Activity	Comments	Estimated Hours
Architecture/Design		
Database Design		480
Presentation Design - Initial		320
Presentation Design - Revised	+	320
Data Interfaces		640
		160
Application Code Design		100
Development		
Data Interfaces	Generic interfaces to local campus systems	
Initial Data Load	Population of ERS database with A21/PAR data	320
Payroll/Personnel System (PPS)	Payroll Audit Record	200
Financial Systems	Account/Fund Profile	200
Contracts & Grants		200
Cost Sharing		320
Authentication	(Security System)	200
Authorization	(Security System)	200
Email		160
Web Presentation	Detailed page layout, style sheets, graphics	480
Authorization Rules	Implementation of roles and associated permissions	480
Authorizaton Administration	Tool(s) for administration of roles and permissions	480
Web Navigation	General web navigation details for ERS	320
Workflow	Mechanism for handling step-through flow of effort reports	320
Effort Report Generation		
Standard Report	Standard generation (batch and one-time) of the Effort Report	480
Exception	Generation of effort reports for previously excluded or terminating employees	480
Reissuance	re-generation of effort reports when changes in effort meet threshhold requirements for re-certification	240
Notifications	Mechanism for notifying individuals that effort reports are ready for pre-review, review/certification, or have been	
Effort Report Search/Selection	certified  Mechanism for locating effort reports (general search,	320
Lifort Neport Search/Selection	role-based search, etc.)	480
Online Effort Report Data Changes	Mechanism for changing effort detail on an individual effort report	160
Online Certifications	Mechanism for certifying one effort report	160
Multiple Certifications	Mechanism for certifying two or more effort reports at	. 30
Waltiple Certifications	one time	320
Online Exception Data	Mechanism for collecting data on individuals who	
Collection/Modification	received no pay from a sponsored project	480
Edits	Various edits on data from incoming interface files and data entered online	960
Reminders	Mechanism for providing reminders of needed reviews	
Compliance Monitoring Tools*	and certifications  Reports for measuring current period compliance and	160
	comparing with historical periods	640

Authorica	0	Estimated
Activity	Comments	Hours
Control/Audit Reports*	System-level controls and audit reports(e.g., system	
	access reports, transaction statistics)	480
General Reporting*	Standard reporting other than compliance/control/audit	
	reporting (needs detailed definition)	960
Ad Hoc Reporting*	(if other than third-party tools-based reporting)	960
Testing		
Application Testing		
	"System Testing" of all components and associated logic	1,200
Load/Stress Testing	Stress testing to determine system performance	
	characteristics	320
Daniel and (Dales and Communication)		
Deployment (Release to Campuses)		0.10
Documentation	System Technical Documentation	640
Web-based User Training Materials		
(Generic)		480
Technical Training	Materials and Training Session(s)	320
Deployment (Release) Packaging	Source Inventories, Installation and Installation	
	Verification Instructions, etc.	160
Project Management		
Technical Project Management	Day-to-day technical project management	3,000
Campus Coordination	Coordination of campus staff participating in resolving	,
	requirements/development issues, system testing, etc.	1,000
TOTAL		19,200

<sup>\* -</sup> Deliverables are only minimally defined in the requirements definition; further definition of the requirements for these deliverables will be needed before any realistic estimate (higher or lower) can be provided.