List of heroin dataset (first five observations)

Obs	id	clinic	status	time	prison	dose	time_yrs
1	1	1	1	428	0	50	1.17180
2	132	2	0	633	0	70	1.73306
3	2	1	1	275	1	55	0.75291
4	133	2	1	661	0	40	1.80972
5	3	1	1	262	0	55	0.71732

The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	clinic	Total	Failed	Censored	Percent Censored
1	1	163	122	41	25.15
2	2	75	28	47	62.67
Total		238	150	88	36.97

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for time_yrs over Strata

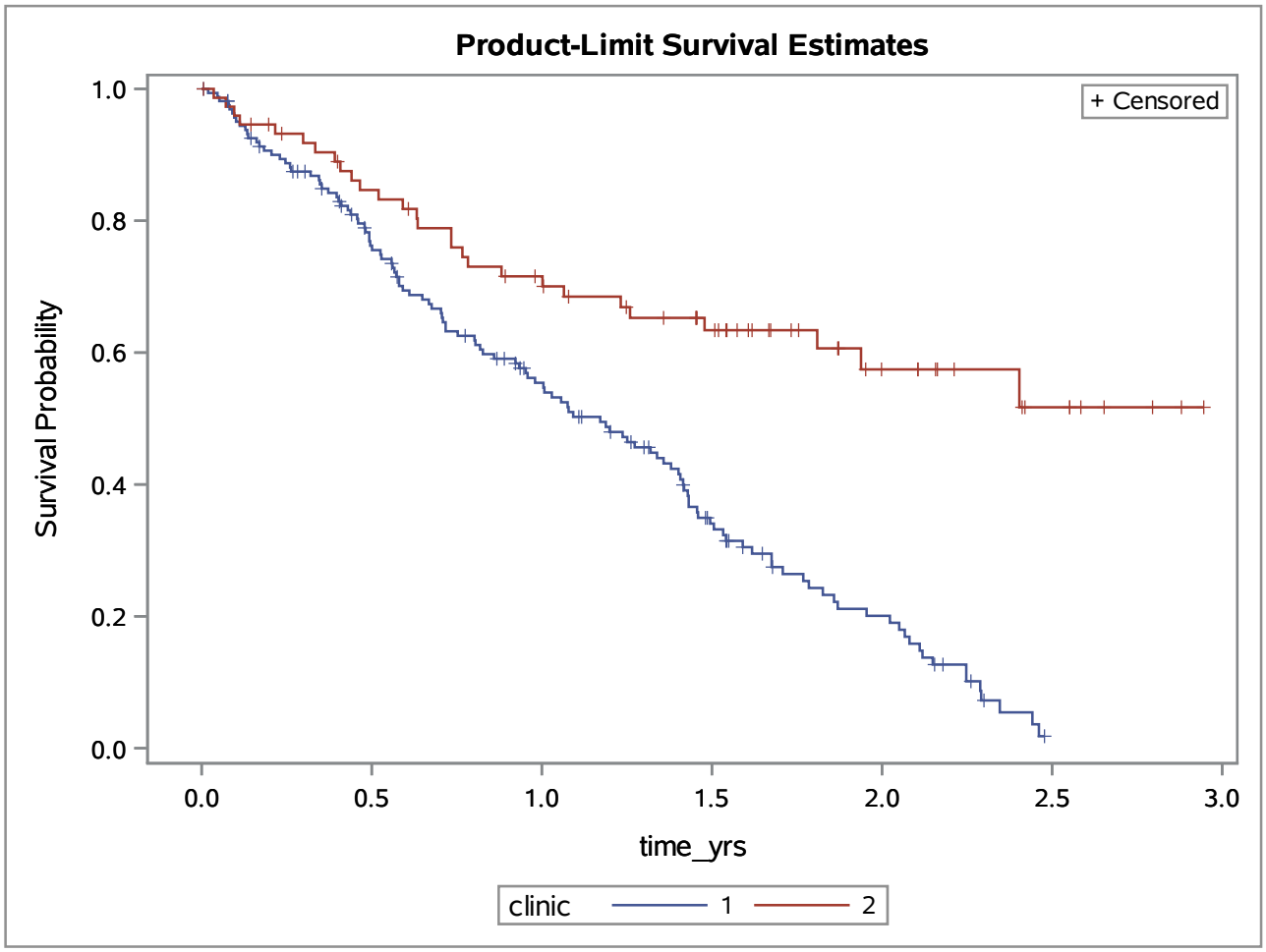
Rank Statistics		
clinic	Log-Rank	Wilcoxon
1	31.092	2929.0
2	-31.092	-2929.0

Covariance Matrix for the Log-Rank Statistics		
clinic	1	2
1	34.6579	-34.6579
2	-34.6579	34.6579

Covariance Matrix for the Wilcoxon Statistics		
clinic	1	2
1	737868	-737868
2	-737868	737868

Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	27.8927	1	<.0001
Wilcoxon	11.6268	1	0.0007
-2Log(LR)	26.0236	1	<.0001

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	prison	Total	Failed	Censored	Percent Censored
1	0	127	81	46	36.22
2	1	111	69	42	37.84
Total		238	150	88	36.97

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for time_yrs over Strata

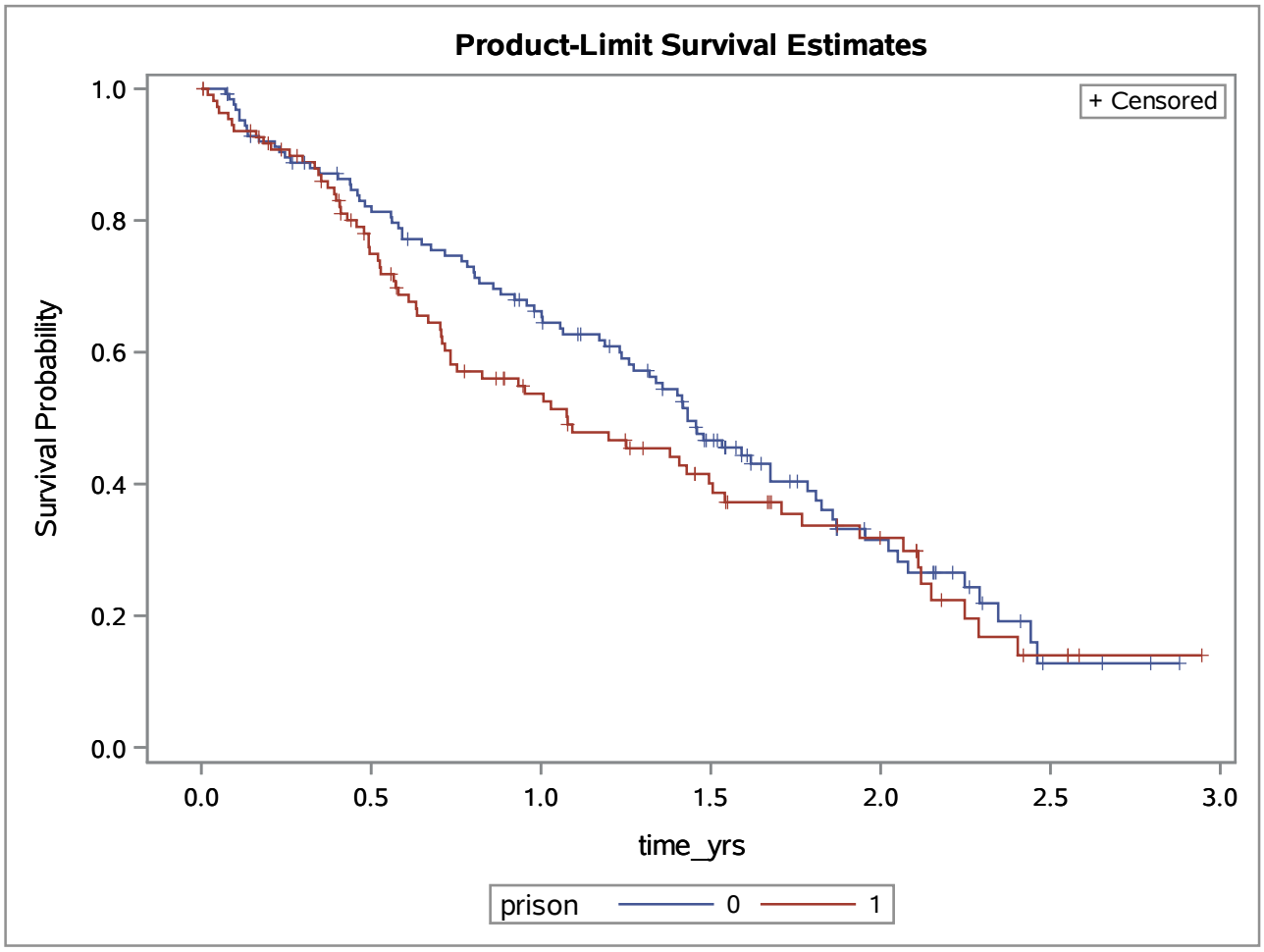
Rank Statistics		
prison	**Log-Rank**	**Wilcoxon**
0	-6.7504	-1434.0
1	6.7504	1434.0

Covariance Matrix for the Log-Rank Statistics		
prison	**0**	**1**
0	36.1791	-36.1791
1	-36.1791	36.1791

Covariance Matrix for the Wilcoxon Statistics		
prison	**0**	**1**
0	803374	-803374
1	-803374	803374

Test of Equality over Strata			
Test	**Chi-Square**	**DF**	**Pr > Chi-Square**
Log-Rank	1.2595	1	0.2617
Wilcoxon	2.5596	1	0.1096
-2Log(LR)	1.0666	1	0.3017

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	dose	Total	Failed	Censored	Percent Censored
1	<40	5	5	0	0.00
2	45	40	25	15	37.50
3	55	48	35	13	27.08
4	65	74	54	20	27.03
5	>=70	71	31	40	56.34
Total		238	150	88	36.97

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for time_yrs over Strata

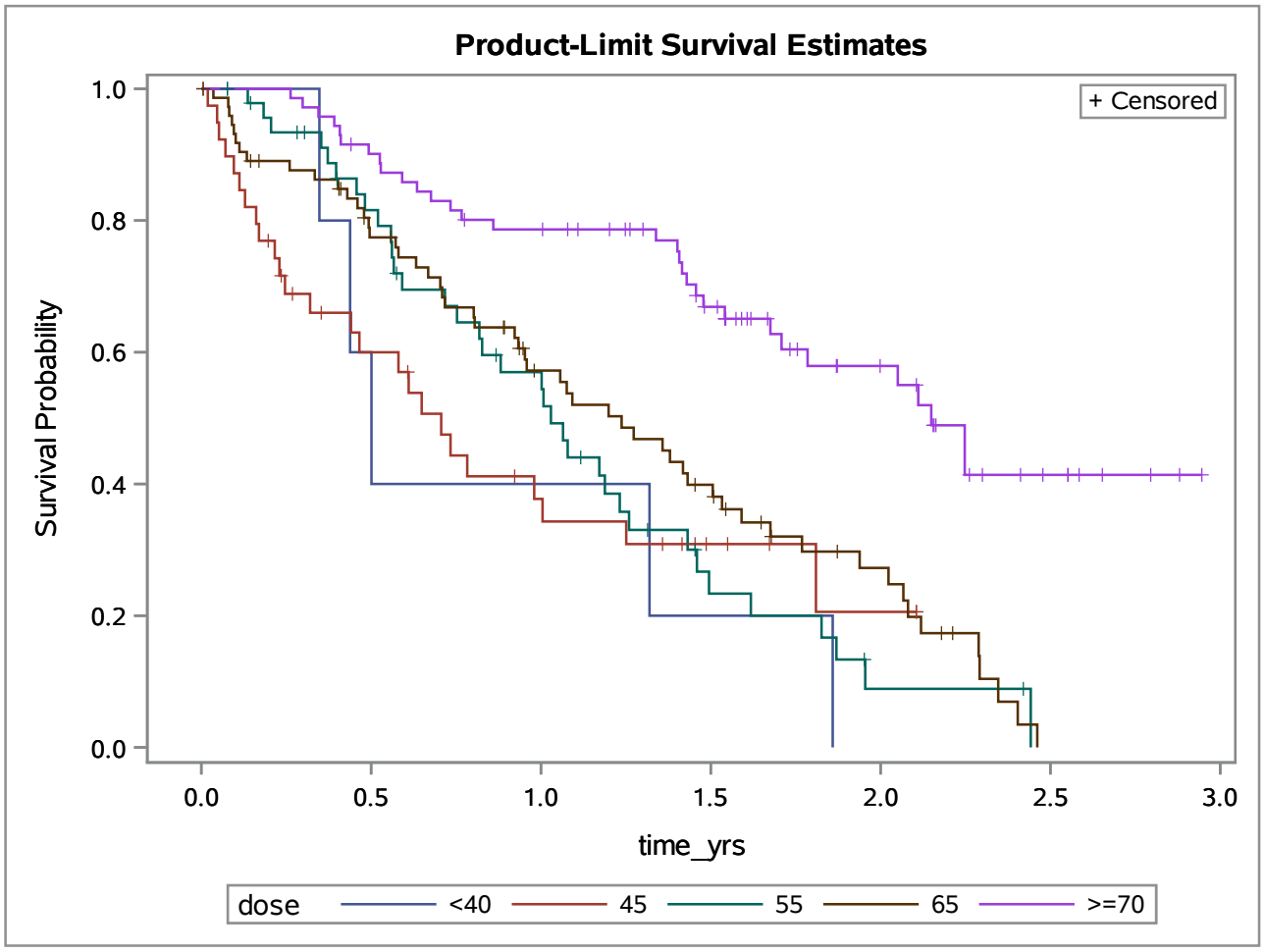
Rank Statistics		
dose	Log-Rank	Wilcoxon
<40	2.703	338.0
45	10.506	2243.0
55	10.742	937.0
65	10.036	690.0
>=70	-33.985	-4208.0

Covariance Matrix for the Log-Rank Statistics					
dose	<40	45	55	65	>=70
<40	2.2528	-0.2513	-0.4010	-0.6859	-0.9146
45	-0.2513	12.8609	-2.5441	-4.3485	-5.7169
55	-0.4010	-2.5441	20.0255	-7.2003	-9.8802
65	-0.6859	-4.3485	-7.2003	30.8965	-18.6618
>=70	-0.9146	-5.7169	-9.8802	-18.6618	35.1735

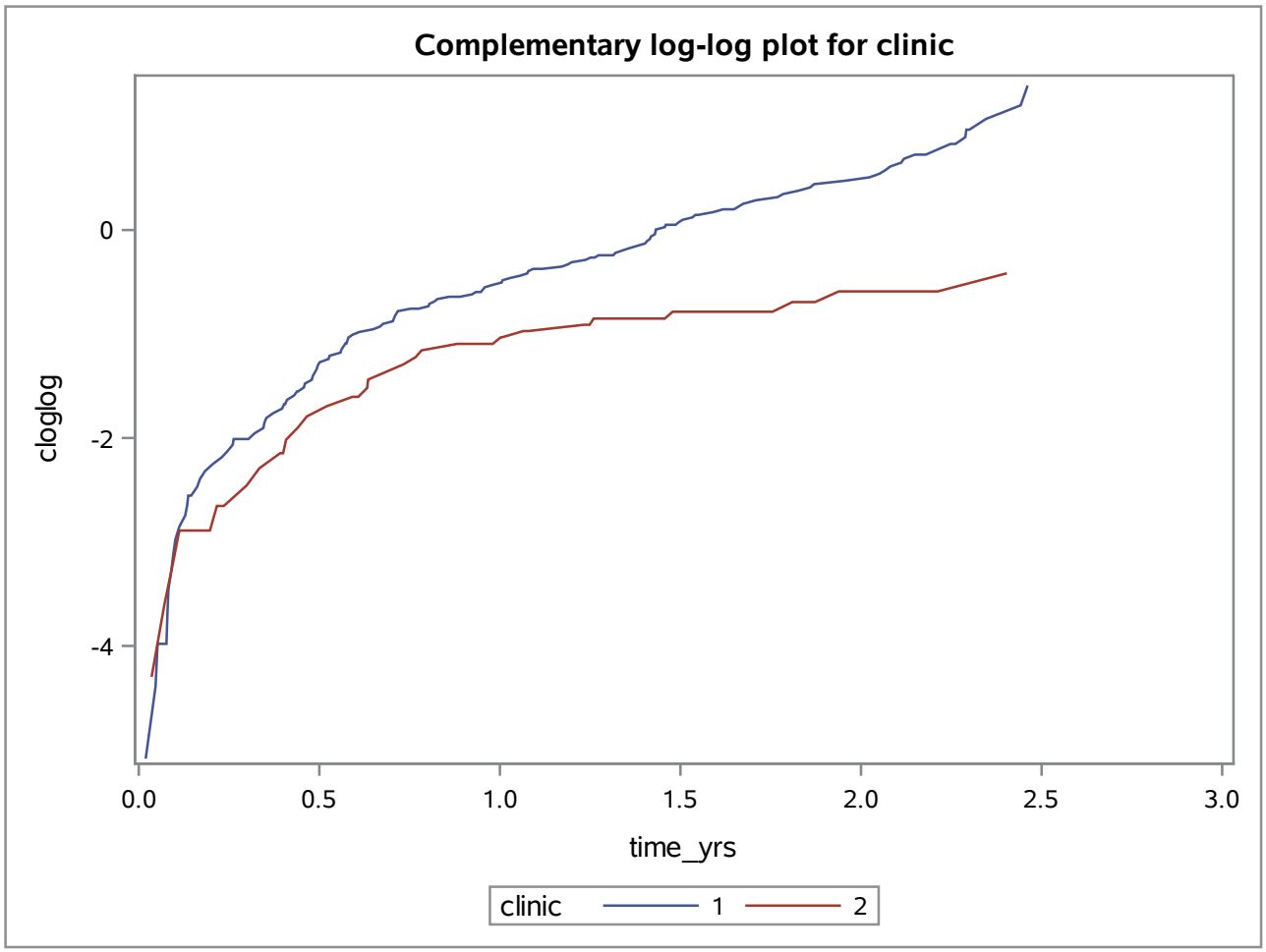
Covariance Matrix for the Wilcoxon Statistics					
dose	<40	45	55	65	>=70
<40	60725	-7793	-11939	-18848	-22144
45	-7793	351214	-77667	-122602	-143152
55	-11939	-77667	503823	-190109	-224109
65	-18848	-122602	-190109	695618	-364059
>=70	-22144	-143152	-224109	-364059	753463

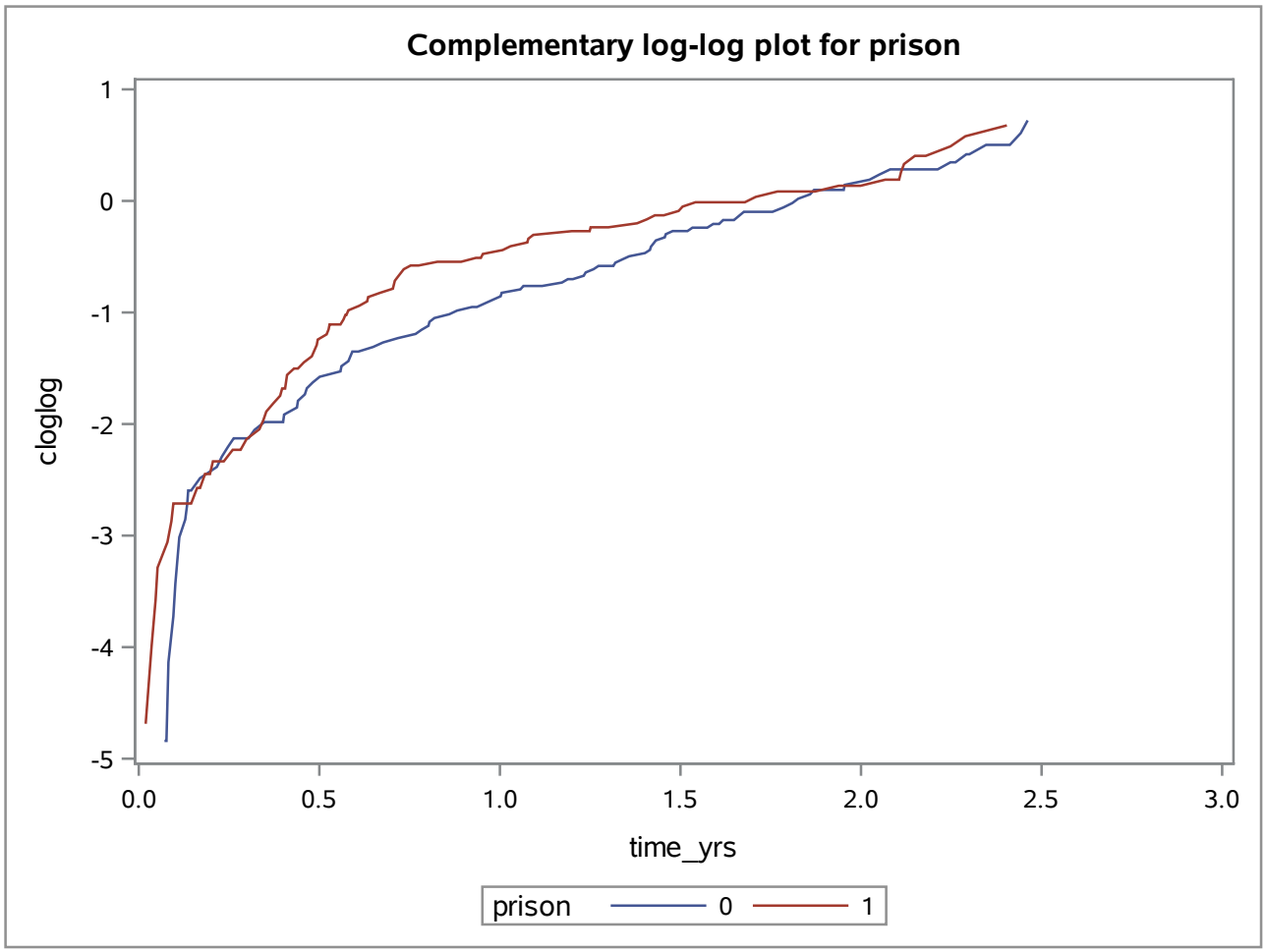
Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	37.5522	4	<.0001
Wilcoxon	31.4088	4	<.0001
-2Log(LR)	30.4127	4	<.0001

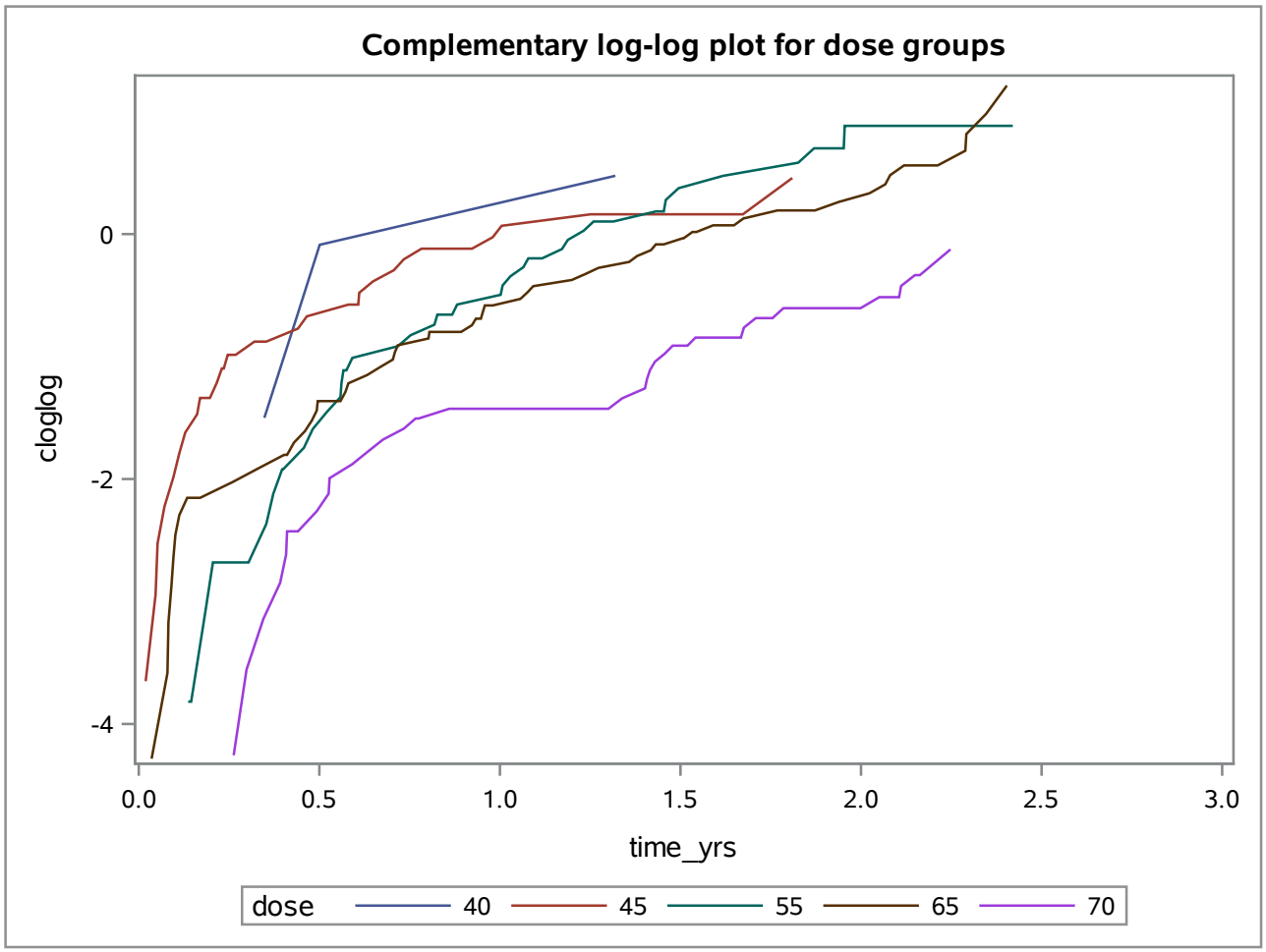
The LIFETEST Procedure



Obs	dose	time_yrs	_CENSOR_	SURVIVAL	SDF_LCL	SDF_UCL	STRATUM
1	40	0.00000	.	1.0	1.00000	1.00000	1
2	40	0.34771	0	0.8	0.20381	0.96918	1
3	40	0.43806	0	0.6	0.12573	0.88176	1
4	40	0.50103	0	0.4	0.05198	0.75282	1
5	40	1.31964	0	0.2	0.00837	0.58185	1


Complementary log-log plot for clinic
cloglog
0
-2
-4
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
clinic
1
2


Complementary log-log plot for prison
1
0
-1
-2
-3
-4
-5
cloglog
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
prison
0
1


Complementary log-log plot for dose groups
cloglog
0
-2
-4
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
dose
40
45
55
65
70

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.HEROIN
Dependent Variable	time_yrs
Censoring Variable	status
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	238
Number of Observations Used	238

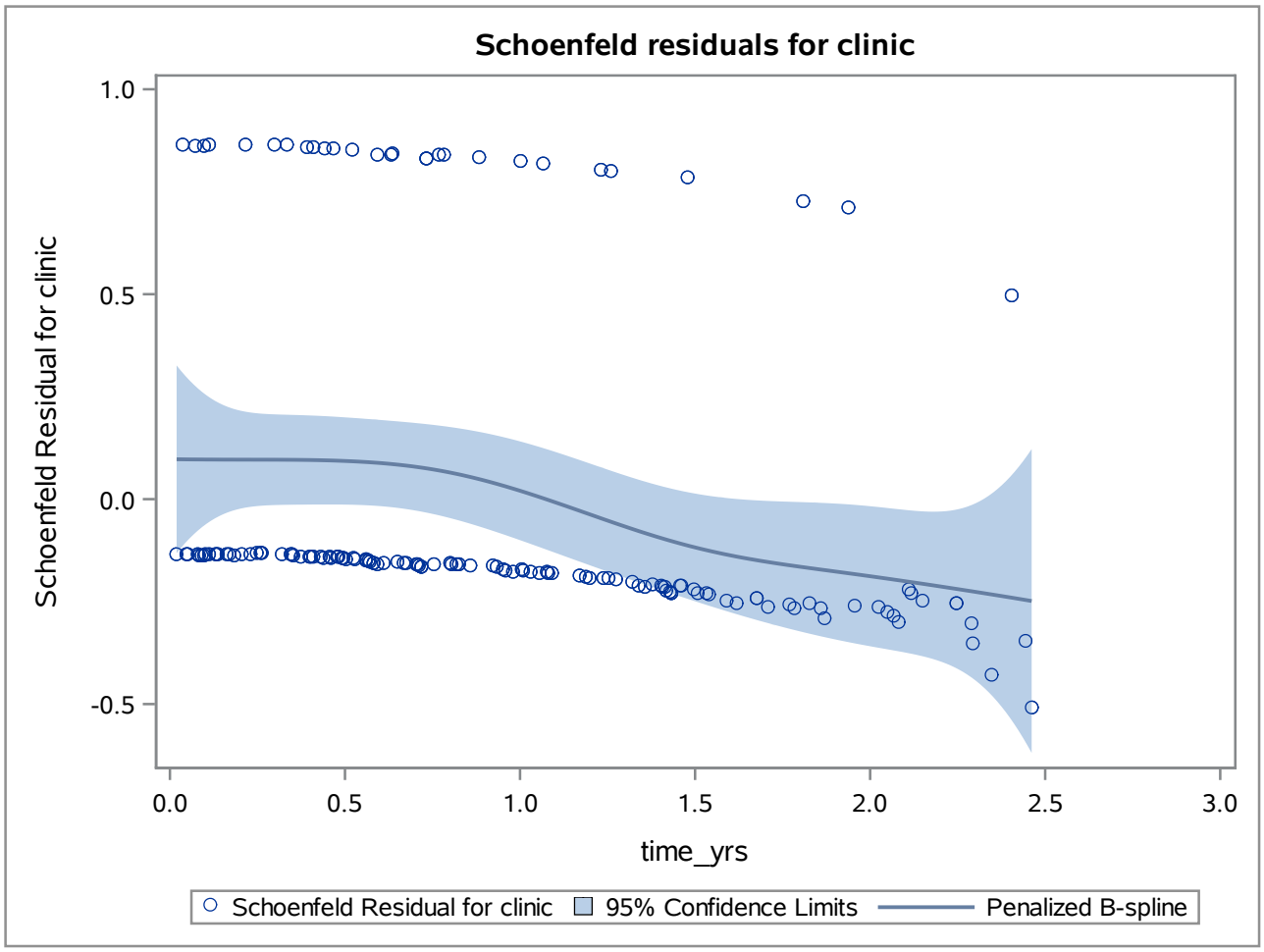
Summary of the Number of Event and Censored Values			
Total	**Event**	**Censored**	**Percent Censored**
238	150	88	36.97

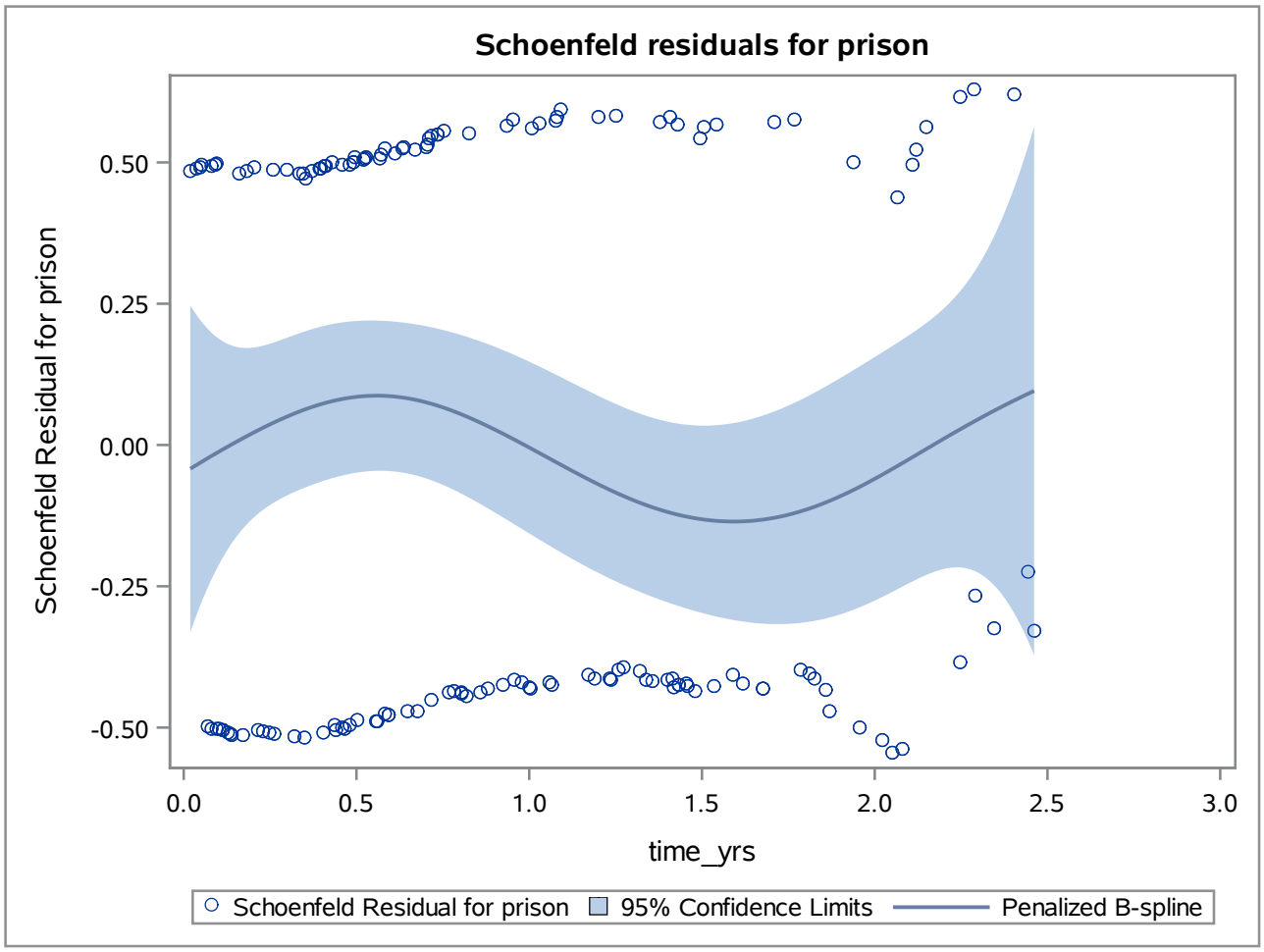
Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

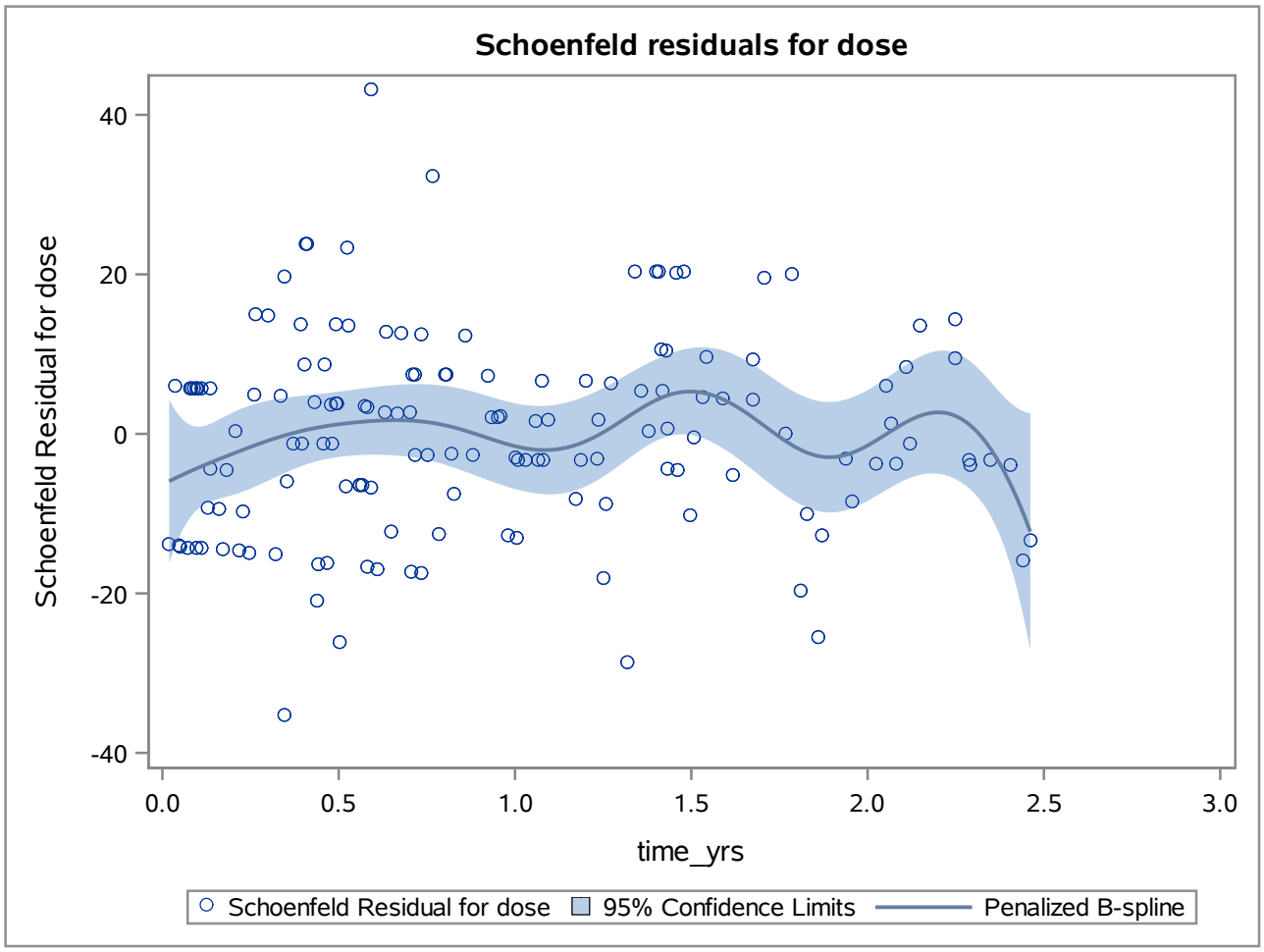
Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	1411.324	1346.805
AIC	1411.324	1352.805
SBC	1411.324	1361.837

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	64.5190	3	<.0001
Score	56.2730	3	<.0001
Wald	54.0906	3	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
clinic	1	-1.00876	0.21486	22.0419	<.0001	0.365
prison	1	0.32650	0.16722	3.8123	0.0509	1.386
dose	1	-0.03540	0.00638	30.7844	<.0001	0.965


Schoenfeld residuals for clinic
Schoenfeld Residual for clinic
1.0
0.5
0.0
-0.5
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
Schoenfeld Residual for clinic
95% Confidence Limits
Penalized B-spline


Schoenfeld residuals for prison
Schoenfeld Residual for prison
0.50
0.25
0.00
-0.25
-0.50
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
Schoenfeld Residual for prison
95% Confidence Limits
Penalized B-spline


Schoenfeld residuals for dose
Schoenfeld Residual for dose
40
20
0
-20
-40
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
Schoenfeld Residual for dose
95% Confidence Limits
Penalized B-spline

Obs	time_yrs	clinic	prison	status	dose
1	0.005476	1	0	.	60
2	0.005476	1	1	.	60
3	0.005476	2	0	.	60
4	0.005476	2	1	.	60
5	0.005476	1	0	.	60
6	0.005476	1	1	.	60
7	0.005476	2	0	.	60
8	0.005476	2	1	.	60
9	0.019165	1	0	.	60
10	0.019165	1	1	.	60

The PHREG Procedure

Model Information	
Data Set	WORK.AUGMENT
Dependent Variable	time_yrs
Censoring Variable	status
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	1190
Number of Observations Used	238

Summary of the Number of Event and Censored Values					
Stratum	**clinic**	**Total**	**Event**	**Censored**	**Percent Censored**
1	1	163	122	41	25.15
2	2	75	28	47	62.67
Total		238	150	88	36.97

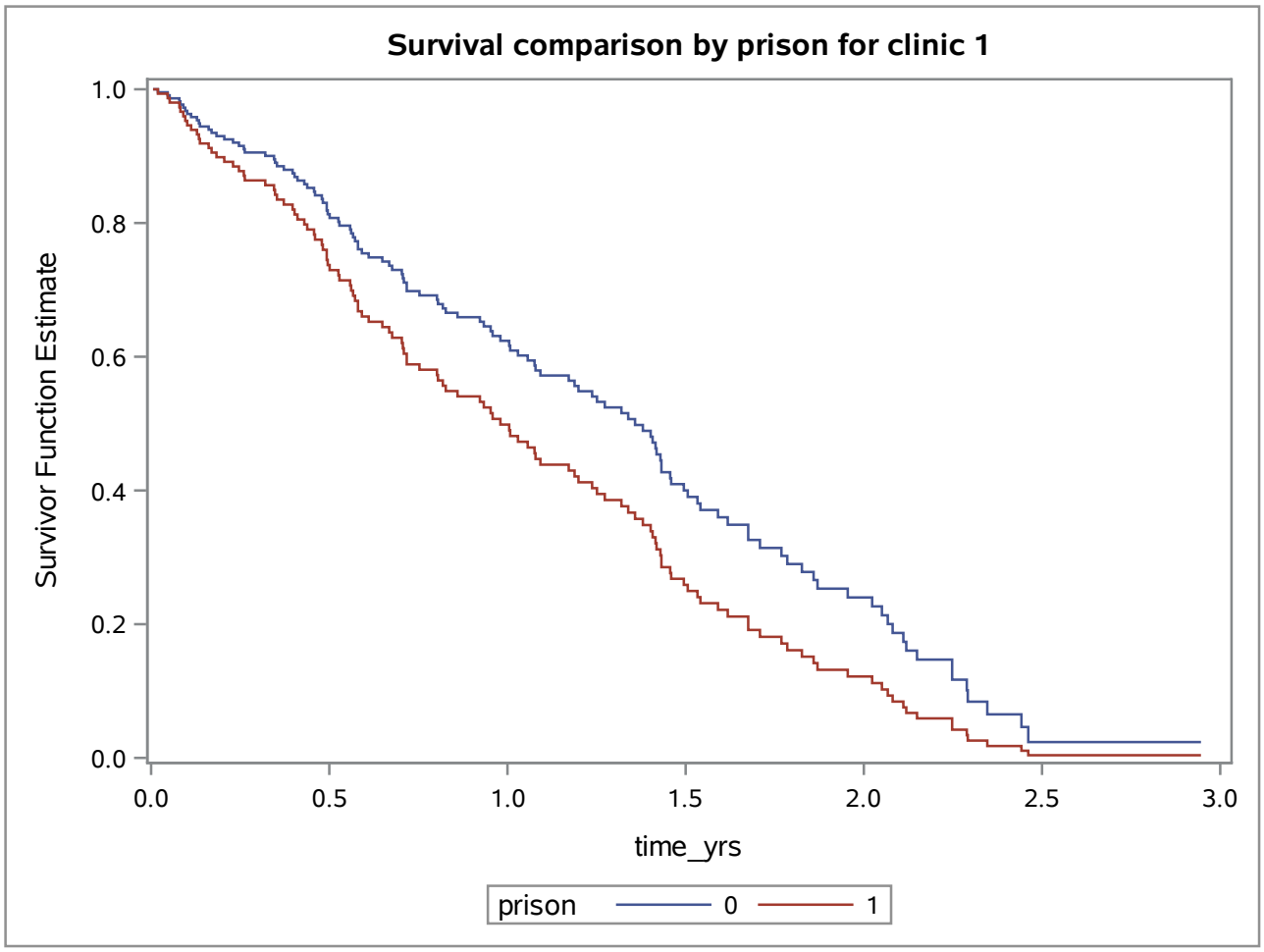
Convergence Status
Convergence criterion (GCONV=1E-8) satisfied.

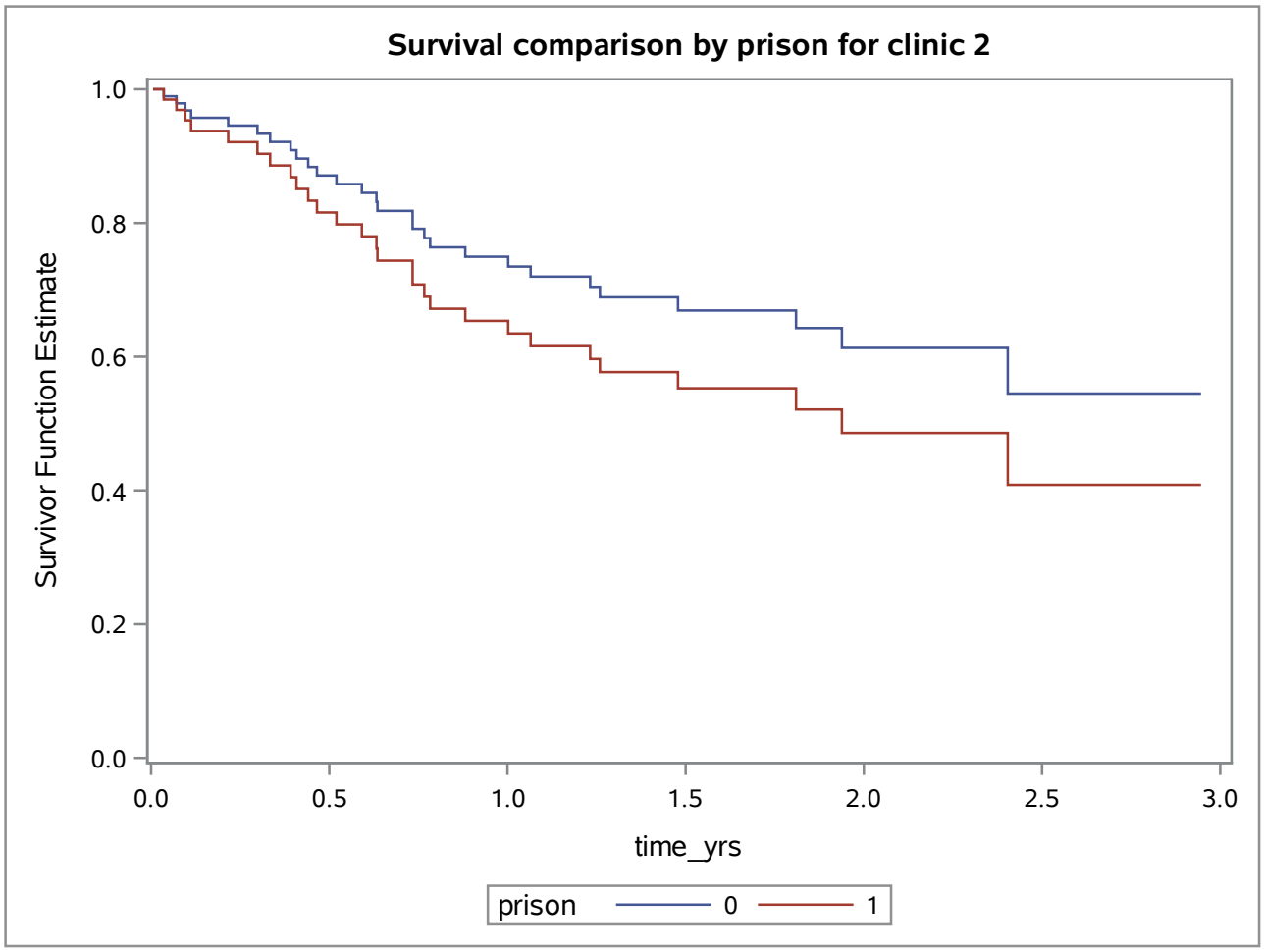
Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	1229.367	1195.428
AIC	1229.367	1199.428
SBC	1229.367	1205.449

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	33.9393	2	<.0001
Score	33.3628	2	<.0001
Wald	32.6858	2	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
prison	1	0.38877	0.16892	5.2974	0.0214	1.475
dose	1	-0.03514	0.00647	29.5471	<.0001	0.965

Obs	time_yrs	clinic	prison	status	dose	id	time	s
1	.005475702	1	0	.	60	.	.	1
2	.005475702	1	1	.	60	.	.	1
3	.005475702	2	0	.	60	.	.	1
4	.005475702	2	1	.	60	.	.	1
5	.005475702	1	0	.	60	.	.	1


Survival comparison by prison for clinic 1
Survivor Function Estimate
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
prison
0
1


Survival comparison by prison for clinic 2
Survivor Function Estimate
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.5
1.0
1.5
2.0
2.5
3.0
time_yrs
prison
0
1

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.HEROIN
Dependent Variable	time_yrs
Censoring Variable	status
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	238
Number of Observations Used	238

Summary of the Number of Event and Censored Values			
Total	**Event**	**Censored**	**Percent Censored**
238	150	88	36.97

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

Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	1411.324	1335.283
AIC	1411.324	1343.283
SBC	1411.324	1355.326

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	76.0407	4	<.0001
Score	66.9784	4	<.0001
Wald	57.7290	4	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
clinic	1	0.01829	0.34720	0.0028	0.9580	1.018
prison	1	0.38964	0.16887	5.3239	0.0210	1.476
dose	1	-0.03522	0.00644	29.8837	<.0001	0.965
clinic_by_time	1	-1.10141	0.34534	10.1718	0.0014	0.332

Obs	birth_dt	accept_dt	tx_date	fu_date	fustat	surgery	age	futime	wait_time
1	1937-01-10	1967-11-15	NA	1968-01-03	1	0	30.8446	49	.
2	1916-03-02	1968-01-02	NA	1968-01-07	1	0	51.8357	5	.
3	1913-09-19	1968-01-06	1968-01-06	1968-01-21	1	0	54.2971	15	0
4	1927-12-23	1968-03-28	1968-05-02	1968-05-05	1	0	40.2628	38	35
5	1947-07-28	1968-05-10	NA	1968-05-27	1	0	20.7858	17	.
6	1913-11-08	1968-06-13	NA	1968-06-15	1	0	54.5955	2	.
7	1917-08-29	1968-07-12	1968-08-31	1970-05-17	1	0	50.8693	674	50
8	1923-03-27	1968-08-01	NA	1968-09-09	1	0	45.3498	39	.
9	1921-06-11	1968-08-09	NA	1968-11-01	1	0	47.1622	84	.
10	1926-02-09	1968-08-11	1968-08-22	1968-10-07	1	0	42.5024	57	11

Obs	transplant	mismatch	hla_a2	mscore	reject
1	0	.	.	.	.
2	0	.	.	.	.
3	1	2	0	1.11	0
4	1	3	0	1.66	0
5	0	.	.	.	.
6	0	.	.	.	.
7	1	4	0	1.32	1
8	0	.	.	.	.
9	0	.	.	.	.
10	1	2	0	0.61	1

Obs	id	start	stop	event	transplant	age	year	surgery
1	1	0	49	1	0	-17.1554	0.12320	0
2	2	0	5	1	0	3.8357	0.25462	0
3	3	0	15	1	1	6.2971	0.26557	0
4	4	0	35	0	0	-7.7372	0.49008	0
5	4	35	38	1	1	-7.7372	0.49008	0
6	5	0	17	1	0	-27.2142	0.60780	0
7	6	0	2	1	0	6.5955	0.70089	0
8	7	0	50	0	0	2.8693	0.78029	0
9	7	50	674	1	1	2.8693	0.78029	0
10	8	0	39	1	0	-2.6502	0.83504	0

Obs	id	start	stop	event	transplant
1	1	0	49	1	0
2	2	0	5	1	0
3	3	0	15	1	1
4	4	0	35	0	0
5	4	35	38	1	1
6	5	0	17	1	0
7	6	0	2	1	0
8	7	0	50	0	0
9	7	50	674	1	1
10	8	0	39	1	0

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.TRANSPLANT1
Dependent Variable	futime
Censoring Variable	fustat
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	103
Number of Observations Used	103

Summary of the Number of Event and Censored Values			
Total	**Event**	**Censored**	**Percent Censored**
103	75	28	27.18

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

Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	596.651	551.188
AIC	596.651	557.188
SBC	596.651	564.141

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	45.4629	3	<.0001
Score	52.0469	3	<.0001
Wald	46.6680	3	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
transplant	1	-1.70813	0.27860	37.5902	<.0001	0.181
age	1	0.05860	0.01505	15.1611	<.0001	1.060
surgery	1	-0.42130	0.37098	1.2896	0.2561	0.656

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.TRANSPLANT1
Dependent Variable	futime
Censoring Variable	fustat
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	103
Number of Observations Used	103

Summary of the Number of Event and Censored Values			
Total	**Event**	**Censored**	**Percent Censored**
103	75	28	27.18

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

Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	596.651	585.946
AIC	596.651	591.946
SBC	596.651	598.898

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	10.7056	3	0.0134
Score	9.9853	3	0.0187
Wald	9.6574	3	0.0217

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
transplant	1	-0.04744	0.30274	0.0246	0.8755	0.954
age	1	0.03108	0.01391	4.9886	0.0255	1.032
surgery	1	-0.76975	0.35961	4.5817	0.0323	0.463

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.TRANSPLANT2
Dependent Variable	start
Dependent Variable	stop
Censoring Variable	event
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	170
Number of Observations Used	170

Summary of the Number of Event and Censored Values			
Total	**Event**	**Censored**	**Percent Censored**
170	75	95	55.88

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

Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	596.651	585.968
AIC	596.651	591.968
SBC	596.651	598.921

Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	10.6827	3	0.0136
Score	9.9683	3	0.0188
Wald	9.6451	3	0.0218

Analysis of Maximum Likelihood Estimates						
Parameter	**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**
transplant	1	0.01238	0.30815	0.0016	0.9680	1.012
age	1	0.03055	0.01390	4.8317	0.0279	1.031
surgery	1	-0.77154	0.35967	4.6016	0.0319	0.462

Leader data set
Partial listing

Obs	years	lost	manner	start	military	age	conflict	loginc	growth	pop	land	literacy	region	cens	outcome
1	3	2	1	975	0	53	1	5.79909	-5.7	8.0	1247	20	1	1	0
2	8	0	0	979	0	37	1	5.79909	-5.7	8.0	1247	20	1	0	0
3	3	3	0	960	0	44	1	4.70048	1.0	4.0	112	11	1	1	0
4	1	3	0	964	0	51	1	4.70048	1.0	4.0	112	11	1	1	0
5	1	3	1	965	1	56	1	4.70048	1.0	4.0	112	11	1	1	0
6	0	3	1	967	1	37	1	4.70048	1.0	4.0	112	11	1	1	0
7	1	3	1	968	0	50	1	4.70048	1.0	4.0	112	11	1	1	0
8	15	0	1	972	1	39	1	4.70048	1.0	4.0	112	11	1	0	0
9	13	2	0	966	0	45	0	5.43808	8.5	1.2	600	30	1	1	0
10	7	0	0	980	0	55	0	5.43808	8.5	1.2	600	30	1	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	972.5981735	8.0846888	960.0000000	987.0000000
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

The FREQ Procedure

lost	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	111	25.34	111	25.34
1	146	33.33	257	58.68
2	27	6.16	284	64.84
3	154	35.16	438	100.00

manner	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	280	63.93	280	63.93
1	158	36.07	438	100.00

military	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	294	67.12	294	67.12
1	144	32.88	438	100.00

conflict	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	166	37.90	166	37.90
1	272	62.10	438	100.00

region	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	60	13.70	60	13.70
1	132	30.14	192	43.84
2	91	20.78	283	64.61
3	155	35.39	438	100.00

The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	manner	Total	Failed	Censored	Percent Censored
1	0	280	210	70	25.00
2	1	158	117	41	25.95
Total		438	327	111	25.34

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for years over Strata

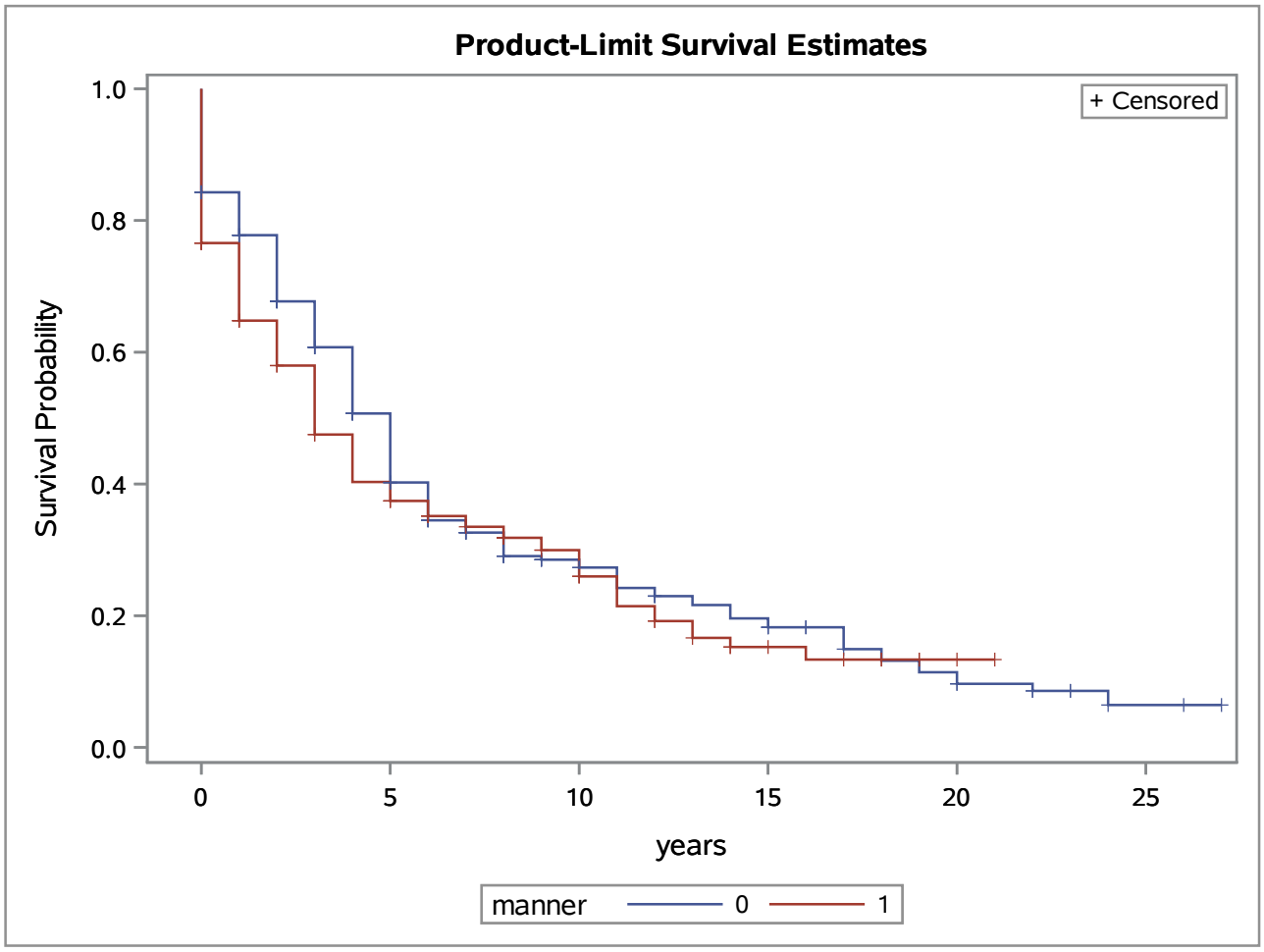
Rank Statistics		
manner	Log-Rank	Wilcoxon
0	-9.3867	-4849.0
1	9.3867	4849.0

Covariance Matrix for the Log-Rank Statistics		
manner	0	1
0	62.1066	-62.1066
1	-62.1066	62.1066

Covariance Matrix for the Wilcoxon Statistics		
manner	0	1
0	5468832	-5468832
1	-5468832	5468832

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

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	military	Total	Failed	Censored	Percent Censored
1	0	294	224	70	23.81
2	1	144	103	41	28.47
Total		438	327	111	25.34

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for years over Strata

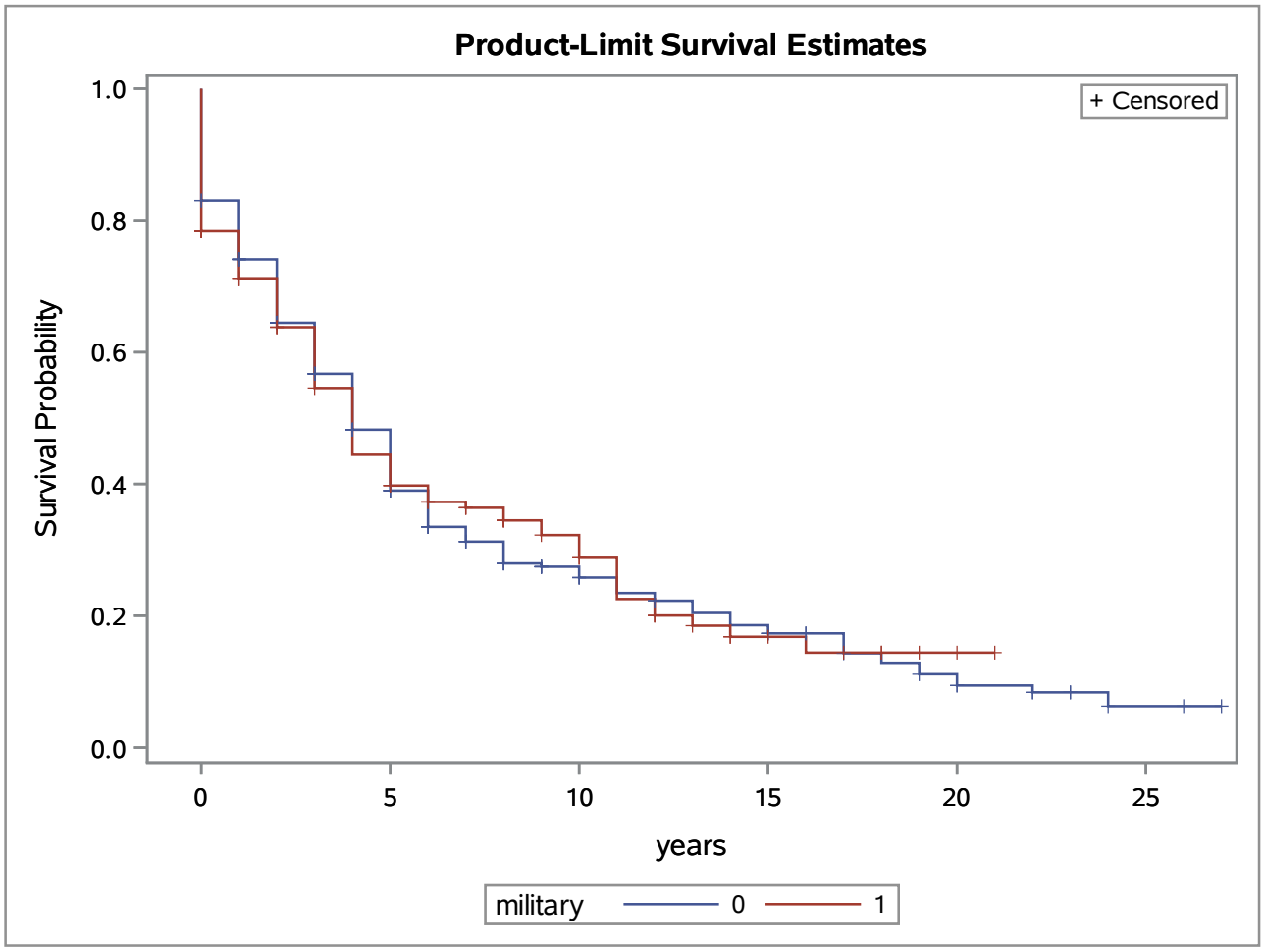
Rank Statistics		
military	**Log-Rank**	**Wilcoxon**
0	0.69612	-815.00
1	-0.69612	815.00

Covariance Matrix for the Log-Rank Statistics		
military	**0**	**1**
0	60.9494	-60.9494
1	-60.9494	60.9494

Covariance Matrix for the Wilcoxon Statistics		
military	**0**	**1**
0	5319080	-5319080
1	-5319080	5319080

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

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	conflict	Total	Failed	Censored	Percent Censored
1	0	166	124	42	25.30
2	1	272	203	69	25.37
Total		438	327	111	25.34

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for years over Strata

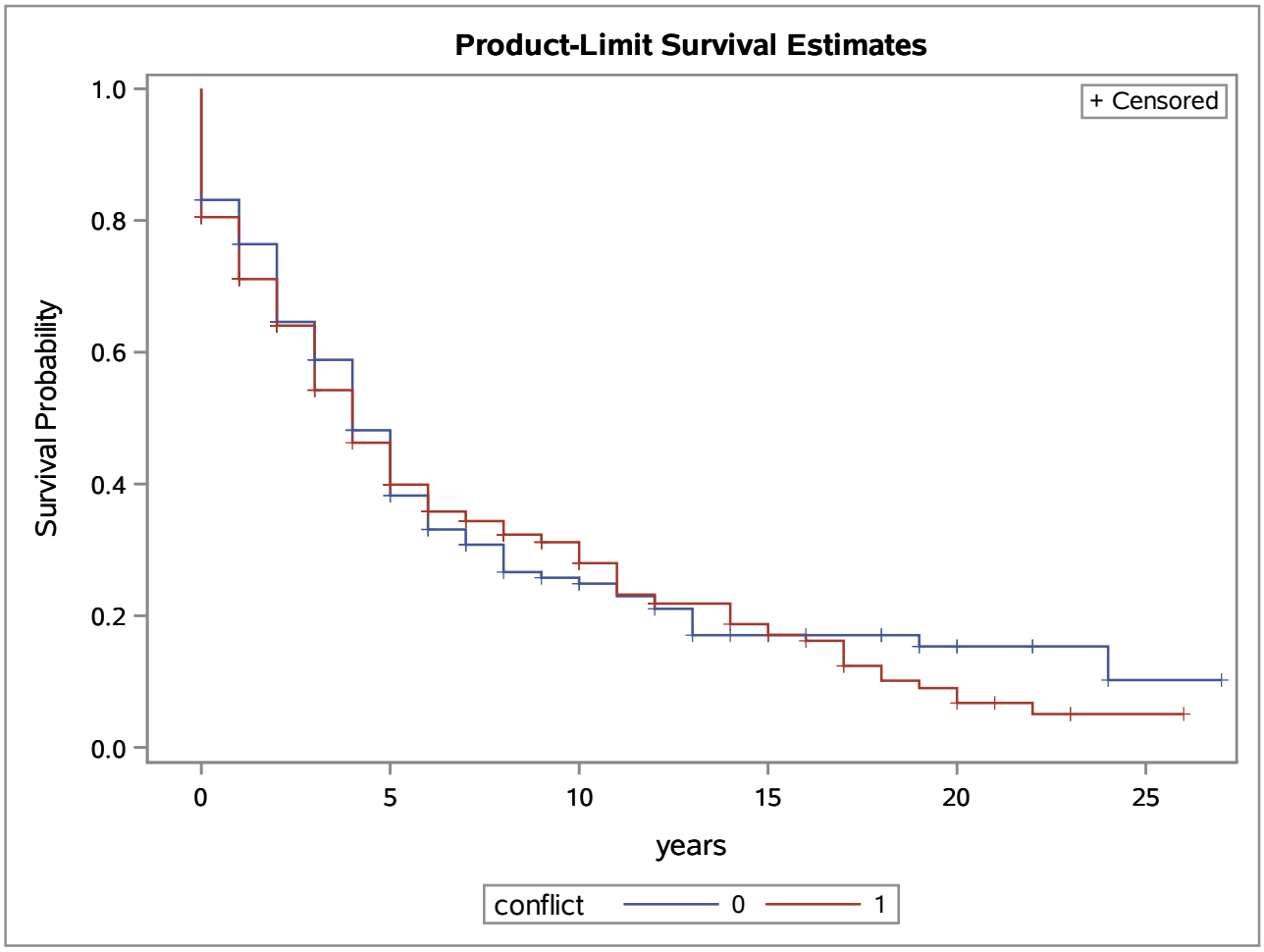
Rank Statistics		
conflict	Log-Rank	Wilcoxon
0	-4.0631	-956.00
1	4.0631	956.00

Covariance Matrix for the Log-Rank Statistics		
conflict	0	1
0	67.4301	-67.4301
1	-67.4301	67.4301

Covariance Matrix for the Wilcoxon Statistics		
conflict	0	1
0	5764781	-5764781
1	-5764781	5764781

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

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	region	Total	Failed	Censored	Percent Censored
1	0	60	42	18	30.00
2	1	132	90	42	31.82
3	2	91	65	26	28.57
4	3	155	130	25	16.13
Total		438	327	111	25.34

The LIFETEST Procedure

Testing Homogeneity of Survival Curves for years over Strata

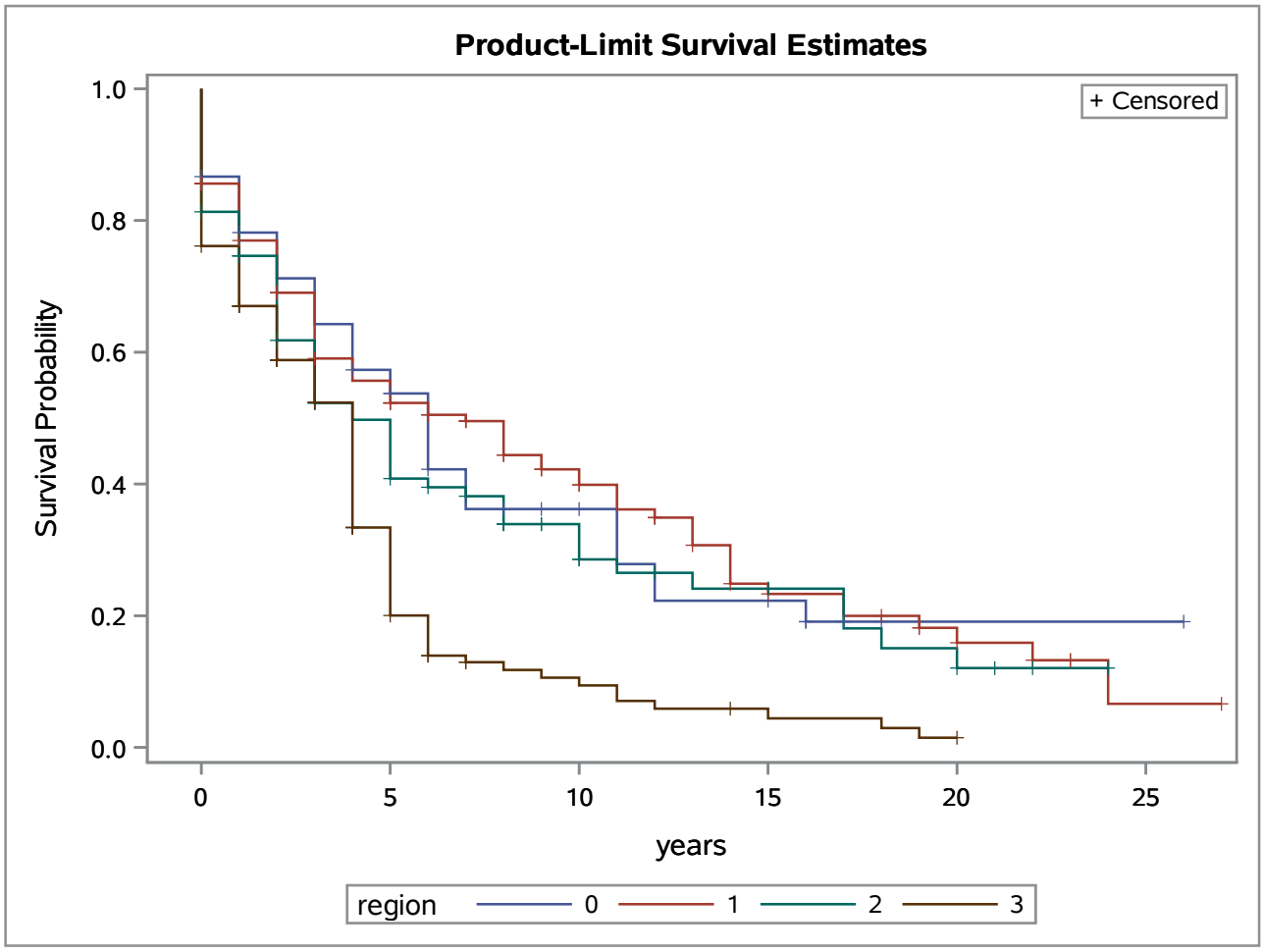
Rank Statistics		
region	Log-Rank	Wilcoxon
0	-9.484	-2808.0
1	-25.726	-6229.0
2	-4.984	-454.0
3	40.193	9491.0

Covariance Matrix for the Log-Rank Statistics				
region	0	1	2	3
0	37.5826	-16.1102	-9.6130	-11.8594
1	-16.1102	63.7560	-22.0230	-25.6229
2	-9.6130	-22.0230	47.7703	-16.1344
3	-11.8594	-25.6229	-16.1344	53.6167

Covariance Matrix for the Wilcoxon Statistics				
region	0	1	2	3
0	3029487	-1120424	-737816	-1171247
1	-1120424	5222065	-1586630	-2515011
2	-737816	-1586630	4001965	-1677518
3	-1171247	-2515011	-1677518	5363777

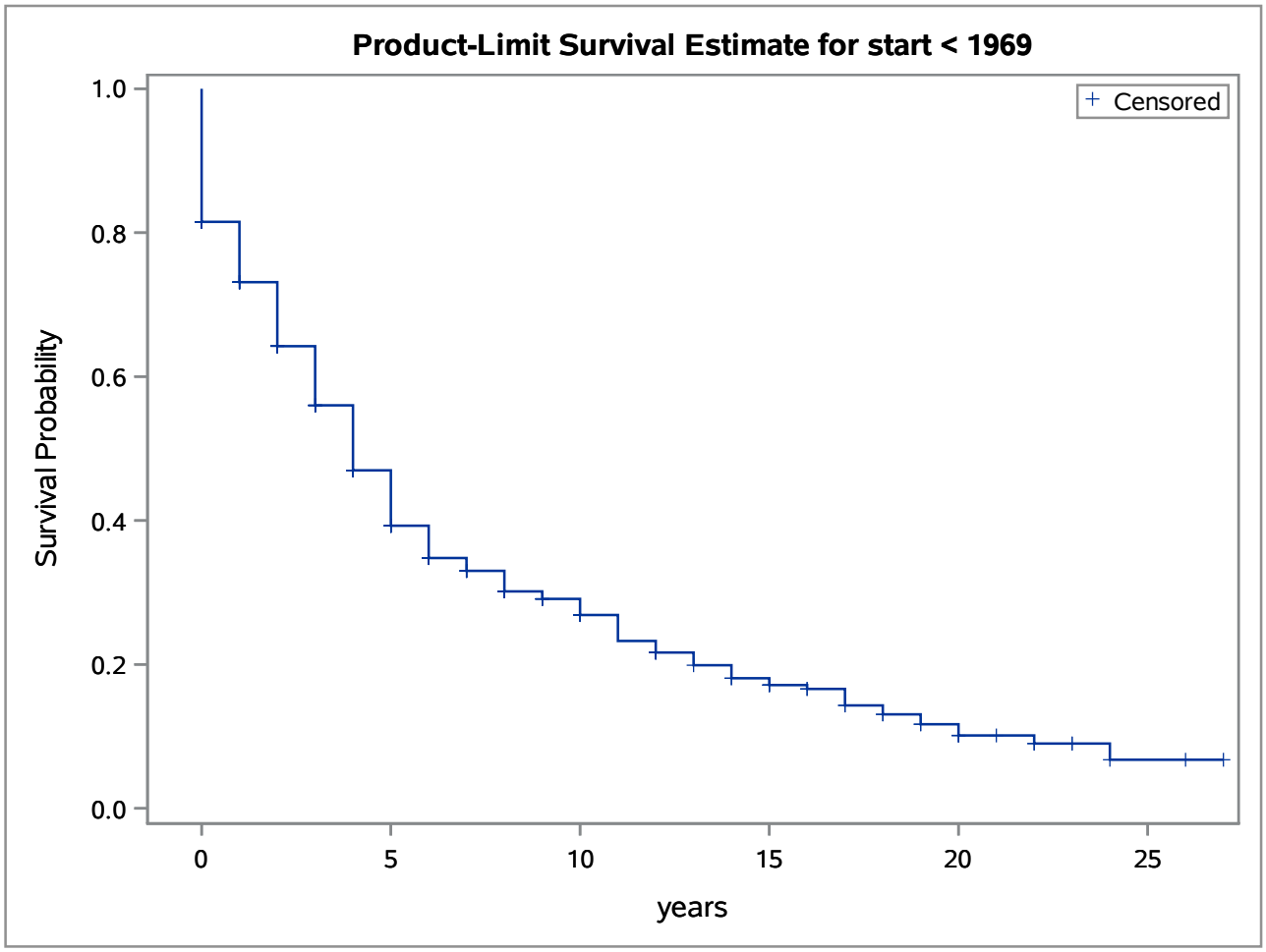
Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	31.3905	3	<.0001
Wilcoxon	18.6136	3	0.0003
-2Log(LR)	48.2772	3	<.0001

The LIFETEST Procedure



The LIFETEST Procedure

Stratum 1: start < 1969



Summary of the Number of Censored and Uncensored Values					
Stratum	start	Total	Failed	Censored	Percent Censored
1	<1969	438	327	111	25.34

The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	age	Total	Failed	Censored	Percent Censored
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

Testing Homogeneity of Survival Curves for years over Strata

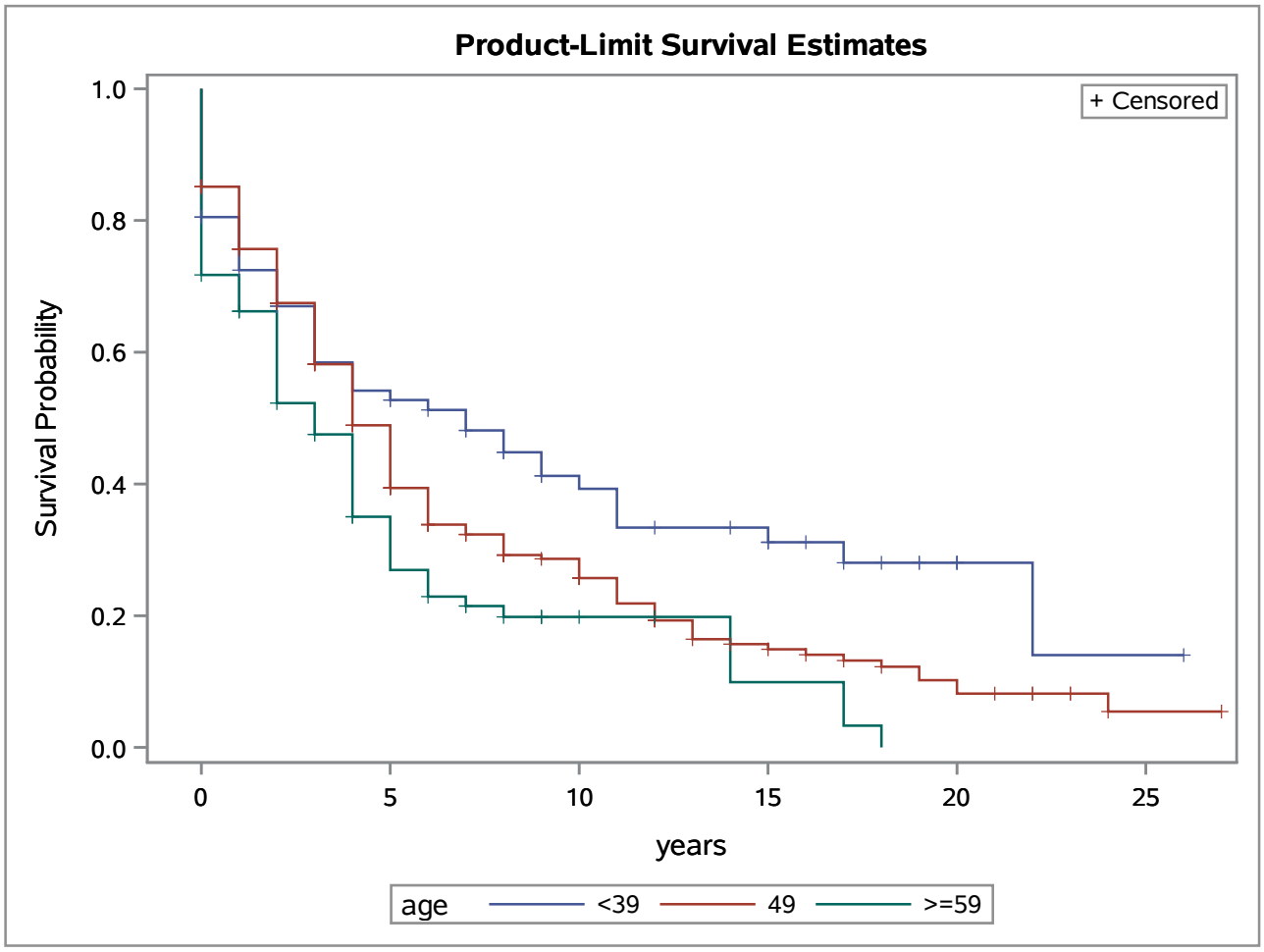
Rank Statistics		
age	Log-Rank	Wilcoxon
<39	-19.095	-2793.0
49	0.186	-2898.0
>=59	18.910	5691.0

Covariance Matrix for the Log-Rank Statistics			
age	<39	49	>=59
<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	Pr > Chi-Square
Log-Rank	13.9536	2	0.0009
Wilcoxon	9.2130	2	0.0100
-2Log(LR)	21.6755	2	<.0001

The LIFETEST Procedure



The LIFETEST Procedure

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

Testing Homogeneity of Survival Curves for years over Strata

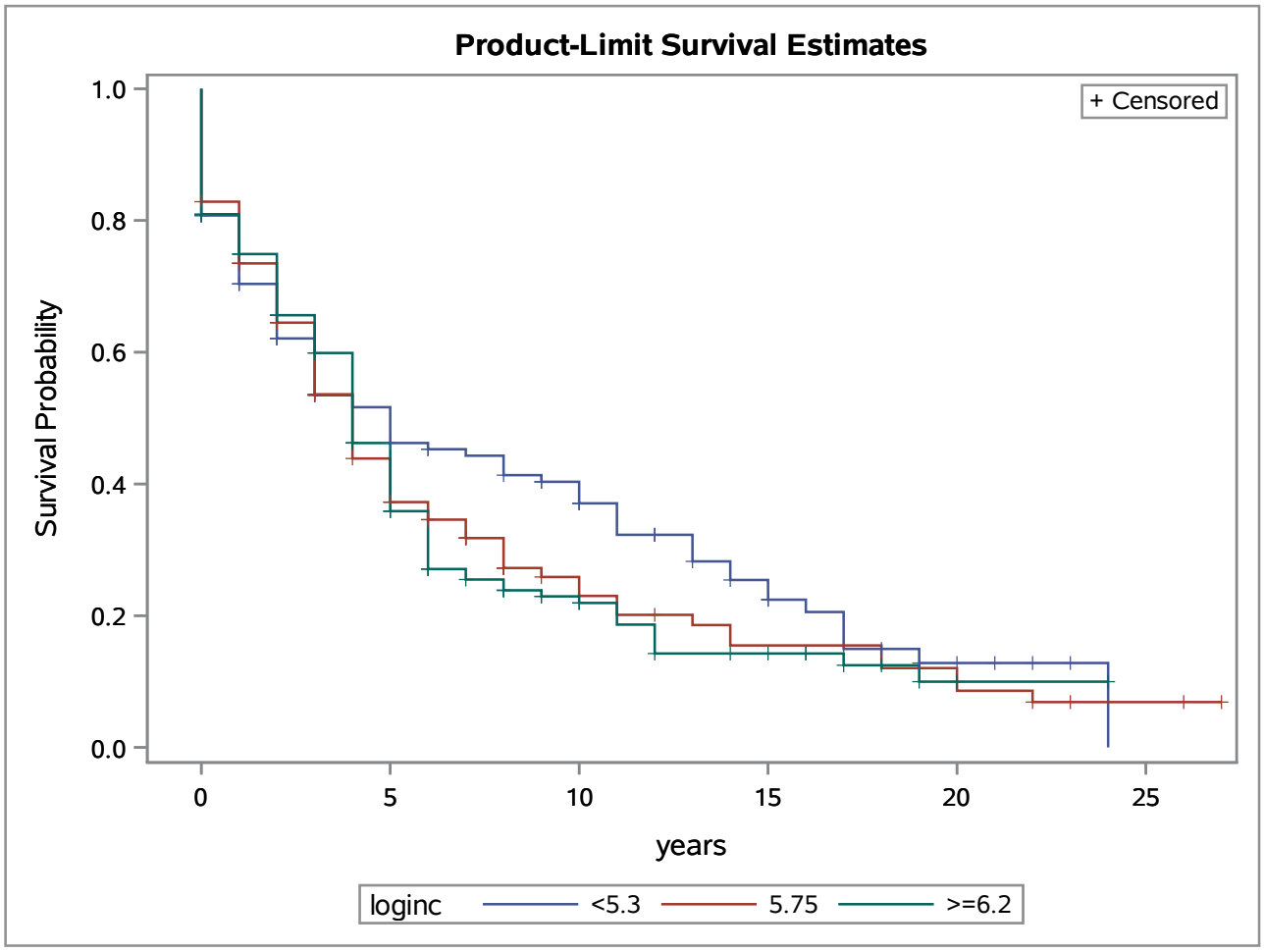
Rank Statistics		
loginc	**Log-Rank**	**Wilcoxon**
<5.3	-12.226	-1685.0
5.75	4.220	699.0
>=6.2	8.006	986.0

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

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	growth	Total	Failed	Censored	Percent 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

Testing Homogeneity of Survival Curves for years over Strata

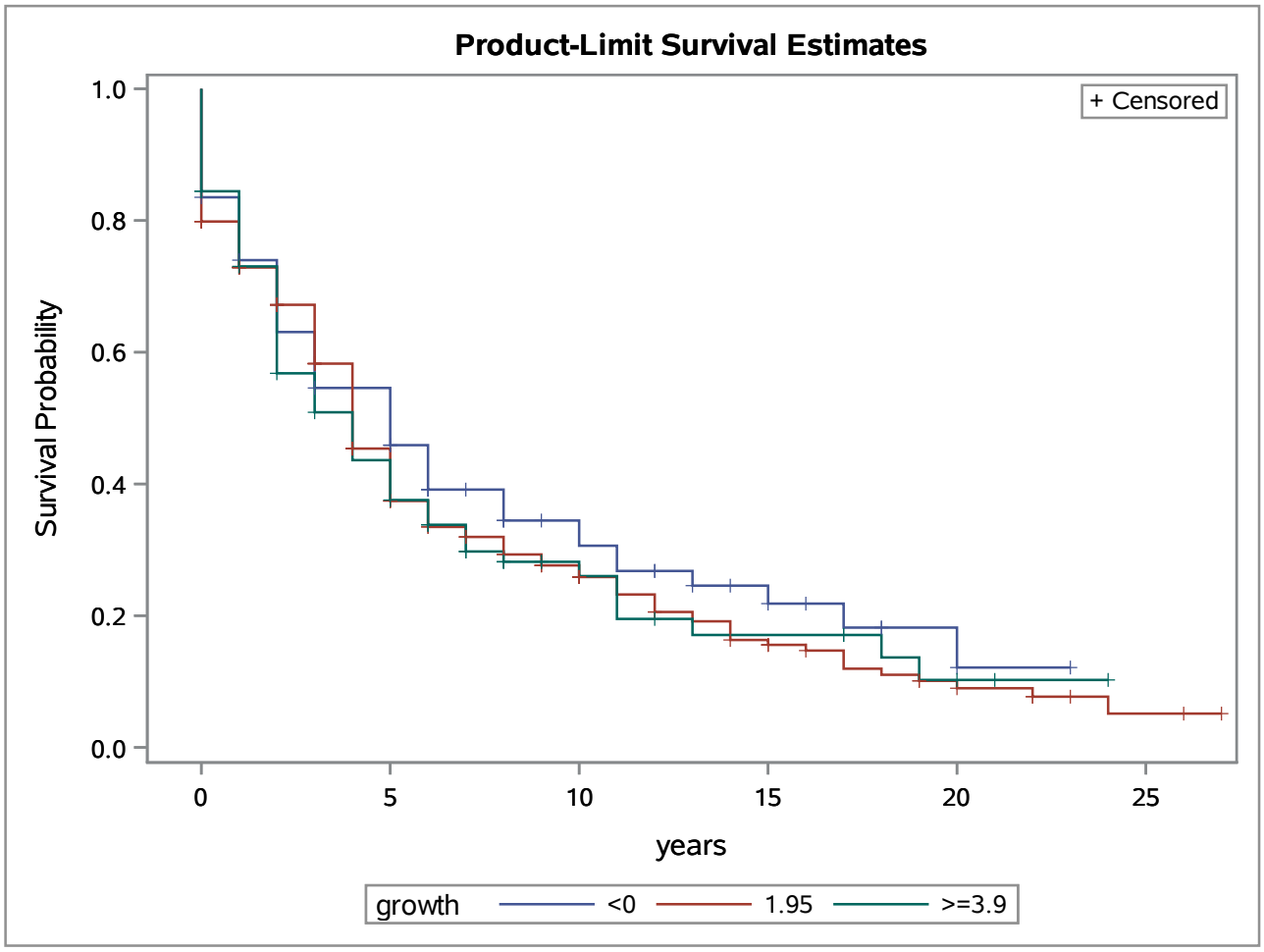
Rank Statistics		
growth	Log-Rank	Wilcoxon
<0	-7.5080	-1498.0
1.95	4.8068	474.0
>=3.9	2.7012	1024.0

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

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
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

Testing Homogeneity of Survival Curves for years over Strata

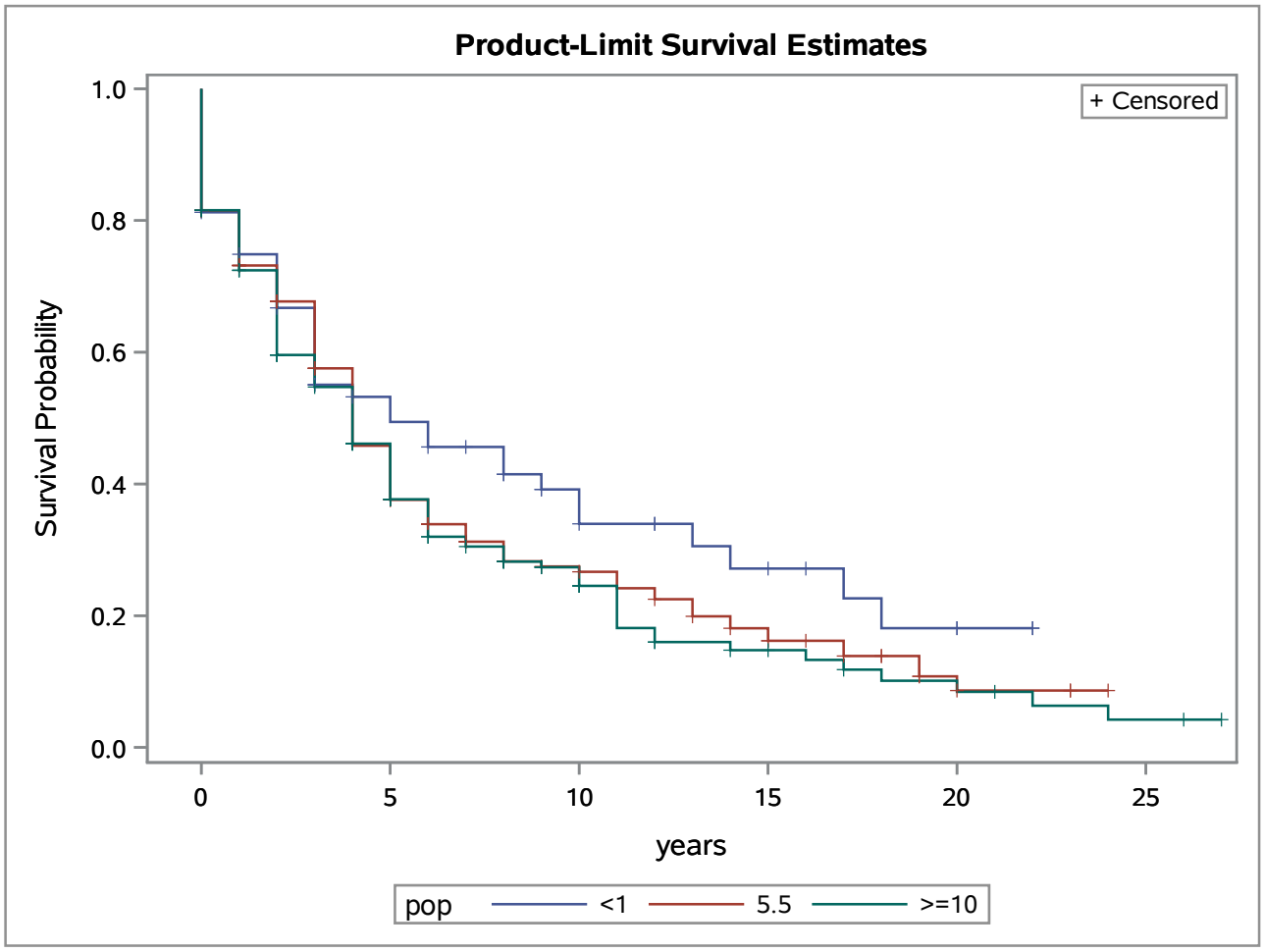
Rank Statistics		
pop	**Log-Rank**	**Wilcoxon**
<1	-10.205	-1678.0
5.5	0.596	-254.0
>=10	9.609	1932.0

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

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

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

The LIFETEST Procedure



The LIFETEST Procedure

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

Testing Homogeneity of Survival Curves for years over Strata

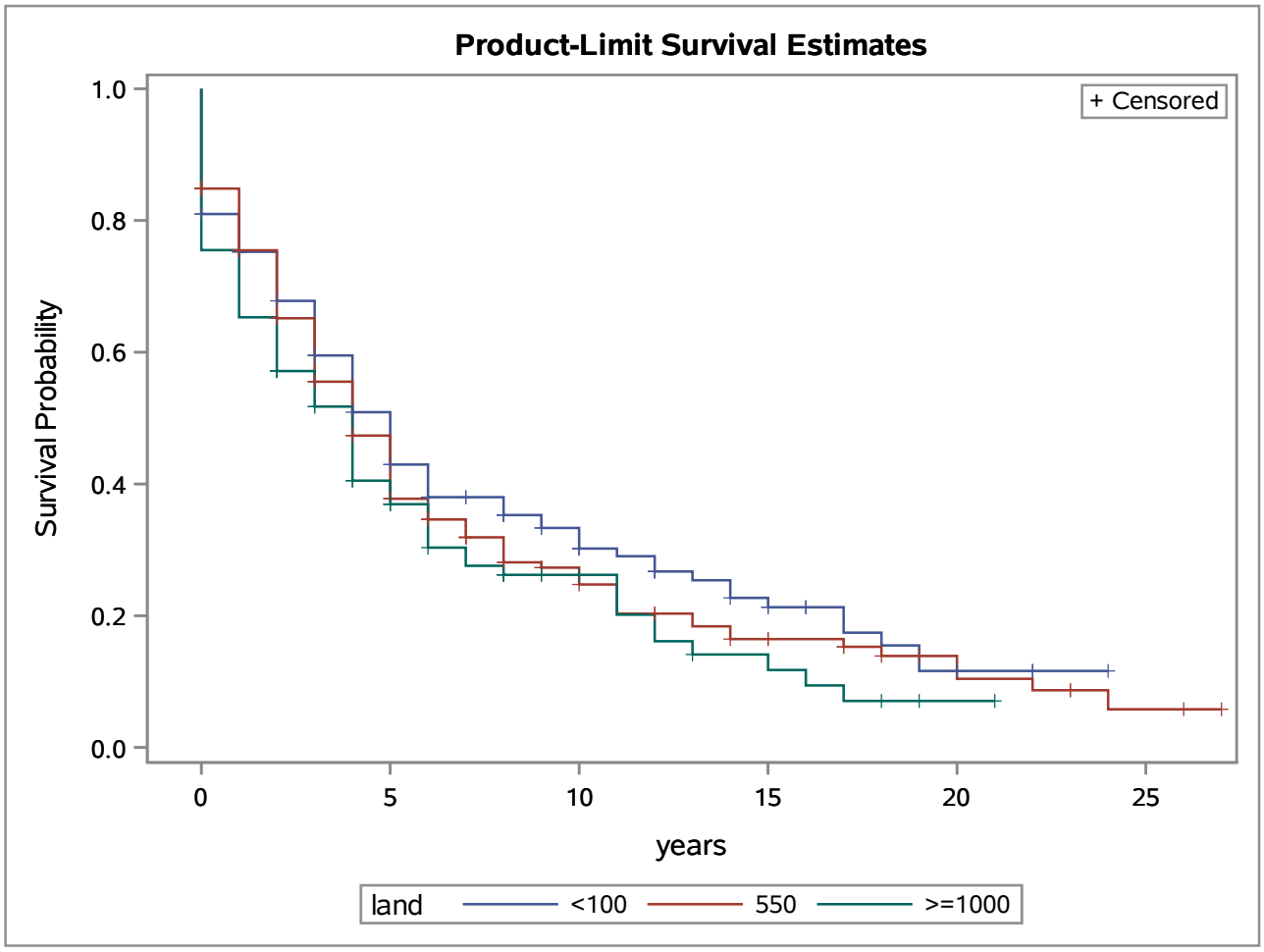
Rank Statistics		
land	**Log-Rank**	**Wilcoxon**
<100	-11.319	-2498.0
550	0.562	-975.0
>=1000	10.756	3473.0

Covariance Matrix for the Log-Rank Statistics			
land	**<100**	**550**	**>=1000**
<100	64.4150	-44.4664	-19.9486
550	-44.4664	70.0254	-25.5591
>=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**	**Pr > Chi-Square**
Log-Rank	3.3256	2	0.1896
Wilcoxon	3.1560	2	0.2064
-2Log(LR)	5.1086	2	0.0777

The LIFETEST Procedure



The LIFETEST Procedure

Summary of the Number of Censored and Uncensored Values					
Stratum	literacy	Total	Failed	Censored	Percent Censored
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

Testing Homogeneity of Survival Curves for years over Strata

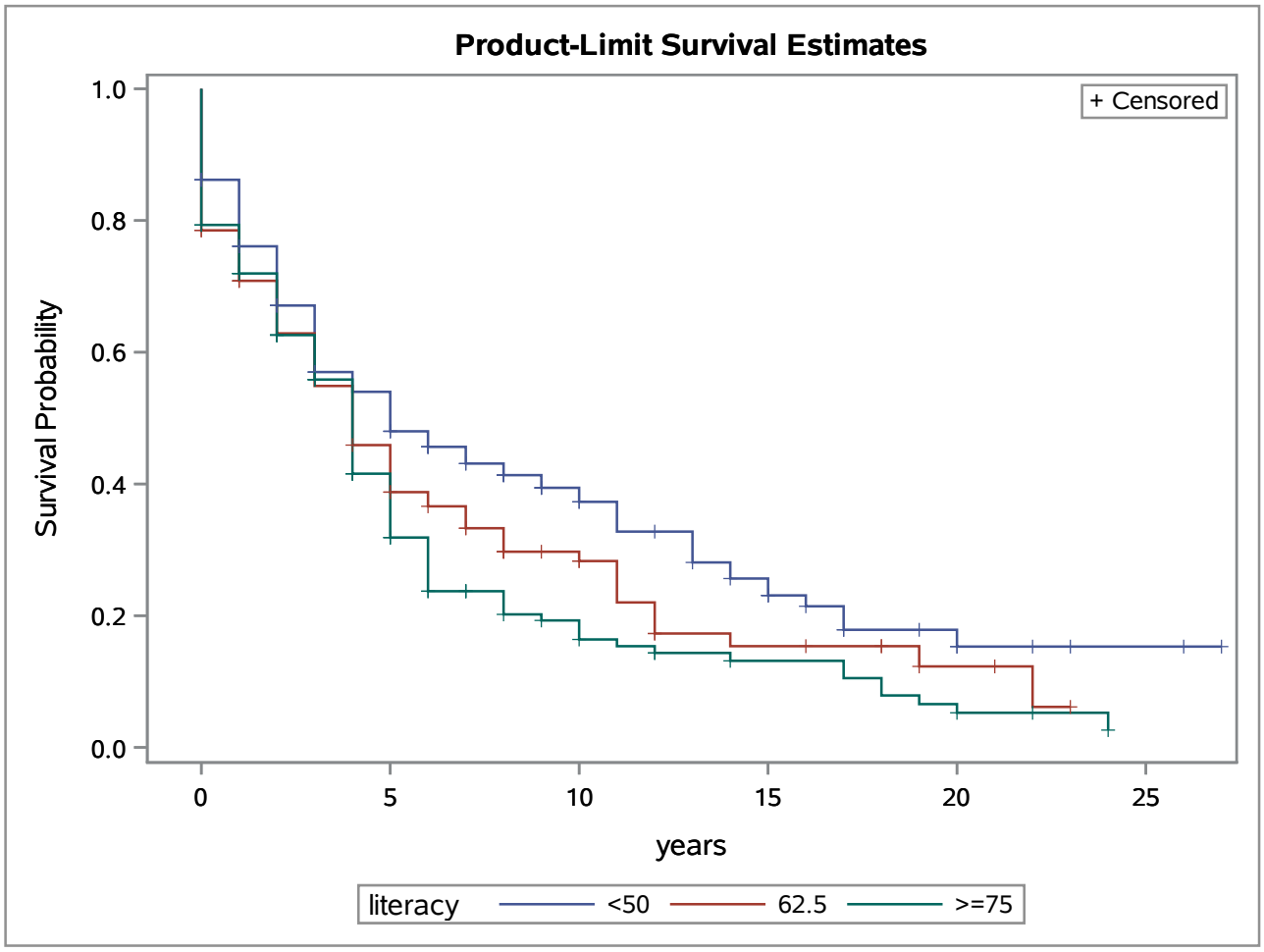
Rank Statistics		
literacy	**Log-Rank**	**Wilcoxon**
<50	-23.294	-5332.0
62.5	1.901	950.0
>=75	21.393	4382.0

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

The LIFETEST Procedure



The PHREG Procedure

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

Class Level Information		
Class	**Value**	**Design Variables**
manner	**0**	1
	1	0
military	**0**	1
	1	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.

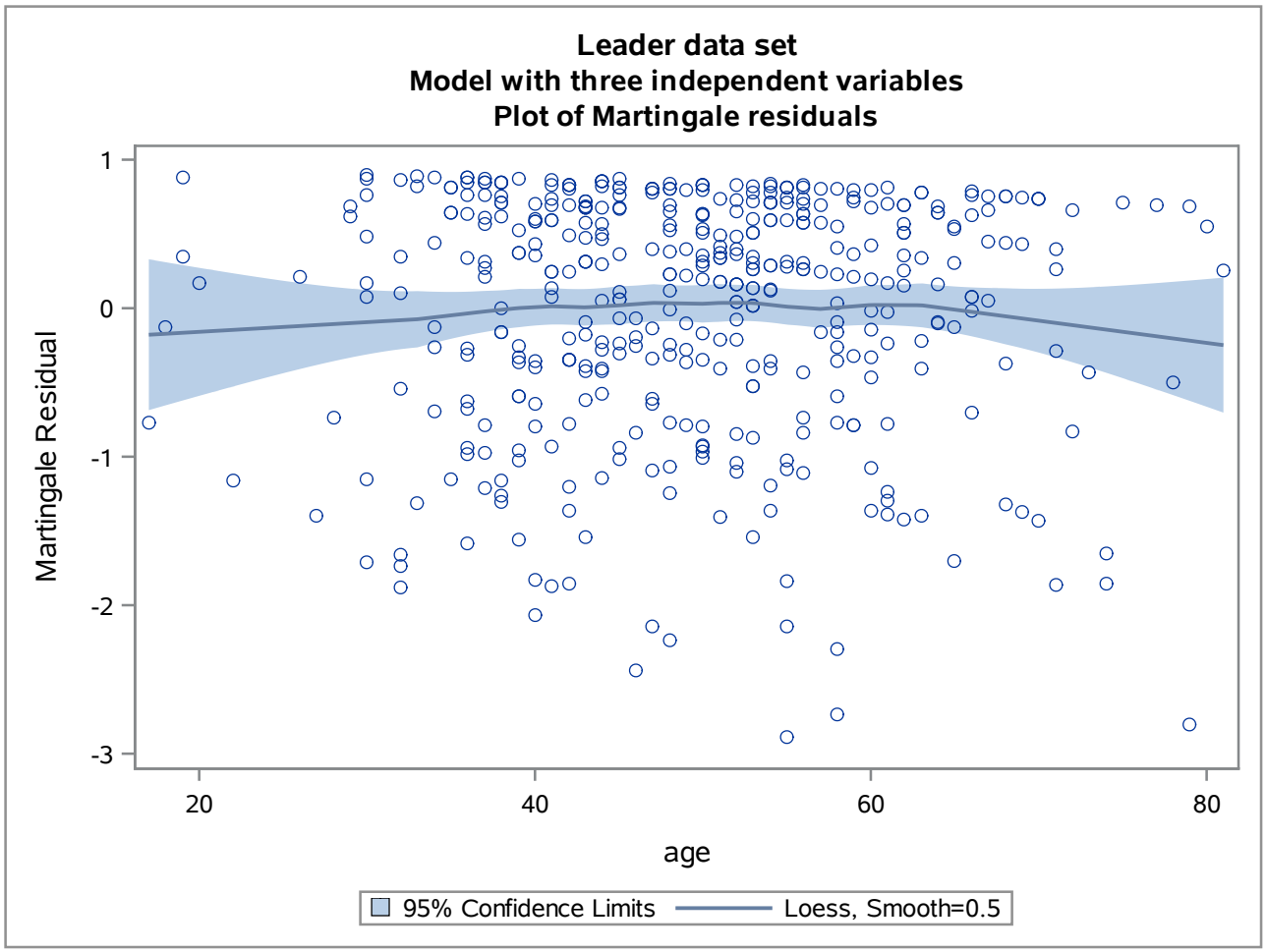
Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	3511.724	3489.379
AIC	3511.724	3495.379
SBC	3511.724	3506.749

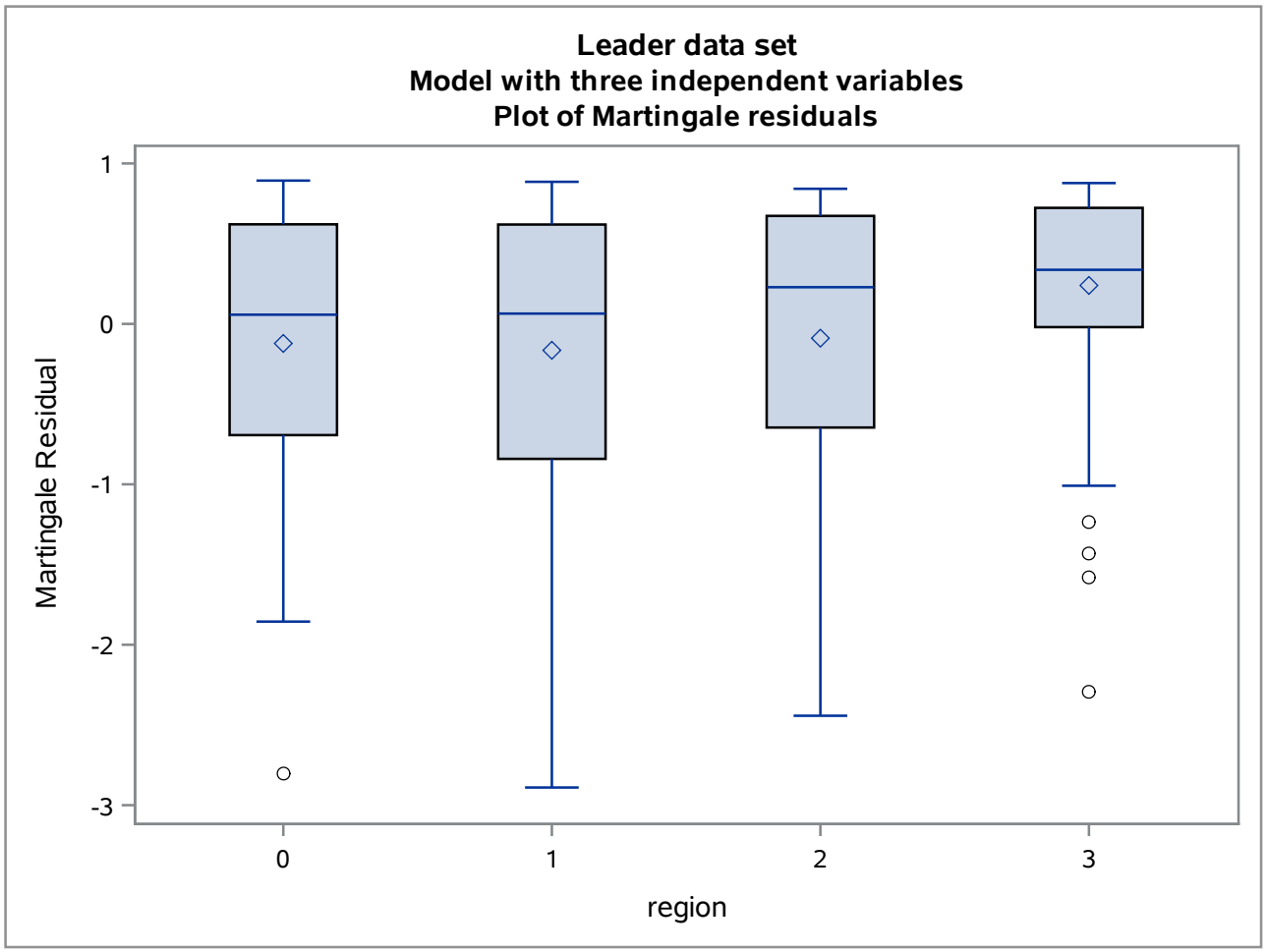
Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	22.3455	3	<.0001
Score	22.5907	3	<.0001
Wald	22.7364	3	<.0001

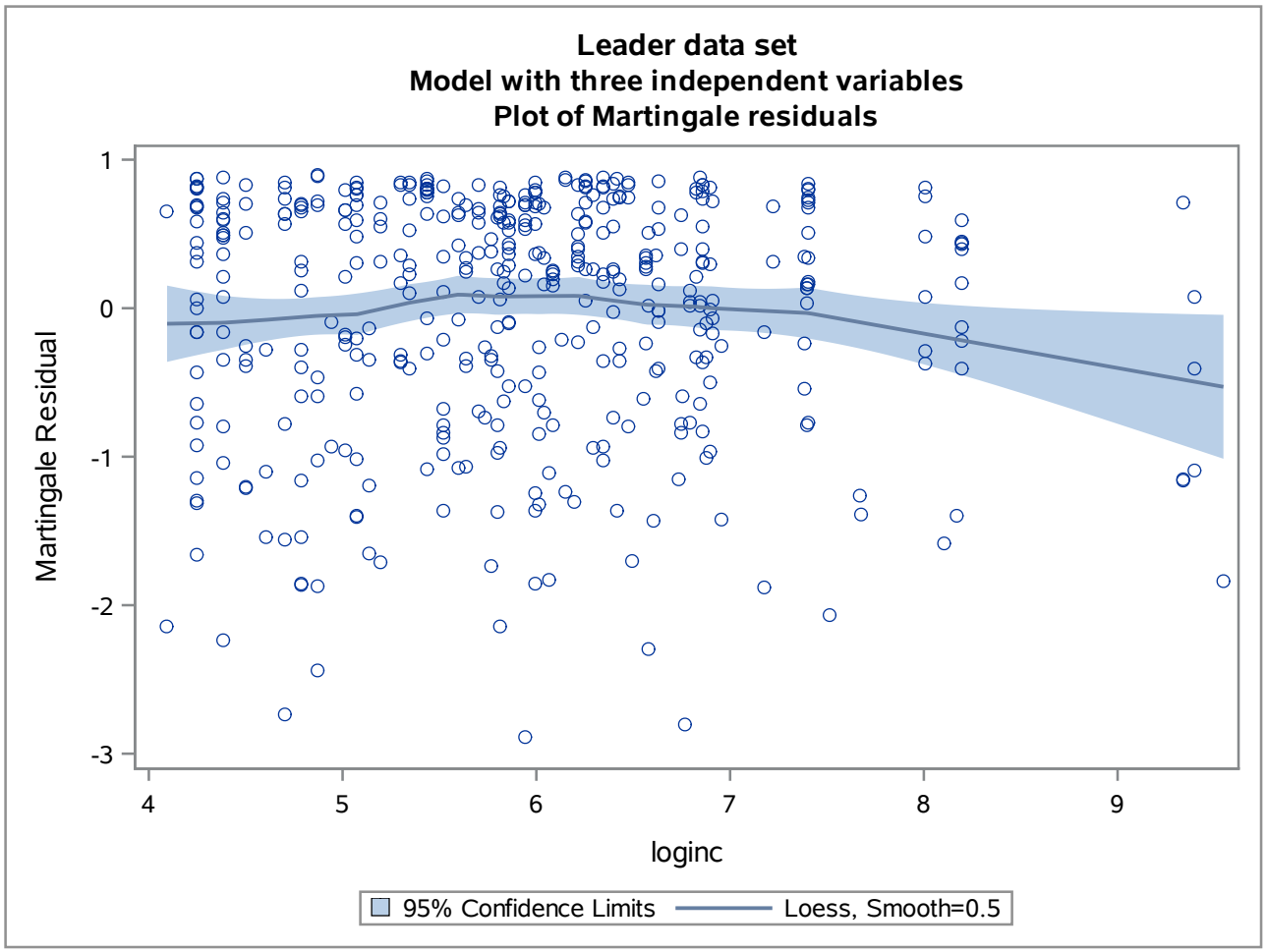
The PHREG Procedure

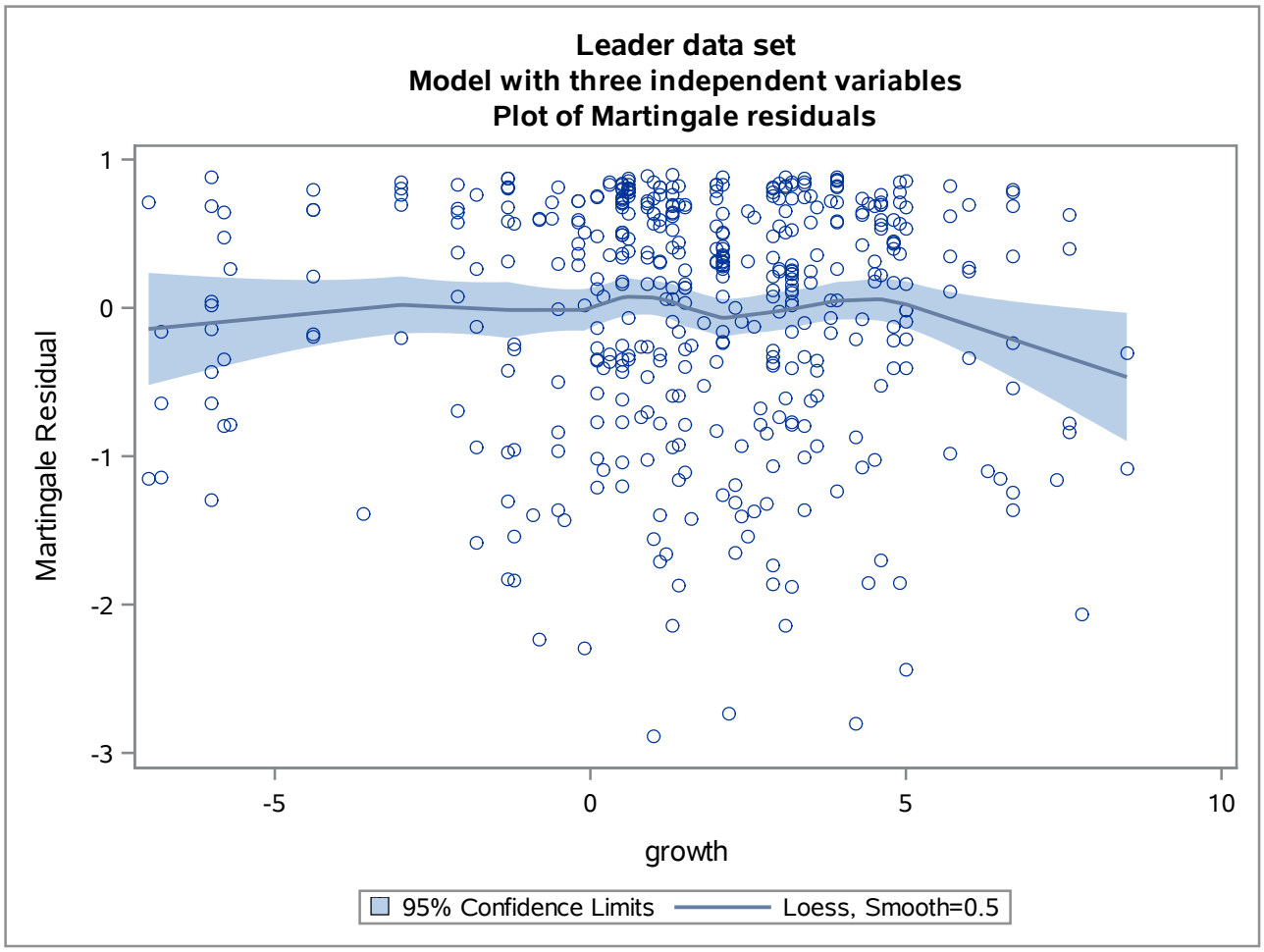
Type 3 Tests			
Effect	DF	Wald Chi-Square	Pr > ChiSq
manner	1	4.7330	0.0296
military	1	0.5961	0.4401
age	1	20.1023	<.0001

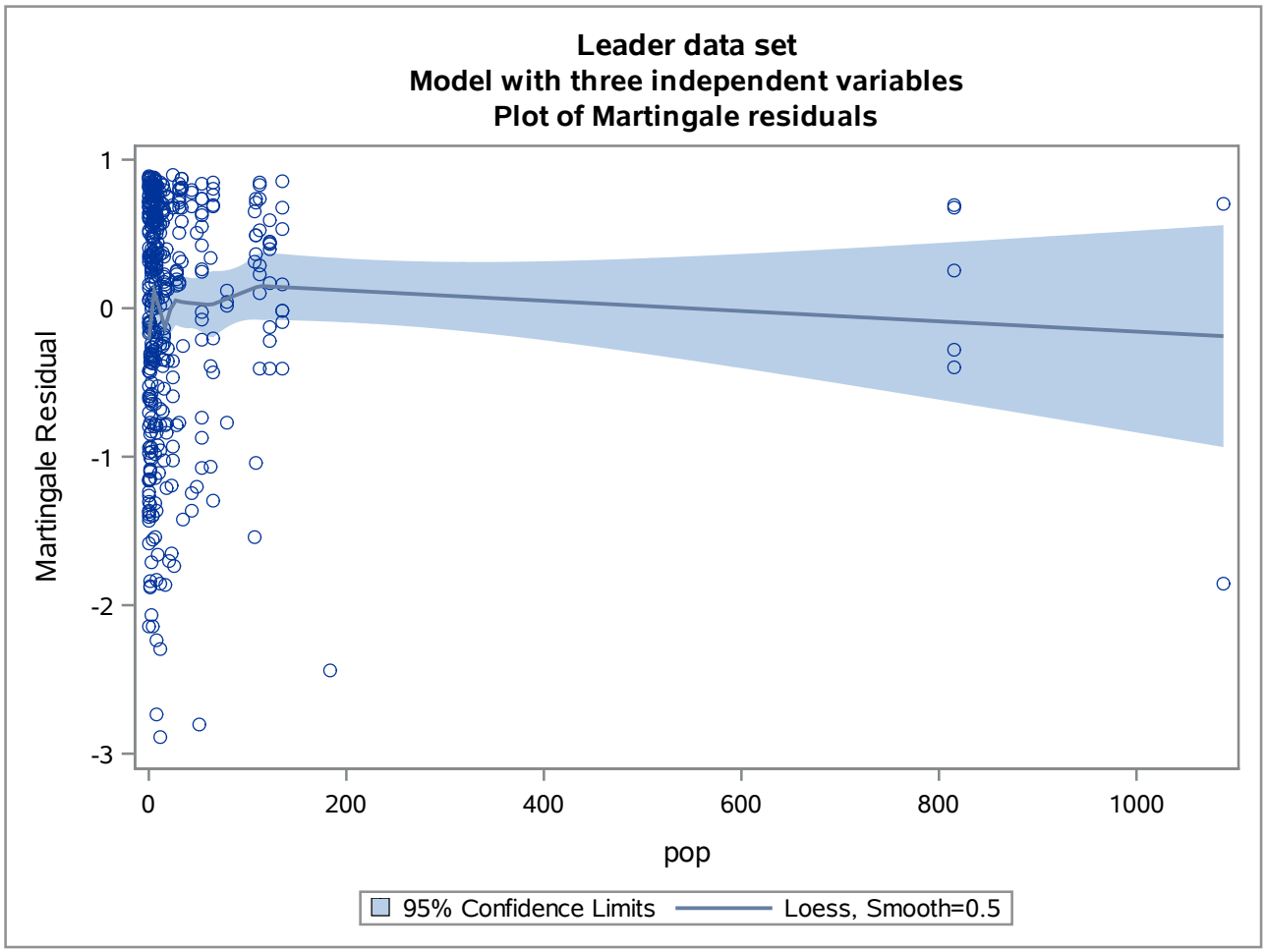
Analysis of Maximum Likelihood Estimates								
Parameter		DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
manner	0	1	-0.33219	0.15269	4.7330	0.0296	0.717	manner 0
military	0	1	0.12099	0.15671	0.5961	0.4401	1.129	military 0
age		1	0.02225	0.00496	20.1023	<.0001	1.022	

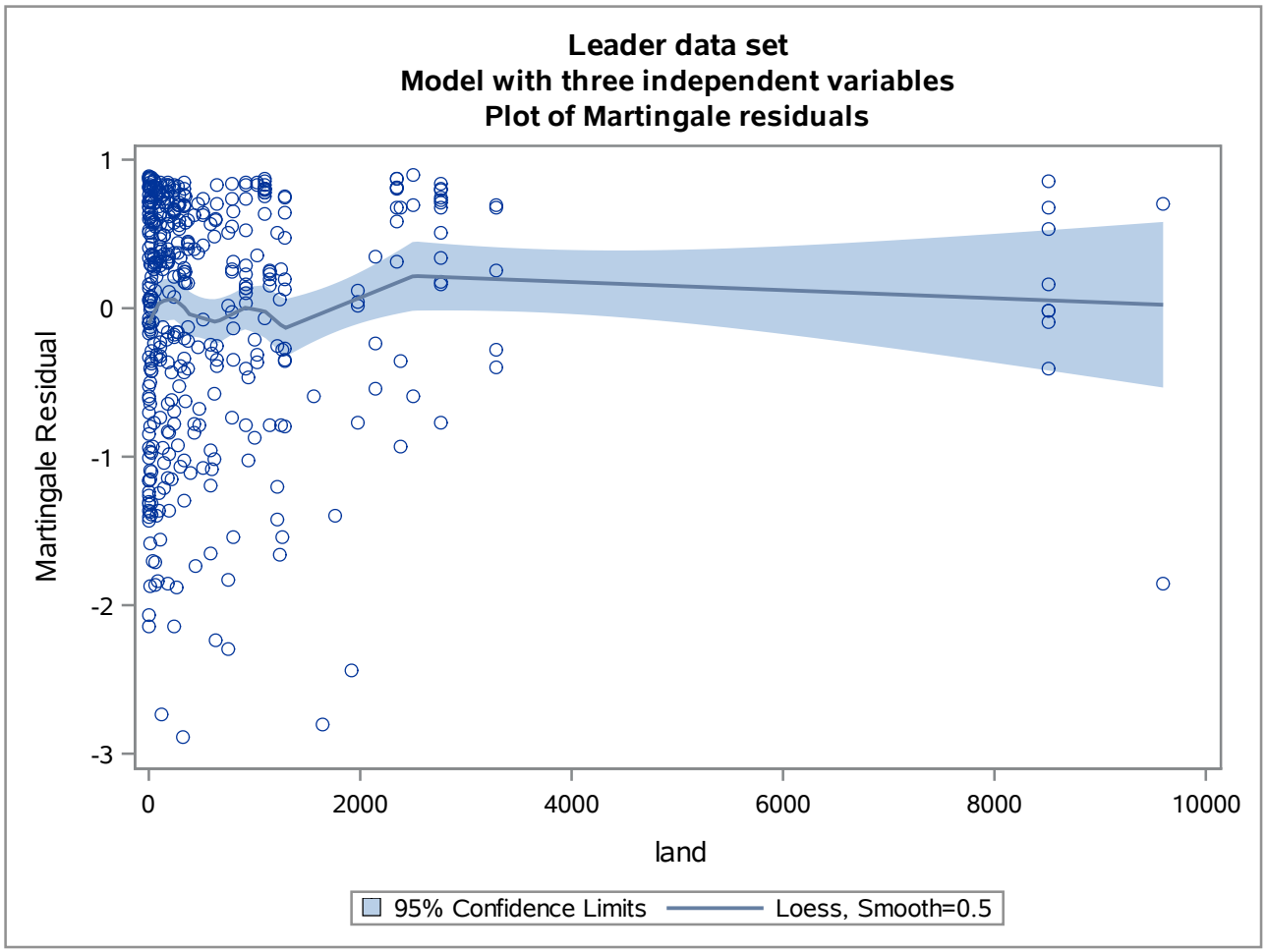

Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
20
40
60
80
age
95% Confidence Limits
Loess, Smooth=0.5

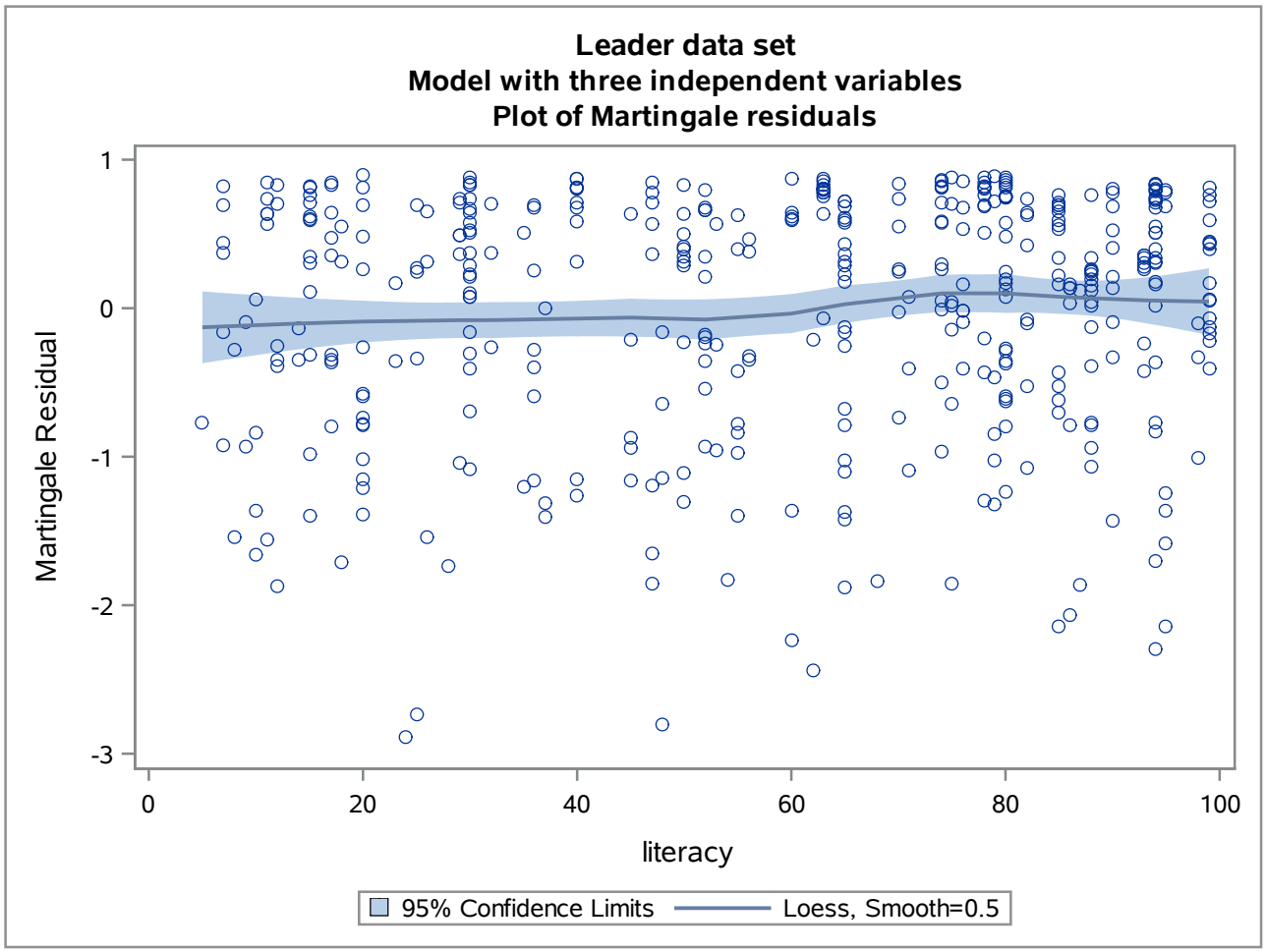

Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
0
1
2
3
region


Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
4
5
6
7
8
9
loginc
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
-5
0
5
10
growth
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
0
200
400
600
800
1000
pop
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
0
2000
4000
6000
8000
10000
land
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with three independent variables
Plot of Martingale residuals
Martingale Residual
1
0
-1
-2
-3
0
20
40
60
80
100
literacy
95% Confidence Limits
Loess, Smooth=0.5

The PHREG Procedure

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

Class Level Information				
Class	**Value**	**Design Variables**		
manner	**0**	1		
	1	0		
military	**0**	1		
	1	0		
region	**0**	1	0	0
	1	0	1	0
	2	0	0	1
	3	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.

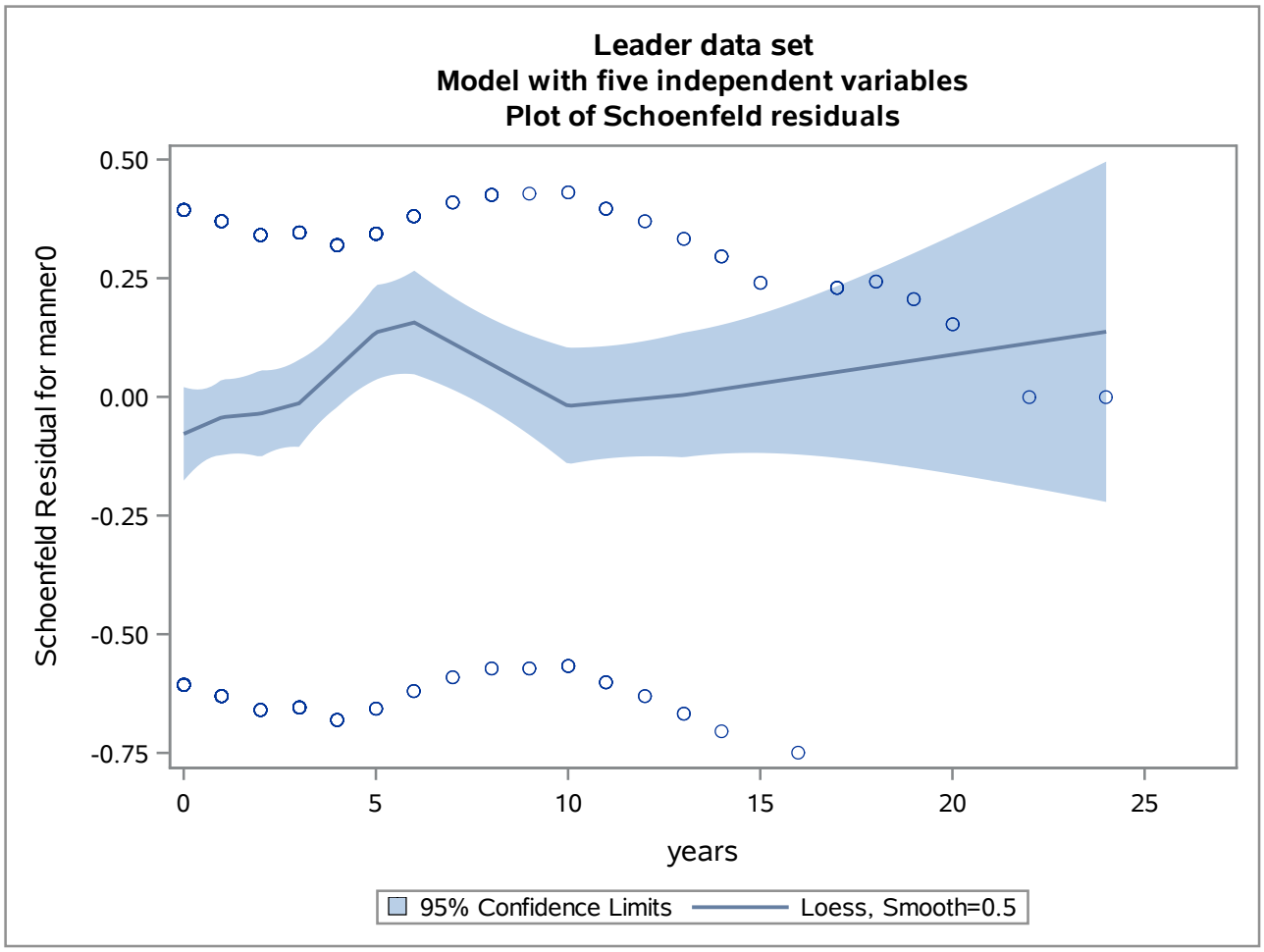
Model Fit Statistics		
Criterion	**Without Covariates**	**With Covariates**
-2 LOG L	3511.724	3461.124
AIC	3511.724	3475.124
SBC	3511.724	3501.654

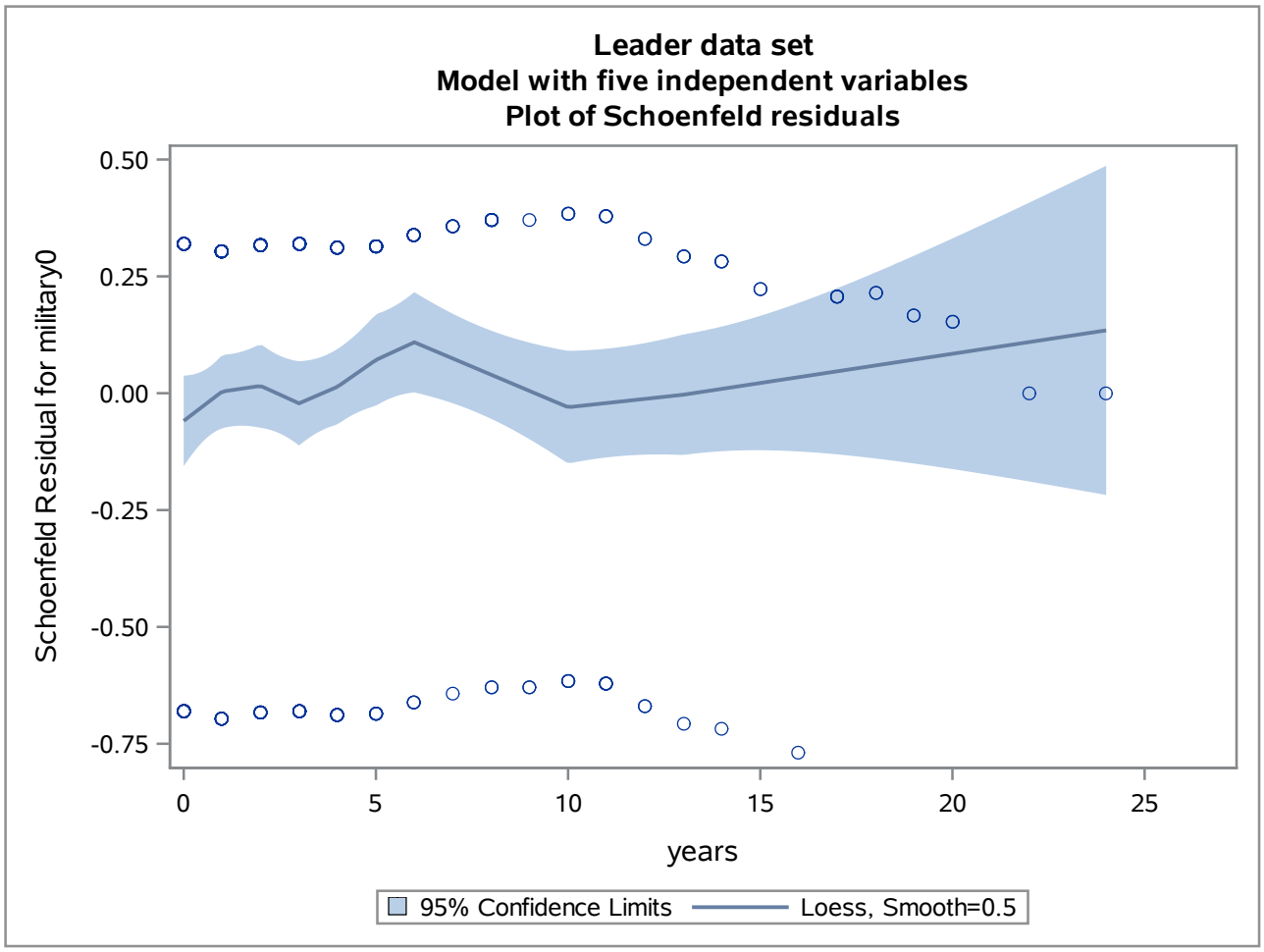
The PHREG Procedure

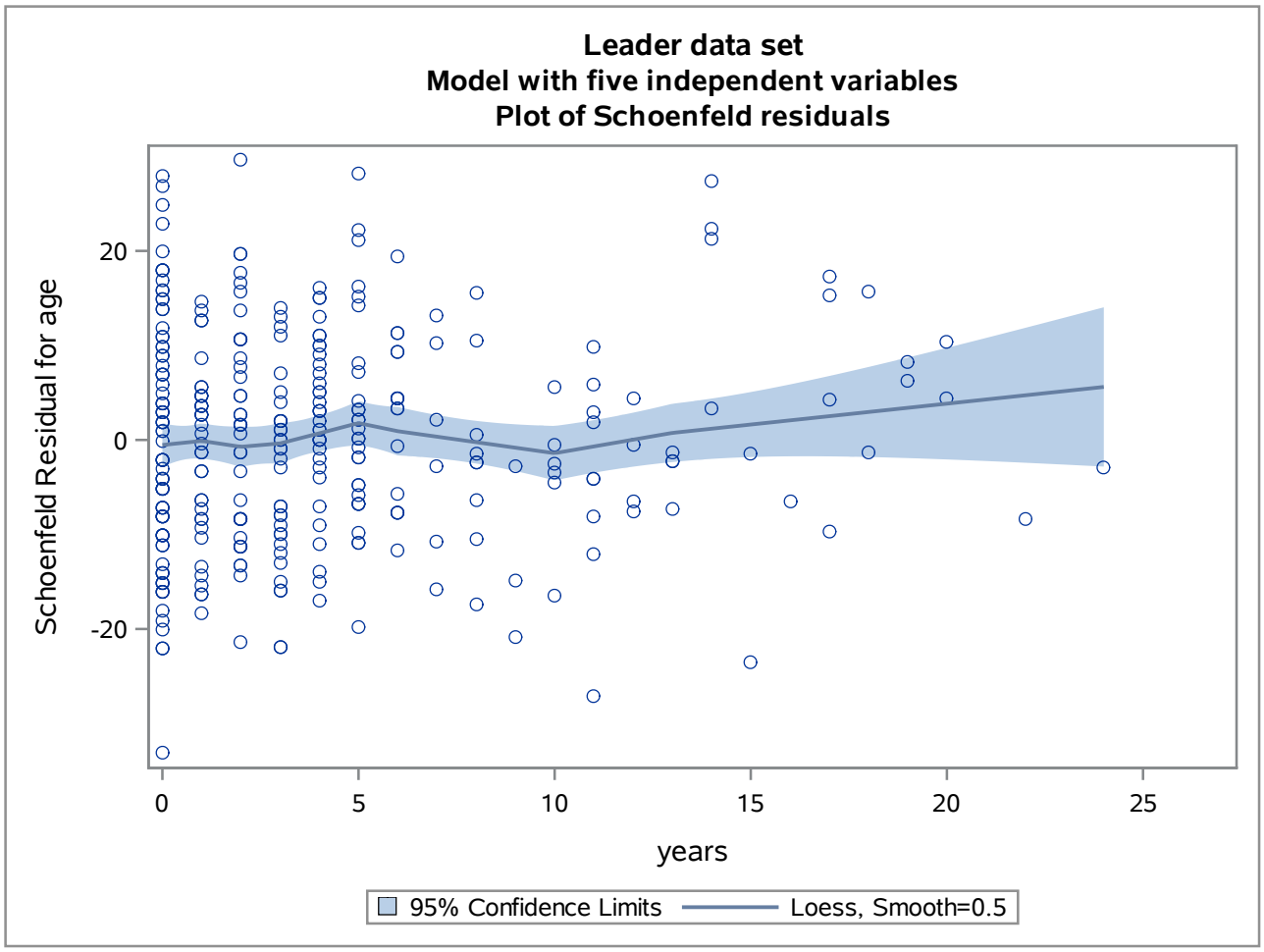
Testing Global Null Hypothesis: BETA=0			
Test	**Chi-Square**	**DF**	**Pr > ChiSq**
Likelihood Ratio	50.6006	7	<.0001
Score	51.0176	7	<.0001
Wald	50.0804	7	<.0001

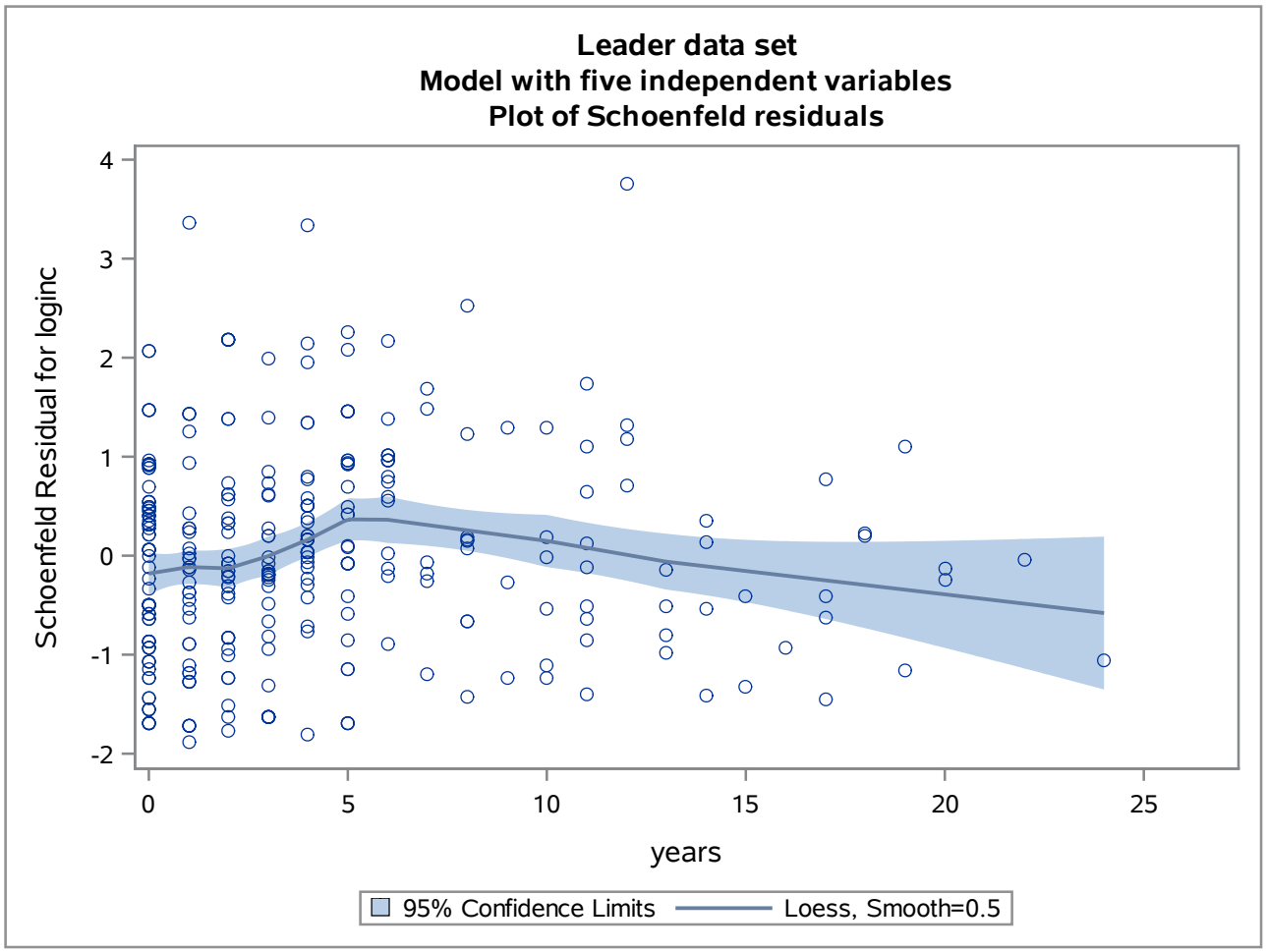
Type 3 Tests			
Effect	**DF**	**Wald Chi-Square**	**Pr > ChiSq**
manner	1	4.5334	0.0332
military	1	1.6171	0.2035
age	1	15.9631	<.0001
loginc	1	6.3911	0.0115
region	3	27.9457	<.0001

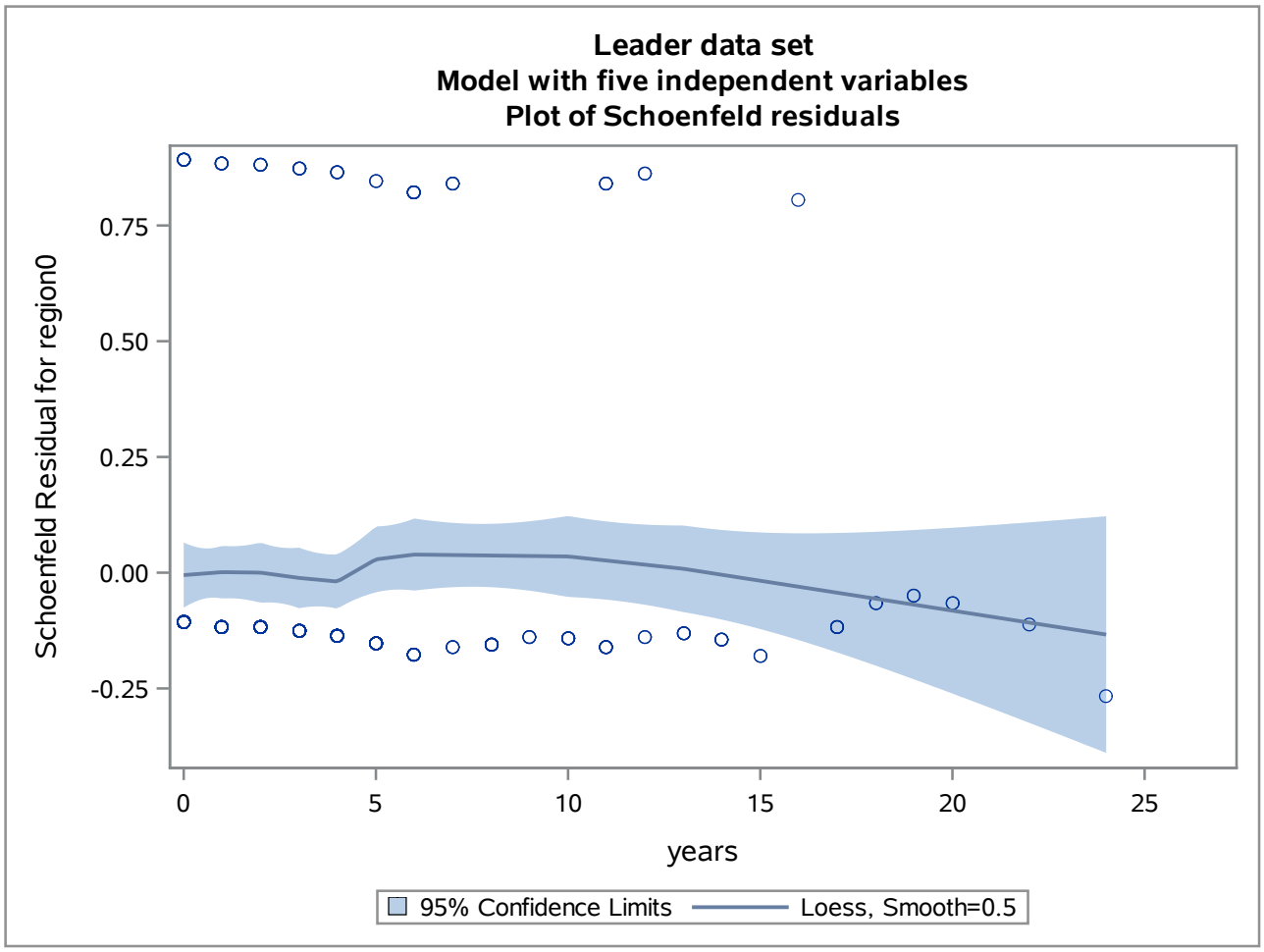
Analysis of Maximum Likelihood Estimates								
Parameter		**DF**	**Parameter Estimate**	**Standard Error**	**Chi-Square**	**Pr > ChiSq**	**Hazard Ratio**	**Label**
manner	**0**	1	-0.32415	0.15224	4.5334	0.0332	0.723	manner 0
military	**0**	1	0.19864	0.15621	1.6171	0.2035	1.220	military 0
age		1	0.02053	0.00514	15.9631	<.0001	1.021	
loginc		1	-0.17709	0.07005	6.3911	0.0115	0.838	
region	**0**	1	-0.46806	0.18138	6.6589	0.0099	0.626	region 0
region	**1**	1	-0.82557	0.16819	24.0933	<.0001	0.438	region 1
region	**2**	1	-0.67132	0.17415	14.8598	0.0001	0.511	region 2

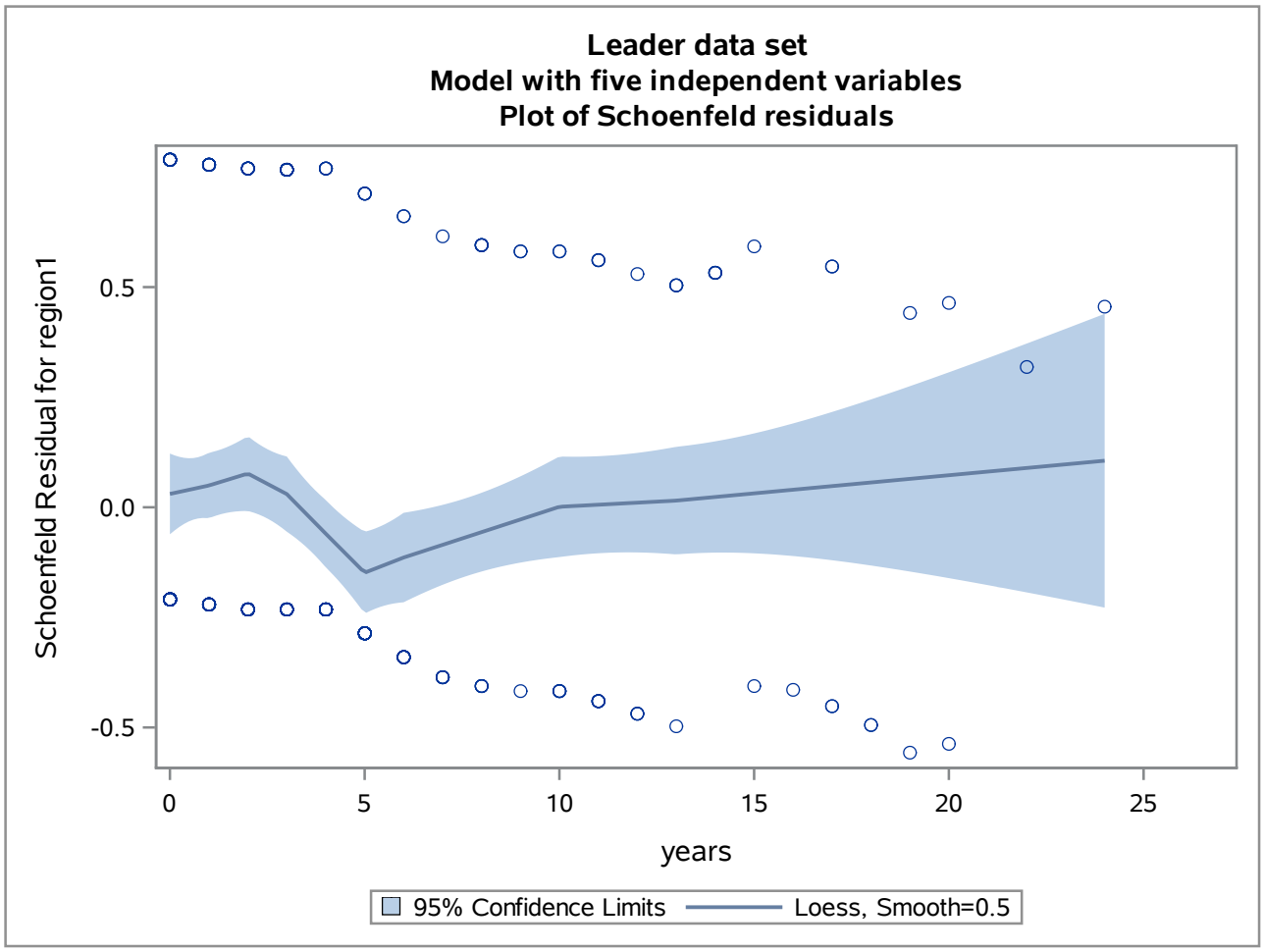

Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for manner0
0.50
0.25
0.00
-0.25
-0.50
-0.75
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5

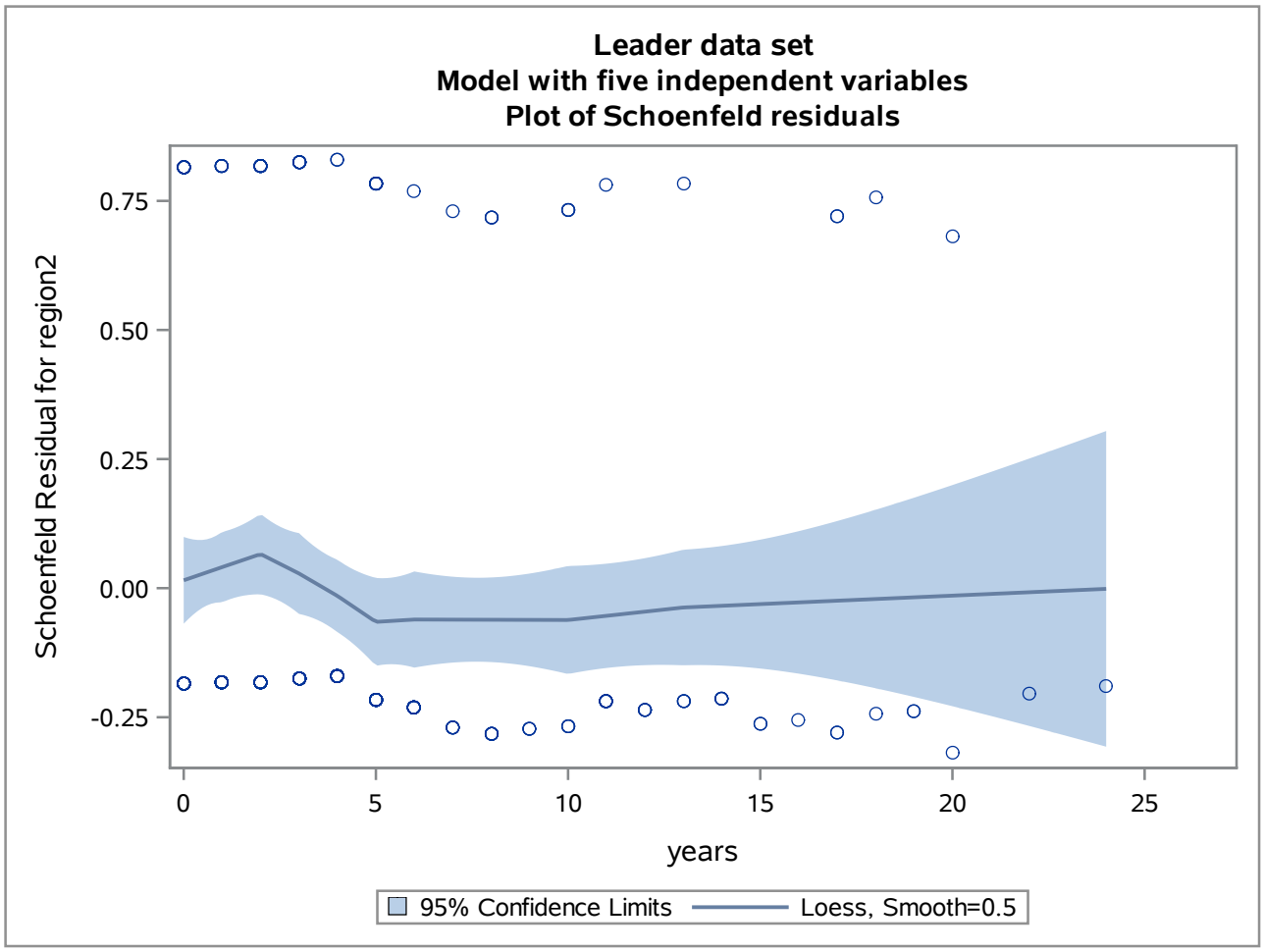

Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for military0
0.50
0.25
0.00
-0.25
-0.50
-0.75
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for age
20
0
-20
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for loginc
4
3
2
1
0
-1
-2
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for region0
0.75
0.50
0.25
0.00
-0.25
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for region1
0.5
0.0
-0.5
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5


Leader data set
Model with five independent variables
Plot of Schoenfeld residuals
Schoenfeld Residual for region2
0.75
0.50
0.25
0.00
-0.25
0
5
10
15
20
25
years
95% Confidence Limits
Loess, Smooth=0.5

Leader data set
Model with five independent variables
Plot of Schoenfeld residuals

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	1
Competing Events	2 3
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

Leader data set
Model with five independent variables
Plot of Schoenfeld residuals

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	2
Competing Events	1 3
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	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

Leader data set
Model with five independent variables
Plot of Schoenfeld residuals

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	3
Competing Events	1 2
Censored Value	0

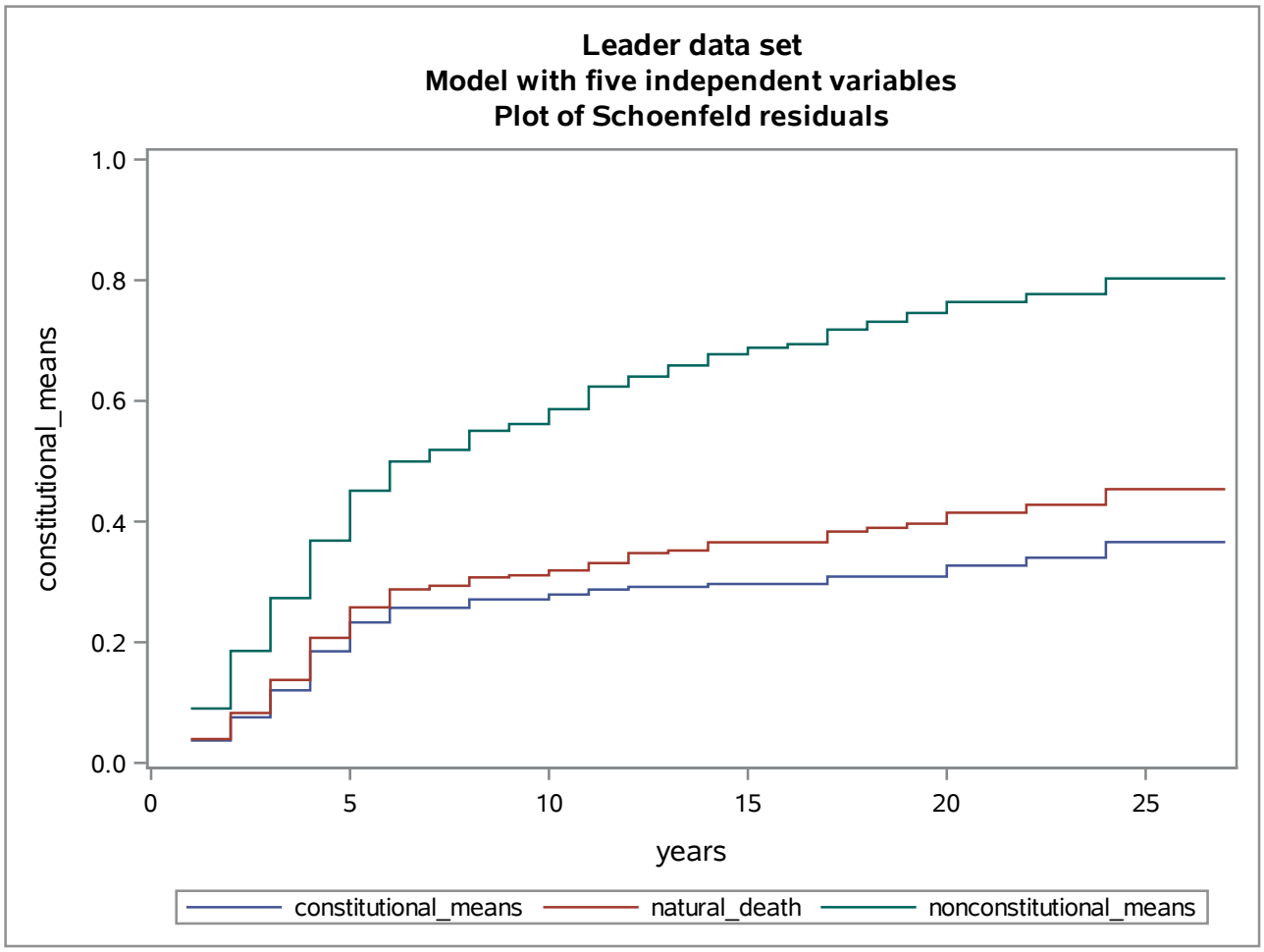
Number of Observations Read	438
Number of Observations Used	438

Summary of Failure Outcomes			
Total	**Event of Interest**	**Competing Event**	**Censored**
438	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
Model with five independent variables
Plot of Schoenfeld residuals
constitutional_means
1.0
0.8
0.6
0.4
0.2
0.0
0
5
10
15
20
25
years
constitutional_means
natural_death
nonconstitutional_means

Leader data set
Model with five independent variables
Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	1
Competing Events	2 3
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	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
Model with five independent variables
Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	2
Competing Events	1 3
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
Model with five independent variables
Subgroup manner=nonconstitutional ascent

The PHREG Procedure

Model Information	
Data Set	SURVIVAL.LEADER
Dependent Variable	years
Status Variable	lost
Event of Interest	3
Competing Events	1 2
Censored Value	0

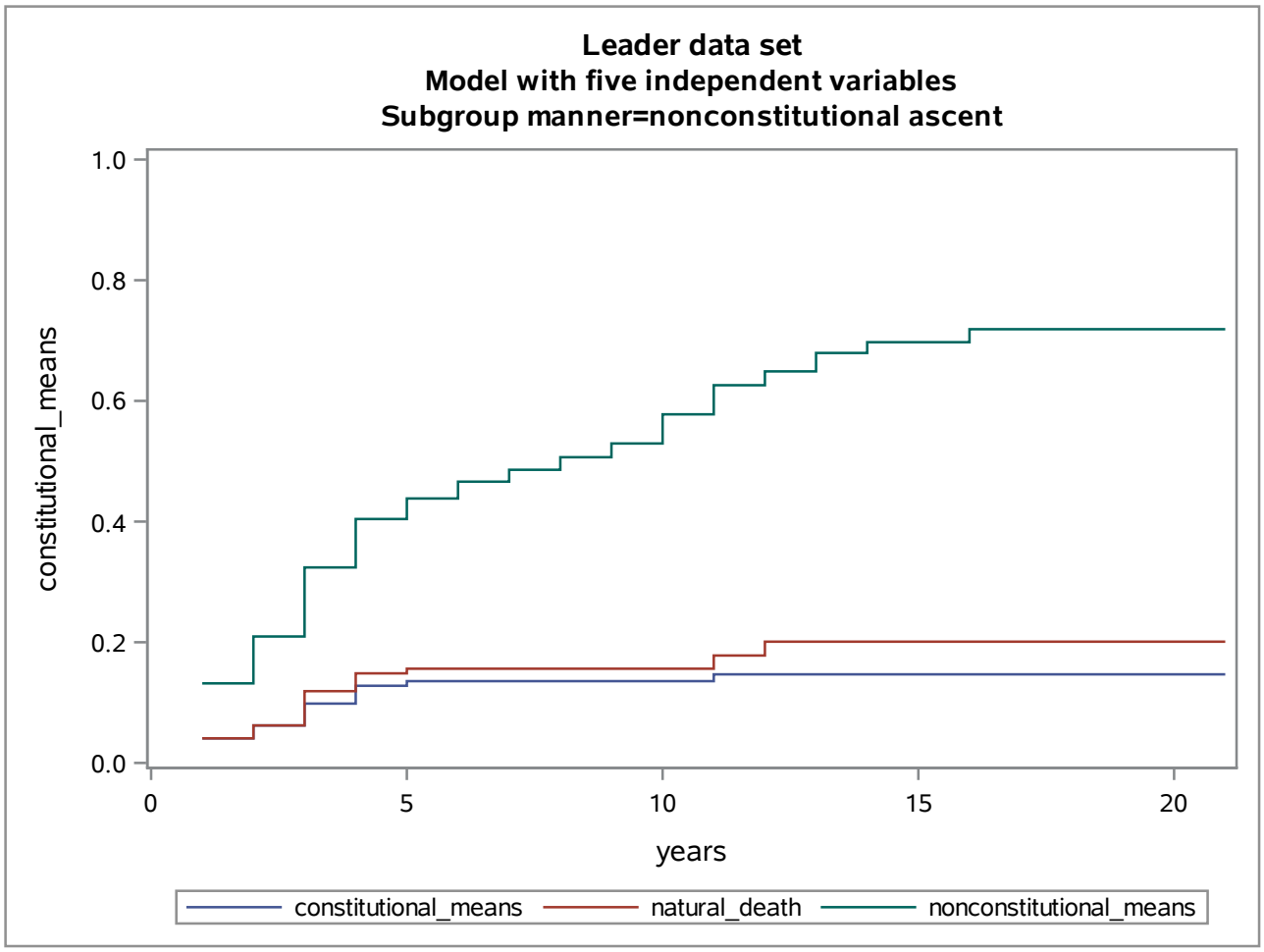
Number of Observations Read	158
Number of Observations Used	158

Summary of Failure Outcomes			
Total	**Event of Interest**	**Competing Event**	**Censored**
158	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


Leader data set
Model with five independent variables
Subgroup manner=nonconstitutional ascent
constitutional_means
1.0
0.8
0.6
0.4
0.2
0.0
0
5
10
15
20
years
constitutional_means
natural_death
nonconstitutional_means