



THE EFFECTS OF TWINS AND MULTIPLE BIRTHS ON FAMILIES AND THEIR LIVING STANDARDS

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CONTENTS

CONTENTS	
LIST OF TABLES	
LIST OF FIGURES	

1..... Introduction	04
1.1..... Methods.....	04
2..... Background	04
2.1..... Trends in multiple births.....	04
2.2..... Previous research on twins and multiple births	05
2.3..... Raising twins and multiples.....	05
3..... Raising young twins and triplets – The first year	06
3.1..... Data and methods	06
3.2..... Family status.....	06
3.3..... The first year	07
3.3.1..... Adjustment to becoming a parent.....	07
3.3.2..... Incomes and financial status	08
3.3.3..... Employment	09
3.3.4..... Childcare.....	10
3.4..... Toddlers and starting school.....	10
4..... Raising families with twins and multiple births.....	11
4.1..... Data and methods	11
4.2..... Outcomes for families raising twins and other multiples	11
4.2.1..... Incomes.....	11
4.2.2..... Material deprivation	12
4.2.3..... Employment	12
4.2.4..... Marital status	13
4.3..... Families with twins – which are the most appropriate comparisons?	13
5..... All grown up, twins from 23 to 46 years old.....	14
5.1..... Data and methods	14
5.2..... Material well-being	14
5.3..... Family formation and marital status	14
5.3.1..... Being in care, as a child.....	15
5.4..... Sources of emotional support	15
6..... Conclusions	17
References.....	18

LIST OF TABLES

Table 3.1 Mother's relationship to father at time of birth, and nine months later (MCS)	06
Table 3.2 Ages at which mother had children (MCS)	07
Table 3.3 Effects of parenting (MCS)	07
Table 3.4 Average incomes (MCS1)	08
Table 3.5 Financial effects of parenting (MCS1).....	08
Table 3.6 Work status, among couples and lone parents (MCS1).....	09
Table 3.7 Changes in work status of mother (MCS).....	09
Table 3.8 Childcare arrangements – whilst at work/college (MCS1).....	10
Table 3.9 School-readiness (MCS2).....	10
Table 4.1 Household weekly equivalised incomes, by whether family included a multiple birth (FRS 04/5-06/7).....	11
Table 4.2 Adult and child material deprivation (FRS 04/5-06/7)	12
Table 4.3 Adult employment (FRS 04/5-06/7)	12
Table 4.4 Marital status among mothers (FRS 04/5-06/7)	13
Table 5.1 Circumstances of NCDS respondents at age 46.....	14
Table 5.2 Circumstances of NCDS respondents at age 23.....	15
Table 5.3 Circumstances of NCDS respondents at age 41	15
Table 5.4 Whether ever been in care whilst growing up.....	15
Table 5.5 Main source of support if needed – age 41	16
Table 5.6 Main source of support if needed – age 46.....	16

LIST OF FIGURES

Figure 2.1..... Annual numbers of births in England & Wales, 1938-2007.....	04
Figure 2.2..... Proportion of multiple births in England & Wales, 1938-2007, and average age of mothers at time of birth.....	05
Figure 3.1..... When planning to return to work, by age of child (MCS1), among those planning to return.....	09
Figure 4.1..... Spread of incomes (Equivalised, weekly) by family status (FRS 3 waves)	11

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All images by: Dean Williams, Malpalu



FOREWORD

Our sincere thanks to Professor Stephen McKay who compiled this report and for Barclays Bank who helped meet the costs involved.

Since the Twins and Multiple Births Association (Tamba) foundation over 30 years ago, we have been telling successive Governments that it costs more to raise twins, triplets and more and that our families find it difficult and need help. To date, every Government has largely dismissed these concerns and additional help has not been forthcoming.

Well, this report uses the Government's own data to prove conclusively that our families know what they are talking about. By any comparison, they are poorer than other families, find it more difficult raising their children and consequently a higher proportion of relationships appear to end in separation.

There are some simple things that Governments across the UK can do to help and these include;

EASING THE TRANSITION TO PARENTHOOD BY:

1. Extending maternity and paternity leave for multiple birth parents to mirror more closely those in France, which give an additional 18 weeks for mothers of twins, 30 weeks for mothers of triplets (and higher multiples) and 18 days for all their partners.

REDUCING THE FINANCIAL STRAIN BY:

2. Adopting the model of child benefit provisions used in the Republic of Ireland, where multiple birth parents are paid a grant at the time of birth and later when the children reach four years of age and where child benefit payments are increased by half for twins and doubled for triplets and higher order multiples.

EASING MOTHERS BACK INTO WORK BY:

3. Introducing a statutory obligation for local authorities to offer preschool places for multiple birth children at the same setting and at the same time and increasing the financial support for families who wish to use preschool or other child care providers.

SUPPORTING FAMILY RELATIONSHIPS:

4. Providing support for Tamba's parenting support services.

If politicians are committed to ensuring fairness in our society then they must act. Delaying for another 30 years will simply result in many more hard pressed, unhappy, multiple birth families.

Keith Reed
Tamba Chief Executive

1: INTRODUCTION

At present there is very little social research on the financial consequences of multiple births. What research there is tends to use twins to investigate 'nature-vs-nurture' debates, and not to examine the consequences of having twins on family finances. However, anecdotal evidence suggests that a multiple birth may contribute to financial problems that are rarely recognised, and which go unrecognised within the tax and benefit system. The aim of this report is to investigate differences in incomes, employment and deprivation among families who have twins or triplets, compared to those who had singleton births.

1.1 METHODS

When analysing a relatively a small population group, such as twins which are around 1/65 of births in Britain, the principal research approach has to be analysis of large-scale datasets. There are a number of government surveys that include large samples of children, and look at such factors as incomes, receipt of benefits, living standards and patterns of work. Two are of particular interest for this analysis – the Millennium Cohort Study and the Family Resources Survey. The Millennium Cohort Study (MCS) is following a group of 18,500 children born in 2000/2001, with interviews when the children are aged 9 months, three years, five years, and continuing. This study

continues a tradition of UK birth cohort studies. There was a parallel survey that started in 1958, The National Child Development Study (NCDS) took a group of children born in the same week in that year, and has returned to interview them (or, when young, their parents) on eight subsequent occasions. The annual Family Resources Survey (FRS) covers over 25,000 households with over 16,000 children, and is the key source of statistics on poverty and low income.

The MCS and NCDS identify multiple births directly; in the FRS we must make use of the ages of children (and their relationships within the household) to derive multiple births. This, however, is likely to be a good approximation, however.

2: BACKGROUND

2.1 TRENDS IN MULTIPLE BIRTHS

There are now over 10,000 multiple births each year in England & Wales, plus around 800 in Scotland and 300 in Northern Ireland. The number of multiple births has fluctuated over time, as has the overall number

of births. The number of multiple births in England & Wales reached a high exceeding 11,000 in 1947, and a low of 5,500 in 1977. As shown in Figure 2.1, the number of multiple births reflects, to a large extent, the overall number of babies being born. The total number of births was

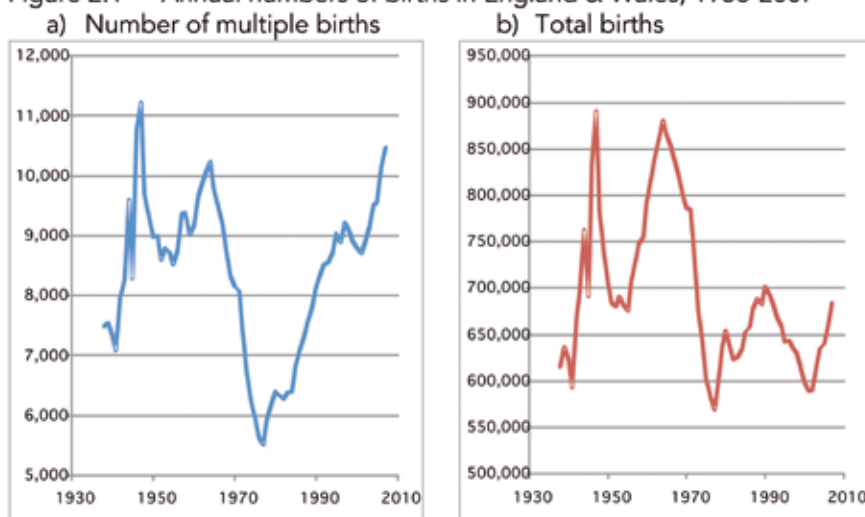
particularly high just after the second world war, and increased again in the post-war 'baby boom' which peaked in the mid-1960s – and these were the times when multiple births were most frequent.

The trends in total and multiple births have not moved in unison since the 1970s. The number of multiple births has been on strongly a rising trend since the mid-1970s, which is not accounted for by trends in the total number of births. Total births fell between 1990 and 2001, but the number of multiple births continued to increase in most years.

SEE FIGURE 2.1

This feature is mostly accounted-for by the increase in technologies to assist conception, including IVF, but also reflects trends in the types of maternities. Even without assistive techniques, the likelihood of multiple maternities is higher the

Figure 2.1 Annual numbers of births in England & Wales, 1938-2007



Source: ONS historical series.

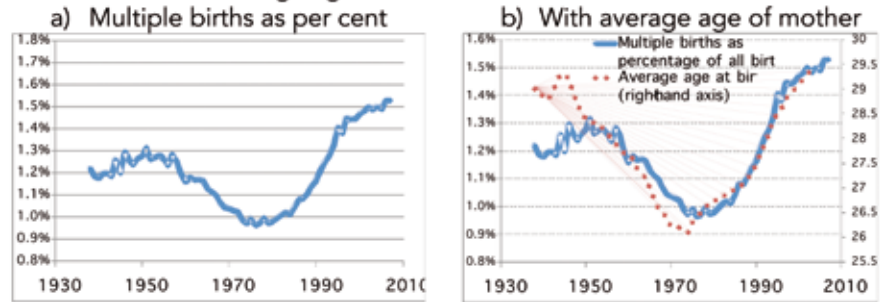
older the age of the mother, and this has been rising in recent years.

These historical trends are not unique to England & Wales, but have been followed in many other countries for which we have information. Gison and D'Addato (2006: p 250) found a common trend of a 'decline in twinning rates during the first three quarters of the 20th Century, and the recent reversal upward trend since the 1970s or 1980s'.

There is a rough guideline, known as Hellin's law, that twin births occur about once in every 89 pregnancies, triplets one in every 89×89 (one in 7921), quadruplets at one in $89 \times 89 \times 89$ (one in 704,969), and so on. This formula has never been completely accurate but provides a crude approximation to the proportions of multiple births in the absence of fertility treatment (Fellman and Eriksson 2009).

In fact the number of multiple births in England & Wales now represents around one in every 65 births – 15 births in every 1000 (or, 1.5 per cent). The proportion of births that resulted in twins, triplets and other multiple births fell somewhat between 1950 and the early 1970s (see Figure 2.2). Thereafter multiple birth have continued to rise as a proportion

Figure 2.2 Proportion of multiple births in England & Wales, 1938-2007, and average age of mothers at time of birth



Source: ONS historical series.

of maternities, reaching 1.5 per cent overall. At their rarest, in the mid 1970s, this would only have been one birth in every 100. The proportion of births which produce several children is no longer increasing as fast as it did during the 1990s, but it is still slowly increasing.

In the second panel of Figure 2.2, part (b), we overlay the average age at which mothers gave birth in each year. The post-war drop in the proportion of women having twins coincided with a drop in the average age of giving birth, which occurred during the 1960s baby boom. The subsequent increase in the frequency of multiple births has reflected the sharp increase in the average age at which women give birth – rising from an average of 26 years old in the early 1970s, to reach over 29 years in the most recent figures.

SEE FIGURE 2.2

2.3 RAISING TWINS AND MULTIPLES

There is an increasingly positive view of the life chances of twins; once they leave early childhood any differences in health and mortality between singletons and twins should be small (if they exist at all). What is less clear and much less researched, and the subject of this study, is the consequences for families of raising twins and other children from multiple births.

There are good reasons to expect there to be differences in the parenting experiences of those raising twins rather than singleton children. Parents raising twins face a number of differences compared to those having a singleton child. First, we might expect there to be differences in the way that parents of twins spend their time, as two children will demand more time than one. If there are such differences in time use, this may act to put greater pressure on relationships. Second, the costs of childcare will inevitably be higher with two children rather than one, making a return to work more difficult. Third, there will be a need to spend more on one-off purchases than with one child, with less chance of 'handing down' such items from one child to another.

There are no additional state benefits for families having a multiple birth.



3: RAISING YOUNG TWINS AND TRIPLETS - THE FIRST YEAR

3.1 DATA AND METHODS

The Millennium Cohort Study (MCS) has been following a group of children born around the time of the millennium. These are a group of children born in the UK in the 12 months starting in September 2000 (slightly later in Scotland and Northern Ireland). Information was first collected from these families roughly nine months after the births had taken place. A second survey took place when these children were three years old, and a third survey when they were five and had started primary school.

Analysis of this unique source of data – large-scale and up to date – provides the results in this section. We first look at some of the differences in family circumstances between the families of twins and triplets ('multiple births') and of single births ('singletons'), before turning to look at incomes and employment.

3.2 FAMILY STATUS

Twins and triplets are more likely than singletons to be born to parents who are married and living together (Table 3.2). Some 71 per cent of twin births, and 83 per cent of triplet births, were to married parents, compared with 59 per cent for all births in the MCS.

This provides an important context. Parents who are living together tend to have higher rates of employment and living standards than do lone parents; moreover, married parents tend to be better off than those living together whilst unmarried. So we might expect some kind of 'protective' effect for multiple births from their more advantaged beginnings.



By the time of the first interview, around nine months after the birth, with 89 per cent of twins (and all the small number of triplets) the father remained in the household, compared with for 85 per cent of the singleton births.

SEE TABLE 3.1

One of the main differences between multiple births and singleton births is that the former are rather more likely as mothers become older. Among those having twins, the average age at birth was about 31 years, compared with just under 29 for births as a whole The

Table 3.1 Mother's relationship to father at time of birth, and nine months later (MCS)

Relationship – at time of birth	Singleton births	Column percentages, and averages		
		Twins	Triplets	All
Married and living together	59	71	[83]	59
Cohabiting	25	18	[17]	25
Separated (divorced)	1	1	-	1
Closely involved	7	4	-	7
Just friends	3	3	-	3
Not in a relationship	5	3	-	5
At 9 months: natural father still in household?	85	89	100	85
<i>Base (number of families)</i>	18218	246	10	18474

Source: MCS first wave. Numbers in [] are percentages based on only ten families, and so may be unreliable.

Table 3.2 Ages at which mother had children (MCS)
Column percentages, and averages

Mother's age at the birth of sampled child	Singleton births	Twins	Triplets	All
13-19	8	3	-	8
20-29	45	36	[14]	44
30-39	46	57	[86]	46
40+	2	4	-	2
Average, mean (years)	28.8	30.9	34.4	28.8
Median (years)	29	31	36	29
<i>Base (number of families)</i>	<i>18288</i>	<i>244</i>	<i>10</i>	<i>18542</i>

Source: MCS first wave. Numbers in [] are percentages based on only ten families, and so may be unreliable.

average for triplet births was over 34. These results are consistent with national data, which finds the highest rate of multiple births among those aged 35-39, with the lowest incidence among younger mothers. Some eight per cent of births are to mothers aged under 20, but only three per cent of multiple births, in the MCS.

Much as we would like to present results for families with triplets separately, there were only ten such families, out of over 18500, in the first round of this survey. Therefore from now on we will (reluctantly, but inevitably) combine their results with those of families with twins, however different their experiences might be in practice. Further information on this group is available in the National Survey of Triplets and Higher-order Births from the early 1980s (Botting et al 1990).

SEE TABLE 3.2

It will often be important to consider the effect of this difference in maternal ages. Older mothers are more likely to be in paid work, and married, than younger mothers. It is important that we take some steps to ensure that comparisons are being made like-for-like, and we do not attribute to raising twins effects that are the result of having an older mother. One simple way to do this is to adjust the results for singletons so as to force

them to have the same age profile as mothers with multiple births – a form of age standardisation. So, in whilst in all tables we show results for singleton births, in some cases we will attempt to show what the results would look like if singleton parents gave birth at the same ages as parents with a multiple birth. This helps to control for the effects of differences in the mothers' age at which twins and triplets are typically born.

3.3 THE FIRST YEAR

In the first year of any child's life all parents are likely to have to undergo a process of adjustment. This may be greater for a first child, but even with subsequent children there will be changes, perhaps particularly for older siblings. Adjusting to twins and triplets is likely to be more demanding than to singleton births.

3.3.1 ADJUSTMENT TO BECOMING A PARENT

In Table 3.3 we contrast the answers given by the mothers of twins and triplets, compared to the other mothers in the study. Close to two thirds (64 per cent) of mothers who had a multiple birth said they felt tired most or all of the time, compared with just under half (49 per cent) of mothers caring after a singleton birth. Some 38 per cent of those with a multiple birth described at least occasional feelings of irritation (24 per cent for all mothers), and 60 per cent said they felt very confident and competent in looking after their children (71 per cent of all).

With a sample of around 250 mothers with twins or triplets we must allow for a degree of 'margin of error' of the results. Statistically our estimates for this group are subject to a confidence interval of about plus-or-minus 6%. We also conduct various statistical tests of the differences between mothers, and report these in each table – in this instance, all the differences reported between multiple birth mothers and singleton mothers were statistically significant at the 1% level, meaning it is more than 99% likely that the differences shown did not arise by chance.

SEE TABLE 3.3

Table 3.3 Effects of parenting (MCS)
Column percentages, and averages

	Singleton births	Multiples	All
Tired most of the time	49	64	49
Has feelings of irritation, at least occasionally	24	38	24
Agree that crying child should always be picked up	32	22	32
Feel 'very confident and competent' in looking after child(ren)	71	60	70
<i>Base</i>	<i>18225</i>	<i>256</i>	<i>18481</i>

Source: MCS first wave. All differences are statistically significant at the 1% level or higher.

3.3.2 INCOMES AND FINANCIAL STATUS

Parents of twins have lower average incomes than parents of singletons, even after controlling for differences in family size. The main measure of income that the government uses in poverty statistics is 'equivalised income', which means dividing total income by a measure of family size. This should ensure that families are being compared on a like-for-like basis. For instance, a couple needs more income than a single person for the same standard of living, but not twice as much. As we show in Table 3.4, the average income of families (in the Millennium Cohort

Study) was £340 per week. Because a small group of families has very high incomes, the median income was rather lower, at £271.

Families who had had a multiple birth, compared to a singleton birth, had lower average incomes, but were slightly more likely to avoid being on a low income. One quarter of all families had incomes below £161, whilst the poorest quarter of multiple birth families had incomes below £172. However, the family background of twins (parents older, more likely to be married) should have provided some degree of 'protection' against low incomes. If the mothers of singletons had the

same age profile as the mothers of twins, their incomes would be significantly higher and it would be clearer that families with twins were more likely to be on a low income. Even without such adjustments, families with a multiple birth are less likely to have high incomes. The top quarter of families had incomes above around £460 per week, compared with families with a multiple birth were an income of £393 would put them in the top quarter of incomes among this group.

SEE TABLE 3.4

Despite an apparent rough similarity in income levels, parents raising twins or triplets report higher levels of financial stress (see Table 3.5). Whilst 26 per cent of all families said they were 'living comfortably', and 28 per cent of those raising singletons when age-matched to multiple births, only 17 per cent of those raising twins or triplets could say the same. Some thirteen per cent of those with a multiple birth said they were finding it quite difficult, rather than eight per cent for those raising a single child (which would fall to seven per cent if their mothers' age profile matched that of multiple births).

In terms of the previous year, during which the sampled child or children were born, 62 per cent of the multiple birth group said they were now financially worse off, compared with 41 per cent of other parents. And only 11 per cent of those raising twins/triplets said they were better off, compared with 19 per cent for all mothers. The last section of Table 3.5 looks at what has happened to parents' savings. About half of those raising twins or triplets had used up some or all of their savings, compared with 37 per cent for all families in this study.

SEE TABLE 3.5

Table 3.4 Average incomes (MCS1)

	Singletons		Averages and quartiles	
	Actual data	Age-adjusted	Multiples	All
<i>OECD-equivalised incomes</i>				
Average (mean) £ per week	£341	£369	£311	£340
Lowest 25% have incomes less than ...	£161	£181	£172	£161
Median	£271	£313	£268	£271
Highest 25% have incomes greater than ...	£458	£464	£393	£458
Receiving IS, JSA, WFTC or DPTC	37	32	35	37
Base	16707	16707	234	16941

Source: MCS first wave. Difference in mean incomes: $p=0.07$.

Table 3.5 Financial effects of parenting (MCS1)

	Column percentages, and averages			
	Singleton births	Singletons – age-adj	Multiple births	All
<i>Self-rated financial status</i>				
Living comfortably	26	28	17	26
Doing all right	37	37	37	37
Just getting by	27	26	31	27
Finding it quite difficult	8	7	13	8
Finding it very difficult	3	2	2	3
<i>Change in last year</i>				
Better off	19	18	11	19
About the same	41	42	28	41
Worse off	40	40	62	40
<i>Savings</i>				
Has spent all, most or some of their savings	37	38	48	37
Never had any savings	35	32	30	35
Same or more savings	28	30	22	28
Base	18225	18225	256	18481

Source: MCS first wave. All differences are statistically significant at the 1% level or higher.

3.3.3 EMPLOYMENT

In Table 3.6 we show the work status of lone parents, and the joint work status of couples. The number of lone parents who had a multiple birth was quite small (30 cases) so we focus on couples. For just over half (52 per cent) of couples both parents were in paid work (including part-time work). Where families had had a multiple birth, only 44 per cent were dual-earner families (around nine months after the birth). If we adjust the singleton figures to match the age profile of those raising twins, then the gap in the proportion of dual earners becomes slightly larger

SEE TABLE 3.6

Two thirds of mothers had been in work during the pregnancy (Table 3.7). When interviewed some nine months after giving birth, close to half (48 per cent) of the singleton mothers were already back at work, compared with 40 per cent of those who had a multiple birth. This echoes findings from Brewer and Paull (2006: 36) using different data that 'Mothers with births of twins or triplets take a longer absence on average than those with a single birth'. On a more positive note, among those not working those with

Table 3.6 Work status, among couples and lone parents (MCS1)

Whether in paid work	Column percentages			
	Singleton births	Singletons – age-adj	Multiples	All
<i>Couples</i>				
Both work	52	54	44	52
Only mother working	2	2	4	2
Only partner working	38	37	46	38
Neither working	8	6	6	8
<i>Lone parents</i>				
In work	24	27	[14]	24
Not currently in work	59	59	[66]	59
Never worked	17	15	[21]	17
<i>Base: couples</i>	15112	15112	226	15348
<i>Base: lone parents</i>	3166	3166	30	3196

Source: MCS first wave. Difference for couples' work status is statistically significant at the 5% level, difference for lone parents is not statistically significant. Numbers in [] are percentages based on only thirty families, and so may be unreliable.

Table 3.7 Changes in work status of mother (MCS)

Whether in paid work	Column percentages, and averages			
	Singleton births	Singletons – age-adj	Multiples	All
During pregnancy	67	69	68	67
c.9 months after the birth				
In paid work	48	51	40	48
On leave from paid job	2	3	5	2
Non-workers: whether planning to work in future	79	78	87	79
<i>Base</i>	18225	18225	256	18481

Source: MCS first wave. Difference at nine months is statistically significant at the 1% level.

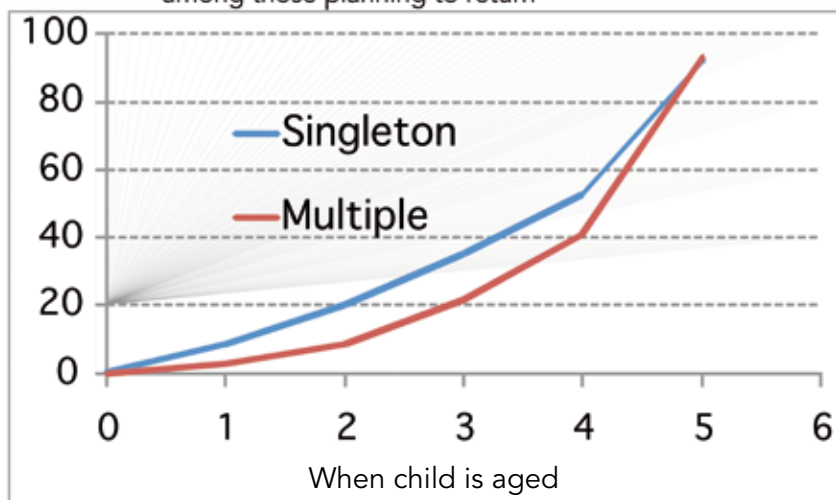
a multiple birth were slightly more likely than average to say they were planning to work in the future.

SEE TABLE 3.7

In Figure 3.1 we show how quickly these mothers were planning to return to work, looking at the ages (of their children) when they planned to work. This shows a rather slower rate (or later rate) of returning to work for those who had a multiple birth. There is a much greater expectation that paid work will have to wait until twins are at least aged five (hence, at full-time primary school) rather than any sooner. Conversely mothers of singleton children are more likely to be considering a return to work when their child is aged two, three or four.

SEE FIGURE 3.1

Figure 3.1 When planning to return to work, by age of child (MCS1), among those planning to return



3.3.4 CHILDCARE

There were 91 respondents who had returned to work (or college) and therefore potentially needing childcare to cover these times. In all but one case the childcare arrangements were the same for each multiple-birth child, and in that instance we look at the main arrangement.

The pattern of arrangements is shown in Table 3.8, and reveals some clear differences between families. Those raising twins and triplets made more use of their partner to look after their children whilst working or studying, the method quoted by almost half (46 per cent), compared with around a third (31 per cent) for other families. Those raising multiple birth babies were also less likely to be using either childminders or private crèches, but substantially more likely to be using care in the form of a nanny or au pair – though in almost all cases this was

someone outside of the home rather than living-in.

The proportions that were paying for childcare (34 per cent) were quite similar across the two types of family. However, those raising twins or triplets were paying double the amount (for those paying weekly, £120 per week rather than £60), with both groups using around 25 hours of paid childcare.

SEE TABLE 3.8

3.4 TODDLERS AND STARTING SCHOOL

The families of the children born in 2000-01 were re-interviewed around three years after the birth. Whilst some recent research has been quite positive about the early intellectual development of children from multiple births, little of that research has been conducted in Britain. In wave 2 of the MCS a series of questions was asked about

children that comprise a 'scale' for children's school-readiness (Bracken 2002). This included questions on 88 different concepts in six cognitive areas (concepts, colours, letters, numbers, sizes, comparisons and shapes). The overall result may be classified into five groups of school readiness – from 'very advanced' to 'very delayed'.

In Table 3.9 we show contrasting results for the groups of singletons and multiple births. This assessment was carried out for each child in the study, not just one child in each household. Overall about six in ten children were classified as average, with about one in ten in being delayed, and three in ten of advanced standing. Twins and triplets were more likely than average to be classified as 'delayed', and less likely to be regarded as either advanced or very advanced. This tends to suggest there

remains some disadvantage in early childhood to having been part of a multiple birth. To some extent these results may also be reflecting premature births and lower birth weights, which are also associated with children's development.

SEE TABLE 3.9

Table 3.8 Childcare arrangements – whilst at work/college (MCS1)
Column percentages, and averages

Methods of childcare used (all that apply)	Singletons	Singletons – age-adj	Twins & triplets	All
Mother/father	35	33	31	35
Partner	31	30	46	31
Private crèche	18	18	11	18
Childminder	14	15	11	14
Partner's mother/father	13	13	10	13
Friend/relative	13	13	10	13
Au pair/nanny	3	3	14	3
Workplace crèche	2	2	3	2
Average number of methods	1.5	1.5	1.6	1.5
Base (no. of children)	7788	7788	89	7877

Source: MCS second wave. Only methods used by 2%+ shown.

Table 3.9 School-readiness (MCS2)
Column percentages, and averages

Bracken school-readiness scale	Singletons	Singletons – age-adj	Twins & triplets	All
Very delayed	2	2	2	2
Delayed	10	9	15	10
Average	61	60	63	61
Advanced	22	24	18	22
Very advanced	5	6	2	5
Base (no. of children)	13651	13651	388	14039

Source: MCS second wave. Difference is statistically significant at the 1% level.

4: RAISING FAMILIES WITH TWINS AND MULTIPLE BIRTHS

4.1 DATA AND METHODS

This section looks at families with dependent children who had a multiple birth. Rather than focussing on twins and triplets as babies, it looks at those of all ages regarded as being of dependent age – that is up to 16 years, or up to 18 if still in full-time education. The key source of data for this section is the Family Resources Survey (FRS). This is a study run by the Department for Work and Pensions, and is used (among other things) to provide data on child poverty, pensioner poverty and the take-up of social security benefits. The Government's targets to reduce and eventually eliminate child poverty are tracked each year using this source.

We take three consecutive years of the FRS, 2004/5, 2005/6 and 2006/7 in order to have a reasonable sample size with which to work. This set of three years generates 581 sets of twins and 14 sets of triplets, from a total of around 25,000 families. The identification of multiple births from shared ages is not perfect, and will therefore include some children who are closely spaced (within a year), but we suspect this provides a fairly good match. Overall we identify around 1.3 per cent of maternities as having been a multiple birth, close to the current rate of multiple births in the UK.

4.2 OUTCOMES FOR FAMILIES RAISING TWINS AND OTHER MULTIPLES

4.2.1 INCOMES

The FRS probably has the best

data on incomes that is available.

For the three years combined, the average income among families with dependent children was £372 per week, but only £346 for families with a multiple birth. The median income (the mid-point of incomes) was £295 overall, but only £268 for families raising twins or triplets.

The poorest quarter of all families were living on £192 per week or less, but the poorest quarter of families with twins/triplets had to get by with £181 per week or else. As found above, there was also a sizeable difference at the top end of incomes.

SEE TABLE 4.1

The full spread of incomes is now shown as Figure 4.1. This confirms the above statistics, showing that multiple birth children are more likely than other children to be living in families on a lower income, and less likely to be living as part of families on above-average levels of income. These comparisons do not take into account any other factors, such as the higher proportion of married couples in families with twins, and (if they did) they might show a higher level of disadvantage.

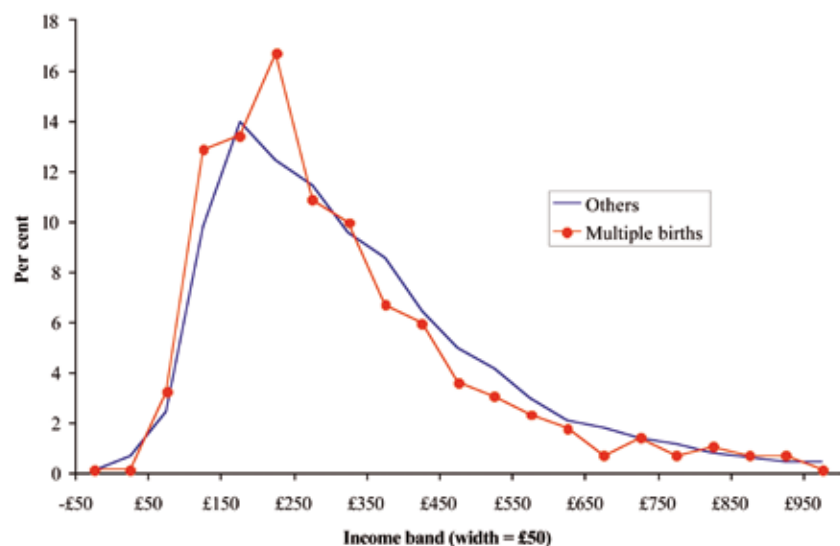
SEE FIGURE 4.1

Table 4.1 Household weekly equivalised incomes, by whether family included a multiple birth (FRS 04/5-06/7)

Income	Average incomes		
	Singleton births	Multiples	All
Average (mean) income	£373	£346	£372
Median income	£295	£268	£295
Lowest quarter	£192	£181	£192
Highest quarter	£444	£414	£444
<i>Base (no of families)</i>	24706	594	25300

Source: FRS last three years combined. Cross-tabulation of income deciles showed a statistically significant difference, at the 5% level. T-test for difference in log(income) is statistically significant at the 5% level.

Figure 4.1 Spread of incomes (Equivalised, weekly) by family status (FRS 3 waves)



Source: FRS 3 waves.

4.2.2 MATERIAL DEPRIVATION

The measurement of poverty has traditionally focused on levels of income. In recent years, however, there has been increased academic and policy in more direct measures of deprivation. These include such questions as whether the family can afford a one week holiday each year, to take out contents insurance, to have enough bedrooms for each child over ten. When a family does not have these, they are asked if this is because they cannot afford them, or instead because they choose to do without them. Deprivation is then measured by looking at the numbers of items that families cannot afford (sometimes with a higher weighting for goods/services that are more commonly owned). The government tracks the numbers of families who are on low income and lacking these kinds of things, as well as those who are on low incomes.

In the FRS there are ten questions asking about child material deprivation, and eleven about adults or the wider family. There are also questions about the number of regular bills that are in arrears (e.g. utility bills, council tax, credit cards). We tabulate these three areas of material deprivation in Table 4.2. Families with a multiple birth are more likely have items for children that they cannot afford, and to have more arrears on their bills, than other families. The apparent difference for adults is not large enough to be statistically significant.

Overall, therefore, comparing these different kinds of families, there are similar adult living standards to others, but lower well-being for children. More detailed analysis of the results for children show the biggest differences were children in going out swimming and having enough

bedrooms for children.

SEE TABLE 4.2

4.2.3 EMPLOYMENT

One of the main determinants of income is employment status. As we found with the analysis of the MCS, mothers raising twins are less likely to work than other mothers. Looking at dependent children of all ages, 26 per cent of mothers were working

full-time, compared with 22 per cent of mothers with a multiple birth (Table 4.3). The latter group were also more likely to be economically inactive, by a comparable margin of four percentage points. The apparent differences among fathers are too small for us to have full confidence in the robustness of the results.

SEE TABLE 4.3

Table 4.2 Adult and child material deprivation (FRS 04/5-06/7)
Column percentages, and averages

Area of deprivation	Singleton births	Multiples	All
<i>Adult deprivation</i>			
0 items lacking	42	40	40
1 item unable to afford	12	12	12
2 items unable to afford	9	9	9
3+ items unable to afford	37	39	37
Average items cannot afford	2.37	2.51	2.38
<i>Child deprivation</i>			
0 items lacking	60	55	55
1 item unable to afford	21	22	21
2+ items unable to afford	19	23	19
Average items cannot afford	0.83	0.98	0.83
<i>Arrears on bills</i>			
None	85	83	84
1	8	8	8
2+	8	9	8
Average no.	0.28	0.36	0.29
<i>Base (no of families)</i>	24708	595	25303

Source: FRS last three years combined. The difference in average number of adult deprivation items is not statistically significant. The differences in average number of child deprivation items unable to afford, and in numbers of bills in arrears, are both statistically significant at the 5% level.

Table 4.3 Adult employment (FRS 04/5-06/7)
Column percentages, and averages

Employment	Singleton births	Multiples	All
<i>Men</i>			
FT self-employed	13	16	14
FT employee	70	66	70
PT worker	5	5	5
Unemployed	3	3	3
Inactive	8	10	8
<i>Women</i>			
FT self-employed	2	2	2
FT employee	24	20	20
PT worker	35	38	36
Unemployed	3	1	3
Inactive	35	39	35
<i>Base (no of men)</i>	18286	444	18730
<i>Base (no of women)</i>	24133	587	24720

Source: FRS last three years combined. The difference in work states of men is not statistically significant. The differences in the work states of women are statistically significant at the 1% level.

4.2.4 MARITAL STATUS

When twins and triplets were born, their parents were more likely than average to be married and living together (see page 3). Among all families with dependent children, families with twins or triplets remain slightly more likely to be married, but also more likely to have become separated or divorced. Mothers of singleton births are more likely to have remained single, by 21 per cent compared with 15 per cent of those who had a multiple birth.

There is considerable research evidence on the reasons for family background. Whilst this is an event that is becoming more common, financial distress tends to be among the most commonly cited reasons.

SEE TABLE 4.4

4.3 FAMILIES WITH TWINS – WHICH ARE THE MOST APPROPRIATE COMPARISONS?

For a family wanting to have two children it might seem at first glance that having twins might be some kind of blessing. Having two children at once may make things difficult for a time, but could having an 'instant family' brings with it some benefits compared with having two singleton births? This is an important point of view to consider, but we express a certain degree of scepticism about its usefulness.

The first important reservation is that, as presented above, this line of reasoning tends to hypothesise that twins are the first children into a family, and therefore may be compared to a person having one singleton birth and then another. In practice that is far from true. Among those babies included in the Millennium Cohort Study, some 55 per cent of the twins were born to families that already had children, and in 24 per cent of cases they had two or more children before

Table 4.4 Marital status among mothers (FRS 04/5-06/7)

Marital status	Column percentages, and averages		
	Singleton births	Multiples	All
Single	21	16	21
Married	63	65	63
Separated, divorced	15	18	15
Widowed	1	*	1
<i>Base (no of mothers)</i>	<i>24133</i>	<i>587</i>	<i>24720</i>

Source: FRS last three years combined. The difference in marital status is statistically significant at the 5% level. Note "*" means less than 0.5%, but more than zero.

having twins. For most multiple births, having twins takes the family size from 1 child (or more) to 3 children (or more), not from zero to two children. We know that many people's ideal family size is two, so having twins may as often mean going beyond that number, as it does getting straight to that number. Going back to the 1958 cohorts, with larger families and before modern assisted reproduction technologies increased the rate of twinning, around three-quarters of twins were born already having at least one older brother or sister.

This is important point, in part, since it is well-understood that larger families tend to face greater levels of disadvantage, and that multiple

births are a contributor to having a large family (Lacovou and Berthoud 2006).

The second reason why this viewpoint is limited is that it is focused on the parents, and not really on the children. Compared with other children, as shown above in section 3.4, and as we show in section 5, there are disadvantages that accrue to those from a multiple birth. It is not much consolation to those individuals affected that there may be some temporary timing benefits to their parents of having two children at the same time. Disadvantage for those multiple births may still remain – and support for parents may be the best means of addressing these differences.



5: ALL GROWN UP, TWINS FROM 23 TO 46 YEARS OLD

5.1 DATA AND METHODS

The National Child Development Study (NCDS) comprises a group of people all born in the same week of 1958. This group have been contacted and re-interviewed at several times in their lives. This represents a unique and important source of information on family change. It was originally used to look at the causes of mortality in early life. Increasingly it is being used to look at the effects of childhood experiences on adult outcomes. It has, for instance, been used to track recent trends in social mobility over time (Blanden et al 2005).

In the original project looking at infant mortality, and starting at the time of birth, there were over 18,000 children included in the study, including 430 twins and three sets of triplets. By the time they had been re-visited for a seventh subsequent occasion at the age of 46, interviews were achieved with 200 of the twins (not all of them 'matching pairs') and with five triplets, and overall with 9500 of the original group. Of course, some had moved abroad, or died, or could not be contacted for other reasons. This unique source of large-scale data permits a quick glimpse into the outcomes of twins (plus a few triplets) in middle-age compared to singleton births. We use this dataset to track what life may be like for twins as they grow up after childhood. We look at information starting from when this group were aged 23, up to the most recent interviews when they were aged 46. Future interviews with this group have also taken place.

5.2 MATERIAL WELL-BEING

In terms of material circumstances, for most measures, there is reassuringly little to differentiate multiple births from others by the age of 46. We looked at differences in health, financial status, housing tenure, and whether living with a partner.

Those differences that may appear to exist (in Table 5.1) are too small to be statistically significant. So, there are very similar rates among middle-aged people from multiple and singleton births in terms of: owner-occupation; having a partner; saving from current income; self-assessed financial situation and self-assessed state of health. These are no doubt a tribute towards the efforts of their parents in helping them reach adulthood on a roughly level playing field. These results do not control for any of the other differences we know to exist – that twins are more likely to be

born to older mothers, for instance – but such controls would probably not alter the general picture of similar outcomes in terms of health, housing and financial management.

SEE TABLE 5.1

5.3 FAMILY FORMATION AND MARITAL STATUS

Unlike with material circumstances, there do appear to be some differences in rates of family formation – comparing twins/triplets with the singleton births. In Table 5.2 we look at results at age 23, and consider men and women separately. Among men, the chances of being married, or divorced, were just about identical. However, among women, those who were twins were significantly more likely to have married and then divorced – nine per cent of this group, by the age of 23. They may also have been more likely to remain single, though the difference

Table 5.1 Circumstances of NCDS respondents at age 46
Cell and column percentages

	Singleton births	Twins (and triplets)	All
<i>Home-owner</i>	85%	89%	85%
<i>Lives with spouse or partner</i>	80%	75%	80%
<i>Currently saving from their income</i>	67%	67%	67%
<i>Self-assessment of financial circumstances</i>			
Living comfortably	45	42	45
Doing all right	32	32	32
Just getting by	18	20	19
Finding it quite difficult	3	4	3
Finding it very difficult	2	1	2
<i>Self-assessment of health</i>			
Excellent	31	36	31
Good	45	41	45
Fair	16	16	16
Poor	5	4	5
Very poor	2	3	2
<i>Base</i>	<i>9107</i>	<i>205</i>	<i>9312</i>

Source: NCDS0 and NCDS7. None of the differences are not statistically significant.

Table 5.2 Circumstances of NCDS respondents at age 23
Cell and column percentages

	Singleton births	Twins (and triplets)	All
<i>Men</i>			
Single	63	63	63
Married	35	35	35
Separated/divorced	2	2	2
<i>Women</i>			
Single	40	43	40
Married	55	48	55
Separated/divorced	5	9	5
<i>Base – men</i>	5690	134	6094
<i>Base – women</i>	5977	140	6117

Source: NCDS0 and NCDS6. Difference for women is statistically significant, $\chi^2(2)=7.2$, $p<0.05$

is perhaps marginal. Overall they were less likely to have married, and still be married, at the age of 23 (i.e. results occurring in the year 1981).

SEE TABLE 5.2

By age 33 (at NCDS 5, in 1991), women continued to have different marital status according to being a multiple birth. By this age, some 15 per cent of the female twins gave their legal marital status as divorced, compared with ten per cent of the singleton births. And only four per cent were on to their second (or later) marriage, compared with nine per cent of the others. There continued to be no differences in marital status for male twins, compared with all other men of the same age. By 2004, when aged 46, women continued to be less likely to be married (or-remarried), and more likely to be divorced, but the differences were quite small, and too small to carry any statistical confidence ($n=103$).

Perhaps linked to these different factors, women who were twins were less likely to have dependent children living with them (at the age of 41) than other women (as shown in Table 5.3). There seemed to be a similar scale of difference for

men, but this difference was small enough to be a chance result.

SEE TABLE 5.3

5.3.1 BEING IN CARE, AS A CHILD

At the age-23 interview, all respondents were asked: Were you ever, to your knowledge, "in care" as a child? Overall three per cent responded that they had been in care at some stage of their

childhood. The chances of this happening were much greater for male twins, of whom some ten per cent recalled having been in the care system at some point in time. There were no differences in the responses of young women about being in care, between singleton and multiple births. It would be interesting to consider more recent figures, but none that are appropriate have been located. It is known that there are likely to be negative consequences to growing up in care, including lower qualifications and higher risks of imprisonment. This 10 per cent is a sizeable figure, though perhaps unlikely to affect the overall results for this group – but it is likely to be very salient for those affected.

SEE TABLE 5.4

5.4 SOURCES OF EMOTIONAL SUPPORT

There was a clear case where the responses provided by twins were very different to the answers to those

Table 5.3 Circumstances of NCDS respondents at age 41
Cell and column percentages

	Singleton births	Twins (and triplets)	All
<i>Has child in household – men</i>	70%	64%	70%
<i>Has child in household – women</i>	80%	72%	80%
<i>Base – men</i>	5333	132	5465
<i>Base – women</i>	5514	123	5637

Source: NCDS0 and NCDS6. Difference for women is statistically significant, $\chi^2(1)=4.5$, $p<0.05$

Table 5.4 Whether ever been in care whilst growing up
Cell and column percentages

	Singleton births	Twins (and triplets)	All
<i>Men</i>	3%	10%	3%
<i>Women</i>	3%	3%	3%
<i>Base – men</i>	5957	134	6091
<i>Base – women</i>	5986	140	6126

Source: NCDS0 and NCDS4. Difference for men is statistically significant, $\chi^2(1)=21.1$, $p<0.001$

from singleton births, and this related to sources of personal support. Respondents were asked: If you needed some support in your personal life, who is the person you would be most likely to turn to for support or other help? Results are shown below, for the surveys at both age 41 and age 46 - Table 5.5 and Table 5.6. There was a strong (and statistically significant) difference in the responses given. In particular, almost twice as many of the twins said they would rely on a sibling for support, compared with others (19 per cent compared with 10 per cent, at age 46). With the early age it is possible to look separately at men and women, and it seems that the differences were more pronounced for the female twins than for men. Male twins were, however, more likely to say that they could talk about anything with their source of support, whilst the answers given by women were uniformly very high anyway.

Twins were slightly less likely to mention a partner or parent as their main source of personal support – though slightly fewer twins had partners or living parents. These results suggest an enduring bond between twins that continues quite far into life.

SEE TABLES 5.5 & 5.6

Table 5.5 Main source of support if needed – age 41

Person who would rely on for support or help	Column percentages		
	Singleton births	Twins (and triplets)	All
<i>Men</i>			
Spouse, partner	59	55	59
Parent	13	10	13
Brother /sister	12	20	12
Others	16	15	16
<i>Women</i>			
Spouse, partner	52	43	52
Parent	12	5	12
Brother /sister	14	29	14
Others	22	23	22
<i>Can talk about anything</i>			
Men	68	79	68
Women	74	77	74
<i>Base – men</i>	5054	123	5177
<i>Base – women</i>	5406	120	5526

Source: NCDS0 and NCDS6. All these differences are statistically significant, apart from the last row (whether women can discuss anything with their main source of emotional support).

Table 5.6 Main source of support if needed – age 46

Person who would rely on for support or help	Column percentages		
	Singleton births	Twins (and triplets)	All
Spouse, partner	60	55	60
Parent	16	12	16
Brother /sister	10	19	10
Others	9	9	9
Son / daughter	2	1	2
Prefer not to ask	1	1	1
No-one to ask	2	3	2
<i>Base</i>	9065	204	9269

Source: NCDS0 and NCDS7. Chi-sq(6)=19.9, p<0.01



6: CONCLUSIONS

SOME OF THE MAIN FINDINGS FROM THE DATA ANALYSIS WERE AS FOLLOWS:

- Twins and multiple births are more common among older mothers, and among married couples. These factors ought to provide some degree of 'protection' against disadvantage or low income.
- Despite this, on average families with a multiple birth had lower average incomes than other families. They also reported higher levels of material deprivation. In both cases the results are from the survey the Government uses to track child poverty.
- The rate at which mothers return to paid work is lower (or, slower) for mother of twins or triplets, compared to others. However, the rate of employment for fathers did not appear to be affected.
- Families with twins or triplets were more likely than other families to report that their incomes had decreased following the birth, and they reported using up more of their savings during this time.
- These results tend to understate the disadvantage faced by such families, and a more controlled comparison (against families with mothers of the same age) show greater disadvantage compared to singleton families.
- Families with twins or triplets were also more likely to report feelings of tiredness, and lower levels of confidence and competence in looking after their children.
- There is some evidence that families with a multiple birth are more likely to separate or divorce than others families.
- Once in middle age, there appeared to be no lingering material disadvantages affecting those from a multiple birth, though support mechanisms, in particular, and perhaps family formation patterns do continue to differ

EUROPEAN SOLUTIONS

In the UK, parents of twins or multiple babies receive no additional entitlement to parental leave or benefits. However, in many countries there are arrangements to take account of the different circumstances of those raising multiple birth children, both in terms on ongoing costs and one-off costs, and reflecting benefits as well as parental leave.

Many countries alter the entitlement to maternity leave when there are multiple births, including France, Belgium, Spain, the Czech Republic and Sweden. For example, adjustments are made to paternity and maternity leave in France when there are multiple births – paternity leave raised from 11 days to 18 days; maternity leave benefits paid for twice as long for twins as for singleton births. Pre-maternal leave starts two

weeks earlier in Belgium in the case of multiple births, and in Italy the period of parental leave is longer. In the Czech Republic maternity benefits last nine weeks longer in the case of multiple births (37 weeks). Spain provides an additional two weeks' maternity leave for each multiple birth child – in, Sweden, six months.

Second, benefits are less often changed to mirror multiple births. However, in Ireland a special grant is made at the time of birth and later when the children reach 4 and 12 years old. Moreover, their child benefit payments are increased by 50 per cent in the case of twins, and doubled where there are triplets or other higher order births. In Bulgaria the rate for larger families (3+ children) is paid for each twin, once the family reaches that larger size. The birth grant is higher for multiple births in the Czech Republic.

REFERENCES

Europe and North America Sutton Trust

Bortolus, R., Parazzini, F., Chatenoud, L., Benzi, G., Bianchi, M. and Marini, A. (1999) 'The epidemiology of multiple births', in *Human Reproduction Update* vol. 5 no. 2, pp 179-187

Botting, B., Macfarlane, A. and Price, V. (1990) *Three, four and more: A study of triplet and higher order births*, London: HMSO

Bracken, B. (2002) *Bracken school readiness assessment: administration manual*, Psychology Corporation

Brewer, M. and Paull, G. (2006) *Newborns and new schools: critical times in women's employment*, Leeds: CDS (DWP Research Report No. 308)

Bulmer, M. (1970) *The biology of twinning in man* Oxford: Clarendon Press

Campbell, D., Teijlingen, E. and Yip, L. (2004) 'Economic and social implications of multiple birth' in *Best practice & research clinical obstetrics and gynaecology* vol. 18 no. 4 pp 657-668

Christensen, K. and McGue, M. (2008) 'Editorial: Academic achievement in twins', in *BMJ*; 337; a651

Fellman, J. and Eriksson, A. (2009) 'On the history of Hellin's law' in *Twin research and human genetics*, vol. 12, no. 2, pp 183-90

Golding, J. (1990) 'Factors associated with twinning and other multiple birth' in Golding, J. (editor) *Social and biological effects on perinatal mortality*, vol III Bristol: University of Bristol, pp 21-66

Iacovou, M. and Berthoud, R. (2006) *The economic position of large families*, Leeds: Corporate Document Services (DWP Research Report No. 358)

Lytton, H. and Gallagher, L. (2002) 'Parenting twins and the genetics of parenting' pp 227-253 in Bornstein, M. (editor) *Handbook of parenting* New Jersey: Lawrence Erlbaum Associates

Pison, G. and D'Addato, A. (2006) 'Frequency of twin births in developed countries', in *Twin Research and Human Genetics*, vol. 9 no. 2, pp 250-259

Ronalds, G., Stavola, B. and Leon, D. (2005) 'The comparative cost of being a twin: evidence from comparisons within families in the Aberdeen children of the 1950s cohort study' *BMJ* 2005;331;1306

Ward Platt, M., Glinianaia, S., Rankin, J., Wright, C. and Renwick, M. (2006) 'The North of England Multiple Pregnancy Register: five-year results of data collection' in *Twin Research and Human Genetics*, vol. 9 no. 6, pp 913-8.

The data used in this publication were made available through the ESRC Data Archive. Neither the original collectors of the data nor the archive bear any responsibility for the analyses or interpretations presented here.

