The Staff to Door Allocation (SDA) Model is a tool that helps distribution center floor managers make optimal decisions when allocating workload, enabling staff to be as productive as possible throughout the day. SDA is currently configured to make staff-to-door assignment recommendations to managers working on the outbound side of cross-dock facilities. However, it can be customized to meet the needs of several resource allocation scenarios. This tool is most useful for facilities that meet the following criteria:

* Staff productivity is suffering or has stagnated
* The management team needs to make complex resource allocation decisions very quickly with several, sometimes thousands, of available options. Factors that affect the complexity of the decision process include:
  + Size of the facility
  + Number of cartons routed through the facility in a typical day
  + Level of variation observed in carton flow throughout the facility over time
  + Number of staff, average number of doors per staff member, and average number of staff per manager

SDA employs mixed-integer optimization and other advanced analytical methods to make data-driven recommendations. The model is intended to be run on a periodic basis throughout the day to provide managers with optimal decisions as they attempt to meet or exceed their goals.