

More rigorous statistics:

$$w_i = \frac{MemberMonths_i}{\sum_i MemberMonths} \quad (1)$$

$$\bar{x} = \frac{1}{\sum_i w_i} \sum_i w_i x_i; \bar{y} = \frac{1}{\sum_i w_i} \sum_i w_i y_i \quad (2)$$

$$\sigma(x) = \sqrt{\frac{\sum_i (x_i - \bar{x})^2 w_i}{\sum_i w_i}}; \sigma(y) = \sqrt{\frac{\sum_i (y_i - \bar{y})^2 w_i}{\sum_i w_i}} \quad (3)$$

$$Cov(x_i, y_i) = \frac{\sum_i (x_i - \bar{x})(y_i - \bar{y})w_i}{\sum_i w_i} \quad (4)$$

$$r^2 = \frac{Cov(x, y)^2}{\sigma(x)^2 \sigma(y)^2} \quad (5)$$

$$r = \frac{Cov(x, y)}{\sigma(x) \sigma(y)} \quad (6)$$