

Case #2: Aggregate Planning at Rowley Apparel

Rowley Apparel, manufacturers of the famous “Race-A-Rama” swimwear line, would like to plan production for the coming year. Demand for swimwear is extremely seasonal. The aggregate demand forecast for the next eight months is given below:

<u>Month</u>	<u>Demand Forecast</u>
May	3000
June	3500
July	4500
August	3000
September	1000
October	500
November	500
December	3000

The company expects to have 1200 units in inventory at the beginning of May and would like to have no inventory at the end of December. There are currently 7 employees, each of whom can produce 220 units a month in regular time. The cost of hiring an employee is \$1500 and the cost of firing an employee is \$500. Labor cost per unit is \$15 if produced in regular time and \$25 if produced in overtime. The inventory holding cost is \$4 per unit/month. Backorders are assumed to have a cost of \$6 per unit/month.

Joe Barnes, the production manager, heard about “level” and “chase” aggregate plans and would like to know which would be more appropriate in this case.

Your job is to respond to Joe’s questions by developing the two plans and reporting to him in a memo the details of the two plans. Which of these plans would you recommend? Make sure to include in your analysis, in addition to cost, non-financial considerations such as customer service and qualitative operational considerations.

The memo should not exceed 3 pages including any displays (graphs, tables, etc.). Students are encouraged to work on this assignment in teams not larger than 3 students. The write-up will be evaluated on both the analysis and the presentation and is due on **Wednesday, May 3**.

Optional Extra Credit: Assume that Joe is also interested to know whether there is a production plan that would cost less than either the level or the chase plan. If you can find such a plan, include it in your report (you may use an extra page). Your extra credit will depend on how low the cost of the plan is.