

Report of the 2007 BSPS Annual Conference, held at the University of St. Andrews, 11-13 September 2007.

Plenary sessions.

Owing to illness over the summer Phil Rees, regretfully, had to withdraw from his planned plenary session. BSPS is, therefore, extremely grateful to Professor **John Stillwell** of the University of Leeds and **Guy Goodwin** of the Office for National Statistics (ONS), who put together two very interesting and challenging presentations for the first plenary session under the overarching title of *Developments in British Demographic Research*. John began, with an insight into the ESRCs key research challenges and the initiatives being taken to address them. These challenges include gaining further understanding of succeeding in the global economy, energy, the environment and climatic change, understanding individual behaviour and its relationship to biological and social determinants, population change, international relations and security, and religion, ethnicities and society.

He then expanded on the Population Change challenge as it was most relevant to the conference. The research in this area is geared towards understanding more about the processes of demographic restructuring, including the interconnections between declining fertility, migration and ageing in the UK and how they compare internationally. The ESRC currently funds four initiatives relevant to improving the understanding of population change. These include the New Dynamics of Ageing programme, UPTAP (Understanding Population Trends and Processes), the Centre on Migration, Policy and Society and the Centre on Micro-Social Change.

John then spoke in more detail about the UPTAP initiative for which he is co-ordinator. He explained that UPTAP was set up to build up capacity in secondary analysis and promote the use of large scale data sets. It is designed to help early to mid-career

researchers gain valuable experience, and expand research into demographic trends and socio-economic processes that affect the economy, society and population.

Some of the UPTAP projects funded from the submissions in Round 1 started in October 2005. Twenty-five projects were commissioned from some 40 researchers, who were awarded funding to carry out the research in the form of post-doctoral fellowships, mid-career research fellowships, grants and studentships. The themes of research included: demographic change; residential change; fertility, motherhood and childlessness; living arrangements; child care; cohabitation; mobility; health and wellbeing; employment; education; identity, ethnicity and segregation; social and political values.

Since then the ESRC has funded another round of projects with a special theme of ethnicity and is about to announce further funding for around 10 fellowships. John encouraged early and mid-career researchers to consider the benefits of a fellowship to their work and their career.

Guy then spoke on *Demographic Research – Delivering through partnerships*. He took the audience through a whistle stop tour of demographic research in the ONS, speaking first about the creation of the ONS Centre for Demography (ONSCD) in 2006 to set the context. ONSCD was formed from the Population and Demography division, with the objective of refocusing the work of the centre and giving it a clearer structure. ONSCD along with their key stakeholders the UK Population Committee and the National Statistics Centre for Demography Advisory Board (which both have a wider remit covering the demographic work in the devolved administrations as well as ONS) highlighted two key high level challenges for the centre. These were to carry out more analysis and less production to enable the centre to be better equipped to explain more about population change and also to prioritise the research needs of key customers and collaborate with other government departments and

users to decide who would be best suited to complete the work.

Guy commented that ONSCD and the ONS as a whole have had a good history of collaboration through ONS Methodology's ongoing contract with the University of Southampton, the 'Focus on' series which provides an up-to-date overview of topics such as Older People, Migration and soon Families, and involves a pooling of research by academics and other experts in government, and lastly the Census topic working groups. Guy also noted that collaboration had begun between the ONS, the Scottish Executive and the ESRC, looking at taking forward some of the good ideas in Scotland's Demographic Research Programme to use for England and Wales.

In the future, Guy saw the centre forming more partnerships to build up the centre's staff expertise. These partnerships are likely to include working with ESRC-funded PhD and MSc students to further the centre's research priorities and support the students in terms of access to and knowledge about data. It is also hoped that work with the Migration Statistics Task Force will continue, investigating further the use of administrative sources for measuring migration.

He saw the main research priorities as:

- further understanding and reconciliation of the differences between the mid-year population estimates and the census;
- developing our knowledge of population ageing and its implications;
- understanding and reporting on trends in the living arrangements of older people;
- understanding more about who emigrates and in particular more about older migrants;
- furthering understanding of the changes in family structure;
- understanding the relationships between housing and population growth;
- expanding the understanding of changing trends in fertility.

In the questions that followed 'whether or not research should be one of ONSCD's priorities' was queried. Guy felt that in order to provide good quality estimates and reporting, a thorough understanding of the dynamics underlying population change is necessary. However, he did also note that the centre would be prioritising research needs and assessing the most appropriate means to carry out the research.

Professor **Jan Hoem** of the Max Planck Institute for Demographic Research presented the second plenary, on *Early traces of the Second Demographic Transition in four countries in transition: A joint analysis of two*

competing risks. The two main themes of the presentation were the changes to family structure taking place in Eastern Europe and the new method that has been developed in order to allow the joint analysis to be undertaken.

He began by highlighting the fundamental decline in fertility that has been seen in Eastern Europe and posed the question of whether this has been caused by the Second Demographic Transition (SDT), seen previously in Western Europe. SDT is characterised by declining marriage rates and increased entry into cohabitation, along with declining fertility rates, a trend towards later births and an increase in union disruption rates. Using data from the Generation and Gender Survey (2004) for four Eastern European countries (Russia, Bulgaria, Romania and Hungary) he showed that since 1980 cohabitations have increased 2.5 times whilst marriage rates have fallen by half.

He then moved on to describe the new method, based on an extension of piecewise-constant hazard regression, which analysed jointly the competing risks of a woman entering either cohabitation or a marital union. For Russia, this analysis showed that marriage was 3 times as likely as cohabitation in the period 1980 to 1984 but a complete reversal had taken place by 2000 to 2004 with cohabitation 3.5 times more likely than marriage. Overall results showed that all four countries had declining marriage rates, whilst Russia, Romania and Hungary had increasing rates of cohabitation. However, no direct relationship was found between the start of demographic changes and the varying political situations in those countries.

Jan suggested that there is a clear indication of the SDT in Russia, Romania and Hungary. He also showed that Bulgaria's experience appears to have been different, although declining rates of conversions of cohabitations into marriages and anecdotal evidence suggest that the presence of the SDT should not be ruled out. He concluded that the SDT has reached Eastern Europe, but with differing national circumstances, resulting in variations in both timing and effect.

Time was allowed for questions at the end of the session, one of which asked whether there could be other reasons underlying the demographic changes, such as ethnic differences. Jan confirmed that work had been done to look at the effect of other demographic variables, for example differences between Roma and other populations. However, he stressed that the limitations of the data meant that the aim of the research was to identify the changes characterising the SDT, not to try to assess the specific reasons behind them.

Estimation and forecasting methods.

Two sessions featured presentations on methods of small area estimation, improvements to the reliability of existing data, novel projection methods and their interpretation.

Paul Norman (Leeds) described work to adjust 1991 small area population data produced by the *Estimating with Confidence* method. The main motive for this work is that since the 2001 census views on the levels of undercount in the 1991 Census (and the EWC project) have changed, so that the previous non-response adjustments were thought to be too large. Paul illustrated the effect of the adjustments to the EWC estimates using Bradford wards as case studies. For example, Bradford wards that were reducing in population between 1981 and 1991 have reduced more than previously thought, and wards growing in population have done so to a lesser extent. The presentation concluded with some implications of these changes. The reworked research has important effects on analysis of population change, population projections, indicators and rankings. Whilst it may not often result in different conclusions it may lead to alternative patterns and trends. The estimates from this extremely useful research will soon be available from a dedicated website, offering mid-1991 and mid-2001 population estimates for Census Output Area Geography, by single year of age and sex – contact Paul for more details!

Esther Roughsedge from GRO-Scotland described a method that is being used to derive *estimates of small area housing and household statistics from Council Tax systems*. Esther described how data from the Scottish Assessors Portal is used to produce data on type of property and number of rooms and how Council tax registration systems are used to generate household estimates for small areas. Estimates were compared with the census data to reveal high levels of agreement, with differences serving to identify important procedural issues such as assessor discrepancies. A presentation of the results was then given for several areas, to illustrate the usefulness of the statistics. Esther noted the compatibility of the data with the expectations of those with local knowledge. Finally, she discussed the proposal to abolish council tax in Scotland and the effects this would have on the estimation methods. The national address project was suggested as an alternative source of data – although in questioning it was noted that the usefulness of this system might justify the continuing collection of council tax data.

Andy Bates from ONS discussed developments of the *ONS small area estimation project*. The main purpose of this project is to produce an authoritative set of small areas estimates that are nationally consistent and

constrained to the ONS local authority mid year estimates. Andy described the process used to select the ratio change methodology as the most appropriate technique from several possibilities, and explained some of the data sources that are used, which include child benefit data, patient registers and the Department for Work and Pensions older persons dataset. Future plans will enable users to map these data; the small area estimates will also be used to generate population estimates for non standard boundaries such as National Parks.

To measure social housing demand **Jan Freeke** (Glasgow City Council) added *tenure* to the current General Register for Scotland cohort-component household projections which disaggregates by age and sex. To remove potential error ‘right to buy’ houses were controlled for, as a household tenure change can falsely indicate large migration patterns. Results have given council planners a better understanding of factors behind household change, especially for service planning. However, the model assumes demographic rates are standard throughout Glasgow which meant some inconsistencies in output and unstable migration flows. When questioned on the model Jan explained that the next stage of development is a tenure preference variable to give more accurate results of social housing demand.

Bernhard Babel (Cologne) presented *a multiple regression model predicting population change from fertility, mortality and migration assumptions over time*.

Using data from cohort-component projection results, his model is based around the effects of different demographic rates which allow a more robust form of looking at future population scenarios. The advantages of this modelling also include no further calculation need completing and it allows a comparison between scenarios. Bernhard was quizzed on whether other variables could be added such as tenure, which he confirmed, as the model is flexible. The regression model reproduced the population projections of the German Federal Statistics Office with nearly 100% goodness of fit (R square).

Alan Marshall (Manchester) summarised the key tenets of the 1954 National Parks and Access to Countryside Act and his *population projections for the Peak District and Cairngorms National Parks*. An overview of the current trends highlighted an increasingly elderly population with lowered fertility, and increasing out-migration associated with the parks. Projections used a cohort-component model disaggregating by age, sex, using economic activity and household headship rates with POPGROUP. Assuming current trends continue, migration will be dominated by pre-retirement in-migrants and 16 to 35 year old out-

migrants. There are difficulties with reversing this trend as landscape preservation and building more affordable housing create tensions.

Nestor Arcia Montes de Oca (Manchester) outlined *sampling issues for Cuban population research*, which makes survey estimates unstable. Alternative models using borrowed information, in this case a health survey, have been used to derive small area estimates within Cuba. Synthetic, composite and empirical Bayes (EB) estimation were the models used and assessed. Results highlighted that derived estimates had smaller variabilities than direct estimators. Nestor concluded that the data issue is still a problem but alternative models have a more accurate estimation of small area population characteristics.



Families and households.

The Families and Households strand was highly successful this year with four sessions spread across the conference.

The first session, headed *gender and family roles*, contained four papers and began with **Pia Schober** of the London School of Economics & Political Sciences (LSE) presenting *The Parenthood effect on British couples' division of paid and domestic work*. She began by outlining the rationale for the study, that is, that the transition to parenthood is a crucial time point in couples' life cycle from which social and economic inequalities between women and men start to widen. But what pre-parental factors can explain couples' division of paid work, housework and childcare responsibility after becoming parents? Using the British Household Panel Survey data, and with a focus on relative earnings and both partners' gender attitudes, the paper tried to demonstrate whether a couple's division of childcare, housework and paid work was less traditional when the woman's relative earnings were higher or when the woman's and man's gender attitudes were more egalitarian. Results showed that pre-parental division of labour and gender attitudes play the most important role, while relative earnings are significant only for housework. Men's gender attitudes are crucial for childcare and fathers do more childcare as a child gets older. The paper also compared this adaptation to changes occurring when couples have a second child. In an interesting discussion it was suggested the child's sex be considered in the analysis. Splitting analysis by whether couples were married or cohabiting was unlikely to be possible because of small sample sizes. Finally, on being asked whether the paper had considered interactions between men's and women's gender attitudes, Pia reported she had done that, but got

no significant results.

Daniele Vignoli from the University of Rome 'La Sapienza' presented a paper entitled *Does women's employment influence marital disruption in Italy?* co-authored with Irene Ferro from the University of Florence. Their work was initiated by observations that in recent decades, female labour-force participation has been increasing in most European countries. At the same time, a high incidence of divorce has been observed. He explained how a connection is often made between these two processes; changes in the economic role of women are hypothesized to have led to increasing family dissolution. Despite the strong attachment to the institution of marriage, Italy is also experiencing a continued rise in the number of divorces. But the question is in what way and to what extent does wife's employment status influence marital instability? The authors address this question using 2003 multipurpose survey data on 'Family and Social Subjects' produced by the Italian National Statistical Office. Findings demonstrate that women born in more recent decades; who marry at younger ages; who reside in the Centre and Northern regions of Italy; who have chosen a civil marriage; who have experienced a pre-marital cohabitation; and those who are highly educated, display a higher risk of marital dissolution. Daniele also noted that women's employment status unquestionably exhibits the highest positive impact on marital disruption, with respect to all other covariates introduced in the analysis. Several questions followed the paper. Asked whether he had controlled for the level of divorce by region, Daniele replied that he didn't, but this is something that could be done. Secondly, had the study taken into account whether it is men or women who initiate the separation and also the rate of their income? Daniele replied that the level of income had no effect on the rise of divorce and recognized they did not look at who initiates the separation.

The third paper, by **Wendy Sigle-Rushton** (LSE), examined the *intergenerational transmission of gendered behaviour* focusing on men's participation in the household in connection to men's relationship status, men's gender ideology, parents' division of household labour during childhood and finally mother's employment during childhood. Wendy explained that this paper uses data from the British Cohort Study and attempts to bridge a gap between the work of Cunningham (2001) and Gupta (2006). Using the Intergenerational Panel Study of Parents and Children (IPSPC), Cunningham found that men's performance of housework is significantly linked to their parents' division of housework when they were children. Gupta (2006) found, using the National Survey of Families and Households (NSFH), that, for men, the link between mother's employment and subsequent

contributions to unpaid work is moderated by experience of parental dissolution. Men whose mother worked when they were children perform more housework as adults, but only if their fathers were present during childhood. Wendy noted that her paper extends the two previous works by including men who experienced a parental divorce or separation - excluded in Cunningham's study - and also considers both mothers' paid work and fathers' contributions to unpaid work during early childhood - excluded in Gupta's study. The paper also asks whether or not different patterns are mediated or moderated by parental dissolution during childhood and adolescence. The results show that there is weak evidence for a link between parents' behaviour and sons' subsequent behaviour. Also there is a little evidence that fathers' housework or disruption mediates the effect of mothers' paid work. In discussion, one suggestion was that type and length of employment could also be used in the analysis.

Rebecca Sear (LSE) presented the final paper of the session, written with Ruth Mace from University College London on *It takes a (maternal) grandmother to raise a child? A review of the impact of kin on child survival*. This study follows from the observation that the extended period of childhood dependency and short inter-birth intervals of human species mean that mothers have to care for several dependent children simultaneously. Rebecca pointed out how it has been argued that in traditional societies this is too much of an energetic burden for mothers to manage alone, and that they must enlist help from other relatives. To establish whether the presence of kin in providing mothers with help raising children affects child survival rates, the paper reviewed 45 studies which have investigated the effect of at least one category of kin on child survival. These studies come from (mostly) natural fertility populations both historical and contemporary, across a wide geographical range. The findings suggests that while help from kin may be a universal feature of human childbearing, who helps is dependent on environmental and social conditions. Maternal grandmothers tend to improve child survival rates, as do older siblings.

The second session of three papers covered the topic of partnerships and children. **Monica Magadi** (Department of Sociology, City University) began the session by presenting the *extent and risk factors of severe child poverty in the UK*. The study's aim was to establish the extent of severe child poverty in the UK, examine its characteristics and identify the factors that place children at most risk of being severely poor. The study used the 2004-05 Family Resources Survey and created three indicators to measure severe child poverty: child deprivation, parent deprivation, and

household income poverty. The measures were designed to take account of the multi-dimensional nature of poverty, encompassing a variety of dimensions and not just income. Monica explained that material deprivation indicators should compensate to some extent for the misreporting of income, which can be a particular problem at the lower end of the income distribution. The results highlighted variations in the characteristics of severe poverty. There is a relatively high likelihood of severe poverty among children: living in London; with workless parents; whose parents have low educational attainment; in large families of four or more children; from ethnic minority groups, especially of Asian origin; and in families with disabled adult(s). There is also evidence that non-receipt of benefits in the family is associated with high experience of severe child poverty, an issue which was suggested for further research. In the discussion it was confirmed that the findings had been presented to the DWP, that more work was required to understand those in severe poverty not receiving benefits, and that the analysis controlled for economic activity which removed the 'lone parent' effect. A brief discussion of ethnic minorities and languages at home highlighted that a richer data source would be useful and that further analysis by smaller ethnic groups was not possible due to small samples.

Peteke Feijten (University of St. Andrews) presented the second paper (co-authored with Maarten van Ham) showing the *impact of divorce on migration and residential mobility*. The research considered the spatial aspects of housing careers after divorce. As Peteke explained, it is expected that divorce has an impact on migration and residential mobility, for example due to increasing complexity of social ties after divorce. These expectations were tested using data from the British Household Panel Survey and the National Child Development Survey. Three aspects of moving behaviour after divorce were analysed: occurrence (do divorced people move more often than others), distance (do divorced movers move over shorter or longer distances than others) and direction (do divorced movers move to and from different residential environments than others). The results showed that: for occurrence, divorced people do move more often; for distance, divorced people move slightly shorter distances; and for direction, there was no increase in the likelihood of moving to a city following divorce. The paper also analysed how the effects of divorce on these aspects differ between men and women, people with and without children, and in the shorter- and longer-term after the divorce. The discussion confirmed that these results were important for household projections because separation and divorce often required both partners to move, including moves from owner occupied to rented accommodation. It also highlighted

that moves relating to employment had not been controlled for (but that this could be done) and that the BHPS may suffer greater attrition for the separated and divorced.

Thomas J Cooke (University of Connecticut) presented a *longitudinal analysis of family migration and the gender gap in earnings in the United States and Great Britain* (co-authors were Paul Boyle, Kenneth Couch and Peteke Feijten). Longitudinal data for Great Britain and the United States was used to examine the impact of residential mobility and childbirth on the earnings of women, their family incomes, and the related division of earned income by gender. The study used the Cross-National Equivalent File (CNEF), which contains equivalently defined variables for the Panel Study of Income Dynamics (PSID) and the British Household Panel Study (BHPS), the results indicated that families respond in similar ways in both countries to migration and childbirth. In response to both, earnings fall at the time of the event and recover slowly afterwards, but the magnitude of the impact is roughly twice as large for childbirth as for migration. Thus, both childbirth and migration represent events that affect the relative economic position of women within the household as it reduces their earnings relative to their spouses. By neglecting migration, empirical analysis of the effects of childbirth on women's earnings may be overestimated. Thomas highlighted that the work was intended to show economists the importance of both residential mobility and childbirth on women's earnings. The discussion highlighted a number of areas for further research: exploring part-time work, single females, and the effect of migration distance. In response to a question asking what factors caused the move, Thomas explained that the study was not designed to investigate cause. Earnings were admitted to represent only part of the picture and the hedonics, wellbeing and the psychological affects of migration were also important.

The third session headed *Transitions to childrearing and partnerships* contained four papers. The first, presented by **Dylan Kneale** (Centre for Longitudinal Studies, Institute of Education, University of London - co-authored with Heather Joshi) was entitled *Social polarisation and timing of motherhood in Britain*. Dylan presented results from analysis of the two national birth cohort studies, the National Child Development Study (NCDS) of 1958 and the 1970 British Cohort Study (BCS). The aims of the study were: (1) to explore levels of polarisation within and between the two British birth cohorts and examine rising levels of childlessness; (2) to extend the analysis to males and examine whether they too are predicted to live their lives childless; (3) to examine some of the determinants of fertility differentials such as women's

education attained at various ages, and explore whether it is actually a change of composition within groups that accounts for the reported increase in polarisation of time of birth. The analysis showed that despite the gap of only twelve years between the 1958 and 1970 cohorts, both grew into very different British societies. In particular this was shown by changes in educational achievement. There was a noticeable shift in patterns of childlessness, with 26 per cent of graduates childless by the age of 33 in the NCDS and 36 per cent by the age of 34 for the BCS70. There was less movement in terms of social class with categories relatively constant in number between the two cohorts. There was also little difference in terms of composition of social class and educational achievement; 11 per cent and 12 per cent of the graduates respectively for the NCDS and BCS70 were from the highest social class category. The results showed a clear gender split for age entering parenthood with men entering it later than women in all three age points analysed i.e. 20, 25 and 34 years in both cohorts. The results also showed that similar proportions of early parents exist in both cohorts but differences open up in early and mid twenties. At the age of 34, 68 per cent of the males and 78 per cent of the females in the NCDS had entered parenthood. The corresponding percentages for the BCS70 cohort were 53 and 69 per cent. For both sexes, highest educational level was shown as a marker of polarisation for transition to parenthood by the age of 34 years. Cohort members with tertiary level qualification experienced the slowest rates of transition to parenthood of any group. Based on the existing levels of polarisation and using five methods for predicting future trends i.e. (i) NCDS parenthood, (ii) postponed NCDS parenthood, (iii) flight from parenthood, (iv) covariate specific flight from parenthood, (v) covariate specific postponed flight from parenthood, Dylan presented predicted results of parenthood for the BCS70 female and male cohorts of tertiary qualified, with intermediate and no qualifications, for the tertiary qualified split vocational versus academic and by subject of tertiary qualification.

Dylan also presented results comparing information on intentions to bear children and infertility of cohort member and/or partner collected in both cohorts. The comparison gave an indication that the BCS70 cohort is postponing rather than avoiding parenthood.

Alexandra Skew (University of Southampton) then presented a paper entitled *Leaving lone parenthood: analysis of repartnering patterns in the UK*, co-authored with Jane Falkingham and Ann Berrington. Alexandra began by emphasising the wealth of literature on lone parents from different standpoints such as demographic, social policy, sociological and psychological. She mentioned that the majority of the research in this area has focused on 'stocks' of lone parents rather than 'flows' into and out of lone

motherhood. Previous research on flows has also shown that different factors are involved in the paths to becoming a lone mother. The aim of the study was to explore whether re-partnering patterns are different for each type of lone parent. The British Household Panel Survey (BHPS) data for the period 1991-2003 were used in the study. The research followed the experience of women who were lone mothers at the start of the survey in 1991 as well as those who became lone mothers throughout the life of the 13 years panel. The final sample consisted of 447 previously partnered lone mothers of whom 41 per cent were found to repartner and 96 single never-married lone mothers of whom 38 per cent were found to repartner. The method used consisted of exploratory analysis (life table approach and simple event history models) and multivariate analysis (discrete time event history model – measuring time to repartnering and its association with a number of socio-economic factors). Results were presented for timing of repartnering, the duration of lone parenthood and the types of unions formed for the sample of previously partnered lone mothers. Results showed that the probability of repartnering decreases the longer someone is alone. Age was the most important factor. An interesting question raised at the end of the presentation was related to ‘living apart together’, a variable that had not been included in the study. Next steps of her research would be to complete the analysis for single never-married lone mothers and pool the results of the two samples.

Ernestina Coast (LSE) presented a paper entitled *Currently cohabiting: relationship attitudes and intentions in the BHPS*. She began by providing a brief overview on cohabitation. She defined it as a ‘fuzzy’ and heterogeneous subject mentioning the evolving normative attitudes towards marriage; evidence on this being provided with the presentation of analysis undertaken using the BHPS 2004 data on normative attitudes’ questions by birth cohort. She presented the results of analysis carried out using successive rounds of attitude and intention questions from the BHPS waves 2 (1998), 8 (1998) and 13 (2003). Analysis was undertaken for current cohabiters (n=398 couples) at both individual and couple-level responses to explore their positive and negative attitudes about cohabitation, intention on future marriage and how intentions vary by socio-demographic characteristic and duration of current relationship. Ernestina also presented results on couples’ conflicting relationship attitudes and expectations and on relationship outcomes by 1998 relationship expectations of cohabiting couples.

The last paper in this session on *Parenting Style in Britain* was presented by **Tak Wing Chan**, co-authored with Anita Koo (University of Oxford). Using data from the Youth Panel of the British Household Panel

Survey, Wing presented the results of analysis undertaken to: (1) examine the pattern of parenting style in the UK, (2) determine empirical correlates of parenting style and (3) explore whether parenting style correlates with various youth outcomes such as subjective well being and self-esteem, health and problem behaviour, post-16 school enrolment and GCSE results. The sample consisted of 15-year-olds in BHPS households, 1994-2001 (n = 1,456). By applying latent class models to the BHPS data, empirical typology consistent with theoretical work on parenting style in psychology was obtained for three parenting styles. These were the authoritative, authoritarian and permissive parenting styles. The study initially explored the social and demographic correlates of parenting style, focussing on social class and family structures. Wing presented the distribution of the three parenting styles by: (i) family types i.e. two parents, single parent and step family types, (ii) social class background and (iii) parental education. Multivariate analysis was used to explore the association between the parenting styles and the social and demographic variables. To explore the parenting style in children’s subjective well being and self-esteem, the researchers constructed indicators/scales using data from the BHPS. Multivariate analysis was also used to explore parenting style and health-related, behavioural problems, GCSE results and post-16 school enrolment (i.e. respondent enrolled as a full time student at age 17). Data on health, behaviour and education were from the BHPS questions. Parenting styles as identified in the study showed clear associations with outcome variables related to subjective well being and self-esteem, health, behaviour, educational decisions and exam results.

The final session was notionally entitled marriage markets. Unfortunately Mike Murphy (LSE) was unable to be at the conference to present his paper on that topic. The session begun with a paper substituted at the last minute by **Steve Smallwood** (ONS) entitled *The matrix revisited*, on work carried out with Oliver Duke-Williams. This paper gave an update to work previously presented at last years EAPS conference, looking at the quality of the relationship matrix in the 2001 Census using the household sample from the ONS Longitudinal Study. Steve first explained the operation of the matrix and then reviewed some of the issues found with completion of the matrix in other work. Despite these errors, the Census Quality Survey found that overall the relationship questions worked very well. Further issues identified in the Beta test of the 2001 LS link were then discussed. These included a lack of provision for in-laws and problems where more than one category could apply. It was noted that larger households were subject to a greater degree of relationship imputation. Oliver and Steve had developed triangulation checks for data consistency by

looking at the relationships between three people and checking whether the third relationship in the triangle was given the other two relationships. High levels of error were seen in the relatively rare incidences where step parents and grandparents were involved. More work on both the design of the matrix and the processing and imputation is being done towards the 2011 Census. It was noted by the audience that the relationship matrix was a welcome development, however concern was expressed about the complexity for respondents and the accuracy of the imputation process in 2001 was questioned. It was also noted that relationships are not always sensible, can be transient, and can depend on interpretation.

The second presentation *Divorce: The chances of divorce and the effects of age difference* was delivered by **Ben Wilson** (ONS), reporting on work carried out with Steve Smallwood. This presentation updated previous ONS work on this topic and presented a potentially new approach to producing the base population required. After an initial look at changes in the number of and rates of marriages and divorces in England and Wales, issues with accurately calculating divorce rates were discussed including mortality data (lack of information on death certificates), the effects of marriage abroad and migration. A new method for producing the population at risk of divorce by duration of marriage was presented. While marriage rates had been falling divorce rates have stabilised over the last 20 to 30 years. This suggests that a greater proportion of marriages are likely to end in divorce. The second part of the presentation looked at initial work on whether couples with larger age differences were more likely to divorce. Initial analyses suggested that the age disparity of those divorcing for each marriage cohort are very similar to the age disparity at marriage which suggests that larger differences in age were not related to a higher risk of divorce. It was suggested that mortality might be a factor that masks an effect at higher ages. In discussion it was suggested a further area of research would be whether the marriage was a first marriage or remarriage. Mention was also made of possible ethnic differences.

The session ended with a presentation by Dr. **Maarten van Ham** (Institute for Futures Studies, Stockholm, Uppsala University, University of St. Andrews) on *The globalisation of Swedish marriage fields*. Marriage fields are said to have grown due to increased internet meetings and more frequent meeting further afield than the local area. The marriage market consists of demand and supply, but is restricted by demographic composition of a country/ region. People tend to marry those with similar characteristics as a result of both opportunity and preference. International marriage markets differ however as, for example, lower social

status can be compensated for by attractiveness. This presentation focused on Sweden as an indicator of the globalisation of marriage fields, due to the unique longitudinal data available. A longitudinal micro-database of the entire Swedish population 1990-2004 containing detailed information on immigrants and their partners was utilised. The study focused on native Swedes (including 3rd generation immigrants) and foreign partners (married and cohabiting). A 'marriage migrant' was defined as those partnering within 12 month of immigration. The analysis highlighted an increase in immigrants and consistently in marriage migrants, since the mid-1990s. The strongest increase was seen in immigrants from Asia, especially Thailand. Surprisingly increases were seen in both sexes (40% of marriage migrants were men). However, while female marriage migrants were mainly Asian or Russian, male marriage migrants were mainly European. It was also found that marriage migrants were relatively highly educated. An interesting discussion was generated, including the reliability of self reported education data on immigration, where there may be a tendency to over report. It was also noted that education itself was a strong motive for migrating.

Fertility and reproductive health.

The fertility and reproductive health strand included a range of interesting papers which examined the trends and patterns of modern fertility across the UK, Europe and the rest of the world. There were 11 papers on fertility which were presented in three different sessions and 3 papers focused on reproductive health issues. The strand was organised by *Sabu Padmadas* from the University of Southampton. All sessions were well-attended and filled with plenty of lively debate and discussion.

The first session, chaired by Tiziana Leone from the LSE, addressed three challenging papers on fertility transitions in the less developed world. **Gabriela Mejia Pailles** from the LSE presented her research on *sexual, marital and childbearing transitions of young men in Mexico*. Her research adopted a life course perspective to analysing the timing and sequencing of sex, marriage and births. The discussion focused on the possible reverse transitions of marriage and sex in determining the exposure to first birth experience among Mexican youth. The second paper questioned the recent stalling of fertility decline in Kenya. **Ekisa Anyara** and Andrew Hinde from the University of Southampton presented evidence of a puzzling trend in the reversal or *stalling of Kenyan fertility decline*, attributed to unmet need among people in rural areas resulting from a severe downfall in family planning efforts. The main

strength of this work was the integration of quantitative and qualitative data which led to an interesting debate among participants. The last paper in the session was on *Brazilian fertility transition* presented by **André J. Caetano** from Pontificia Universidade Católica de Minas Gerais. André gave an illustration on the interaction effect between quantum and tempo effects on Brazilian fertility taking into account contraceptive mix among spacers and stoppers and other structural factors determining individual fertility behaviour.

The second session, chaired by Sabu Padmadas, included four papers that addressed fertility issues in more developed and transitional countries. **Naomi O'Neill** from the Northern Ireland Statistics and Research Agency compared *fertility trends in N. Ireland* with the rest of the UK and Ireland, and showed the recuperation of low fertility from its record low 1.75 births per woman, attributed partly to the fertility contributions from Eastern European mothers. The second paper by **David Clifford**, Andrew Hinde and Jane Falkingham from the University of Southampton discussed *post-Soviet economic crisis and its impact on parity-specific fertility decline in Tajikistan*. David demonstrated evidence of the decline in overall fertility triggered particularly by a reduction in the first birth rate. The third paper was presented by **Aleksander Susel** from the National Louis University in Poland. Aleksander discussed *fertility differentials between native and non-native men and women in the US* based on data from the 2002 National Survey of Family Growth. The final paper of this session was on *the impact of international migration on fertility in England and Wales*, presented by **Julie Jeffries** and **Eva Natamba** from the Office for National Statistics. Their analyses provided compelling evidence of the increase in fertility among the migrant population and addressed the differences in actual and intended fertility between non-native men and women living in England and Wales. The presentation concluded with a lively discussion on the net impact of international migration on overall fertility in England and Wales.

The third session on fertility included four papers related to trends and factors associated with low fertility. This session was chaired by David Clifford from the University of Southampton. The first paper was presented by **Anna Matysiak** from the Warsaw School of Economics, jointly with **Daniele Vignoli** from the University of Rome. Anna presented results from *meta-analyses that examined the association between women's employment and fertility across different countries in Europe, the US and Canada*. The presentation addressed the relative influence of institutional and individual factors influencing reproductive behaviour in different settings and further explained the failure of previous research to account for

unobserved heterogeneity underlying the relationship between fertility and employment. The second paper discussed *future demographic prospects in Germany*. **Harald Wilkoszewski** from the LSE and Max Planck Institute for Demographic Research used microsimulation techniques to project kinship structures and highlighted the impact of current and anticipated fertility behaviour on the future growth of the elderly population in Germany. The third paper was presented by **Genevieve Heard** from Monash University which discussed the *results from the first wave of data from 2006 Australian Census*. Genevieve analysed cohort fertility in Australia and highlighted the reversal in fertility trends among natives in the context of current pronatalist policies. The final paper of the session was on *fertility trends in Great Britain*, presented by **Patrick Carroll** of the Pension and Population Research Institute. Patrick discussed the changes in individual career aspirations and socio-structural factors determining the costs of reproduction and their impact on current and future fertility in the UK.

The session on reproductive health was chaired by Sabu Padmadas and included three diverse issues in reproductive health research. The first paper was presented by **Ursula Henz** from the LSE on the *gender roles and values of childless couples in East and West Germany*. This presentation addressed key hypotheses about the higher affective value for children among East Germans compared to those from the West. The results confirmed the hypotheses and further highlighted the relative high value for children among low-educated employed women when compared to their educated counterparts. Ursula showed evidence of how value for children impacted the first birth rates in West Germany. The second paper was presented by **Alankar Malavia** from UNAIDS in India, jointly with **Ernestina Coast** and **Tiziana Leone** from the LSE. Alankar discussed the *demographics of gender-based violence in rural India and risk-related sexual behavioural outcomes*. His presentation outlined the importance of analysing individual perceptions of risky behaviour and how those corroborated with self-reported behaviour in the rural context where many women especially had poor awareness of their sexual and reproductive health rights. The final paper of this session was on *sterilisation uptake in the Dominican Republic*, presented by **Tiziana Leone** from the LSE. Tiziana discussed how social and community networks influence women's choices and decisions for sterilization in a Latin American context. Her research showed that women's exposure to information channels and social networking had a negative influence on female sterilisation choices in the Dominican Republic. The role of institutional and individual factors determining high rates of female sterilisation was discussed.



Health and mortality inequalities.

Session 1 chaired by Paula Griffiths, Loughborough University

The opening session of the health inequality strand at this year's BSPS conference saw an engaging mix of presentations that set a precedence for quality and interest for the remaining sessions. **Jon Anson** (*Ben-Gurion University of the Negev*) presented a paper entitled *Beyond material explanations: the role of family solidarity in mortality decline*. Jon gave an interesting talk, which discussed how one assesses family solidarity (being embedded in a network of social relationships), and how this relates to declining levels of mortality. He also highlighted the importance of looking at both material and non-material effects when examining changes in levels of mortality. Using data provided by the Central Bureau for Statistics, mortality levels (between 1993 and 1997) were compared between Israeli statistical areas ($n = 1301$). The results showed that both standard of living (material effect) and family solidarity (non-material effect) were independently associated with declining levels of mortality within this population. Jon concluded that male mortality was more sensitive to material conditions and that these contradictory effects between men and women were likely to maintain women's mortality advantage.

The second paper in this session, *Estimating the impact of household fuel pollution on the health status of young children in Bangladesh* was presented by **Pieta Näsänen-Gilmore** (*Loughborough University*) (with *Emily Rousham Loughborough University*). Pieta presented results from an 18 month longitudinal health survey ($n = 625$ households) in two areas of Bangladesh (semi-urbanised Saidpur and rural Parpatipur) which examined how the use of certain cooking fuels impacted on the respiratory health of children under five years of age. The results showed that 23% of the children within the sample were diagnosed with moderate/ severe respiratory tract infections, and that these children were more likely to be present during cooking. Pieta concluded that the use of inefficient traditional stoves for cooking significantly increased the risk of fuel-pollution exposure and also significantly increased the likelihood of children under five experiencing moderate/ severe respiratory tract infections within this community.

In the final paper of the first session, **Zoë Sheppard** (*Loughborough University*) (with contributions from *Paula Griffiths* and *Noël Cameron Loughborough*

University, *Shane Norris* and *John Pettifor University of Witwatersrand, South Africa*) presented a thought provoking paper on *Approaches to assessing the role of socio-economic status on child anthropometric measures in South Africa*. A review of the methodological issues of measures of SES showed that there were five principal analysis strategies. Using data from the Birth to Twenty (Bt20) study set in South Africa ($n = 888$), the authors tested several of these strategies. Primarily, linear regression models were applied to investigate the association between SES (as both an index and individual variables) in infancy and body composition outcomes at seven/ eight years. The results showed that infantile SES had a greater effect on childhood weight in comparison to childhood height. The SES index and the individual measures of SES explained a similar amount of variance in the body composition outcomes. Thus either method is appropriate within a developing country setting; however, the use of individual measures allows a more strategic targeting of potential intervention policies.

The 2nd session was chaired by Dr. Ann Palmer from the University of Kent

The session included four papers. The first two were based upon statistical databases as well as methods. The final two papers examined inequalities and differences between ethnic minorities.

The session started with a presentation by **David Marshall** (*Northern Ireland Statistics and Research Agency*) of his paper on *The Northern Ireland Longitudinal Study* (NILS). This program began in 2003 and is a database of individuals and their life events. The launch of the database was in December 2006 with data matched with the 2001 census. The study found evidence for 'migration stickiness' which describes the phenomena of socially deprived groups migrating internally to similarly socially underprivileged areas. The study also found an increase in suicide rates was determined by socio-economic disadvantages rather than the geographical areas in which people lived.

Chris White (with contributions from *Brian Johnson*, *Myer Glickman*, and *Tania Corbin*) from the Office for National Statistics then presented his paper on *Social inequalities in adult male mortality by the National Statistics Socio-Economic Classification, 2001-2003, England and Wales*. The paper examined the forthcoming release of adult mortality statistics based upon new socioeconomic classification (NS-SEC). Methodological issues were raised concerning the difficulties in allocation of valid NS-SEC classes when different variants of the cross-sectional and longitudinal methods were applied.

The third presentation was by **Sylvie Dubuc** (with contributions from David Coleman), University of Oxford and entitled *Missing girls in England and Wales: Analysis of an increased sex-ratio of births to India-born mothers*. The motivation behind this paper was to see if the same increasing trend in high sex ratio at birth in India, China and South Korea was evident in Asian women giving birth in England and Wales. Since 1990 the s.r.a.b increased by four points for mothers born in India, particularly for higher birth orders which is consistent with the findings reported in India. For Bangladeshi and Pakistani mothers giving birth in England and Wales there was no significant increase.

The final paper entitled *Multilevel socioeconomic determinants of ethnic inequalities in CVD mortality* in the session was presented by **Lixun Liu** from the University of St. Andrews and examined suggestions that CVD in South Asian migrants to the UK are abnormally high. The presentation examined multilevel socioeconomic factors that contributed to these inequalities amongst ethnic minorities. Area based socioeconomic status was used to model individual characteristics. Neighbourhood deprivation was found to be the main factor responsible for increased levels of CVD.

Session 3 chaired by Paula Griffiths, Loughborough University

The first paper was presented by **Natalie Friend du Preez** from Homerton University Hospital NHS Foundation Trust (with contributions from Jane Anderson) and was entitled “*I don’t have fear go die, but I have fear don’t have money*”. When the health needs of HIV patients are overshadowed by their social needs. Utilising Maslow’s Hierarchy of Needs theory, the paper used content analysis to analyse 15 in-depth interviews with patients and 7 in-depth interviews with members of staff. Focussing on the patients’ responses, and illustrating them with quotes, the author presented the major themes, concluding that HIV services provided an holistic approach but that they could not provide a safety net for everything.

The second presentation by **Clare Holdsworth** from the University of Liverpool was a sociological paper entitled “*I’ve never ever let anyone hold the kids while they’ve got ciggies*”: Moral tales of maternal smoking. Sixteen interviews were conducted from 12 smoking families where all had made some attempt at regulating smoking and findings suggested that all mothers disliked smoke. This dislike was especially influenced by the age of the child, where younger children were viewed as more susceptible. The speaker concluded that social meanings of smoking involved

understanding day-to-day practices and that smokers develop moral tales of smoking and that there were ethics of care of the self as well as for the child.

The final presentation, *An investigation of homelessness and substance misuse using routinely collected data*, was presented by **Iain Atherton** of the University of St Andrews (with contributions from Chris Dibben, Alex Baldacchino, and Joe Doherty). The author noted that it was difficult to access the population of interest because of their lifestyles, day-to-day priorities, the legality of using illicit substances and officialdom but discussed the advantages and disadvantages of administrative data. He then described the data available in the Scottish Morbidity Records and how they were used to identify substance misuse and homelessness. Cox’ regression was used to model survival, and homelessness was found to have a severe effect on health over time.

Session 4 – ageing.

This session was a strand of the health inequalities session with a particular focus on the elderly. There were three papers timetabled. The first of which was entitled *Reproductive history and mortality in late middle-age among Norwegian men and women* by **Emily Grundy**, London School of Hygiene & Tropical Medicine and Øystein Kravdal of the University of Oslo. The speakers were not able to present due to unforeseen circumstances; information on the paper may be obtained from the lead author.

Faiza Tabassum from University College London presented a paper co-authored with Elizabeth Breeze on *Gender differences in regional deprivation and body mass index among English elderly*. The paper investigated whether deprivation at regional level has an independent effect on body mass index (BMI) over and above the effects of individual socioeconomic position using data from the English Longitudinal Study of Ageing (ELSA). Men and women with lower social class occupations, lower level education and lower income had higher BMI. Higher BMI was also associated with living in the most deprived regions compared to least deprived regions in women only and this association remained after adjustment with individual level social position variables and health behaviours. Questions focused around looking at other measures of region including using the index of multiple deprivation and issues to do with the adipose gain in women who had had children.

The session concluded with a co-authored paper from **Georgia Verropoulou** from the University of Piraeus & the Institute of Education and **Cleon Tsimbos**, University of Piraeus. The paper *Socio-demographic*

differentials and the role of health related behaviour and chronic conditions in physical functioning among the Greek population aged 50+: An analysis based on SHARE data explored factors affecting the physical functioning of persons aged over 50 in Greece using data from the SHARE project (Survey of Health, Ageing and Retirement in Europe). Dependency is more severe among the older-old and among women, in the latter case with the exception of activities of daily living (ADL) limitations. There was a strong inverse relationship between SES and instrumental activities of daily, and mobility, while association with ADL was very weak. Education was a more robust and consistent predictor than income. Obesity, lack of regular physical activity and co-morbidity were significant risk factors. Stroke and cerebrovascular disease, Parkinson's disease, arthritis/rheumatism, hip and femoral fractures and cataracts also had strong associations with functional impairment. Discussion from the floor considered the dichotomous categorization of mobility and the effect of education mediating ADLs and also the interactions between education, gender and age.

Session 5 chaired by Zoë Sheppard, Loughborough University

The first presentation, *Why is there such a difference in the health experiences of women on the two sides of the Channel*, was presented by **Anne Palmer** from the University of Kent (with contributions from, Linda Jenkins, Charlotte Hastie, Gilles Poirier, Benoit Dervaux, Jean-Pierre Marissal, Del Herridge.) The background to the paper showed great differences existed in the health of women on different sides of the Channel, despite their fairly close geographical proximity. Regional differences in health status could be observed in both countries. In the UK there was a strong north-south divide mainly in life-style, whereas a higher mortality and unemployment appeared in the northern/coastal regions in France. Area descriptives were presented for both regions: Nord-Pas-de-Calais is an industrialised, urbanised area within the ex-mining belt of the north, with a high unemployment, mortality, and migrant population but the lowest life-expectancy. Dover is an ex-mining town with lower than average mortality in the UK. Female mortality in general was higher in the UK than in France. No differences were found in the cancer mortality in women across the Channel. Cardio-vascular mortality was higher in the UK but higher in Calais than in other parts of France. For men the patterns appeared very similar but much more pronounced. Mortality from respiratory diseases was very high in the UK but very low in France. This could be a result of industrial differences between the two locations. The prevalence of lung cancer was significantly higher in France and is at increase in France whereas at decrease in the UK. This difference

was suggested to be due to differences in smoking habits. Smoking among women in France became common much later than in the UK. Previously deaths from lung cancer were more prevalent in the UK.

The second presentation, *Variations in health between Scotland and England* using data from both countries, was presented by Nicola Shelton, University College London (with contributions from Oliver Duke-Williams). Scotland has often been described as the sick man of Europe. Poor health has been suspected to be due to binge drinking and over-eating as well as high prevalence of smoking in Scotland. The presentation questioned whether these poor health behaviours could be the cause of higher cardio-vascular deaths in Scotland using data from the Scottish Health Survey 2003 and the Health Survey for England 2003. Higher rates of smoking and diabetes were found in Scotland, whereas no differences in the prevalence of obesity were found between England and Scotland. Comparative analysis, which controlled for sex, age and income found the highest risk of diabetes around London, which could be explained by a higher concentration of Asians, who have a higher risk of diabetes. For obesity, only a weak Scottish effect was found when controlling for SES for women. Smoking, when controlling for residence, found lower odds for the UK than Glasgow but not other areas of Scotland. The health image of Scotland does not correctly reflect the current prevalence of risk factors for cardio-vascular diseases.

The third presentation was entitled *Methodological issues in comparing the size differences between rates of experience or avoiding an outcome in different settings*, by **James Scanlan**, Washington DC. All measures of differences between the rates of experiencing or avoiding an outcome are also functions of the frequency of the outcome. The rarer the outcome, the greater the relative difference between the rates of experiencing it. The prevalence of an outcome also affects the absolute differences between the rates of experiencing or avoiding an outcome. As the prevalence of an outcome decreases the absolute difference in experiencing it increases. This method can be used to examine health care disparities and compare inequalities and changes over time. Odds ratios are often used to measure differences between rates of experiencing an outcome. However interpretation of these, often fails to recognise the impact of an outcome being rare or common. This puts the methods of analysis used in medical and scientific contexts into question.

Session 6 chaired by Natalie Friend-du Preez from Homerton University Hospital NHS Foundation Trust

The first paper, *Impact of rural-urban migration on acute respiratory infection (ARI) among children under 5*, was presented by **Kazi Azad** from the Independent University, Bangladesh (with contributions from & M.Omar Rahman). In Bangladesh 20% of deaths are due to ARI, and there has been a rapid increase in urbanisation over the past 30 years. This presentation focused on the effects rural-urban migration, in Bangladesh, has on the prevalence of acute respiratory infections (ARI) among children under five years of age. The data for this study came from the Bangladesh Demographic Health Survey (BDHS), and 5,286 rural-urban migrant children were used for the analysis. A binary logistic regression reported that all migrant groups were more likely to report ARI than non-migrants, and more specifically that children of rural-urban migrant families are at the highest risk. Kazi Azad concluded that this health inequality can be explained by the lower SES of migrant families, and consequently that families with children under five years of age should avoid migration.

The second paper, *Nutritional Transition in South Africa: determinants of adolescents' dietary intake and body composition*, was presented by **Chiedza Zingoni** from Loughborough University (with contributions from Paula Griffiths, Noel Cameron, Shane Norris and John Pettifor). The transition from traditional foods, to a diet high in fat and low in fibre is partly responsible for an increase in non-communicable diseases (NCDs) in South Africa. Data on 154 South African adolescents, from the Birth to 20 Study, was used to investigate the characteristics and determinants of their diet and body composition. Data from a food frequency questionnaire were used to produce descriptive statistics that detailed macronutrient intake. High SES was reported as a determinant of a diet high in total protein and saturated fat, and low in plant protein and polyunsaturated fat. Early breast/genitalia development and SES were reported as significant determinants of being overweight or obese. Chiedza concluded that this study population had similar dietary risk for NCDs common in already transitioned societies.

The last paper, *Secular trends in age at menarche in urban South African females*, was presented by **Laura Jones** from Loughborough University (with contributions from Paula Griffiths, Shane Norris, and Noel Cameron). Age at menarche is reflective of population health, and early developing females are more likely to engage in unsafe sex, and drug/ alcohol abuse. Data on black (188) and white (99) urban South African females from a sub-study of the Birth to 20

study reported the mean age at menarche to be 12.43 years and 12.47 years, respectively. Laura demonstrated that these data provide evidence for the continuing secular trend towards earlier menarche within urban South African adolescents. It was concluded that this secular trend is reflective of the nutritional and socio-economic transition in South Africa. Intervention to reduce engagement in risk behaviours may also be appropriate, particularly for the early maturing females.

Historical demography.

The conference programme shows the historical demography strand containing a very respectable line-up of 14 papers. Unfortunately by the time the conference got underway three speakers had had to drop out through illness or misadventure. We hope that Mike Murphy, Stefan Warg and Ida Kolte are now well recovered and look forward to hearing their presentations at future conferences - or to reading the published versions!

The first paper in the strand was presented by **Liam Kennedy** from Queens University Belfast who began by reminding us that there are very close links between demography and politics, particularly in Ireland. In 1834 the returns from the 1831 census of Ireland were redistributed to the original enumerators with the request that they fill in the religious affiliation of the individuals in the households enumerated. Examination of the results of this exercise showed, Liam argued, that the absolute numbers reported to be following the various religions were plausible and therefore it is legitimate to compare the 1834 census results with those of 1861 or later, when questions on religion were asked directly. It should therefore be possible to see how the Potato Famine and its aftermath differentially affected religious groups within Ireland.

The following two papers both discussed fertility, but from quite different perspectives. **Simon Szreter** from the University of Cambridge reported on findings from *an oral history study of family planning behaviour amongst working- and middle-class couples in mid-twentieth century England*. Middle class couples, it appeared, were much more likely to see contraception as a joint activity, whereas amongst the working classes it was seen as much more as an exclusively male responsibility. The importance of reading material to the promotion of knowledge of contraception was stressed, but it was also underlined that the ability to understand the material, and the existence of private, trusted networks of friends or mentors in conjunction with the acceptability of reading such information were all integral to whether or not respondents portrayed

themselves as 'ignorant' about contraceptive methods.

Mikolaj Szoltysek, a Marie Curie fellow at the University of Cambridge, presented a very ambitious paper suggesting that the time had come to re-examine our understanding of *historical fertility decline and the theoretical approaches to it*. The Princeton European Fertility Project had had a great impact on historical demographers, offering a 'paradigm' of how to study the fertility transition. However over the last twenty years the Princeton 'paradigm' had met with a succession of challenges until historical demographers found themselves in the predicament of trying to advance knowledge on the basis of studies providing competing, contrasting or antagonistic findings. Szoltysek suggested that 21st demographers would have to find solutions to this stalemate before understanding of historical fertility decline would progress.

In the second session of the strand the focus switched to infant mortality. First, **Bob Woods** from Liverpool University considered *late-foetal mortality; stillbirths and miscarriages*. Even today there is great difficulty in obtaining information on such deaths, particularly if one wishes to consider changes across space and time, or interactions with other factors. It was suggested, for instance, that there may have been a connection between maternal smallpox and stillbirth, but this would be very difficult to prove. This lack of knowledge potentially has implications not only for estimates of infant mortality but also of fertility. Registration of stillbirths did not begin in England and Wales until 1927 and in Scotland until 1939. However Woods was able to estimate that stillbirth rates may probably have fallen from about 60 per 1000 births in the 17th century to 35 in the nineteenth century with further marked decline after the 1930s.

Tricia James from Northampton University continued the theme of very early age deaths in her paper considering whether '*shoemaking was bad for babies*'. Modern studies indicate that even in the late twentieth century female workers in the shoe-making industry were at risk of elevated rates of miscarriage, stillbirth and early-neonatal mortality. This was ascribed to foeto-toxins in the leather or glue used. Tricia showed that, in the late nineteenth century in the shoe-making district of Higham Ferrars, Northamptonshire, infants born to shoemaking fathers were also at much greater risk of neo-natal death than their non-shoe-making neighbours. However their levels of post-neonatal mortality were significantly lower.

The third presenter in this session, **Ian Gregory** of the University of Lancaster, used *GIS techniques to re-examine geographic patterns of change in infant mortality across the nineteenth century*. The main thrust

of Ian's argument was that studies of infant mortality decline have neglected the 'rural' contribution to infant mortality decline and that the story of the decline has to be told using relative rates of change rather than absolute levels of infant mortality. Although industrial, urban areas saw their absolute levels of infant mortality diminish in the half century beginning in 1860, in relative terms they remained centres of high infant mortality. When rates of improvement are used, it becomes evident that 'core' southern, rural areas near London experienced the greatest decline in infant mortality over the 50 years. Interestingly however rural areas in the 'periphery', that is in the far North-East, North-West, Wales and the far South-West, failed to show similar rates of improvement. There was not just one 'rural' story, therefore, but at least two for historical demographers to pursue.

The third session was a more mixed bag, although **Eilidh Garrett**, University of Cambridge, continued the theme of early life mortality, considering whether it was possible to identify *excess deaths from neo-natal tetanus in nineteenth century Britain*. Deaths from neo-natal tetanus tend to cluster in the 4-14 day age range, and numbers of deaths at these ages are used to target immunisation programmes in today's less developed countries. Eilidh demonstrated the 4-14 day peak using the civil records of the island of St Kilda, notorious for the high proportion of infants who died from the dreaded 'eight day sickness'. She then used age at figures drawn from similar data in a range of British communities to demonstrate that peaks of deaths in this age range were not uncommon, although tetanus was seldom acknowledged as a cause of death. Rural communities appear to have been particularly susceptible and this may go some way to explaining why rural neo-natal mortality rates were often as high or even higher than those of urban areas.

Alice Reid, also from Cambridge, reported on a new study comparing *the roles and experiences of doctors in rural and urban Scotland during the later nineteenth century*. Using material from censuses, the civil registers of death and medical directories she was able to show that although far fewer deaths on the remote island of Skye were certified by medical men, there were as many doctors per head of population on the island as there were in the industrial town of Kilmarnock. Most of the doctors working in the rural area were young, at the beginning of their careers, and even those born on the island did not stay long; only 30 per cent of the doctors were resident on the island for more than five years, a much higher turnover than in Kilmarnock. In future the project will explore the implications of these findings for cause of death registration.

Rebecca Oakes, from the University of Winchester, took her audience much further back in time to consider the potential of *the registers of Winchester College and New College, Oxford as source for the study of the demography of medieval England*. In her beautifully illustrated presentation Rebecca described how the two institutions were intimately connected, scholars from Winchester being sent to replace those graduating or dying at New College. Those ‘eating in hall’ were listed each week, and any deaths within the week were noted. Thus, for example, a severe epidemic could be discerned in 1401. Rebecca had not yet completed calculations of life expectancy among the scholars, but tantalisingly she was able to conclude that it was likely that the figure would be lower than those found in previous studies of the medieval period.

The final session of the strand contained three quite diverse papers. First, **Jim Smyth** from Stirling University considered the role of literature in helping us to understand social history and demography, taking as his theme ‘*the literature of poverty*’, and the representation of women living in ‘common lodging houses’, particularly the notorious ‘Rat Pit’ in Glasgow’s Cowcaddens. Few authors had themselves lived in such accommodation, their knowledge coming from visits, with strict sex segregation meaning that the majority of visitors would not be acquainted with life in female lodging houses. One or two exceptional women were, however, able to give a first hand account of life there. As Jim pointed out there did seem to be much more ‘life’ for the inmates than many authors allowed, with most of the lodging house population moving on, rather than coming there to die in shame and want.

Romola Davenport, University of Oxford, then took as her starting point the ‘*inflammatory hypothesis*’ which suggests that, for cohorts born before 1900, exposure to infection in childhood increases the risk of mortality from chronic diseases in late-life. Using national-level annual age- and sex-specific cause of death data for England and Wales it had proven possible to construct cohort measures of mortality which allowed childhood mortality to be compared with that of 70 year olds in the same cohort. Causes of death reported amongst the youngest and oldest members of society are the most problematic, and any relationship was not immediately easy to see, however once child deaths from respiratory disease and diarrhoea were removed from the trends then death rates from infectious diseases in childhood did seem to be correlated with mortality amongst adults. Romola proceeded to investigate the role of particular childhood infections, whereupon the story became rather more complex, with work remaining to be done on how the relationship may have operated, and whether there may have been differences at the regional, as opposed to the national, level.

Finally, **Nicola Shelton** courageously stepped in to the breach created by the absence of our two Scandinavian speakers and presented a paper on ‘*infant wellbeing*’ in Britain across the twentieth century. Inequalities in infant well-being, reflecting patterns of social inequality are a long standing feature of British society. At the beginning of the twenty-first century policy-makers are still working to ‘level the playing field’. Nicola demonstrated that many of the policy recommendations made nearly a century ago by, among others, George Newman, have only recently gained currency. Her talk obviously struck a chord with her audience, as a vigorous discussion of the issues ensued afterwards.

In all the Historical Demography strand was an engrossing selection of papers, all very well presented. Thank you to all the speakers for their interesting and informative contributions which engendered much discussion and debate, and especially to Nicola for stepping in at very short notice. Further thanks go to Nicola, Bob Woods and Alice Reid for acting as chairs, and Anne Shepherd deserves a very special mention for her much appreciated organisation and guidance behind the scenes.

Local authority, census, and planning.

The ‘censuses and surveys’ session, the first session of three in this strand, was as wide-ranging in content as the title suggests, with three papers spanning the analysis of people who are ‘working below their potential’, the reasons why we should still be worried about the MAUP and the Moldova Census 2004. **Lisa Buckner** (Leeds) reported work with Linda Grant (Sheffield Hallam) that used the UK’s 2001 Census 3% Individual SAR to *compare people’s qualifications with their current occupational level*. This included the results of logistic regression analyses that identified the distinctive personal, household/family and employment/area characteristics of those defined as working below their potential. These included being male, working part-time, having a limiting long-term illness, providing unpaid care, having non-dependent children in the family, not living in a couple family and living in rented accommodation. Significantly higher odds were recorded for some industries and regions than others. Discussion focused on using a more detailed geography like the LA districts available in CAMS, exploring further the link with part-time working and tracking people longitudinally to see how far working below potential is a phase that most people go through in their lives. **David Manley** (St Andrews), reporting on work with Robin Flowerdew (St Andrews) and David Steel (Wollongong), claimed that the

Modifiable Area Unit Problem is still not being given enough attention and showed ways of looking for this in the Output Area data from the 2001 British Census. Scale effects should be distinguished from zonation effects. Jackknifing can be used to remove one case at a time and redo analyses, but to allow for spatial interdependence it is better to remove compact blocks of zones. Finally, **Malcolm Brown** (Cornwall County Council) revisited the *Moldovan Census 2004* about which, at the BSPS conference two years ago, he had reported on his experiences as an official observer. Starting with fascinating glimpses of the country's history and geography, he highlighted some of the more unusual features of this Census, including being undertaken entirely by interview and including questions on children born, children still alive, main and second citizenship, mother tongue and other languages, length of time living the locality and household members absent abroad. While the Census had been conducted to a generally high standard, Malcolm had no confidence in the results from the last of these questions and had also encountered major problems in comparing results with the previous Census, undertaken in the last days of the Soviet period.

The second strand session contained three papers that looked forward to the planning taking place for the UK Census in 2011 together with a paper that looked back as far as 1961 in London. In May 2007 ONS conducted a *Census Test of 100 thousand addresses in five local authorities*, one of which was the London Borough of Camden. **Giorgio Finella** (Greater London Authority) presented on behalf of Neil Storer (Camden's Assistant Census Liaison Manager) to show how the borough had carried out its responsibilities as a major plank in local authority liaison with the ONS. A particular issue related to correct address identification. Following Camden's involvement in the 2007 Census Test it recommends that ONS set up a rolling programme of data collection from local authorities. **Garnett Compton** (ONS) showed *early results from the 2007 Census Test in England & Wales* and indicated how planning for the Census Rehearsal in 2009 and the full Census in 2011 was proceeding. Camden and Liverpool had most of the sample as these were the only areas that contained hardest to count enumeration districts (EDs). Address checking found 12% new addresses and field work discovered more – 70% of new addresses were sub-premises. In 2011 there is likely to be 100% address checking. About 45% of questionnaires were returned but only about 31% in the hardest to count EDs. Hand delivery was marginally more efficient in getting a response, but when costs are considered it is likely that post out will be used for 85% of 2011 delivery. The income question tended to reduce response by about 3% overall, but further analysis is required before a final decision on inclusion. ONS is

aware that LA liaison needs to be consistent across the country as it had proven benefits in the Test.

Kirsty Maclean (GROS) reviewed the developments that were taking place in *Scotland towards the 2011 Census*. Scotland had a Test in 2006 and so was more advanced in analysing public response, including the results of interviews since the Test that focussed on public perceptions and acceptability. GROS is planning for a 4-page questionnaire – but it will be funding-dependent. In the final presentation **Eileen Howes** (Greater London Authority) showed how *tenure had changed in London boroughs going back to 1961*. Social renting (ie local authority housing) was the dominant tenure in London, and particularly inner boroughs, in 1961, but, assisted by 'right to buy', diminished significantly in the 1980s. However by 1991 owner occupation had also hit a peak as the 1990s saw a significant rise in the private landlord. Analysis by ethnicity and birthplace indicates that the rise in international migration to London in the late 1990s was a major spur to private renting.

The final strand session contained three papers on totally different local government oriented themes. **Malcolm Brown** (Cornwall CC) continued a theme that he had previously discussed at BSPS, that of *second homes*. He explained how Census definitions and coverage of second homes and summer lets varied between 1981 and 2001 and the difficulties in obtaining accurate results. He drew attention to the differences in trends in numbers in different local authorities. Statistics from the Survey of English Housing and council tax registers were now providing additional information. In Wales and Cornwall Census results could be disputed on the basis of this evidence and local surveys. He showed recent dramatic headlines from South West regional newspapers about the "huge toll of second homes" and weighed up arguments in the debate about how significant the economic impact of second homes was. It was hard to distinguish that from demand from in-migrants adding to housing market pressures. However, there was a big disparity between data and local perception of the impact of second homes upon communities and house prices. He explained important findings from a survey of estate agents in North Cornwall. Finally he showed the questions used in this year's Census Test and discussed future research needs and the importance of the next Census.

John Hollis (GLA) also continued a theme that had been presented at previous BSPS Conferences by looking at the *demographic projections that underpin planning in London* and specifically the *London Plan*. He focussed on the projections prepared by the GLA and compared them to those of the ONS and CLG. While more data had become available from the 2001

Census to improve projections – particularly migration structures and household representative rates - the key driver of change was the revised London Housing Capacity Study. He discussed the impacts of the revised mid-year estimates and revised estimates of international migration. It was a desire of the Mayor to see London retain its current share of UK international migration. The new estimates indicated that this aspiration would now lead to a reduced projection for London. However this was still a larger population than was likely to be accommodated by the increased level of housebuilding expected over the next 20 years. Migration trends and housing capacity were, though, starting to converge.

Baljit Bains (GLA) showed the results of GLA *demographic projections for ethnic populations in London boroughs* and went on to discuss the potential for converting the projections in the age-groups between 16 and 74 to projections of the resident labour force. It is projected that about 75% of the growth in the working ages in London between 2006 and 2026 will be found in the black, Asian and minority ethnic groups. She showed data from the 1991 and 2001 Censuses that demonstrated some startling differences in labour force participation rates, particularly for women. Black Caribbean women having the highest rates amongst the main ethnic groups and Bangladeshi and Pakistani women having extremely low rates. However, there are signs that the youngest women in these two ethnic groups had shown major increases in participation over the intercensal decade. Was this a temporal or cohort effect? How could the data be used to forecast future rates? Would changes be carried through by today's young cohorts to influence participation in later years and would the improvements be maintained by the next cohorts? Was it feasible to compare change in minority groups to the changes that had occurred in the White group and the overall expectations of changing activity rates?

Posters.

The research-diverse poster strand proved to be great success at this year's conference. A total of ten posters were presented (a record perhaps?). **Abul Kalam Azad** (Independent University, Bangladesh) presented *Impact of households socio-economic status on acute respiratory infection (ARI) among children under-five* which highlighted that improving nutritional status among poor children and encouraging later age at marriage and first pregnancy could help to reduce acute respiratory infections in Bangladeshi infants. **Thomas Astell-Burt** (University of St. Andrews) presented a poster on *Geographies of hepatitis C (HCV): detection*

rates of HCV diagnoses in Scotland. The author concluded that high HCV rates tended to be found in urban, deprived postcode areas with a high number of methadone prescriptions. **Hukum Chandra** (University of Southampton) presented a poster entitled *Examination of population proportion for small domains – an empirical comparison of direct and indirect model-based methods*. This poster discussed the model-based direct estimation method (MBDE) of analysis in comparison to the empirical best predictor (EBP) method. The results suggest that the MBDE is a more robust, less computational intensive set of estimates. **Sophie Goudet** (Loughborough University) examined the *Coping strategies for feeding practices and nutritional health of young children in relation to the perceived nutritional risks posed by recurrent flooding (Bangladesh)*. The poster illustrated how this research will involve both qualitative and quantitative elements to increase knowledge about the processes leading to poor nutritional status in the post-flood period. **Will Johnson** (Loughborough University) presented a poster on *Why are South Asian infants in the UK at greater risk for the metabolic syndrome?*. Using data from the Born in Bradford (BiB) study (n ~ 3500), this study will identify and track the determinants of risk factors for the metabolic syndrome in South Asian infants. **Hywel Jones** (Welsh Language Board) investigated *Speaking Welsh and migration from Wales to England* in his poster. Using ONS longitudinal study data, this study examined out-migration from Wales to England between 1971 and 2001. The results showed that speaking Welsh significantly reduced out-migration, however approximately 17% of those Welsh speakers migrated to England over the period under investigation. **Lucia Knight** (London School of Hygiene & Tropical Medicine) in her poster on *Adult mortality in KwaZulu-Natal: informing research into the socio-economic impacts of AIDS related death* used data from the KwaZulu-Natal Income Dynamics household panel survey. The results suggest that by linking the two waves of mortality data with individual demographic and household socio-economic status data, a better idea of who it is that dies within a household, and how that household is effected by death can be established through in-depth interviews. **Thilo Kroll** (University of Dundee) in his poster entitled *Patterns of assistive device use by remoteness: An analysis of the Scottish Household Survey 2003-2004* reported that the three most commonly used devices were crutches/ walking sticks, bath/ shower seats and handrails. The author reported that the use of these devices varied by geography. **Susan Ramsay** (University of Manchester) presented a poster on *Researching spatial variations in Cuban demographic experiences*. The author plans to undertake spatial analysis of Cuban census data in order to visualise and evaluate patterns of temporal and

geographic variation in selected demographic outcomes. Unfortunately, **Paul Mathews** (London School of Economics) was unable to present his poster entitled *The relationship between perceptions of mortality and fertility preferences from an evolutionary perspective: evidence from a survey of students at the London School of Economics*, due to illness.

Thanks must go to Professor **Jan Hoem** (Max Planck Institute for Demographic Research) who had the unenviable task of judging the poster competition this year. In a change to recent years, the poster prize was limited to just student entries. The prize was shared between **Lucia Knight** (London School of Hygiene & Tropical Medicine) *Adult mortality in KwaZulu-Natal: informing research into the socio-economic impacts of AIDS related death* and **Thomas Astell-Burt** (University of St. Andrews) *Geographies of Hepatitis C (HCV): Detection rates of HCV diagnoses in Scotland*.

Religious and cultural demography and ethnicity.

David Coleman (Oxford) opened the ethnicity session with a paper entitled *The challenge of ethnic transformation in the populations of the developed world*. Projections for Europe and North America show substantial increases in the ethnic minority proportion of the population. Producing projections of ethnic minority populations in the UK is difficult. TFRs for these groups tend to show a convergence with the UK national average. There may be some exceptions, though, and it is not easy to judge what adjustments are needed for postponement of childbearing. For mortality, one generally assumes that the national rates are applicable to all ethnic minorities. Problems in using the International Passenger Survey to measure migration are well known. Coleman concluded by presenting graphs of UK ethnic minority population estimates for future years. It is clear that the results depend largely on what happens with migration, rather than fertility. With increasing numbers in the 'mixed' groups, ethnic groups in their current form may become less significant.

Ludi Simpson (in collaboration with **Nissa Finney**) from the University of Manchester presented a paper on *Minority white cities*. There has been interest recently in when the first 'plural' cities (that is, cities in which no ethnic group has a majority) will be seen in the UK. It has been claimed – with some exaggeration, as he went on to show – that in the next five years Birmingham or Leicester would become the first plural city. The 'white' population is frequently measured by including only the white British and white Irish. That being so, 'other white' and 'mixed' groups will be excluded and

hence the proportion represented by the indigenous white population will tend to decline. Increases for non-white groups, estimated from the change between the 1991 to the 2001 Censuses, were used to project the size of non-white groups at local authority level. The analysis produced estimates of the dates at which individual cities will become plural. The research showed Leicester becoming the first plural city in 2019, followed by Birmingham in 2024, with others remaining majority white until 2030 or beyond. Simpson concluded by commenting that claims about 'white minority cities' act as a distracting hook on which to hang policy discussions. Such forecasts *are* needed, however, for planning provision of housing, education and social services.

A paper on *The modifiable ethnic unit problem* (MEUP) was delivered by **Pablo Mateos** (in collaboration with Paul Longley) from University College London. Mateos began by highlighting the many dimensions of ethnicity, and showing how data sources vary greatly in both the definition of ethnic groups and the methods used to ascribe ethnicity to individuals. He noted that many different terms are used for the same ethnic groups (as many as 219 terms were found to describe 8 different ethnic groups in 1198 articles). He also showed the changes in both size and categorisation of different ethnic groups between censuses. There is an analogy with the Modifiable Areal Unit Problem (MAUP), which is widely discussed in geography. In particular, different taxonomies can lead to conflicting results, and outputs are sensitive both to scale (the number and size of the ethnic groups considered) and aggregation (the many alternative ways in which ethnic groups can be defined and combined). Mateos described a method of ethnic classification based on names, with data drawn from the Electoral Roll. The research made it possible to map the occurrence of names, as well as to classify them according to Cultural Ethnic Linguistic (CEL) criteria.

The fourth scheduled paper was cancelled, and to replace it **David Voas** (Manchester) offered a short presentation asking *How quickly is the Black Caribbean population being assimilated?* Voas highlighted census data showing that quite substantial minorities of black Caribbeans have white partners, and hence presumably have mixed ethnicity children. A large majority of people identified as being of mixed white and black Caribbean ethnicity, moreover, have white partners, and very few live with black Caribbeans. One might therefore infer that the black Caribbean group is being absorbed into the general UK population. It is important to note, however, that 41% of black Caribbean women aged 18-45 are lone parents, and a relatively modest proportion of their children are shown as being of mixed ethnicity. Looking at married and cohabiting

couples may therefore be deceptive, though it is also possible that lone mothers tend to ascribe their own ethnicity to their children, whatever the paternal ethnicity.

In discussion, Ludi Simpson commented that children may report a different ethnicity when they grow older. David Coleman theorised that a slower diminution of the black Caribbean group may be explained by some continued immigration from the West Indies, and a dispersion of children to groups other than 'mixed' origin.

Elizabeth Cooksey (Ohio State University) began the religious and cultural demography session with a paper on *Sexual behaviour among religiously active African-American youth*. She presented results from a new study designed to address questions relating to the role that religion might play in the healthy development of these young people. Her presentation focused on sexual behaviours, as despite encouraging trends in the well-being of American adolescents, large racial disparities in sexual health outcomes remain. One important factor that might distinguish youth who engage in risky behaviours from their peers who do not is religion. Although young African-Americans report higher rates of religious activity and importance than do other youth, however, considerable research suggests that religion has only a relatively small influence on sexual behaviour among African-American teens. In her presentation Cooksey discussed possible explanations for this discrepancy including the 'semi-involuntary' nature of church involvement for African-Americans, meaning that Black churches attract a wider range of youth than other churches might, and the need for alternative conceptual and operational measures of religion for Black youth. Her results, using data gathered from just under 500 African American youth ages 13-19, showed a wide range of sexual activity across congregations, but youth who appear to have internalized religious beliefs were less likely to be sexually active than their peers who merely report attending church.

The session continued with a contribution from **David Graham** (Oxford) on *The structure of "Jewish households"*. The 2001 census provided a wealth of valuable new data about religious minority groups in Britain. Graham explained how these data can be used to shed light on the reality of community demographics in Britain. In the case of the Jewish population the image of a community made up of nuclear families is questionable in light of the census. Data on the structure of Jewish households revealed a population in which large numbers of Jews live alone (amounting to 30% of all households in which at least one person reported being Jewish). Of the remaining 'multi-person'

households only 46% were homogeneously Jewish, i.e. every member reported that they were Jewish. Only a fifth of households could be termed 'nuclear', i.e. consisting of parents living with dependent children. Graham highlighted another interesting set of household data revealed by the census; Jewish cohabitation. This is a relatively new type of living arrangement for Jews in Britain and has remained unexplored until now, yet there were nearly 10,000 cohabiting couple households in which at least one person was Jewish. Compared with married couple households, they tended to be younger, live nearer the centre of urban areas and interestingly, were three times more likely to consist of Jews cohabiting with non-Jews than married couple households.

Malcolm Smith (Durham) presented a paper (prepared in collaboration with Don MacRaild, University of Ulster) on *Paddy and Biddy no more: Naming practices among second-generation Irish in England and Wales inferred from the 1881 census*. The work used a surname-corpus based approach to identify the population of Irish descent living in England and Wales at the 1881 census. Comparison with age-matched Irish-born residents of England and Wales shows a sharp decline in the frequency of traditional 'Catholic/Irish' forenames such as Patrick, Michael and Bridget, and an increase in 'Protestant/English' forenames like William and George. For example, in England and Wales as a whole, among males aged between 30-45 years, the proportion named Patrick was 9.54% among all Irish-born, 11.02% among the Irish surname-corpus, 1.53% among the second-generation Irish (i.e. the non-Irish-born among the Irish surname-corpus), and 0.06% among all non-Irish-born. Several competing theories have been applied to the explanation of forename-frequency change in general, including sociological models of individualisation and secularisation, and ideas explaining changes of taste and fashion, including evolutionary models of random drift. Smith argued that whilst the changes in Irish naming in Britain may appear to conform to a simple narrative of the avoidance of prejudice, they take place against a backdrop of secular changes in name-frequencies which require other explanations.

Scottish demography.

The Scottish demography strand at the Annual Conference attracted ten papers, a good number of which resulted from projects funded by the ESRC and Scottish Executive under the 'Scottish Demography Programme'.

Elsbeth Graham (St Andrews) spoke about *Fertility behaviour in the low fertility populations of Scotland*

and England raising the interesting point that fertility in both Scotland and England has remained significantly below replacement level for over twenty years and that fertility has been consistently lower in Scotland than in England during this period. Modelling data from the British Household Panel Survey (BHPS), the fertility behaviour of women born in Scotland and England since 1950 was considered. The results showed that a range of factors influence the risks of having one or more children, including family, housing and financial contexts.

Kathryn Backett-Milburn (Edinburgh) discussed findings from a survey of *fertility attitudes among men and women of child-bearing age in Scotland*. She suggested that low fertility in Scotland cannot be attributed simply to low fertility aspirations. In their analysis, which focused on issues related to work-life balance and domestic divisions of labour, a range of factors were shown to influence fertility variations including educational qualifications, female full-time employment, perceptions of socio-economic costs of children, financial and work constraints, and gender equity in allocating household tasks. They also stressed that men's experiences deserve more attention in fertility decision-making.

Gillian Raab (St Andrews) spoke on *teenage pregnancy*, noting that most previous research in the UK had focussed on factors that influence whether a young woman will experience a teenage pregnancy. Much less work had focussed on the consequences of teenage motherhood for the young women themselves. Presenting results based on data drawn from the Scottish Longitudinal Study (SLS) she identified young women who had conceived and given birth in their teenage years between 1991 and 2001. She then compared the circumstances in 2001 of those who had and had not become teenage mothers. The results showed that teenage mothers were less likely to be employed, had lower qualifications and were more likely to report health.

David Bell (Stirling) explored *how the costs of social care provision in Scotland have evolved* in the recent past, particularly in the light of the introduction of free personal care and the apparently wide differences in costs between local authorities. A microsimulation model (OPERA) provides results disaggregated by local authority but is calibrated using data on individual social care clients from elsewhere in the UK. This allows the construction of alternative estimates of the costs of social and personal care in Scotland and shows how future demographic change and changes in healthy life expectancy may influence future costs. The model also accounts for informal carers, of whom there are about 450,000 in Scotland (more than 10 per cent of

the adult population). The results demonstrated the potentially large costs of social care provision in Scotland which are considerably higher than elsewhere in the UK.

Michael Anderson (Edinburgh) and **Nick Wright** (GROS) summarised *results of analyses conducted for the 2006 Registrar General's Annual Review of Demographic Trends in Scotland*. Each year, this report has covered key demographic trends within Scotland and also covers a 'special subject' that changes each year. The focus of this work was on sub-regional variations in demographic trends – specifically how the 32 different council areas in Scotland differ in birth rate, death rate, migration and causes of death, where relevant (and very revealingly in some cases) once age structures are controlled for, and how they have changed between 1981-85 and 2001-2005. The results demonstrated considerable disparities between council areas, in particular in the areas of age specific death and fertility rates and highlights potential areas of concern.

Robert Wright (Strathclyde) used a multi-period economic Computable General Equilibrium (CGE) modelling framework with a demographic model to analyse the *macroeconomic impact of the projected demographic trends in Scotland*. Demographic trends are defined by the existing fertility-mortality rates and the level of annual net-migration. The study tracked the impact of changes in demographic structure upon macroeconomic variables under different scenarios for annual migration, finding that positive net migration can cancel the expected negative impact upon the labour market of other demographic changes (pressure on wages, falling employment). However, the required size of the annual net-migration is far higher than the current trends suggesting that active policies are needed to attract migrants.

Allan Findlay (Dundee) considered *skilled Scots moving to London for career progression*. The study showed that the Scottish population of London and the South East is falling, despite Scots enjoying continued occupational success within the South East labour market. The reasons for this were theorised relative to the literature on the mobility of the 'new service class'. Building on Fielding's (1992) escalator region hypothesis, it was argued that Scotland's changing relationship with London and the South East may be representative of a wider set of changes in migration linkages between regional economies and global cities.

Jan Freeke (Glasgow City Council) reported on a study using *data from the Special Migration Statistics and Travel to Work Statistics* data from the 1991 and 2001 Census for the Glasgow Conurbation area. Several difficulties were encountered in a comparison between

1991 and 2001. The results showed the intricate relationship between Glasgow City and the rest of the Conurbation in relation to migrant and commuter flows.

Cecilia Macintyre (GROS) discussed the *method for estimating international migrants in Scotland* which is based on data from the International Passenger Survey.

This is acknowledged as the weakest part of the information used in the estimation of population for Scotland. A number of recent developments in methodology at the UK level and also a change in the migrant population, through the enlargement of the EU, has resulted in the General Register Office for Scotland recently reviewing the current methodology. This presentation outlined the results of the review and suggested some new ways of estimating the Scottish population.

Ganka Mueller (GROS) presented results from a *study linking records from Census 2001 and the Community Health Index in Scotland*. It examined variations in Census linkage rates as evidence of differential coverage of key social-demographic groups and discussed the important implications for administrative census methodologies.



Transnational and subnational migration.

At the 2007 Annual Conference three very successful sessions were dedicated to exploring aspects of migration to, from and within the UK, including flow magnitudes, underlying causes and methodological innovations in their estimation and analysis.

The first session, 'UK Migration 1: inflows and redistribution' was launched by a paper presented by **Tony Champion** (University of Newcastle), co-written with Mike Coombes, on *Poles apart?* which assessed whether migration to England from the 8 accession countries joining the EU in 2004 exhibited distinctive flows. The paper demonstrated the strong work-related emphasis of the migration and the mixture of short-term and more permanent moves, associated with a geographical pattern of destinations within England that is different from inflows from overseas more generally. The data analysed included data on inflows collected by May 2004 through the Workers Registration Scheme (WRS), disaggregated by local authority area of destination, type of work and country of citizenship. Also analysed were National Insurance Number allocations (NINOs). Cluster analysis was used to show that flows from Hungary and Portugal differed from those of the other A8 countries. Finally, regression models were used to show that A8 and non-A8 migration flows were driven by similar factors, with the

exception that A8 flows were positively associated with % agricultural workers in a local authority, the reverse of the usual pattern.

Rachel Stuchbury (CeLSIUS) then presented a paper, co-written with Emily Grundy, on *inter-regional migration in England and Wales between 1991 and 2001*, making use of a set of published tables extracted from the Longitudinal Study and placed on the CeLSIUS website to foster wider dissemination. These tables, using Government Office Regions, provide evidence of, amongst other things, retirement flows to the South West, and of flows of professionals to the South East. To conclude the session, **David Marshall** (NISRA) presented a paper on *Eastern European migration to Northern Ireland*. The paper first reviewed the wide range of data sources available, including birth registrations, the annual school census, the Workers Registration Service, GP registrations and de-registrations. Overall it was shown that GP registration data offered the most valuable insights, after adjustments had been made to allow for an undercount of young adult makes and for missing deregistrations. The evidence of this data was for the transformation of Northern Ireland from a net exporter in the 1970s and 1980s to a net importer of migrants, with an estimated 8,000 net gain in 2005/6.

The second migration session 'UK Migration 2: dynamics and outflows', started with a paper presented by **Nissa Finney** (University of Manchester), co-written with **Ludi Simpson**, on the *demographic dynamics of Britain's ethnic populations*. The aim of the paper was to separate out the effects of natural increase and net migration on changes in local ethnic populations. An analysis of change between 1991 and 2001 revealed that for some ethnic groups growth in numbers was driven more by natural increase than by net in-migration. Evidence was also found of return migration in retirement amongst Indian, Pakistani, Bangladeshi and Caribbean ethnic groups. The general pattern observed for all ethnic groups was one of in-migration to jobs/housing, followed by a phase of in situ growth via natural increase, followed by dispersal to other areas within the UK. The paper that followed, presented by **Suha Shakkour** (St Andrews), focussed our attentions upon one very specific ethnic group – *Christian Palestinians living in the UK*. The aim of the paper was to explore the extent of assimilation (taking on a UK identity) and integration (adaptation to UK life) experienced by this group of migrants. To do this, preliminary results were presented from a set of 60 semi-structured interviews conducted with Christian and Muslim Palestinians living in the UK. In general it was found that Christian Palestinians were more likely to study in UK or US Higher Education Institutes, to be more proficient in English, and to be less concerned about the ethnicity of their partner. **Tony Champion**

(University of Newcastle) then returned to present a second paper, on *allowing for the effect of migration in calculating future needs for affordable housing in rural areas*. This paper eloquently demonstrated the serious technical challenges posed by teasing out the effects of ‘normal’ migration for labour, education and other reasons from those of ‘forced’ migration due to lack of local affordable housing. An additional fly identified in the ointment was the inadequacy of current data on international migrant flows to rural areas and their possible longer term volatility. To conclude, a range of possible solutions to these challenges were proposed and the floor was invited to suggest possible alternatives.

The third migration session ‘UK Migration 3: Methods’, was chaired by **Guy Goodwin** (ONS), and showcased the latest methodological developments made by ONS in the field of migration. Guy started off the session by providing *an overview of recent changes* which have seen ONS take over responsibility for the production of population projections from the Government Actuaries Department. Having assumed this new role, ONS now have plans to strengthen the quality of internal migration estimates. The following three papers touched upon various aspects of this. First **Jonathan Smith** and **Amanda Sharfman** (ONS) provided an *update on research into short-term migration*. Alternative definitions of ‘short-term’ were outlined, including a UN-based definition linked to duration and purpose, plus a simpler alternative based simply on a duration of stay of less than 12 months. The strengths and weaknesses of the International Passenger Survey (IPS) as a source of information on these types of short-term migrations were then explored. The paper concluded by setting out a goal of producing experimental statistics on short-term migration by the end of 2007. **Fiona Aitchison** and **Jonathan Swan** (ONS) then outlined *recent improvements to the methods used by ONS for estimating the geographical distribution of out-migrants*, driven by a modelled propensity to out-migrate derived from the 2001 Census and including new visitor-switcher assumptions. This new approach has already been incorporated into the current mid-year estimates and the intention is leave this modelling methodology unaltered for at least the next two years. The session concluded with a paper presented by **Ercilia Dini**, **Giles Horsfield** and **Emma Wright** (ONS) which compared *ONS estimates of emigration from the UK with inflows of UK residents as recorded in overseas datasources*. The main challenge for this comparison is that other countries typically record stocks (numbers of UK residents present), whereas ONS records flows per annum via the IPS. Comparisons were made for Spain, France, USA, Canada, New Zealand and Australia. The comparisons were broadly encouraging, but served to highlight the

importance of the planned forthcoming improvements in the IPS sampling strategy.

UPTAP – Understanding Population Trends and Processes.

There were two UPTAP sessions at the BSPS Conference in St Andrews, both consisting of three papers. **Paul Norman** (*University of Leeds*) kicked off the first session with a presentation showing the results of some of his work on *The micro-geography of UK demographic change 1991-2001*, demonstrating the extent and whereabouts of population, net migration and deprivation change at ward level between the two censuses. He showed that the populations of most urban and more deprived areas were maintained by natural change gain and that the population was moving away from more urban and more deprived areas during the 1990s to less deprived semi-urban locations. He also suggested that more urban and deprived areas had younger populations than less urban and non-deprived areas and that the least deprived and most rural areas were ageing the most rapidly. This presentation became an interactive session as the audience were keen to question Paul along the way about the plausibility of some of his results.

The second paper was presented by **Adam Dennett** (*University of Leeds*) and reported on an audit of spatial interaction data undertaken at Leeds with Oliver Duke-Williams and John Stillwell that forms the basis of new plans for an *An enhanced UK spatial interaction data service*. This paper was given due to the late withdrawal of one of the speakers. Adam explained that, over the next five years and in the run-up to the next census in 2011, the Centre for Interaction Data Estimation and Research (CIDER) is aiming to extend the interaction (migration and commuting) data holdings in WICID so as to provide researchers with access to sets of interaction data that complement the flows available from the SMS/SWS/STS. He summarized the main findings of the audit before discussing the three selected datasets (NHSCR and patient register data, HESA data and HES data) that will be incorporated into the new system and some of the challenges that their inclusion may present as CIDER moves towards offering a more comprehensive spatial interaction data service.

The final paper of the session on *Developing individualised life tables* was presented by **Martin Karlsson** (*University of Oxford*) reporting on work undertaken with Les Mayhew and Ben Rickayzen, (Cass Business School, City University). Martin outlined the recent trends in healthy life expectancy, pointing out that life expectancy free from disability has been slowly increasing although the proportion of life

spent free from any disability has remained fairly constant. He identified the factors which are of particular importance in people's life expectancy: health, labour market participation, cohabitation and mortality. The significance of these variables is twofold: they determine the well-being of individuals, but the variables also determine the resources available to the individuals in times of ill health. Using the BHPS, he showed the extent to which these variables are influenced by one another, and by exogenous factors such as education and race. Estimating a system of probit models using simulation techniques, he was able to distinguish the effects of the exogenous and endogenous variables from state dependence and unobserved heterogeneity and to estimate time trends in mortality, health and other dependent variables to investigate whether a compression of morbidity has occurred in the recent past. The parameter estimates were used to simulate life tables for various sub-groups in the population and compare measures of life expectancy and healthy life expectancy for different groups.

The three papers in the second session were more related to one another in focusing on health and well-being. **Dimitris Ballas** (*University of Sheffield*) began the session with a presentation co-authored with Mark Tranmer, (University of Manchester) on *Building a multi-level model of happiness and well-being*. Dimitris provided a short outline of the history of 'happiness research' before explaining the rationale behind the multi-level approach that he has adopted. He showed some of the results of the analysis of applying a model at individual, household, district and region level and concluded that whilst happiness is primarily an individual characteristic, the household or immediate social context does matter whilst the district and region contexts are much less important. However, there is some evidence to suggest that spatial variations in happiness do exist, even after accounting for the individual and household context. Slough has the unfortunate characteristic of being at the bottom of the happiness league table whereas Wycombe is at the top!

Harriet Young (*London School of Hygiene and Tropical Medicine*) then presented the final results of her UPTAP project entitled *Old, sick and alone? Living arrangements, health and well being amongst older people*. This is a project that she has completed in collaboration with Emily Grundy (London School of Hygiene and Tropical Medicine) and which used data from the English Longitudinal Study of Ageing (ELSA) to analyse cross-sectional and longitudinal associations between living arrangements and health and well-being in England amongst older people. Specific health outcome variables include self-rated health, CES-D

depression score and loneliness. Additionally, she examined the influence of extra-household support and socio-economic status on this association. Two of the main conclusions of this work are that there is a close association between living alone and higher levels of depression and loneliness, and that among women, better self-rated health occurs if they are living alone that with a spouse.

Paul Boyle (*University of St Andrews*) finished off the session with a presentation entitled *Does being a stepparent influence your health? A longitudinal analysis*. He reported work done in collaboration with Peteke Feijten, Zhiqiang Feng and Elspeth Graham, (University of St Andrews) and Vernon Gayle (University of Stirling). Paul began by indicating that while there have been many studies which have explored the health-effects of living in a stepparent family on children, there have been virtually none which considered the potential psychological impacts on the parents in stepfamilies. He then reported on an analysis using longitudinal birth cohort data from the 1958 National Child Development Study (NCDS) and comparing the mental health of stepparents and their partners with parents in first families. He suggested that while the stresses involved in stepfamilies may have an impact on mental health, it is also possible that those with poorer mental health are more likely to end up in a stepfamily – thus, the direction of causality may be difficult to determine.

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