Abstract:
Military manpower planning aims to provide the optimal required workforce with adequate skills and ranks, in order to fill the military job positions needed for the accomplishment of the organization's missions. The specificity of this organization is its hierarchical structure which restricts the personnel movement. Further, there are only recruitments at the lowest levels of the organization. Military personnel movements are of two kinds, vertical advancement in rank called promotion, and horizontal change in job position known as job transfer. Besides, each job position in the military organization has some requirements, related to rank, skills, experience or other individual characteristics, to make a soldier eligible for the position.

In order to optimally manage military personnel and meet the organization’s demand, two kinds of models are used: manpower planning for the long term time horizon, which we call statutory logic, and personnel assignment with short term time horizon goal, which we call competence logic. Statutory logic targets long term planning dealing with recruitment, retirement, and promotion, which have long term impact on the organization. On the other hand, competence logic's goal is the short term assignment of personnel to satisfy the needs of the military organization.

However, these two logics affect each other, in a sense that if the long term planning fluctuates, the assignment policy should adapt. Moreover, if the assignment does not meet the requirements, what are the changes to make on the long term policy? Therefore, we combine both logics to permit the simultaneous optimization for the two combined logics.