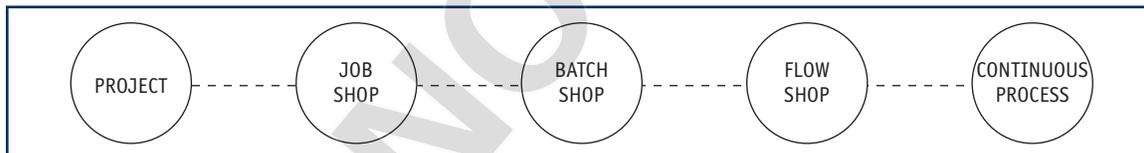


Note on a Taxonomy of Process Types

The purpose of this note is to introduce the student to the spectrum of process types, which is shown in **Figure 1**, and the natural trajectory for a product and process. We will first consider two relatively pure cases in detail, flow shops and job shops. While many actual systems may fall somewhere in between these two, and many of the generic claims below will be challenged by real firms, studying these ideal types will calibrate the student to the impact of the competitive environment on the structure and operation of productive systems. Much of the terminology will be new and undefined. This will be remedied as the course progresses.

Figure 1
Process Types



The intent of this first section is to generate a basic familiarity with different process types, their characteristics and the competitive environments in which they are viable. For each of flow shops and job shops, the comments below are organized into three subtopics: what they look like, how they operate and sources of competitive advantage.

Flow Shops

Flow shops have evolved as effective competitors in markets characterized by high-volume sales of standardized products. When a product is standard enough for its processing needs to be known in detail before actual production begins, then the process can be designed to make that standardized product at minimal cost. Consequently, a lot of process design work is undertaken before production begins.

Published by WDI Publishing, a division of the William Davidson Institute (WDI) at the University of Michigan.

©2010 William Davidson Institute. This note was written by William S. Lovejoy, the Raymond T. Perring Family Professor of Business Administration & Professor of Operations and Management Science (OMS) at the University of Michigan's Ross School of Business. This lecture note has evolved with the help of several generations of Ross School OMS faculty.