Service Processes & Systems

Lecture #1

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Service Processes & Systems
Dept. of Mechanical Engineering - Engineering Mechanics
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Review Syllabus

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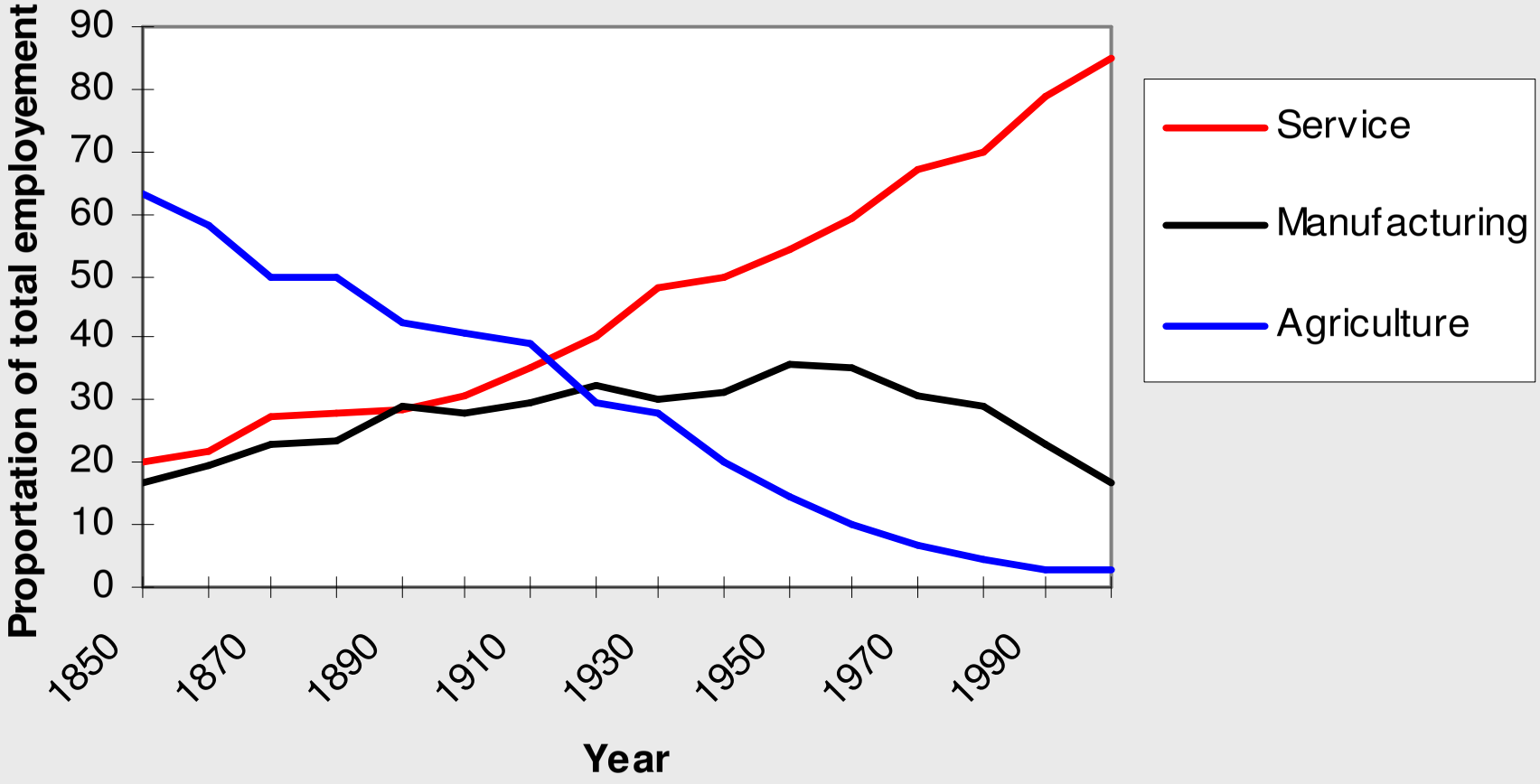
Trends in US Employment by Sector



Source: U.S. Department of Commerce, Bureau of the Census 2003

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Percent Service Employment for Selected Nations

	1980	1987	1993	1999
United States	67.1	71.0	74.3	80.4
Canada	67.2	70.8	74.8	73.9
Japan	54.5	58.8	59.9	72.4
France	56.9	63.6	66.4	70.8
Israel	63.3	66.0	68.0	70.7
Italy	48.7	57.7	60.2	61.1
China	13.1	17.8	21.2	26.4

Bottom Line

- Service Processes and Systems are incredibly important
- Have received little attention from engineers
  - Engineers improved productivity of agricultural sector
  - Engineers improved productivity of manufacturing sector
  - Productivity: $/person

Getting Started

- This class will focus on the design and operation of services processes and systems.
- First time the class will be taught – with this in mind, emphasis will be placed on nurturing interactivity – together, we will co-develop the class

More on Getting Started

- Several types of books out there
  - Management/Operation of Service Systems
    - Very fuzzy / not quantitative
    - Business focused
    - Little attention to design
  - Systems
    - General & tend to emphasize products
    - Little attention to service systems

Service Definitions

- Many definitions of service are available but all contain the common themes of "intangibility" and "simultaneous consumption".

- Two examples are:
  - Services are deeds, processes, and performances. (Zeithaml)
  - A service is a time-perishable, intangible experience performed for a customer acting in the role of co-producer. (James Fitzsimmons)

Course Coverage

- Service Processes vs. Service Systems
  - Issue of Scale & Complexity
  - System: consists of many processes
- What are the "things" we need to learn
  - Operation/management
  - Design

Businesses with a Significant Service Component

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Elements of a Service Process