

Now for Group A

$$E^A(Y)_{NI} = .2(15,000) + .8(20,000) = 19,000$$

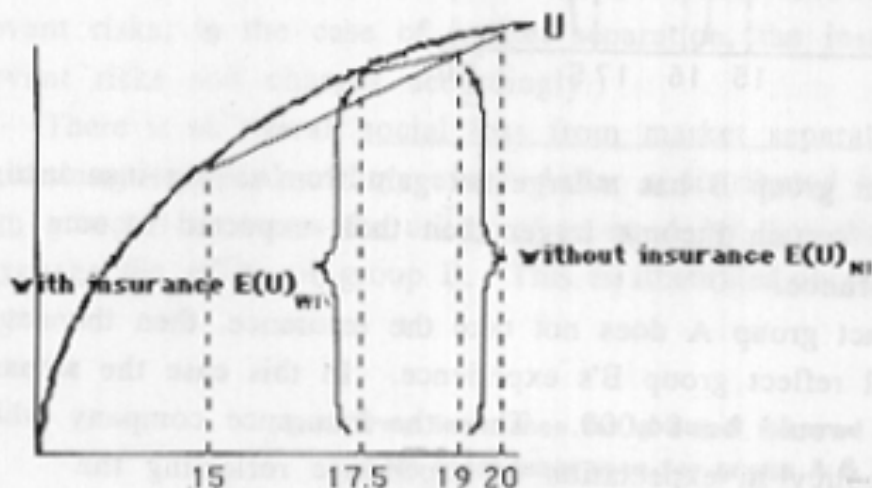
$$E^A(U)_{NI} = .2U(15,000) + .8U(20,000)$$

$$E^A(Y)_{WI} = .2[15,000 + 5,000 - 2,500] + .8[20,000 - 2,500] = 17,500$$

$$E^A(U)_{WI} = U(17,500)$$

The gain from insurance for group A (call it $G.I.^A$)

$$G.I.^A = E^A(Y)_{WI} - E^B(Y)_{NI} = U(17,500) - [.2U(15,000) + .8U(20,000)]$$



As it has been drawn, the utility function $G.I.^A$ is slightly negative so that those from group A will chose not to join the insurance pool.

For Group B

$$E^B(Y)_{NI} = .8(15,000) + .2(20,000) = 16,000$$

$$E^B(U)_{NI} = .8U(15,000) + .2U(20,000)$$

$$E^B(Y)_{WI} = .8[15,000 + 5,000 - 2,500] + .2[20,000 - 2,500] = 17,500$$

$$E^B(U)_{WI} = .8U(17,500) + .2U(17,500) = U(17,500)$$