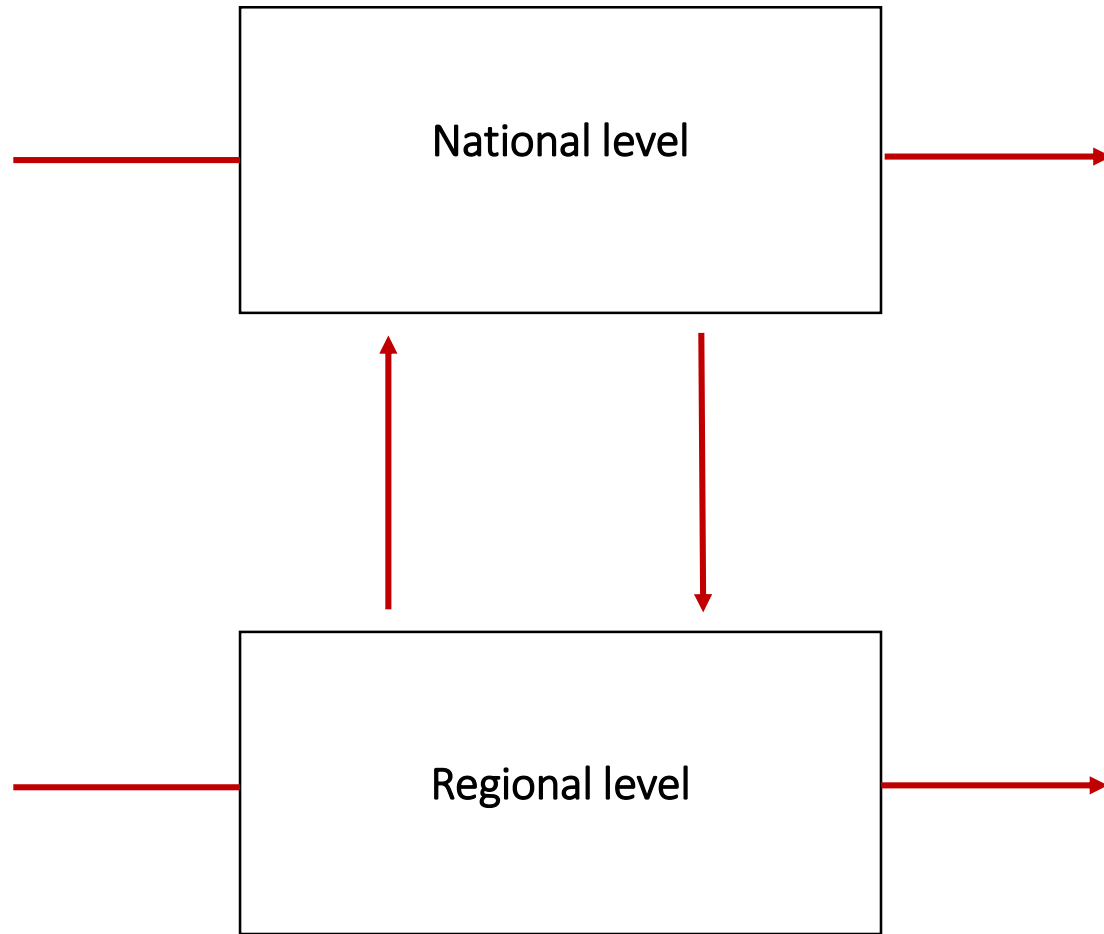
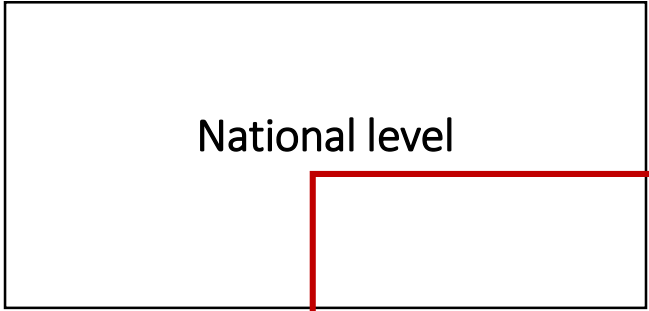


# A Survival analysis of political careers in Catalonia, Quebec, Scotland and Wallonia.

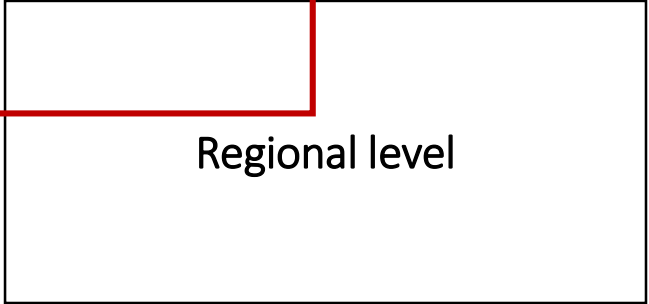
ECPR General Conference  
Bordeaux, 5-8 Septembre 2013

Jeremy Dodeigne, PhD candidate  
F.R.S.-FNRS/University of Liège and Louvain  
[j.dodeigne@ulg.ac.be](mailto:j.dodeigne@ulg.ac.be)

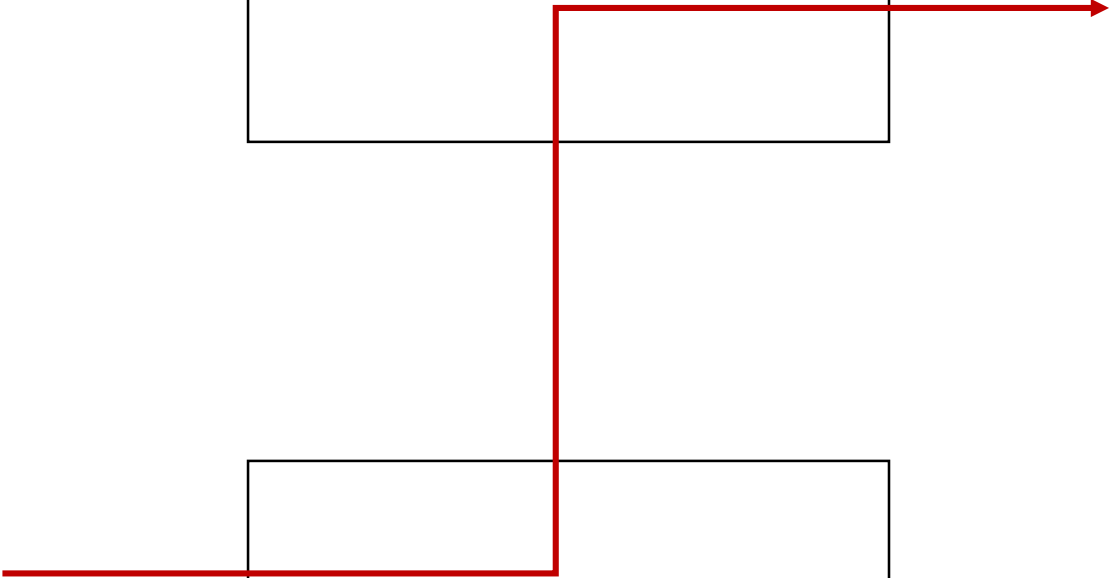




National level

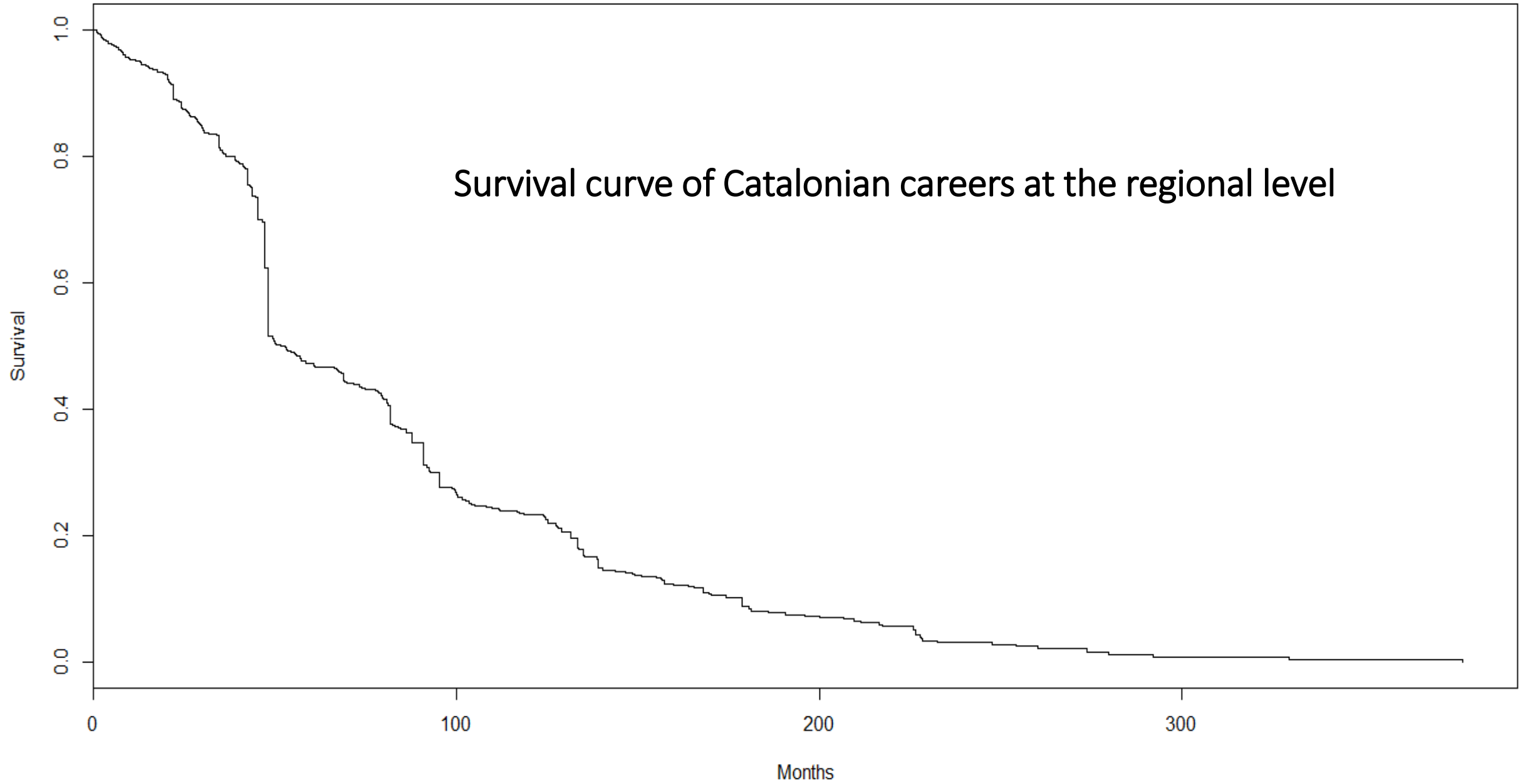


Regional level



# Methodology: survival analysis

- Problems of “**right-censoring**” with longitudinal data
- Classic regressions (OLS, logistic regression) are less appropriate
- Solution: *A survival/Event history analysis*
- The **duration** that is required to move from **one state (entering Parliament)** to **another (leaving Parliament)** is the subject of investigation
- In this paper=> *Cox model*



# At this stage of the research, two questions

- What are the differences observed in survival rates between regionalist/state-wide parties in the regional and national Parliaments?
- What is the impact of former political experience at one level of government on survival rate at another level?
- Controlling for
  - age; gender ;electoral districts;*
  - members of the cabinets; the first regional legislature;*
  - time as member of the parliamentary majority,*

**Table 1.** Distribution of political careers in Quebec, Catalonia, Scotland and Wallonia

	Quebec		Catalonia		Wallonia		Scotland	
	n	%	n	%	n	%	n	%
<b>1.a Career patterns</b>								
National level only	228	37.3	245	23.5	149	40.5	104	28.3
Regional level only	363	59.3	644	61.7	122	33.2	216	58.7
Multi-level careers	21	3.4	107	10.3	105	28.5	32	8.7
<i>Springboard</i>	15	2.5	38	3.6	15	4.1	4	1.1
<i>Inverse springboard</i>	6	1.0	47	4.5	66	17.9	27	7.3
<i>More than 1 level-hopping movement</i>	-	-	22	2.1	24	6.5	1	0.3
European careers/others	-	-	47	4.5	43	11.7	16	4.3
<b>Total</b>	612		1043		419		368	
<b>1.b Movements at the 1<sup>st</sup> regional session</b>								
<i>Import Perspective</i>								
Regional MPs with a former national experience	-	-	17	12.6	54	72.0	24	18.6
<i>Export Perspective</i>								
National MPs who left for the regional Parliament	-	-	11	24.6	50	44.6	15	20.8

*Source:* Author's own calculations.

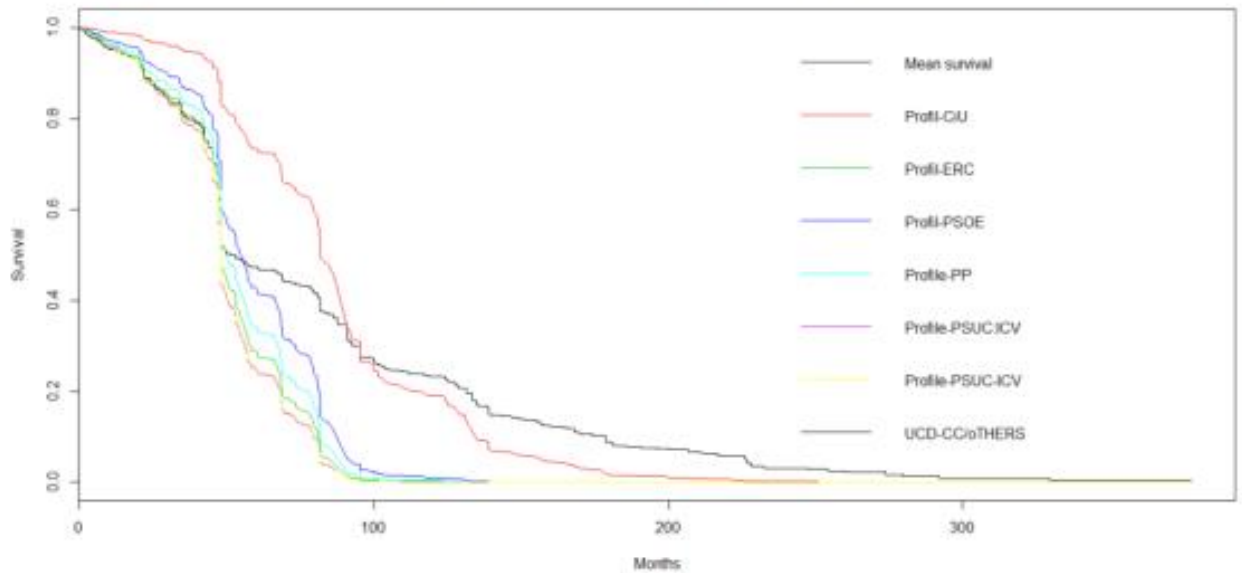
# Results 1

- In comparison to all political careers, political careers of candidates from **regionalist parties** tend to have (a much) **better survival rate** in **regional Parliaments**
- Yet, political careers in **state-wide-parties** do **not** present a better **survival rate** in **national Parliaments**

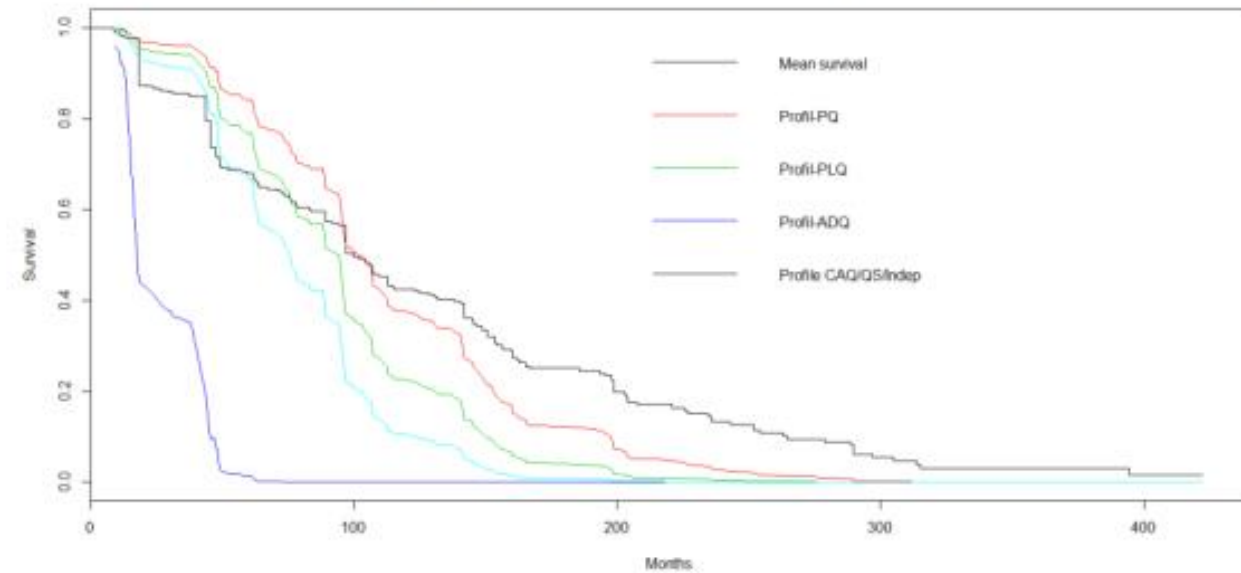
=>Except in Quebec



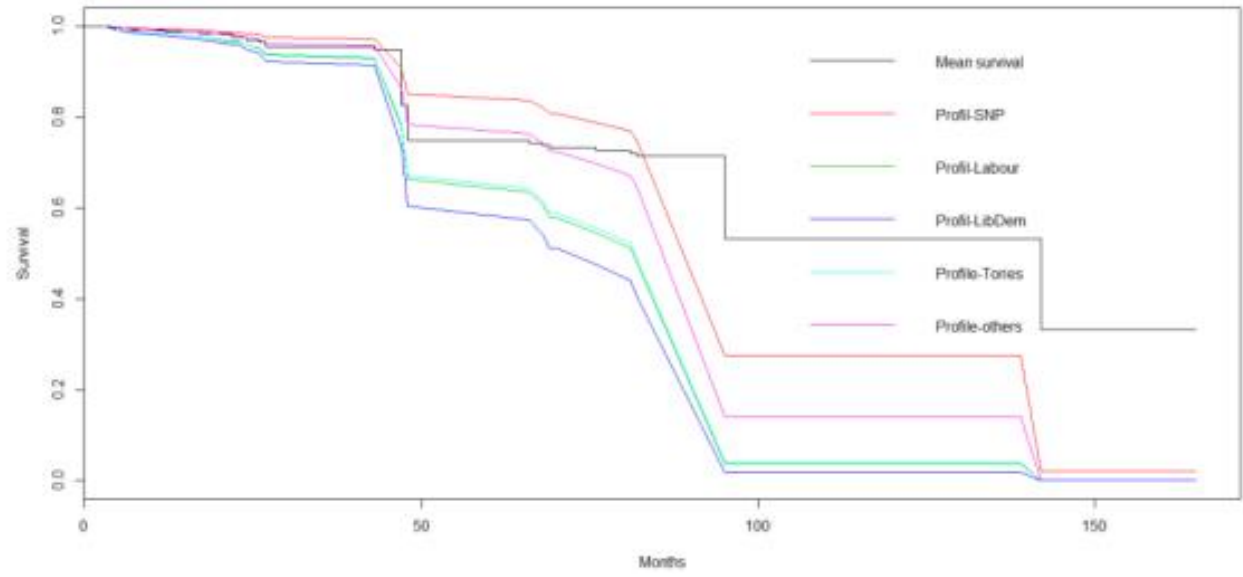
Ideal-types of survival curves for regional Catalanian political careers



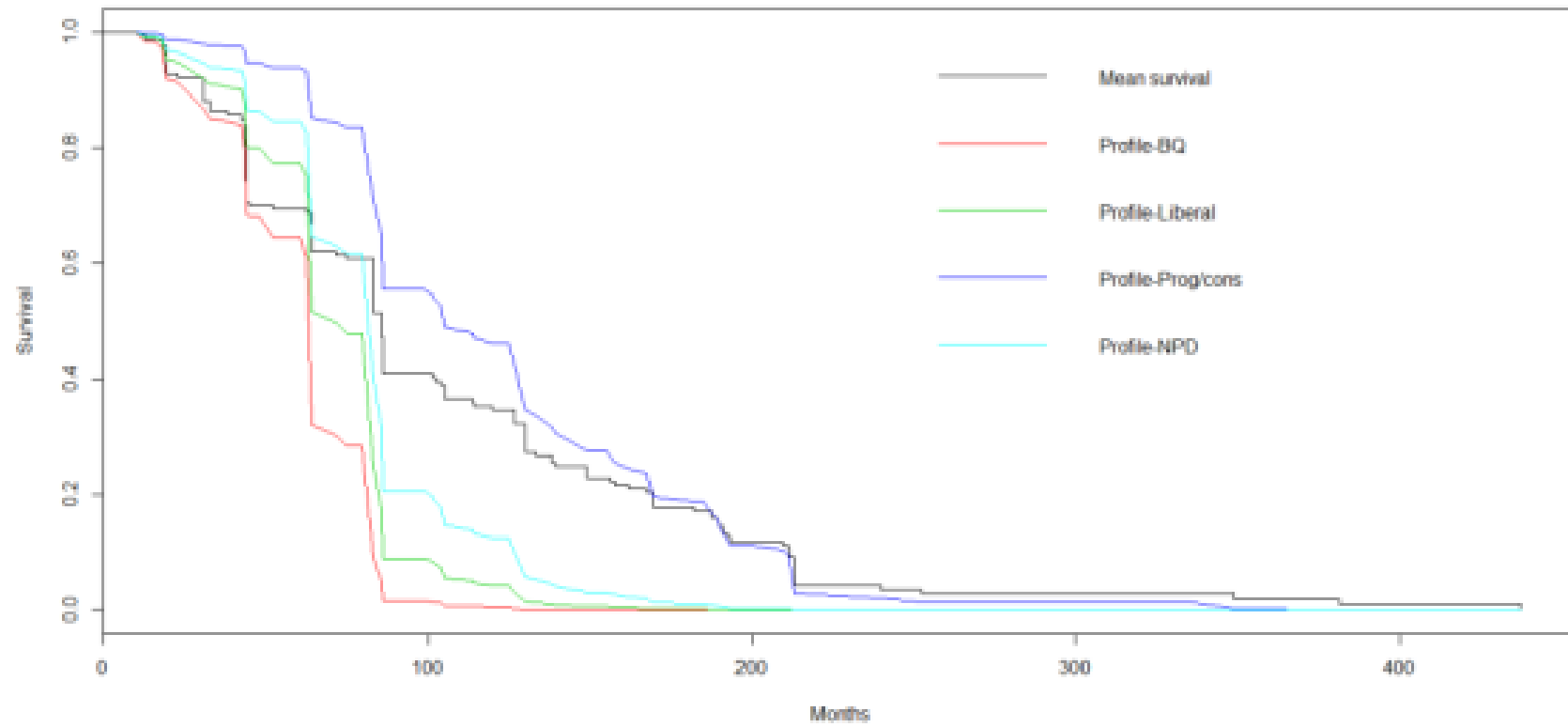
Ideal-types of survival curves for regional Quebecois political careers



Ideal-types of survival curves for regional Scottish political careers

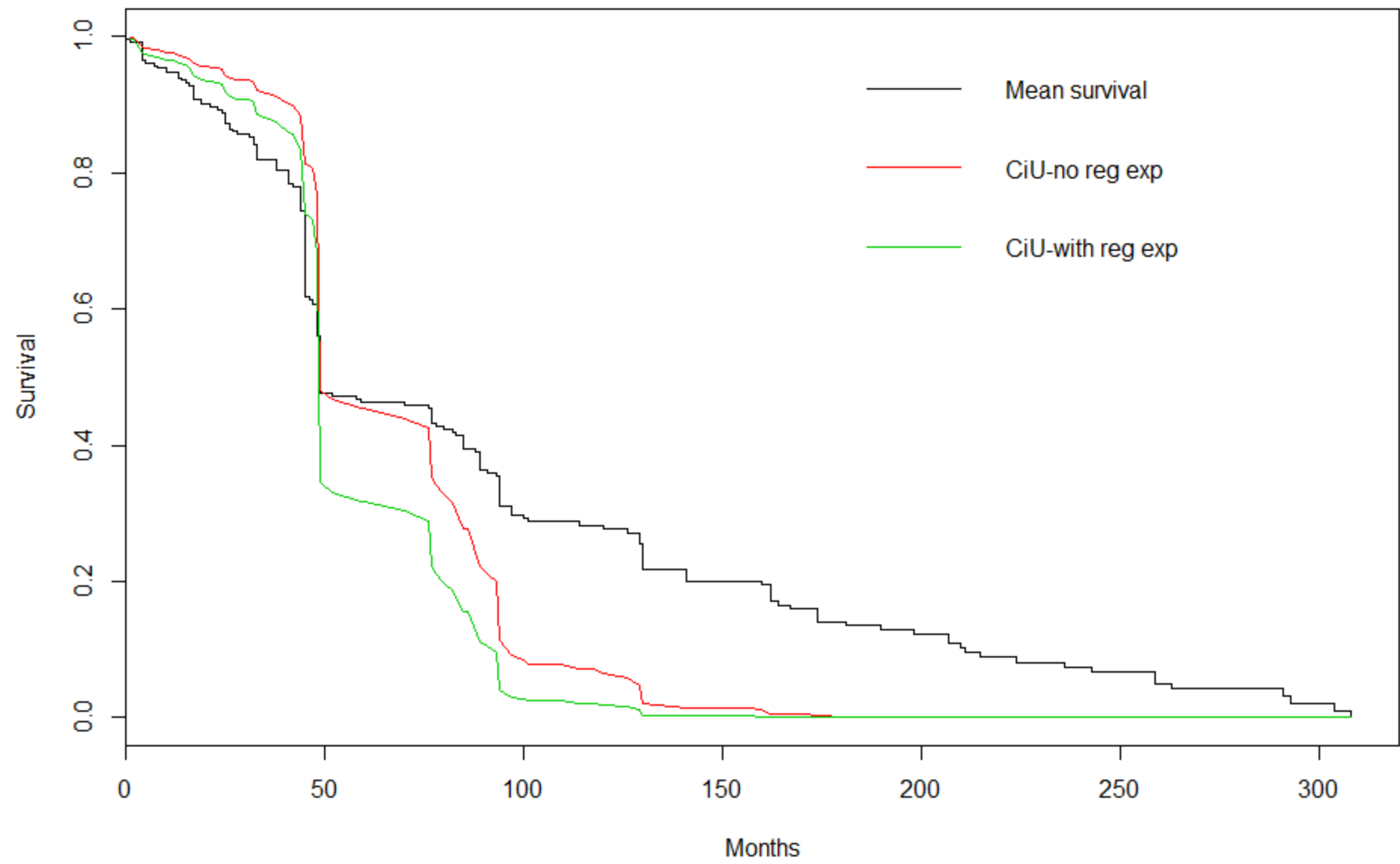


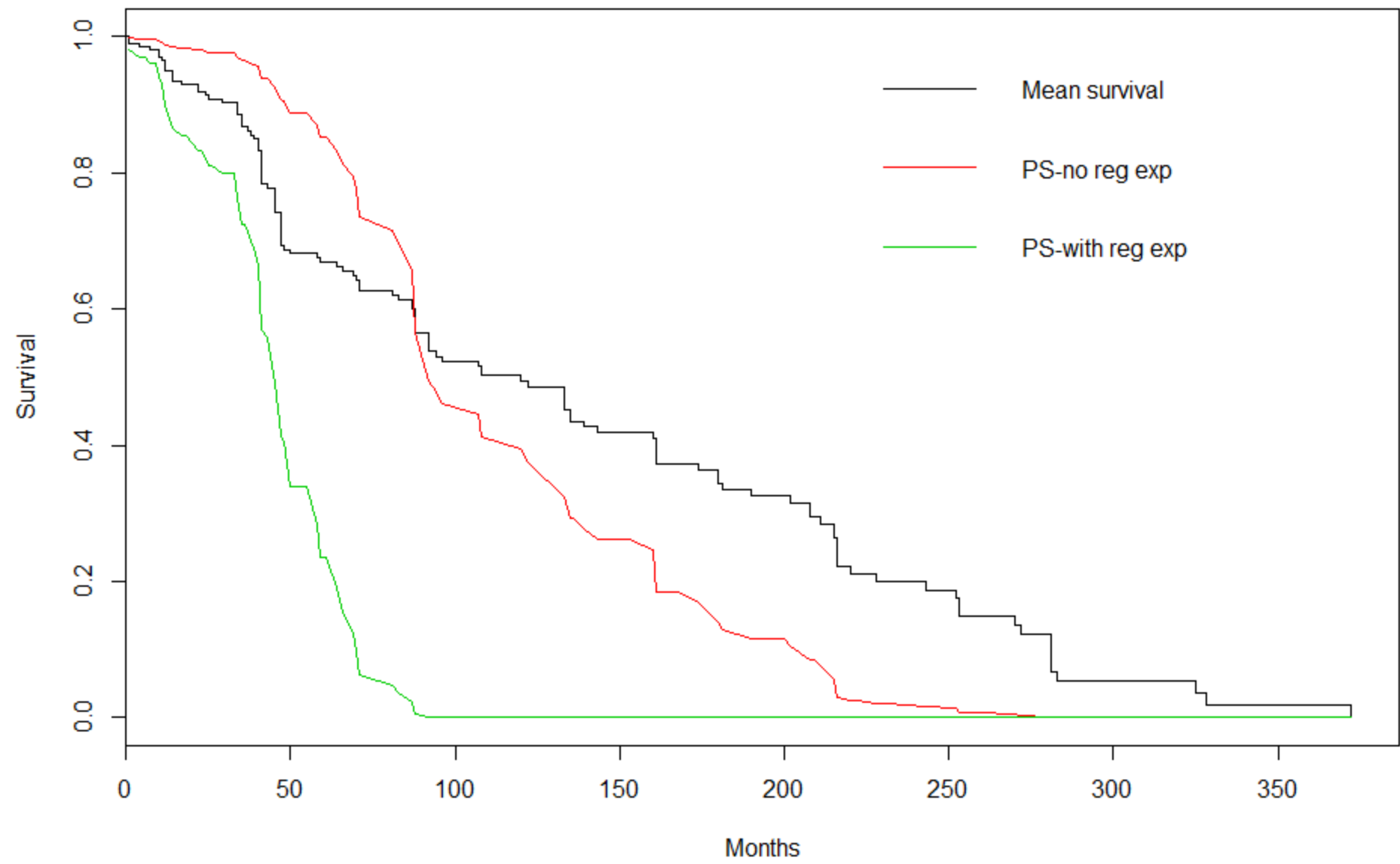
Ideal-types of survival curves for national Catalan political careers



# Results 2

- A former political **regional experience significantly reduces survival** at the national level.  
=> **Hazard ratios** of leaving the national parliament is **1 to 2% for each month** spent at the regional level!
- whereas a former **national political experience has almost no impact** upon subsequent regional political careers





# Next steps...

- Including in the model:
  - local offices
  - individual preference (candidate survey)
  - electoral systems
  - candidate selection procedure for each party
  - ratio of national/regional seats
  - regional authority index
  - expectation to be in power (survey)

Thanks for your attention!

# Cox models – Wallonia

REGIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
Gender1	0.684729	1.983235	0.408055	1.678	0.09334	.
Gender2	-0.772524	0.461846	0.352609	-2.191	0.02846	*
Age	0.080124	1.083422	0.013441	5.961	2.5e-09	***
Party (ref= PS)						
MR	0.015239	1.015355	0.267387	0.057	0.95455	
Ecolo	0.933500	2.543397	0.321445	2.904	0.00368	**
cdH	-0.051773	0.949544	0.269025	-0.192	0.84739	
District size	-0.003632	0.996375	0.028284	-0.128	0.89783	
First reg. sess1	-0.108764	0.896942	0.271299	-0.401	0.68849	
First reg. sess2	-0.311531	0.732325	0.345837	-0.901	0.36769	
Regional Cab.	-0.411569	0.662610	0.387191	-1.063	0.28780	
Parl. majority	0.414027	1.512897	0.345229	1.199	0.23042	
Nat. exp.	0.001105	1.001105	0.001557	0.709	0.47819	

---

Concordance= 0.789 (se = 0.032 )  
 Rsquare= 0.317 (max possible= 0.983 )  
 Likelihood ratio test= 103.9 on 12 df, p=1.11e-16  
 Wald test = 86.76 on 12 df, p=2.088e-13  
 Score (logrank) test = 102.7 on 12 df, p=2.22e-16

---

.p≤0.10; \*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001



# Cox models – Wallonia

NATIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
Gender1	0.712059	<b>2.038184</b>	0.337669	2.109	0.034966	*
Gender2	-0.331145	0.718101	0.300088	-1.103	0.269814	
Age	0.023632	<b>1.023914</b>	0.011373	2.078	0.037711	*
Party (ref= PS)						
MR	0.312662	1.367059	0.273067	1.145	0.252210	
Ecolo	1.824743	<b>6.201199</b>	0.362976	5.027	4.98e-07	***
cdH	0.558519	<b>1.748082</b>	0.256562	2.177	0.029485	*
First reg. sess	0.278853	0.756651	0.291270	-0.957	0.338381	
National Cab.	-0.505514	0.603196	0.495061	-1.021	0.307201	
Parl. majority1	1.515104	<b>4.549894</b>	0.419382	3.613	0.000303	***
Parl. majority2	-0.061098	0.940731	0.437830	-0.140	0.889017	
Reg. exp.	0.022046	<b>1.022291</b>	0.005562	3.964	7.38e-05	***

---

Concordance= 0.774 (se = 0.033 )  
 Rsquare= 0.243 (max possible= 0.972 )  
 Likelihood ratio test= 86.37 on 11 df, p=8.56e-14  
 Wald test = 84.16 on 11 df, p=2.299e-13  
 Score (logrank) test = 100.7 on 11 df, p=1.11e-16

---

.p≤0.10; \*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001

# Cox models – Catalonia

REGIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
Gender1	0.972230	2.643834	0.184061	5.282	1.28e-07	***
Gender2	-0.458656	0.632133	0.135069	-3.396	0.000685	***
Age	0.038945	1.039713	0.004528	8.602	< 2e-16	***
Party (ref= CiU)						
ERC	0.465177	1.592297	0.169499	2.744	0.006062	**
PSOE	0.126890	1.135292	0.152764	0.831	0.406182	
PP	0.422929	1.526426	0.226337	1.869	0.061681	.
PSUC/ICV	0.712313	2.038700	0.188627	3.776	0.000159	***
Others	0.985704	2.679697	0.213326	4.621	3.83e-06	***
District(Barc=1)	-0.014319	0.985783	0.093008	-0.154	0.877646	
First reg. sess1	-0.084115	0.919325	0.153634	-0.548	0.584032	
First reg. sess2	-0.286571	0.750834	0.167976	-1.706	0.088004	.
Regional Cab.	-1.034728	0.355323	0.157785	-6.558	5.46e-11	***
Parl. majority1	0.398091	1.488980	0.184067	2.163	0.030561	*
Parl. majority2	-0.056505	0.945062	0.196346	-0.288	0.773513	
Nat. Exp.	0.002209	1.002211	0.002055	1.075	0.282530	

---

Concordance= 0.748 (se = 0.016 )  
Rsquare= 0.271 (max possible= 0.998 )  
Likelihood ratio test= 297.1 on 15 df, p=0  
Wald test = 260.1 on 15 df, p=0  
Score (logrank) test = 292 on 15 df, p=0

---

.p<0.10; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

# Cox models – Catalonia

NATIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )
Gender1	0.6534434	1.9221481	0.2779428	2.351	0.018723*
Gender2	-0.7925850	0.4526731	0.2165234	-3.661	0.000252***
Age	0.0376958	1.0384152	0.0081559	4.622	3.8e-06***
Party (ref= ciu)					
ERC	0.9217613	2.5137138	0.3106639	2.967	0.003007**
PSOE	0.2137510	1.2383143	0.2946238	0.726	0.468142
PP	0.3437398	1.4102116	0.3594623	0.956	0.338940
Others	0.9813304	2.6680035	0.3175921	3.090	0.002002**
District(Barc=1)	-0.1599062	0.8522237	0.1678430	-0.953	0.340736
First nat. sess	0.0007954	1.0007957	0.2046710	0.004	0.996899
National cab.	-0.3884178	0.6781289	0.4795497	-0.810	0.417961
Parl. majority1	0.7054313	2.0247198	0.3191938	2.210	0.027102*
Parl. majority2	-0.5031096	0.6046475	0.4064194	-1.238	0.215750
Reg. exp	0.0081235	1.0081566	0.0022255	3.650	0.000262***

---

Concordance= 0.739 (se = 0.028 )  
 Rsquare= 0.249 (max possible= 0.99 )  
 Likelihood ratio test= 105 on 13 df, p=2.22e-16  
 Wald test = 94.81 on 13 df, p=1.665e-14  
 Score (logrank) test = 106 on 13 df, p=1.11e-16  
 monthsreg 0.0081235 1.0081566 0.0022255 3.650 0.000262 \*\*\*

.p<0.10; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

# Cox models – Scotland

REGIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
List MSPs	0.006879	1.006902	0.206001	0.033	0.973363	
Gender1	1.228964	3.417687	0.382411	3.214	0.001310	**
Gender2	-0.212746	0.808361	0.251512	-0.846	0.397626	
Age	0.018335	1.018504	0.009873	1.857	0.063293	.
Party (ref= Lab)						
SNP	-1.064735	0.344819	0.337382	-3.156	0.001600	**
LibDem	0.095157	1.099832	0.299950	0.317	0.751058	
Tories	0.352637	1.422815	0.445164	0.792	0.428272	
Others	1.340387	3.820520	0.418971	3.199	0.001378	**
First reg sess	-1.453083	0.233848	0.288044	-5.045	4.54e-07	***
Regional Cab.	-0.661781	0.515932	0.265508	-2.493	0.012685	*
Parl. majority1	1.626962	5.088395	0.496052	3.280	0.001039	**
Parl. majority2	1.965830	7.140838	0.527640	3.726	0.000195	***
Nat. Exp.	0.005943	1.005961	0.001330	4.470	7.83e-06	***

---

Concordance= 0.779 (se = 0.036 )  
 Rsquare= 0.236 (max possible= 0.938 )  
 Likelihood ratio test= 103.3 on 13 df, p=3.331e-16  
 Wald test = 93.17 on 13 df, p=3.453e-14  
 Score (logrank) test = 109.4 on 13 df, p=0

---

.p≤0.10; \*p≤0.05; \*\*p≤0.01; \*\*\*p≤0.001

# Cox models – Scotland

NATIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )
Gender1	1.030e+00	2.801e+00	7.765e-01	1.326	0.18476
Gender2	-2.105e+00	1.218e-01	7.357e-01	-2.861	0.00422 **
Age	1.378e-01	1.148e+00	2.731e-02	5.046	4.52e-07 ***
Party (ref= Lab)					
SNP	-1.756e+01	2.366e-08	1.040e+04	-0.002	0.99865
LibDem	-1.323e+00	2.664e-01	7.003e-01	-1.889	0.05890 .
Tories	4.069e+00	5.851e+01	1.260e+00	3.230	0.00124 **
National Cab.1	-1.743e+01	2.692e-08	3.831e+03	-0.005	0.99637
National Cab.2	-5.712e-01	5.648e-01	5.722e-01	-0.998	0.31813
Parl. majority1	6.657e-01	1.946e+00	9.665e-01	0.689	0.49095
Parl. majority2	-1.528e+00	2.170e-01	1.085e+00	-1.408	0.15927

---

Concordance= 0.87 (se = 0.057 )  
 Rsquare= 0.361 (max possible= 0.869 )  
 Likelihood ratio test= 78.05 on 10 df, p=1.209e-12  
 Wald test = 49.72 on 10 df, p=3.011e-07  
 Score (logrank) test = 69.35 on 10 df, p=5.905e-11

---

.p<0.10; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

# Cox models – Quebec

REGIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
Gender1	1.405630	4.078097	0.309610	4.540	5.63e-06	***
Gender2	-0.493564	0.610447	0.172037	-2.869	0.00412	**
Age	0.042071	1.042968	0.007699	5.465	4.64e-08	***
Party (ref= PQ)						
PLQ	-0.156130	0.855448	0.145158	-1.076	0.28211	
ADQ	2.750055	15.643491	0.292810	9.392	< 2e-16	***
Others	0.829563	2.292317	0.381402	2.175	0.02963	*
Regional Cab.	-0.702202	0.495493	0.156627	-4.483	7.35e-06	***
Parl. majority1	0.692442	1.998590	0.352722	1.963	0.04963	*
Parl. majority2	1.543035	4.678767	0.341476	4.519	6.22e-06	***
Nat. Exp.	0.009488	1.009534	0.004177	2.272	0.02311	*

---

Concordance= 0.784 (se = 0.024 )  
Rsquare= 0.305 (max possible= 0.986 )  
Likelihood ratio test= 212.5 on 10 df, p=0  
Wald test = 232.2 on 10 df, p=0  
Score (logrank) test = 316.3 on 10 df, p=0

---

.p<0.10; \*p<0.05; \*\*p<0.01; \*\*\*p<0.001

# Cox models – Quebec

NATIONAL	$\beta$	$e(\beta)$	std err	z	Pr(> z )	
Gender1	1.607658	4.991107	0.371519	4.327	1.51e-05	***
Gender2	-0.159917	0.852214	0.205641	-0.778	0.436773	
Age	0.033599	1.034170	0.008928	3.763	0.000168	***
Party (ref= BQ)						
Liberal party	-1.277681	0.278683	0.397757	-3.212	0.001317	**
Progressive-con-	-0.364621	0.694460	0.381378	-0.956	0.339042	
NPD	-0.799721	0.449454	1.031765	-0.775	0.438281	
National Cab.	-1.516041	0.219580	0.727050	-2.085	0.037052	*
Parl. majority1	1.653662	5.226081	0.528474	3.129	0.001753	**
Parl. majority2	0.970750	2.639924	0.548284	1.771	0.076640	.
Reg. Exp.	0.006080	1.006098	0.003296	1.845	0.065096	.

Concordance= 0.744 (se = 0.03 )

Rsquare= 0.216 (max possible= 0.982 )

Likelihood ratio test= 88.83 on 10 df, p=9.104e-15

Wald test = 67.62 on 10 df, p=1.277e-10

Score (logrank) test = 79.47 on 10 df, p=6.38e-13

.p≤0.10; \*p≤0.05; \*\*p≤0.01;\*\*\*p≤0.001