## **Current Progress**

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- http://www.geog.leeds.ac.uk/people/a.turner/p rojects/MoSeS/documentation/meetings/archi ve/2006-12-20/CurrentProgressAndyTurner.pdf

# Demographic Modelling Background

- Aim to develop a demographic model of the UK population from 2001 to 2031 at individual, household and small area level
- Base the model on available 2001 UK Population census data
- Proposal
  - Select from the SARs and fit to aggregate census area statistics

## Progress as of a year ago

- 12 months ago
  - After 6 months work, an age and gender constrained and parallelised version of a population initialisation based on the Individual SAR was set running for the UK
    - Optimised for a selection of variables
      - Household composition
      - Health
      - Employment
- The results were available by around February and provided to Belinda for dynamic simulation

## Progress in the last year

- The data provided to Belinda could not easily be formed into households
  - The household formation code was integrated into the population initialisation routine so as to provide individuals that could be aggregated into households
    - New data was generated for the UK
- In March the Household SAR became available
  - It was decided this should be used
    - A new version of the population initialisation code was to be developed

#### Complications

- Move to use MSOAs
- Sampling without replacement was demanded, but this was unreasonable
  - Once the code worked I realised some results were poor
  - In general the results were declared poor
- A new version using sampling with replacement was developed
  - Alternatives, such as boosting the household SAR data were considered

#### Progress in the last month

- Data visualisation programs were developed to compare observed and expected statistics at small area level
- Data analysis lead to more rapid development cycle
  - The results improved to a level where Mark has confidence in the continued development of this part of the project
    - At the last progress meeting it was decreed that if results were not shown to be sufficiently good in the next week that a different method based on IPS would be developed instead

## **General Progress**

- Embracing open e-Research
  - Web content development
    - Blog it all
    - Distill the information
    - This is now saving me time and enhancing my research considerably
  - Open source
    - Using open source APIs
    - Publishing code as open source
  - Collaboration
    - Becoming networked and plugging our efforts

## Organisation

- People are the most important part of any organisation
- Team work is essential to our success
  - I think we are doing well
  - We are always challenged to do better
- Concerns over communication
  - More regular developer meetings
  - I want to know more about Mark's work
- I want to know more about Belinda's progress