Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army										DATE: February 2011	

APPROPRIATION/BUDGET ACTIVITY
2040: *Research, Development, Test & Evaluation, Army*
BA 3: *Advanced Technology Development (ATD)*

R-1 ITEM NOMENCLATURE
PE 0603007A: *Manpower, Personnel and Training Advanced Technology*

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	7.220	7.921	10.298	-	10.298	11.516	12.774	11.918	11.160	Continuing	Continuing
792: *Personnel Performance & Training*	7.220	7.921	10.298	-	10.298	11.516	12.774	11.918	11.160	Continuing	Continuing

Note

FY12 funding increase for Personnel and Training Systems.

A. Mission Description and Budget Item Justification

This project matures and demonstrates advanced behavioral and social science technologies that enhance performance to ensure that the Warfighter keeps pace with the transformations in systems, weapons, equipment, and mission requirements to meet the goals of the future force. These technologies provide key capabilities through training methods and techniques that prepare Soldiers and leaders to effectively operate in complex digitized, networked environments; enable the use of embedded training technologies envisioned for future command and control (C2) systems; as well as foster cognitive, behavioral, and psychological flexibility, adaptability, and mission readiness. Efforts include the evaluation of new selection measures, the refinement of performance metrics, the assessment of innovative training techniques, and the analysis of methods and tools to better adapt training to meet goals and requirements. Increased funding in FY12 for this PE is based on work shifted from PE 0602785A due to need for increased focus on maturation and demonstration of selection techniques and tools as well as training methods.

This PE leverages efforts and coordinates research with a number of other Laboratories and Research, Development, and Engineering Centers including, the Simulation and Training Technology Center (STTC), Army Research Laboratory - Human Research and Engineering Directorate (ARL-HRED) (PEs 0603015A, 0602308A, and 0602716A), and the Communications-Electronics Research, Development, and Engineering Center (CERDEC). Research in this PE is complementary to and fully coordinated with efforts funded in PE 0602785A (Project 790).

The cited work is consistent with the Director, Defense Research and Engineering Strategic Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan.

Work is performed and managed by the US Army Research Institute (ARI) for the Behavioral and Social Sciences in Arlington, VA.

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603007A: *Manpower, Personnel and Training Advanced Technology*

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	7.371	7.921	8.023	-	8.023
Current President's Budget	7.220	7.921	10.298	-	10.298
Total Adjustments	-0.151	-	2.275	-	2.275
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.151	-			
• Adjustments to Budget Years	-	-	2.275	-	2.275

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army									DATE: February 2011	

APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 3: *Advanced Technology Development (ATD)*	R-1 ITEM NOMENCLATURE PE 0603007A: *Manpower, Personnel and Training Advanced Technology*	PROJECT 792: *Personnel Performance & Training*

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
792: *Personnel Performance & Training*	7.220	7.921	10.298	-	10.298	11.516	12.774	11.918	11.160	Continuing	Continuing

Note
Not applicable for this item.

A. Mission Description and Budget Item Justification

This project matures and demonstrates advanced behavioral and social science technologies that enhance performance to ensure that the Warfighter keeps pace with the transformations in systems, weapons, equipment, and mission requirements to meet the goals of the future force. These technologies provide key capabilities through training methods and techniques that prepare Soldiers and leaders to effectively operate in complex digitized, networked environments; enable the use of embedded training technologies envisioned for future command and control (C2) systems; as well as foster cognitive, behavioral, and psychological flexibility, adaptability, and mission readiness. Efforts include the evaluation of selection measures, the refinement of survey methodologies and performance metrics, the assessment of innovative training techniques, and the analysis of methods and tools to better adapt training to meet goals and requirements. Increased funding in FY12 for this project is based on work shifted from PE 0602785A due to need for increased focus on maturation and demonstration of selection techniques and tools as well as training methods.

This program leverages efforts and coordinates research with a number of other Laboratories and Research, Development, and Engineering Centers including, the Simulation and Training Technology Center (STTC), Army Research Laboratory - Human Research and Engineering Directorate (ARL-HRED), and the Communications-Electronics Research, Development, and Engineering Center (CERDEC). Research in this PE is complementary to and   fully coordinated with efforts funded in PE 0602785A (Project 790).

The cited work is consistent with the Director, Defense Research and Engineering Strategic Plan, the Army Modernization Strategy, and the Army Science and Technology Master Plan.

Work is performed and managed by the US Army Research Institute (ARI) for the Behavioral and Social Sciences in Arlington, VA.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
Title: Personnel Technology	1.357	1.500	3.288
Description: This effort develops Soldier selection measures as well as techniques and tools to better predict behavior and performance. The Army's current selection measures primarily focus on a candidate's cognitive (e.g., technical and analytical) ability which does not predict attrition, discipline, and motivation. *FY 2010 Accomplishments:*			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603007A: *Manpower, Personnel and Training Advanced Technology*	**PROJECT** 792: *Personnel Performance & Training*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012
Investigated various methods and technologies to more rapidly assess attitudes and opinions across the Army to be more responsive to the fast-paced operational demands of overseas contingency operations; enhanced assessment methods for improved understanding of Soldiers' attitudes and opinions to quantify factors influencing Soldiers' career plans. *FY 2011 Plans:* Demonstrating and validating FY10 methods and technologies to streamline data collections and more rapidly assessing attitudes and opinions across the Army; and evaluating trends of Soldier satisfaction, especially in regard to deployment length and dwell time (i.e., back home), and the Army's care and concern for Soldiers and their families. *FY 2012 Plans:* Will evaluate capability of non-cognitive measures such as motivation, cooperation, and achievement to predict performance of enlisted personnel while in initial training environments; will evaluate the capability of non-cognitive measures to augment existing measures to better predict an individual's potential; will analyze the use of non-cognitive measures to provide flexibility for selection methods that can accommodate changes in force size.			
Title: Training and Leader Development *Description:* This effort provides training techniques and tools that will enable Soldiers to take full advantage of advances in technology and systems and helps the Army attain its training goals for future missions and operations. *FY 2010 Accomplishments:* Established guidelines for optimizing the use of blended learning environments for Army training (e.g., US Army Training and Doctrine Command (TRADOC) schools); evaluated the level of preparedness and performance through behavioral evaluation tools following graduation from training programs to develop improved training strategies; demonstrated two Web-based training tools (one to predict skill retention and one to develop techniques, tactics, and procedures to improve training outcomes); exploited and improved emerging development and measurement methods that can facilitate the Army's capability to produce leaders who can more easily adapt to change and complexity. *FY 2011 Plans:* Refine guidelines for training effectiveness based on operational relevance of training outcomes in TRADOC courses; demonstrate effectiveness of training tools/methods in simulated learning environments; demonstrate adaptive leadership and negotiation skills and techniques as well as measurement methods for leader development; and develop and refine methods and models for maintaining training relevance to operational units. *FY 2012 Plans:* Will develop methods to more readily assess whether training can be adapted to account for individual differences and experience levels; will develop strategies to tailor training based on Soldiers' learning progress for basic Soldier skills and for Advanced	5.863	6.421	7.010

Exhibit R-2A, **RDT&E Project Justification:** PB 2012 Army		**DATE:** February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 3: *Advanced Technology Development (ATD)*	**R-1 ITEM NOMENCLATURE** PE 0603007A: *Manpower, Personnel and Training Advanced Technology*	**PROJECT** 792: *Personnel Performance & Training*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012**
Individual Training; will analyze the use of prototype training tools to refine training strategies in institutional and unit-based training environments.			
Accomplishments/Planned Programs Subtotals	7.220	7.921	10.298

C. Other Program Funding Summary ($ in Millions)
   N/A

D. Acquisition Strategy
   N/A

E. Performance Metrics
   Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.