

San Francisco State University

Yield Management
(aka Revenue Management)



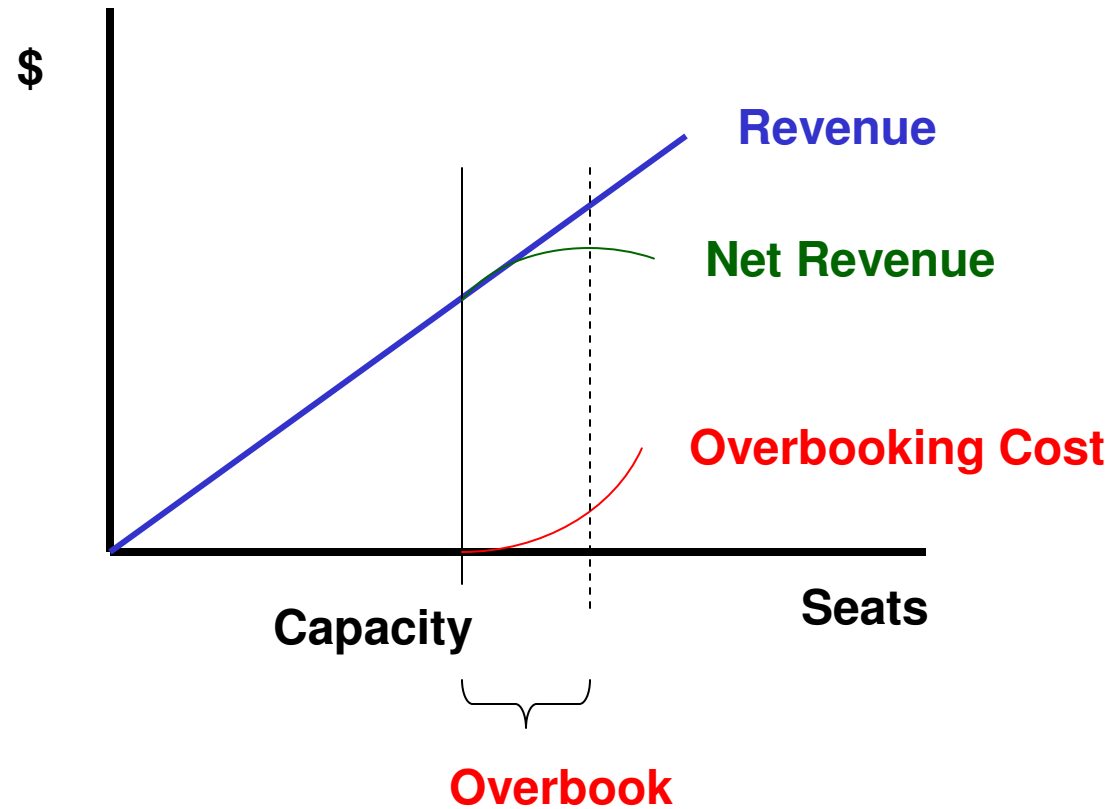
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www.ca-advisors.com/people/jahan_alamzad.html

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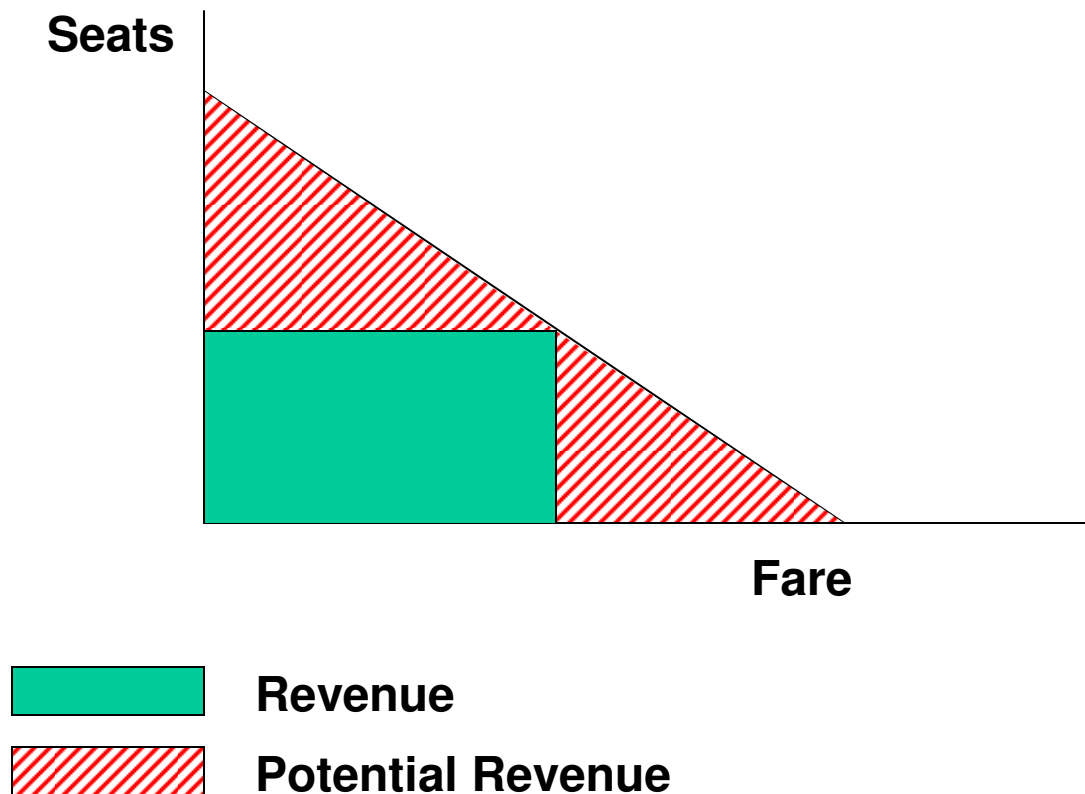
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Overbooking



Single-fare revenue

One flight, one fare



Single-fare possibilities

Linear Demand

$$\text{Seats Sold} = -0.4 \times \text{Fare} + 180$$

Demand

- \$300: 60
- \$75: 150
- \$125: 130 (Capacity)

High fare



Revenue: $300 \times 60 = \$18,000$

Low fare



Revenue: $75 \times 150 = \$11,250$

Capacity fare

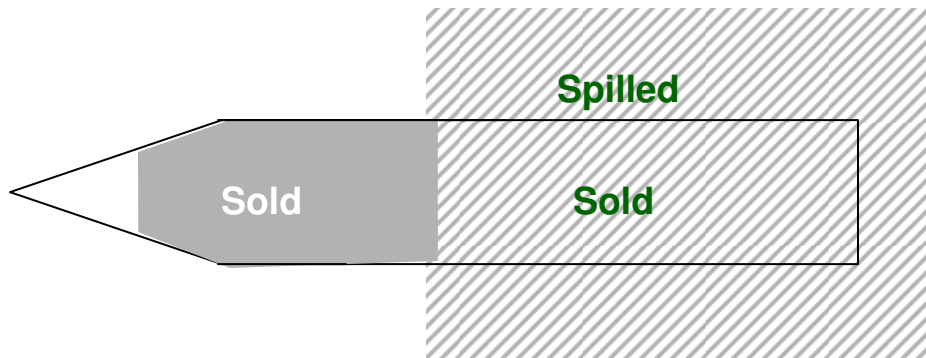


Revenue: $125 \times 130 = \$16,250$

Two-fare revenues

Linear Demand

$$\text{Seats Sold} = -0.4 \times \text{Fare} + 180$$



Demand

- \$300: 60
- \$75: 150
- \$125: 130 (Capacity)

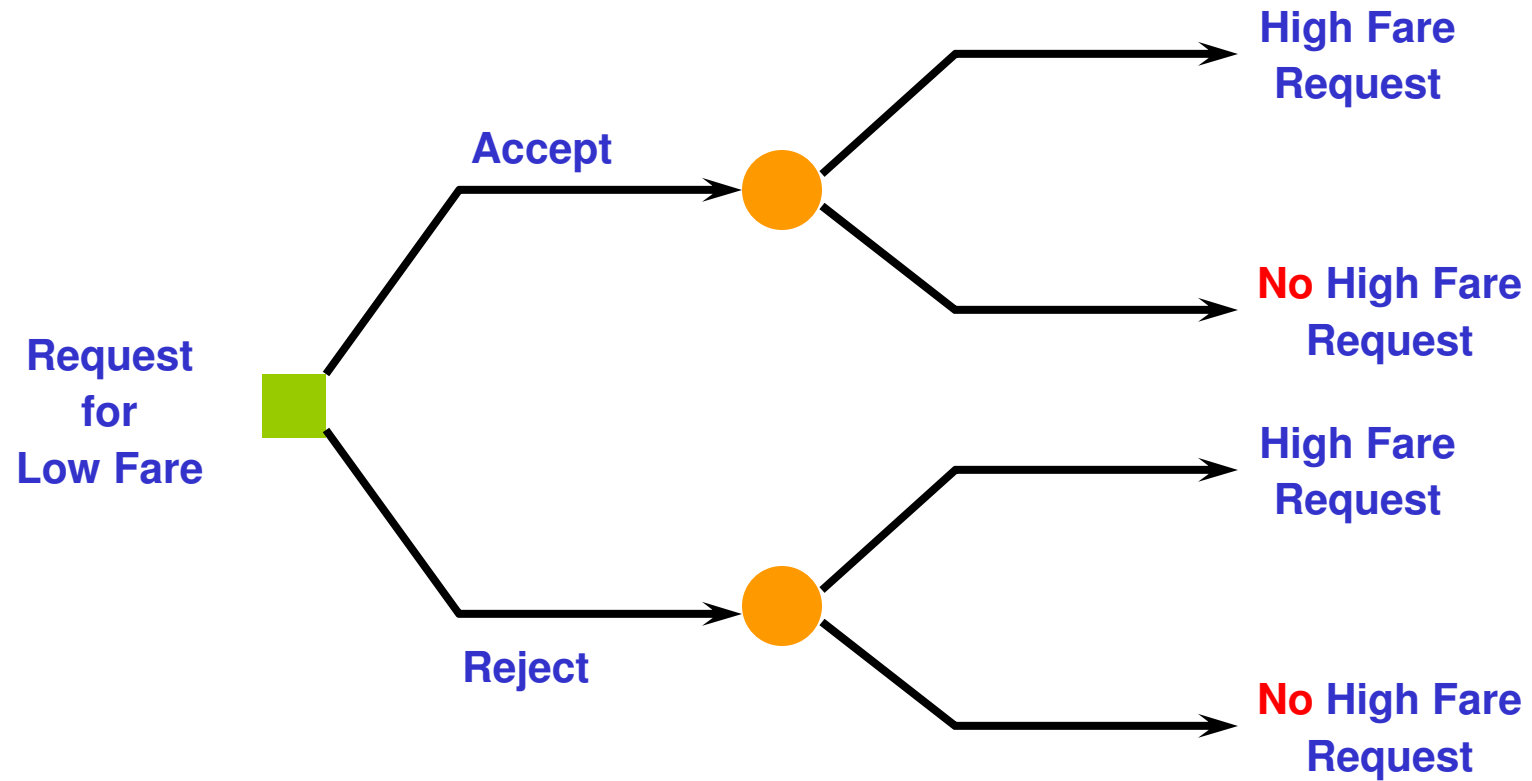
Revenue:

$$300 \times 60 = \$18,000$$

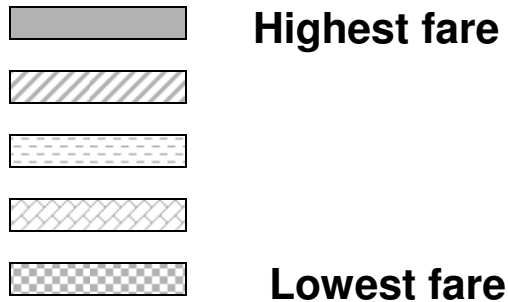
$$(130 - 60) \times \$75 = \$5,250$$

$$\text{Total} \quad \$23,250$$

Low-fare selling decision

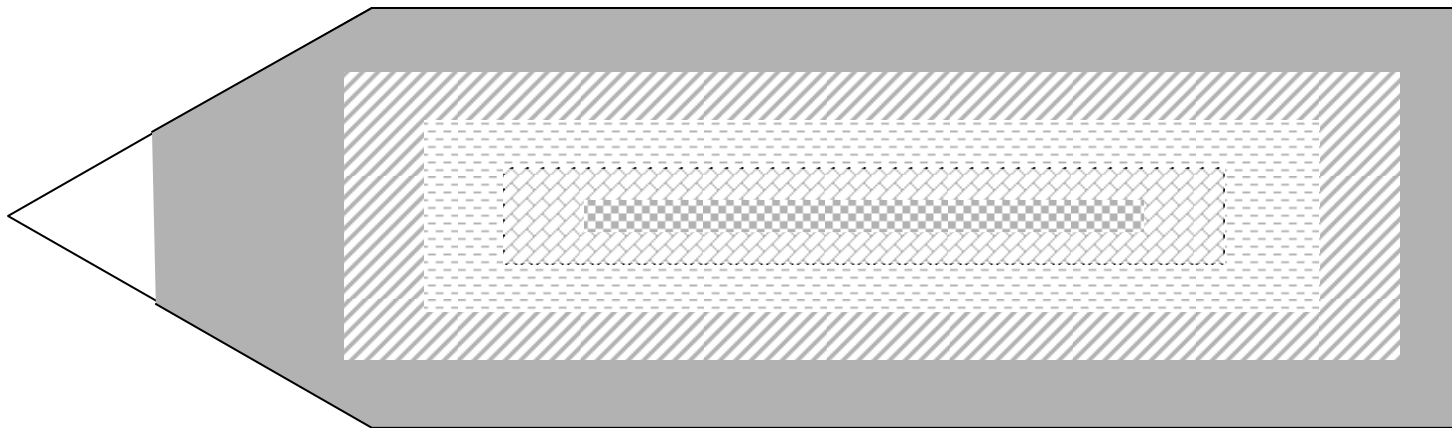


Multi-fare inventory control

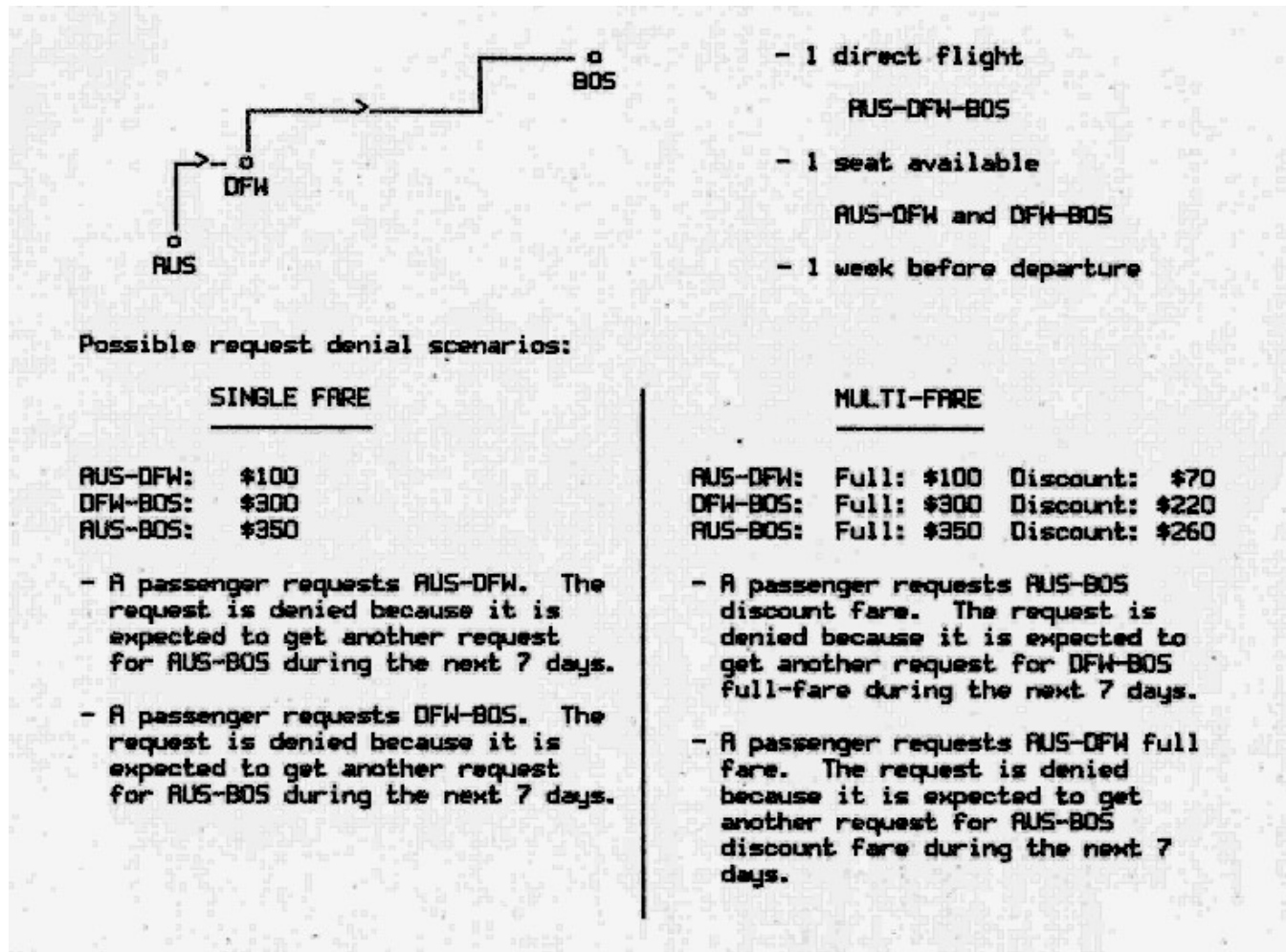


Nesting

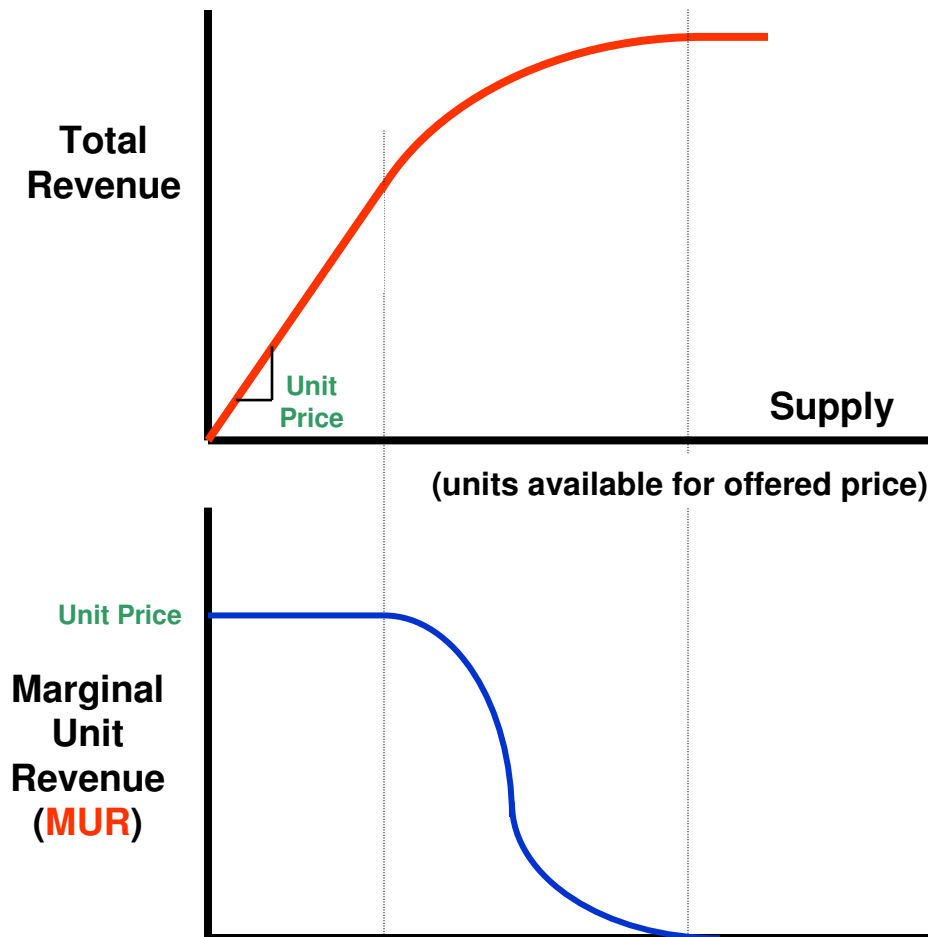
Close lower fare buckets before high-fare buckets, i.e., ensure the last seat availability to the highest valued request



Example: revenue and traffic management



Marginal unit revenue



Multi-fare structure

