Matching Supply and Demand in the Service Industry

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Average Waiting Time as a Function of the Utilization Rate
Figure 2

[Graph showing server capacity in customer/hour vs. total time in the system (minutes) for single server, two servers with two lines, and two servers with a single line.]
Figure 3

Capacity (u) = 21 Customers/hour
Figures 4 & 5

Rate of No-Shows (%) vs. Probability of walking at least someone

Rate of No-Shows (%) vs. Probability that # of walked people is at least WP
Figure 6

Fraction of customers that receive preventative maintenance

Probability of waiting for the service
# Mechanisms for Matching Supply and Demand

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<th>Supply Management</th>
<th>Demand Management</th>
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<td><strong>Tactical Level</strong></td>
<td>Location&lt;br&gt;Sharing Capacity&lt;br&gt;Standardization&lt;br&gt;Automation&lt;br&gt;Information systems&lt;br&gt;Modular facility design&lt;br&gt;Part-time Employees&lt;br&gt;Preprocessing&lt;br&gt;Cross Training&lt;br&gt;Extended Business Hours&lt;br&gt;Preventive Maintenance&lt;br&gt;Cooperation with Competitors&lt;br&gt;Complementary Services</td>
<td>Reservations&lt;br&gt;Direct Marketing&lt;br&gt;Price differentiation&lt;br&gt;Promotion and Sales&lt;br&gt;Complimentary service&lt;br&gt;Information to customers&lt;br&gt;Preventive maintenance of users’ equipment</td>
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<td><strong>Operational Level</strong></td>
<td>Downgrading of products&lt;br&gt;Overbooking&lt;br&gt;Service length&lt;br&gt;Scheduling&lt;br&gt;Engaging Customers&lt;br&gt;Batching the Service</td>
<td>Pricing&lt;br&gt;Daily Specials</td>
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