When an item is temporarily out of stock, it is common practice for a retailer to inform consumers that the item can be purchased, but shipping is delayed. This is referred to as a backorder. Measuring the impact of backorders on future customer purchase behavior is critical for customer relationship management but challenging due to endogeneity: the best customers are most likely to experience backorders. In this paper, we develop a quasi-experimental approach to measure the effect of a backorder. We show that experiencing a backorder leads to a 2.2% decrease in customer orders the subsequent year. We show that the impact of backorders is moderated by shipping delay. For example, among customers who experience a shipping delay beyond 20 days, there is an 8.4% reduction in orders the subsequent year; this negative effect persists for four years (~7%). We show that attempts to mitigate the negative effect of backorders by varying the quoted shipping date had little measurable impact.