Distribuições discretas						
Distribuição	Parâmetros	F. probabilidade	Suporte	Valor médio	Variância	F. distribuição
$H(N,M,n)$	$N,M,n\in\mathbb{N}$	$\binom{M}{k}\binom{N-M}{n-k}/\binom{N}{n}$	–	nM/N	$n\frac{M}{N}\left(1-\frac{M}{N}\right)\frac{N-n}{N-1}$	–
$B(n,p)$	$n\in\mathbb{N},p\in\,]0,1[$	$\binom{n}{k}p^k(1-p)^{n-k}$	$0\leq k\leq n$	np	$np(1-p)$	–
$P(\lambda)$	$\lambda\in\mathbb{R}^+$	$e^{-\lambda}\lambda^k/k!$	$k\in\mathbb{N}_0$	λ	λ	–
$G(p)$	$p\in\,]0,1[$	$p(1-p)^{k-1}$	$k\in\mathbb{N}$	$1/p$	$(1-p)/p^2$	$1-(1-p)^{[x]}$

Distribuições absolutamente contínuas						
Distribuição	Parâmetros	F. densidade	Suporte	Valor médio	Variância	F. distribuição
$U(a,b)$	$a,b\in\mathbb{R}$	$\frac{1}{b-a}$	$a\leq x\leq b$	$(a+b)/2$	$(b-a)^2/12$	$\frac{x-a}{b-a}$
$E(\lambda,\delta)$	$\lambda\in\mathbb{R},\ \delta\in\mathbb{R}^+$	$\frac{1}{\delta}e^{-(x-\lambda)/\delta}$	$x\geq\lambda$	$\lambda+\delta$	δ^2	$1-e^{-(x-\lambda)/\delta}$
$Par(\delta,\alpha)$	$\delta,\alpha\in\mathbb{R}^+$	$\frac{\alpha}{\delta}\left(\frac{x}{\delta}\right)^{-\alpha-1}$	$x\geq\delta$	$\frac{\alpha\,\delta}{\alpha-1}$	$\frac{\alpha\,\delta^2}{(\alpha-2)(\alpha-1)^2}$	$1-\left(\frac{x}{\delta}\right)^{-\alpha}$
$N(\mu,\sigma^2)$	$\mu\in\mathbb{R},\ \sigma\in\mathbb{R}^+$	$\frac{1}{\sqrt{2\pi}\,\sigma}\exp\left(-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2\right)$	$x\in\mathbb{R}$	μ	σ^2	–

Distribuições de estatísticas

Média amostral

$$\sqrt{n}\,\frac{\bar{X}-\mu}{\sigma}\sim N(0,1)\qquad \sqrt{n}\,\frac{\bar{X}-\mu}{S}\sim t_{n-1}\qquad \sqrt{n}\,\frac{\bar{X}-\mu}{\sigma}\overset{a}{\sim}N(0,1)\qquad \sqrt{n}\,\frac{\bar{X}-\mu}{S}\overset{a}{\sim}N(0,1)$$

Variância Amostral

$$\frac{(n-1)\,S^2}{\sigma^2}\sim\chi^2_{n-1}$$

Proporção amostral

$$\sqrt{n}\frac{\hat{P}-p}{\sqrt{p(1-p)}}\overset{a}{\sim}N(0,1)\qquad \sqrt{n}\frac{\hat{P}-p}{\sqrt{\hat{P}\left(1-\hat{P}\right)}}\overset{a}{\sim}N(0,1)$$

Ajustamento

$$\sum_{i=1}^{m}\frac{(O_i-E_i)^2}{E_i}\overset{a}{\sim}\chi^2_{(m-p-1)}$$

$$S^2=\frac{1}{n-1}\sum_{i=1}^{n}\left(X_i-\bar{X}\right)^2=\frac{1}{n-1}\left(\left(\sum_{i=1}^{n}X_i^2\right)-n\bar{X}^2\right)$$

Regressão linear simples

$$S_{xx}=\sum_{i=1}^{n}(x_i-\bar{x})^2\qquad S_{YY}=\sum_{i=1}^{n}\left(Y_i-\bar{Y}\right)^2\qquad S_{xY}=\sum_{i=1}^{n}(x_i-\bar{x})\left(Y_i-\bar{Y}\right)=\sum_{i=1}^{n}x_iY_i-n\bar{x}\bar{Y}$$

Estimadores para os parâmetros do modelo

$$\hat{\beta}_1=\frac{S_{xY}}{S_{xx}}\qquad \hat{\beta}_0=\bar{Y}-\hat{\beta}_1\bar{x}\qquad \hat{\sigma}^2=\frac{SQ_R}{n-2}=\frac{S_{YY}-\hat{\beta}_1^2S_{xx}}{n-2}$$

Distribuição dos estimadores

$$\sqrt{\frac{n\,S_{xx}}{\sum x_i^2}}\,\frac{\hat{\beta}_0-\beta_0}{\hat{\sigma}}\sim t_{n-2}\qquad \sqrt{S_{xx}}\,\frac{\hat{\beta}_1-\beta_1}{\hat{\sigma}}\sim t_{n-2}\qquad \frac{(n-2)\,\hat{\sigma}^2}{\sigma^2}\sim\chi^2_{n-2}$$

Predição

$$\frac{\hat{E}(Y(x_o))-E(Y(x_o))}{\hat{\sigma}\sqrt{\frac{1}{n}+\frac{(x_o-\bar{x})^2}{S_{xx}}}}\sim t_{n-2}\qquad \frac{\hat{Y}(x_o)-Y(x_o)}{\hat{\sigma}\sqrt{1+\frac{1}{n}+\frac{(x_o-\bar{x})^2}{S_{xx}}}}\sim t_{n-2}$$

Coeficiente determinação

$$R^2=\hat{\beta}_1^2\,\frac{S_{xx}}{S_{YY}}$$