

# RDC urbain

Data Set	WORK.X
Response Variable	rep2
Number of Response Levels	2
Number of Observations	7658
Model	binary logit
Optimization Technique	Fisher's scoring

## Response Profile

Ordered Value	rep2	Total Frequency
1	1	4032 ayant répondu ph2
2	0	3626 pas répondu ph2

Probability modeled is rep2=1.

## Model Convergence Status

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

## Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	10596.707	9364.272
SC	10603.651	9517.029
-2 Log L	10594.707	9320.272

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	1274.4352	21	<.0001
Score	1188.4891	21	<.0001
Wald	1021.4697	21	<.0001

The LOGISTIC Procedure  
Analysis of Maximum Likelihood Estimates

	Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
	Intercept	1	0.4957	0.1465	11.4548	0.0007
femme	sexf	1	0.0592	0.0533	1.2343	0.2666
patron	pat	1	-2.3446	0.1444	263.7223	<.0001
10-25ans	ag01	1	-0.4606	0.0963	22.8500	<.0001
26-35ans	ag02	1	-0.1190	0.0892	1.7819	0.1819
36-45ans	ag03	1	-0.0621	0.0893	0.4845	0.4864
46-55ans	ag04	1	0.0629	0.0963	0.4265	0.5137
kin	prov10	1	-0.4392	0.1092	16.1625	<.0001
Bas-congo	prov20	1	-0.4892	0.1364	12.8652	0.0003
Equateur	prov40	1	-1.2828	0.1202	113.9751	<.0001
Oriental	prov50	1	-1.1666	0.1344	75.2963	<.0001
Nord-kivu	prov61	1	-1.2937	0.1288	100.8657	<.0001
Maniema	prov62	1	-0.4889	0.1347	13.1686	0.0003
Sud-Kivu	prov63	1	-0.6282	0.1469	18.2899	<.0001
Katanga	prov70	1	-0.5064	0.1328	14.5347	0.0001
Kasai-oriental	prov80	1	-0.2675	0.1323	4.0876	0.0432
Kasai-Occide	prov90	1	-0.0914	0.1301	0.4933	0.4825
Dehors	loca01	1	0.6209	0.0797	60.6608	<.0001
domicile	loca02	1	0.7126	0.0858	69.0466	<.0001
agric	sect01	1	-0.3862	0.0866	19.8987	<.0001
commerce	sect03	1	0.3267	0.0749	19.0107	<.0001
services	sect04	1	-0.1113	0.1295	0.7388	0.3900

REfERENCE: Homme, 55 ans et plus, province Bandundu, local professionnel, industrie

Odds Ratio Estimates			
Effect	Point Estimate	95% Wald Confidence Limits	
sexf	1.061	0.956	1.178
pat	0.096	0.072	0.127
ag01	0.631	0.522	0.762
ag02	0.888	0.745	1.057
ag03	0.940	0.789	1.119
ag04	1.065	0.882	1.286
prov10	0.645	0.520	0.798
prov20	0.613	0.469	0.801
prov40	0.277	0.219	0.351
prov50	0.311	0.239	0.405
prov61	0.274	0.213	0.353
prov62	0.613	0.471	0.799
prov63	0.534	0.400	0.712
prov70	0.603	0.465	0.782
prov80	0.765	0.590	0.992
prov90	0.913	0.707	1.178
loca01	1.861	1.592	2.175
loca02	2.039	1.724	2.412
sect01	0.680	0.574	0.805
sect03	1.386	1.197	1.606
sect04	0.895	0.694	1.153

Association of Predicted Probabilities and Observed Responses

Percent Concordant	72.0	Somers' D	0.446
Percent Discordant	27.4	Gamma	0.449
Percent Tied	0.6	Tau-a	0.222
Pairs	14620032	c	0.723

# The LOGISTIC Procedure

R-Square 0.1560 Max-rescaled R-Square 0.2082

## Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	1299.0648	17	<.0001
Score	1210.8759	17	<.0001
Wald	1043.3827	17	<.0001

## Residual Chi-Square Test

Chi-Square	DF	Pr > ChiSq
6.9305	6	0.3273

NOTE: No (additional) effects met the 0.05 significance level for removal from the model.

## Summary of Backward Elimination

Step	Effect Removed	DF	Number In	Wald Chi-Square	Pr > ChiSq
1	sect04	1	22	0.0931	0.7603
2	ag03	1	21	0.4272	0.5134
3	prov30	1	20	0.4626	0.4964
4	sexf	1	19	1.3498	0.2453
5	ag02	1	18	1.6309	0.2016
6	sect02	1	17	2.9628	0.0852

## Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-0.9470	0.2828	11.2168	0.0008
pat	1	-2.4058	0.1445	277.1933	<.0001
ag01	1	-0.3759	0.0669	31.5554	<.0001
ag04	1	0.1421	0.0692	4.2120	0.0401
prov10	1	-0.3126	0.0857	13.3081	0.0003
prov20	1	-0.4396	0.1176	13.9777	0.0002
prov40	1	-1.2315	0.0982	157.4334	<.0001
prov50	1	-1.1228	0.1151	95.1548	<.0001
prov61	1	-1.2521	0.1088	132.5506	<.0001
prov62	1	-0.4669	0.1157	16.2873	<.0001
prov63	1	-0.5711	0.1293	19.5192	<.0001
prov70	1	-0.4625	0.1134	16.6342	<.0001
prov80	1	-0.2339	0.1123	4.3407	0.0372
loca01	1	1.8945	0.2722	48.4589	<.0001
loca02	1	2.0121	0.2738	53.9955	<.0001
loca03	1	1.4046	0.2799	25.1825	<.0001
sect01	1	-0.4127	0.0839	24.1912	<.0001
sect03	1	0.3842	0.0670	32.9043	<.0001

## Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
pat	0.090	0.068	0.120
ag01	0.687	0.602	0.783
ag04	1.153	1.006	1.320
prov10	0.732	0.618	0.865
prov20	0.644	0.512	0.811
prov40	0.292	0.241	0.354
prov50	0.325	0.260	0.408
prov61	0.286	0.231	0.354
prov62	0.627	0.500	0.786

prov63	0.565	0.438	0.728
prov70	0.630	0.504	0.786
prov80	0.791	0.635	0.986
loca01	6.650	3.901	11.336
loca02	7.479	4.373	12.792
loca03	4.074	2.354	7.051
sect01	0.662	0.561	0.780
sect03	1.468	1.288	1.674

Association of Predicted Probabilities and Observed Responses

Percent Concordant	71.9	Somers' D	0.452
Percent Discordant	26.8	Gamma	0.458
Percent Tied	1.3	Tau-a	0.225
Pairs	14620032	c	0.726

## Province 20

### The LOGISTIC Procedure

#### Model Information

Data Set	WORK.Y
Response Variable	rep2
Number of Response Levels	2
Number of Observations	466
Model	binary logit
Optimization Technique	Fisher's scoring

#### Response Profile

Ordered Value	rep2	Total Frequency
1	1	266
2	0	200

Probability modeled is rep2=1.

#### Model Convergence Status

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

#### Model Fit Statistics

Criterion	Intercept Only	Intercept and Covariates
AIC	638.634	527.884
SC	642.778	631.488
-2 Log L	636.634	477.884

#### Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	158.7502	24	<.0001
Score	137.1086	24	<.0001
Wald	100.8464	24	<.0001

# The LOGISTIC Procedure

## Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	0.2976	0.6369	0.2184	0.6403
sexf	1	0.2270	0.2402	0.8928	0.3447
pat	1	0.1060	0.7936	0.0178	0.8937
ag01	1	-0.2125	0.4504	0.2226	0.6371
ag02	1	0.5789	0.3821	2.2952	0.1298
ag03	1	-0.0805	0.3690	0.0476	0.8273
ag04	1	0.4215	0.3905	1.1653	0.2804
enq03	1	1.7876	0.9643	3.4365	0.0638
enq04	1	-2.1913	0.7897	7.6997	0.0055
enq06	1	-2.2658	0.7844	8.3431	0.0039
enq07	1	-3.0936	0.6990	19.5853	<.0001
enq08	1	-1.7034	0.7101	5.7544	0.0164
enq09	1	-0.4984	0.6828	0.5328	0.4654
enq10	1	-1.8601	0.7041	6.9796	0.0082
enq12	1	-0.7529	0.7462	1.0181	0.3130
enq13	1	-1.4242	0.8068	3.1163	0.0775
enq14	1	-0.4461	0.7089	0.3960	0.5292
enq16	1	-1.2009	0.6581	3.3301	0.0680
enq17	1	-1.7881	0.7642	5.4746	0.0193
enq18	1	-1.9782	0.7488	6.9795	0.0082
loca01	1	0.4484	0.3735	1.4411	0.2300
loca02	1	0.4870	0.3770	1.6683	0.1965
sect02	1	0.9417	0.4639	4.1217	0.0423
sect03	1	1.4955	0.3512	18.1311	<.0001
sect04	1	0.4114	0.5800	0.5031	0.4781

ref : homme, TCP, 55 ans et +, local prof, secteur agricole et enq01  
Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
sexf	1.255	0.784	2.009
pat	1.112	0.235	5.267
ag01	0.809	0.334	1.955
ag02	1.784	0.844	3.773
ag03	0.923	0.448	1.902
ag04	1.524	0.709	3.277
enq03	5.975	0.903	39.553
enq04	0.112	0.024	0.525
enq06	0.104	0.022	0.483
enq07	0.045	0.012	0.178
enq08	0.182	0.045	0.732
enq09	0.608	0.159	2.316
enq10	0.156	0.039	0.619

The LOGISTIC Procedure

Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
enq12	0.471	0.109	2.033
enq13	0.241	0.050	1.170
enq14	0.640	0.160	2.569
enq16	0.301	0.083	1.093
enq17	0.167	0.037	0.748
enq18	0.138	0.032	0.600
loca01	1.566	0.753	3.256
loca02	1.627	0.777	3.407
sect02	2.564	1.033	6.365
sect03	4.462	2.241	8.880
sect04	1.509	0.484	4.703

Association of Predicted Probabilities and Observed Responses

Percent Concordant	81.8	Somers' D	0.639
Percent Discordant	17.9	Gamma	0.641
Percent Tied	0.4	Tau-a	0.314
Pairs	53200	c	0.819

# Province 40 : Equateur

## The LOGISTIC Procedure

### Model Information

Data Set	WORK.Y
Response Variable	rep2
Number of Response Levels	2
Number of Observations	852
Model	binary logit
Optimization Technique	Fisher's scoring

### Response Profile

Ordered Value	rep2	Total Frequency
1	1	316
2	0	536

Probability modeled is rep2=1.  
Backward Elimination Procedure

Step 0. The following effects were entered:

Intercept sexf sexh pat cp ag01 ag02 ag03 ag04 ag05 enq01 enq02 enq03 enq04  
enq05  
enq06 enq07 enq08 enq09 enq10 enq11 enq12 enq13 enq14 enq15 enq19 enq20 loca01  
loca02 loca03 sect01 sect02 sect03 sect04

## The LOGISTIC Procedure

WARNING: The validity of the model fit is questionable.

### Residual Chi-Square Test

Chi-Square	DF	Pr > ChiSq
24.8672	13	0.0240

NOTE: No (additional) effects met the 0.05 significance level for removal from the model.

### Summary of Backward Elimination

Step	Effect Removed	DF	Number In	Wald Chi-Square	Pr > ChiSq
1	enq06	1	28	0.0000	0.9994
2	enq10	1	27	0.0000	0.9990
3	enq08	1	26	0.0000	0.9994
4	enq07	1	25	0.0000	0.9998
5	enq09	1	24	0.0000	0.9995
6	enq12	1	23	0.0000	0.9994
7	pat	1	22	0.0000	0.9991
8	enq15	1	21	0.0025	0.9603
9	sexf	1	20	0.0000	0.9998
10	ag04	1	19	0.2247	0.6355
11	ag03	1	18	1.0905	0.2964
12	ag02	1	17	3.0791	0.0793
13	ag01	1	16	3.2023	0.0735

### Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	1	-5.0992	0.7479	46.4900	<.0001
enq01	1	4.6545	0.5720	66.2049	<.0001
enq02	1	3.6974	0.5413	46.6653	<.0001
enq03	1	3.0279	0.4248	50.8007	<.0001
enq04	1	3.1853	0.5142	38.3791	<.0001
enq05	1	3.0708	0.4258	52.0173	<.0001
enq11	1	2.8509	0.4845	34.6316	<.0001



enq13	1	3.1195	0.4931	40.0217	<.0001
enq14	1	1.9601	0.5550	12.4742	0.0004
enq19	1	1.9025	0.4944	14.8093	0.0001
enq20	1	4.6014	0.5804	62.8447	<.0001
loca01	1	0.9459	0.2821	11.2431	0.0008
loca02	1	1.1724	0.3246	13.0413	0.0003
sect01	1	1.3302	0.6411	4.3046	0.0380

The LOGISTIC Procedure  
WARNING: The validity of the model fit is questionable.

#### Analysis of Maximum Likelihood Estimates

Parameter	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
sect02	1	1.2503	0.6346	3.8818	0.0488
sect03	1	1.2300	0.6194	3.9435	0.0471
sect04	1	1.5102	0.7491	4.0643	0.0438

#### Odds Ratio Estimates

Effect	Point Estimate	95% Wald Confidence Limits	
enq01	105.056	34.237	322.361
enq02	40.342	13.965	116.538
enq03	20.653	8.982	47.489
enq04	24.174	8.825	66.223
enq05	21.559	9.359	49.666
enq11	17.304	6.695	44.720
enq13	22.636	8.611	59.503
enq14	7.100	2.393	21.071
enq19	6.703	2.544	17.664
enq20	99.623	31.937	310.761
loca01	2.575	1.481	4.476
loca02	3.230	1.709	6.102
sect01	3.782	1.076	13.287
sect02	3.491	1.007	12.110
sect03	3.421	1.016	11.519
sect04	4.527	1.043	19.655

#### Association of Predicted Probabilities and Observed Responses

Percent Concordant	81.4	Somers' D	0.649
Percent Discordant	16.6	Gamma	0.662
Percent Tied	2.0	Tau-a	0.303
Pairs	169376	c	0.824