Leader data set Partial listing

Obs	years	lost	manner	start	military	age	conflict
1	3	natural death	nonconstitutional ascent	1975	no	53	medium/high conflict
2	8	still in power	constitutional ascent	1979	no	37	medium/high conflict
3	3	nonconstitutional exit	constitutional ascent	1960	no	44	medium/high conflict
4	1	nonconstitutional exit	constitutional ascent	1964	no	51	medium/high conflict
5	1	nonconstitutional exit	nonconstitutional ascent	1965	yes	56	medium/high conflict
6	0	nonconstitutional exit	nonconstitutional ascent	1967	yes	37	medium/high conflict
7	1	nonconstitutional exit	nonconstitutional ascent	1968	no	50	medium/high conflict
8	15	still in power	nonconstitutional ascent	1972	yes	39	medium/high conflict
9	13	natural death	constitutional ascent	1966	no	45	low conflict
10	7	still in power	constitutional ascent	1980	no	55	low conflict

Obs	loginc	growth	рор	land	literacy	region	cens	outcome
1	5.7990926545	-5.7	8	1247	20	africa	1	2
2	5.7990926545	-5.7	8	1247	20	africa	0	0
3	4.7004803658	1	4	112	11	africa	1	3
4	4.7004803658	1	4	112	11	africa	1	3
5	4.7004803658	1	4	112	11	africa	1	3
6	4.7004803658	1	4	112	11	africa	1	3
7	4.7004803658	1	4	112	11	africa	1	3
8	4.7004803658	1	4	112	11	africa	0	0
9	5.4380793089	8.5	1.2	600	30	africa	1	2
10	5.4380793089	8.5	1.2	600	30	africa	0	0

Leader data set **Descriptive statistics**

The MEANS Procedure

Variable	N	Mean	Std Dev	Minimum	Maximum
years	438	5.1141553	5.5778846	0	27.0000000
start	438	1972.60	8.0846888	1960.00	1987.00
age	438	49.3926941	11.4196483	17.0000000	81.0000000
loginc	438	5.9159545	1.0729694	4.0943446	9.5460981
growth	438	1.6301370	2.8301103	-7.0000000	8.5000000
pop	438	35.7800890	115.6069206	0.0080000	1088.00
land	438	739.9743379	1431.02	0.0200000	9596.00
literacy	438	59.4132420	28.1875138	5.0000000	99.0000000

Leader data set **Descriptive statistics**

The FREQ Procedure

lost	Frequency	Percent	Cumulative Frequency	Cumulative Percent
constitutional exit	146	33.33	146	33.33
natural death	27	6.16	173	39.50
nonconstitutional exit	154	35.16	327	74.66
still in power	111	25.34	438	100.00

manner	Frequency	Percent	Cumulative Frequency	Cumulative Percent
constitutional ascent	280	63.93	280	63.93
nonconstitutional ascent	158	36.07	438	100.00

military	Frequency	Percent	Cumulative Frequency	Cumulative Percent
no	294	67.12	294	67.12
yes	144	32.88	438	100.00

conflict	Frequency	Percent	Cumulative Frequency	Cumulative Percent
low conflict	166	37.90	166	37.90
medium/high conflict	272	62.10	438	100.00

region	Frequency	Percent	Cumulative Frequency	Cumulative Percent
africa	132	30.14	132	30.14
asia	91	20.78	223	50.91
latin am	155	35.39	378	86.30
middle e	60	13.70	438	100.00

Summary of the Number of Censored and Uncensored Values						
Stratum	manner	Total	Failed	Censored	Percent Censored	
1	constitutional ascent	280	210	70	25.00	
2	nonconstitutional ascent	158	117	41	25.95	
Total		438	327	111	25.34	

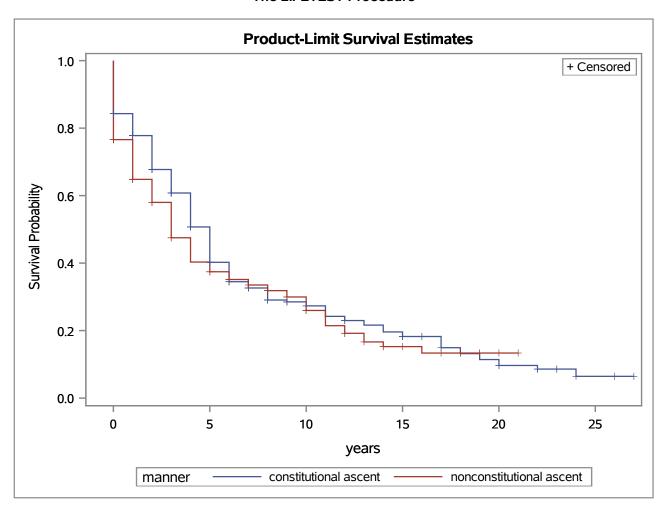
The LIFETEST Procedure

Rank Statistics			
manner	Log-Rank	Wilcoxon	
constitutional ascent	-9.3867	-4849.0	
nonconstitutional ascent	9.3867	4849.0	

Covariance Matrix for the Log-Rank Statistics				
constitutional nonconstitutional ascent ascent				
constitutional ascent	62.1066	-62.1066		
nonconstitutional ascent	-62.1066	62.1066		

Covariance Matrix for the Wilcoxon Statistics				
manner constitutional ascent nonconstitutional ascent				
constitutional ascent	5468832	-5468832		
nonconstitutional ascent	-5468832	5468832		

Test of Equality over Strata							
Test	Chi-Square DF Chi-Square						
Log-Rank	1.4187	1	0.2336				
Wilcoxon	4.2994	1	0.0381				
-2Log(LR)	1.9957	1	0.1577				



Summary of the Number of Censored and Uncensored Values							
Stratum military Total Failed Censored Censored							
1	no	294	224	70	23.81		
2	yes	144	103	41	28.47		
Total		438	327	111	25.34		

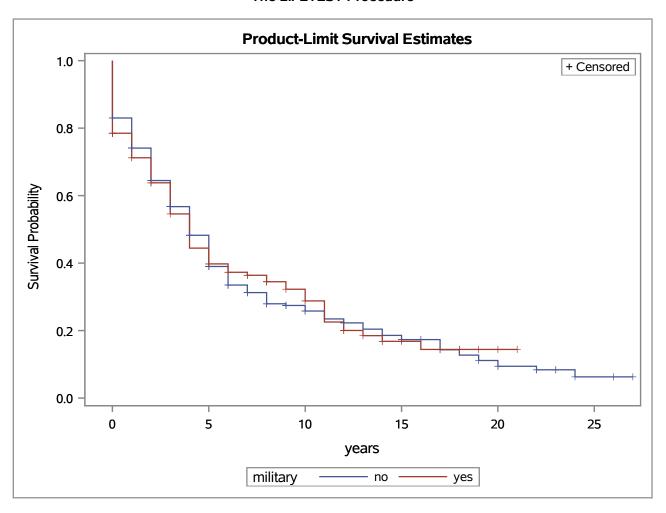
The LIFETEST Procedure

Rank Statistics					
military Log-Rank Wilcoxon					
no 0.69612		-815.00			
yes	-0.69612	815.00			

Covariance Matrix for the Log-Rank Statistics					
military	no ye				
no	60.9494	-60.9494			
yes	-60.9494	60.9494			

Covariance Matrix for the Wilcoxon Statistics				
military	no	yes		
no	5319080	-5319080		
yes	-5319080	5319080		

Test of Equality over Strata						
Test Chi-Square DF Chi-Square						
Log-Rank	0.0080	1	0.9289			
Wilcoxon	0.1249	1	0.7238			
-2Log(LR)	0.0174	1	0.8952			



Summary of the Number of Censored and Uncensored Values							
Stratum	tratum conflict Total Failed Censored Censored						
1	low conflict	166	124	42	25.30		
2	medium/high conflict	272	203	69	25.37		
Total		438	327	111	25.34		

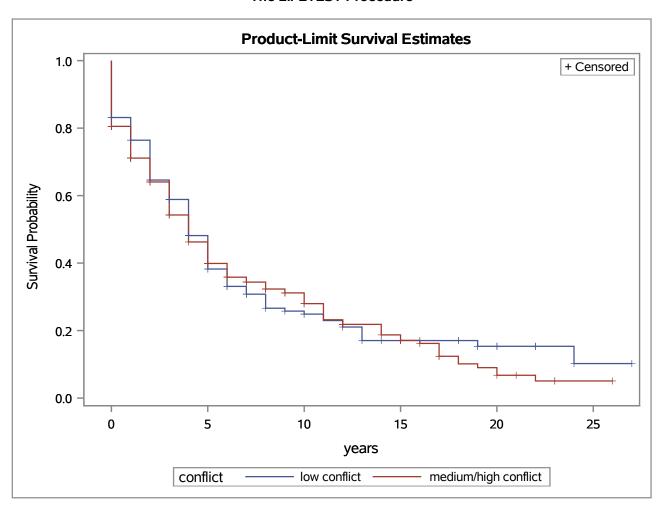
The LIFETEST Procedure

Rank Statistics					
conflict Log-Rank Wilcoxon					
low conflict	-4.0631	-956.00			
medium/high conflict	4.0631	956.00			

Covariance Matrix for the Log-Rank Statistics					
low medium/hig conflict conflict conflict					
low conflict	67.4301	-67.4301			
medium/high conflict	-67.4301	67.4301			

Covariance Matrix for the Wilcoxon Statistics					
conflict low conflict conflict					
low conflict	5764781	-5764781			
medium/high conflict	-5764781	5764781			

Test of Equality over Strata						
Test Chi-Square DF Chi-Square						
Log-Rank	og-Rank 0.2448		0.6207			
Wilcoxon	0.1585	1	0.6905			
-2Log(LR)	0.3092	1	0.5782			



Summary of the Number of Censored and Uncensored Values							
Stratum region Total Failed Censored Censored							
1	africa	132	90	42	31.82		
2	asia	91	65	26	28.57		
3	latin am	155	130	25	16.13		
4	middle e	60	42	18	30.00		
Total		438	327	111	25.34		

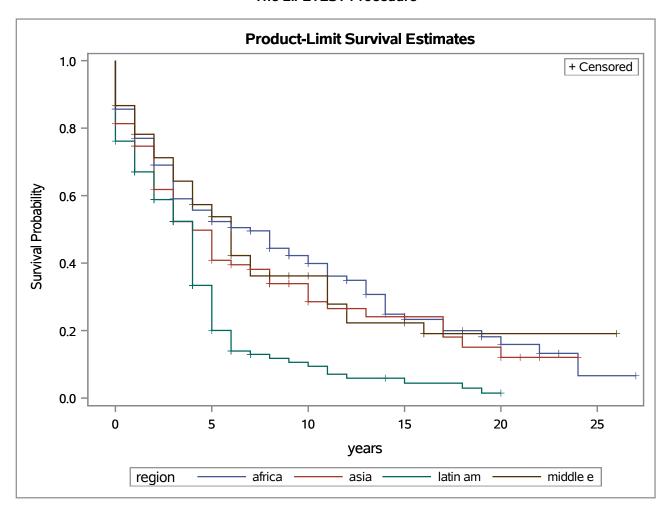
The LIFETEST Procedure

Rank Statistics						
region Log-Rank Wilcoxor						
africa	-25.726	-6229.0				
asia	-4.984	-454.0				
latin am	40.193	9491.0				
middle e	-9.484	-2808.0				

Covariance Matrix for the Log-Rank Statistics						
region	africa asia latin am middle e					
africa	63.7560	-22.0230	-25.6229	-16.1102		
asia	-22.0230	47.7703	-16.1344	-9.6130		
latin am	-25.6229	-16.1344	53.6167	-11.8594		
middle e	-16.1102	-9.6130	-11.8594	37.5826		

Covariance Matrix for the Wilcoxon Statistics						
region	africa asia latin am middle					
africa	5222065	-1586630	-2515011	-1120424		
asia	-1586630	4001965	-1677518	-737816		
latin am	-2515011	-1677518	5363777	-1171247		
middle e	-1120424	-737816	-1171247	3029487		

Test of Equality over Strata					
Test	est Chi-Square DF Chi-Squar				
Log-Rank	31.3905	3	<.0001		
Wilcoxon	18.6136	3	0.0003		
-2Log(LR)	48.2772	3	<.0001		



Summary of the Number of Censored and Uncensored Values						
Stratum start Total Failed Censored Censore						
1	<1969	166	153	13	7.83	
2	1974	133	103	30	22.56	
3	>=1979	139	71	68	48.92	
Total		438	327	111	25.34	

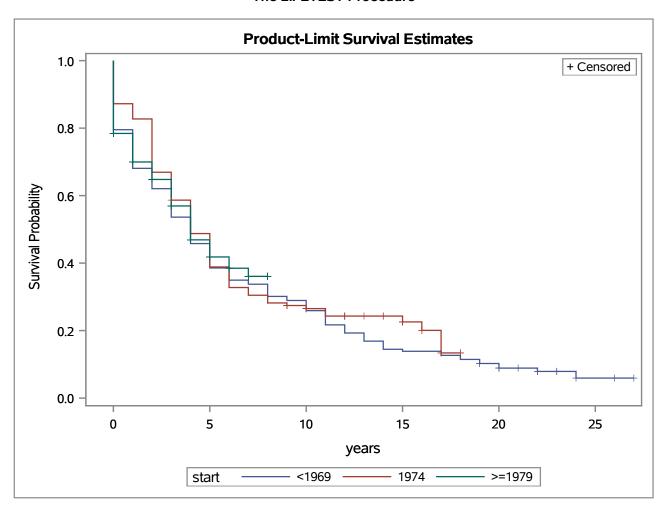
The LIFETEST Procedure

Rank Statistics					
start Log-Rank Wilcoxo					
<1969	8.0415	2229.0			
1974	-5.8862	-2633.0			
>=1979	-2.1552	404.0			

Covariance Matrix for the Log-Rank Statistics						
start <1969 1974 >=197						
<1969	65.7339	-41.1057	-24.6282			
1974	-41.1057	62.0690	-20.9633			
>=1979	-24.6282	-20.9633	45.5914			

Covariance Matrix for the Wilcoxon Statistics						
start <1969 1974 >=197						
<1969	5749102	-3057020	-2692081			
1974	-3057020	5322139	-2265119			
>=1979	-2692081	-2265119	4957200			

Test of Equality over Strata						
Test Chi-Square DF Chi-Square						
Log-Rank	1.0040	2	0.6053			
Wilcoxon	1.4312	2	0.4889			
-2Log(LR)	4.4606	2	0.1075			



Summary of the Number of Censored and Uncensored Values						
Stratum age Total Failed Censored Percen						
1	<39	77	49	28	36.36	
2	49	269	204	65	24.16	
3	>=59	92	74	18	19.57	
Total		438	327	111	25.34	

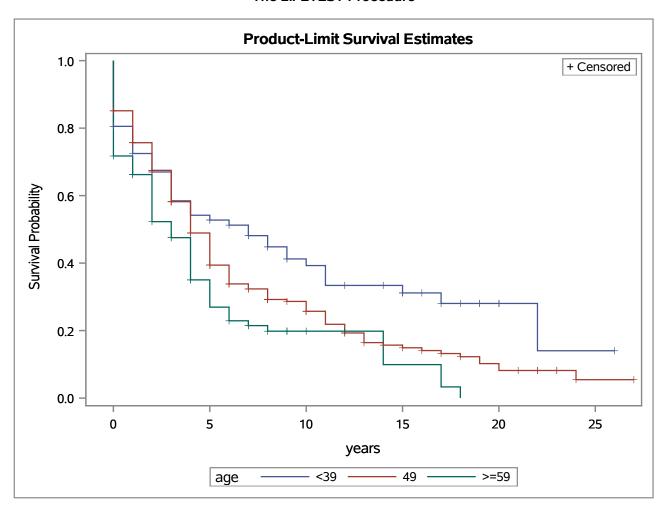
The LIFETEST Procedure

Rank Statistics					
age	Wilcoxon				
<39 -19.095		-2793.0			
49 0.186		-2898.0			
>=59	18.910	5691.0			

Covariance Matrix for the Log-Rank Statistics					
age <39 49 >=					
<39	46.2988	-36.8698	-9.4290		
49	-36.8698	66.4822	-29.6124		
>=59	-9.4290	-29.6124	39.0414		

Covariance Matrix for the Wilcoxon Statistics				
age	<39	49	>=59	
<39	3578293	-2734511	-843782	
49	-2734511	5690577	-2956066	
>=59	-843782	-2956066	3799848	

Test of Equality over Strata				
Test	Chi-Square DF Chi-Square			
Log-Rank	13.9536	2	0.0009	
Wilcoxon	9.2130	2	0.0100	
-2Log(LR)	21.6755	2	<.0001	



Summary of the Number of Censored and Uncensored Values					
Stratum	loginc	Total	Failed	Censored	Percent Censored
1	<5.3	130	92	38	29.23
2	5.75	140	106	34	24.29
3	>=6.2	168	129	39	23.21
Total		438	327	111	25.34

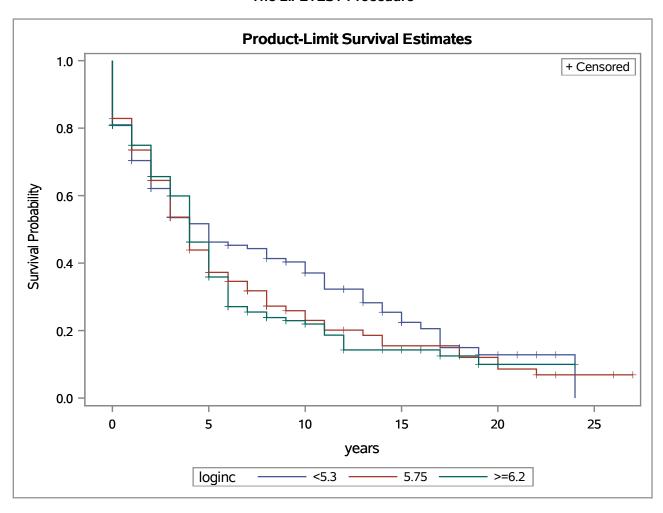
The LIFETEST Procedure

Rank Statistics					
loginc Log-Rank Wilcoxon					
<5.3	-12.226	-1685.0			
5.75	4.220	699.0			
>=6.2	8.006	986.0			

Covai	Covariance Matrix for the Log-Rank Statistics				
loginc	<5.3	5.75	>=6.2		
<5.3	60.8063	-27.9597	-32.8467		
5.75	-27.9597	60.5592	-32.5995		
>=6.2	-32.8467	-32.5995	65.4462		

Covariance Matrix for the Wilcoxon Statistics					
loginc	<5.3	5.75	>=6.2		
<5.3	5036278	-2277601	-2758677		
5.75	-2277601	5285371	-3007770		
>=6.2	-2758677	-3007770	5766447		

Test of Equality over Strata					
Test	Chi-Square	DF	Pr > Chi-Square		
Log-Rank	2.4993	2	0.2866		
Wilcoxon	0.5647	2	0.7540		
-2Log(LR)	5.5728	2	0.0616		



Summary of the Number of Censored and Uncensored Values						
Stratum growth Total Failed Censored Censored						
1	<0	85	61	24	28.24	
2	1.95	263	198	65	24.71	
3	>=3.9	90	68	22	24.44	
Total		438	327	111	25.34	

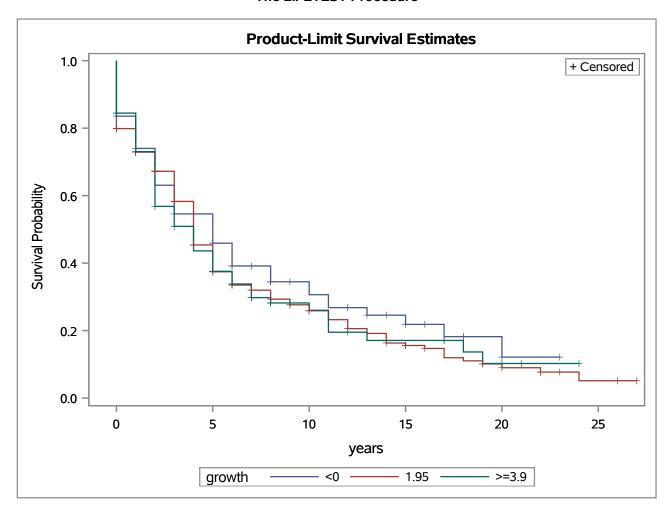
The LIFETEST Procedure

Rank Statistics					
growth Log-Rank Wilcoxon					
<0	-7.5080	-1498.0			
1.95	4.8068	474.0			
>=3.9	2.7012	1024.0			

Covariance Matrix for the Log-Rank Statistics				
growth	<0	1.95	>=3.9	
<0	46.9209	-35.0616	-11.8593	
1.95	-35.0616	68.5051	-33.4436	
>=3.9	-11.8593	-33.4436	45.3029	

Covariance Matrix for the Wilcoxon Statistics				
growth	<0	1.95	>=3.9	
<0	3884776	-2892840	-991935	
1.95	-2892840	5853931	-2961091	
>=3.9	-991935	-2961091	3953026	

Test of Equality over Strata					
Test	Chi-Square	DF	Pr > Chi-Square		
Log-Rank	1.2166	2	0.5443		
Wilcoxon	0.6889	2	0.7086		
-2Log(LR)	1.6456	2	0.4392		



Summary of the Number of Censored and Uncensored Values							
Stratum	Stratum pop Total Failed Censored Percent Censored						
1	<1	64	42	22	34.38		
2	5.5	195	147	48	24.62		
3	>=10	179	138	41	22.91		
Total		438	327	111	25.34		

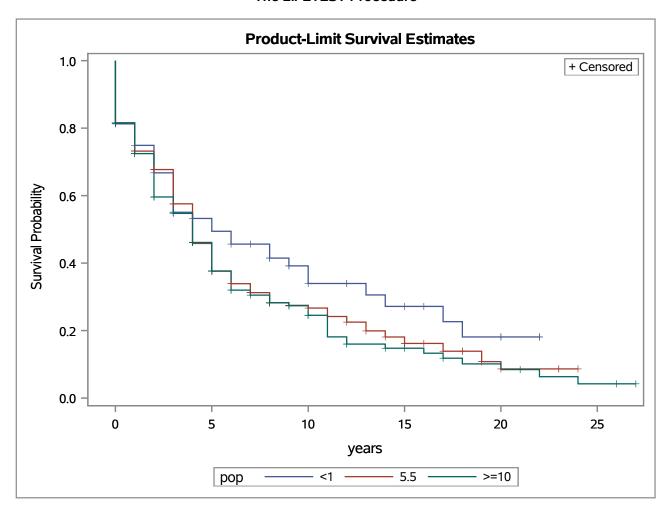
The LIFETEST Procedure

Rank Statistics				
pop Log-Rank Wilcox				
<1	-10.205	-1678.0		
5.5	0.596	-254.0		
>=10	9.609	1932.0		

Cova	Covariance Matrix for the Log-Rank Statistics					
pop	<1 5.5 >=10					
<1	38.0770	-20.4301	-17.6469			
5.5	-20.4301	70.0767	-49.6466			
>=10	-17.6469	-49.6466	67.2936			

Cov	Covariance Matrix for the Wilcoxon Statistics					
pop	<1	5.5	>=10			
<1	3073948	-1611912	-1462037			
5.5 -1611912 6011000 -439908						
>=10	-1462037	-4399088	5861125			

Test of Equality over Strata						
Test	Test Chi-Square DF Chi-Square					
Log-Rank	3.1377	2	0.2083			
Wilcoxon	1.1649	2	0.5585			
-2Log(LR)	4.8341	2	0.0892			



Summary of the Number of Censored and Uncensored Values						
Stratum land Total Failed Censored Percent Censored						
1	<100	142	103	39	27.46	
2	550	198	147	51	25.76	
3	>=1000	98	77	21	21.43	
Total		438	327	111	25.34	

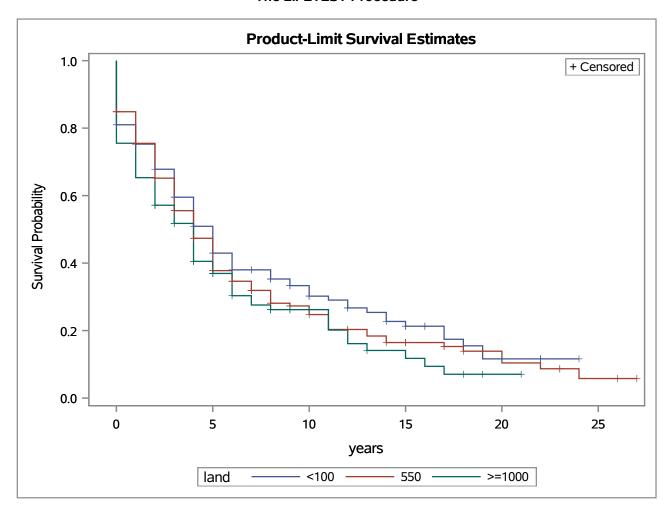
The LIFETEST Procedure

Rank Statistics				
land Log-Rank Wilcoxor				
<100	-11.319	-2498.0		
550	0.562	-975.0		
>=1000	10.756	3473.0		

Covariance Matrix for the Log-Rank Statistics					
land <100 550 >=100					
<100	64.4150	-44.4664	-19.9486		
550 -44.4664 70.0254 -25.559					
>=1000	-19.9486	-25.5591	45.5077		

Covariance Matrix for the Wilcoxon Statistics					
land <100 550 >=1000					
<100	5383128	-3644054	-1739074		
550 -3644054 6026166 -2382112					
>=1000	-1739074	-2382112	4121186		

Test of Equality over Strata					
Test	Chi-Square DF Chi-Square				
Log-Rank	3.3256	2	0.1896		
Wilcoxon	3.1560	2	0.2064		
-2Log(LR)	5.1086	2	0.0777		



Summary of the Number of Censored and Uncensored Values						
Stratum literacy Total Failed Censored Percent						
1	<50	152	103	49	32.24	
2	62.5	107	82	25	23.36	
3	>=75	179	142	37	20.67	
Total		438	327	111	25.34	

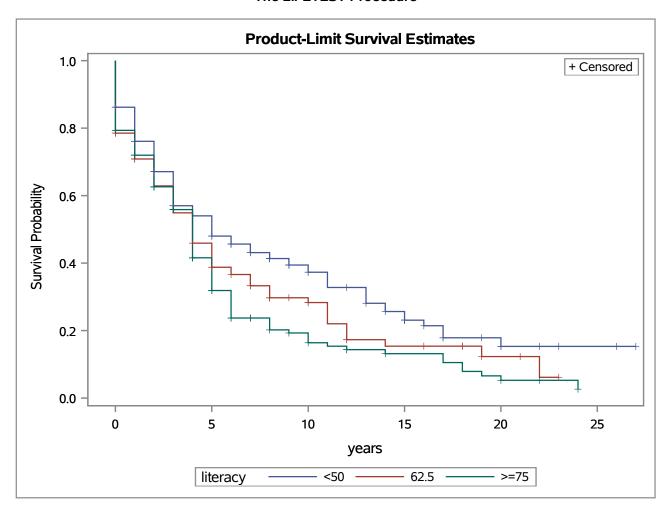
The LIFETEST Procedure

Rank Statistics					
literacy Log-Rank Wilcoxor					
<50	-23.294	-5332.0			
62.5	1.901	950.0			
>=75	21.393	4382.0			

Covariance Matrix for the Log-Rank Statistics					
literacy	<50	62.5	>=75		
<50	66.6496	-26.9661	-39.6836		
62.5	-26.9661	52.3996	-25.4335		
>=75	-39.6836	-25.4335	65.1171		

Covariance Matrix for the Wilcoxon Statistics					
literacy	<50	62.5	>=75		
<50	5579493	-2111370	-3468122		
62.5	-2111370	4468701	-2357330		
>=75	-3468122	-2357330	5825453		

Test of Equality over Strata					
Test	Chi-Square	DF	Pr > Chi-Square		
Log-Rank	9.5054	2	0.0086		
Wilcoxon	5.4061	2	0.0670		
-2Log(LR)	15.5998	2	0.0004		



Leader data set Model with three independent variables

Model Information			
Data Set	SURVIVAL.LEADER		
Dependent Variable	years		
Censoring Variable	cens		
Censoring Value(s)	0		
Ties Handling	BRESLOW		

Number of Observations Read 438 Number of Observations Used 438
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Class Level Information				
Class	Value	Design Variables		
manner	constitutional ascent	1		
	nonconstitutional ascent	0		
military	no	1		
	yes	0		

Summ		e Number of sored Values	
Total	Event	Censored	Percent Censored
438	327	111	25.34

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

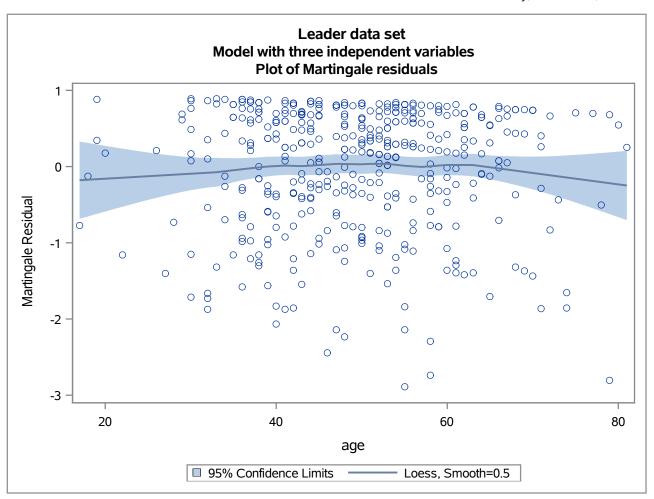
Model Fit Statistics				
Criterion	Without Covariates	With Covariates		
-2 LOG L	3511.724	3489.379		
AIC	3511.724	3495.379		
SBC	3511.724	3506.749		

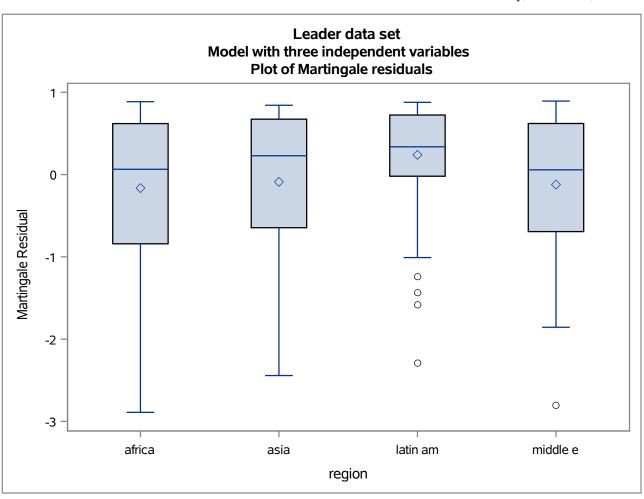
Testing Global Null Hypothesis: BETA=0				
Test	Chi-Square	DF	Pr > ChiSq	
Likelihood Ratio	22.3455	3	<.0001	
Score	22.5907	3	<.0001	
Wald	22.7364	3	<.0001	

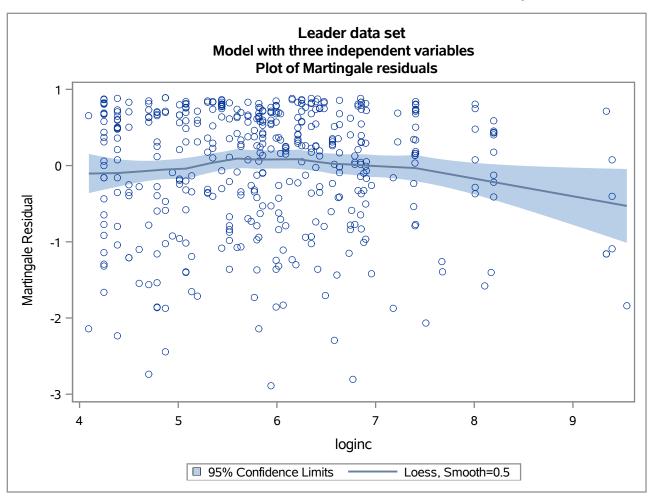
Leader data set Model with three independent variables

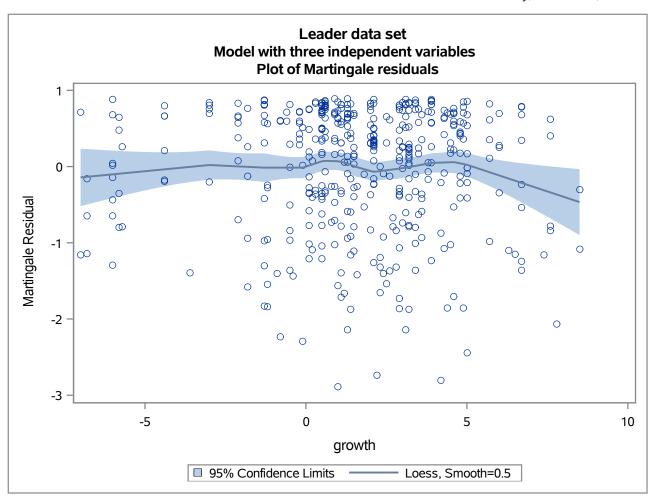
Type 3 Tests					
Effect	DF	Wald Chi-Square	Pr > ChiSq		
manner	1	4.7330	0.0296		
military	1	0.5961	0.4401		
age	1	20.1023	<.0001		

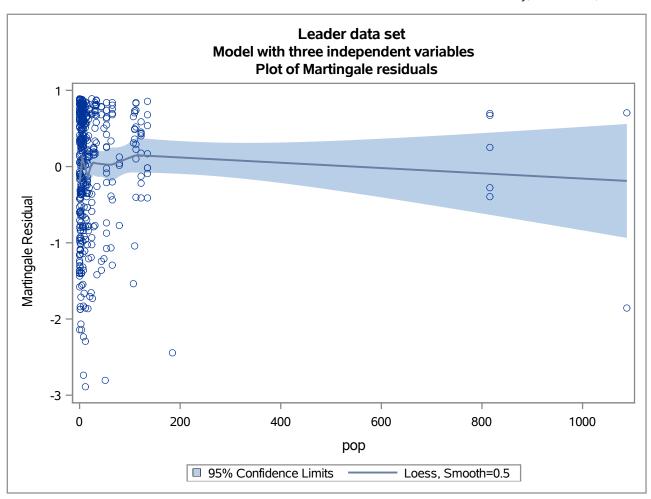
Analysis of Maximum Likelihood Estimates								
Parameter DF Parameter Error Chi-Square Pr > ChiSq Ratio Label					Label			
manner	constitutional ascent	1	-0.33219	0.15269	4.7330	0.0296	0.717	manner constitutional ascent
military	no	1	0.12099	0.15671	0.5961	0.4401	1.129	military no
age		1	0.02225	0.00496	20.1023	<.0001	1.022	

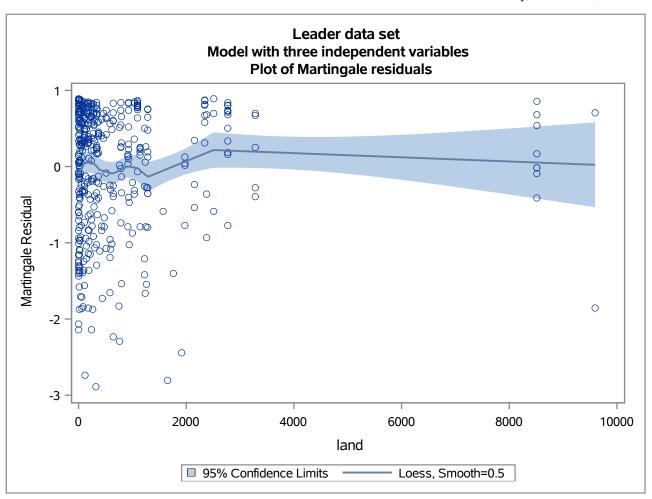


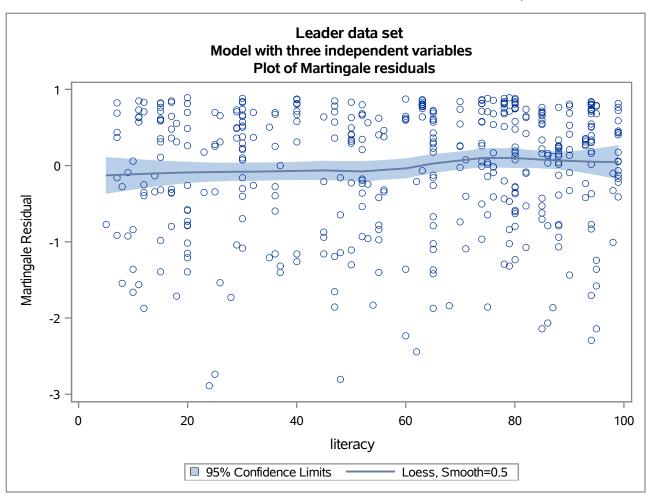












Leader data set Model with five independent variables

Model Information			
Data Set	SURVIVAL.LEADER		
Dependent Variable	years		
Censoring Variable	cens		
Censoring Value(s)	0		
Ties Handling	BRESLOW		

Number of Observations Used 438	Number of Observations Read Number of Observations Used	
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Class Level Information					
Class	Value	Design Variables			
manner	constitutional ascent	1			
	nonconstitutional ascent	0			
military	no	1			
	yes	0			
region	africa	1	0	0	
	asia	0	1	0	
	latin am	0	0	1	
	middle e	0	0	0	

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
438	327	111	25.34

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

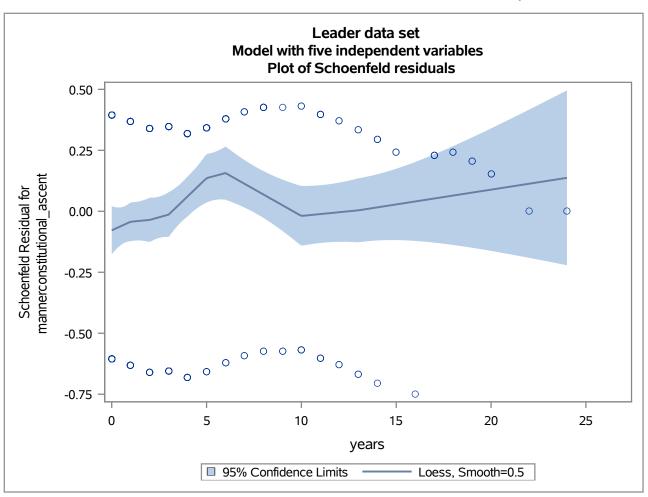
Model Fit Statistics				
Criterion	Without Covariates	With Covariates		
-2 LOG L	3511.724	3461.124		
AIC	3511.724	3475.124		
SBC	3511.724	3501.654		

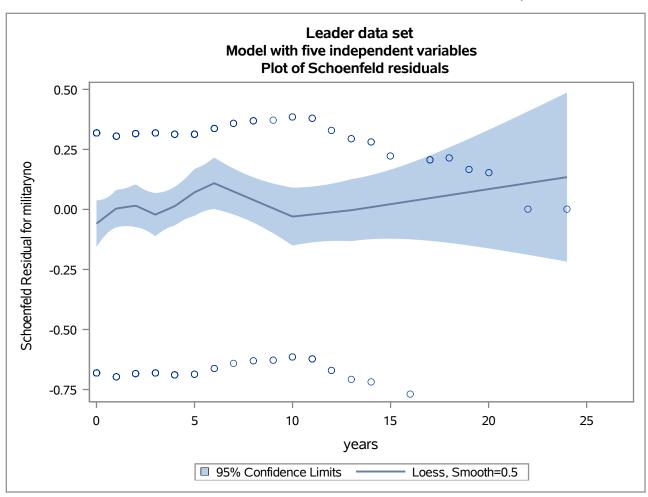
Leader data set Model with five independent variables

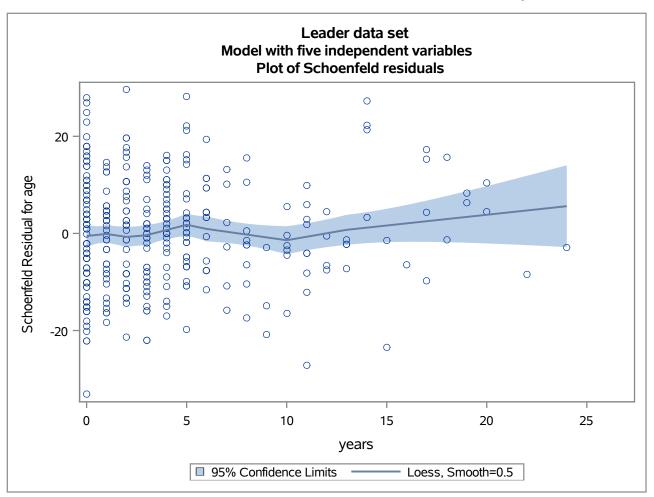
Testing Global Null Hypothesis: BETA=0				
Test	Chi-Square	DF	Pr > ChiSq	
Likelihood Ratio	50.6006	7	<.0001	
Score	51.0176	7	<.0001	
Wald	50.0804	7	<.0001	

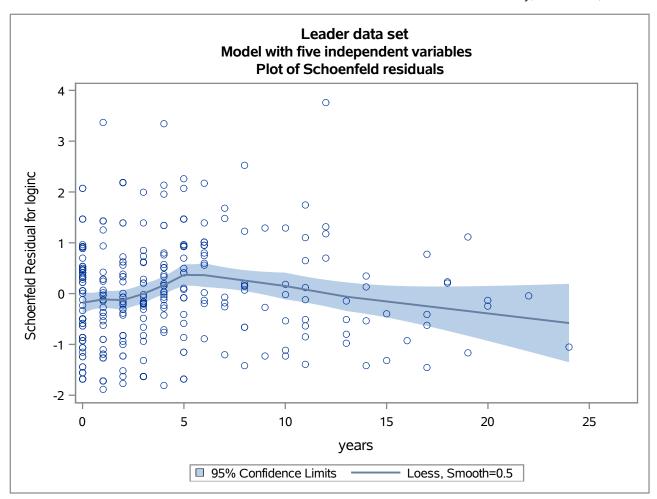
Type 3 Tests					
Effect DF Chi-Square Pr >		Pr > ChiSq			
manner	1	4.5334	0.0332		
military	1	1.6171	0.2035		
age	1	15.9631	<.0001		
loginc	1	6.3911	0.0115		
region	3	27.9457	<.0001		

	Analysis of Maximum Likelihood Estimates							
Parameter		DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
manner	constitutional ascent	1	-0.32415	0.15224	4.5334	0.0332	0.723	manner constitutional ascent
military	no	1	0.19864	0.15621	1.6171	0.2035	1.220	military no
age		1	0.02053	0.00514	15.9631	<.0001	1.021	
loginc		1	-0.17709	0.07005	6.3911	0.0115	0.838	
region	africa	1	-0.35751	0.21576	2.7455	0.0975	0.699	region africa
region	asia	1	-0.20327	0.22316	0.8296	0.3624	0.816	region asia
region	latin am	1	0.46806	0.18138	6.6589	0.0099	1.597	region latin am









The FREQ Procedure

Frequency

Table of lost by outcome					
outcome					
lost	0	1	2	3	Total
constitutional exit	0	146	0	0	146
natural death	0	0	27	0	27
nonconstitutional exit	0	0	0	154	154
still in power	111	0	0	0	111
Total	111	146	27	154	438

The PHREG Procedure

Model Inf	ormation
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	1
Competing Events	23
Censored Value	0

Number of Observations Read	438
Number of Observations Used	438

	Summary of Failure Outcomes					
Total	Event of Interest	Competing Event	Censored			
438	146	181	111			

Convergence Status	
	Convergence criterion (GCONV=1E-8) satisfied.

Note: There are no explanatory variables in this model.

-2 LOG L = 1679.628

The PHREG Procedure

Model Inf	ormation
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	2
Competing Events	13
Censored Value	0

ı	Number of Observations Read	138
ı	Number of Observations Used	438
-1		

	Summary of Failure Outcomes		
Total	Event of Interest	Competing Event	Censored
438	27	300	111

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Note: There are no explanatory variables in this model.

-2 LOG L = 307.7666

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	3
Competing Events	12
Censored Value	0

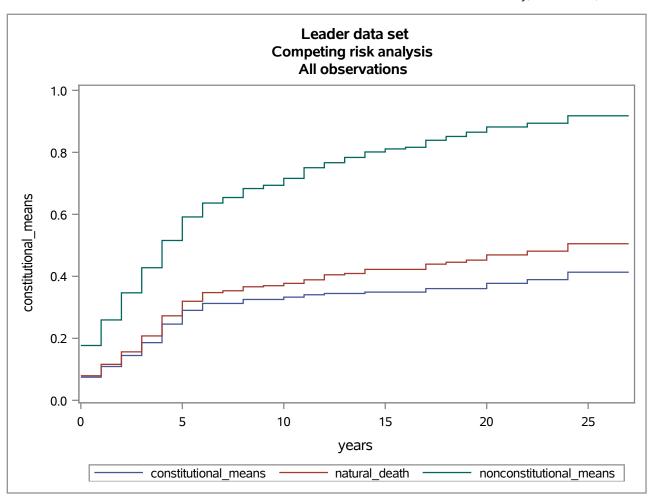
	Number of Observations Read	
ı	Number of Observations Used	438

Summary of Failure Outcomes			omes
Total	Event of Interest	Competing Event	Censored
438	154	173	111

Convergence Status	
Convergence criterion (GCONV=1E-8) satisfied.	

Note: There are no explanatory variables in this model.

-2 LOG L = 1769.981



Leader data set Competing risk analysis Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	1
Competing Events	23
Censored Value	0

1		
	Number of Observations Read	158
	Number of Observations Used	158
- 1		

Summary of Failure Outcomes			
Total	Event of Interest	Competing Event	Censored
158	29	88	41

Convergence Status	
	Convergence criterion (GCONV=1E-8) satisfied.

Note: There are no explanatory variables in this model.

-2 LOG L = 284.999

Leader data set Competing risk analysis Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	2
Competing Events	13
Censored Value	0

Number of Observations Read	158
Number of Observations Used	158

Summary of Failure Outcomes				
Total	Event of Interest	Competing Event	Censored	
158	6	111	41	

Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

Note: There are no explanatory variables in this model.

-2 LOG L = 56.56355

Leader data set Competing risk analysis Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	outcome
Event of Interest	3
Competing Events	12
Censored Value	0

Number of Observations Used 150	Number of Observations Read Number of Observations Used	
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Summary of Failure Outcomes				
Total	Event of Interest	Competing Event	Censored	
158	82	35	41	

Convergence Status	
Convergence criterion (GCONV=1E-8) satisfied.	

Note: There are no explanatory variables in this model.

-2 LOG L = 759.5088

