



User: Pierre Nadeau

Project: JOM Paper - Innovation that Matters{space -13}

name: **<unnamed>**  
 log: **C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML**  
 log type: **smcl**  
 opened on: **21 Jan 2013, 09:03:49**

1 . runmlwin lcromount cons royear ronum1 ronum2 ronum3 ronum4 patcount cclaims ccreceive ccmade cgeneral  
 > 3(cometro: cons) level2(coname: cons royear) level1(royear: cons) maxi(1000) nopause

MLwiN 2.26 multilevel model  
 Normal response model  
 Estimation algorithm: **IGLS**

Number of obs = **2688**

Level Variable	No. of Groups	Observations per Group		
		Minimum	Average	Maximum
<b>cometro</b>	<b>17</b>	<b>25</b>	<b>158.1</b>	<b>639</b>
<b>coname</b>	<b>935</b>	<b>1</b>	<b>2.9</b>	<b>11</b>

Run time (seconds) = **8.84**  
 Number of iterations = **13**  
 Log likelihood = **-3019.7813**  
 Deviance = **6039.5625**

lcromount	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
cons	<b>1.753018</b>	<b>.1623066</b>	<b>10.80</b>	<b>0.000</b>	<b>1.434903</b>	<b>2.071133</b>
royear	<b>.1089406</b>	<b>.0105873</b>	<b>10.29</b>	<b>0.000</b>	<b>.0881898</b>	<b>.1296913</b>
ronum1	<b>-1.980098</b>	<b>.0527432</b>	<b>-37.54</b>	<b>0.000</b>	<b>-2.083473</b>	<b>-1.876723</b>
ronum2	<b>-1.146365</b>	<b>.0453399</b>	<b>-25.28</b>	<b>0.000</b>	<b>-1.235229</b>	<b>-1.0575</b>
ronum3	<b>-.612488</b>	<b>.0416549</b>	<b>-14.70</b>	<b>0.000</b>	<b>-.6941302</b>	<b>-.5308459</b>

cclaims	-.0000388	.0004367	-0.09	0.929	-.0008947	.0008171
ccreceive	.000706	.0003086	2.29	0.022	.0001011	.0013109
ccmade	.0001005	.0001301	0.77	0.440	-.0001546	.0003556
cgeneral	-.0168873	.0181154	-0.93	0.351	-.0523928	.0186182
coriginal	-.0130385	.0205629	-0.63	0.526	-.053341	.027264
c1	.1938893	.1322321	1.47	0.143	-.0652808	.4530594
c2	.1820353	.1325886	1.37	0.170	-.0778335	.4419041
c3	.1572051	.1453783	1.08	0.280	-.1277312	.4421415
c4	.0424029	.1251087	0.34	0.735	-.2028056	.2876114
c5	.0894556	.1465593	0.61	0.542	-.1977954	.3767066
c6	-.0244873	.1202987	-0.20	0.839	-.2602685	.2112939
p	-.0430431	.0719251	-0.60	0.550	-.1840137	.0979276
foyear	.0073093	.005689	1.28	0.199	-.0038409	.0184595
ipoyear	-.0291868	.0127323	-2.29	0.022	-.0541417	-.0042319

Random-effects Parameters		Estimate	Std. Err.	[95% Conf. Interval]	
<b>Level 3: cometro</b>					
	var(cons)	.0029885	.0060794	-.008927	.014904
<b>Level 2: coname</b>					
	var(cons)	2.430431	.2071582	2.024408	2.836453
	cov(cons, royear)	-.1278936	.0151974	-.15768	-.0981072
	var(royear)	.0092696	.0011835	.0069499	.0115893
<b>Level 1: royear</b>					
	var(cons)	.2211252	.0080735	.2053014	.236949

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2 . runmlwin lcromount cons royear ronum1 ronum2 ronum3 ronum4 patcount cclaims ccreceive ccmade cgeneral
> 3(cometro: cons) level2(coname: cons royear) level1(royear: cons) mcmc(on savewinbugs(m(wbm, replace)
> ause z

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MLwiN 2.26 multilevel model

Number of obs = **2688**

Normal response model

Estimation algorithm: **MCMC**

Level Variable	No. of Groups	Observations per Group		
		Minimum	Average	Maximum
<b>cometro</b>	<b>17</b>	<b>25</b>	<b>158.1</b>	<b>639</b>
<b>coname</b>	<b>935</b>	<b>1</b>	<b>2.9</b>	<b>11</b>

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Burnin           =      500
Chain            =     5000
Thinning         =       1
Run time (seconds) =      86
Deviance (dbar)  =    3590.51
Deviance (thetabar) =    2608.30
Effective no. of pars (pd) =    982.21
Bayesian DIC     =    4572.73

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lcromount	Mean	Std. Dev.	z	P> z	[95% Cred. Interval]	
cons	<b>1.745066</b>	<b>.1770484</b>	<b>9.86</b>	<b>0.000</b>	<b>1.396568</b>	<b>2.099225</b>
royear	<b>.1078869</b>	<b>.010997</b>	<b>9.81</b>	<b>0.000</b>	<b>.0869254</b>	<b>.1301542</b>
ronum1	<b>-1.984859</b>	<b>.0537998</b>	<b>-36.89</b>	<b>0.000</b>	<b>-2.08944</b>	<b>-1.881933</b>
ronum2	<b>-1.149834</b>	<b>.0455483</b>	<b>-25.24</b>	<b>0.000</b>	<b>-1.238273</b>	<b>-1.064019</b>
ronum3	<b>-.6146254</b>	<b>.0417125</b>	<b>-14.73</b>	<b>0.000</b>	<b>-.695837</b>	<b>-.5339961</b>
ronum4	<b>-.2872388</b>	<b>.0402525</b>	<b>-7.14</b>	<b>0.000</b>	<b>-.3669229</b>	<b>-.209151</b>
patcount	<b>.0116726</b>	<b>.0114183</b>	<b>1.02</b>	<b>0.307</b>	<b>-.0114253</b>	<b>.0336869</b>
cclaims	<b>-.0000549</b>	<b>.0004433</b>	<b>-0.12</b>	<b>0.902</b>	<b>-.0008962</b>	<b>.0008087</b>

ccreaseive	.0007128	.0003049	2.34	0.019	.000123	.0013115
ccmade	.0000935	.0001293	0.72	0.470	-.0001566	.0003436
cgeneral	-.0177534	.0181965	-0.98	0.329	-.0539324	.0173067
coriginal	-.0116898	.020094	-0.58	0.561	-.0508355	.0273457
c1	.1898277	.1409876	1.35	0.178	-.0788432	.4885241
c2	.1732173	.1377839	1.26	0.209	-.095531	.4477004
c3	.1585516	.1506192	1.05	0.292	-.1316228	.4511912
c4	.0522456	.1301005	0.40	0.688	-.2118215	.3071945
c5	.0895288	.1623301	0.55	0.581	-.217519	.4112941
c6	-.0210286	.1283241	-0.16	0.870	-.2664711	.2422534
p	-.0362867	.074831	-0.48	0.628	-.1860538	.1022965
foyear	.0073015	.0059802	1.22	0.222	-.0038518	.0189393
ipoyear	-.027999	.01338	-2.09	0.036	-.0552762	-.0021501

Random-effects Parameters		Mean	Std. Dev.	ESS	[95% Cred. Int]	
<b>Level 3: cometro</b>						
	var(cons)	.018367	.0215148	116	.0007211	.0760548
<b>Level 2: coname</b>						
	var(cons)	2.443611	.2822648	324	1.942972	3.036406
	cov(cons, royear)	-.1287634	.0193357	241	-.1687125	-.093485
	var(royear)	.0093908	.0014562	211	.0067533	.0124086
<b>Level 1: royear</b>						
	var(cons)	.2228475	.0095518	760	.2048366	.2421147

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3 . wbdecode , f("C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbd.txt)

4 . wbscript , m(C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt)
> Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbd.txt) i(C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt) c(C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt)
> wbmcmc) set(alpha beta) b (1000) u (5000) quit s (C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt, replace)
display('log')
check('C:/Documents and Settings/Pierre/My Documents/BIRKBECK/Academic Papers/JOM 2013/Bayesian+ML Estimation\wbi.txt')
data('C:/Documents and Settings/Pierre/My Documents/BIRKBECK/Academic Papers/JOM 2013/Bayesian+ML Estimation\wbi.txt')
data('ML Estimation/wbd.txt')
compile(1)
inits(1,'C:/Documents and Settings/Pierre/My Documents/BIRKBECK/Academic Papers/JOM 2013/Bayesian+ML Estimation\wbi.txt')
gen.inits()
update(1000)
set('alpha')
set('beta')
update(5000)
coda(*,'C:/Documents and Settings/Pierre/My Documents/BIRKBECK/Academic Papers/JOM 2013/Bayesian+ML Estimation\wbi.txt')
quit()

5 . wbrun , s(C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt)
> 14)

6 . log close
    name: <unnamed>
    log: C:\Documents and Settings\Pierre\My Documents\BIRKBECK\Academic Papers\JOM 2013\Bayesian+ML Estimation\wbi.txt
    log type: smcl
    closed on: 21 Jan 2013, 09:09:28

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