



Chapter 9

One-Way Between Groups ANOVA

Canonical Model

Are X and Y Related?

Are X and Y correlated?

What happens to Y when X changes?

Does X effect Y?

Is there a difference in the Y values for a different X?

Are X and Y Related?

Are X and Y correlated?

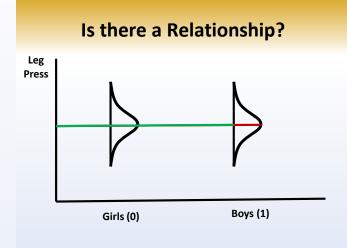
X = Sex 0 = Girls; 1 = Boys Y = Maximum Leg Press

What happens to Y when X changes?

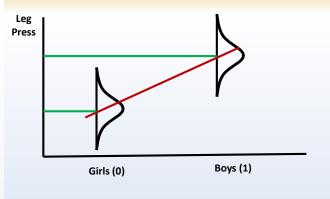
Does X effect Y?

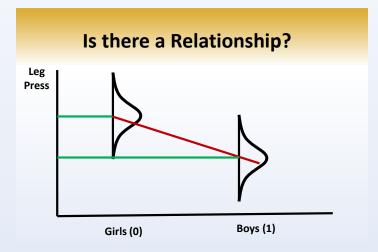
Is there a difference in the Y values for a different X?

Is There a Relationship?



Is there a Relationship?





Correlations

		Sex	MaxLegPress LB
Sex	Pearson Correlation	1	.034
	Sig. (2-tailed)		.740
	N	100	100
MaxLegPressLB	Pearson Correlation	.034	1
	Sig. (2-tailed)	.740	
	Ν	100	100

MaxLegPressLB

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	133.749	1	133.749	.111	.740
Within Groups	117949.491	98	1203.566		
Total	118083.240	99			

ANOVA

	Sex	N	Mean	Std. Deviation	Std. Error Mean
MaxLegPressLB	Girls	42	119.38	30.224	4.664
	Boys	58	121.72	37.579	4.934

Independent	Samples	Test
macpenaent	Sumples	10.50

		Levene's Test fo Variand				t-test for Equality	of Means				
			F Sig.						Std. Error Difference	95% Confidence Interval of the Difference	
		F		t	df	Sig. (2-tailed)	Difference	Lower		Upper	
MaxLegPressLB	Equal variances assumed	1.188	.278	333	98	.740	-2.343	7.029	-16.292	11.606	
	Equal variances not assumed			345	96.863	.731	-2.343	6.790	-15.819	11.133	

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				t for Equality of ances				t-test for Equality	of Means		
			Vari	ances			2	t-test for Equality	of Means	95% Confidence	Interval of the
					20		1992 - 1992 - 1992 - 199	Mean	Std. Error	Differe	nce
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$t^2 = F$ (-.333)² = .111

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