β distribution (real number form)

Formula: $f(x) = x^{(a-1)}\,(1-x)^{(b-1)}\,\frac{\Gamma(a+b)}{\Gamma(a)\Gamma(b)}$

Domain: $0 < x < 1$

Parameters: $a > 0,\ b > 0$

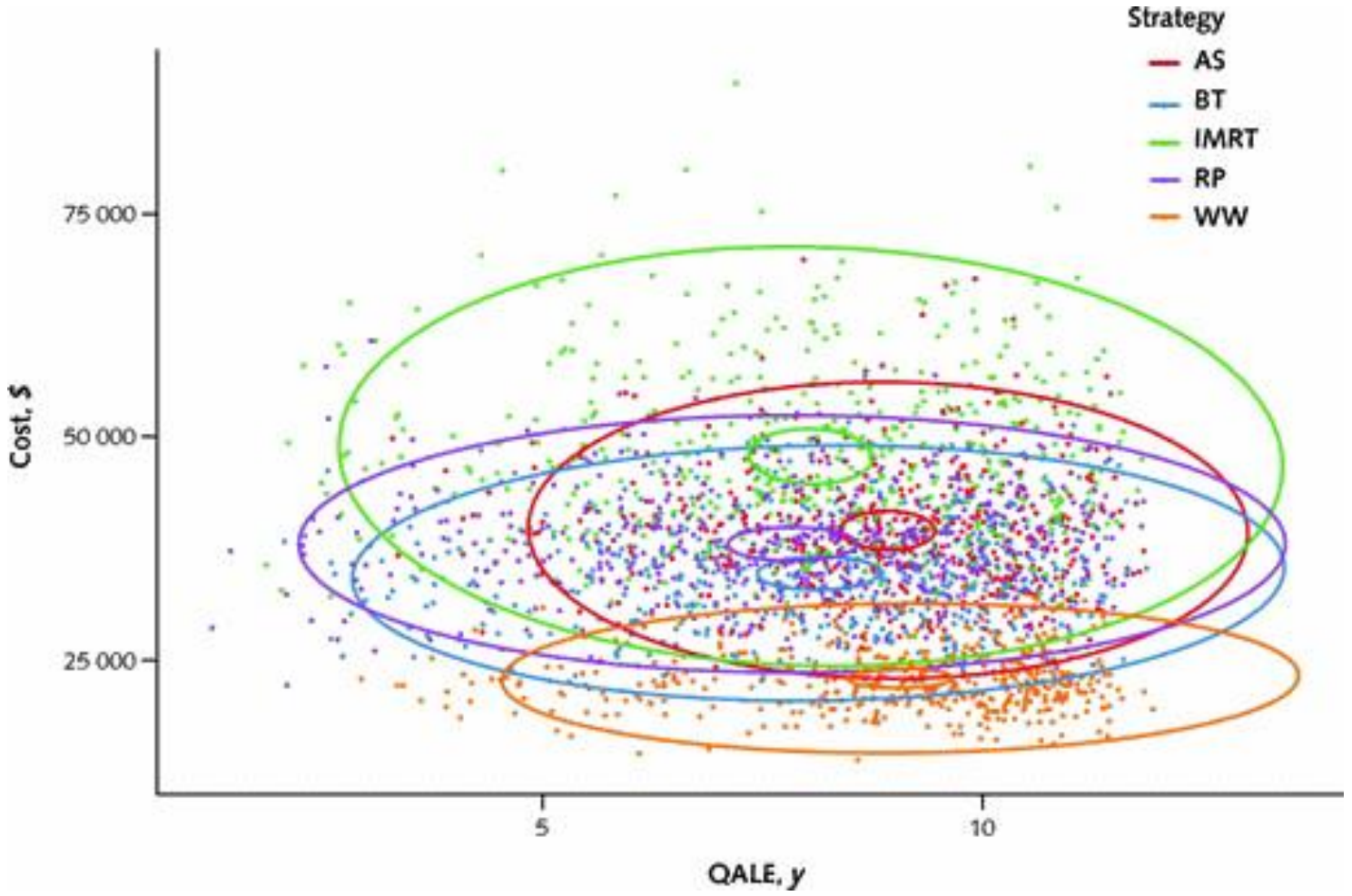
Details: $Mean = \frac{a}{(a+b)}$

The parameters a and b can be approximated from a mean μ and SD σ:

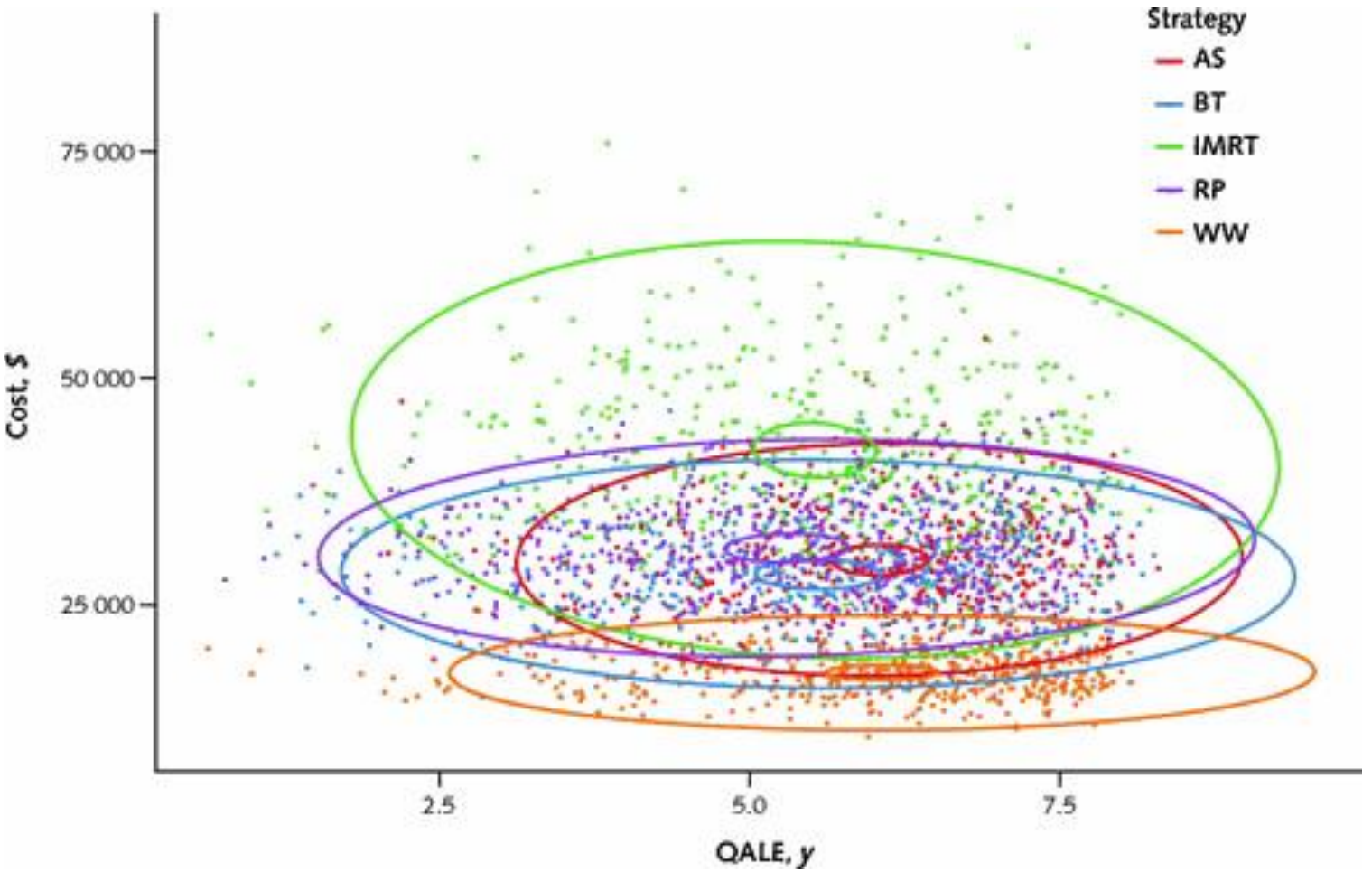
$$a = \mu\left(\frac{\mu(1-\mu)}{\sigma^2} - 1\right)$$

$$b = (1-\mu)\left(\frac{\mu}{\sigma^2}(1-\mu) - 1\right)$$

Appendix Figure 1. Formula used to approximate *a* and *b* on the basis of mean and SD for [beta]-distribution function for probabilistic sensitivity analysis (from TreeAge Pro).



Appendix Figure 2. **Probabilistic sensitivity analysis of costs (in U.S. dollars) and effectiveness (QALE, in years) for men aged 65 years.** Ellipses represent 95% CIs for each strategy. AS = active surveillance; BT = brachytherapy; IMRT = intensity-modulated radiation therapy; QALE = quality-adjusted life expectancy; RP = radical prostatectomy; WW = watchful waiting.



Appendix Figure 3. **Probabilistic sensitivity analysis of costs (in U.S. dollars) and effectiveness (QALE, in years) for men aged 75 years.** Ellipses represent 95% CIs for each strategy. AS = active surveillance; BT = brachytherapy; IMRT = intensity-modulated radiation therapy; QALE = quality-adjusted life expectancy; RP = radical prostatectomy; WW = watchful waiting.