Generating Force Analytics

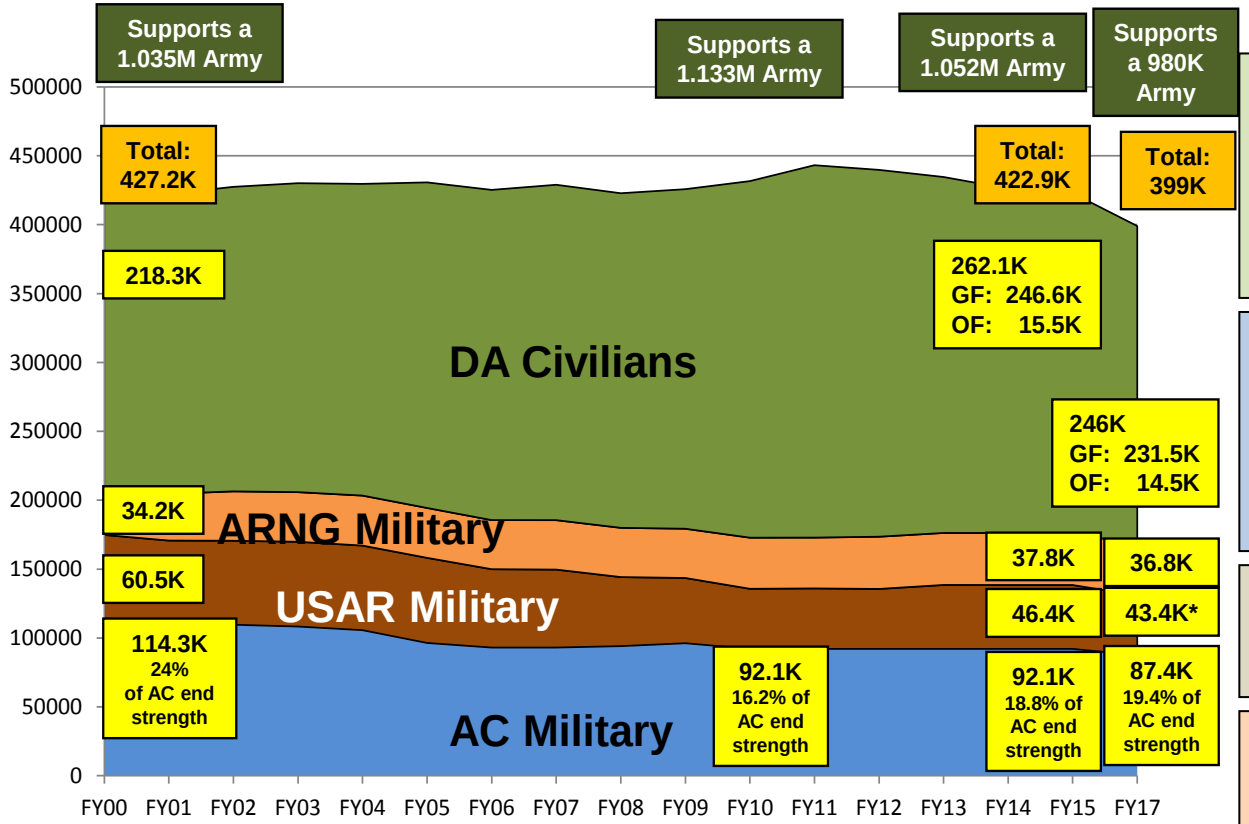
Briefing to the National Commission on the Future of the Army
18 June 2015

The Army's Generating Force

- **FM 1-01, Generating Force Support for Operations, dated APR 2008:**
  - The Army is divided into two functionally discrete but organizationally integrated entities. These are known as the operational Army and the generating force.
  - The operational Army consists primarily of units whose primary purpose is to conduct or support full spectrum operations. The generating force is that part of the Army whose primary purpose is generating and sustaining operational Army units by performing functions specified and implied by law.
  - As a consequence of performing those functions, the generating force also has capabilities that are useful in supporting operations in the current operational environment. Generating force support for full spectrum operations falls into three broad categories; adapting to the operational environment, enabling strategic reach, and developing multinational partner capability and capacity.
  - The generating force's primary mission—generating and sustaining the operational Army - determines its overall capabilities and capacity.

- **Total Army Analysis has further defined the Generating Force** as that part of the Total Army (Active Component and Reserve Component Military, Department of the Army Civilians and contractors) whose primary purpose is implementing Army policy, and generating and sustaining Operational Army formations.
  - It performs functions specified in law including designing, organizing, recruiting, training, equipping, modernizing, deploying and sustaining, to ensure readiness and availability of all Army forces.
  - Generating Force missions are the primary means by which the Operational Army's capabilities for employment by Joint Force commanders are generated and sustained.
  - The Generating Force also provides operational depth to the Operating Force by providing real-time reach back support and by deploying individuals, teams, or entire units to provide specific capabilities and functions for employment by or in direct support of Joint Force Commanders and the Operating Forces.

Building the Generating Force



	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY17
AC Military	114259	111179	109646	108322	105681	96412	93074	93074	94105	96205	92169	92100	92100	92100	92100	92100	87482
USAR Military	60548	59556	60950	61519	61411	61764	56881	56583	50128	47365	43561	43901	43529	46409	46373	46356	43429
ARNG Military	34151	33954	35837	36028	36283	36214	35628	35884	35748	35748	37108	36881	37906	37749	37752	37760	36781
DACs	218312	217640	221036	224257	226247	236312	239676	243443	242843	246467	258802	270292	266256	258370	249926	246615	231475
Total	**427270**	**422329**	**427469**	**430126**	**429622**	**430702**	**425259**	**428984**	**422824**	**425785**	**431640**	**443174**	**439791**	**434628**	**426151**	**422831**	**399167**

Note 1: Additional reductions expected in the USAR Generating Force*

Note 2: USAR structure does not include funded IMAs,.

Note 3: Enduring or long term contractors (CME) began documentation in FY08 and ended in FY14.

GF capacity decreasing across all manpower categories

Generating Force Capacity

Step 1: AC Military Allocation
- Active Component End Strength level
- Balance between Operational requirements and Generating Force spt
- Military Essentiality
- Rotational Base or Army expansion

Step 2: DA Civilian Support
- Long Term: Manpower funding and supporting authorizations
- Short Term: ($) temporary or term hires
- Continuity of operations, closely associated or inherently governmental

Step 3: RC supporting AC organizations
- ARNG and USAR AGRs (RC integration)
- ADOS support (additional capacity)

Step 4: Contractor Support
- Available dollars
- Surge capability and additional capacity

Step 5: Army Expansion
- Funded IMAs: assigned to AC organizations
- USAR and ARNG GF organizations (M-Day)

Strategic Assessment

A Generating Force assessment must be done at every AC end strength level for specific Command numbers. However from a historical perspective, literature search, and discussions with Commands the **Force Management conclusion is that overall military end strength allocated to the GF can be used to assess the band of military support.**

- 22-24+% of AC ES: optimal support, (1975-2003)
- 19-21% of AC ES: moderate support, (2004-2005)
- 18-19% of AC ES: marginal support (2006, 2014-2015)
- 16-17% of AC ES: minimum support (2007-2013, 2010 low point, 16.2% of ES)

Major factors that determine the AC Generating Force Military Floor:

- Size of the Army (End Strength of all three components)
- Activity of the Army (operations / modernization)
- Senior leader guidance and evaluation of:
  - Balance between Operating Force and Generating Force
  - Balance between Military and DA Civilian
  - Regeneration / Army Expansion
  - Risk

Defining the Floor - FY17

Issue: Regeneration
Building a bench to support expansion; BCTs, Long Lead MOS

GF MTOE	**4,658** CTC OPFOR, Bands, MP Dets
Recruiting – Requires Right Sizing for the future	**8,162 includes ASB** **Issue: AC and USAR AGR DMO Spt**
Acquisition / Testing / Futures	**2,414 – based upon modernization** USAASC, ATEC, AMC RDECOM, TRADOC Futures
MEDCOM - Coordination with OSD	**23,401** Accounted for in the GF however efficiently organized to provide medical services to the OF, dependents, other service members and the retiree population
HQDA - Headquarters Transformation - Focus Area Review Group - Comprehensive HQ Review	**2,654 (211 reductions FY18-19)** 883 – HQDA Staff 1,771 – HQDA FOAs
Army Organizations Supporting Defense Missions	**1,606** AMC; OPM-SANG/USASATMO SMDC ARCENT; US Military Tng Mission SA / TF Sinai Spt MEPCOM, MDW WTA ARNORTH; FEMA Region Spt, ANC ATEC Joint Test Element, INSCOM; NIP
Outside of Army Control Overhead to the Army	**8,762** 7,592 – Joint/Defense 1,170 – USASOC JFK
AC to RC support – Congressional Directive	**3,500** – mostly in 1st Army

87.482

Other Functions	**620** – DMOs, USACE, RC, INSCOM
CIDC Functions	**171** – Investigative Ops /agents
USARPAC Functions	**488** HQ Alaska, Hq USARJ, NCOA, MSE, AVN, UNC-JSA, ASE-K, MSC-K,
USAREUR Functions	**1,035** JMTC (744), COCOM Spt (105), Reg
TRADOC Training Functions	**22,041** Hq, IMT (13K), Functional Tng (2.8K), Leader Development (2.1K), AVN, CTC, DLI, Tng Spt & Dev, doctrine
IMCOM Garrison Functions	**1,402** Hq, Law Enforcement, Religious Spt, Garrisons
FORSCOM Functions	**2,919** Hq, MSEs, NTC/JRTC OPS Grps, 7ID Hqs, 3-353 A&A Bn
AMC Logistics Functions	**883** Hq, AMCOM, ACC, ASC, SDDC, CECOM, CMA, JMC, LOGSA
USMA / AWC / Cadet Command	**2,766** 725 – USMA Tier 1 University / ACI 118 – AWC Leader Development 1,923 – Cadet Command

Generating Force Analytics

Part I

Lead – CAA, Support - USAMAA

What drives the workload of the GF and how is it affected by changes in active Army end strength or other factors?

Command Top-Line Assessment

- CAA works with commands to provides top-line reference point for each command based on statistical workload factors
- HQDA conducts an initial feasibility assessment to consider strategic impacts
- HQDA identifies exempt force structure (e.g. must fund, Army/OSD Priorities)

Part II

Lead – USAMAA, Support - CAA

Can the GF continue to perform essential functions based on future resourcing decisions and priorities?

Command Functional Assessment

Functional Level models

- USAMAA provides commands a functional assessment based on command top-line reference point and military value analysis
- Where required, USAMAA conducts specific functional level models (e.g. IMCOM CLS models)
- HQDA and commands meet to discuss feasibility and functional impacts and timeline

Part III

Lead – ASA(M&RA), G-3, G-8; Support – CAA/USAMAA

How do you resource the GF?

Senior Leader Decision

- ASA (M&RA) G3-FM/G-8 PA&E brief outcomes of command reconciliation for senior leader decision

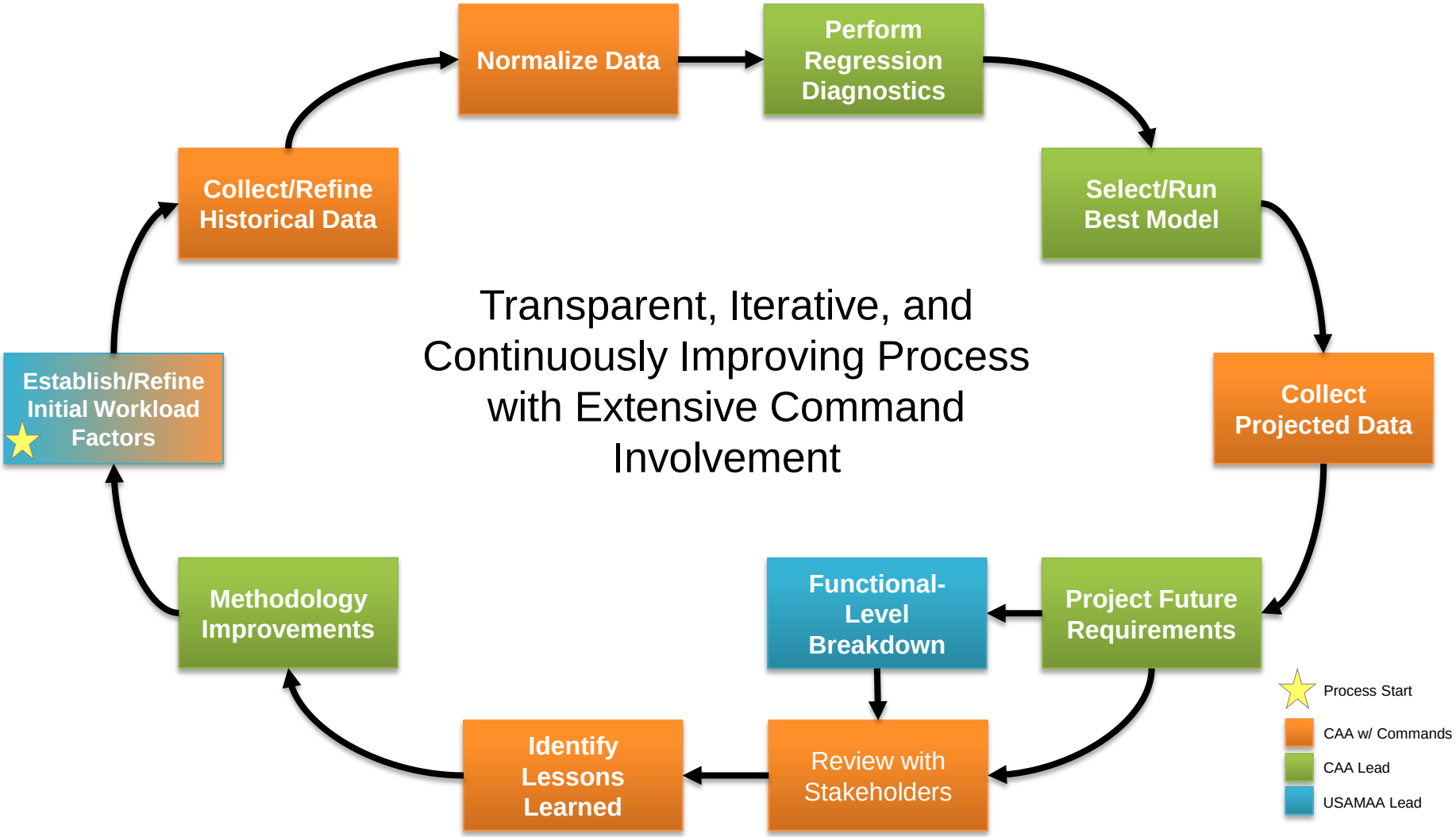
Resourcing the Generating Force

Part I – Command Top Line Assessment

- CAA reviewed two RAND methodologies attempting to provide analytical underpinnings to the Generating Force and has developed a flexible strategic-level methodology to assist senior leaders in the requirements determination process expanding on RAND's work.
- Current approach utilizes Multiple Linear Regression methods to establish command-level correlations between hypothesized workload factors/proxies and manpower requirements (civilian and military performed separately).
- Problem formulation and data collection maintained significant command involvement to ensure transparency of methodology and correct data sources.
- Final output will provide senior leaders a top-down tool to assess future command manpower requirements based upon expected future events.

Provide ability to project GF manpower requirements into out-years…

Overview of Evolving Methodology



Initial Cycle Focused on Subset of GF Commands: HQDA, AMC, TRADOC, FORSCOM, MEDCOM, & IMCOM

Example of Independent Variables

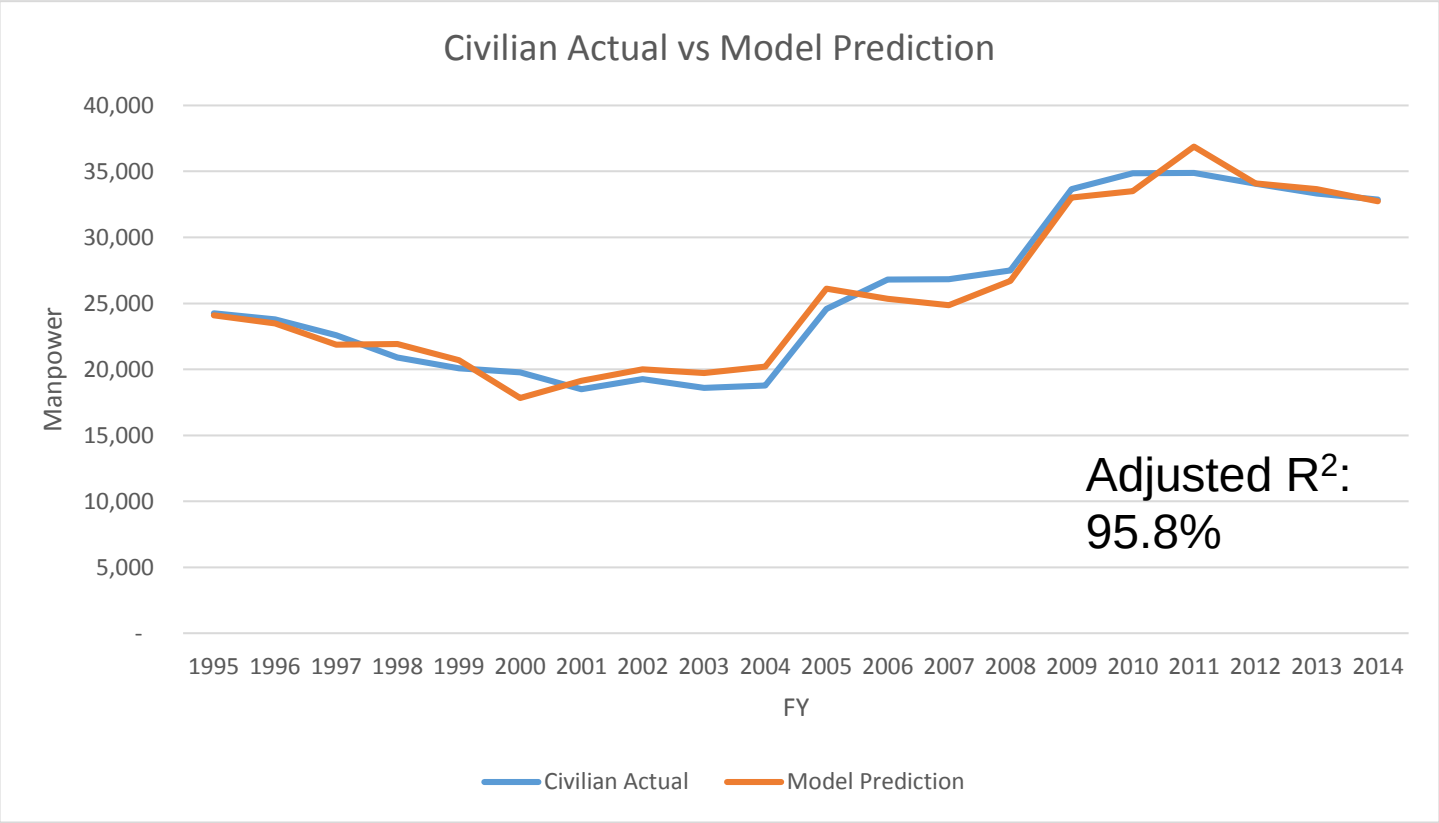
- HQDA
  - Number & size of staff organizations, # of taskers, Size of the Army.
- AMC
  - Research funding, # of items managed, # of parts repaired, # of installations.
- FORSCOM
  - # of BCTs in the Army, # of unit activations/deactivations/ conversion, Size of the Army.
- TRADOC
  - # of students trained, # of schools, # of courses.
- IMCOM
  - # of installations, # of buildings, Total base population.
- MEDCOM
  - # of hospitals/clinics, # of inpatient and outpatient days, % of care conducted direct vs purchased.

Modeling Example

Regression Equation:

$$Civs = -26869 + 452.8 * X_1 + 13.3 * X_2 + 0.3 * X_3$$

Regression Performance:



Part II - Command Functional Assessment

- A functional approach (using OSD Functions) is one way to view the Army's Generating Force
- Modelling functions in the Generating Force based on their size and priority can redefine functions from a "salami slice" cut to a functional reduction by command
- A functional approach is tied to program elements, can be replicated objectively and is a baseline from which commands can provide feedback
- This analysis is designed to provide a range of solutions to reduce, maintain or grow the Army's Generating Force based upon functions vice command stovepipes

Provide choices: Redistribute external, realign internal, or divest function…

Functional Analysis by Command

COMMAND BY FUNCTION - (FIC)

KEY: FY15 | Output | Reduction Range | Growth Range | Output Out of Range

COMMAND BY FUNCTION - (FIC)	FY2009-FY2015 Mini-graph	-1 STD DEV	FY15	MEAN (FY09-FY15)	+1 STD DEV	Range - FY15 and Modeled Output (Below FY09-15 Average / AVERAGE / Above FY09-15 Average)	Reduction by Function/Unit and Priority: % Reduction From FY15	Reduction by Function/Unit and Priority: PAX REDUCED	MODELED SOLUTION (GOAL)
Total – MIL AND CIV		10,085	10,129	10,954	11,823		-10%	(1,037)	9,092
		-8%			8%				
CPA - Acquisition of New Personnel		3,299	3,299	3,299	3,299		-9.9%	(328)	2,971
Central Training - Transition Training		1,641	2,760	2,305	2,968		-10.6%	(293)	2,467
Ground Combat		3,215	2,708	3,940	4,666		-10.1%	(275)	2,433
DM - Management Headquarters		882	898	927	972		-10.4%	(93)	805
CPB - Other Personnel Benefits		222	222	222	222		-10.2%	(23)	199
Central Training - General Training Activities		132	196	295	458		-10.9%	(21)	175
FMI - Base Operations Support		-22	21	76	173		-11.3%	(2)	19
Operational Comand and Control Systems (C2S)		0	10	5	9		-10.8%	(1)	9
Air Control		8	9	10	11		-10.7%	(1)	8
Central Training - General Skill Training		-1	4	1	2		-10.4%	(0)	4
Training		1	1	1	1		-11.0%	(0)	1
Operational Headquarters		1	1	1	1		-9.2%	(0)	1

- Overall reduction will be determined in CAA Top Line Assessment
- 10% reduction shown in chart is notional

Way Ahead

- **CAA and USAMAA will work with G3 FM to institutionalize functional analysis for TAA 19-23.**

- **Continue to develop innovative analytical approaches to right-sizing the generating force to meet the future needs of the Army**