



**United States Military Academy
Department of Systems Engineering**

**ATOMM:
Army Transformation Officer
Management Model**

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Agenda

- Problem
- Background
- ATOMM
- ATOMM Analysis
- Future Work
- Conclusions



Problem

Develop an officer strength management tool for the United States Army that will provide depth and insight to analysts and policy makers in comparing personnel strategy alternatives.



Background

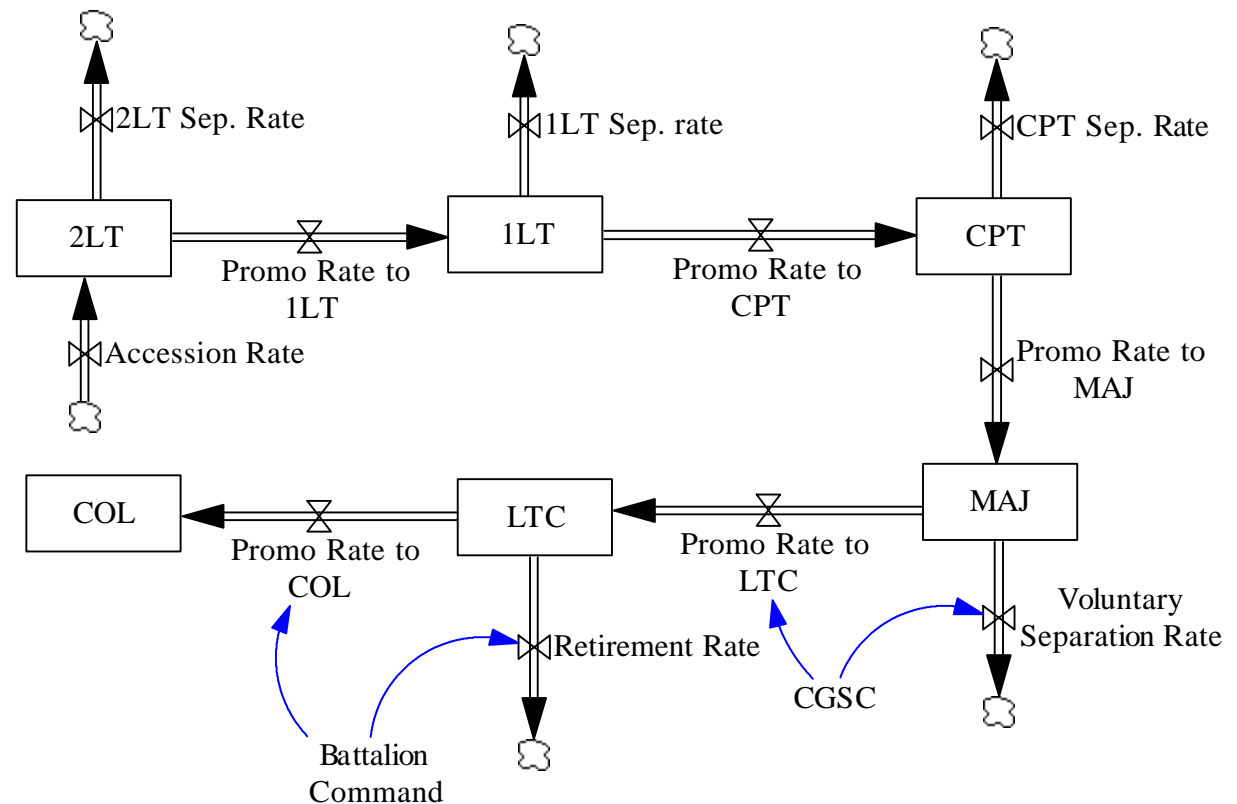
- US Army officer promotion system has changed from a single path system to a multiple path system
- Currently, LT and CPT authorizations and operating strength are not aligned
- Current analytical models though effective, are not as robust, as flexible, or as responsive as the rapidly changing environment demands.



Background

Officer Career Path - Pre OPMS XXI

This model shows the US Army's Officer Career Path prior to OPMS XXI. It is a classic "up or out" system with two key gates – selection for Command and General Staff College (CGSC) and selection for battalion command.

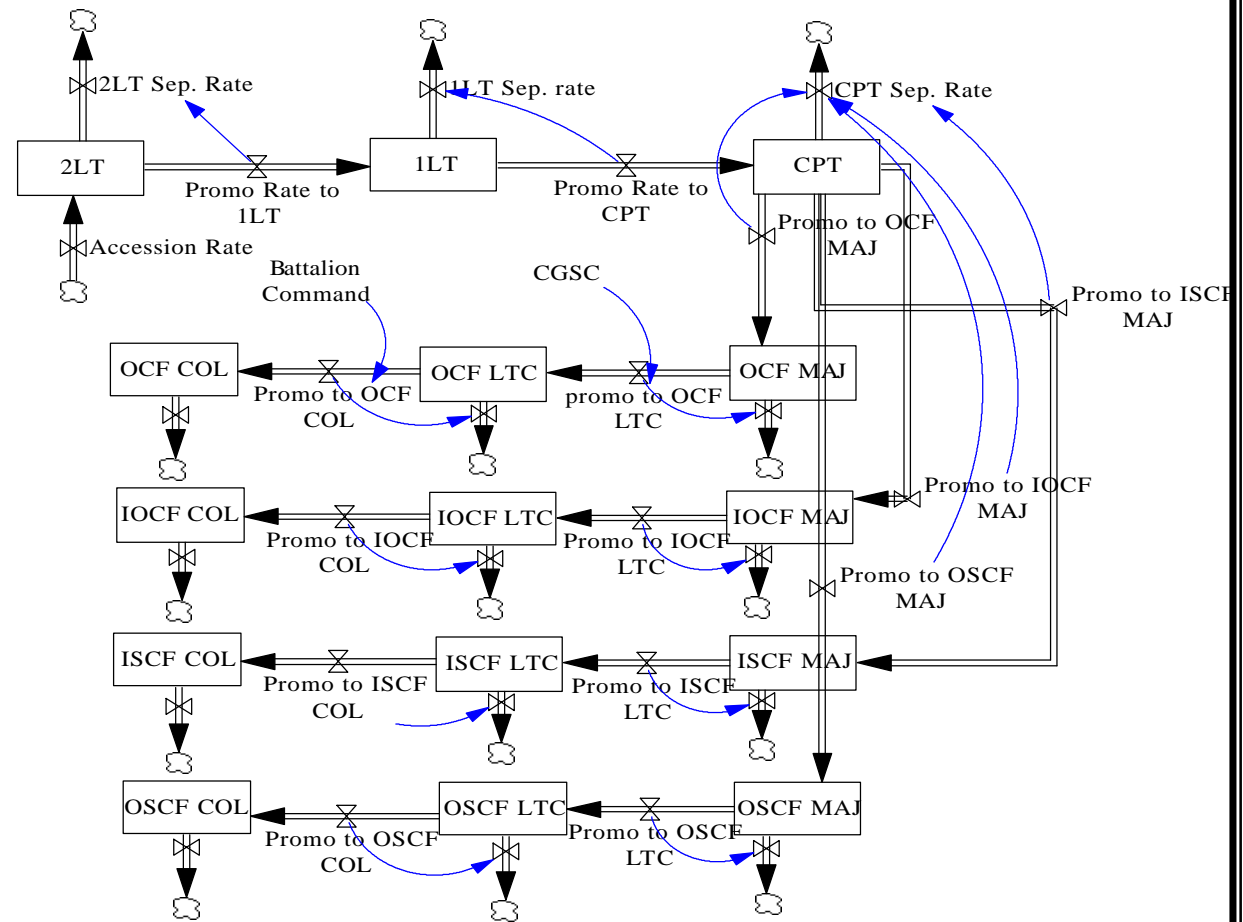




Background

Officer Career Path - OPMS XXI

This model shows the US Army's Officer Career Path Under OPMS XXI. It remains an "up or out" system, but more paths to promotion are available.





Army Transformation Officer Management Model (ATOMM)

- Officer strength management tool
- Provides greater analytical capabilities for personnel analysts than current spreadsheet models
 - Provides the ability to answer strategic “what if” questions quicker
 - Provides better and faster graphical output capability
- Built upon current spreadsheet model data



Army Transformation Officer Management Model



- Stock and Flow Model
 - Stocks: Army Officers
 - Flows: Promotion Rates, Attrition Rates
- Model uses data for FY99-02
- Forecasts used for FY03-05



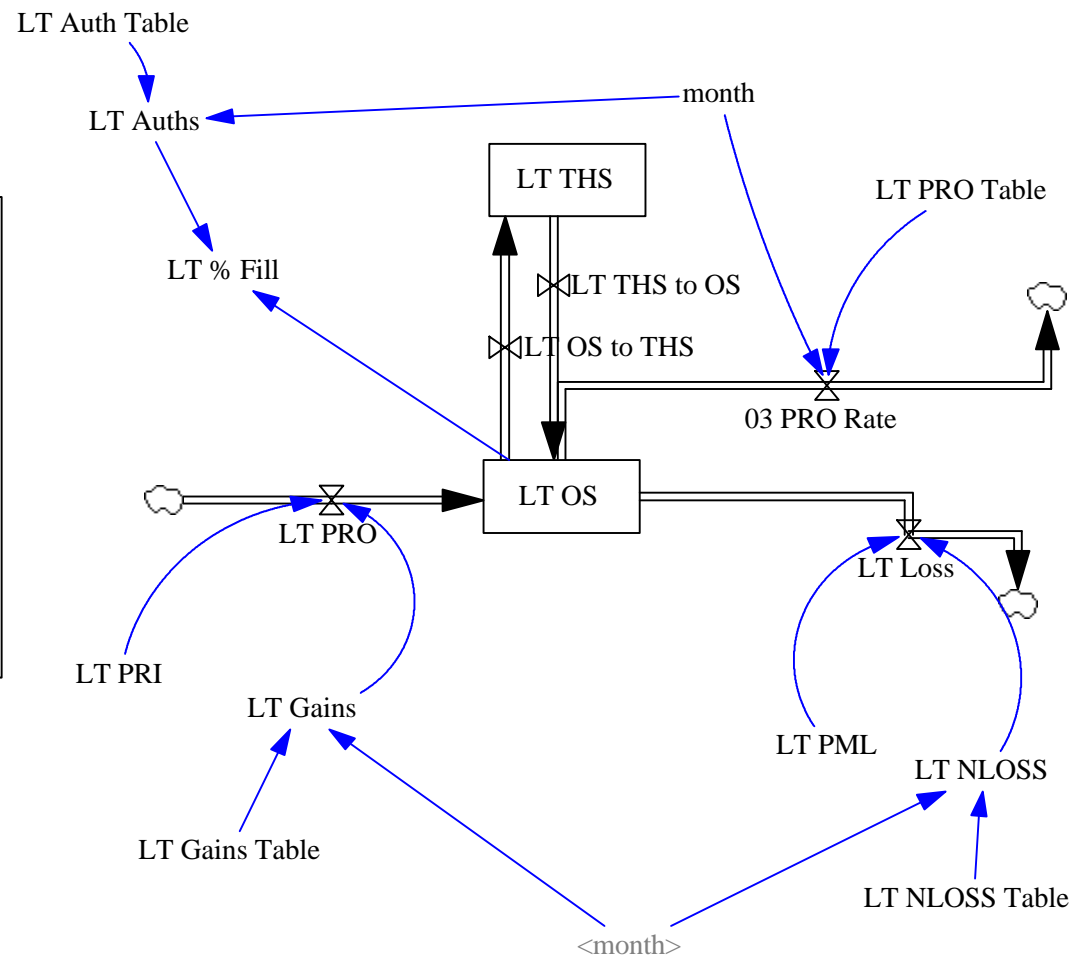
ATOMM Development

- Collaboration between USMA DSE and US Army G1 (Personnel)
- Modular development by rank
- Step modular integration
 - LT with CPT
 - LT and CPT with MAJ, etc.



ATOMM - LT

AUTH – Authorizations
 PRO – Promote Out
 PRI – Promote In
 OS – Operating Strength
 THS – Trainees, Holdees &
 Students
 PML – Program Loss
 NLOSS – Natural Loss





ATOMM – LT Output

LT Base

LT OS

20,000

14,000

8,000

"03 PRO Rate"

4,000

2,000

LT Loss

400

200

LT PRO

4,000

2,000

0

1

Time (Month)

31

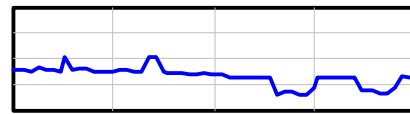
60

LT OS to THS

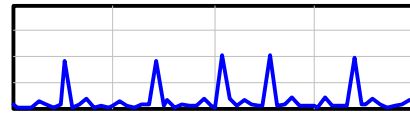
LT Base: 1,712

LT THS to OS

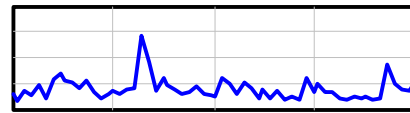
LT Base: 1,712



LT Operating Strength

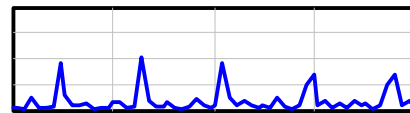


Factors that Affect LT Operating Strength



- Promotion to CPT

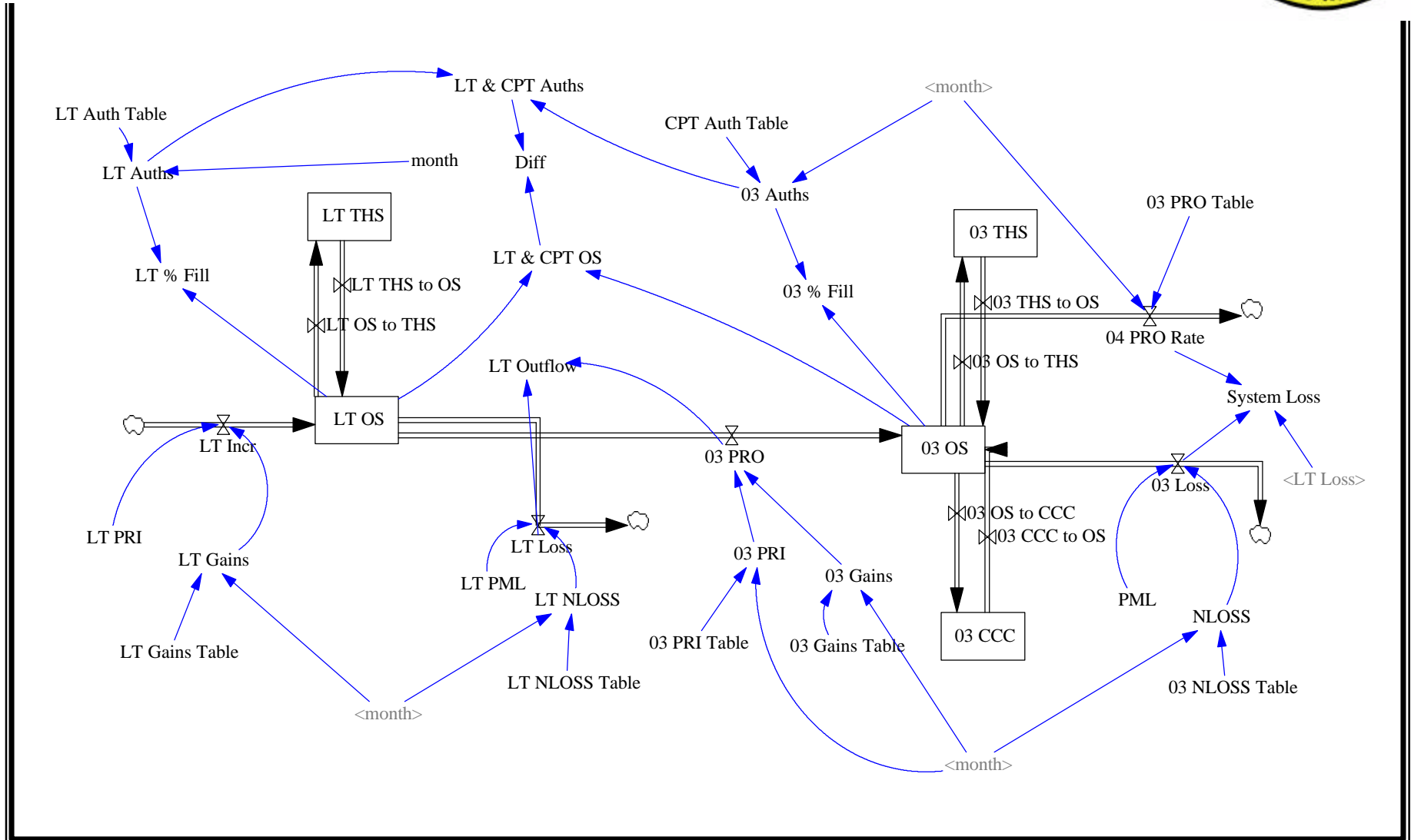
- Attrition



- LT Accessions



ATOMM – LT & CPT

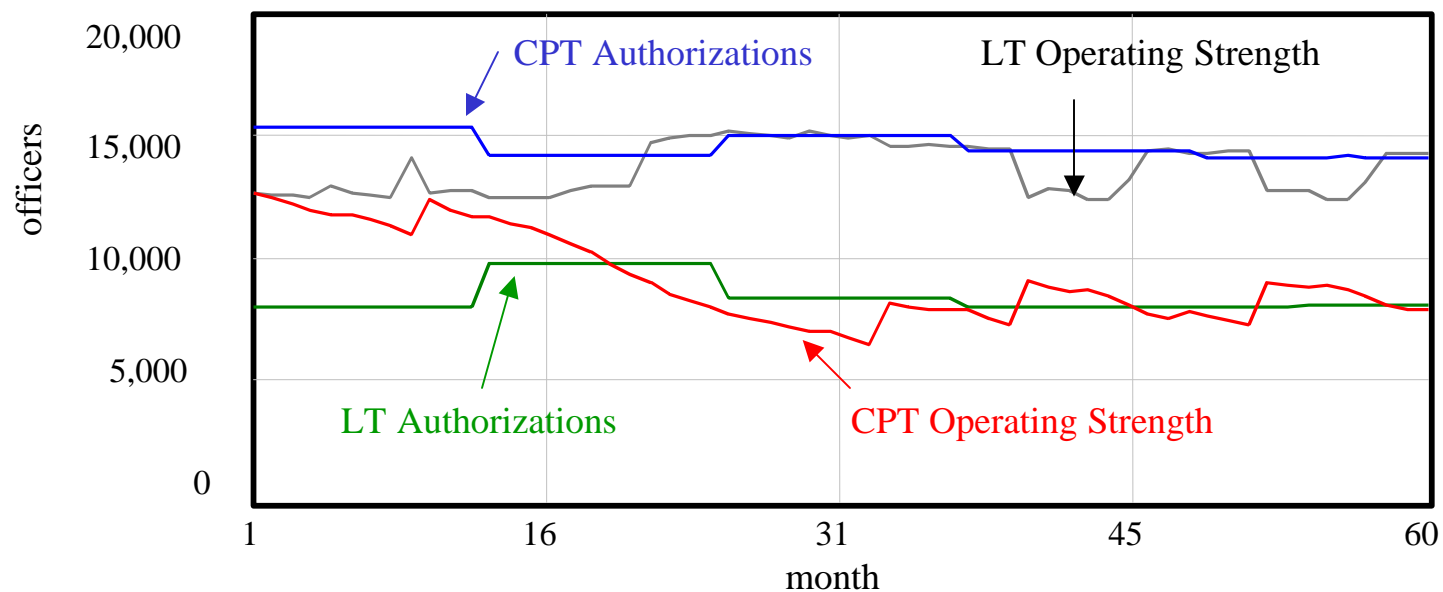




ATOMM Analysis

Problem: LT and CPT authorizations and operating strengths are not aligned...

LT & CPT Authorizations and Operating Strength

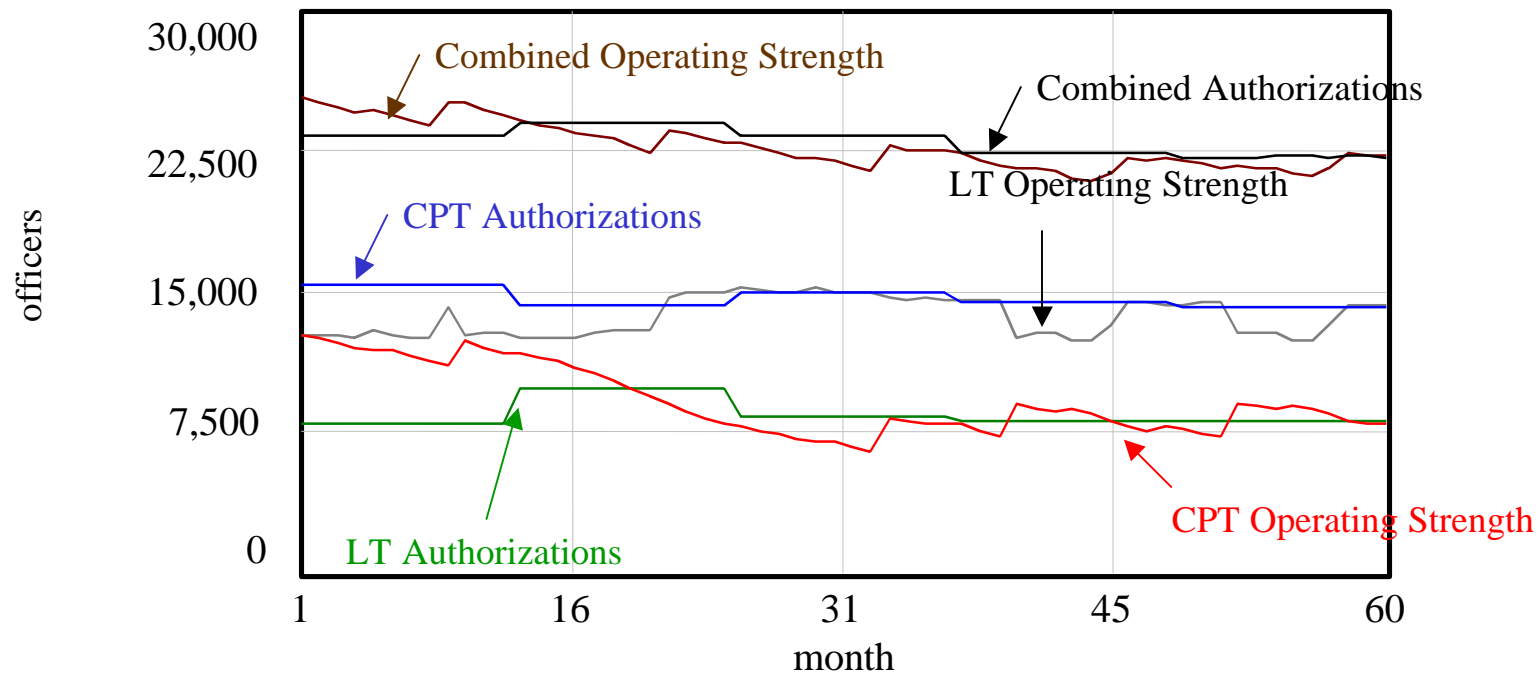




ATOMM Analysis

Problem: LT and CPT authorizations and operating strengths are not aligned...but combined authorizations and operating strengths *are* aligned

LT & CPT Authorizations and Operating Strength

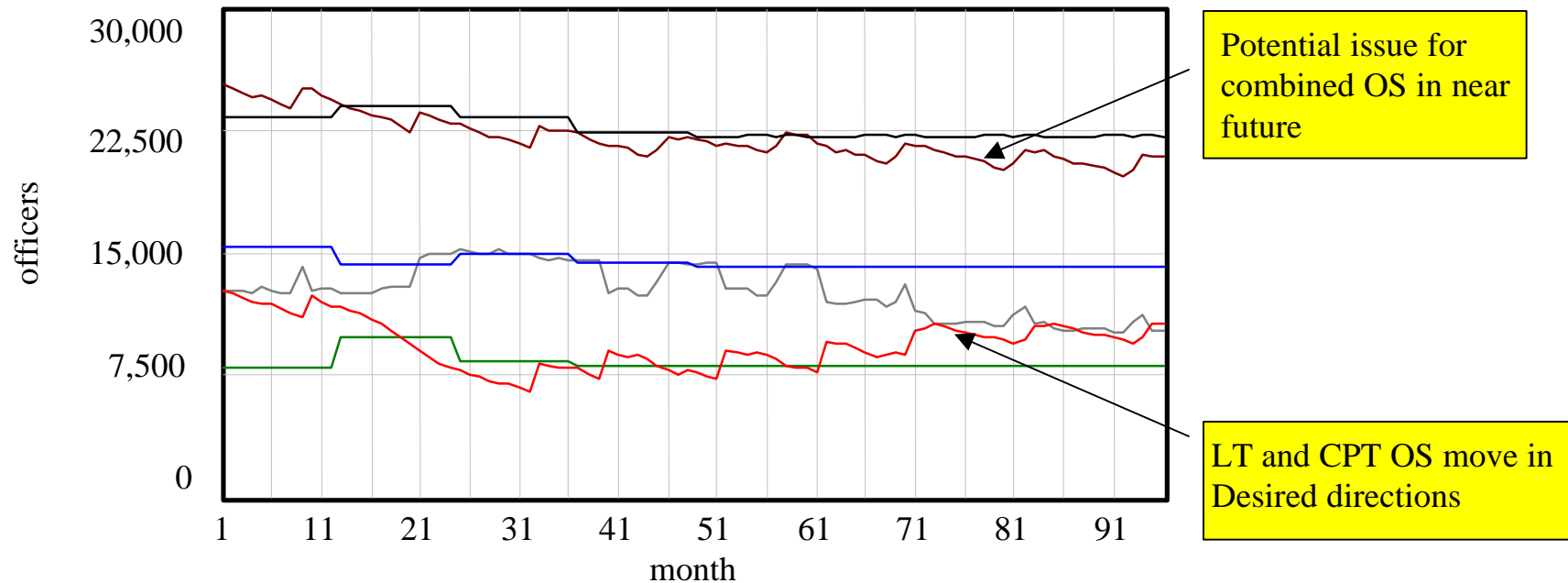




ATOMM Analysis

Strategy: Promote LT's to CPT earlier.

LT & CPT Authorizations and Operating Strength





ATOMM Analysis

New Questions

- Why did CPT and LT operating strengths and authorizations diverge originally.
- What to do about the remaining gap between LT/CPT operating strengths and authorizations
- What will reduce the gap between future combined operating strength and authorizations.



ATOMM

Future Work

- Integrate costs into the model
- Show policy impact on higher ranks
- Analyze additional strategies
 - Universal Intermediate Level Education
 - Captain's Career Course – Temporary Duty instead of Permanent Change of Station
- Continue collaboration with Army G1 Personnel Analysts to insure model meets their requirements



ATOMM

Conclusions

- Provides greater analytical capabilities for personnel analysts than current spreadsheet models
 - Provides the ability to answer strategic “what if” questions quicker
 - Provides better and faster graphical output capability
- Built upon current spreadsheet model data
- Unlimited potential for growth in US Army personnel analysis



Questions



References

- *Commissioned Officer Development and Career Management*, DA PAM 600-3, Headquarters, Department of the United States Army, Washington, DC, 1998.
- Serman, John D. *Business Dynamics: Thinking and Modeling for a Complex World*, Boston: Irwin McGraw-Hill, 2000.