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- DB - Denied Boarding
- SP - Spillage
- CAP - physical capacity
- AU - authorized
- BKD - confirmed booking
- NSR - no-show rate

STD  
standard  
deviation

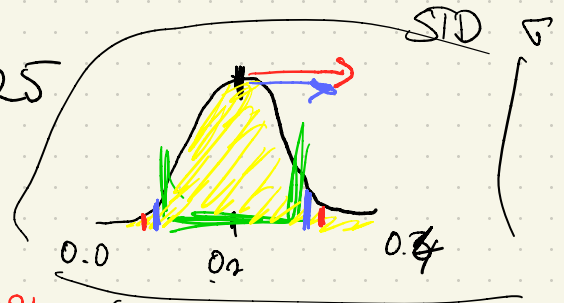
$$AU = CAP \times \underline{OV} \quad , \quad OV > 1$$

Deterministic

$$AU = \frac{CAP}{1 - NSR}$$

$$= \frac{100}{0.8} = 125$$

100 seats  
NSR = 20%



NSR uncertain

guarantee DB=0 with <sup>95%</sup>90% confidence

$$AU = \frac{CAP}{1 - NSR + \overset{1.645}{1.28} \cdot STD}$$

$$= \frac{100}{1 - 0.2 + 1.645 \cdot 0.08} = \boxed{107}$$

$$AU = \frac{CAP}{1 - NSR + 1.645 \text{ STD}}$$
$$= \frac{100}{1 - 0.2 + 1.645 \times 0.08}$$

$$= \frac{100}{0.8 + 0.1316}$$

$$= \frac{100}{0.9316} = [107.34]$$
$$= 107$$









