

# The impact of the internet on time-use

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## Introduction

- Project background
- Previous work
- Dataset
- Theory & hypotheses
- Results
- Conclusions & further work

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# Project background

- E-society project: “Is the increasing pervasiveness of information and communication technologies (ICTs) creating a significantly new society?”
- Possible changes in 5 issues.
  - Social life, Leisure, Travel, Shopping, Media use
- Multiple datasets.
- This talk: One ICT (the internet), one longitudinal dataset (Home Online).
- Issues of interest – social life / leisure.

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# Previous work

- Cross-sectional studies: Does use of the Internet have positive or negative effects on sociability?
  - Conflicting results; debate still raging! (e.g. Nie, Robinson)
  - Usual methodological problems (e.g. inaccurate estimations of time use)
  - Cannot look at change over time
  - Cannot infer causality
- Panel-diary study: Some aspects of sociability may actually be *enhanced* by web-use, e.g. eating out, going to cinema. (Gershuny)
  - Study uses pooled data, so only covariance can be examined ( $\Delta Y = \Delta X$ ), which highlights associations.

## Home On-Line - Final sample size of individuals, including children

	Wave 1 - 1998	Wave 2 - 2000	Wave 3 - 2001
Undefined		6	10
Survey plus diary	1093	649	723
Survey only	668	918	840
<b>16+ survey total</b>	<b>1761</b>	<b>1567</b>	<b>1563</b>
Non-response	273	391	321
Children's diary	163	82	73
No children's diary	125	220	208
Child under 9	286	289	231
<b>Total sample size</b>	<b>2608</b>	<b>2555</b>	<b>2406</b>

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## Home On-Line - Number of waves interviewed and number of waves for which a diary was completed

	Interviews	Diaries
(Always a child)	(697)	(697)
Never	462	1415
Wave 1 only	511	480
Wave 2 only	136	106
Wave 3 only	197	214
Waves 1 and 2	224	172
Waves 2 and 3	365	68
Waves 1 and 3	159	138
Waves 1, 2 and 3	842	303
<b>Total sample</b>	<b>3593</b>	<b>3593</b>

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# Activities of interest

- Home Online diary data has a number of activities that are measures of sociability. For example:
  - Making phone calls
  - Having friends visit
  - Playing sport
  - Eating and drinking out
  - Going to the cinema or theatre
  - Receiving phone calls
  - Seeing friends outside the home
  - Other hobbies
  - Voluntary work
- 35 activities in total. Others of interest to current project:
  - Shopping
  - www use
  - Travel
  - email
- Population of interest: People within the sample who got the internet (at home) between Waves 1 and 2. Differences in their use of time on a variety of activities can therefore be examined.

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# This study

- Theory: Changes at W2 *may* only show short-term time displacements / covariance.
  - Creation of a new activity takes up time.
  - Time spent on one activity displaces time spent on another.
  - “Novelty effects” of learning and playing with a new technology.
- Question of interest:
  - Do the short-term time displacements found at W2 lead to long-term time-substitutions, as the new activity is integrated into daily life?
  - Examine this by looking at what happens at W2 and W3.
- In this study, we attempt to demonstrate actual causality, using  $\Delta Y = \Delta X_{t-1}$ , where:
  - $\Delta X_{t-1}$  = change in DV between W1 and W2
  - $\Delta Y$  = change in IV between W2 and W3

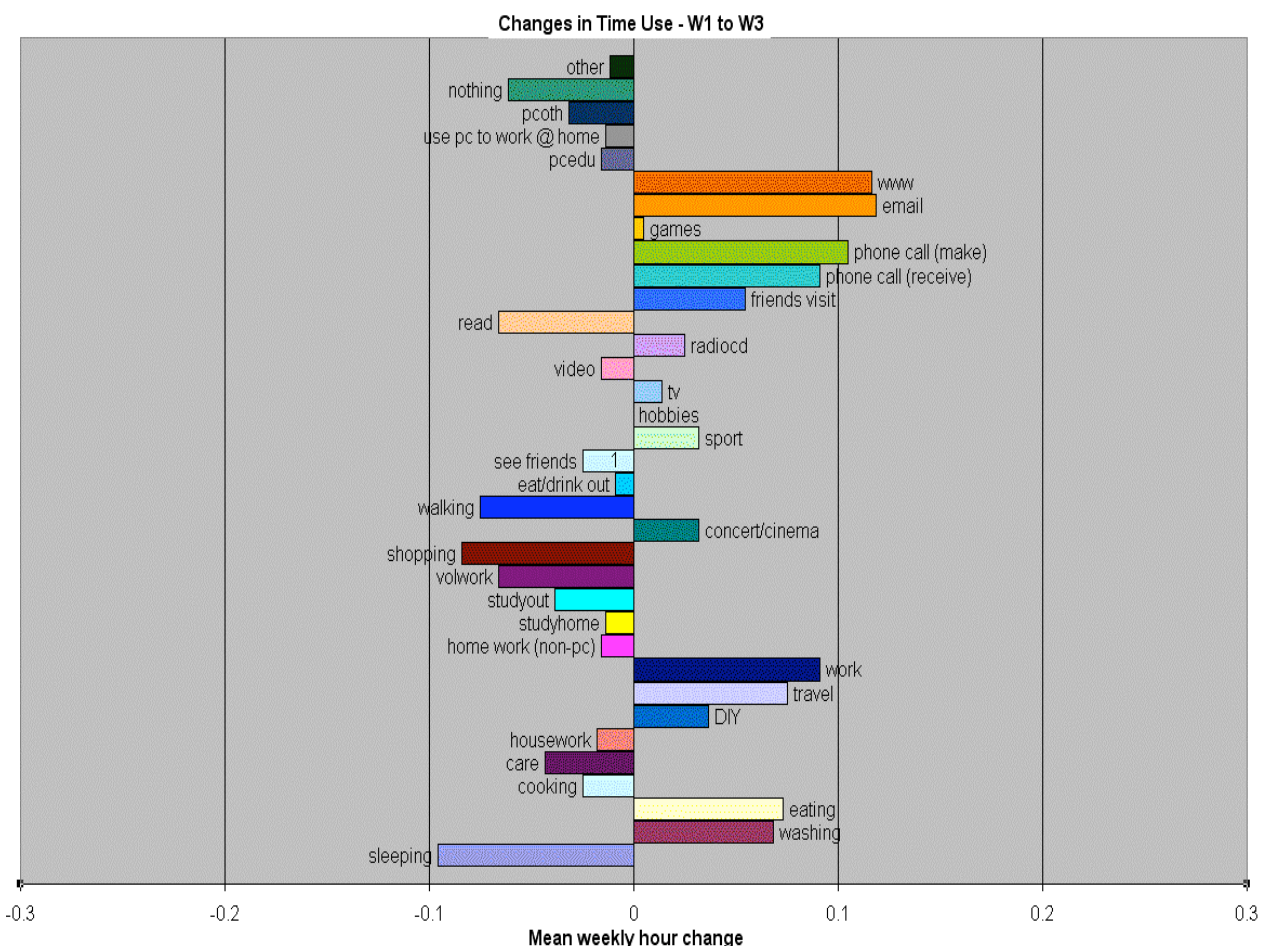
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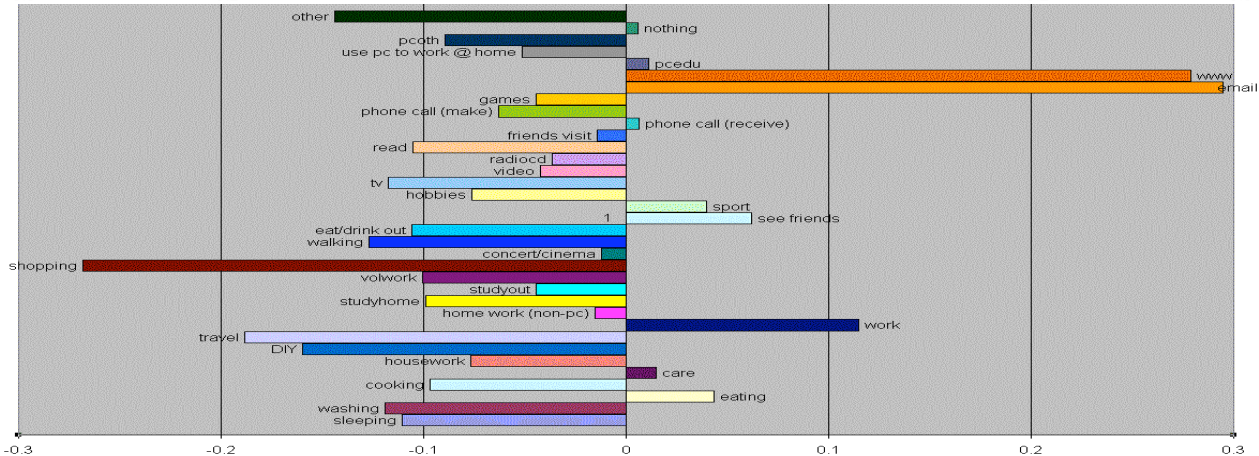
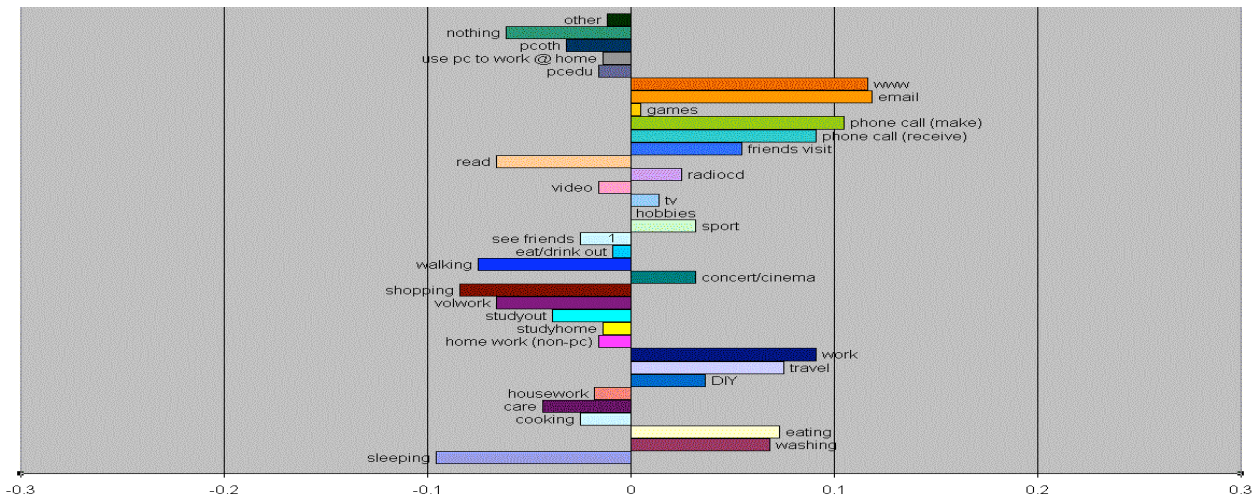
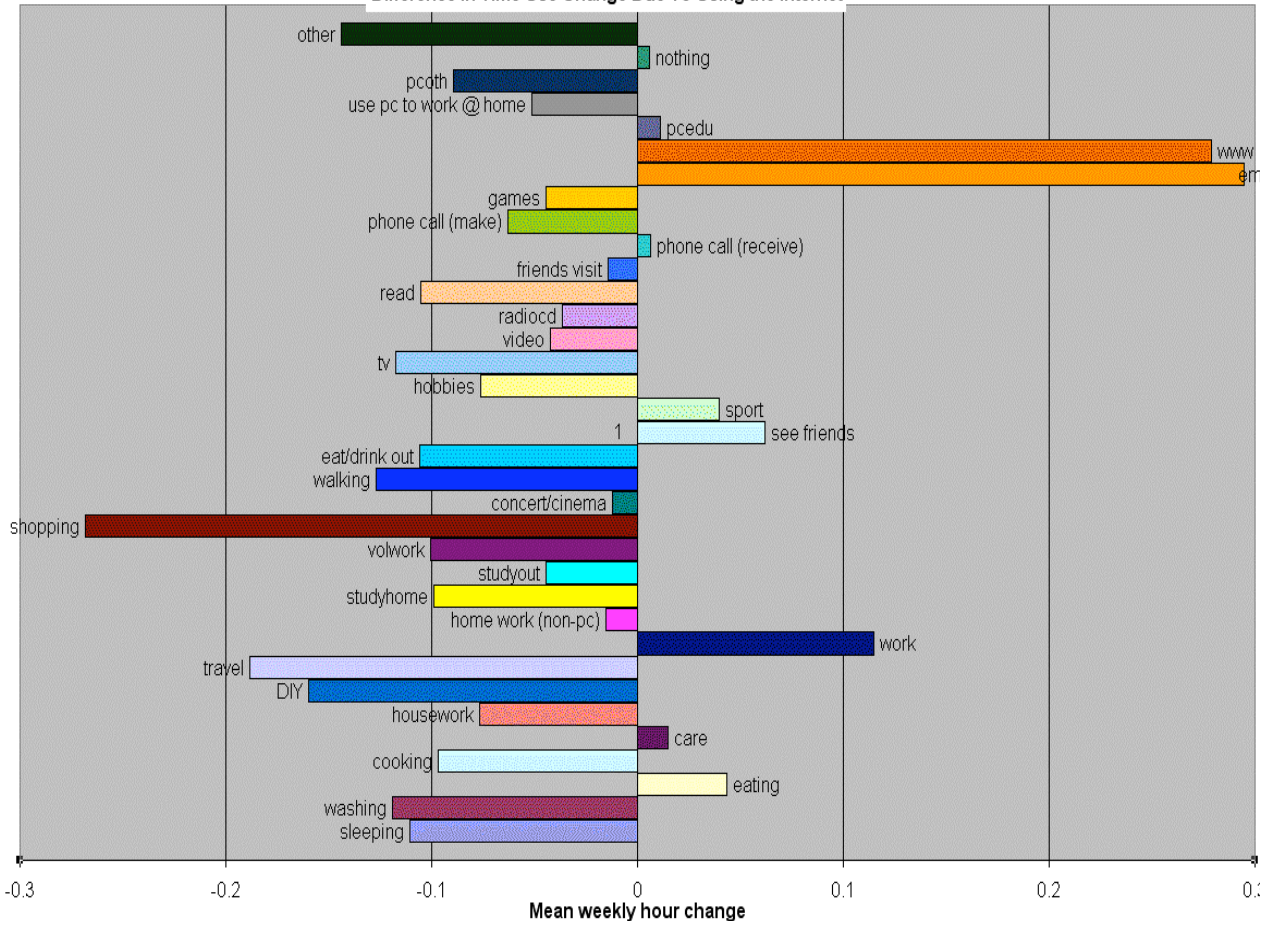
# Hypotheses

- The effect on change in time spent on activities according to the change in time spent on the internet (www/emails) (t-1).
- The effect on change in time spent on the internet according to the change in time spent on activities.
- **Also have variable of whether participants went online or not, so:**
- The effect on change in time spent on activities according to whether participants went online or stayed offline.
- The effect on whether participants went online or stayed offline according to the changes in time spent on activities.
- Limitation: PSTN only.

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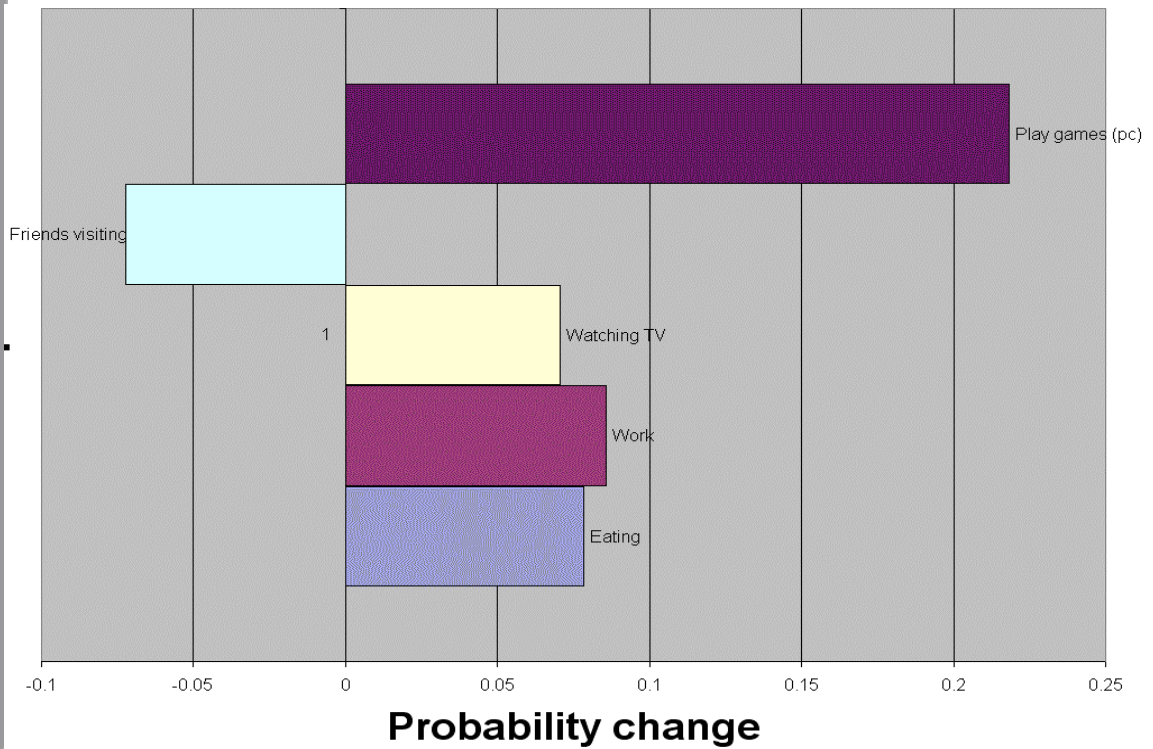


Difference in Time Use Change Due To Using the Internet

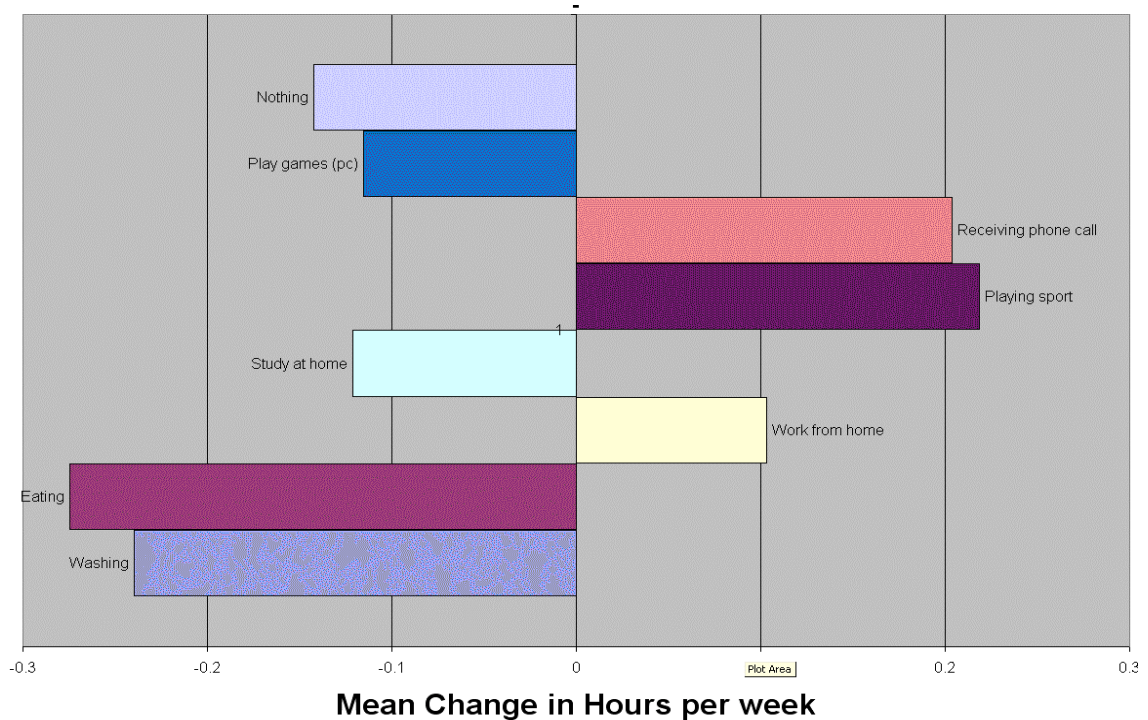




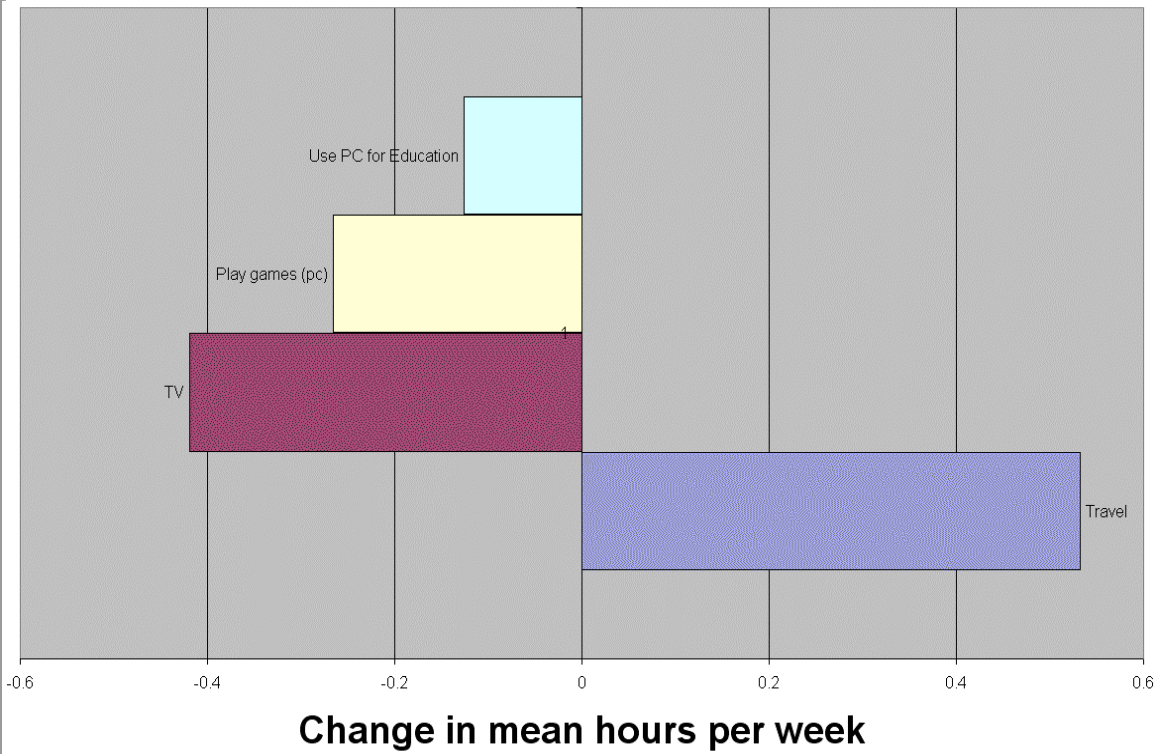
## What difference does changes in time use make on the *probability* of getting the internet?



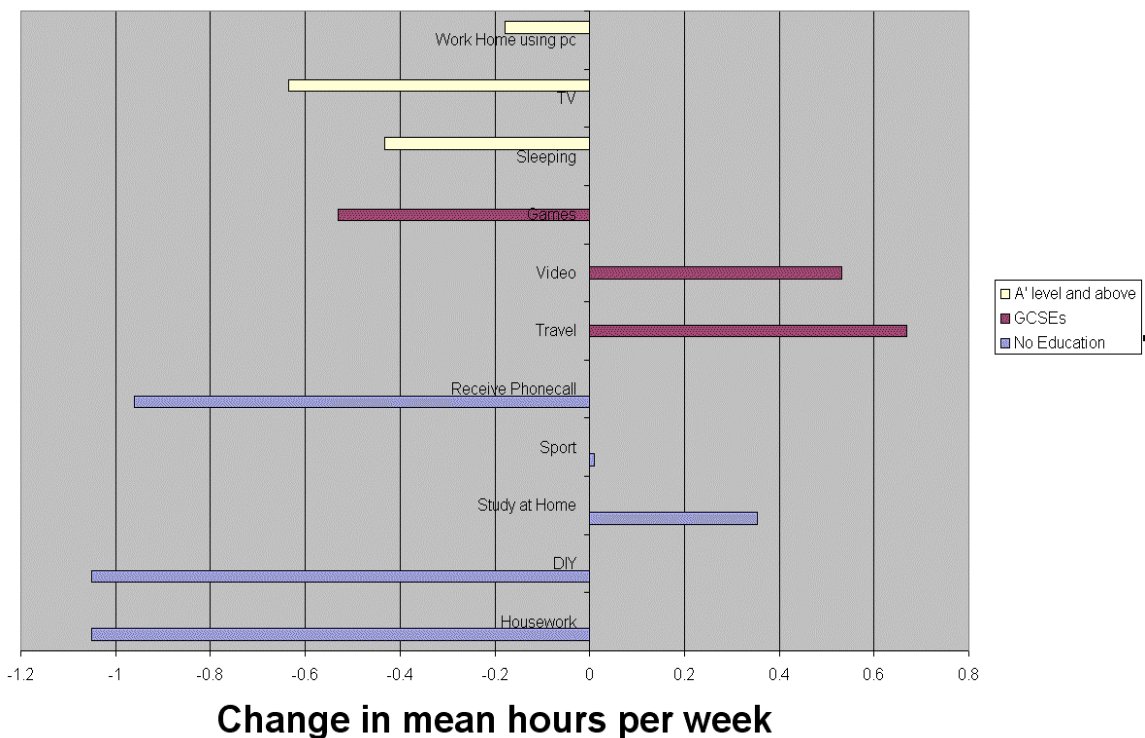
## What difference does getting the internet make on time use?



## Does using the WWW for more or less time have an effect on time use?



## WWW effects on time use by education levels





## Conclusions:

- Little evidence that using the internet has any significant effects on sociability, one way or the other.
- Problems: PSTN only. Any longitudinal datasets with broadband data?
- Further work:
  - Examine other datasets & other ICT (e.g. mobile phones).
  - Examine sub-populations.

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## Thank you

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