

**APPENDIX G3 : REGRESSION STATISTICAL DATA****Regression****Descriptive Statistics**

	Mean	Std. Deviation	N
SeatingDistance1	72.0238	5.71892	61
Torso1	19.6128	4.84565	61
Hips1	102.4192	7.41978	61
Thigh1	17.2151	9.14979	61
Knee1	111.4941	8.82980	61
Ankle1	102.1002	9.31289	61
ShoePlane1	65.7118	11.20305	61
SeatAngle1	75.9060	3.53713	61
EyeHeight1	96.1044	6.58465	61
SeatingHeight1	39.5352	4.77844	61
SteeringHeight1	73.0475	2.03817	61

**Correlations**

		Seating Distance1	Torso 1	Hips 1	Thigh 1	Knee 1	Ankle 1	Shoe Plane 1	Seat Angle 1	Eye Height 1	Seating Height 1	Steering Height 1
Pearson Correlation	SeatingDistance1	1.000	-.201	.005	.242	.461	.147	-.256	-.200	.099	-.101	-.023
	Torso1	-.201	1.000	.445	-.046	-.083	-.074	-.272	-.494	-.386	-.263	.089
	Hips1	.005	.445	1.000	.194	.456	-.121	-.133	-.152	-.272	.214	-.133
	Thigh1	.242	-.046	.194	1.000	.470	.322	-.052	.065	-.572	-.112	-.128
	Knee1	.461	-.083	.456	.470	1.000	.211	-.063	.012	-.370	-.015	-.103
	Ankle1	.147	-.074	-.121	.322	.211	1.000	.297	.023	-.225	-.148	-.093
	ShoePlane1	-.256	-.272	-.133	-.052	-.063	.297	1.000	.156	.149	.175	-.043
	SeatAngle1	-.200	-.494	-.152	.065	.012	.023	.156	1.000	.043	.235	.159
	EyeHeight1	.099	-.386	-.272	-.572	-.370	-.225	.149	.043	1.000	.611	.017
	SeatingHeight1	-.101	-.263	.214	-.112	-.015	-.148	.175	.235	.611	1.000	-.115
	SteeringHeight1	-.023	.089	-.133	-.128	-.103	-.093	-.043	.159	.017	-.115	1.000
	Sig. (1- tailed) N	SeatingDistance1	.	.060	.485	.030	.000	.129	.023	.061	.225	.220
Torso1		.060	.	.000	.364	.263	.286	.017	.000	.001	.020	.249
Hips1		.485	.000	.	.067	.000	.176	.153	.122	.017	.049	.154
Thigh1		.030	.364	.067	.	.000	.006	.346	.310	.000	.196	.162
Knee1		.000	.263	.000	.000	.	.051	.316	.464	.002	.454	.216
Ankle1		.129	.286	.176	.006	.051	.	.010	.430	.040	.127	.238
	ShoePlane1	.023	.017	.153	.346	.316	.010	.	.116	.126	.088	.370

SeatAngle1	.061	.000	.122	.310	.464	.430	.116	.	.372	.034	.111
EyeHeight1	.225	.001	.017	.000	.002	.040	.126	.372	.	.000	.450
SeatingHeight1	.220	.020	.049	.196	.454	.127	.088	.034	.000	.	.189
SteeringHeight1	.429	.249	.154	.162	.216	.238	.370	.111	.450	.189	.
SeatingDistance1	61	61	61	61	61	61	61	61	61	61	61
Torso1	61	61	61	61	61	61	61	61	61	61	61
Hips1	61	61	61	61	61	61	61	61	61	61	61
	SeatingDistance1	Torso1	Hips1	Thigh1	Knee1	Ankle1	ShoePlane1	SeatAngle1	EyeHeight1	SeatingHeight1	SteeringHeight1
Thigh1	61	61	61	61	61	61	61	61	61	61	61
Knee1	61	61	61	61	61	61	61	61	61	61	61
Ankle1	61	61	61	61	61	61	61	61	61	61	61
ShoePlane1	61	61	61	61	61	61	61	61	61	61	61
SeatAngle1	61	61	61	61	61	61	61	61	61	61	61
EyeHeight1	61	61	61	61	61	61	61	61	61	61	61
SeatingHeight1	61	61	61	61	61	61	61	61	61	61	61
SteeringHeight1	61	61	61	61	61	61	61	61	61	61	61

Variables Entered/Removed<sup>a</sup>

Model	Variables Entered	Variables Removed	Method
1	Knee1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
2	EyeHeight1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
3	SeatingHeight1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
4	Thigh1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).
5	ShoePlane1		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: SeatingDistance1

Model Summary<sup>f</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.461 <sup>a</sup>	.213	.199	5.11687	.213	15.950	1	59	.000
2	.545 <sup>b</sup>	.297	.273	4.87718	.084	6.942	1	58	.011
3	.660 <sup>c</sup>	.436	.406	4.40655	.139	14.051	1	57	.000
4	.734 <sup>d</sup>	.538	.505	4.02285	.102	12.392	1	56	.001
5	.769 <sup>e</sup>	.592	.555	3.81568	.054	7.246	1	55	.009

a. Predictors: (Constant), Knee1

b. Predictors: (Constant), Knee1, EyeHeight1

c. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1

d. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1

e. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1, ShoePlane1

f. Dependent Variable: SeatingDistance1

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	417.602	1	417.602	15.950	.000 <sup>b</sup>
	Residual	1544.760	59	26.182		
	Total	1962.361	60			
2	Regression	582.721	2	291.361	12.249	.000 <sup>c</sup>
	Residual	1379.640	58	23.787		
	Total	1962.361	60			
3	Regression	855.553	3	285.184	14.687	.000 <sup>d</sup>
	Residual	1106.808	57	19.418		
	Total	1962.361	60			
4	Regression	1056.097	4	264.024	16.315	.000 <sup>e</sup>
	Residual	906.264	56	16.183		
	Total	1962.361	60			
5	Regression	1161.593	5	232.319	15.957	.000 <sup>f</sup>
	Residual	800.768	55	14.559		
	Total	1962.361	60			

a. Dependent Variable: SeatingDistance1

b. Predictors: (Constant), Knee1

c. Predictors: (Constant), Knee1, EyeHeight1

d. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1

e. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1

f. Predictors: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1, ShoePlane1

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	38.711	8.367		4.627	.000
	Knee1	.299	.075	.461	3.994	.000
2	(Constant)	4.293	15.306		.280	.780
	Knee1	.374	.077	.577	4.868	.000
	EyeHeight1	.271	.103	.312	2.635	.011
3	(Constant)	-9.939	14.340		-.693	.491
	Knee1	.452	.072	.697	6.238	.000
	EyeHeight1	.571	.123	.657	4.655	.000
	SeatingHeight1	-.589	.157	-.492	-3.748	.000
4	(Constant)	-25.741	13.840		-1.860	.068
	Knee1	.389	.069	.600	5.672	.000
	EyeHeight1	.825	.133	.950	6.193	.000
	SeatingHeight1	-.746	.150	-.623	-4.969	.000
	Thigh1	.271	.077	.434	3.520	.001

	(Constant)	-19.672	13.319		-1.477	.145
	Knee1	.381	.065	.588	5.858	.000
5	EyeHeight1	.836	.126	.962	6.611	.000
	SeatingHeight1	-.705	.143	-.589	-4.925	.000
	Thigh1	.274	.073	.438	3.747	.000
	ShoePlane1	-.121	.045	-.236	-2.692	.009

a. Dependent Variable: SeatingDistance1

#### Excluded Variables<sup>a</sup>

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics	
					Tolerance	
1	Torso1	-.164 <sup>b</sup>	-1.425	.159	-.184	.993
	Hips1	-.259 <sup>b</sup>	-2.050	.045	-.260	.792
	Thigh1	.033 <sup>b</sup>	.248	.805	.033	.779
	Ankle1	.052 <sup>b</sup>	.433	.666	.057	.955
	ShoePlane1	-.228 <sup>b</sup>	-2.016	.048	-.256	.996
	SeatAngle1	-.206 <sup>b</sup>	-1.816	.074	-.232	1.000
	EyeHeight1	.312 <sup>b</sup>	2.635	.011	.327	.863
	SeatingHeight1	-.094 <sup>b</sup>	-.809	.422	-.106	1.000
	SteeringHeight1	.024 <sup>b</sup>	.208	.836	.027	.989
2	Torso1	-.041 <sup>c</sup>	-.329	.744	-.043	.792
	Hips1	-.222 <sup>c</sup>	-1.815	.075	-.234	.780
	Thigh1	.251 <sup>c</sup>	1.795	.078	.231	.596
	Ankle1	.102 <sup>c</sup>	.895	.375	.118	.930
	ShoePlane1	-.272 <sup>c</sup>	-2.556	.013	-.321	.978
	SeatAngle1	-.221 <sup>c</sup>	-2.060	.044	-.263	.997
	SeatingHeight1	-.492 <sup>c</sup>	-3.748	.000	-.445	.575
	SteeringHeight1	.031 <sup>c</sup>	.279	.782	.037	.989
	Torso1	-.023 <sup>d</sup>	-.206	.837	-.028	.790
3	Hips1	-.046 <sup>d</sup>	-.364	.717	-.049	.631
	Thigh1	.434 <sup>d</sup>	3.520	.001	.426	.543
	Ankle1	.080 <sup>d</sup>	.776	.441	.103	.927
	ShoePlane1	-.232 <sup>d</sup>	-2.380	.021	-.303	.965
	SeatAngle1	-.131 <sup>d</sup>	-1.273	.208	-.168	.926
	SteeringHeight1	-.020 <sup>d</sup>	-.194	.847	-.026	.971
	Torso1	.101 <sup>e</sup>	.934	.355	.125	.711
	Hips1	.066 <sup>e</sup>	.557	.580	.075	.586
	Ankle1	.002 <sup>e</sup>	.020	.984	.003	.875
4	ShoePlane1	-.236 <sup>e</sup>	-2.692	.009	-.341	.965

	SeatAngle1	-.140 <sup>e</sup>	-1.500	.139	-.198	.926
	SteeringHeight1	.007 <sup>e</sup>	.073	.942	.010	.965
	Torso1	.031 <sup>f</sup>	.288	.774	.039	.662
	Hips1	.014 <sup>f</sup>	.123	.903	.017	.568
5	Ankle1	.106 <sup>f</sup>	1.077	.286	.145	.759
	SeatAngle1	-.111 <sup>f</sup>	-1.241	.220	-.167	.911
	SteeringHeight1	-.001 <sup>f</sup>	-.008	.994	-.001	.964

a. Dependent Variable: SeatingDistance1

b. Predictors in the Model: (Constant), Knee1

c. Predictors in the Model: (Constant), Knee1, EyeHeight1

d. Predictors in the Model: (Constant), Knee1, EyeHeight1, SeatingHeight1

e. Predictors in the Model: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1

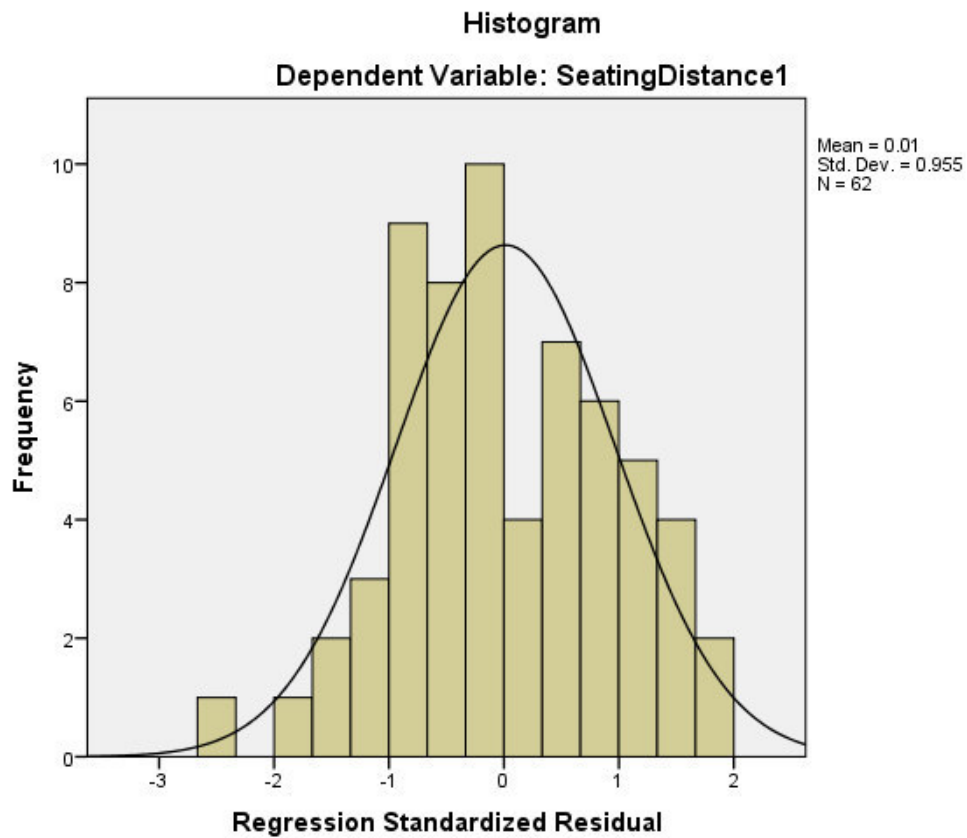
f. Predictors in the Model: (Constant), Knee1, EyeHeight1, SeatingHeight1, Thigh1, ShoePlane1

**Residuals Statistics<sup>a</sup>**

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	59.5021	81.6115	71.9602	4.39235	62
Residual	-9.54846	7.48062	.04970	3.64424	62
Std. Predicted Value	-2.846	2.179	-.014	.998	62
Std. Residual	-2.502	1.960	.013	.955	62

a. Dependent Variable: SeatingDistance1

## Charts



Normal P-P Plot of Regression Standardized Residual

