

# **THE DECLINE OF FERTILITY IN SCOTLAND COMPARED WITH ENGLAND**

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by

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## **Abstract.**

### **THE DECLINE OF FERTILITY IN SCOTLAND COMPARED WITH ENGLAND**

The paper considers factors that might explain the decline in fertility observed in Scotland which is greater than in England.

Socio-economic factors such as Employment and Housing are assessed with other more cultural factors. There are also external influences such as Migration with new Ethnic Groups.

The 2001 UK Census is used with data from other sources.

The paper attempts to make a start in assessing the relative importance of these factors in a changing society that is now less patriarchal and men are no longer heads of households and often not the main providers or breadwinners.

# **THE DECLINE OF FERTILITY IN SCOTLAND COMPARED WITH ENGLAND**

## **1. Rationale and Scope of the Paper.**

International comparisons of demographic trends within Europe need to encompass many factors that can influence fertility. In the comparison of Scotland with England, where both share many cultural, social, financial and economic factors and are closely linked within the United Kingdom so as to share a common tax regime and social security system, the different factors that could explain differences in fertility are fewer in number and the project to investigate the causes of different fertility trends becomes more manageable.

How mature industrial societies with developed economies are manifesting fertility decline is of special interest to demographers today.

Egero Bertil (*Bertil 2003*) has observed:

“Poor underprivileged countries face a long period of high population increase, while poverty and natural resource limits provide growing constraints to the management of population increase. Demography appears increasingly to turn to the study of populations well underway in the fertility transition. The "development optimism" implied in this shift needs to be set against the evidence of rapidly growing inequalities, between and within countries. The question needs to be raised whether fertility reductions will reach replacement levels everywhere.”

The comparison between Scotland and England, as fertility in both countries has fallen below replacement level, may provide some pointers to understanding fertility decline in other countries.

The paper sets out to identify possible explanatory variables that could account for the greater decline of fertility in Scotland compared with England in the late 20<sup>th</sup> century and currently.

Variables that have been considered relevant are Cultural, Religious, Socio-economic and Socio-cultural. Migration has cultural and also economic aspects.

Certain factors, such as amounts paid as Child Benefit in the UK, paid maternity and paternity leave, taxes and tax reliefs that affect families with children which are important in other international comparisons of fertility rates and known to influence fertility, are not considered in this paper because England and Scotland share the same social security system and the same tax regime within the UK. There is now a separate parliament in Scotland and some matters are devolved so that certain benefits paid in Scotland now differ from what is paid in England e.g. fees for students at universities. But there is no attempt in the paper to investigate the effects on fertility of universal benefits such as Child Benefit which are the same in Scotland as in England. Nor is there consideration of

such discretionary or means tested benefits as Child Credit and insured or contributory benefits such as Statutory Maternity Pay which are equal in Scotland and England.

The law in respect of housing tenure and house purchase in Scotland is not quite the same as in England, which is a distinctly different jurisdiction. But the institutions that finance house purchase in the private sector are the same in Scotland as in England and they operate in a similar way throughout Great Britain. Mortgage interest rates are also the same across the United Kingdom and are therefore not considered as a factor that might explain the variation in fertility rates. The system of providing social housing is the same in Scotland as in England.

Migration into all parts of the United Kingdom is controlled in the same way. Access to Scotland by potential immigrants from overseas is similar to access to England. But Scotland has proved to be less attractive to immigrants than England and the implications for fertility of a different composition of ethnic groups in Scotland need to be considered.

## **2. The Observed Decline in Fertility.**

Figure 1 (*Population Trends*) shows the decline in the TFR, the Total Fertility Rate in both countries since 1968. The Green Line indicates replacement level fertility at approximately 2.07 TFR (*Smallwood S and Chamberlin J 2005*). In 1968 the Scottish Total Fertility Rate was around 2.8, approximately 35% above replacement level. Fertility in Scotland has now declined to less than 1.5 TFR in 2002, approximately 30% below replacement level.

## **3. Milestones in British Demographic History.**

In 1968, the 1967 Abortion Act came into force throughout Great Britain. There followed an increase in the number of legally induced abortions (*Abortion Statistics*) and a corresponding decline in the birth rate after 1968(*Population Trends*).

1969. Divorce Reform Act. “... easier dissolution raises the likelihood of dissolution. In Britain, the *Divorce Reform Act* (1969) amended the grounds for divorce. Irretrievable breakdown of the marriage, including two years separation of the partners with consent, and four years without consent, became the sole criterion for divorce. These easier grounds for divorce came into effect in 1971...” (*Ermisch J F & Wright RE 1994*)

1971. Equal Pay Act. This “raised the ratio of women’s to men’s wages from 60.7% in 1972 to 71.4% in 1976.” (*Murphy 1993*)

In 1973 contraceptives were provided free of charge under the National Health Service throughout the UK, while a significant charge was made for other prescribed medicines. They became more popular (*Prescription Statistics*) and were widely used. This was a

factor contributing to the decline in the British birth rate since 1973.

In 1975, following a referendum, the UK joined the European Economic Community. Community law requires equal employment opportunities, equal pay and pension rights for women and men. Improved pay and career prospects for women have made caring for young children more unattractive for potential mothers. And the associated improvements in occupational pension provision for women have removed further the rationale for having children to provide for old age.

In 1978 and 1979 Child Tax Allowances, which reduced income tax paid by parents in accord with the number of children, were phased out and replaced by Child Benefits and Lone Parent Benefits. These changes to the Tax and Social Security systems made marriage and children less attractive to men who had benefited directly from the Child Tax Allowances. At the same time Single Parenting became more feasible for women who could often claim more as unmarried single parents in the new benefits paid directly to women when means tested Supplementary Benefits were also included.

The early 1980s have been identified throughout Europe as a time after which it was markedly more difficult for couples to live on one income (*Lesthaeghe R, Surhyn J 2003; Lesthaeghe R 2001*). In the UK this pressure against families having children was amplified by privatisation of publicly owned housing, phasing out of Mortgage Interest Relief and the practice of Mortgage Lending Institutions of lending on two incomes.

In the mid 1980s the privatization of social housing that had been owned by local authorities (Council Housing) gathered pace under the “right to buy” scheme. As a result more young couples, at ages when they might become parents, were exposed to the financial strains of house purchase. As council tenants they had benefited from subsidised housing and could often claim preference for better housing with more rooms if they had several children. Throughout the UK this shift in housing tenure can be recognized as a strong influence towards limiting family size in the working classes.

In 1987 a new nomenclature was introduced in official Birth Statistics in the United Kingdom that indicated lessened social stigma associated with illegitimate or extra-marital births. “The Family Law Act of 1987, which came into effect on 1 April 1989, largely removed the separate and disadvantageous treatment accorded to illegitimate children under the law at that time. As a result of this change we dropped the term 'legitimate' and 'illegitimate' and replaced them with 'inside' and 'outside of marriage’”. (*Office for National Statistics e-mail 20 April 2004*)

In 1991 the Census of the United Kingdom included a question on race and ethnicity.

1994 Sunday Trading Act (England). The 1990s saw a relaxation of restrictions on Sunday trading and Sunday working throughout Great Britain. In Scotland there was no single change in the law such as took place in England with The Sunday Trading Act 1994. But the 1994 Act applicable to England and Wales can be understood to have acted as a catalyst in Scotland to accelerate change as many businesses and employers

operate in a similar fashion throughout Great Britain. The implications for family life and religious practice are significant in relation to fertility. Before the English law changed to allow more economic activity on Sundays, there was more reluctance in Scotland to engage in Sunday trading which was legally permitted.

In 2001 the Census of the United Kingdom included a question on religion in conjunction with the question on race and ethnicity.

On 25<sup>th</sup> February 2004 the Scotland's First Minister made a statement to the Scottish Parliament in Edinburgh saying "Scotland's population is falling." and "Population Decline is really serious" (*Jack McConnell, 2004*)

#### **4. The Comparison with England.**

Until the 1980s it was apparent that Scottish fertility was higher than English [Figure 1]. This did not attract much attention nor did the difference arouse any controversy.

In Scotland there was a larger working class culture, engaging a larger proportion of the population than in England. (*UK Censuses*) Men who work in such traditional industries as coal mines and shipyards traditionally have larger families. Employment and educational opportunities for their wives were limited. The larger proportion of council tenants, living in what is now called social housing, in Scotland was a further factor (*UK Censuses*). It was known (*Murphy M 1992*) that council tenants had more children than privately renting tenants or owner-occupiers. This predominance of low cost housing in Scotland was a big influence in Scotland and larger families were to be expected there as a consequence.

These same factors also provide some explanation for the subsequent decline in fertility throughout Great Britain and the additional decline in Scotland. The decline in traditional industries has removed employment opportunities for men so that they are less enabled to take on family commitments. And this adverse impact has been greater in Scotland than in England. The selling to tenants and privatisation of council houses has exposed more young couples to the financial strains of house purchase at a time when they are most likely to have children. Faced with mortgage payments, couples have put off having children and completed family sizes are also reduced. And this privatization of housing has been on a bigger scale in Scotland than in England.

The outlook and aspirations of women in Scotland and England are an important background influence to fertility trends. Cultural differences between Scotland and England in this respect are small but perhaps significant in relation to fertility. An aspect of the traditional working class culture more prevalent in Scotland was an expectation that women would care for their own children at home when they were young. Women in Scotland may now be more reluctant to have children when they are often without a supportive partner and cannot see a way to do that. Their English contemporaries may have a more middle class culture where they are happier to have children who are cared

for by nannies at home or by other childcare arrangements outside the home. English women more often have access to well paid professional employment where they can afford to pay for childcare.

Cultural changes of a religious nature have apparently been more rapid in Scotland since the 1970s than in England. A decline in religious practice measured by church attendance has accompanied a growth in Sunday trading where it is mainly women who are employed in service industries operating on Sundays. There follows a greater acceptance of Abortion and Contraception, Extra Marital Sexual Unions and Divorce. These also have negative implications for the birth rate and the faster pace of secularisation in Scotland has contributed to the greater decline in the Scottish birth rate.

At the same time there are new puzzles. The recovery in the economy in Scotland, with new industries providing new employment opportunities for young men in Scotland, has not brought about a recovery in the birth rate. And housing is much cheaper today in Scotland than in England even in relation to average incomes. Why is this not assisting Scottish couples to have more children than their English contemporaries in parallel with a continuing higher proportion of social housing in Scotland?

## **5. The Technical Challenge for Demographers in Forecasting Fertility in Modern Conditions.**

When Births Outside Wedlock were few in number, demographers developed a methodology to model and forecast fertility that made use of known parity progression within marriage. Fertility rates for first and subsequent children by age of women and duration of marriage were applied to the anticipated numbers of married women and the results used to model intra-marital fertility in future years. It was then possible to allow for extra-marital births by adding on a percentage as an approximate allowance e.g. 8% was used when the proportion of extra-marital births had apparently stabilised at this level in the 1950s and 1960s.

Such a methodology became inappropriate when extra-marital births increased substantially. Currently no distinction is made in official UK population forecasts between intra-marital and extra-marital births. In effect demographers have fallen back on a more primitive methodology that pays some attention to parity progression among married and unmarried women (*Smallwood S. 2003*) but does not allow parametrically for variations in parity progression among women of different marital status. Demographers now know more about parity progression in the UK (*Smallwood S.2002*) but make only limited use of this knowledge in forecasting future fertility.

To model fertility for population forecasting purposes in modern conditions a prerequisite is to identify the relevant factors that are driving modern fertility change. The continued fall in British fertility since the 1960s has not been anticipated in official British

population projections.

One mistake made by demographers was to rely on data reported in surveys on women's intentions to have children. In the UK, as elsewhere, this has proved to be misleading. (*Smallwood S. 2003*) "We are perplexed when dealing with the fact that the number of planned or wanted children continues to be greater than the total number of children. In Italy, for example, 2.1 children planned children still correspond to 1.2 actual children..." (*Golini A, 2003*) If the aim of UK official government promotion of contraception since the 1970s has been to enable couples to have the children they wanted to have, it has failed to achieve this end.

Further declines in fertility are possible. Large increases in house prices currently observed in the UK could have such an effect. At the same time the increased prosperity could enable more couples to have children. But for lack of a better methodology demographers are not in a position to anticipate further declines in fertility or assess their likelihood. Nor are they confident in predicting a recovery in the birth rate. "low or very low fertility is unlikely to be a temporary phenomenon" (*Golini A, 2003*) Yet demographers are still expecting some recovery in the birth rate in Europe: "Once the process of fertility postponement stops, period fertility rates are likely to increase above the extremely low threshold..." (*Subotka, 2004*)

## **6. Official Recognition of Low Fertility in Scotland.**

There is no official explanation as to why fertility in Scotland is now lower than in England (*Registrar General of Scotland. Annual Report 2003*) But it has been recognised and there is an official expectation that the difference in fertility will persist for some time into the future (*UK Population Projections 2002-based* ).

Table 1(*UK Population Projections 2002-based* ) shows the fertility assumptions in the most recent official population projections made by the UK Government Actuary's Department.

The 2002 based projections assume TFR 1.6 for Scotland and 1.75 for England, with the difference of 0.15 to continue over the duration of the forecast to 2031. This difference is quite close to the currently observed difference in 2002, with a TFR for England of 1.63 and for Scotland of 1.48. The previous 1998 based projection had assumed TFR for England of 1.80 and 1.75 for Scotland, a difference of .05.

For both England and Scotland, the long term fertility assumptions for the UK are again rather optimistic in assuming there will somehow be a spontaneous recovery in the birth rate for reasons that are not explained clearly. In determining these fertility assumptions the slower decline in completed cohort fertility was used as a guide in preference to the more recent Total Fertility Rates. (*Smallwood S, 2003*) A family size for England of 1.75 and for Scotland of 1.6, which is the long term assumption in the last 3 official forecasts: 2000 based, 2001 based interim and 2002 based, are rather higher than what is now

observed in current fertility in any recent year's Total Fertility Rate.

## **7. Ideological, Economic and Cultural Changes measured by the Census and other Sources.**

Over the period considered there has been a change in the outlook and mentality of people that affects their propensity and disposition to having children.

There are measurable variables reported in censuses and surveys that reflect economic and cultural changes that are considered relevant. Data is available from the UK Census and other sources on Unemployment, Higher and Further Education, Marriage, Divorce, Housing Tenure, Housing Type, House Prices, Television Viewing, Religion, Abortion, Contraception, Homosexuality and Ethnicity.

## **8. Marriage.**

Demographers have recognized the close association between marriage and having children. This persists in modern conditions even when the proportion of Births outside wedlock has been increasing. Indeed in modern conditions it is quite possible for the difference between marital fertility and extra-marital fertility to widen.

Table 2 (*UK Census*) shows the proportion of women married within the ages 25-29 in both jurisdictions: England & Wales and Scotland in the last three censuses. The decline in the proportion married is greater in Scotland. In 1981 there was a higher proportion married at 76.9% in Scotland than 75% as in England. In 2001 the proportion married in this age group in Scotland had fallen to 30.2% compared to 33% in England.

The rate at which cohabiting unions are converted into marriages in different countries has been examined. "Great Britain exhibits the lowest proportion at around one-third" (*Kiernan K. in Wu & Wolfe editors, 2001*)

Census data has been considered to err in over estimating the proportion of married women. Census returns usually show a larger number of Married Women than Married Men. Some married men may be out of the country on census night in greater numbers than married women and in the 20<sup>th</sup> century this could have explained the sex difference. Even now, when the census aims to cover those usually resident, it is customary to use census data on numbers married without any correction (*UK Census*)

It is apparent that the decline in Fertility has run closely parallel to a decline in the proportion married in this age group. This decline in marriage indicates a departure from traditional Christian moral standards. Other religious groups are a small proportion of the

population in Scotland.

Any future recovery in the birth rate would be assisted by a recovery in the marriage rates for women in this age group. Fertility is likely to remain low if women do not marry and start having children before age 30. In the UK there is an exceptional trend to having children before any first partnership whether cohabitation or formal marriage. Here the implications for subsequent parity progression are likely to be even more negative. It is to be hoped that this lower fertility among women who have their first child as lone parents or parents “living together apart” can be more clearly delineated in future given that it is a new distinctive trend in Great Britain. “the proportion of births prior to a first partnership has more than doubled, from 6 to 15 per cent”(Kiernan K. in Wu & Wolfe editors, 2001).

## **9. Divorce.**

Unmarried people are more reluctant to have children and so can be divorced people. Divorce can be a reason for women to cancel plans to have more children. Demographers, who refer to interviews of women as to their intentions to have children, can overestimate future fertility, when plans to have more children are overtaken by divorce.

Within the age group 30-34, divorce is particularly likely to involve cancellation of plans to have children. Here it is apparent from Table 3 (*UK Census*) that there has been a considerable increase in numbers divorced in Scotland from 5.2% in 1981 to 12.9% in 2001. And this is greater than the corresponding increase in England.

As with the decline in numbers married noted above, this observed increase in divorce, that is greater in Scotland than in England, is an indication of more modernization in Scotland and departure from traditional and Christian family norms.

Any future recovery in the birth rate in Scotland is likely to be associated with more stability in partnerships among couples and also with an increase in marriage rates.

In the British Isles divorce and remarriage after divorce tends to have particularly depressing effects for the birth rate because of a continuing tradition of late marriage. In the USA, in contrast, it seems couples marry at a young age and have children and then when they divorce and remarry they have more children. Notwithstanding the high rate of divorce in America, the American birth rate is nearer to replacement level than the British birth rate. Here they marry later and may divorce and remarry without having children in any marriage (*Berrington A, Diamond I. 2000*). Generally it is thought that children are associated with marriage and especially with stable marriages. “their presence within marriage should inhibit marital dissolution”. (*Ermisch J & Wright R.. 1994*)

Divorce in Great Britain can be regarded as a factor tending to reduce fertility especially

in Scotland. Divorce not only tends to reduce the fertility of the couple divorcing but also has an effect on children of divorced parents in respect of their fertility. The children of divorced parents are in their turn more likely to have children extra-maritally especially in Northern Europe ( *Kiernan K in Wu & Wolfe editors 2001*).

## **10. Extra-Marital Births.**

A major social change with a corresponding impact on public expenditure is the increasing proportion of live births outside wedlock.

Figure 2 (*Population Trends*) shows how Scotland has now overtaken England in the proportion of births outside wedlock in the past ten years.

In 1993, little more than 30% of Scottish births were extra-marital and in 2002 there were more than 40% extra-marital. This is a rapid rate of social change and indicates there are powerful forces of modernisation at work. Together with the parallel changes in the numbers married and numbers divorced noted above, this provides substantial support for the claim that Scotland has become less Christian than England over the last ten years.

While the numbers of children born outside wedlock per annum have increased, this of itself leads to a decrease in the overall birth rate. Parity progression outside marriage is less than parity progression within marriage. When a first child is born to an unmarried couple they are less likely to marry after the birth than to marry (*Haskey J 1999*). Parity progression for single mothers is observed to be less than if they were married at the time of the first birth.

Whereas a decline in marriage rates is and always has been recognized by demographers as implying a reduction in fertility, an increase in the proportion of births outside wedlock is less acknowledged as a factor with negative fertility implications.

In Great Britain it has been found that the increase in births outside marriage is largely from cohabiting couples. “any explanation of the rise in childbearing outside marriage in Britain must explain why cohabitation has increased so dramatically” (*Ermisch in Wu & Wolfe editors, 2001*). But the proportion of births in Great Britain registered to unmarried parents who are not cohabiting is also rather high in Great Britain especially at the younger ages. In 2002 17.8% of all births were sole registrations by just one parent and of those that were jointly registered by two unmarried parents 22.5% were by parents with different addresses. (*Birth Statistics*). This implies that about 23% of children are born to parents neither married nor living together. How much this leads to reduced parity progression has not yet been assessed.

## **11. Male Unemployment and Female Employment.**

Scotland has been adversely affected to a greater extent than England by the decline of traditional manufacturing industries. Male unemployment in Scotland increased

considerably from 4.6% in 1975 to 14.8% in 1985 as shown by Table 4. (*Unemployment Claimant Count Statistics. ONS*) This has probably been a main driving force for the observed declines as noted above in fertility and in marriage rates in Scotland. It is also thought to be associated with the increase in extra-marital births when single mothers can claim more means-tested benefits in the UK.

Unemployment among young men is especially relevant to household formation and starting a family. Table 5 (*Unemployment Claimant Count Statistics. ONS*) shows the male unemployment count for recent years in the 24 and under age group since 1986 when the Scottish rate was much higher than the English rate.

Since 1986 there has been a marked recovery throughout Great Britain in employment for men of all ages including these younger ages as is apparent from both Table 4 and Table 5. Scotland is however still worse off than England in this respect. And it seems that the new employment opportunities for young men are often in service industries e.g. telephone call centres and the jobs are not as well paid as in traditional industries. In such newer industries young men have little advantage over young women and “breadwinner” type jobs are less available to them than in the past.

The comparative lack of employment opportunities in Scotland, especially for young men, compared with England has made Scotland less attractive to potential immigrants. The smaller numbers of the new ethnic groups with higher fertility in Scotland are a further reason for the lower birth rate in Scotland.

While job opportunities for young men in Scotland have declined there are more opportunities for Scottish women in well paid work. Economists have stressed the role of improved opportunities for female employment as a factor driving the decline in fertility. “Statistical analysis of the changes in British birth rates since 1952 indeed indicates that major contributor to the decline in births, particularly after 1974, was higher women’s (net of tax) wages relative to men’s net earnings.” (*Ermisch 1982*)

## **12. Further Education and Professional Training.**

In Scotland, to a greater extent than in England, women are now claiming a larger share of further educational opportunities. Successive censuses have shown as in Table 6 (*UK Census*) that this proportion has risen and most students are now female. In Scotland the female majority is larger in 2001 than in England especially among students that are economically active. As many as 57.2% of economically active students in Scotland in 2001 are female. Again this suggests that employment and further educational opportunities that are currently available are more for young women in Scotland than for young men.

Possibly Scotland is especially attractive to female students from abroad. Also it is possible that Scottish young men would travel abroad as students more than Scottish female students. Each year Scotland attracts about 14,500 English domiciled students and

about 6,000 students from Scotland attend university in England. (*The Times March 19, 2004*). It is not thought this leads to much imbalance in the sex ratio.

This trend has ominous implications for the birth rate in Scotland. Women who have better opportunities for further education and professional careers are less disposed to have children.

### **13. Housing Tenure.**

Traditionally there has been much more social housing in Scotland than in England. This pattern persisted until the 1980s. After that there was more privatisation of social housing in Scotland than in England. In 1981 as reported in the census in that year there were 56% of all households living in Social Housing as Council Tenants or as Housing Association tenants in Scotland. This is shown in Table 7 (*UK Census*). But then there was a steep decline with most of these dwellings privatised so that in the 2001 Census it was reported that only 27% of housing in Scotland was Social Housing.

In the 1971 Census, Housing Association tenants were counted as Private Tenants. Since then this category has been reclassified as Social Housing along with Council Tenants. There has been a parallel decline in Social Housing in England as shown in Table 7 As reported by the 2001 Census there are only 19% Social Tenants in England & Wales compared with the 27% in Social Housing in Scotland, which is still significantly more. The continuing availability of social housing at low cost to lower paid people is supportive of family formation. And in Scotland, even more than in England, retrenchment in respect of this social service has been a major contributing factor to the decline in Fertility.

### **14. Housing Types. Number of Rooms.**

Besides housing tenure, family formation can be influenced by housing type and housing size. Rising standards and expectations in respect of housing make potential parents more reluctant to have more children in smaller dwellings. Here there seems to be some disadvantage in Scotland compared to England in that fewer of the available social housing units have several rooms. Table 8 (*UK Census*) shows that the proportion of social housing with 6 or more rooms is smaller in Scotland. Only 8.3% of social housing dwellings in Scotland had 6 or more rooms in 2001 as reported in the census compared to 14.9% in England.

This suggests that any future recovery in the birth rate in Scotland would need to be assisted by a better supply of family type dwellings that are conducive to larger families

in the social housing sector.

### **15. House Prices.**

Now that Owner-occupation has emerged as by far the predominant type of Housing Tenure throughout Great Britain, there is a new difficulty in explaining the low birth rate in Scotland. When house prices are lower in Scotland than in England why is the birth rate not higher in Scotland?

Figure 3 (*Office of the Deputy Prime Minister web site*) shows how House Prices, where a mortgage lender was involved in the sale, increased in Scotland less than in England since the 1980s. Until the early 1980s there had been little difference between Scotland and England in respect of House Prices. After the mid 1980s there has been a significant difference with Scottish prices lower than English. And this gap has tended to widen further since the mid 1990s. It is now very clear that houses are cheaper in Scotland.

### **16. House Prices and Incomes of Borrowers.**

Even when Scottish houses were as expensive as English houses, there was a lower ratio of house prices to the incomes of borrowers purchasing. In the 1970s and 1980s Scottish house purchasers were a more select group with comparatively high incomes in Scotland, where social housing was the form of tenure for the majority.

This is apparent from Figure 4 (*Office of the Deputy Prime Minister web site*). But until the mid-1980s this difference in the ratio of house prices to incomes was small. As the graph in Figure 4 shows, the gap widened to become quite significant in the late 1980s and then it narrowed again. Most recently in 2001 it has widened again. In general it is apparent that mortgage lenders restrict the size of mortgage advances to 2.5 or 3 times salary and this applies both in England and in Scotland. But most recently this rule seems to have been relaxed in England where it is now common for mortgages to exceed 3 times salary since 2001.

The income of borrowers in modern conditions usually includes the income of two persons. In the 1970s it was more often the practice to lend on one income. Now mortgage lenders usually lend on two incomes. In this way a woman's salary is more necessary to service a mortgage. Child bearing usually implies some interruption of salary. The modern necessity to make large mortgage payments has the effect of lowering fertility among owner-occupiers.

The financial strain of house purchase in the UK has been aggravated for couples who might consider having children, by the abolition of MIR, Mortgage Interest Relief. When this applied until the 1990s, mortgage interest payments were offset against taxable

income to reduce the income tax paid by homeowners.

The trend of interest rates applicable to mortgages is relevant to the birth rate in the UK. When interest rates are greatly increased, as in the early 1980s, there followed a reduction in the birth rate in Scotland and an increase in the abortion rate. In England there was less reduction in the birth rate in the 1980s. English home owners could better afford higher interest rates on mortgages. But the anticipated recovery in the birth rate forecast by the Government Actuary and the committee advising the Government Actuary on fertility assumptions did not take place throughout Great Britain in the 1980s.

Further analysis of the effect of house purchase, and in particular the financial strains of house purchase, on fertility in Scotland is possible by examination of the relative incomes of men and women. The graph in Figure 4 which shows the ratio of House Prices to Borrowers' Incomes reflects the joint income of borrowers that are couples.

The birth rate may also be influenced by the proportion of borrowers' incomes which is the woman's income, when a couple are buying a house. For recent years the New Earnings Survey (*New Earnings Survey*) reports average earnings for England and Scotland for male and female workers. In 2003 Average gross annual earnings in England for males were £28,723 that was 39% than the figure for females. This ratio was higher than in Scotland, where average earnings were £25,271 for males and this was 33% higher than for females. Likewise in 2000 the same ratios of earnings in the New Earnings Survey were 41.4% in England and 37.5% for Scotland. Over the 3 year interval a narrowing of the gap between men and women's incomes is notable but so is the widening of the gap between England and Scotland in the ratio of male to female incomes. It is apparent that when couples buy a house in Scotland they are more dependent on a woman's earnings than in England. It is said that "Poverty" is a reason for the low birth rate in Scotland and this is apparently true in the relative poverty of Scottish men who have lower earnings than their English counterparts.

## **17. Abortion.**

Abortion data in Great Britain has been made available by the Office for National Statistics for England & Wales (*Abortion Statistics*) and now by the Department of Health in respect of abortions in England & Wales and by the Information and Statistics Division of the national Health Service in Scotland (*Annual Report ISD, NHS Scotland*). Data on Age specific numbers of legally induced abortions as given for each year of age of the women resident in England having abortions in England and for Scottish resident women having abortions in Scotland. Scottish resident women coming to England for abortions are also counted (in the year of the census 2001 there were 337 women resident in Scotland who came to England for abortions (*Abortion Statistics 2001*) compared to 12,100 Scottish resident women having abortions within Scotland). It is believed that the coverage of these statistics are complete in that few women go abroad overseas for

abortions outside Great Britain and all legal abortions are captured by the statistics and few illegal abortions take place. Using these numbers as numerators and the mid-year female population at each age as denominators, Abortion Rates at each age for each year are calculated in the same way as Fertility Rates and the Total Abortion Rate is derived by summation over the age range in the same way as the Total Fertility Rate.

Figure 5 (*Abortion Statistics ONS; Annual Report ISD, NHS Scotland*) shows Total Abortion Rates for Scotland and for England & Wales for the years since 1968. The increase in the Total Abortion Rate TAR is apparent since 1968 for both Scotland and England & Wales.

Also apparent is the smaller rate for Scotland. The TAR for England is around 0.5 whereas the rate for Scotland is around 0.33 in recent years. This points to a greater aversion to abortion in Scotland compared to England and is one of the pieces of evidence of greater adherence to traditional Christianity in Scotland, unlike the higher extra-marital birth rate in Scotland noted above.

In Great Britain there is a remarkably close fit since 1980 between the shortfall below replacement level of the birth rate and the abortion rate. For Scotland as shown in Figure 7 it is apparent that adding the TAR to the TFR falls just short of replacement level 2.08. For the most recent years since 2000 this fit is not quite so close. And for England & Wales as shown in Figure 6, the sum of the TFR and the TAR exceeds replacement level fertility.

Though some demographers conclude it was “only a minor factor in fertility change over this period.” (*Murphy 1993*), available abortions play some part in the decline of fertility. The continued low abortion rate for Scotland is a puzzle as it runs counter to other modernizing trends noted above. The continuing pattern of significant numbers of women coming to England from Scotland for abortions each year points to a more conservative stance, that is averse to abortion, possibly by Scottish women and possibly by the Scottish medical profession who may be more reluctant to approve abortions. Medical approval by two doctors is required for an abortion in Great Britain. Private clinics with facilities for late abortions are fewer in Scotland. Whereas in England there are many private clinics and thousands of women come from overseas for abortions each year, besides the two or three hundred who come from Scotland. Convergence with England with respect to the abortion rate would have negative implications for the birth rate in Scotland.

## **18. Contraception.**

For Great Britain it has been established that the introduction of the contraceptive pill and increasing use of it in the 1960s and 1970s was a main influence in the contemporary decline in fertility. One study (*Murphy 1993*) found “the oral contraceptive pill was the principal determinant of fertility in this period”. Another study, which concentrated on

Scotland (*Bone 1985*), also reported “between 1964 and 1981, the course described by fertility however measured, was virtually a mirror image of the trend in prevalence of oral contraception.” The increase in the TFR as shown in Figure 1 for both Scotland and England & Wales in 1978 and 1979 can be explained by the Pill Scare following a report published in April 1977. This second study however (*Bone 1985*), which used responses to a questionnaire, attributed much of the increase in births in Scotland following the 1977 Pill Scare to “planned pregnancies.”

### **.Prescribed Contraceptives.**

National Health Prescription Statistics cover medical prescriptions prescribed by General Practitioners and dispensed in the community at chemist shops. Other contraceptives prescribed and dispensed in specialist Family Planning clinics and hospitals are not included.

Table 9 (*Prescription Statistics England; Prescription Statistics Scotland*) shows how these statistics for certain contraceptive compare in Scotland and in England. Generally there is slightly less use in Scotland of contraceptives than in England prescribed by GPs. And there is markedly less use of injections prescribed and administered by GPs and fewer contraceptive implants prescribed and fitted by GPs.

The table seems to dispel the myth of a Scotch cultural preference for injections and against pills! At least this seems clear on the part of the GPs in Scotland. But perhaps the clinics are a different story. The injection only contraceptives are now much less popular in Scotland in contrast to what was thought to be in the past a Scottish preference for injections..

The lesser use of non-pill contraceptives especially, is consistent with the lower Scottish abortion rate. It seems plausible that Scotch doctors are more abortion averse and also more averse to using certain contraceptives that are possibly abortifacients – IUCDs (Intra Uterine Contraceptive Devices) and Emergency contraceptives, where the Scottish usage is markedly less.

It is not clear why there is a higher rate of use of Progestogen only contraceptives in Scotland.

The usage of prescribed contraceptives in Scotland is not static. Table 10 shows how the usage of these items changed from 2001 to 2002. The 7.3% decline in use of injection contraceptives suggests that this form a contraception was more popular in the past than it is now. There is also a marked increase in the popularity of the Mirena coil which increase in usage by 173%. Over the last two years in England the numbers of Mirena coils prescribed and fitted increased by about 12% from 50,000 to 56,000. The Mirena coil was first marketed in the UK around 1995 and it seems the rate of use in Scotland is now suddenly starting to catch up with England after a slower start.

Consideration of this usage of prescribed contraceptives does nothing to explain the lower Scottish birth rate. Possibly in Scotland the family planning clinics (not covered by Prescription Statistics) are a larger source of contraceptives than in England and the comparison may not be exact.

It is reported that “The percentage of injectable contraception as a proportion of the overall contraception prescribed in specialist family planning clinics is slightly above but similar to that prescribed in general practice in Scotland.” (*Bigrigg A, 2004*) This suggests that there is not now much remaining in the way of a cultural preference for injection type contraceptives in Scotland compared to England.

The comparisons between the last two years in Table 10 suggests a convergence between Scotland and England & Wales in respect of usage of prescribed contraceptives and this also could be factor leading to a convergence in the birth rate in both parts of Great Britain in future years.

### **Sterilization and Vasectomies.**

There is some indication that sterilization of women has been more widely used in Scotland than in England in the epoch considered. In 1980 there were 14,692 sterilizations in Scotland compared with 81,866 in England and Wales. (*Birth Counts, 2000*) Rates per 100,000 women were 800.9 in England and Wales and 1,359.6 in Scotland. In 1996 the numbers of sterilizations in Scotland had fallen to 7,918 and in England & Wales to 52,248, which leaves Scotland with the higher rate per 100,000 women.

For vasectomies a combined total for hospitals and family planning clinics was in 1980 for Scotland 7,218 and for England & Wales 54,582. Again the rate for Scotland is higher. And more recently in 1997 the total for Scotland was 8,357 and for England & Wales was 40,950. (*Birth Counts, 2000*)

The higher rate of sterilizations in Scotland and the much higher rate of vasectomies in Scotland implied here may be partly misleading in that there may also be more privately arranged sterilizations and vasectomies in England that are not counted here. But it is also likely there is a real cultural difference with a stronger Scottish emphasis on sterilization and vasectomies as a means of fertility control and this is a factor to be considered in explaining the lower birth rate in Scotland. These methods of contraception are used when hormonal methods are not preferred. After the 1977 Pill Scare, “the demand for vasectomy and sterilization was overwhelming NHS facilities (over 150,000 operations were performed in the year October 1977-78) and waiting lists were lengthening.” (*Leathard 1980*).

### **19. Health Impairment to Fertility. Sexually Transmitted Diseases: Pelvic Inflammatory Diseases. Chlamydia and Gonorrhoea.**

Impaired fertility can result from certain sexually transmitted diseases STDs that are also Pelvic Inflammatory Diseases. These are mainly Chlamydia and Gonorrhoea.

Of these Chlamydia is considered the most important as to implications for fertility. The Health Protection Agency has reported in 2004(*Health Protection Agency web site*):

Genital *Chlamydia trachomatis* is the commonest STI in England, Wales and Northern Ireland, with 89,818 diagnoses in GUM clinics in 2003. Highest rates are seen in young people, especially men and women under 24 years. Genital chlamydial infection is an important reproductive health problem, because 10-30% of untreated infected women develop pelvic inflammatory disease (PID). A significant proportion of cases, particularly amongst women, are asymptomatic and so, are liable to remain undetected, putting women at risk of developing PID. Screening for genital chlamydia infection may reduce PID and ectopic pregnancy. The phased implementation on the National Chlamydia Screening Programme commenced in September 2002 with 10 programme areas; an additional 16 programme areas were added in January 2004. Scotland, Wales, and Northern Ireland are also considering introducing chlamydia screening.

Table 12 (*Public Health Laboratory Services, England; ISD NHS, Scotland*) shows the incidence among females aged 20-24 in England and Scotland for 1995 and 2000.

Since 2000 there has been a further substantial increase in Chlamydia in England. The Health Protection Agency reports for England, Wales and Northern Ireland new cases of Chlamydia for females in the age group 20 to 24, that numbered 6606 in 1995 increased to number 10954 in 1999 and increased further in number to 18931 in 2003. The increase from 1995 to 2003 was 187%. (*Health Protection Agency web site*) An even more alarming increase is reported in the age group 16-19 for females. The numbers there increased from 4937 in 1995 to 10350 in 1999 and to 17464 in 2003, an increase of 254% from 1995 to 2003.

It is apparent from Table 11 that the incidence has been much less in Scotland than in England. For years since 2001 Scottish data is not available. The comparison suggests that this is not an important influence on fertility up till now. Certainly the higher incidence in England of Chlamydia does not explain the higher fertility in England compared with Scotland.

However the observed increase continued over all recent years is considerable and it is possible that this will be a significant influence especially in England to reduce fertility in future years. Later child bearing in combination with more Pelvic Infection is tending to

leave more women with infertility problems after age 35. The latest data from the Health Protection Agency for 2004 reports a 9% rise with 104,155 new cases of Chlamydia in Britain

## **20. Homosexual Couples.**

Attitudes to Homosexuality have changed considerably and it is possible there is taking place a significant increase in the numbers of households with homosexual couples. Table 13 (*British Social Attitudes Survey*) shows how attitudes have changed as reported in The British Social Attitudes Survey. About half of those now under the age of 30 do consider it at all wrong.

The 2001 Census in the UK reported for England and Wales 78,522 living in same sex couples or 1.9 per thousand among 40,666,546 people over the age of 16.[Table UV93 Census 2001 England & Wales](*UK Census*) For Scotland the number was lower [Table UV49 Census 2001 Scotland] (*UK Census*): 6,110 were reported cohabiting as part of a same sex couple which was 1.5 per thousand among 4,007,454 people over the age of 16.

It is possible that Scottish homosexuals migrate to England, and in particular to the big cities there especially London, so that fewer homosexual couples are found in Scotland by the census. Like the lower Scottish abortion rate this lower rate of incidence of homosexual couples points to more conservative and traditional Christian values in Scotland.

Again this seems not have been up till now a significant influence on fertility. But a marked increase in households with same sex couples would imply some reduction in the birth rate in future years. “These results are not strictly comparable” internationally or within the UK “with other results on living arrangements” [Table UV93 Census 2001 England & Wales](*UK Census*). The census of the USA in 2000 reported nearly a million same sex couples in a population about six times larger than Great Britain. Moreover there was a large increase in the USA found in the 2000 census in numbers of same sex couples compared with the previous census. Some increase in the numbers of same sex couples is likely in the UK to be reported in the next census in 2011 and this could also be a large increase. It is also a matter of speculation as to whether the difference between Scotland and England in this respect will reduce in accord with cultural convergence or remain significant.

## **21. Religion.**

A big surprise in the 2001 UK Census report was the large proportion of the population in England & Wales, nearly 72%, who declared themselves to be Christians. Traditionally the pattern has been for a larger proportion of declared Christians to be found in Scotland. But the 2001 Census has produced a lower proportion 65% in Scotland than in England. Table 12 (*UK Census*) shows how the results compare in respect of religious declaration. The larger number in ethnic minority groups of non-Christian religions in England is reflected in the higher proportion of Other religions 5.8% compared with the small percentage 1.9% in Scotland.

There has been some discussion in the UK as to the quality of the 2001 Census and it is likely that coverage by the census of immigrant groups that do not understand English and have non-Christian religions is incomplete. But census comparisons between Scotland and England are not thought to be distorted by this under-enumeration.

The question asked on Religion in the census in England followed the question on ethnicity and the response prescribed did not distinguish between different Christian denominations. In Scotland there were more options. Scots were asked to choose between Church of Scotland and other denominations such as Roman Catholic. And in the census in Scotland the religious questions did not follow on from the ethnicity questions.

The decline in religious practice throughout Great Britain is indicated by Table 14 (*Christian Research*). Church attendance has been declining more rapidly in Scotland but there are still more church goers in Scotland. In 2002 in Scotland 10% are church attenders but only 7% in England attend church. Christian Research estimate this decline will continue

Other surveys confirm the general trend and the contemporary shift in religious allegiance reported by the Census for Scotland. The Scottish Social Attitudes Survey reports 61.7% Christian as shown in Table 15 (*Scottish Social Attitudes Survey*) But there is a larger response of No religion in the Scottish Social Attitudes Survey at nearly 37%. When issues of ethnicity and national identity are raised as in the UK census of 2001 especially in England, this seems to prompt an allegiance to Christianity, even among people who would otherwise not claim to be religious.

The decline in practice of religion in Scotland has especially impacted women in the age group 20 to 29 where it is influential in relation to marriage, household formation and fertility. Table 16 (*Christian Research*) shows the steep decline in Church attendance among women especially in Scotland in the 20 to 29 age group. Christian research attribute this to the growth in Sunday working among women employed in service industries. In 1981 51% of women in that age group attended church and in 2002 this fell to 20%. The rate of decline is much steeper among women than among men. There was a large majority of women in church. Now there is a more even balance as to gender in church congregations.

This decline in religious practice is closely associated with other factors noted above that are contributing to the observed decline in fertility. On the other hand a recovery in the birth rate would be assisted by a religious resurgence. In respect of European countries where Christianity is the predominant religion, it is observed that “In all the countries it is clear that those who become mothers within marriage were more religious than their counterparts who had their first child in other contexts.” ( *Kiernan K in Wu & Wolfe editors 2001*). Such families are also more stable, less likely to experience divorce and achieve more parity progression.

## **22. Cultural Change. Television Viewing.**

Television reflects cultural change and is also a driving influence that brings about cultural change. Generally one assumes the influence of television to be in the direction of convergence to a modern homogeneous international culture within the English speaking world. Cultural differences persist between England and Scotland. But it is likely they tend to diminish under the influence of the modern media.

Table 16 (*BARB*) shows that comparisons in the viewing of selected popular TV programmes in 1982 and in 2001. There is little difference between Scotland and English TV regions in the viewing figures both in 1982 and in 2001.

The religious content of Television has reduced over the 20 years. And it is thought the behavioural norms in TV drama have also become more unchristian in this period. TV defines what is desirable as lifestyle under modern conditions. TV drama is especially influential with women. A lower birth rate may reflect smaller families and fewer babies in TV drama series.

The modern media are themselves developing rapidly. In the 21st Century there is a proliferation of new digital TV and Radio channels via cable and satellite and also new digital channels broadcast terrestrially. Broadcasting via the internet is important. Audience fragmentation and a growth of new specialist media may also facilitate cultural diversity. So there is also a possibility now that cultural diversity will increase under the influence of modern media and traditional cultural differences may also be better accommodated in new media. Comparatively small ethnic and religious groups may be enabled to have their own TV and radio channels.

It may be that the media act mainly as a catalyst accelerating change in the culture of a society rather than as a main driving influence. Rather than attributing the modern decline in Fertility to watching television, and that does seem to be a tenable hypothesis, it perhaps more reasonable to attribute some of the rapidity of the decline to the influence of the media. For the future it is to be anticipated that the influence of the media will continue to increase in determining what is perceived as a desirable lifestyle and the implications for future fertility trends remain to be assessed.

### **23. New Cultural and Ethnic Groups: The Influence of Migration on Fertility in Great Britain.**

One reason why the birth rate is higher in England than in Scotland is that there is more ethnic diversity in England where some major immigrant groups are characterized by a higher birth rate. (Coleman D, 2003). In England it is observed that Moslem immigrants from Pakistan, Bangladesh and certain North African countries have a higher birth rate. Using the percentage Moslem in the census reports and known fertility rates for these ethnic groups it is estimated by the author that, as shown in Table 18 (*data due to Coleman D 2003*), a difference of .04 in the TFR is attributable to this. Hence one could say that of the 0.15 difference in the TFR between Scotland and England, 0.04 or 27% is attributable to the greater presence in England of these ethnic groups.

### **24. Acknowledgements.**

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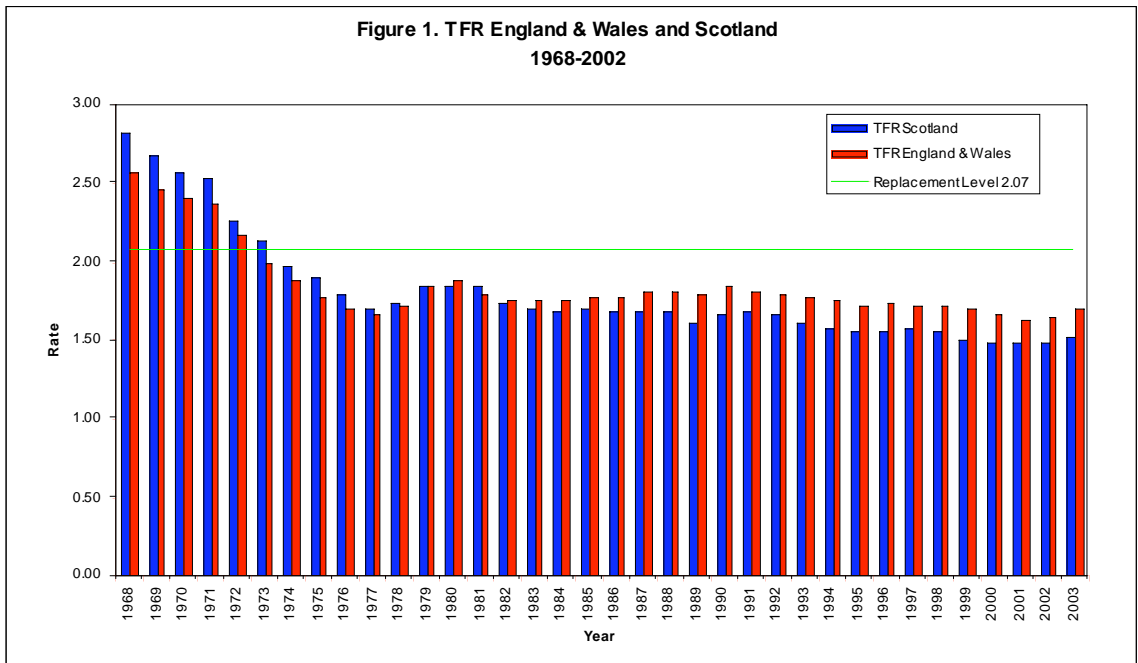
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*Figure 2.*

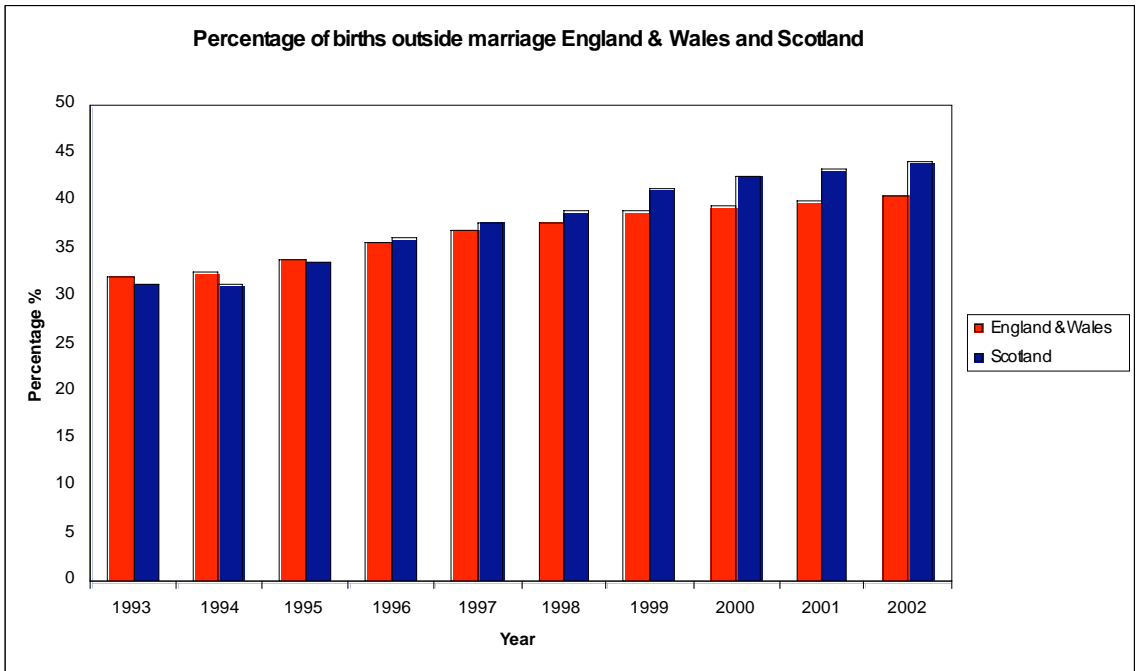


Figure 3. All Dwellings: Average Dwelling Price  
England vs. Scotland

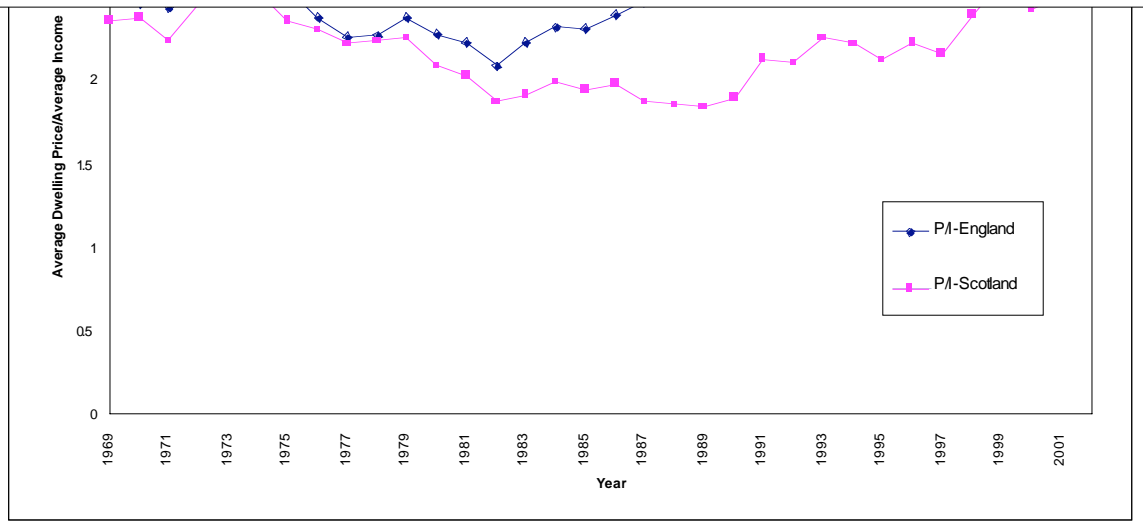
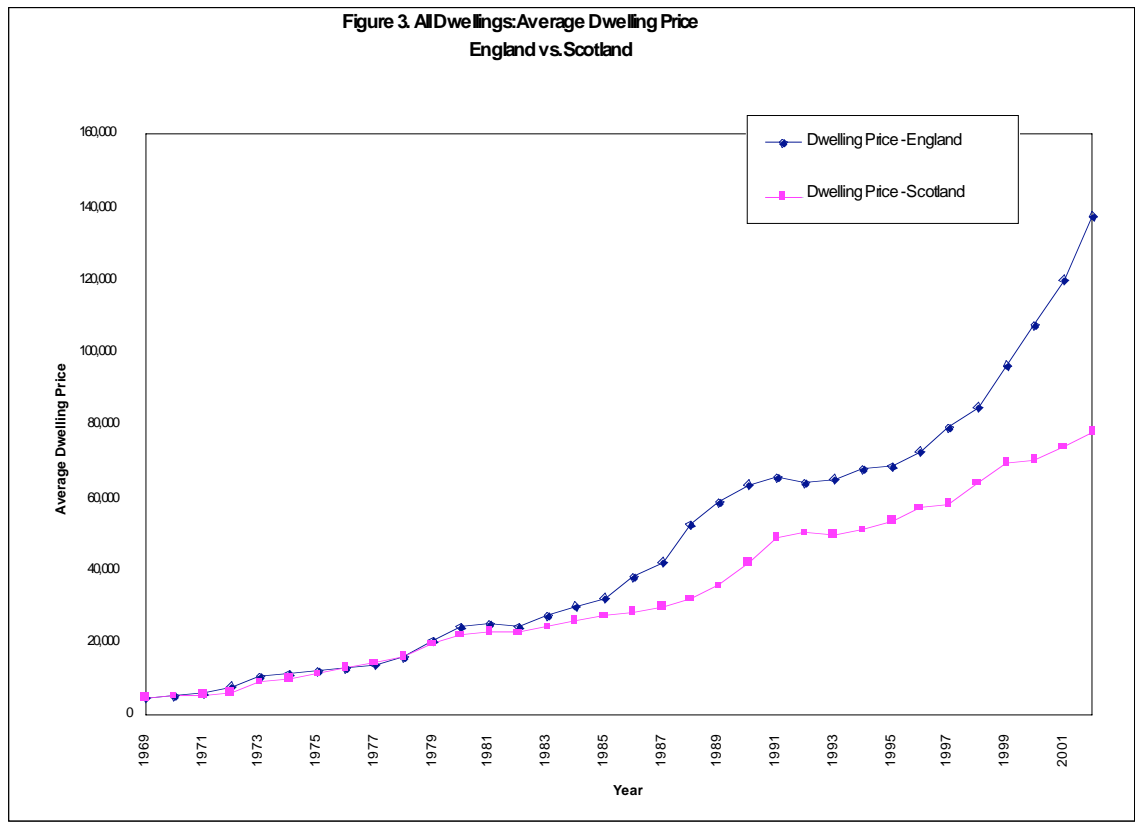


Figure 5.

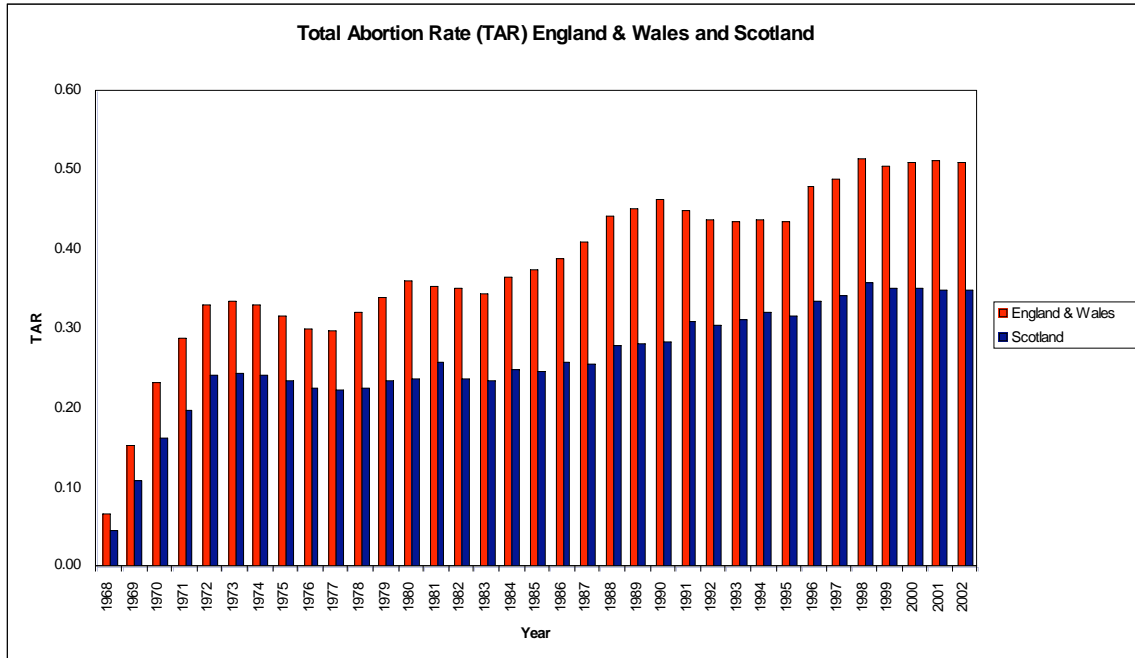


Figure 6.

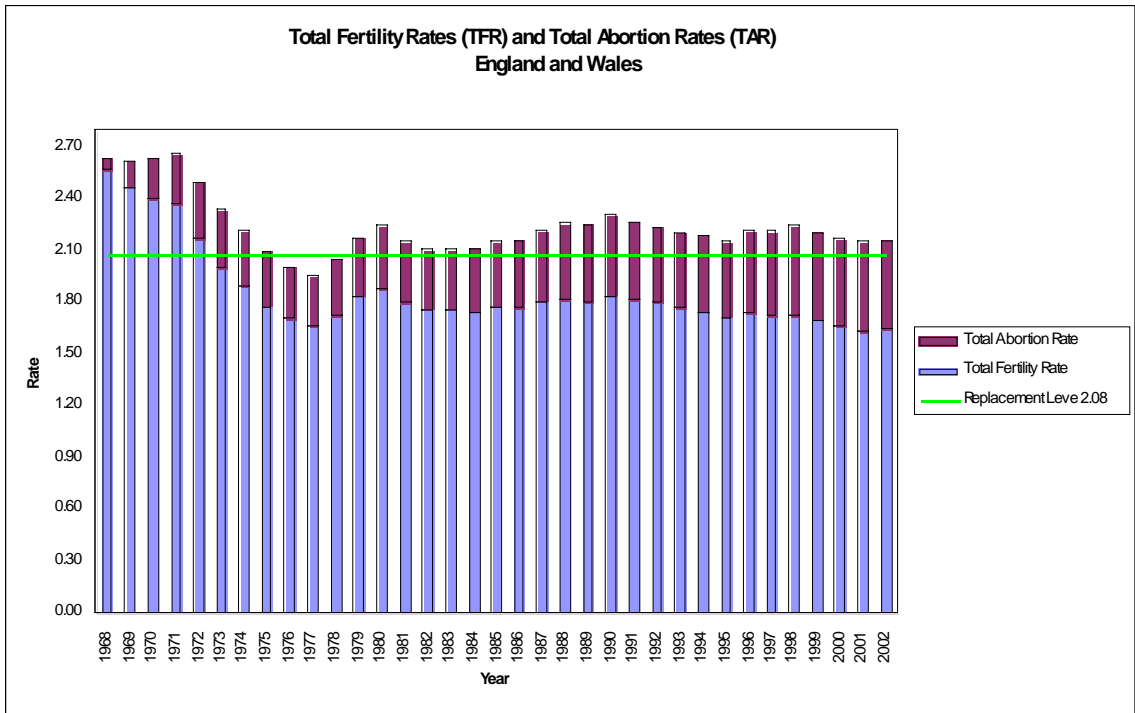
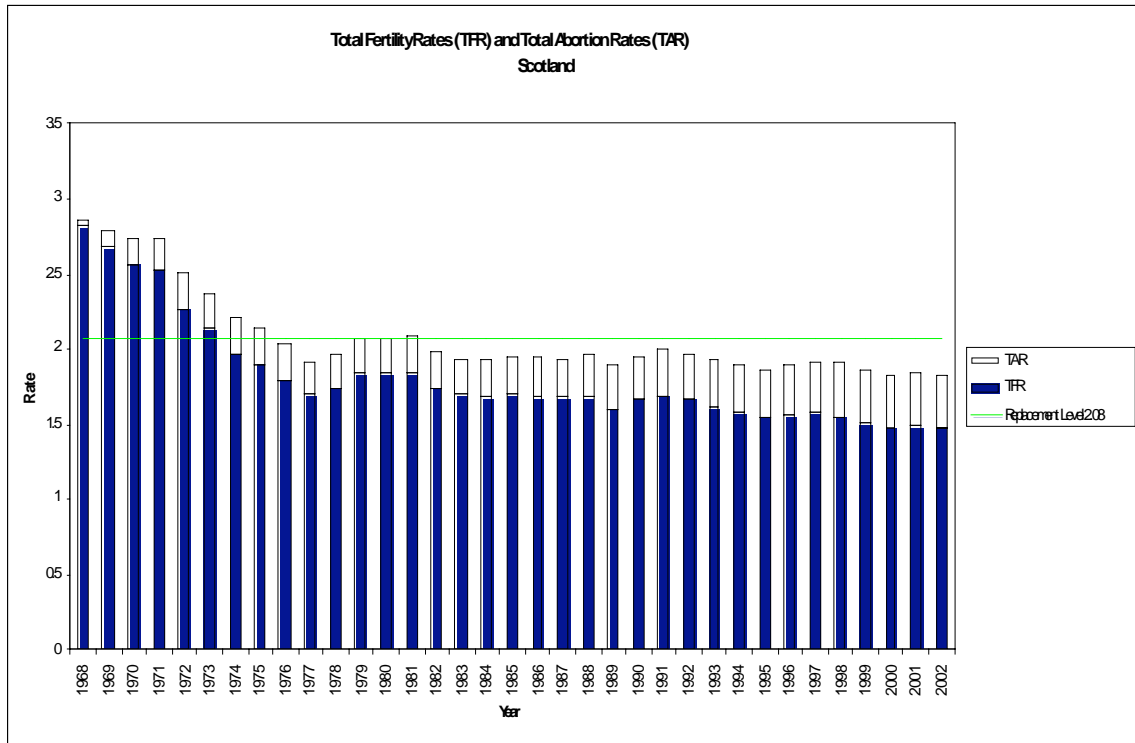


Figure 7.



**Fertility Assumptions made by the Government Actuary**

Long term assumptions: number of children per woman

TFR Total Fertility Rate

<b>2002 based projection and 2001 based interim projection</b>	<b>England</b>	<b>1.75</b>	<b>Scotland</b>	<b>1.60</b>
		for women born after 1985		
<b>Previous 1998 based projection</b>	<b>England</b>	<b>1.80</b>	<b>Scotland</b>	<b>1.75</b>

**Table 1**

**Proportion of Women aged 25-29 married by Census %**

<b>Year</b>	<b>England and Wales</b>	<b>Scotland</b>
2001	33.0	30.2
1991	55.1	58.7
1981	75.0	76.9

**Table 2**

**Proportion of women aged 30-34 divorced by Census %**

<b>Year</b>	<b>England and Wales</b>	<b>Scotland</b>
2001	11.6	12.9
1991	9.9	9.3
1981	6.7	5.2

**Table 3**

**Annual Average Male Unemployment . Claimant Count.**

<b>Year</b>	<b>England and Wales %</b>	<b>Scotland %</b>
1975	3.6	4.6
1980	5.3	7.7
1985	11.6	14.8
1990	6.5	10.2
1995	10.3	10.8
2002	4.1	5.7

**Table 4**

**Male Unemployment Aged 24 and Under**

Unemployment Claimant Count in March Aged 24 and under.  
Males (in thousands)

<b>Year</b>	<b>England and Wales</b>	<b>Scotland</b>
2003	161	21
1998	221	30
1993	528	54
1986	607	87

Source: ONS: Nomis May 2003

**Table 5**

**Further Education %  
Female**

Year	England and Wales		Scotland	
	<i>Number</i>	<i>% female</i>	<i>Number</i>	<i>% female</i>
1981	1664	48.9	163	49.1
1991	1532	49.6	145	50.3
2001*	1767	50.3	160	51.6
2001#	965	54.5	113	57.2

\*students economically  
inactive

# students economically active

**Table 6**

**Housing Tenure in Census**

Year	England and Wales	Scotland
	<i>% Social</i>	<i>% Social</i>
1971*	28*	53*
1981	31	56
1981#	29#	55#
1991	23	40
2001	19	27

\* In 1971 Housing Associations were private

#1981 Social Housing excluding Housing Associations

**Table 7**

Table 8.

**Social Housing 6+ Rooms**

Year	England and Wales	Scotland
2001	14.9	8.3
1991	14.3	4.3
1981	n/a	1.2

**Table 8**

Table 9.

Contraceptives Prescribed in Scotland and England & ales

	Scotland Year Ending 31 March 2003		England 2002	
Female Population mid 2002 Ages 16-44	Scotland		1034.39	England
	BNF Chapter Code	Section	Number of Prescription Items	Rates per 1000
			<i>Scotland</i>	<i>Scotland</i>
Contraceptives -section total	07	03	825,106	797.67
Combined Oral	07	03	649,385	627.79
Progestogen-only	07	03	174,165	168.37
Medroxyprogesterone Acetate (injection)	07	03	75,884	73.36
Spermicidal	07	03	1,556	1.50
Levonelle Emergency contraceptive	07	03	32,563	31.48
Levonorgestrel/Mirena IUCD drug	07	03	4,050	3.91
Contraceptive Devices total nondrug	21	04	4,050	3.92

† Government Actuary's Department UK Population Projections 2001 based interim  
Source: <http://www.doh.gov.uk/prescriptionstatistics/>

Table 10.

**Contraceptives Scotland**

Number of Females (per 1000)<sup>†</sup>  
1043.889

	BNF Chapter Code	Section	Number of Prescription Items	Rates per 1000
Contraceptives	07	03	814,544	780.30
Combined Oral	07	03	656,271	628.68
Progestogen-only	07	03	156,362	149.79
Medroxyprogesterone Acetate	07	03	82,580	79.11
Spermicidal	07	03	1,911	1.83
Levonorgestrel	07	03	29,725	28.48
Mirena Coil	07	03	13,226	12.67
Contraceptive Devices	21	04	4,442	4.26

<sup>†</sup> Government Actuary's Department UK Population Projections

**Table 10**

*Table 11.*

**Chlamydia new cases females aged 20-24**

Country	No	1995		2000 England / 1999 Scotland		
		Population	Rate	No	Population	Rate
England	6294	1.6m	6390	12678	1.4m	874
Scotland	327	0.18m	183	769	0.15m	495

**Table 11**

**Table 12.**

*The British Social Attitudes survey 19th report:*

<b>1985</b>	13% did not think homosexuality was at all wrong, 18% of under 30s
<b>2000</b>	33% did not think homosexuality was at all wrong, 48% of under 30s

**Table 12**

*Table 13.*

**Religion in 2001 Census**

	<b>England and Wales</b>	<b>Scotland</b>
Population	52 million	5 million
Declared	%	%
None	14.8	27.5
Christian	71.7	65.1
Other	5.8	1.9
Not answered	7.7	5.5

**Table 13**

*Table 14.*

**Church Attendance**

	<b>England and Wales</b>	<b>Scotland</b>
1980	10%	17%
2002	7%	10%
2020	4%	7%

Estimated by Christian Research

**Table 14**

Table 15.

**Scottish Social Attitudes towards religion**

	<b>Census</b>	<b>SSA</b>
Christian	65.1	61.7
Non Christian	1.9	1
No religion	27.5	36.8
Not stated	5.5	0.4

c.f. SSA reported 40.5% no religion for England and Wales

**Table 15**

**Church Attendance within ages 20-29 Scotland**

<b>Year</b>	<b>Males</b>	<b>Females</b>
1984	26	51
1994	21	35
2002	17	20

Source: Christian research  
Numbers are in thousands

**Table 16**

Table 17.

**Television Viewing BARB ratings, % of potential**

<b>Date</b>	<b>Programme</b>	<b>L</b>	<b>M</b>	<b>Y</b>	<b>SC*</b>	<b>B</b>
Monday 15 Nov 82	Coronation St.	20	27	32	23	-
Monday 15 Nov 82	Angels	21	20	18	20	27
Monday 5 Nov 01	Coronation St.	20	27	27	24	31
Monday 5 Nov 01	Eastenders	28	21	22	25	20
Sunday 4 Nov 01	Songs of Pra	6	9	10	9	9

L London M Midlands, Y Yorkshire, SC\* Scotland (Central Scotland in 1981), B Borders

**Table 17**

Table 18.

**Migration and Ethnic Groups: Scotland and England & Wales**

Percentage moslem reported in 2001 Census

England & Wales	Scotland
3.00%	0.80%

Muslims in England have 3.3 TFR

Hence 0.04 difference in TFR with Scotland

**Table 18**