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Predicting the Future Demand for Army Accommodation

ISMOR 23
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Introduction to Peacetime Army Accommodation

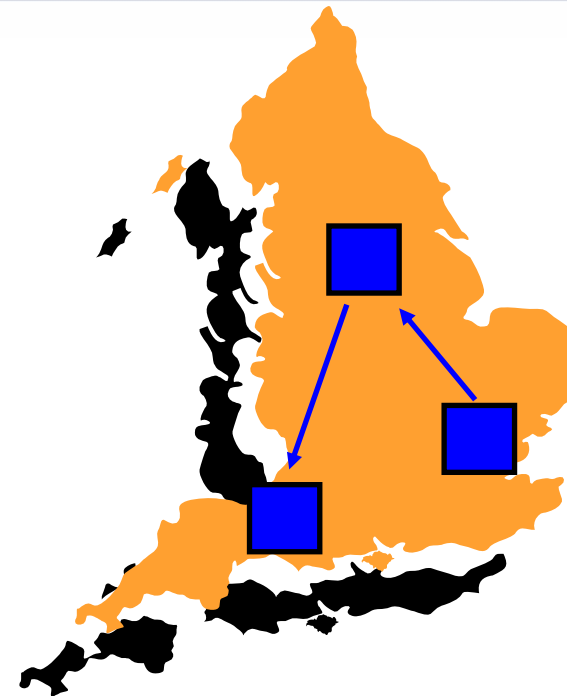
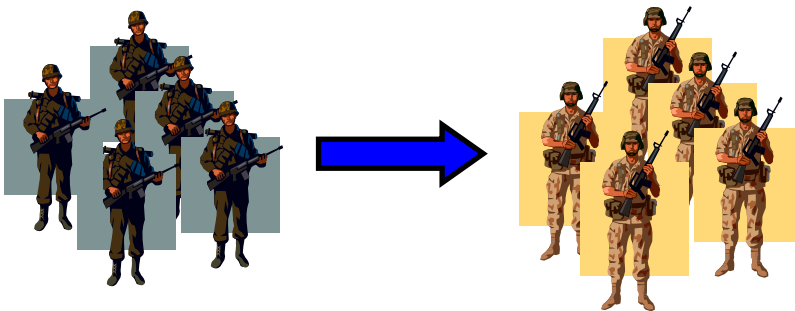
- The Army has an obligation to provide accommodation to all of its personnel who request it
- This includes houses for married personnel and barracks for single personnel



- The Army currently has a policy of encouraging “accompanied service”
 - i.e. the preferred option is for families to live with servicemen/women

Introduction to Peacetime Army Accommodation

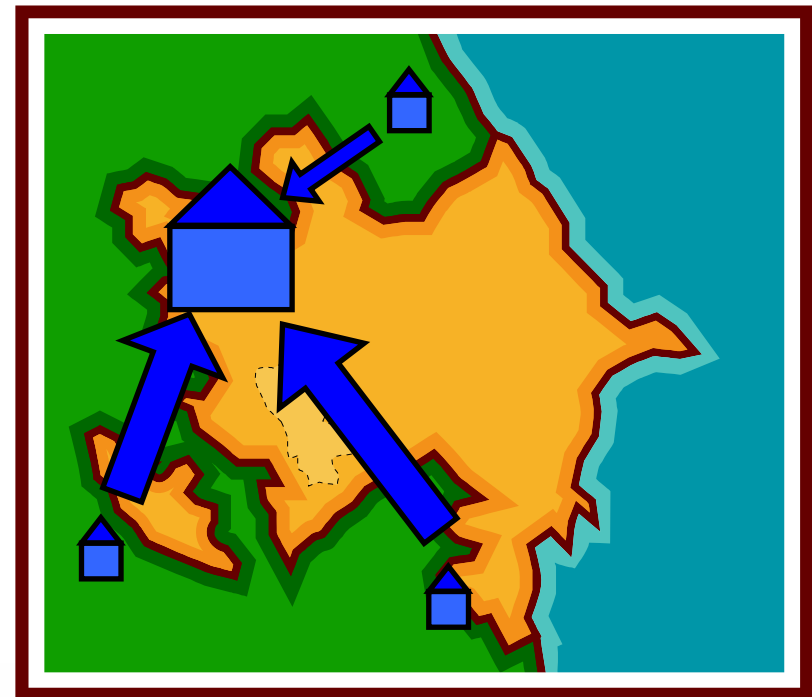
- Currently the Army has high mobility
 - Individuals move between units
 - Units move geographically



- This makes Army accommodation a complex management problem

MoD Requirement

- Supergarrisons
 - Strategy for the Army Estate 2003
 - Consolidation to some 8 large Garrisons
 - Benefit of increased stability
- Changes over time
 - Which factors drive demand?
 - e.g. attitudes to permanent relationships, property owning, lifestyle aspirations
- Manage transformation
 - Army Infrastructure Organisation (AIO)
 - Method to determine accommodation demand in order to manage transformation period to super garrisons



CORDA Requirement

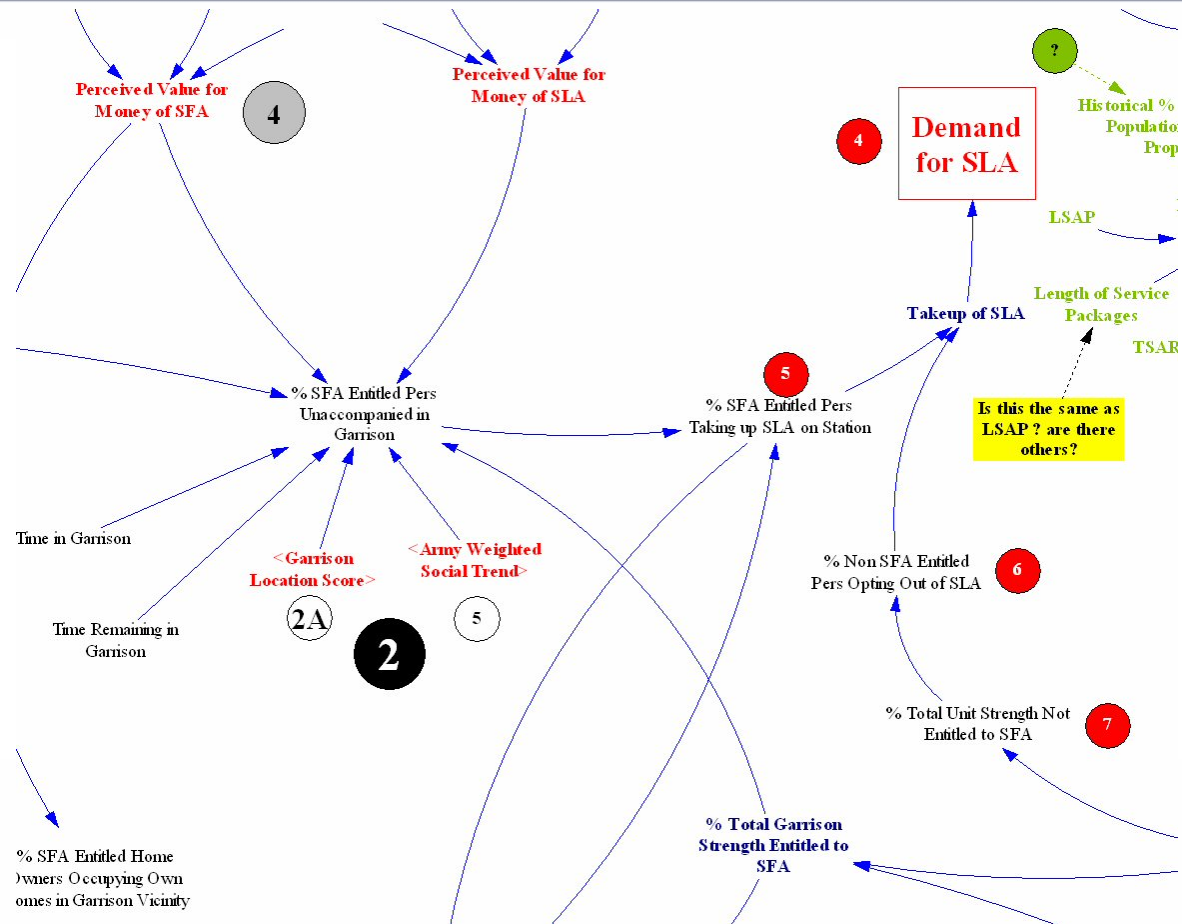
- Develop model
 - To develop a verified model to manage transformation
 - Ability to calculate **demand** for houses and barracks over various scenarios and timeframes
- Validate model
 - To validate the model using data representing a sample garrison
- Analysis
 - To use the model to calculate demand across a range of scenarios
 - To deliver the model for use as a permanent analysis capability

Key Challenges

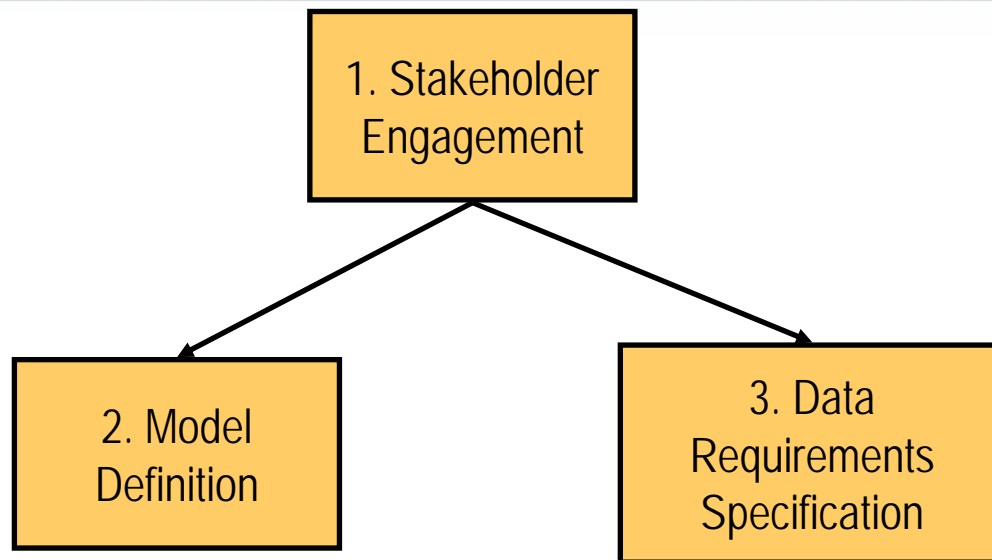
- Stakeholder management
 - Directorate Army Personnel Strategy, Defence Estates, Garrison/Bde HQs, Service Personnel (Policy), Defence Analytical Services Agency, etc
- Model development and delivery
- Individual's perceptions and circumstances
 - These influence policy impact and hence model results
 - e.g. importance of schools and/or spouse's career
- Identification of key drivers
 - Relative importance of policy areas to external drivers
 - e.g. housing allowances vs housing market

Study Method

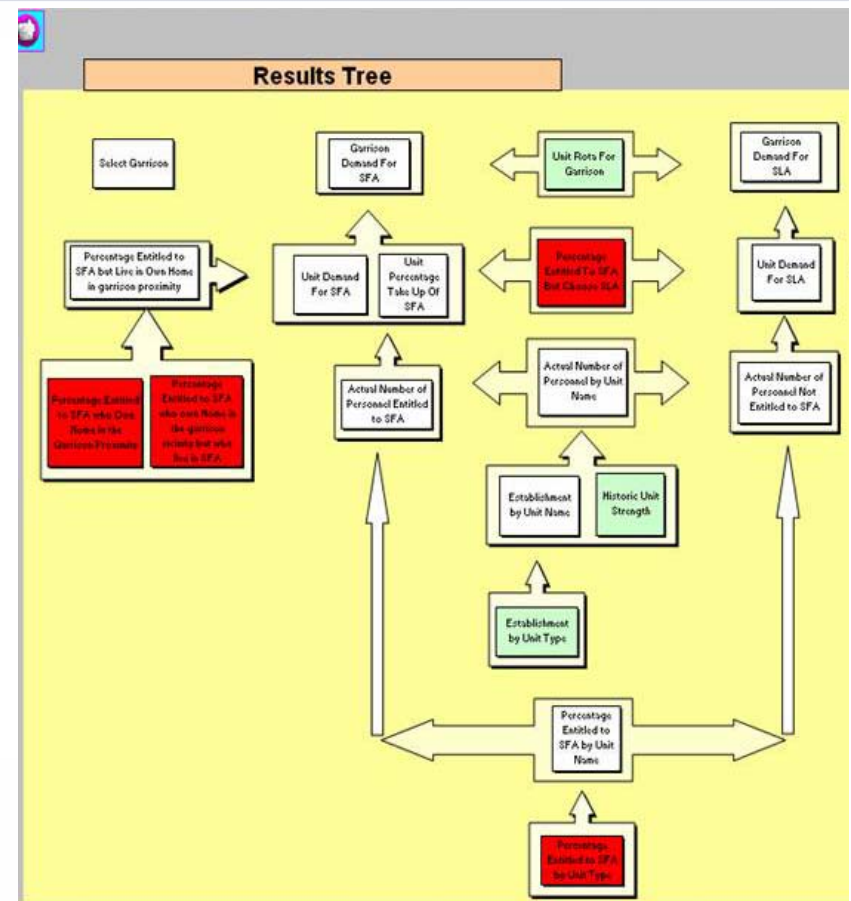
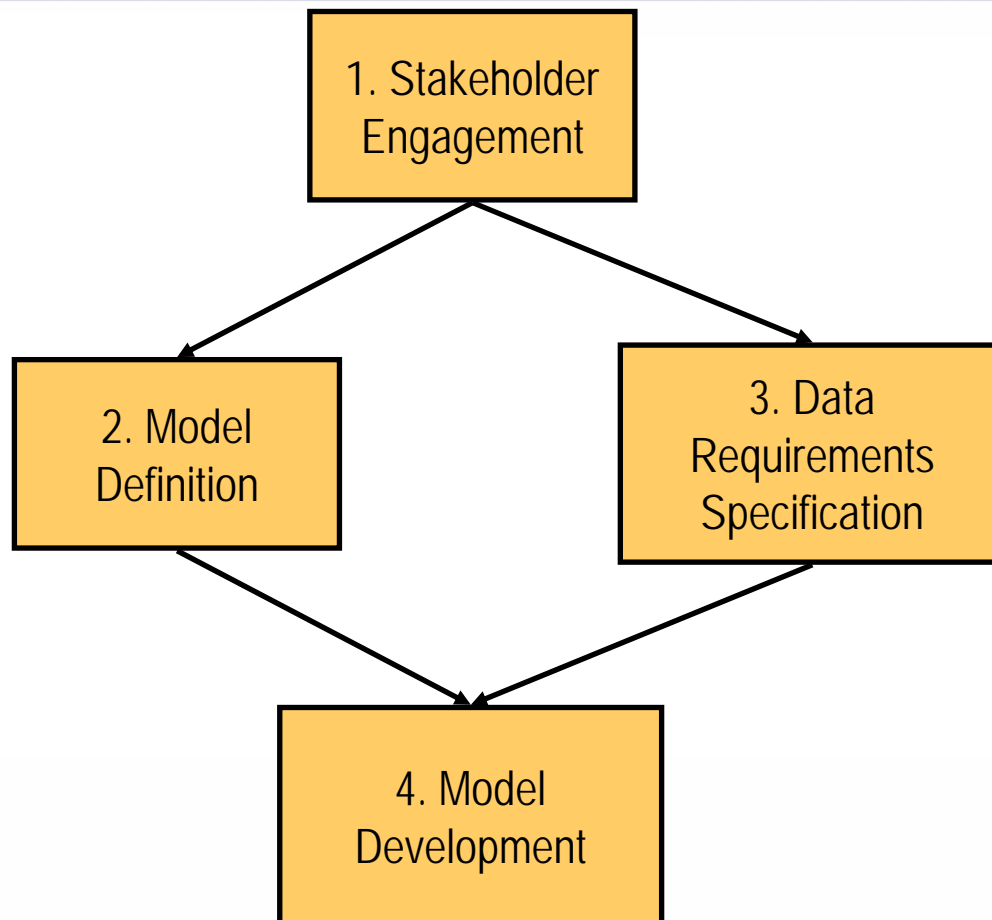
1. Stakeholder Engagement



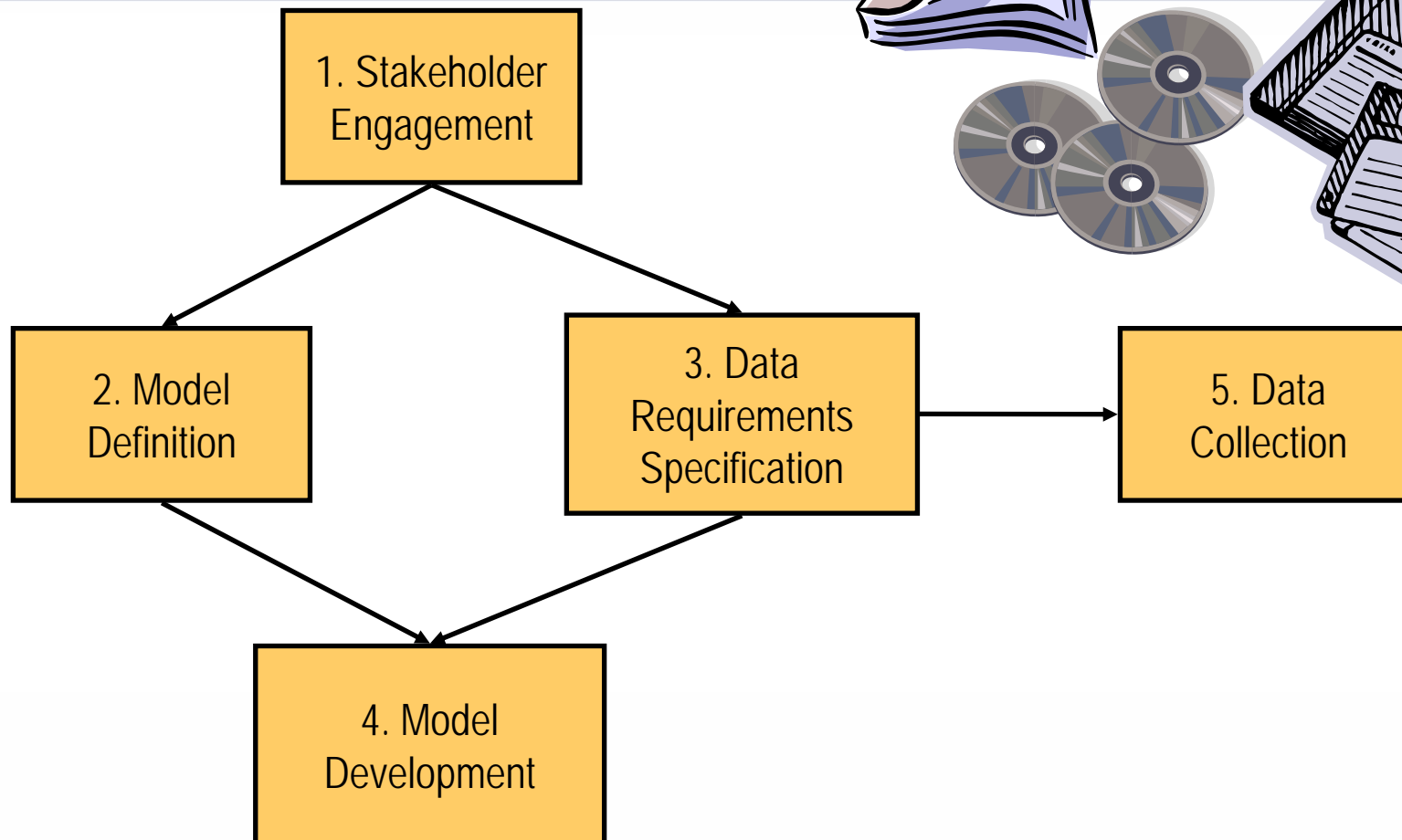
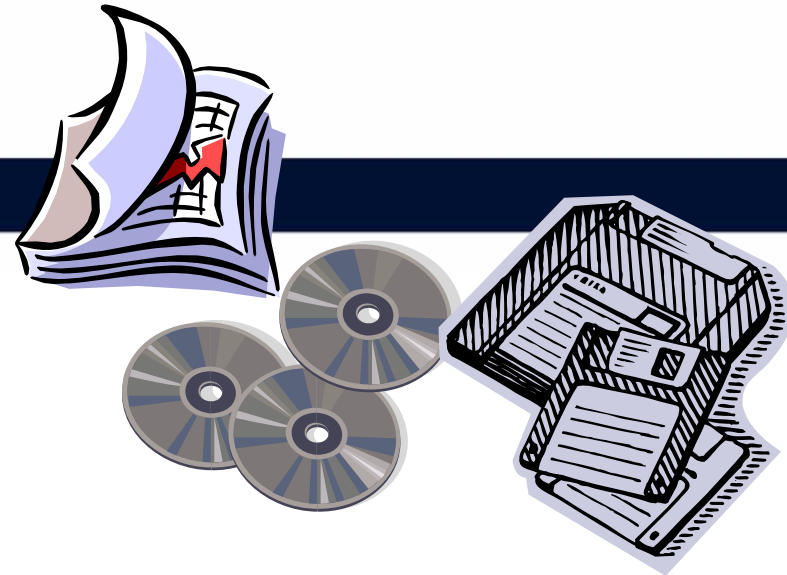
Study Method



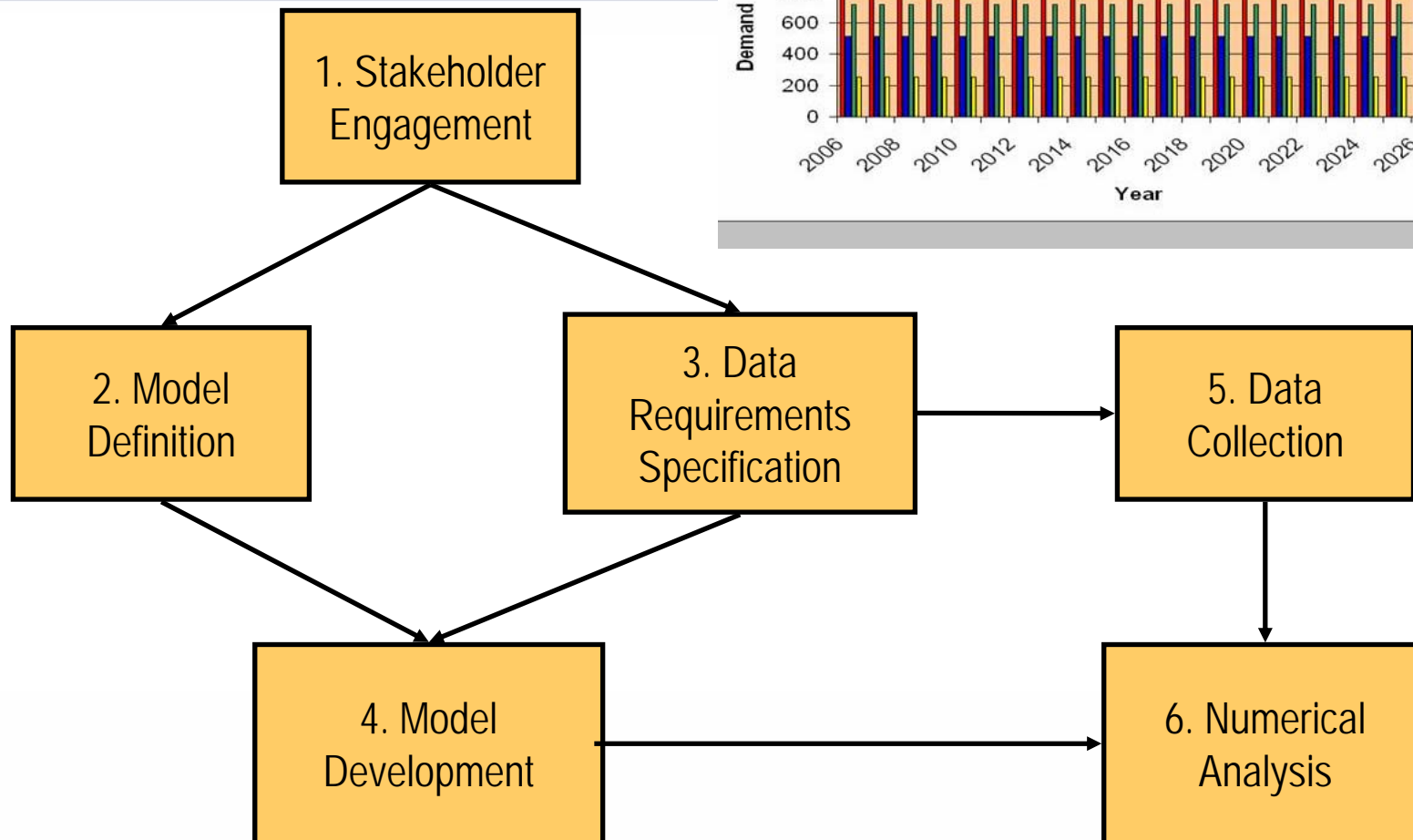
Study Method



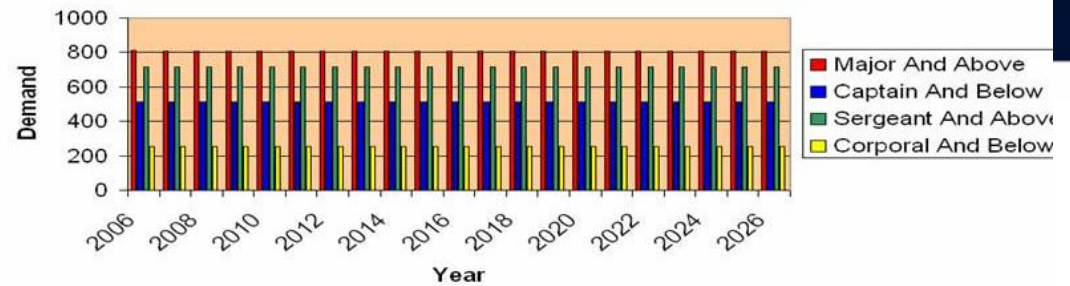
Study Method



Study Method

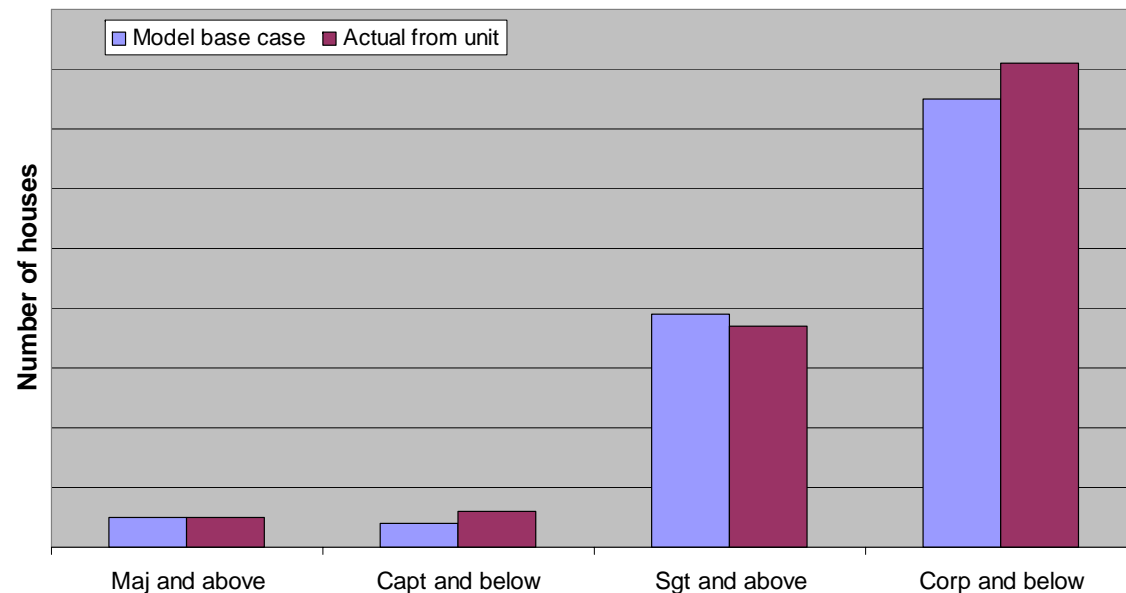


Garrison Demand For SFA



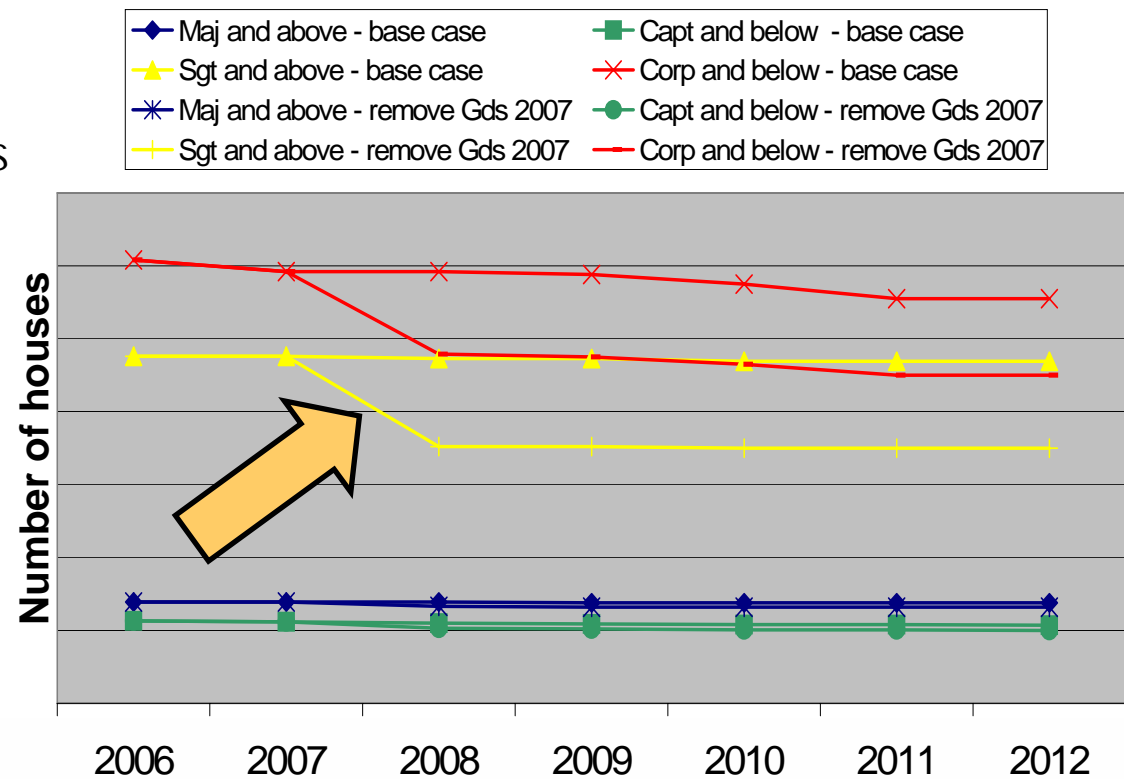
Model Outputs (1)

- **Output:**
 - Demand for one garrison at a specific time
- **Benefit:**
 - Tactical planning of local resources to inform specific investment
- **Study Applications:**
 - Short-term management of houses/barracks
 - Used in this study to validate the model



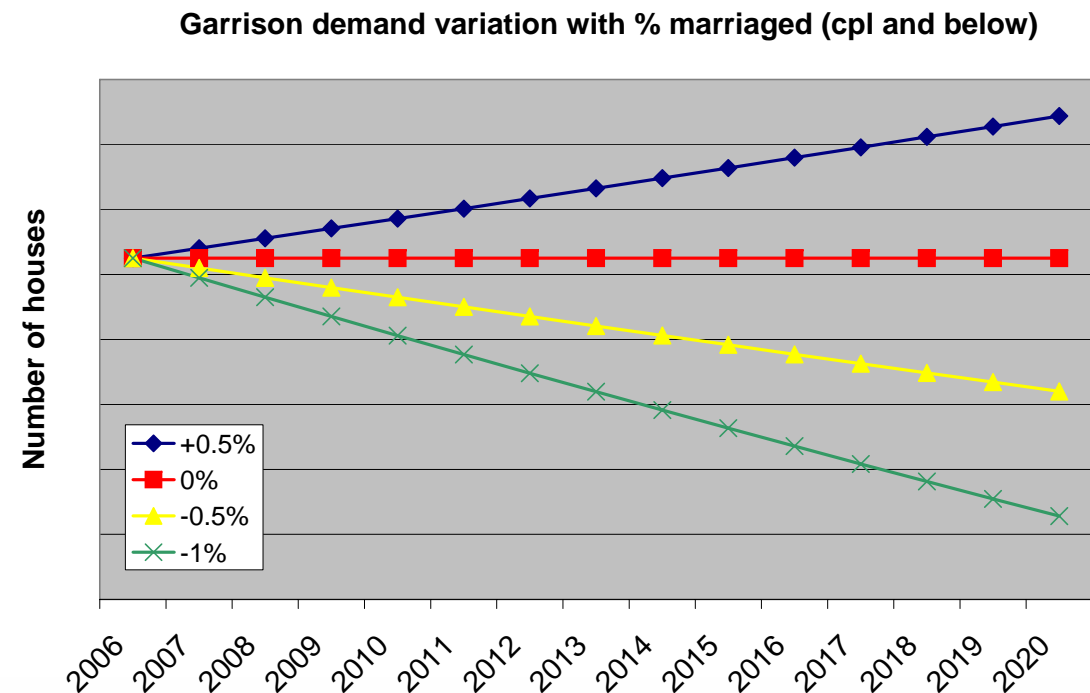
Model Outputs (2)

- **Output:**
 - Demand given unit movements over time
- **Benefit:**
 - Strategic planning of national resource pool
- **Study Applications:**
 - Implications of unit movement plots
 - Long-term management of houses/barracks



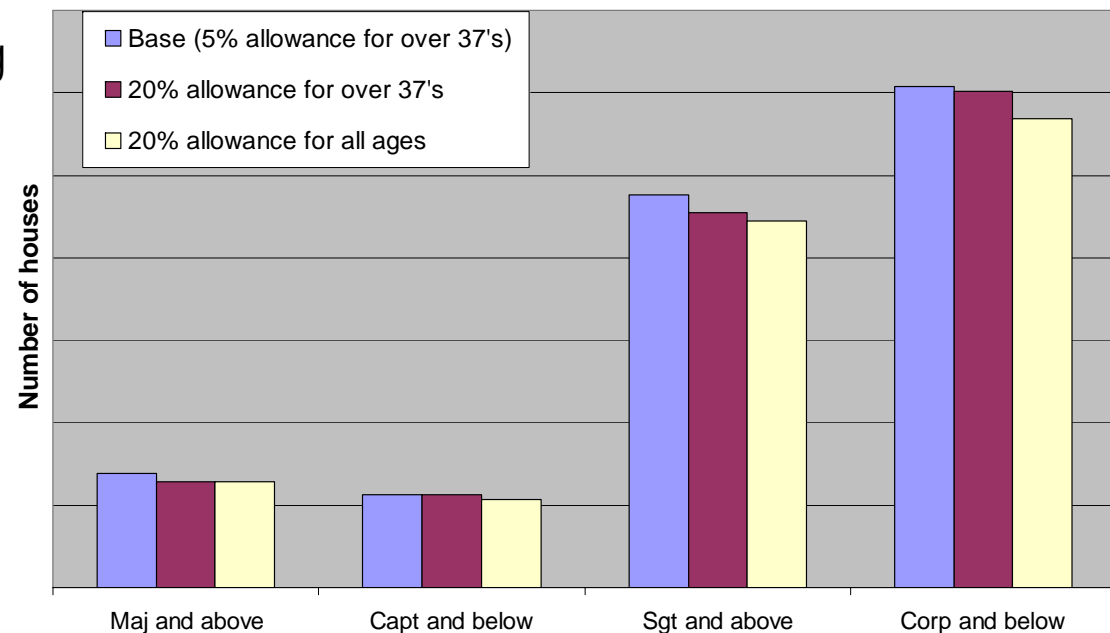
Model Outputs (3)

- **Output:**
 - Impact of external influences e.g. marriage rate
- **Benefit:**
 - Consideration of softer, people-oriented, issues
- **Study Applications:**
 - “What if” analysis of issues outside the control of the Army



Model Outputs (4)

- **Output:**
 - Impact of policy e.g. housing allowance
- **Benefit:**
 - Support to policy decision e.g. business case preparation
- **Study Applications:**
 - Lessons learnt on specific policies
 - Can inform SP(Pol) policy decisions



Conclusions (1)

- CORDA successfully scoped the problem domain, then specified, developed, populated, validated and delivered a model to cover it
- Challenges were overcome through application of:
 - Structured facilitation methods
 - Quantitative modelling through process-driven software development
 - Analysis to identify the impacts of trends in personnel issues
 - Analysis of system behaviour to identify drivers
- Generally the approach worked well. In particular early exposure to, and buy-in from, stakeholders was important and well-received