**QUANT I – FALL 2013 SIMULATIONS OF THE BINOMIAL DISTRIBTUION**

set obs 10000

gen binomial5\_5 = rbinomial(5,.5)

gen binomial10\_5 = rbinomial(10,.5)

gen binomial20\_5 = rbinomial(20,.5)

hist binomial5\_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=5") xsize(4) ysize(4)

hist binomial10\_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=10")xsize(4) ysize(4)

hist binomial20\_5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title("{it:{&pi}}=.5, {it:n}=20")xsize(4) ysize(4)

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**SIMULATIONS OF THE POISSON DISTRIBTUION**

gen poisson3 = rpoisson(3)

gen poisson5 = rpoisson(5)

gen poisson10 = rpoisson(10)

hist poisson3, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}}=3) xsize(4) ysize(4)

hist poisson5, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}}=5) xsize(4) ysize(4)

hist poisson10, discrete ytitle("pr({it:Y = y})") xtitle({it:y}) title({it:{&lambda}}=10) xsize(4) ysize(4)

