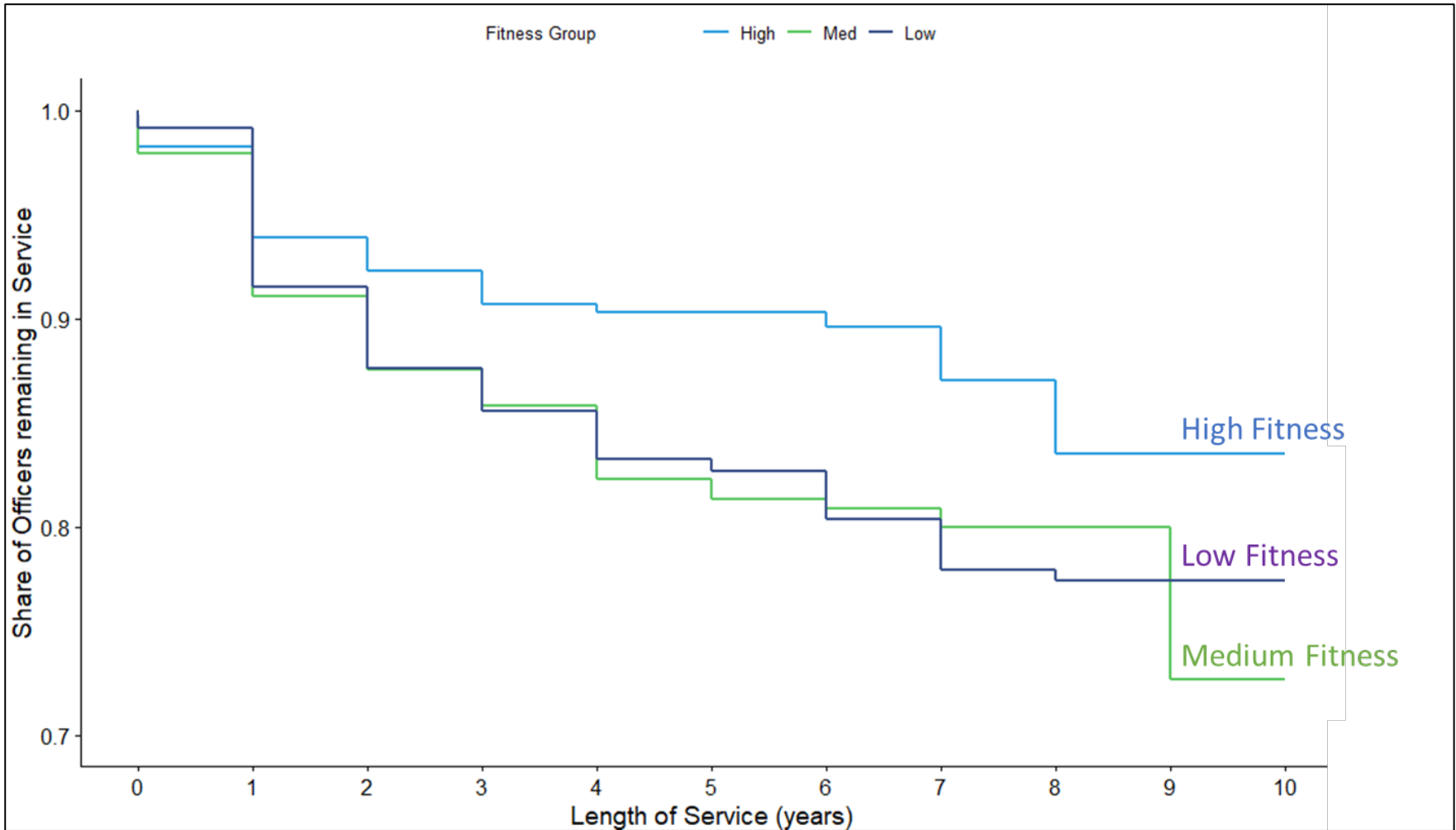


Abstract

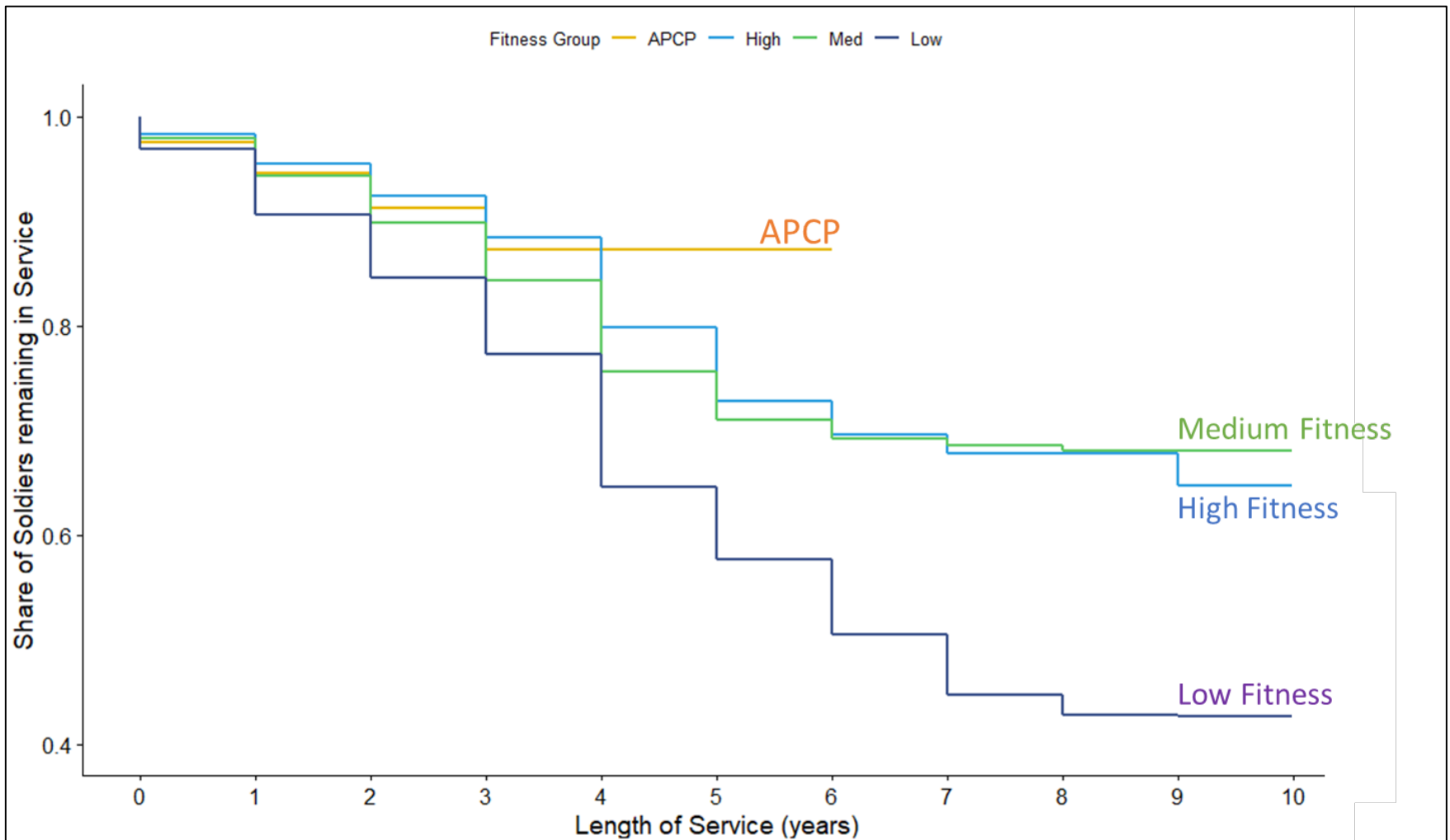
Achieving recruiting targets is a key issue for the Australian Defence Force, and the Australian Army is considering lowering fitness standards to confront this challenge. This thesis evaluates the effects of fitness on initial training success and length of service in the Australian Army. My survival analysis shows that fitness is crucially important for maximizing retention in the Australian Army, whilst highlighting the effectiveness of innovative recruiting programs such as the Army Pre-Conditioning Program.



Kaplan-Meier survival rates for Officers

Methods

- Categorize Officers and Soldiers into Fitness Level Groups using entry fitness test results.
- Use Logistics Regressions to estimate probability of failing initial military training, controlling for:
 - Gender, Age, Married, Year of enlistment
- Kaplan-Meier survival analysis to investigate whether length of service varies by fitness level



Kaplan-Meier survival curves for Soldiers

Results & Their Impact

- Officers with a low fitness level are 1.12 times more likely to fail to complete initial training compared to Officers with a high level of fitness.
- Soldiers with a low fitness level are 1.23 times more likely than Soldiers with a high level of fitness.
- Comparing low to high fitness levels I find a significant reduction in retention for Officers (10% fewer) and Soldiers (20% fewer) after six years of service.
- If the minimum fitness standards were reduced, then it would be safe to assume the proportion of trainees with a low fitness level would increase and thus this 10-20% reduction in survival would apply to a larger proportion of the Officer and Soldier populations.

Recommendations

- If minimum fitness standards were reduced, it would be safe to assume the proportion of trainees with a low fitness level would increase and thus this 10-20% reduction in survival would apply to a larger proportion of the Officer and Soldier populations.
- This study was limited to Australian Army personnel however the analysis could be applied to the Royal Australian Navy, Royal Australian Air Force or branches of the United States military, to improve their understanding of the impact of the fitness level of their recruits