

14 a) The company has collected 5 payments of \$250 each and has to pay out \$100,000

b) 0.99058

c)  $\mu_y = \$303.35$  If company insures many ppl, they will make about \$303.35 per life insurance policy, on avg.

20 a) Both distributions skewed right. Center for "family" distribution greater than "household". Event  $X=1$  has higher probability in "household" distribution

b) Household:  $\mu_x = 2.6$  ppl Family:  $\mu_y = 3.14$  ppl  
Family mean higher b/c no values equal to 1 in family distribution but value of 1 common in household

c)  $\sigma_x = 1.421$  # of ppl in a randomly selected household will typically differ from mean (2.6) by about 1.421 ppl

$\sigma_y = 1.249$  " " mean (3.14) by about 1.249 ppl

28 b