32. Solution: D

Let

X = number of low-risk drivers insured

Y = number of moderate-risk drivers insured

Z = number of high-risk drivers insured

$f(x, y, z)$ = probability function of X, Y, and Z

Then f is a trinomial probability function, so

$$\Pr[z \geq x+2] = f(0,0,4) + f(1,0,3) + f(0,1,3) + f(0,2,2)$$

$$= (0.20)^4 + 4(0.50)(0.20)^3 + 4(0.30)(0.20)^3 + \frac{4!}{2!2!}(0.30)^2(0.20)^2$$

$$= 0.0488$$