

Just Passing Through

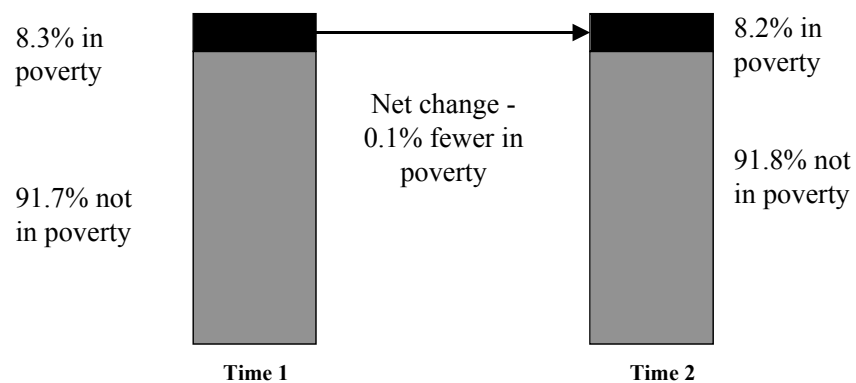
Persistent and Transient ICT Poverty

Dr Ben Anderson

Chimera, University of Essex, UK

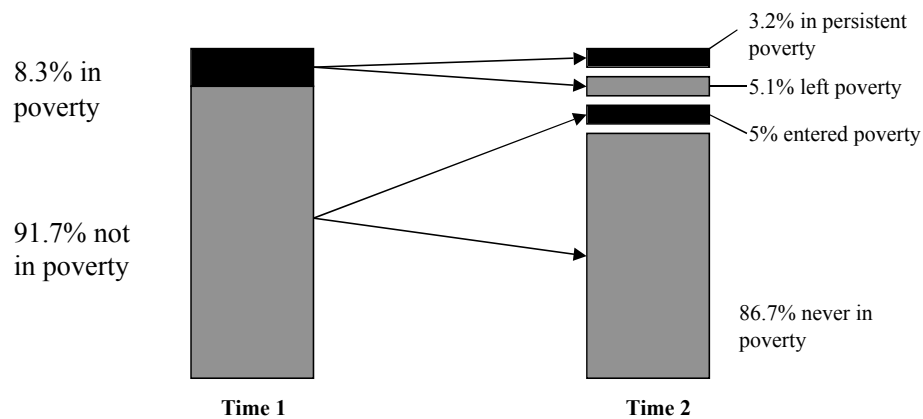


Poverty incidence



- => Happy politicians

Poverty dynamics



- => some politicians happy
 - poverty action groups unhappy
- Transient & persistent poverty need different policy actions

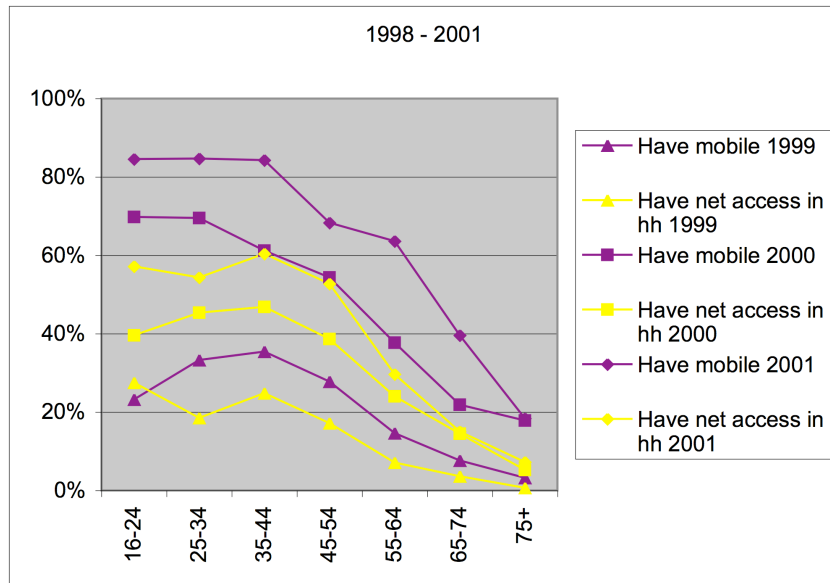
www.essex.ac.uk/chimera

Significance for ICTs

- We know very little about transient and persistent 'ICT poverty'
 - We know there are dropouts
 - We know there are 'excluded' groups
- But how transient are they?
 - Are they just passing through or have they passed by or passed out?
 - What are the risk factors?
 - Is this why internet diffusion is stalling?
- Cross-sectional surveys just won't do
 - Requires longitudinal data (follow people over time)

www.essex.ac.uk/chimera

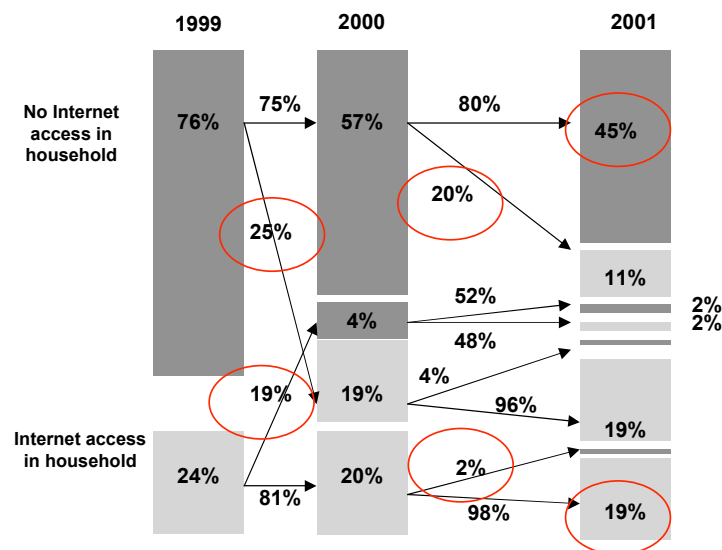
Example 1 - UK 1999-2001



Source: Home OnLine Longitudinal Panel Survey (1999-2001, w1, w2, w3, weighted for non-response, n~= 1200 in each wave)

www.essex.ac.uk/chimera

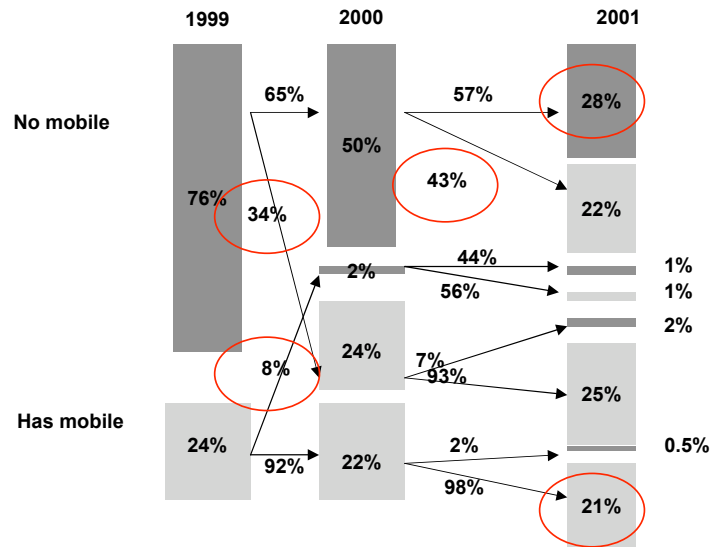
Example 1 - UK 1999-2001



Source: Home OnLine Longitudinal Panel Survey (1999-2001, longitudinal sample only, weighted for non-response, n~= 800 in each wave)

www.essex.ac.uk/chimera

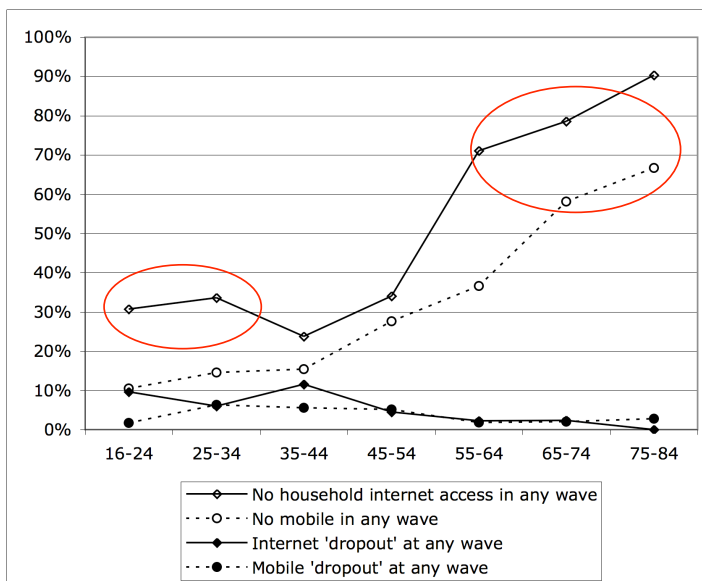
Example 1 - UK 1999-2001



Source: Home OnLine Longitudinal Panel Survey (1999-2001, longitudinal sample only, weighted for non-response, n= 800 in each wave)

www.essex.ac.uk/chimera

Example 1 - UK

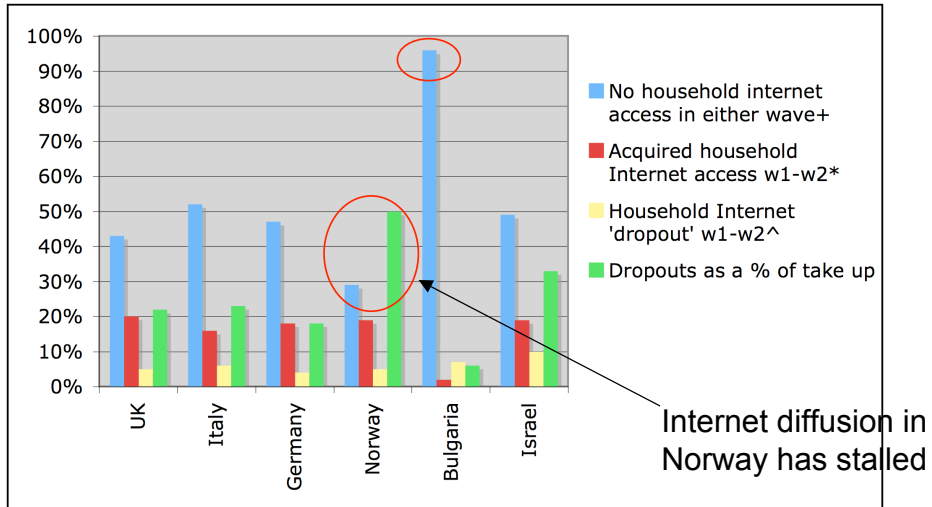


- Older people at risk from persistent ICT poverty in general
- Young people at risk from persistent internet poverty
- Dropouts are evenly distributed by age

Source: Home OnLine Longitudinal Panel Survey (1999-2001, longitudinal sample only, weighted for non-response, n= 800 in each wave)

www.essex.ac.uk/chimera

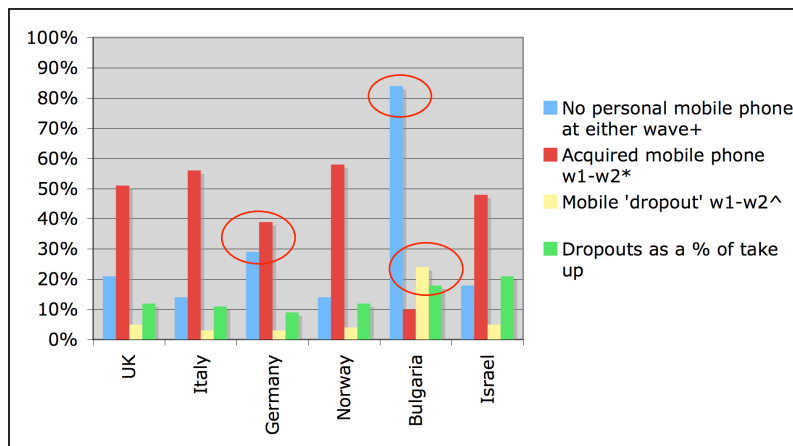
Example 2 - Europe 2001-02



- + % of all respondents in country
- * % of all those who did not have household Internet access at wave 1
- ^ % of all those who had household Internet access at wave 1
- Source = eLiving waves 1&2, weighted for non-response, n ~1200 in wave 2

www.essex.ac.uk/chimera

Example 2 - Europe 2001-02



- + % of all respondents in country
- * % of all those who did not have a personal mobile phone at wave 1
- ^ % of all those who had a personal mobile phone at wave 1
- Source = eLiving waves 1&2, weighted for non-response, n ~1200 in wave 2

www.essex.ac.uk/chimera

So who's at risk?

- UK 1999-2001 data
- Logistic regression models analyse risk factors for persistent and transient ICT poverty
- Qualitative data and literature informs models
 - Socio-demographics (Age, wealth, family situation, education level etc)
 - Attitudes to and experiences with ICTs before dropping out
 - Life transitions
 - Social networks

www.essex.ac.uk/chimera

The results !

Variable (contrast)	Model 1 1.1 Persistent Internet Poverty		1.2 Persistent Mobile Poverty	
	B	Exp (B)	B	Exp (B)
Household level variables at wave one				
Household type (alone under 56)				
Alone over 55	2.124	8.364*	1.494	4.455
Unrelated others	-3.812	0.022	-1.522	0.218
Lone parent, children < 16	2.155	8.625**	0.671	1.957
Lone parent, child > 15	2.563	12.973**	0.903	2.467
Couple, household 'head' < 36, no child	-0.221	0.802	1.967	7.146*
Couple, household 'head' > 36, no child	0.995	2.705	0.556	1.744
Couple, respondent > 55, no child	1.989	7.310*	1.759	5.805*
Couple, all children < 12	1.186	3.273	1.596	4.934
Couple, at least one child > 11	0.312	1.366	1.683	5.380+
Couple, at least one child > 15	2.685	14.659**	1.603	4.970+
Number of cars in home	-0.839	0.432***	-0.736	0.479***
Number of people in home	-0.175	0.840	-0.112	0.894
Household phone bill	-0.003	0.997*	0.002	1.002
Gender (female)	0.698	2.011*	0.557	1.746+
Age (16-24)				
25-34	0.463	1.589	0.440	1.552
35-44	0.146	1.157	0.678	1.971
45-54	-0.649	0.523	1.954	7.058*
55-64	0.748	2.112	0.910	2.485
65-74	0.069	1.071	0.900	2.461
75+	1.242	3.463	1.945	6.993+
Education (Degrees)				
A level or equiv	0.628	1.874	0.433	1.541
GCSE or equiv	0.836	2.306*	0.559	1.749
Failed GCSE	1.710	5.531*	0.660	1.935
None	1.490	4.436**	0.902	2.464*
Working status (working)				
unemployed	0.586	1.797	-0.786	0.456
retired	-0.240	0.787	0.778	2.178
maternity leave	-6.179	0.002	1.604	4.971
looking after family/home	-0.449	0.638	0.098	1.103
full time student/school	-1.833	0.160*	0.823	2.278
long term sick/disabled	0.895	2.446	0.927	2.527
other	-1.425	0.241	-0.244	0.783
Negative PC attitudes score				
0.002	1.002	0.002	1.002	
Size of local social network	-0.002	0.998	-0.004	0.996
Size of non-local social network	-0.002	0.998	-0.103	0.902
Phone, Calling local social net			0.006	1.006
Phone, Calling non-local social net			0.180	1.198
Phone is essential for keeping in touch (1-5)			0.086	1.089
Careful of cost (1-5)			0.088	1.092
Could spend hours using phone (1-5)			-0.070	0.932
Only use phone when I need to (1-5)			-0.216	0.729*
Constant	-0.030	0.971	-1.102	0.332
n	482		503	
Nag. R. sq	0.533		0.300	

Variable (contrast)	Model 2 2.1 Internet Dropout		2.2 Mobile Dropout	
	B	Exp (B)	B	Exp (B)
Household level variables at wave one				
Household type (alone under 56)				
Alone over 55	-10.201	0.000	-1.527	0.217
Unrelated others	-9.007	0.000	-2.205	0.110
Lone parent, children < 16	0.472	1.603	-2.663	0.070
Lone parent, child > 15	-1.099	0.333	5.632	5609.321
Couple, household 'head' < 36, no child	-1.194	0.303	1.960	0.141
Couple, household 'head' > 36, no child	-1.722	0.179	6.526	682.733
Couple, respondent > 55, no child	-4.939	0.007+	6.704	815.504
Couple, all children < 12	0.230	1.258	7.224	1372.409
Couple, at least one child > 11	1.757	5.792	7.556	1912.299
Couple, at least one child > 15	-2.867	0.057		
Number of cars in home	1.066	2.904+	-595	.552
Number of people in home	0.484	0.616	786	2.195+
Household phone bill	-0.028	0.972+		
Gender (female)	0.481	1.617	1.467	4.337*
Age (16-24)				
25-34	-5.452	0.004**	-487	.614
35-44	-3.680	0.027**	-2,088	.129
45-54	-5.454	0.004**	-720	.487
55-64	-3.563	0.028	-1,453	.234
65-74	-3.370	0.034	7,924	2763.094
75+	-9.999	0.000	-1,902	.149
Education (Degrees)				
A level or equiv	0.021	1.022	-1,644	.193
GCSE or equiv	-0.696	0.498	-603	.547
Failed GCSE	-13.898	0.000	-190	.827
None	-2.500	0.082+	-557	1.745
Working status (working)				
unemployed	-0.113	0.893	-7.219	.001
retired	2.522	12.447	-7.230	.001
maternity leave	-4.342	0.013		
looking after family/home	-0.011	0.989	-399	1.491
full time student/school	-1.335	0.264	-9,715	.000
long term sick/disabled	-7.137	0.001	-6,395	.002
Government training scheme	10.193	26708.357		
Other	-0.113	0.050		
Personal internet experience (2+ years)				
Not a user	7.215	1399.343**		
Under 6 months	2.407	11.104*		
6 months to 2 years	0.695	2.003		
3+ years	0.019	1.019		
PC attitudes score				
Number mobile calls made			-226	.798
Size of local social network			-0.002	.998
Size of non-local social network			-0.005	.995
Phone, Calling local social net			-177	.838
Phone, Calling non-local social net			515	1.674
Phone is essential for keeping in touch (1-5)			-384	.681
Phone is essential for keeping in touch (1-5)			-366	.694
Could spend hours using phone (1-5)			532	1.702+
Only use phone when I need to (1-5)			-531	1.701
Only use phone when I need to (1-5)			-439	.645
Transition variables at t+2				
Employer transition (all others including none)				
Retired from paid work	-4.272	0.014	-12,040	.000
Retired to work	0.694	0.500	-8,110	.000
Started work after education	1.706	5.509	-181	.834
Low job	-11.146	0.000	-7,188	.001
Began maternity leave	-2.650	0.071	-7,133	.001
Family transition (all others including none)				
Household member went to University	-11.620	0.000		
Was alone, now in couple	-4.745	0.009	423	1.526
Was couple, now alone	4.172	0.002	-6,711	.001
Lost access to a PC (1)	15.224	408833.279		

www.essex.ac.uk/chimera

Summary - the top line

- Persistent household internet poverty
 - At risk: women, couples with an older child; being a lone parent, especially with older children; alone over 55, mid to low educational qualifications, less well-off and having strong negative attitudes to PCs
 - Not age (proxy for the above)
- Persistent mobile poverty
 - At risk: younger child-less couples, those aged 45-54 and older couples, less well-off, least well educated (having no qualifications at all)
 - No effect: social network, perceptions of cost

www.essex.ac.uk/chimera

Summary - the top line

- Household internet dropouts
 - Most at risk: those with little or no internet experience (especially non-users!)
 - Least: 24-54
 - No effects: education, attitudes, changes in work/education/family situation nor for losing access to a PC (Lenhardt, Rice & Katz)
- Mobile dropouts
 - Most at risk: women (why?)
 - No other effects (cost, family/work transitions etc)
 - Other than gender, its random!

www.essex.ac.uk/chimera

So what?

- Dynamics matter (things look different)
 - Rates of 'churn' vary between groups and ICTs
 - Those who drop out may not be coming back
 - There are still cost and 'perceived value' or 'experience' issues with PC based internet in the UK
- Persistent Internet poverty 'worse' than mobile poverty
 - And more socially uneven (usual indicators of social deprivation are good predictors)
 - But costs and 'attitudes/experience' might be the only policy levers

www.essex.ac.uk/chimera

So what?

- So there's still a divide for 'PC internet'
 - And it may not be improving much (despite policy efforts)
- Mobiles are more equitably distributed
 - despite NO policy efforts - market provision by pre-pay :-)
- Without longitudinal data we could not know this
 - It is critical for evidence based policies and commercial strategies
 - But it is expensive to do
 - And takes time - right answers in the wrong time frame!

www.essex.ac.uk/chimera

So what?

- => Ubiquitous internet?
 - Only on a mobile!
 - And not for the elderly even then!

www.essex.ac.uk/chimera

Further reading

- Paper to appear in iCS (Aug 2005)
- Chapter in Kraut & Brynin (2004?)
- Chimera Working Paper
<http://www.essex.ac.uk/chimera/content/Pubs/wps/CWP-2004-06-Passing.pdf>
- Get the data:
 - Home OnLine <http://www.data-archive.ac.uk/findingData/snDescription.asp?sn=4607>
 - E-Living <http://www.data-archive.ac.uk/findingData/snDescription.asp?sn=3479>

benander@essex.ac.uk

www.essex.ac.uk/chimera