

Obs	id	age	gender	hr	sysbp	diasbp	bmi	cvd	afb	sho	chf	av3	miord	mitype	year
1	1	83	0	89	152	78	25.5405	1	1	0	0	0	1	0	1
2	2	49	0	84	120	60	24.0240	1	0	0	0	0	0	1	1
3	3	70	1	83	147	88	22.1429	0	0	0	0	0	0	1	1
4	4	70	0	65	123	76	26.6319	1	0	0	1	0	0	1	1
5	5	70	0	63	135	85	24.4126	1	0	0	0	0	0	1	1
6	6	70	0	76	83	54	23.2424	1	0	0	0	1	0	0	1
7	7	57	0	73	191	116	39.4905	1	0	0	0	0	0	1	1
8	8	55	0	91	147	95	27.1161	1	0	0	0	0	0	1	1
9	9	88	1	63	209	100	27.4355	1	0	0	1	0	0	0	1
10	10	54	0	104	166	106	25.5445	1	0	0	0	0	0	0	1

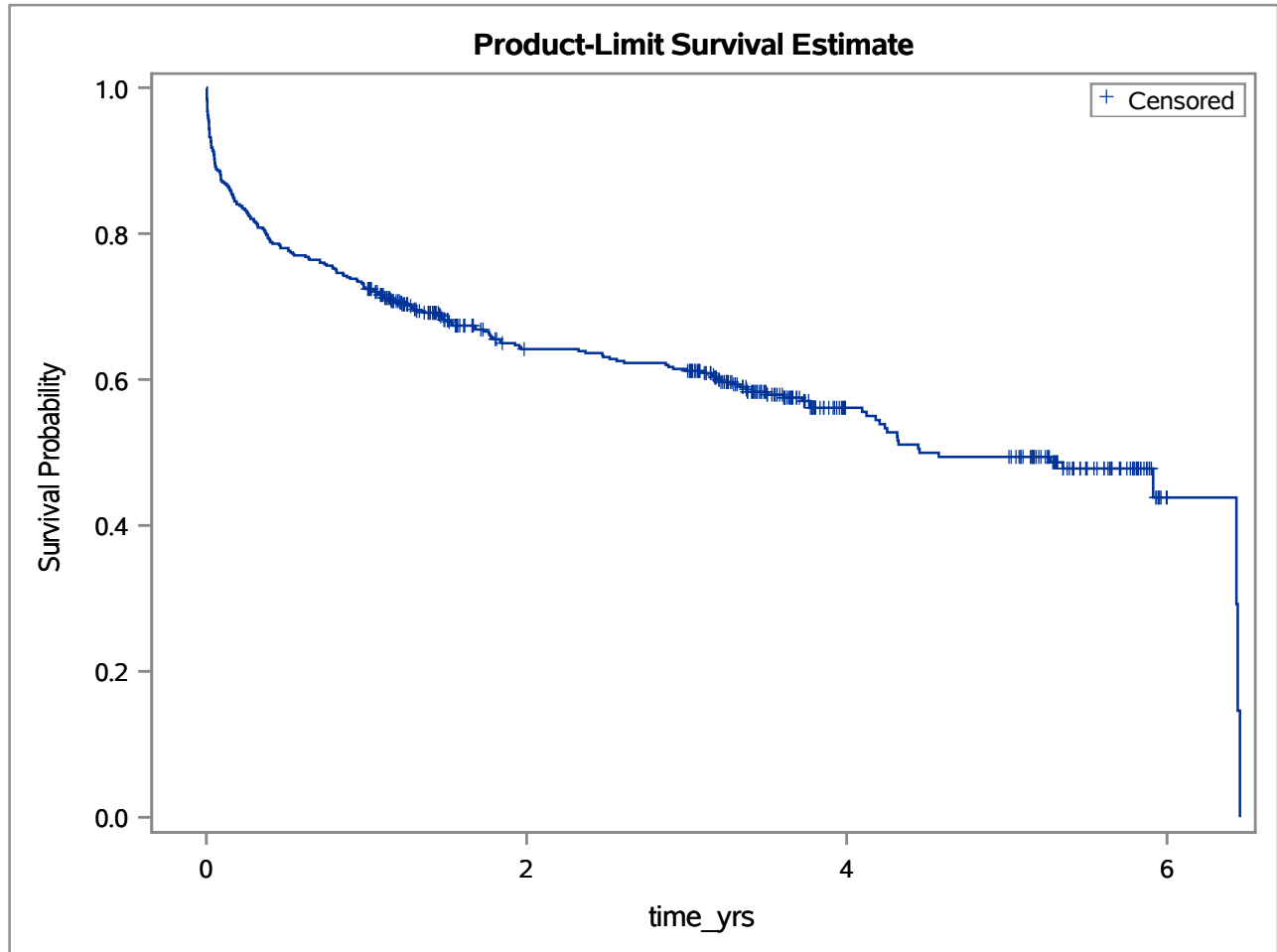
Obs	admitdate	disdate	fdate	los	dstat	lenfol	fstat	time_yrs
1	01/13/19	01/18/19	12/31/20	5	0	2178	0	5.96304
2	01/19/19	01/24/19	12/31/20	5	0	2172	0	5.94661
3	01/01/19	01/06/19	12/31/20	5	0	2190	0	5.99589
4	02/17/19	02/27/19	12/11/19	10	0	297	1	0.81314
5	03/01/19	03/07/19	12/31/20	6	0	2131	0	5.83436
6	03/11/19	03/12/19	03/12/19	1	1	1	1	0.00274
7	03/10/19	03/15/19	12/31/20	5	0	2122	0	5.80972
8	01/11/19	01/15/19	02/15/20	4	0	1496	1	4.09582
9	12/31/19	01/04/19	07/09/19	4	0	920	1	2.51882
10	01/16/19	01/21/19	12/31/20	5	0	2175	0	5.95483

**The FREQ Procedure**

<b>fstat</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Frequency</b>	<b>Cumulative Percent</b>
<b>0</b>	285	57.00	285	57.00
<b>1</b>	215	43.00	500	100.00

**Kaplan-Meier curve for WHAS500 data**

The LIFETEST Procedure



Summary of the Number of Censored and Uncensored Values			
Total	Failed	Censored	Percent Censored
500	215	285	57.00

**Comparison of survival for gender for WHAS500 data****The LIFETEST Procedure**

Summary of the Number of Censored and Uncensored Values					
Stratum	gender	Total	Failed	Censored	Percent Censored
1	0	300	111	189	63.00
2	1	200	104	96	48.00
Total		500	215	285	57.00

## Comparison of survival for gender for WHAS500 data

### The LIFETEST Procedure

#### Testing Homogeneity of Survival Curves for time\_yrs over Strata

Rank Statistics		
gender	Log-Rank	Wilcoxon
0	-19.726	-6271.0
1	19.726	6271.0

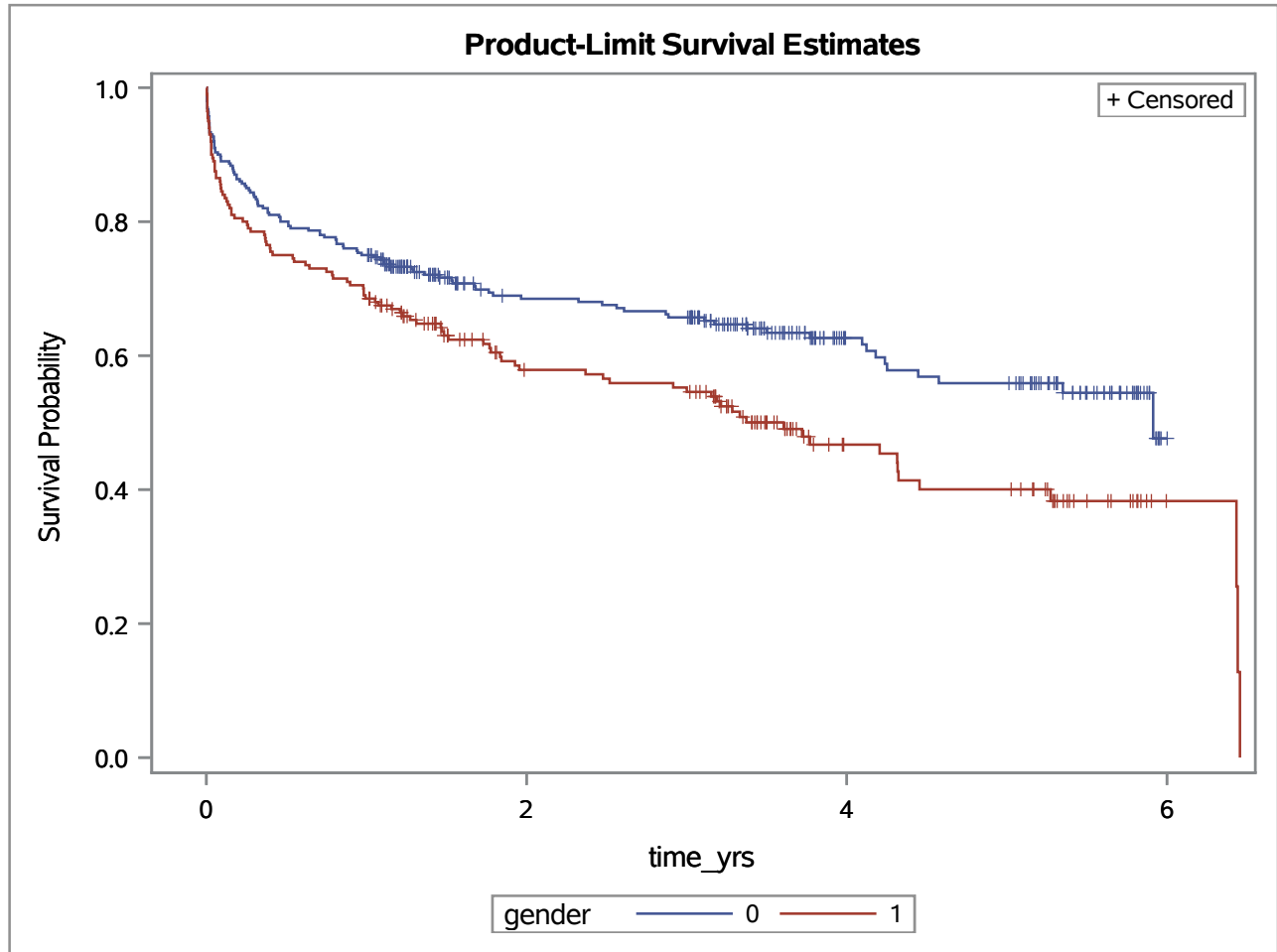
Covariance Matrix for the Log-Rank Statistics		
gender	0	1
0	49.9453	-49.9453
1	-49.9453	49.9453

Covariance Matrix for the Wilcoxon Statistics		
gender	0	1
0	7102339	-7102339
1	-7102339	7102339

Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	7.7911	1	0.0053
Wilcoxon	5.5370	1	0.0186
-2Log(LR)	10.5120	1	0.0012

## Comparison of survival for gender for WHAS500 data

The LIFETEST Procedure



## Comparison of survival for gender for WHAS500 data

### The PHREG Procedure

Model Information	
Data Set	SURVIVAL.WHAS500
Dependent Variable	time_yrs
Censoring Variable	fstat
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	500
Number of Observations Used	500

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
500	215	285	57.00

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

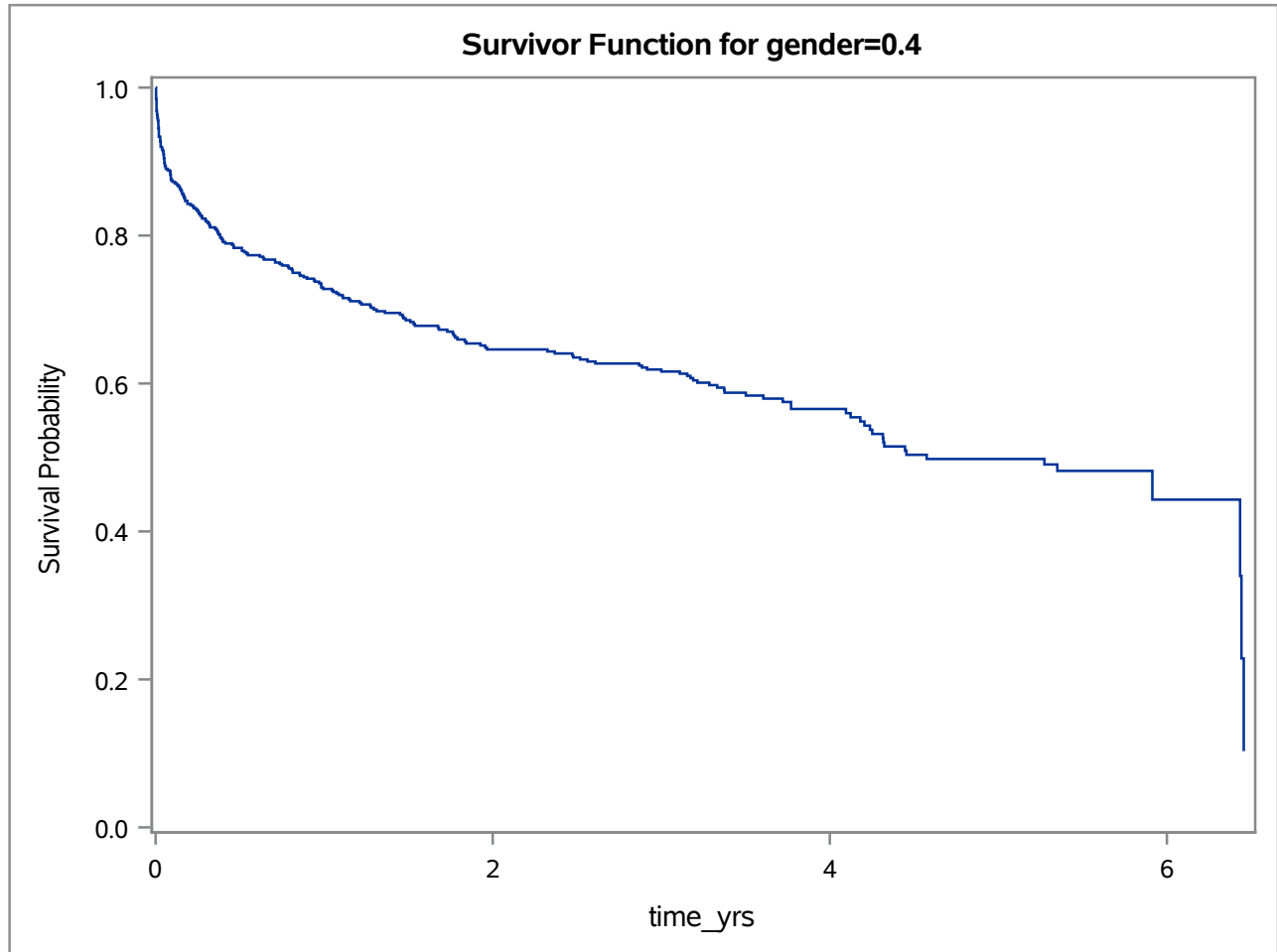
Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2455.158	2447.570
AIC	2455.158	2449.570
SBC	2455.158	2452.941

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	7.5879	1	0.0059
Score	7.7720	1	0.0053
Wald	7.6789	1	0.0056

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio
gender	1	0.38126	0.13758	7.6789	0.0056	1.464

**Comparison of survival for gender for WHAS500 data**

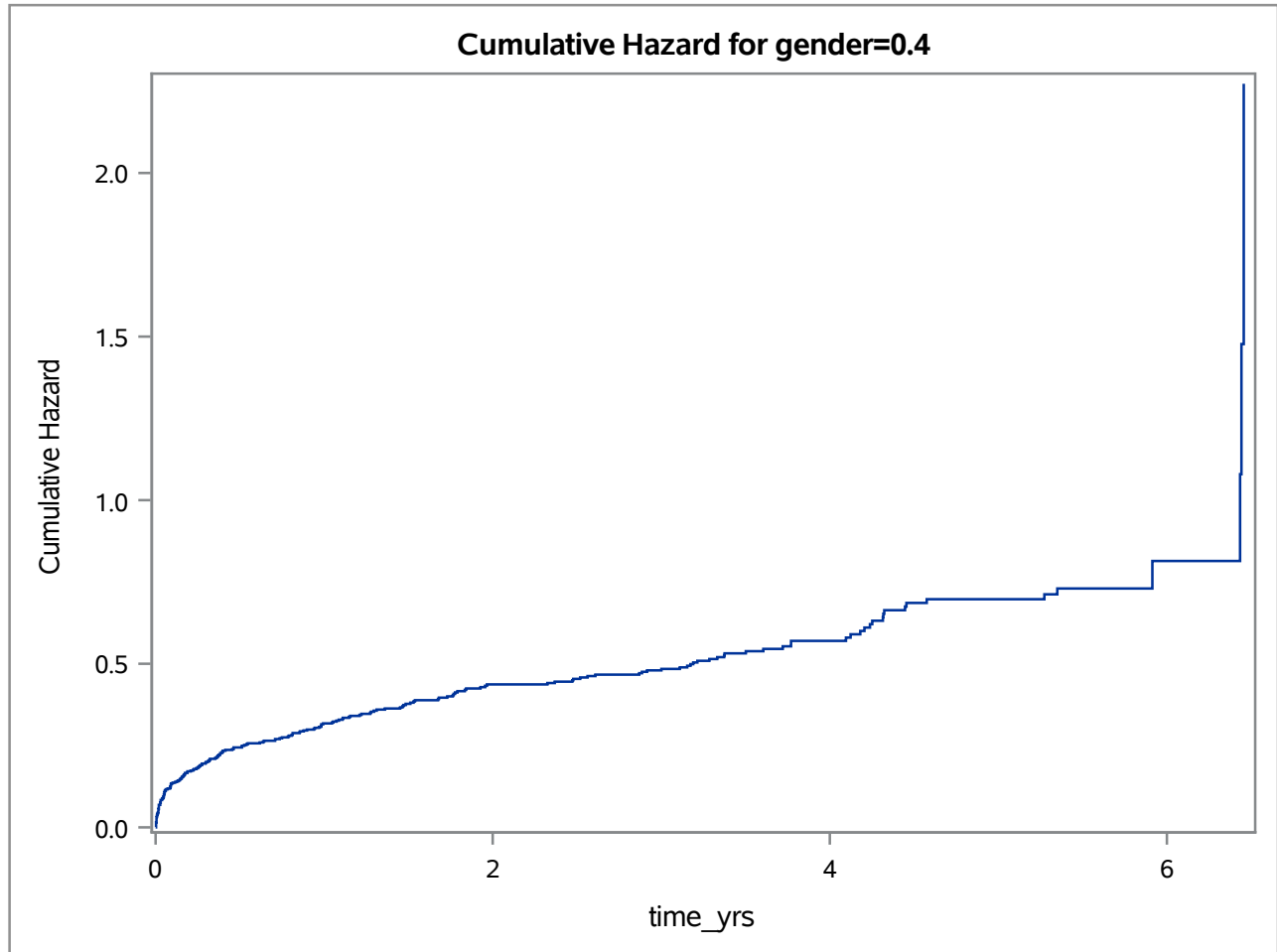
The PHREG Procedure





**Comparison of survival for gender for WHAS500 data**

The PHREG Procedure



Reference Set of Covariates for Plotting
gender
0.400000

**Comparison of survival for age groups for WHAS500 data****The LIFETEST Procedure**

Summary of the Number of Censored and Uncensored Values					
Stratum	age_gp	Total	Failed	Censored	Percent Censored
1	0-59	138	20	118	85.51
2	60-69	86	19	67	77.91
3	70-79	114	64	50	43.86
4	>=80	162	112	50	30.86
Total		500	215	285	57.00

## Comparison of survival for age groups for WHAS500 data

### The LIFETEST Procedure

#### Testing Homogeneity of Survival Curves for time\_yrs over Strata

Rank Statistics		
age_gp	Log-Rank	Wilcoxon
0-59	-51.958	-17992
60-69	-22.339	-8037
70-79	16.478	4496
>=80	57.819	21533

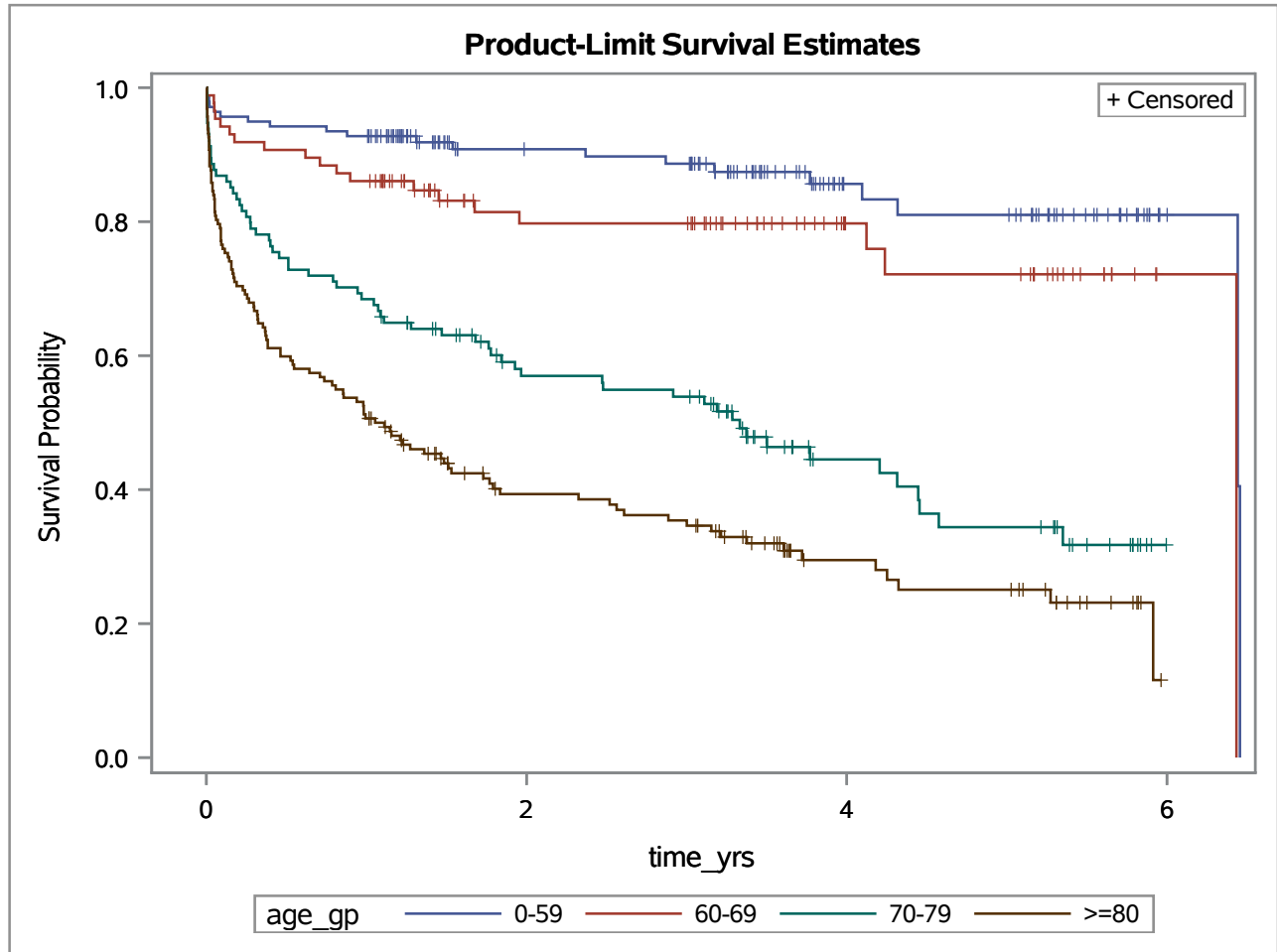
Covariance Matrix for the Log-Rank Statistics				
age_gp	0-59	60-69	70-79	>=80
0-59	46.5161	-13.6787	-15.4695	-17.3680
60-69	-13.6787	33.1893	-9.1578	-10.3528
70-79	-15.4695	-9.1578	36.7423	-12.1151
>=80	-17.3680	-10.3528	-12.1151	39.8358

Covariance Matrix for the Wilcoxon Statistics				
age_gp	0-59	60-69	70-79	>=80
0-59	6379007	-1756148	-2078837	-2544022
60-69	-1756148	4563210	-1259324	-1547737
70-79	-2078837	-1259324	5191598	-1853437
>=80	-2544022	-1547737	-1853437	5945196

Test of Equality over Strata			
Test	Chi-Square	DF	Pr > Chi-Square
Log-Rank	120.1277	3	<.0001
Wilcoxon	106.1480	3	<.0001
-2Log(LR)	141.7714	3	<.0001

# Comparison of survival for age groups for WHAS500 data

The LIFETEST Procedure



## Comparison of survival for age groups for WHAS500 data

### The PHREG Procedure

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

Number of Observations Read	500
Number of Observations Used	500

Class Level Information				
Class	Value	Design Variables		
age_gp	0-59	1	0	0
	60-69	0	1	0
	70-79	0	0	1
	>=80	0	0	0

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
500	215	285	57.00

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

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2455.158	2330.580
AIC	2455.158	2336.580
SBC	2455.158	2346.692

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	124.5780	3	<.0001
Score	119.8212	3	<.0001
Wald	92.9820	3	<.0001

**Comparison of survival for age groups for WHAS500 data****The PHREG Procedure**

Type 3 Tests			
Effect	DF	Wald Chi-Square	Pr > ChiSq
age_gp	3	92.9820	<.0001

Analysis of Maximum Likelihood Estimates								
Parameter		DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio	Label
age_gp	0-59	1	-2.12475	0.25631	68.7201	<.0001	0.119	age_gp 0-59
age_gp	60-69	1	-1.53864	0.24991	37.9050	<.0001	0.215	age_gp 60-69
age_gp	70-79	1	-0.44024	0.15718	7.8446	0.0051	0.644	age_gp 70-79

**Comparison of survival for continuous age covariate****The PHREG Procedure**

Model Information	
Data Set	SURVIVAL.WHAS500
Dependent Variable	time_yrs
Censoring Variable	fstat
Censoring Value(s)	0
Ties Handling	BRESLOW

Number of Observations Read	500
Number of Observations Used	500

Summary of the Number of Event and Censored Values			
Total	Event	Censored	Percent Censored
500	215	285	57.00

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

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	2455.158	2313.358
AIC	2455.158	2315.358
SBC	2455.158	2318.729

Testing Global Null Hypothesis: BETA=0			
Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	141.8001	1	<.0001
Score	126.2605	1	<.0001
Wald	118.7963	1	<.0001

Analysis of Maximum Likelihood Estimates						
Parameter	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq	Hazard Ratio
age	1	0.06625	0.00608	118.7963	<.0001	1.068