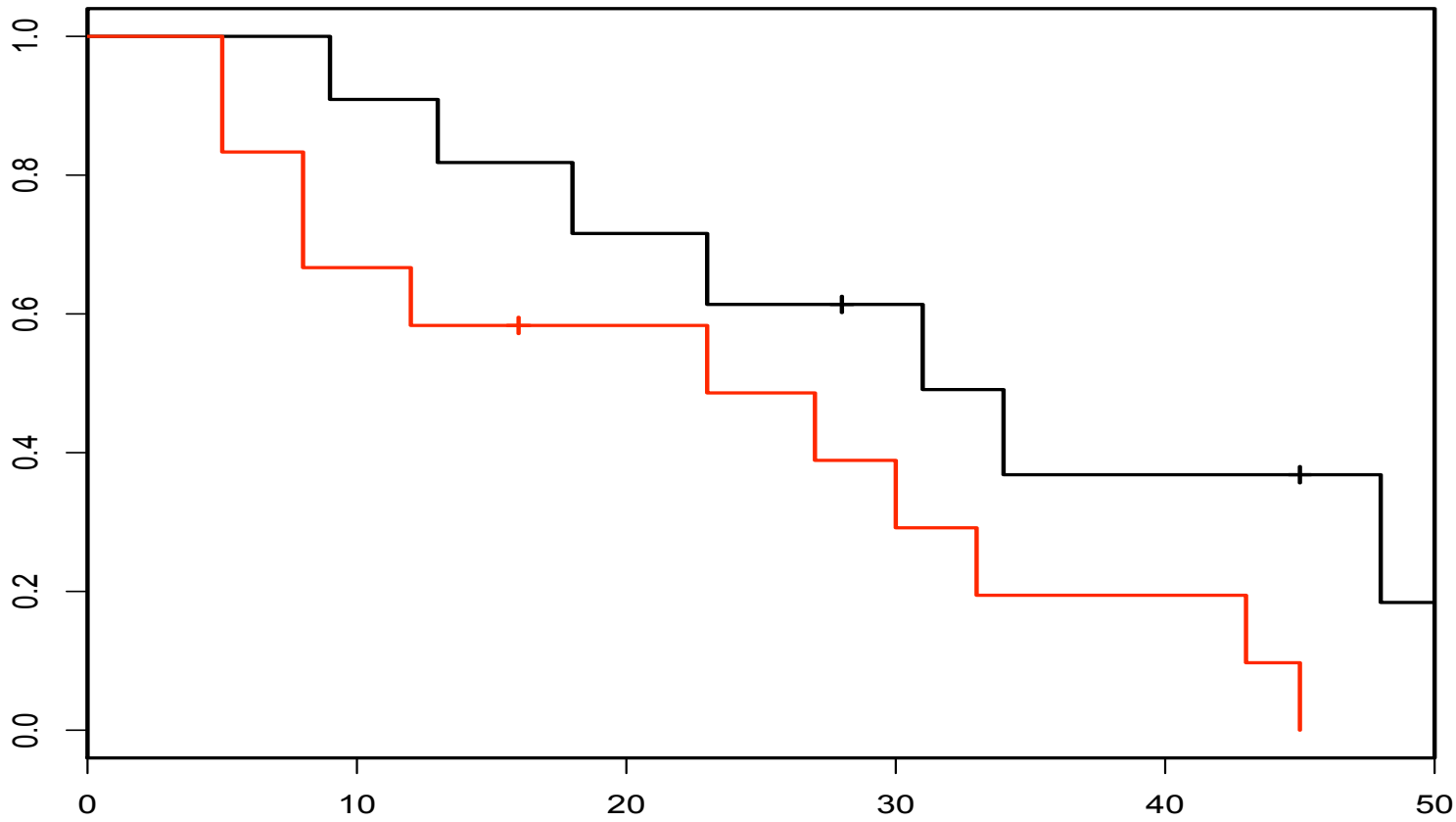

Figure 12.1: Kaplan-Meier estimates of survival in maintenance (black) and non-maintenance groups in the AML study.

Table 15.1: Output of the `coxph` function run on the `aml` data set.

coxph(formula = Surv(time, status) ~ x, data = aml)					
	coef	exp(coef)	se(coef)	z	p
×Nonmaintained	0.916	2.5	0.512	1.79	0.074
Likelihood ratio test=3.38 on 1 df			p=0.0658	n= 23	

The z is simply the Z-statistic for testing the hypothesis that $\beta = 0$, so $z = \hat{\beta}/SE(\hat{\beta})$. We see that $z = 1.79$ corresponds to a p-value of 0.074, so we would not reject the null hypothesis at level 0.05.

Time	n_{i1}	n_{i2}	d_{i1}	d_{i2}	σ_i^2	Peto weight
5	11	12	0	2	0.476	0.958
8	11	10	0	2	0.474	0.875
9	11	8	1	0	0.244	0.792
12	10	8	0	1	0.247	0.750
13	10	7	1	0	0.242	0.708
18	8	6	1	0	0.245	0.661
23	7	6	1	1	0.456	0.614
27	6	5	0	1	0.248	0.519
30	5	4	0	1	0.247	0.467
31	5	3	1	0	0.234	0.416
33	4	3	0	1	0.245	0.364
34	4	2	1	0	0.222	0.312
43	3	2	0	1	0.240	0.260
45	3	1	0	1	0.188	0.208

Table 16.1: Data for testing equality of survival in AML experiment.

When the weights are all taken equal, we compute $Z = -1.84$, whereas the Peto weights — which reduce the influence of later observations — give us $Z = -1.67$. This yields one-sided p-values of 0.033 and 0.048 respectively — a marginally significant difference — or two-sided p-values of 0.065 and 0.096.