managing third party vendor contracts, invoicing, and program budget.



### 5.6.3 Duration/Costs

The Program Management function is required for the duration of the two planned development phases.



Program management and OPM support costs are estimated in the table below:

Workstream	Resource Type	Year 0 Costs	Year 1 Costs	Year 2 Costs	Year 3 Costs	Year 4 Costs	Total Year 1 through 4 Project Costs
Workstream 5 - Program Management	Client Services Vendor	\$0	\$768,000	\$768,000	\$768,000	\$768,000	\$3,071,000
<b>Grand Total</b>		<b>\$0</b>	<b>\$768,000</b>	<b>\$768,000</b>	<b>\$768,000</b>	<b>\$768,000</b>	<b>\$3,071,000</b>

### 5.6.4 PEBA Resources Requirements

Program management functions are supported by a combination of PEBA and resources. OPM support will commence when development activity begins.



PEBA resources required to support the Program Management workstream are provided in the table below:

Workstream	Resource Type	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
Workstream 5 - Program Management	PEBA - IT	0.0	0.5	0.5	0.5	0.5
	PEBA - ORD	1.0	1.0	1.0	1.0	1.0
	PEBA - Business	0.0	0.5	0.5	0.5	0.5
<b>Grand Total</b>		<b>1.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>

### 5.6.5 Risks

Managing and coordinating multiple concurrent workstreams involved in a system modernization presents significant challenges. Effective program management and oversight are essential disciplines needed to avoid project delays, cost increases, and in the worst case scenario, project failures. Risks associated with this workstream are discussed below, along with a remediation strategy:

Risk	Mitigation
Unclear decision making capability or authority	<ul style="list-style-type: none"> <li>• Formalize project governance and decision making authority</li> <li>• Ensure decision makers have sufficient knowledge and availability to make appropriate and effective decisions</li> </ul>
Potential scope creep causing project delays and cost overruns	Institute a disciplined change control process
Conflicting vendor goals and project bottlenecks	<ul style="list-style-type: none"> <li>• Establish clear understanding of each vendor's roles and establish open lines of communication</li> <li>• Plan frequent planning and quality review meetings</li> </ul>
Lack of issue awareness or potential problems	<ul style="list-style-type: none"> <li>• Ensure project management methodology includes frequent stand up meetings with team members and validate task status</li> <li>• Promote early detection of issues</li> <li>• Incorporate a robust risk management plan</li> </ul>

## 6 Internal Project Resources

The success of PEBA's system modernization program will be highly dependent on PEBA staff involvement. Both dedicated and support resources must be available and responsive to program demands and possess strong communication, analytical, and problem-solving skills. The project roles to be filled by PEBA resources include:

- **Program Sponsor** – The program sponsor is PEBA's program executive. This individual has the highest level of authority over program decisions. The program sponsor is the resource arbitrator and the final authority on policy and procedure questions and modifications to program scope and budget.

- **Program Steering Committee** – The program will be actively directed by the Steering Committee that will oversee the program progress and be responsible for making key program and policy decisions. The committee will review change orders, promote program and project outcomes, and actively monitor project risks and risk mitigations. The committee is responsible allocating appropriate PEBA resources to the program.
- **Program Manager** – The program manager will actively manage the overall modernization program, coordinating and leading all project managers and their program activities. The program manager will work with the CSV project manager, oversight project manager (OPM), and implementation vendor project managers to plan, manage, and control all program projects. The program manager is responsible for reporting progress to the Steering Committee and Sponsor, including program level issues, changes, and overall financial position. The program manager will also confirm that vendor scope and commitments, as contracted, are being fulfilled.
- **Project Managers** – Project managers initiate projects, articulate scope and boundaries for each project, define work breakdown structures, and assign resources to specific project tasks and activities. Project managers review status reports from team members, track and resolve risks, and control assigned project scope. Project managers will report progress and escalate issues, as appropriate, to the program manager or Steering Committee.
- **Change Facilitators, Employer Integration & Training Analyst** – The organizational change analysts will be responsible for performing change activity across all stakeholders that are impacted by the modernization program. This includes communicating with and supporting employers as new processes, procedures, and data needs are required. It also includes all internal and external new systems. These analysts will execute the activities required to prepare and enable stakeholders that are affected by the modernization program.
- **Business Area SME** – The business area subject matter experts (SMEs) are knowledgeable and enabled business area representatives that will be involved in all phases of the program. This role is crucial in representing business areas in new system design, business rule identification and interpretation, PEBA customization approaches, issue resolution, and test planning and execution. SMEs will have authority to make design decisions that guide the system, while also being responsible for informing business area leaders and staff of issues, decisions, impacts, and progress.
- **ORD Business Analysts** – PEBA ORD business analysts will have wide ranging responsibilities across program workstreams including defining requirements, attending process and system design sessions, configuring business rules, resolving issues, coordinating and validating test data, creating new system forms and letters, and performing quality assurance during system test and user acceptance test phases. Business analysts will also be required to support data conversion and bridging, training, and all other change management activity.

- **Project Developers** – PEBA IT resources will be responsible for analysis, design, development and testing of new system components (pages, workflows, configurations, customizations, reports, interfaces, etc.). Project developers will work directly with the implementation vendor, who will provide training, mentoring, and overall technology support.
- **Data Conversion Developers** – PEBA IT resources will have primarily responsible for data analysis, design, development and testing of data conversion and bridging programs. The developer will also support data audit and data cleanup activity.

Estimated PEBA resource levels to support all program activities are summarized in the table below:

Resource Type	Workstream	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
<b>PEBA - IT</b>	Workstream 0 - Requirements Definition and Vendor Procurements	2.0	0.0	0.0	0.0	0.0
	Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	0.0	3.0	3.0	0.0	0.0
	Workstream 2 - Retirement Claims and Benefit Payments System Development	0.0	0.0	0.0	3.0	3.0
	Workstream 3 - Data Conversion and Bridging	3.0	8.0	8.0	8.0	8.0
	Workstream 4 - Organizational Change Management	0.8	0.0	0.0	0.0	0.0
	Workstream 5 – Program Management	0.0	0.5	0.5	0.5	0.5
<b>PEBA - IT Total</b>		<b>5.8</b>	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>
<b>PEBA - ORD</b>	Workstream 0 - Requirements Definition and Vendor Procurements	5.0	0.0	0.0	0.0	0.0
	Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	0.0	4.5	4.5	0.0	0.0
	Workstream 2 - Retirement Claims and Benefit Payments System Development	0.0	0.0	0.0	4.5	4.5
	Workstream 3 - Data Conversion and Bridging	1.0	1.5	1.5	1.5	1.5
	Workstream 4 - Organizational Change Management	1.0	2.0	2.0	2.0	2.0
	Workstream 5 – Program Management	1.0	1.0	1.0	1.0	1.0
<b>PEBA - ORD Total</b>		<b>8.0</b>	<b>9.0</b>	<b>9.0</b>	<b>9.0</b>	<b>9.0</b>
<b>PEBA - Business</b>	Workstream 0 - Requirements Definition and Vendor Procurements	3.5	0.0	0.0	0.0	0.0
	Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	0.0	6.8	7.6	0.0	0.0
	Workstream 2 - Retirement Claims and Benefit Payments System Development	0.0	0.0	0.0	6.8	7.6

Resource Type	Workstream	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
	Workstream 3 - Data Conversion and Bridging	1.5	0.0	0.0	0.0	0.0
	Workstream 5 – Program Management	0.0	0.5	0.5	0.5	0.5
<b>PEBA - Business Total</b>		<b>5.0</b>	<b>7.3</b>	<b>8.1</b>	<b>7.3</b>	<b>8.1</b>
<b>PEBA - Training and Communications</b>	Workstream 4 - Organizational Change Management	0.7	4.0	4.0	4.0	4.0
<b>PEBA - Training and Communications Total</b>		<b>0.7</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>
<b>PEBA Resources Grand Total</b>		<b>19.5</b>	<b>31.8</b>	<b>32.6</b>	<b>31.8</b>	<b>32.6</b>

\*\* Business user data conversion and bridging resource levels are incorporated into the two development workstream resource counts.

## 6.1 Acquire and Train Backfill Project Resources

The modernization effort is a large and complex program requiring significant PEBA time commitments from the most experienced PEBA subject matter experts. Each PEBA resource allocated to the program will have the capability to represent multiple business area functions (knowledge breadth), as well as detailed business knowledge. With the allocation of these key PEBA resources to the modernization program, the business areas must continue high performance in meeting customer expectations and delivering valuable services.

To adequately prepare for expert SMEs being assigned to the modernization program, PEBA will require a strategy to fill resource and knowledge gaps that may occur in day-to-day operations. It is PEBA's preference that project SME resources are dedicated full time to project efforts and as a result staff positions will be created, and resources enabled to backfill gaps and execute normal business operations. The detailed backfill strategy must be defined well in advance of initiating development, and given expected project efficiency gains, current PEBA internal resources will be allocated to backfill SME positions. SMEs should be identified early in the program schedule and any necessary backfill resources reassigned prior to the beginning of Requirements Confirmation activity.

It is estimated that seven business area SMEs and four communication and training SMEs will be required to have their current roles backfilled by another resource. Additionally, given current system IT maintenance and support needs (open enrollment, legacy ongoing maintenance, etc.) it is estimated that three PEBA IT resources will be required to support PEBA new system development and data conversion resource needs. As PEBA management sources backfill resources from other departments or acquires resources externally, current operational teams will initiate training programs to enable new staff.

To support the program, resource backfill requirements are estimated in the table below:

Resource Type	Workstream	Year 0 FTEs	Year 1 FTEs	Year 2 FTEs	Year 3 FTEs	Year 4 FTEs
PEBA - IT Backfill	Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	0	3	3	0	0
	Workstream 2 - Retirement Claims and Benefit Payments System Development	0	0	0	3	3
<b>PEBA - IT Backfill Total</b>		<b>0</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>
PEBA - Business Backfill	Workstream 1 - Employer Reporting, Enrollment, CRM, and Insurance Premiums System Development	0	7	7	0	0
	Workstream 2 - Retirement Claims and Benefit Payments System Development	0	0	0	7	7
<b>PEBA - Business Backfill Total</b>		<b>0</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
PEBA - Training and Communications Backfill	Workstream 4 - Organizational Change Management	0	4	4	4	4
<b>PEBA - Training and Communications Backfill Total</b>		<b>0</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>
<b>PEBA Backfill Resources Grand Total</b>		<b>0</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>

## 7 Program Costs

Modernization Roadmap costs are provided to estimate reasonable funding requirements to effectively execute the program. In determining these estimates, current high-level scope and project assumptions were shared in a market study with multiple benefit system implementation vendors participating, to determine reasonable and current vendor pricing. Each vendor respondent, experienced in benefit and pension system implementations of similar program size and scope, provided costs for development services, hosting, product license fees, and ongoing support. The study responses were consolidated and averaged to provide a blended view of current market costs. This market feedback was a key component of the costing model. The model, with incorporation of other costs not part of the market study, created cost estimates which were broken down by workstream, project, phase, and year.

With detailed requirements not yet defined and implementation vendor scope and execution variables likely to be modified prior to project commencement, cost ranges were provided for implementation vendor costs. These ranges were derived by averaging market study respondent feedback and applying a +/- 15% increase or decrease to establish the range. A high estimate, low estimate, and the average cost estimates are documented below, with the average cost used as the basis for planning.

Modernization program cost estimates, across all workstreams, are included in the table below. The pre-implementation program activities are estimated at \$1.27 million and the system development and deployment cost estimate (over a 4 year time horizon) is \$37.4 million. Given the complex nature of the project, unknown market demand at the time of the future procurements, and other external factors, it is recommended that the program be budgeted using the high estimate.

COSTS	Year 0	Year 1 - 4		
		4 Year Implementation Timeframe		
		Low Estimate	High Estimate	Planning Estimate
Requirements Definition/Procurement	\$650,000			
Data Profiling/Initial Data Conversion	\$370,000			
Requirement Validation	\$200,000			
<b>Pre-Implementation Activity</b>	<b>\$1,220,000</b>			
Implementation Vendor License Fee		\$2,500,000	\$4,750,000	\$3,300,000
Implementation Vendor Services		\$15,300,000	\$24,000,000	\$19,000,000
Implementation Vendor Other Costs (Hosting/Hardware/Software)		\$2,200,000	\$2,600,000	\$2,300,000
<b>Implementation Vendor Subtotal</b>		<b>\$20,000,000</b>	<b>\$31,350,000</b>	<b>\$24,600,000</b>
Client Services – Business/Test Support				\$4,250,000
Data Conversion/Bridging Vendor Support				\$1,200,000
Change Management Support				\$850,000
Project Management/Oversight PM Support				\$3,100,000
<b>Other Vendor Subtotal</b>				<b>\$9,400,000</b>
<b>Estimated Cost</b>	<b>\$1,150,000</b>			<b>\$34,000,000</b>
Contingency @ 10%	\$115,000			\$3,400,000
<b>TOTAL ESTIMATED COSTS</b>	<b>\$1,265,000</b>			<b>\$37,400,000</b>
<b>TOTAL ESTIMATED COSTS -15%</b>				<b>\$31,790,000</b>
<b>TOTAL ESTIMATED COSTS +15%</b>				<b>\$43,010,000</b>
<b>OTHER/OPTIONAL COSTS</b>				
Backfill Business and IT Resources (10 FTE) Assuming 7 Business and 3 IT external backfill resources required for 4 years				\$3,700,000
Image Conversion				\$800,000

## 8 Attachments



Microsoft Word  
Document

*Attachment 1: High Level Scope and Responsibilities*



Microsoft Visio  
Drawing

*Figure 2: Operational Assessment - Modernization Roadmap*