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It is well known that a lack of coordination and information sharing among facilities with conflicting objectives is a major cause of large logistic inefficiencies in a supply chain. It is therefore often emphasized that a shift from the traditional approach of localized planning to a global, integrated solution is one way in which systemwide costs can be greatly reduced. Subsequently, a large body of research exists on integrated optimization problems in logistics and supply chain management that integrate the decisions of production, inventory, distribution and facility location in different ways. In practice, however, integration significantly increases the complexity of the entire decision making process as more coordination and information sharing is needed. The question naturally arises: how can we quantify the value of integration in order to support the strategic decision to shift from localized planning to integrated planning? In this talk we will present some initial results on quantifying the value of integration using realistic data from different industries. We compare the cost-savings of several possible levels of integration, where we use mixed integer programming (MIP) formulations to solve the resulting planning problems. We will address the question of whether or not there is a relationship between a good way of integrating decisions and certain features of the supply chain.