

The Mixed Procedure

Model Information	
Data Set	WORK.MYDATA3
Dependent Variable	wind_damage_severity
Covariance Structure	Variance Components
Estimation Method	REML
Residual Variance Method	Profile
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
blocks	3	1 2 3
geo_num	10	1 2 3 4 5 6 7 8 9 10
origin	2	Intro Nat

Dimensions	
Covariance Parameters	3
Columns in X	30
Columns in Z	33
Subjects	1
Max Obs per Subject	86

Number of Observations	
Number of Observations Read	240
Number of Observations Used	86
Number of Observations Not Used	154

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	154.23727663	
1	2	150.65337811	0.00013870
2	1	150.65161327	0.00000169
3	1	150.65159297	0.00000000

Convergence criteria met.

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Covariance Parameter Estimates	
Cov Parm	Estimate
blocks	0.03779
blocks*geo_num	0.08576
Residual	0.3256

Fit Statistics	
-2 Res Log Likelihood	150.7
AIC (Smaller is Better)	156.7
AICC (Smaller is Better)	157.0
BIC (Smaller is Better)	153.9

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
geo_num	9	9	2.40	0.1042
origin	1	58	0.12	0.7333
geo_num*origin	6	58	3.99	0.0021

Least Squares Means							
Effect	origin	geo_num	Estimate	Standard Error	DF	t Value	Pr > |t|
geo_num		1	Non-est	.	.	.	.
geo_num		2	Non-est	.	.	.	.
geo_num		3	1.9761	0.2886	9	6.85	<.0001
geo_num		4	1.9821	0.3794	9	5.22	0.0005
geo_num		5	2.9427	0.3137	9	9.38	<.0001
geo_num		6	1.5594	0.3166	9	4.93	0.0008
geo_num		7	Non-est	.	.	.	.
geo_num		8	1.6918	0.3190	9	5.30	0.0005
geo_num		9	2.0010	0.3137	9	6.38	0.0001
geo_num		10	1.7261	0.3112	9	5.55	0.0004
origin	Intro		Non-est	.	.	.	.
origin	Nat		Non-est	.	.	.	.
geo_num*origin	Nat	1	1.7045	0.2807	58	6.07	<.0001
geo_num*origin	Intro	2	1.3635	0.3277	58	4.16	0.0001
geo_num*origin	Intro	3	1.0479	0.3179	58	3.30	0.0017
geo_num*origin	Nat	3	2.9043	0.4760	58	6.10	<.0001

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Least Squares Means							
Effect	origin	geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Intro	4	1.0599	0.3559	58	2.98	0.0042
geo_num*origin	Nat	4	2.9043	0.6660	58	4.36	<.0001
geo_num*origin	Intro	5	3.9043	0.5299	58	7.37	<.0001
geo_num*origin	Nat	5	1.9812	0.3277	58	6.05	<.0001
geo_num*origin	Intro	6	1.9043	0.5299	58	3.59	0.0007
geo_num*origin	Nat	6	1.2145	0.3386	58	3.59	0.0007
geo_num*origin	Intro	7	1.1925	0.2885	58	4.13	0.0001
geo_num*origin	Intro	8	2.2376	0.4760	58	4.70	<.0001
geo_num*origin	Nat	8	1.1459	0.4182	58	2.74	0.0082
geo_num*origin	Intro	9	2.4043	0.5299	58	4.54	<.0001
geo_num*origin	Nat	9	1.5978	0.3277	58	4.88	<.0001
geo_num*origin	Intro	10	1.0479	0.3179	58	3.30	0.0017
geo_num*origin	Nat	10	2.4043	0.5299	58	4.54	<.0001

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num		1		2	Non-est	.	.	.	.
geo_num		1		3	Non-est	.	.	.	.
geo_num		1		4	Non-est	.	.	.	.
geo_num		1		5	Non-est	.	.	.	.
geo_num		1		6	Non-est	.	.	.	.
geo_num		1		7	Non-est	.	.	.	.
geo_num		1		8	Non-est	.	.	.	.
geo_num		1		9	Non-est	.	.	.	.
geo_num		1		10	Non-est	.	.	.	.
geo_num		2		3	Non-est	.	.	.	.
geo_num		2		4	Non-est	.	.	.	.
geo_num		2		5	Non-est	.	.	.	.
geo_num		2		6	Non-est	.	.	.	.
geo_num		2		7	0.1711	0.4008	9	0.43	0.6795
geo_num		2		8	Non-est	.	.	.	.
geo_num		2		9	Non-est	.	.	.	.
geo_num		2		10	Non-est	.	.	.	.
geo_num		3		4	-0.00601	0.4468	9	-0.01	0.9896
geo_num		3		5	-0.9667	0.3925	9	-2.46	0.0360
geo_num		3		6	0.4167	0.3948	9	1.06	0.3188
geo_num		3		7	Non-est	.	.	.	.
geo_num		3		8	0.2843	0.3967	9	0.72	0.4918
geo_num		3		9	-0.02497	0.3925	9	-0.06	0.9507
geo_num		3		10	0.2500	0.3905	9	0.64	0.5380
geo_num		4		5	-0.9607	0.4634	9	-2.07	0.0680
geo_num		4		6	0.4227	0.4654	9	0.91	0.3874
geo_num		4		7	Non-est	.	.	.	.
geo_num		4		8	0.2903	0.4665	9	0.62	0.5492
geo_num		4		9	-0.01897	0.4634	9	-0.04	0.9683
geo_num		4		10	0.2560	0.4617	9	0.55	0.5927
geo_num		5		6	1.3833	0.4136	9	3.34	0.0086
geo_num		5		7	Non-est	.	.	.	.
geo_num		5		8	1.2510	0.4157	9	3.01	0.0147
geo_num		5		9	0.9417	0.4113	9	2.29	0.0478
geo_num		5		10	1.2167	0.4094	9	2.97	0.0157

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num		6		7	Non-est	.	.	.	.
geo_num		6		8	-0.1324	0.4176	9	-0.32	0.7585
geo_num		6		9	-0.4416	0.4136	9	-1.07	0.3134
geo_num		6		10	-0.1667	0.4117	9	-0.40	0.6950
geo_num		7		8	Non-est	.	.	.	.
geo_num		7		9	Non-est	.	.	.	.
geo_num		7		10	Non-est	.	.	.	.
geo_num		8		9	-0.3093	0.4157	9	-0.74	0.4758
geo_num		8		10	-0.03431	0.4135	9	-0.08	0.9357
geo_num		9		10	0.2750	0.4094	9	0.67	0.5187
origin	Intro		Nat		Non-est	.	.	.	.
geo_num*origin	Nat	1	Intro	2	0.3410	0.3987	58	0.86	0.3960
geo_num*origin	Nat	1	Intro	3	0.6566	0.3908	58	1.68	0.0983
geo_num*origin	Nat	1	Nat	3	-1.1997	0.5331	58	-2.25	0.0282
geo_num*origin	Nat	1	Intro	4	0.6446	0.4221	58	1.53	0.1322
geo_num*origin	Nat	1	Nat	4	-1.1997	0.7080	58	-1.69	0.0955
geo_num*origin	Nat	1	Intro	5	-2.1997	0.5817	58	-3.78	0.0004
geo_num*origin	Nat	1	Nat	5	-0.2767	0.3989	58	-0.69	0.4907
geo_num*origin	Nat	1	Intro	6	-0.1997	0.5817	58	-0.34	0.7326
geo_num*origin	Nat	1	Nat	6	0.4900	0.4078	58	1.20	0.2344
geo_num*origin	Nat	1	Intro	7	0.5120	0.3686	58	1.39	0.1702
geo_num*origin	Nat	1	Intro	8	-0.5331	0.5331	58	-1.00	0.3215
geo_num*origin	Nat	1	Nat	8	0.5586	0.4752	58	1.18	0.2446
geo_num*origin	Nat	1	Intro	9	-0.6997	0.5817	58	-1.20	0.2339
geo_num*origin	Nat	1	Nat	9	0.1067	0.3989	58	0.27	0.7900
geo_num*origin	Nat	1	Intro	10	0.6566	0.3908	58	1.68	0.0983
geo_num*origin	Nat	1	Nat	10	-0.6997	0.5817	58	-1.20	0.2339
geo_num*origin	Intro	2	Intro	3	0.3157	0.4165	58	0.76	0.4516
geo_num*origin	Intro	2	Nat	3	-1.5407	0.5731	58	-2.69	0.0094
geo_num*origin	Intro	2	Intro	4	0.3037	0.4460	58	0.68	0.4987
geo_num*origin	Intro	2	Nat	4	-1.5407	0.7385	58	-2.09	0.0414
geo_num*origin	Intro	2	Intro	5	-2.5407	0.6186	58	-4.11	0.0001
geo_num*origin	Intro	2	Nat	5	-0.6176	0.4241	58	-1.46	0.1507
geo_num*origin	Intro	2	Intro	6	-0.5407	0.6186	58	-0.87	0.3857
geo_num*origin	Intro	2	Nat	6	0.1490	0.4325	58	0.34	0.7317

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Intro	2	Intro	7	0.1711	0.4008	58	0.43	0.6711
geo_num*origin	Intro	2	Intro	8	-0.8740	0.5731	58	-1.53	0.1326
geo_num*origin	Intro	2	Nat	8	0.2176	0.4963	58	0.44	0.6627
geo_num*origin	Intro	2	Intro	9	-1.0407	0.6186	58	-1.68	0.0979
geo_num*origin	Intro	2	Nat	9	-0.2343	0.4241	58	-0.55	0.5828
geo_num*origin	Intro	2	Intro	10	0.3157	0.4165	58	0.76	0.4516
geo_num*origin	Intro	2	Nat	10	-1.0407	0.6186	58	-1.68	0.0979
geo_num*origin	Intro	3	Nat	3	-1.8564	0.5675	58	-3.27	0.0018
geo_num*origin	Intro	3	Intro	4	-0.01201	0.4390	58	-0.03	0.9783
geo_num*origin	Intro	3	Nat	4	-1.8564	0.7343	58	-2.53	0.0142
geo_num*origin	Intro	3	Intro	5	-2.8564	0.6135	58	-4.66	<.0001
geo_num*origin	Intro	3	Nat	5	-0.9333	0.4165	58	-2.24	0.0289
geo_num*origin	Intro	3	Intro	6	-0.8564	0.6135	58	-1.40	0.1680
geo_num*origin	Intro	3	Nat	6	-0.1667	0.4251	58	-0.39	0.6965
geo_num*origin	Intro	3	Intro	7	-0.1446	0.3928	58	-0.37	0.7141
geo_num*origin	Intro	3	Intro	8	-1.1897	0.5675	58	-2.10	0.0404
geo_num*origin	Intro	3	Nat	8	-0.09805	0.4909	58	-0.20	0.8424
geo_num*origin	Intro	3	Intro	9	-1.3564	0.6135	58	-2.21	0.0310
geo_num*origin	Intro	3	Nat	9	-0.5499	0.4165	58	-1.32	0.1919
geo_num*origin	Intro	3	Intro	10	-999E-18	0.4089	58	-0.00	1.0000
geo_num*origin	Intro	3	Nat	10	-1.3564	0.6135	58	-2.21	0.0310
geo_num*origin	Nat	3	Intro	4	1.8444	0.5896	58	3.13	0.0028
geo_num*origin	Nat	3	Nat	4	-155E-17	0.7782	58	-0.00	1.0000
geo_num*origin	Nat	3	Intro	5	-1.0000	0.6655	58	-1.50	0.1383
geo_num*origin	Nat	3	Nat	5	0.9231	0.5731	58	1.61	0.1127
geo_num*origin	Nat	3	Intro	6	1.0000	0.6655	58	1.50	0.1383
geo_num*origin	Nat	3	Nat	6	1.6897	0.5794	58	2.92	0.0050
geo_num*origin	Nat	3	Intro	7	1.7118	0.5425	58	3.16	0.0025
geo_num*origin	Nat	3	Intro	8	0.6667	0.6234	58	1.07	0.2893
geo_num*origin	Nat	3	Nat	8	1.7583	0.6291	58	2.79	0.0070
geo_num*origin	Nat	3	Intro	9	0.5000	0.6655	58	0.75	0.4555
geo_num*origin	Nat	3	Nat	9	1.3064	0.5731	58	2.28	0.0263
geo_num*origin	Nat	3	Intro	10	1.8564	0.5675	58	3.27	0.0018
geo_num*origin	Nat	3	Nat	10	0.5000	0.6655	58	0.75	0.4555
geo_num*origin	Intro	4	Nat	4	-1.8444	0.7515	58	-2.45	0.0171

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Intro	4	Intro	5	-2.8444	0.6340	58	-4.49	<.0001
geo_num*origin	Intro	4	Nat	5	-0.9213	0.4463	58	-2.06	0.0435
geo_num*origin	Intro	4	Intro	6	-0.8444	0.6340	58	-1.33	0.1881
geo_num*origin	Intro	4	Nat	6	-0.1547	0.4542	58	-0.34	0.7347
geo_num*origin	Intro	4	Intro	7	-0.1326	0.4241	58	-0.31	0.7557
geo_num*origin	Intro	4	Intro	8	-1.1777	0.5896	58	-2.00	0.0505
geo_num*origin	Intro	4	Nat	8	-0.08604	0.5148	58	-0.17	0.8678
geo_num*origin	Intro	4	Intro	9	-1.3444	0.6340	58	-2.12	0.0382
geo_num*origin	Intro	4	Nat	9	-0.5379	0.4463	58	-1.21	0.2330
geo_num*origin	Intro	4	Intro	10	0.01201	0.4390	58	0.03	0.9783
geo_num*origin	Intro	4	Nat	10	-1.3444	0.6340	58	-2.12	0.0382
geo_num*origin	Nat	4	Intro	5	-1.0000	0.8124	58	-1.23	0.2233
geo_num*origin	Nat	4	Nat	5	0.9231	0.7386	58	1.25	0.2164
geo_num*origin	Nat	4	Intro	6	1.0000	0.8124	58	1.23	0.2233
geo_num*origin	Nat	4	Nat	6	1.6897	0.7434	58	2.27	0.0268
geo_num*origin	Nat	4	Intro	7	1.7118	0.7151	58	2.39	0.0199
geo_num*origin	Nat	4	Intro	8	0.6667	0.7782	58	0.86	0.3952
geo_num*origin	Nat	4	Nat	8	1.7583	0.7829	58	2.25	0.0285
geo_num*origin	Nat	4	Intro	9	0.5000	0.8124	58	0.62	0.5406
geo_num*origin	Nat	4	Nat	9	1.3064	0.7386	58	1.77	0.0822
geo_num*origin	Nat	4	Intro	10	1.8564	0.7343	58	2.53	0.0142
geo_num*origin	Nat	4	Nat	10	0.5000	0.8124	58	0.62	0.5406
geo_num*origin	Intro	5	Nat	5	1.9231	0.6186	58	3.11	0.0029
geo_num*origin	Intro	5	Intro	6	2.0000	0.7051	58	2.84	0.0063
geo_num*origin	Intro	5	Nat	6	2.6897	0.6244	58	4.31	<.0001
geo_num*origin	Intro	5	Intro	7	2.7118	0.5904	58	4.59	<.0001
geo_num*origin	Intro	5	Intro	8	1.6667	0.6655	58	2.50	0.0151
geo_num*origin	Intro	5	Nat	8	2.7583	0.6709	58	4.11	0.0001
geo_num*origin	Intro	5	Intro	9	1.5000	0.7051	58	2.13	0.0376
geo_num*origin	Intro	5	Nat	9	2.3064	0.6186	58	3.73	0.0004
geo_num*origin	Intro	5	Intro	10	2.8564	0.6135	58	4.66	<.0001
geo_num*origin	Intro	5	Nat	10	1.5000	0.7051	58	2.13	0.0376
geo_num*origin	Nat	5	Intro	6	0.07694	0.6186	58	0.12	0.9014
geo_num*origin	Nat	5	Nat	6	0.7667	0.4325	58	1.77	0.0815
geo_num*origin	Nat	5	Intro	7	0.7887	0.4008	58	1.97	0.0539

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Nat	5	Intro	8	-0.2564	0.5731	58	-0.45	0.6562
geo_num*origin	Nat	5	Nat	8	0.8353	0.4983	58	1.68	0.0991
geo_num*origin	Nat	5	Intro	9	-0.4231	0.6186	58	-0.68	0.4968
geo_num*origin	Nat	5	Nat	9	0.3834	0.4239	58	0.90	0.3695
geo_num*origin	Nat	5	Intro	10	0.9333	0.4165	58	2.24	0.0289
geo_num*origin	Nat	5	Nat	10	-0.4231	0.6186	58	-0.68	0.4968
geo_num*origin	Intro	6	Nat	6	0.6897	0.6244	58	1.10	0.2739
geo_num*origin	Intro	6	Intro	7	0.7118	0.5904	58	1.21	0.2329
geo_num*origin	Intro	6	Intro	8	-0.3333	0.6655	58	-0.50	0.6183
geo_num*origin	Intro	6	Nat	8	0.7583	0.6709	58	1.13	0.2630
geo_num*origin	Intro	6	Intro	9	-0.5000	0.7051	58	-0.71	0.4811
geo_num*origin	Intro	6	Nat	9	0.3064	0.6186	58	0.50	0.6222
geo_num*origin	Intro	6	Intro	10	0.8564	0.6135	58	1.40	0.1680
geo_num*origin	Intro	6	Nat	10	-0.5000	0.7051	58	-0.71	0.4811
geo_num*origin	Nat	6	Intro	7	0.02205	0.4097	58	0.05	0.9573
geo_num*origin	Nat	6	Intro	8	-1.0230	0.5794	58	-1.77	0.0827
geo_num*origin	Nat	6	Nat	8	0.06862	0.5046	58	0.14	0.8923
geo_num*origin	Nat	6	Intro	9	-1.1897	0.6244	58	-1.91	0.0617
geo_num*origin	Nat	6	Nat	9	-0.3833	0.4325	58	-0.89	0.3792
geo_num*origin	Nat	6	Intro	10	0.1667	0.4251	58	0.39	0.6965
geo_num*origin	Nat	6	Nat	10	-1.1897	0.6244	58	-1.91	0.0617
geo_num*origin	Intro	7	Intro	8	-1.0451	0.5425	58	-1.93	0.0590
geo_num*origin	Intro	7	Nat	8	0.04657	0.4776	58	0.10	0.9227
geo_num*origin	Intro	7	Intro	9	-1.2118	0.5904	58	-2.05	0.0446
geo_num*origin	Intro	7	Nat	9	-0.4053	0.4008	58	-1.01	0.3160
geo_num*origin	Intro	7	Intro	10	0.1446	0.3928	58	0.37	0.7141
geo_num*origin	Intro	7	Nat	10	-1.2118	0.5904	58	-2.05	0.0446
geo_num*origin	Intro	8	Nat	8	1.0917	0.6291	58	1.74	0.0880
geo_num*origin	Intro	8	Intro	9	-0.1667	0.6655	58	-0.25	0.8031
geo_num*origin	Intro	8	Nat	9	0.6398	0.5731	58	1.12	0.2689
geo_num*origin	Intro	8	Intro	10	1.1897	0.5675	58	2.10	0.0404
geo_num*origin	Intro	8	Nat	10	-0.1667	0.6655	58	-0.25	0.8031
geo_num*origin	Nat	8	Intro	9	-1.2583	0.6709	58	-1.88	0.0657
geo_num*origin	Nat	8	Nat	9	-0.4519	0.4983	58	-0.91	0.3682
geo_num*origin	Nat	8	Intro	10	0.09805	0.4909	58	0.20	0.8424

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Differences of Least Squares Means									
Effect	origin	geo_num	_origin	_geo_num	Estimate	Standard Error	DF	t Value	Pr > t
geo_num*origin	Nat	8	Nat	10	-1.2583	0.6709	58	-1.88	0.0657
geo_num*origin	Intro	9	Nat	9	0.8064	0.6186	58	1.30	0.1975
geo_num*origin	Intro	9	Intro	10	1.3564	0.6135	58	2.21	0.0310
geo_num*origin	Intro	9	Nat	10	7.11E-15	0.7051	58	0.00	1.0000
geo_num*origin	Nat	9	Intro	10	0.5499	0.4165	58	1.32	0.1919
geo_num*origin	Nat	9	Nat	10	-0.8064	0.6186	58	-1.30	0.1975
geo_num*origin	Intro	10	Nat	10	-1.3564	0.6135	58	-2.21	0.0310