Abstract: This paper presents a mathematical model, a construction algorithm, and a tabu search heuristic for the problem of assigning populations of students (counties) to recruiters (agents) for the Health Sciences & Technology Academy (HSTA) in the state of West Virginia. These assignments are made such that the total value of the populations of students assigned is maximized. Since all counties (sets of populations) may not be assigned to agents, this problem is defined as the multiple agent packing problem (MAPP). To test the performance of the proposed techniques, a set of test problems is generated and used in the analysis. The results show that the tabu search heuristic performs well with respect to solution quality and computation time.

Keywords: Packing problem; Tabu search; Integer program; Generalized assignment problem;