Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army											Date: February 2018	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 3: *Advanced Technology Development (ATD)*						**R-1 Program Element (Number/Name)** PE 0603007A *I Manpower, Personnel and Training Advanced Technology*						
COST ($ in Millions)	**Prior Years**	**FY 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**Cost To Complete**	**Total Cost**
Total Program Element	-	12.110	6.466	8.044	-	8.044	12.632	12.798	16.834	17.254	0.000	86.138
792: *Personnel Performance & Training*	-	12.110	6.466	8.044	-	8.044	12.632	12.798	16.834	17.254	0.000	86.138

A. Mission Description and Budget Item Justification

This Program Element (PE) matures and validates applied behavioral and social science technologies that enhance the Soldier Lifecycle (e.g., selection, assignment, training, leader development) and human relations (e.g., unit cohesion). These technologies provide advanced personnel measures that more fully assess potential and predict performance, behavior, attitudes, and resilience. These technologies also provide innovative and effective Talent Management methods to optimize individual and team performance to ensure the Army can meet mission requirements in uncertain and complex environments. This PE evaluates new selection measures, assignment methods, and performance metrics for individuals and units, assesses innovative training methods, and conducts scientific assessments to inform Human Capital policy and programs. Work in this PE will result in effective non-materiel solutions to help the Army adjust to changes in force size and structure, a variety of mission demands and contexts, challenges in human relations, and budgetary constraints.

Efforts in this PE support the Army Science and Technology Soldier portfolio.

Work in this PE complements and is fully coordinated with PE 0602785A (Manpower/Personnel/Training Technology).

The cited work is consistent with the Assistant Secretary of Defense for Research and Engineering Science and Technology priority focus areas and the Army Human Capital Strategy.

Work in this PE is performed by the U.S. Army Research Institute (ARI) for the Behavioral and Social Sciences in Ft. Belvoir, VA.

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army			Date: February 2018		
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* I BA 3: *Advanced Technology Development (ATD)*			**R-1 Program Element (Number/Name)** PE 0603007A I *Manpower, Personnel and Training Advanced Technology*		
B. Program Change Summary ($ in Millions)	**FY 2017**	**FY 2018**	**FY 2019 Base**	**FY 2019 OCO**	**FY 2019 Total**
Previous President's Budget	14.417	6.466	8.088	-	8.088
Current President's Budget	12.110	6.466	8.044	-	8.044
Total Adjustments	-2.307	0.000	-0.044	-	-0.044
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.400	-			
• Adjustments to Budget Years	-1.902	-	-0.044	-	-0.044
• FFRDC	-0.005	-	-	-	-

Change Summary Explanation

Fiscal Year (FY) 2018 funding reduction reflects realignment of Army Research Institute manpower to a Management Headquarters PE; Realignment does not alter Research, Development, Test, and Evaluation (RDTE) Management Decision Packets (MDEPs).

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018	
Appropriation/Budget Activity 2040 / 3				**R-1 Program Element (Number/Name)** PE 0603007A / Manpower, Personnel and Training Advanced Technology					**Project (Number/Name)** 792 / Personnel Performance & Training		

COST ($ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
792: *Personnel Performance & Training*	-	12.110	6.466	8.044	-	8.044	12.632	12.798	16.834	17.254	0.000	86.138

A. Mission Description and Budget Item Justification

This Project matures and validates applied behavioral and social science technologies that enhance the Soldier Lifecycle (e.g., selection, assignment, training, leader development) and human relations (e.g., unit cohesion). These technologies provide advanced personnel measures that more fully assess potential and predict performance, behavior, attitudes, and resilience. These technologies also provide innovative and effective Talent Management methods to optimize individual and team performance to ensure the Army can meet mission requirements in uncertain and complex environments. This Project evaluates new selection measures, assignment methods, and performance metrics for individuals and units, assesses innovative training methods, and conducts scientific assessments to inform Human Capital policy and programs. Work in this Project will result in effective non-materiel solutions to help the Army adjust to changes in force size and structure, a variety of mission demands and contexts, challenges in human relations, and budgetary constraints.

Efforts in this Project support the Army Science and Technology Soldier portfolio.

Work in this Project complements and is fully coordinated with Program Element (PE) 0602785A (Manpower/Personnel/Training Technology).

The cited work is consistent with the Science and Technology priorities of the Army Chief of Staff, the Assistant Secretary of Defense for Research and Engineering Science and Technology priority focus areas, and the Army Human Capital Strategy.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Title: Talent Management	9.008	4.395	7.659
Description: Previously titled ?Personnel Assessment,? this effort refines and assesses innovative talent management approaches to provide the Army the flexibility to adapt to changes in force structure and recruiting environments. This effort validates Soldier selection measures, techniques, and tools to more fully assess Soldier potential and better predict behavior, attrition, and performance. This effort also matures and validates methods to develop and model Soldier talents/competencies longitudinally across a career. ***FY 2018 Plans:*** Validate competency model (i.e., a collection of competencies that together define successful performance in a particular work setting) of critical military occupations (e.g., cyber operations for more flexible personnel management of enlisted Soldiers). ***FY 2019 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2019 Army		Date: February 2018
Appropriation/Budget Activity 2040 *I* 3	**R-1 Program Element (Number/Name)** PE 0603007A *I Manpower, Personnel and Training Advanced Technology*	**Project (Number/Name)** 792 *I Personnel Performance & Training*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2017	FY 2018	FY 2019
Will demonstrate differential prediction of cognitive and non-cognitive abilities among Military Occupational Specialty clusters for incorporation into the assignment process to support forecasting of future talent management and human performance needs in near-peer operational environments; provide research to assess the validity of integrated personnel assessments augmented with archival human capital data; provide research to empirically validate instructional approaches to prepare instructors/trainers to train complex skills required for emerging high-tempo operational environments that necessitate decisive and timely decision making (e.g., dense urban and distributed units). *FY 2018 to FY 2019 Increase/Decrease Statement:* Increased funding will accelerate talent management assessments efforts.			
Title: Unit Performance and Cohesion *Description:* Previously titled ?Personnel Readiness, Performance, and Conduct,? this effort will mature and refine measures and methods to ensure cohesive, high performing teams for future operational environments. This effort will mature and assess methods to optimize team composition to enhance unit performance, methods to rapidly build and sustain team cohesion, and metrics and assessments of unit performance, command climate, unit resilience, and cohesion. *FY 2018 Plans:* Validate integrated holistic assessment that leverages existing personnel data (i.e., integrated measures collected across the Soldier Lifecycle that feeds holistic assessments and predictive models of behaviors, performance, and outcomes); demonstrate the effectiveness of strategies to optimize individual training performance (e.g., deliver prototype training tool to enhance PATRIOT air defense launch control crewmembers? fire control decision-making). *FY 2019 Plans:* Will refine measures of collective performance in combat training exercises. *FY 2018 to FY 2019 Increase/Decrease Statement:* Decrease in funding to support the acceleration of Talent Management assessment efforts.	3.102	2.071	0.385
Accomplishments/Planned Programs Subtotals	12.110	6.466	8.044

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

D. Acquisition Strategy
 N/A

Exhibit R-2A, **RDT&E Project Justification:** PB 2019 Army		**Date:** February 2018
Appropriation/Budget Activity 2040 *I* 3	**R-1 Program Element (Number/Name)** PE 0603007A *I Manpower, Personnel and Training Advanced Technology*	**Project (Number/Name)** 792 *I Personnel Performance & Training*

E. Performance Metrics
 N/A