

SEMINAR: Presenting the results of e-voting surveys

Tallinn - e-Governance Academy

**Some preliminary results of the future report
for the Council of Europe:**

**E-Voting in the 2005 local
elections in Estonia**

Alexander H. Trechsel / Fabian Breuer

Study aimed to answer the following questions

- Who votes online?
- How can we explain the choice of the voting channel?
- What is the impact of e-voting on political participation?
- What are the political effects (if there are any) of electronic voting?

Method and Research Management

- Specifically designed survey containing answers from 939 respondents who had the right to vote in the local elections
- Sample consisted of 315 e-voters, 319 'traditional' voters (voters who cast their vote at the polling place) and 305 non-voters (abstentionists).
- Method used was CATI ("computer-assisted telephone interviews")
- Survey itself has been outsourced to survey institute *OY Uuringukeskus Faktum*.

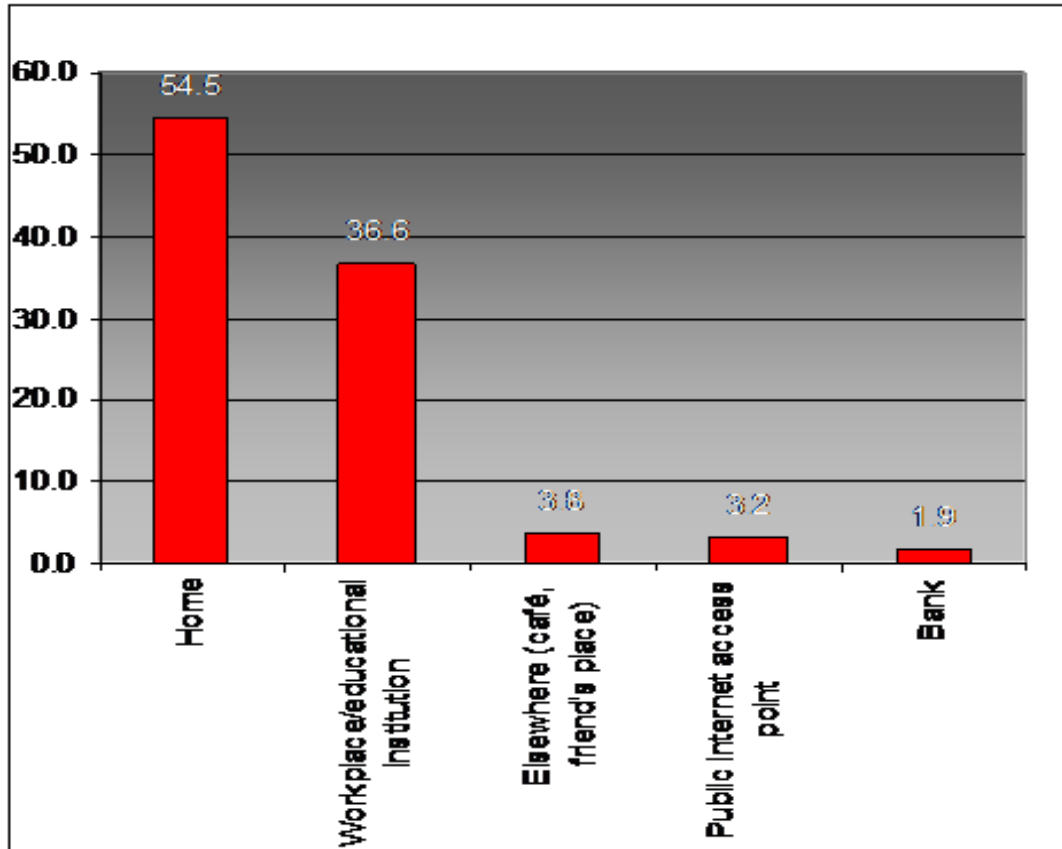
Where and when e-voters participated

Table 1: Frequency of usual political participation and mode of vote in 2005

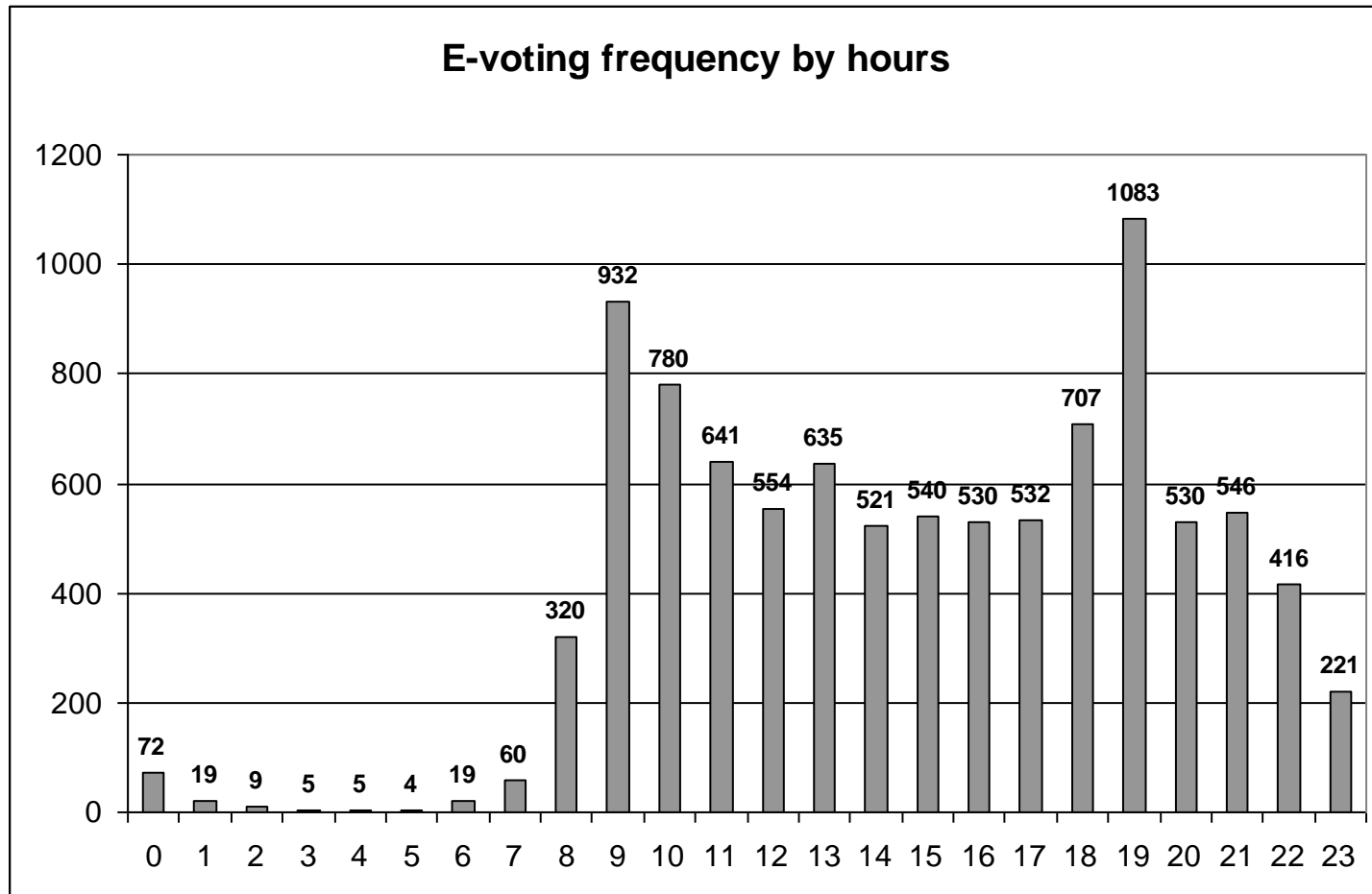
Type of settlement	Type of political participation			
	no vote	vote at polling place	e-vote	total (%)
urban	67.9%	67.6%	70.2%	68.6%
rural	32.1%	32.4%	29.8%	31.4%
Total	100.0%	100.0%	100.0%	100.0%
n	(305)	(318)	(315)	(938)

N=939, valid cases=938, missing cases=1.

Where e-voters cast their ballots



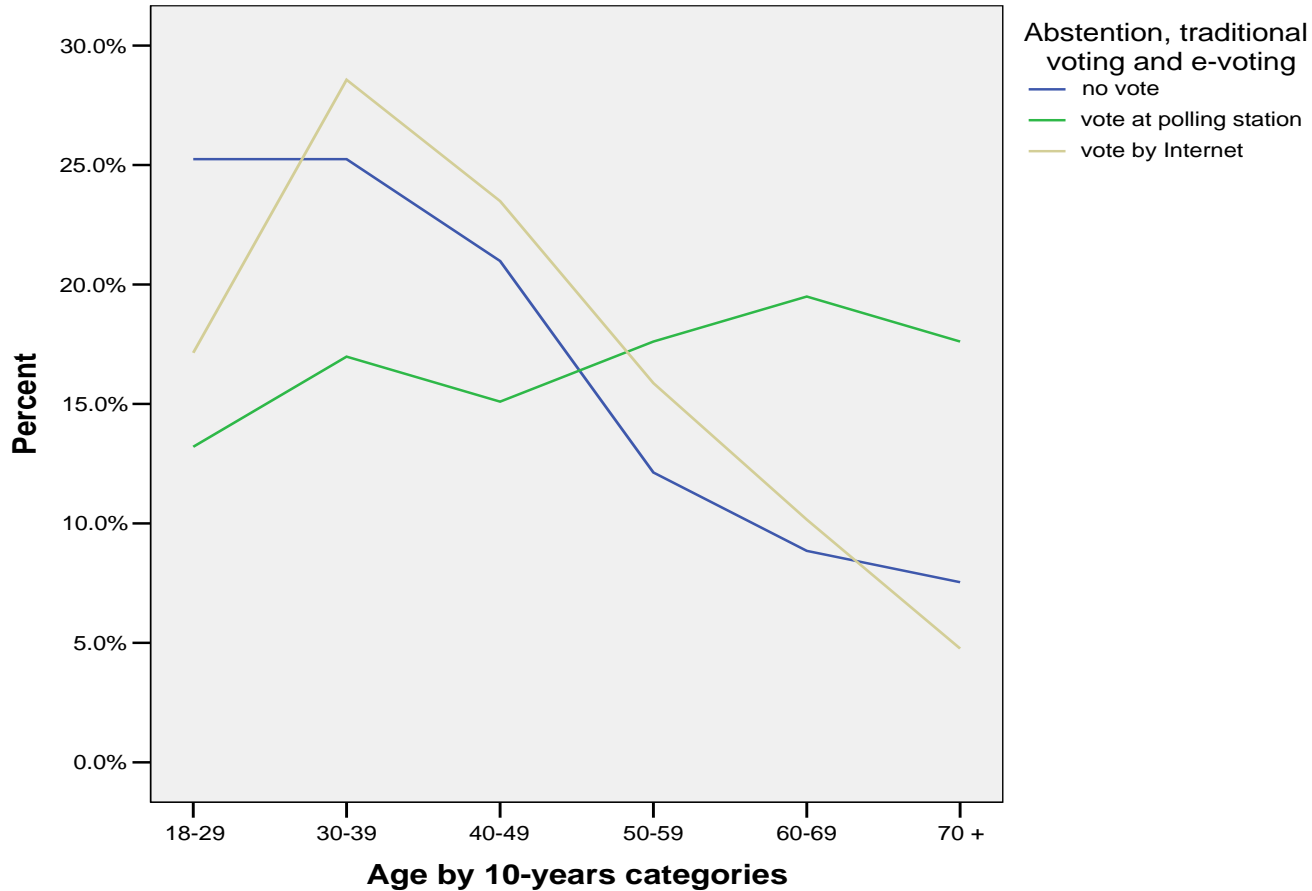
Distribution of e-votes over 24 hours



17 February 2006

Seminar: Presenting the results of
e-voting surveys

Age and mode of participation



17 February 2006

Seminar: Presenting the results of
e-voting surveys

Gender and mode of participation

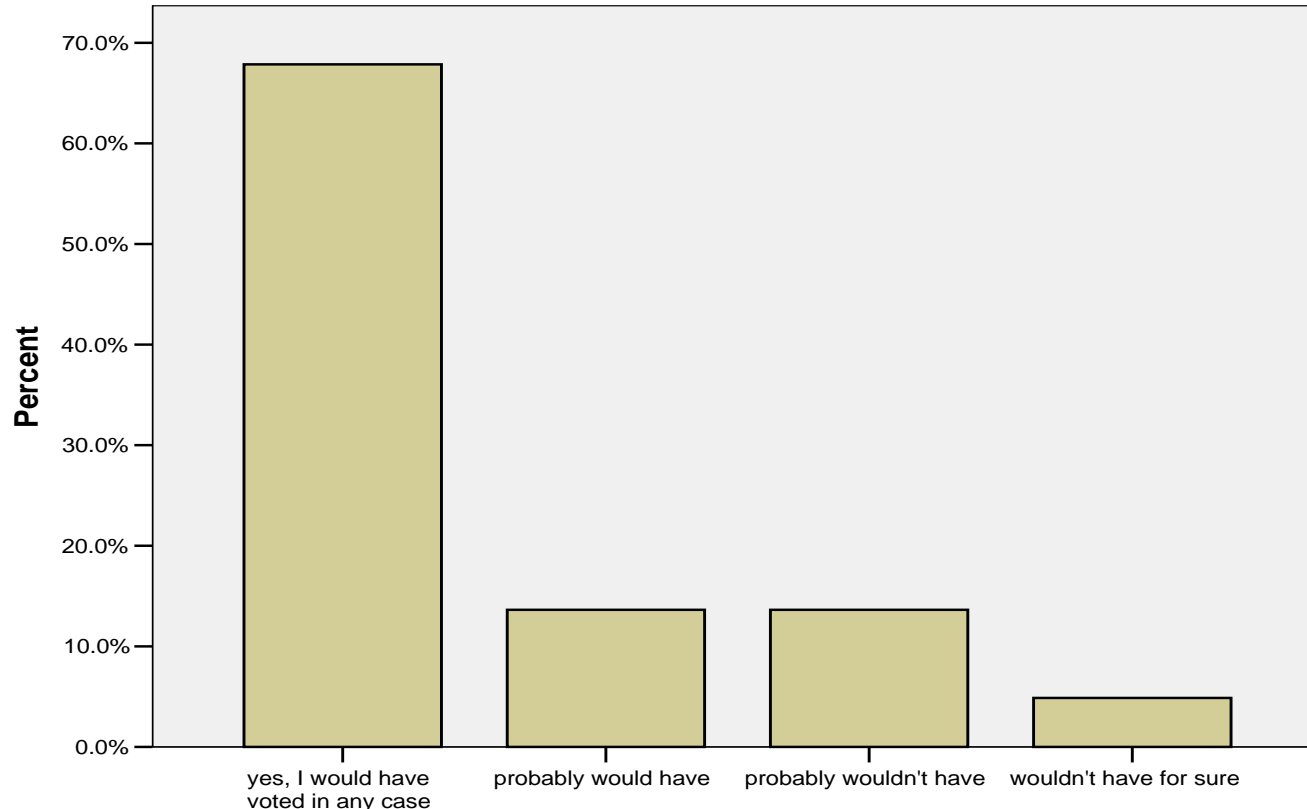
Mode of participation	Gender		
	male	female	n
no vote	45.2	54.8	305
vote at the polling station	41.2	58.8	318
e-vote	49.8	50.2	315
Overall n	426	512	938

N=939, valid cases=938, missing cases=1.

Frequency of usual political participation and mode of vote in 2005

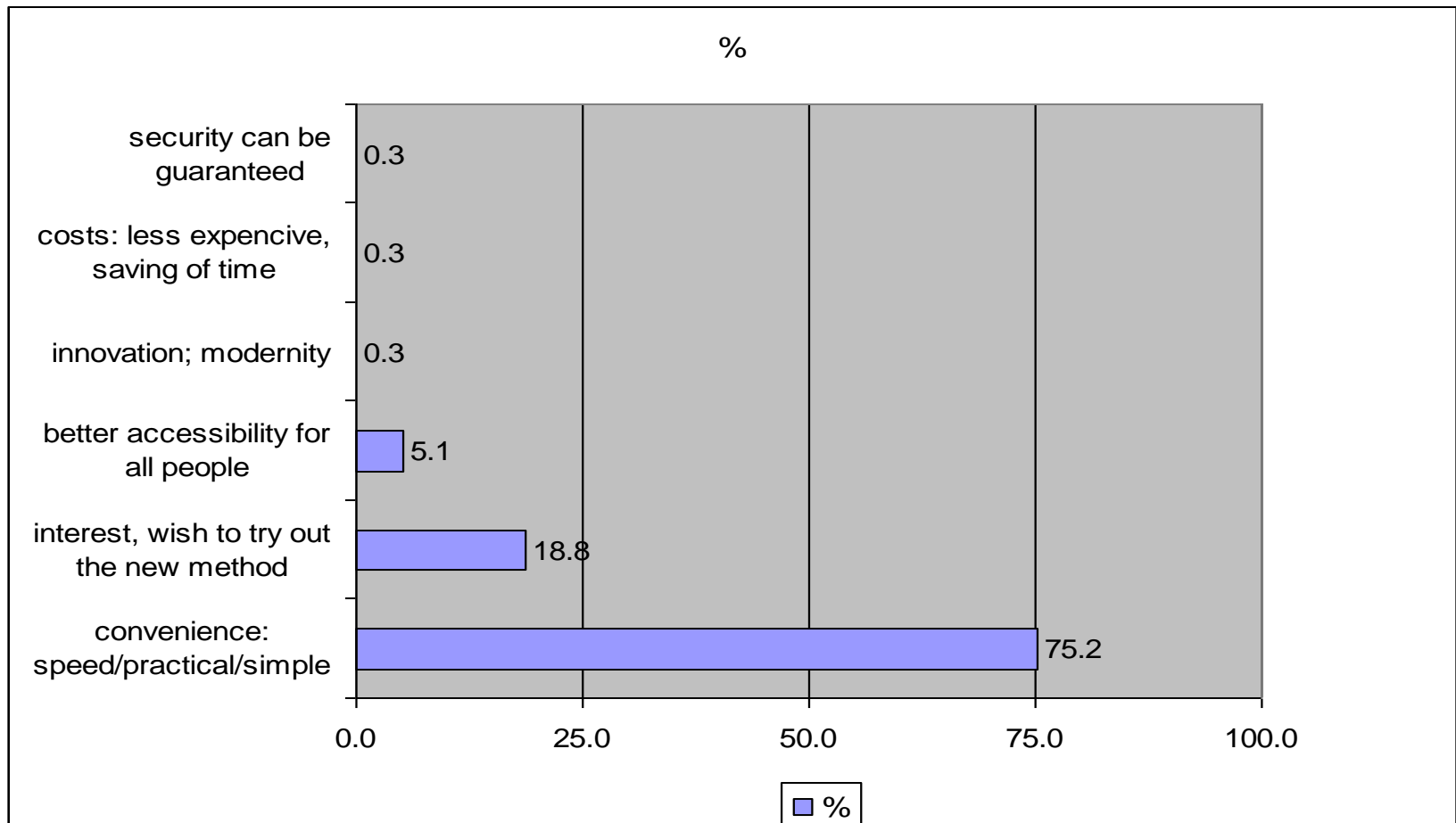
Vote in 2005...	Frequency of usual political participation					Total (% , n)
	in all elections	in some elections	from time to time	never		
at the polling place	77.6	18.0	3.5	0.9		100.0
by internet	70.2	24.4	4.8	0.6		100.0
Total (n)	467	234	26	5		632

Subjective estimation of participation in the absence of e-voting

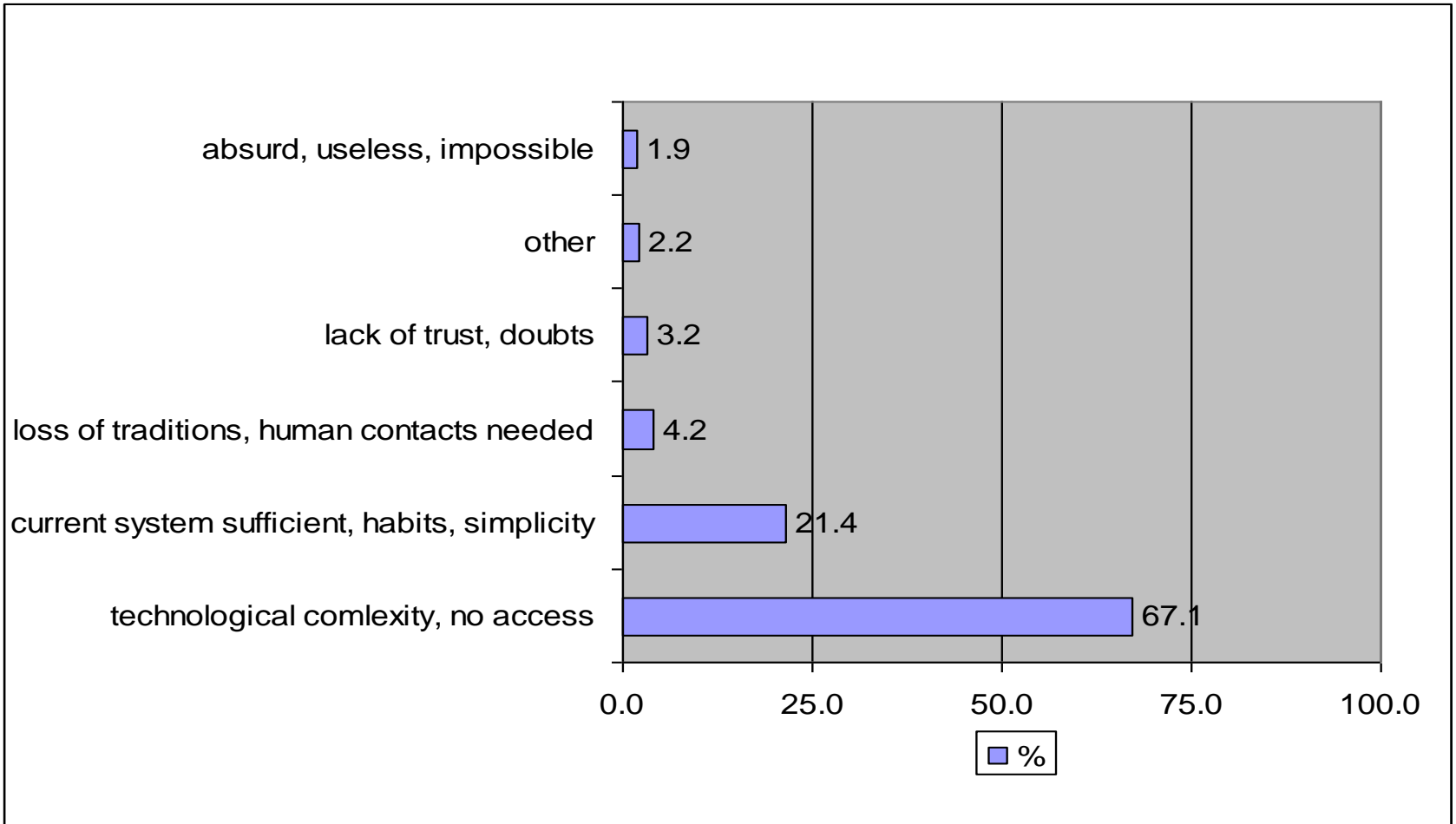


5. If You didn't have the possibility to vote by internet, would You still have voted?

Subjective reasons for choosing e-voting



Subjective reasons for not using e-voting



17 February 2006

Seminar: Presenting the results of
e-voting surveys

**Multi-variate model of the impact of socio-demographic and
-economic variables on choosing e-voting over voting at the
polling stations among (logistic regression coefficients)**

Independent variables	B	s.e.	sig.
Age	-.272	.061	.000
Gender	-.009	.183	.963
Settlement	-.017	.195	.929
Education	.464	.105	.000
Income	.208	.087	.016
Language	-1.757	.357	.000
Constant	.714	.772	.355

Pseudo R² (Nagelkerke): .233; n=609; bold = error prob. ? 5%.

Multi-variate model of the impact of political variables on choosing e-voting over voting at the polling stations among (logistic regression coefficients)

Independent variables	B	s.e.	sig.
Left-right scale	.143	.050	.004
Political discussions	.031	.110	.775
Trust in Parliament/government	-.475	.212	.025
Trust in politicians	-.055	.210	.795
Trust in the State	.429	.184	.020
Constant	-.355	.597	.553

Pseudo R² (Nagelkerke): .058; n=475; bold = error prob. ≤ 5%.

Multi-variate model of the impact of ICT variables on choosing e-voting over voting at the polling stations among (logistic regression coefficients)

Independent variables	B	s.e.	sig.
Computing knowledge	-.308	.141	.029
Frequency of internet use	.119	.067	.077
Location of internet access	.145	.136	.284
Trust in transactions on the internet	-.383	.188	.041
Trust in the procedure of e-voting	-1.543	.194	.000
Constant	3.276	.794	.000

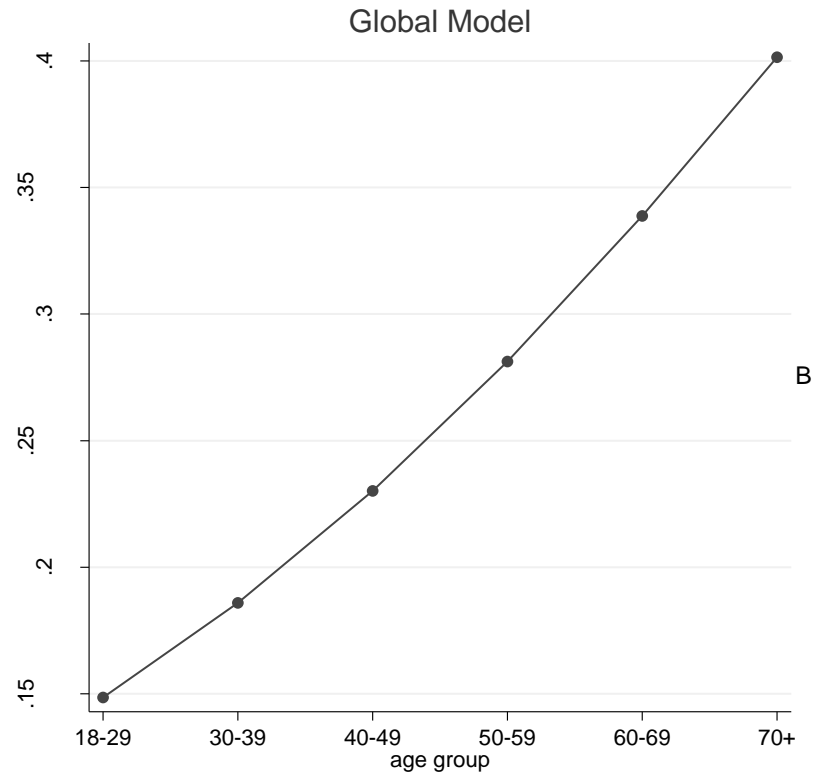
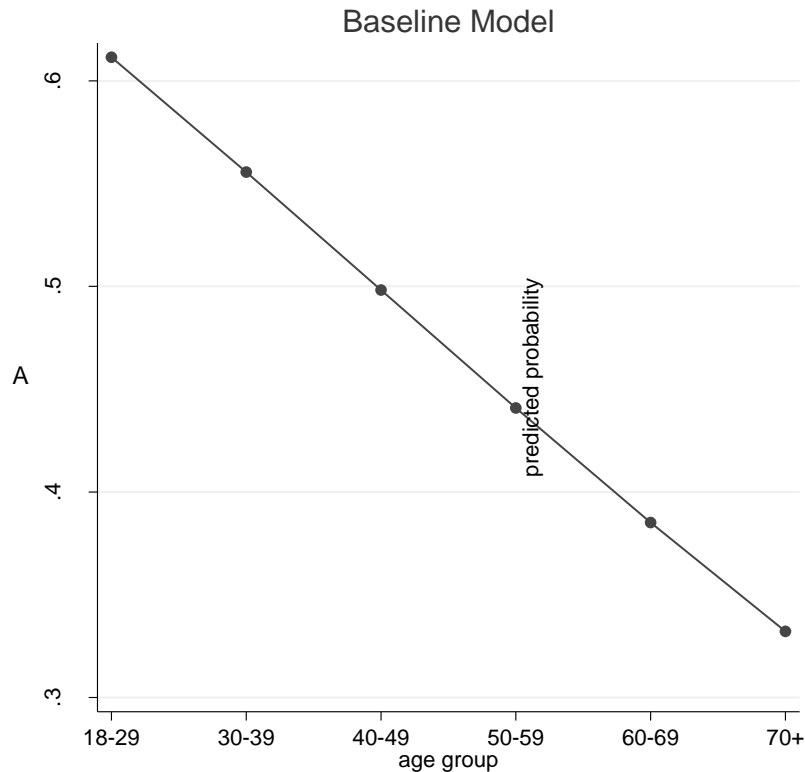
Pseudo R² (Nagelkerke): .477; n=508; bold = error prob. ? 5%.

Global model

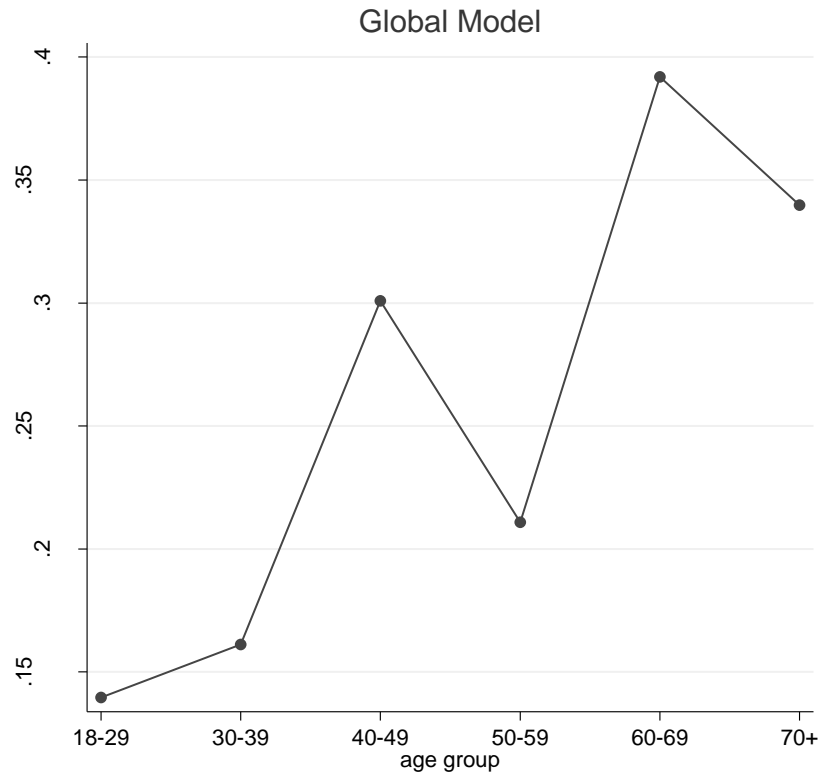
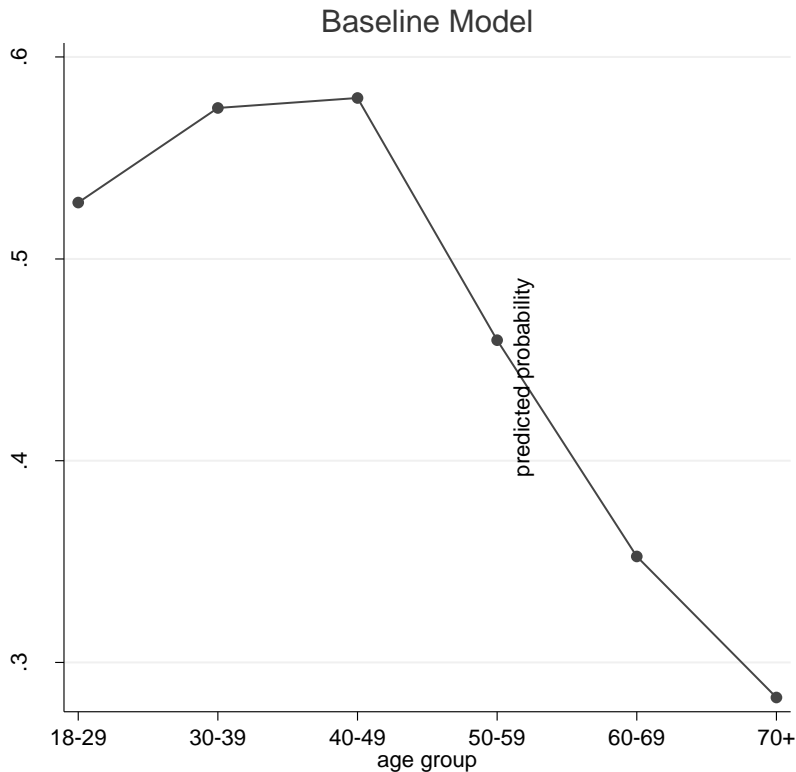
Independent variables	B	s.e.	sig.
Age	.267	.116	.022
Gender	.415	.287	.148
Settlement	.361	.316	.254
Education	.289	.181	.111
Income	-.166	.136	.221
Language	-1.377	.546	.012
Left-right scale	-.008	.073	.908
Political discussions	.270	.162	.095
Trust in Parliament/government	-.265	.342	.438
Trust in politicians	.188	.316	.551
Trust in the State	.516	.278	.064
Computing knowledge	-.410	.181	.023
Frequency of internet use	.153	.082	.063
Location of internet access	.247	.172	.150
Trust in transactions on the internet	-.325	.229	.156
Trust in the procedure of e-voting	-1.684	.244	.000
Constant	1.004	1.723	.560

Pseudo R² (Nagelkerke): .525; n=399; bold = error prob. ≤ 5%.

Predicted Probabilities by age groups with ordinal age variable



Predicted Probabilities by age groups with dummy age variables



Some preliminary conclusions

- Language remains a problem
- Computer knowledge vs. Internet access
- Trust in e-voting is central -> policy!
- Some important non-results: age, gender, income, education...
- Political neutrality of e-voting