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Investigating an age threshold for independence at postgraduate level

Report to HEFCE

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EXECUTIVE SUMMARY

Background and aims

The overall aim of this project was to investigate the age at which young adults might be treated as independent from their parents in terms of assessment of eligibility for postgraduate funding. To meet this aim, we conducted a review of existing literature on young adults' independence and receipt of resources from parents and critically reviewed the concept of 'independence' in relation to student funding and extant definitions of independence. We then undertook empirical analyses of secondary data to examine young graduates' circumstances and their variation by parental background. This highlighted strengths and weaknesses of using alternative rules for eligibility for postgraduate funding. We are not seeking to make a case for any particular approach, but instead to present possible approaches in the light of relevant empirical evidence. The data does not provide the answer to where an independence threshold *should* be drawn, because such a decision involves normative and political, not simply empirical, considerations.

We focus on UK-domiciled graduates and taught postgraduate study in publicly-funded higher education institutions in England. The majority of taught postgraduates receive no external financial support. HEFCE and the Government have been considering the kinds of support which might be provided to increase and widen participation in taught postgraduate study. The project arose from the specific need, identified by Postgraduate Support Scheme 2014/15 pilots, to determine who is most in need of support at taught postgraduate level and to identify an appropriate referent to assess financial need and underrepresentation.

The concept of 'independence'

At undergraduate level, students aged over 25 and certain others are classed as 'independent'. This means their own, not their parents' means are assessed for determining financial support and for targeting 'widening participation' activity. We note this threshold was not necessarily determined on the basis of empirical evidence. Moreover there are potential issues with adopting the same threshold at postgraduate level where students are typically older and may be in a period of transition into adulthood and financial independence. This makes measurement of relevant characteristics such as socio-economic status difficult. We focus particularly on '*mutable*' characteristics which may change considerably over the course of a graduate's life (e.g. income).

We argue that there are different aspects of independence. *Manifest* indicators of independence refer to young graduates' attainment of particular 'markers of adulthood' commonly used in the research literature, including leaving the parental home, partnership formation, parenthood and employment. The age at which these occur is one source of evidence on graduates' independence. There are also '*latent'* indicators of independence, which we characterise as subjective, cultural expectations of when a young adult *should* be considered independent of their parents and when parental obligations to provide substantial support should cease.

Establishing a threshold for independence for taught postgraduates does not imply that all graduates over that age can afford to cover the costs of their own postgraduate study. We highlight the importance of *affordability* as the costs of postgraduate study may well continue to be out of reach for independent graduates with moderate means. We also note that *parental resources,* both material and cultural, are likely to affect young graduates' prospects beyond any threshold of independence.

Evidence from previous studies

We review evidence from prior research on young people's trajectories into adulthood. These trajectories are becoming increasingly complex and non-linear. The transition to adulthood is growing in length and diversity. Postgraduate education may form part of a non-linear pathway, with substantial numbers of graduates returning to postgraduate education in their late twenties and thirties, rather than following on immediately from a first degree. Some would contend that existing thresholds are out-of-step with contemporary trajectories to adulthood. There is certainly a trend towards the privatisation or 'familialisation' of welfare, whereby families are increasingly expected by the State to burden responsibility for support of younger adults. This burden is difficult to bear for the poor, but increasingly also for the so-called 'squeezed middle', especially the 'sandwich generation' of adults with both younger and older dependants. Parents are therefore facing a longer period of financial support for children, which is extended particularly for those continuing to higher education. Large social inequalities in the UK mean that parents from different socio-economic backgrounds have very different means to provide support to their adult children. Emerging evidence suggests that the most advantaged families are willing to continue support for the longest period. Paradoxically, apparent financial independence for adult children from these backgrounds often relies on continued financial subsidy from parents.

Main findings

We answer our research questions using the best available data, principally Understanding Society, the Labour Force Survey and the HESA Student Record. There remain gaps in evidence which we are unable to address with these datasets. We cannot examine parental income for non-co-resident parents; we have only basic data on transfer of resources from parents to adult children; we lack systematic evidence on subjective/cultural expectations of the 'age of independence' and parents' obligations for supporting their adult children. We make recommendations for further research on these topics below.

What is the age distribution of UK-domiciled postgraduate taught students and how does this differ by broad subject area?
Around three fifths of postgraduates are aged under 30. However they are somewhat older on average than undergraduates and their age distribution is wider. Distribution of postgraduates by age varies across field of study, with some indication that this relates to labour market position.

How can we measure young adult's demographic and socio-economic statuses in terms of markers of independence?
At age 28, most graduates live away from parents. At age 25, most co-residential partnerships among graduates are cohabiting unions. After 28, marriage becomes more prevalent than cohabitation and a substantial majority are in one or the other relationship. Also, the proportion with dependent children is very low prior to age 25 and only starts to increase rapidly after the age of 28. After the age of 25, almost 90% of all graduates are in employment; before 25, only 45% of graduates are in managerial and professional occupations; however, after the age of 30, around 75% of graduates have such positions.

How do young graduates' circumstances relate to their parents' socio-economic background? What evidence is available as to whether parents provide on-going financial support to adult children?
Graduates from lower socio-economic backgrounds tend to take longer to achieve higher managerial, administrative and professional occupations and also display smaller total gross income. Around one fifth of graduates aged 21-34 received regular or frequent financial support from parents; this diminishes with age. Among all age groups in the general population, both males and females who are economically inactive, unemployed, or full-time students, receive more parental support than those who are employed

What would the distribution of eligible/not eligible young graduates look like if the age threshold was 25?

In order to make a very approximate estimate of the implications of (for example) adopting an age threshold for independence at 25 we apply this threshold to Understanding Society survey data. If we include only graduates' own income, most under 25s would be ineligible for support as their parental income is too high. There are some individuals aged over 25 from disadvantaged backgrounds whose income means that they would be ineligible support. Numerically this is a small group, in part reflecting the relatively fewer numbers of students who undertake a first degree from lower social class backgrounds. However not insubstantial numbers of those aged 25 – 27 from advantaged backgrounds would qualify for support based on their own income. If partner's income is additionally included for those in a co-residential partnership the proportion of eligible 25 – 27 year olds from advantaged backgrounds is reduced, but this makes an assumption that (often cohabiting) partners are willing to subsidize their partner's extended education.

Recommendations for further research

New nationally representative evidence is required which examines:

- The type, quantity and frequency of resource transfers between parents and adult (graduate) children;
- The association between parental income (including the income of non-co-resident parents), parental socio-economic status and the socio-economic situation of their graduate offspring;
- The costs of postgraduate study (e.g. by extending the Student Income and Expenditure Study to include taught postgraduates);
- The characteristics of postgraduates according to their funding source, particularly whether there are particular patterns in terms of those awarded studentships and scholarships;
- The role of family dynamics such as parental separation and repartnering in affecting the ability and willingness of parents to support extended periods of study;
- Subjective/cultural attitudes towards providing support for adult children, especially the age at which parents should no longer be expected to support their children;
- The potential for 'externalities' and unintended consequences of new arrangements e.g. the impact on young graduates' partnership formation decisions.

1. OVERALL PURPOSE AND SCOPE OF THE PROJECT

The overall aim of this project was to investigate the age at which young adults should be treated as independent from their parents in terms of assessment of eligibility for postgraduate funding. The project ran from 1 March 2015 to 31 July 2015.

This was translated into a set of specific research objectives:

- To review existing literature and evidence in relation to the age at which young adults are deemed to have become independent from their parents and the extent to which parental resources impact on young people's trajectories to adulthood;

- To critically review the concept of 'independence' in relation to student funding and to investigate extant definitions of independence;

- To undertake empirical analyses of secondary data to examine the demographic and socio-economic circumstances of young graduates and how these differ by parental socio-economic status;

- To highlight strengths and weaknesses of using alternative rules for eligibility for postgraduate funding.

The focus of our attention is on UK-domiciled graduates and taught postgraduate study in publicly-funded higher education institutions in England.

In order to address the objectives, we sought to answer the following **research questions**:

1. What is the age distribution of UK-domiciled postgraduate taught students and how does this differ by broad subject area?

2. How can we measure young adults' demographic and socio-economic statuses in terms of markers of independence?

3. How do young graduates' circumstances relate to their parents' socio-economic background?

4. What evidence is available as to whether parents provide on-going financial support to adult children?

5. What would the distribution of eligible/ineligible young graduates look like if the age threshold for independence was 25 years?

The project team comprised:

- Dr Paul Wakeling, University of York (principal investigator)
- Professor Ann Berrington, University of Southampton (co-investigator)
- Dr Adriana Duta, University of Southampton (project research associate)

The team combined expertise in postgraduate study, access to higher education, the sociology and demography of young people's trajectories into adulthood, social mobility and family formation. The team also provided expertise in the use and analysis of relevant large-scale datasets covering higher education students, employment and household composition.

2. BACKGROUND TO THE PROJECT

The project has arisen from a recommendation in the interim programme analysis of HEFCE's Postgraduate Support Scheme (PSS). Wakeling (2014) gives full details of PSS to date and the underlying rationale for the further investigations detailed in the current report.

Fair access and widening participation at postgraduate level
Research has identified that certain groups are underrepresented among postgraduate students. The putative reasons for underrepresentation cover social, cultural, academic and financial factors. For instance:

- Graduates who entered undergraduate study from a 'low participation neighbourhood' are less likely to progress to a postgraduate Master's degree than those from higher participation neighbourhoods (HEFCE, 2013a); graduates from lower socio-economic class backgrounds exhibit similar patterns, as do those whose parents did not attend university (Wakeling and Hampden-Thompson, 2013);

- There are substantial differences in progression to postgraduate study by type of institution attended and subject studied for the first degree (Wakeling and Hampden-Thompson, 2013);

- Controlling for subject discipline, women are less likely to enter higher degrees than men (Wakeling and Hampden-Thompson, 2013).

In the absence of mandatory funding or student loans for accessing taught postgraduate programmes, however, financial considerations are likely to be key. We know that three quarters of taught postgraduate students are self-funding (HEFCE, 2013b) and hence we can deduce that those who lack the means to fund their own study, either through family support or their own savings or income will not be able to participate.

Since postgraduate qualifications open access to certain employment outcomes and are associated with income premia (Lindley and Machin, 2013; Conlon and Patrignani, 2011), these financial barriers to postgraduate participation have implications for fair access and social mobility. From a macroeconomic point of view, there is an imperative to remove barriers to talented individuals developing high-level knowledge and skills. There is also a dividend to knowledge and learning from ensuring a diverse postgraduate student body in the classroom and as the basis for supplying the researchers of the future.

PSS is intended, among other things, to improve understanding of how to widen participation to taught postgraduate study among underrepresented groups. The extant evidence base about differential access to postgraduate study is thin. This contrasts markedly with the undergraduate level where there is a well-established set of measures for identifying underrepresentation and for targeting support, including financial support. Many existing measures such as occupational social class, type of school attended and characteristics of the student's home neighbourhood assume that the majority of students are young and remain dependent on their parents. However since postgraduate students tend to be older than undergraduates the validity of many measures becomes questionable. In particular, the use of parents as a referent may decrease in validity as graduates age, because the direct influence of parental circumstances on children is expected to weaken.

Mutability

Wakeling (2014) suggests distinguishing between **mutable** and **immutable** background characteristics. Mutable characteristics are those which may change over time, such as occupational social class and income. Immutable characteristics are those which are much less likely to change. These might include students' gender, ethnicity and disability. Whereas immutable characteristics are personal, mutable characteristics typically derive from the student/graduate's situation, such as the household in which they reside. In deciding which household or individual should be the referent for mutable characteristics, we could distinguish between graduates who remain **dependent** on their parent(s)/guardian(s) and those who are **independent**.

'Independence' in undergraduate student finance regulations and elsewhere

In making financial assessment of undergraduates, current regulations treat individuals as independent if they are aged 25 or over. Whilst this coincides with the EU's statistical threshold for youth (16 – 24), it is understood to be fairly arbitrary, although it has been established as the threshold in student financial regulations for at least two decades (HEFCE, personal communication). While there may be arguments and evidence in support of setting the threshold at 25, it does appear to have been adopted without reference to an evidential base. The longevity of the 25-years-old threshold also does not take into account significant recent changes in the demographics of household formation and young people's trajectories to adulthood.

High and low stakes targeting

In order to address postgraduate underrepresentation, a final distinction is required: between criteria to be used to target outreach, information, advice and guidance activity on the one hand; and criteria to be used to target direct funding support on

the other (see chapter 7 of Wakeling [2014] for a full discussion). Outreach activities are 'low stakes', involving lower overall cost and are less likely to be controversial. They should be relatively straightforward to target[1] by identifying statistically underrepresented groups and designing strategies to reach out to them, address non-financial barriers and so on. Outreach is low risk activity insofar as errors in identification of target individuals have a minor impact on overall efficacy, relative to misallocation of substantial scholarship funds.

Conceptual and empirical considerations

There are two key challenges, then, to which our research is addressed. One is to provide an empirical evidence base against which measures of a graduate's 'independence' from their parental household can be evaluated. The other is to subject the idea of 'independence' itself to rigorous conceptual scrutiny, drawing on both our primary research and the social science literature related to young people's trajectories to adulthood, family formation, social mobility and inter-generational transfer of economic and other resources.

This will inform policy in targeting financial support for postgraduate participation in a manner which is socially just and which maximises the efficient use of public (and other) funding. It is important to get this right, since funding support is expected to be the most prominent and expensive policy response to the outcomes of PSS. Misdirecting support is both expensive and potentially subverts policy intentions.

Future postgraduate funding policies

We make no particular presumptions about future policy for postgraduate support. At the time of writing, the Department for Business Innovation and Skills is in the process of analysing consultation responses to its proposed loan scheme for taught postgraduate students (BIS, 2015). Briefly, the proposal seeks to introduce an income-contingent loan of up to £10,000 towards the cost of enrolling on taught postgraduate Master's degrees in England. Loans would be limited to students under 30 years of age who are UK/EU domiciled and would be repayable concurrently with undergraduate loans on attaining a particular level of income. However there are no plans in the proposal for means-testing to determine eligibility for the loans. Loans of up to £25,000 for research degree study are also proposed.[2] During the 2015/16 academic year, an 'interim' version of the PSS scheme is running which involves the award of 10,000 non-repayable scholarships of £10,000 each. These awards are allocated to higher education institutions according to a set of rules and a formula. Institutions in turn determine the criteria for allocating

[1] This does not imply that addressing such underrepresentation is 'easy'.

[2] We have treated research degrees as out-of-scope for the current project.

studentships to postgraduate students, taking into account fixed stipulations[3] and broad guidance about targeting. These awards build on the scholarship schemes implemented in the PSS 2014/15 pilot (see Wakeling, 2014 for further details). Institutions may in future decide or be required to offer targeted scholarship support to postgraduate students, in a manner analogous to support currently offered at undergraduate level through Access Agreements. We should also note that the Government has announced plans to convert maintenance grants for undergraduate study targeted at those with low household incomes into repayable loans from 2016/17.

While we principally consider how postgraduate scholarships, grants and/or loans might best be allocated according to need, findings and discussion will be relevant in consideration of other kinds of support. This includes the targeting of non-financial actions (such as outreach, information, advice and guidance). Whilst not formally part of the project's remit, our evidence may be relevant to consideration of the restriction of proposed loans for postgraduate study to the under-30s, which is subject to consultation by BIS at the time of writing.

Now that we have outlined the context for the project, we first consider the conceptual basis for independence in relation to financial and other support for postgraduate students, before reviewing findings from relevant prior research

[3] For example, awards should only be offered to those who were subject to the post-2012 higher tuition fees arrangements. See http://www.hefce.ac.uk/pubs/year/2014/CL,322014/ for further details.

3. THE CONCEPT OF INDEPENDENCE

What is 'independence' and why is it important?

'Independence' at undergraduate level

Arguments in favour of increased equity and diversity at the undergraduate level have broad political and public support, where substantial efforts and resource are directed to 'widening participation' to first degrees. Here there are actions directed at raising aspirations, improving information, advice and guidance, and targeting financial support at students from groups evidentially underrepresented in higher education to improve affordability.

Criteria for targeting different kinds of support for undergraduates are based on a variety of different measures of students' backgrounds. One focus is on parental characteristics, based on an assumption that most new entrants to full-time undergraduate study are 'young' (semi-formally defined as under 21 years of age) and dependent on their parents financially.[4] For such students, we can be reasonably confident that taking measures of their parents' income will give a fair indication of their means. In addition, supplementary data about socio-economic background, such as educational level, occupational social class, Free School Meal entitlement and neighbourhood of residence serve as useful and widely-accepted indicators of dis/advantage. These are used by universities and by government agencies to monitor inequalities in higher education participation and to target interventions to support fair access and opportunity.

Some students, of course, are older and here the case for using parental information arguably becomes weaker. At present, student support regulations use age 25 as a cut-off for determining whether a student's own or their parents' circumstances should be the referent for measurement. Within the Education (Student Support) Regulations 2011, [5] such students are classed as being 'independent' for the purposes of financial assessment. This assessment is most frequently used in determining whether an undergraduate student is eligible for a full or partial maintenance grant. During 2014/15, such an award was worth £3,387 for new entrants with a household residual income of £25,000 or less. Those with a household residual income of between £25,001 and £42,260 could claim a partial grant, reducing pro rata (Student

[4] See section 6.1 for empirical evidence on age distributions of undergraduate and postgraduate students.

[5] See: http://www.legislation.gov.uk/uksi/2011/1986/schedule/4/made

Finance England, 2012).[6] Students in certain circumstances can claim a Special Support Grant in place of a maintenance grant. According to the latest figures, 42% of English-domiciled full-time undergraduate students in England who applied for an award received a full maintenance grant, with a further 14% receiving a partial grant (SLC, 2014, Table 3A(i)).[7]

In addition to the blanket aged 25+ cut off, current student financial regulations also establish a small set of criteria whereby an individual is considered independent, regardless of age (see Appendix 1 for full details). This includes:

- Having been in local authority care for a specified period aged 16 or older;
- Having dependants oneself (e.g. children);
- Being married, in a civil partnership or cohabiting with a partner;
- Being able to show evidence of living independently (based on a certain level of income) for a period of not less than 36 months;
- Being irreconcilably estranged from or otherwise unable to contact parents or being orphaned etc.

Students are re-assessed annually and in principle may change status between dependent and independent. Only around 1% of undergraduate students who submitted an application to Student Finance England have been assessed as independent for 2014/15 (source: personal communication with SLC).

Although it does not appear to be explicitly stated in legislation, the implicit rationale for these rules is that younger students can depend on their parents to contribute to the cost of their higher education, where their parents are in a financial position to be able to do so. The exceptions listed in Appendix 1 are an attempt to capture circumstances where this assumption breaks down. The assumption also carries a moral imperative: parents *should* contribute to their child's undergraduate[8] higher education up to the age of 25. That said, successive changes in student funding arrangements since 1997 have tended to reduce the direct contribution expected from parents, as funding has moved from fully means-tested student grants to partially- or un-means-tested student loans, repayable by the student.

[6] As already stated, the Government has proposed converting this grant to a means-tested loan from 2016/17.

[7] This amounts to about 368,000 full grants in total for students entering university in 2012, 2013 and 2014. However many students do not apply for an award and are not included in the figures, nor are undergraduates in receipt of an NHS bursary (SLC, 2014, p. 33).

[8] The regulations also apply to certain postgraduate programmes too. Postgraduate initial teacher training (i.e. PGCE) courses are subject to the same student finance arrangements.

It should be noted that having independent status at undergraduate level does not mean an individual is excluded from financial support. Rather it is a method for seeking appropriate and practical referent for evaluation of their financial means.

We have determined that a similar concept of dependent and independent students applies to Federal Student Aid in the USA. Here the guidance is more explicit about the reasons for this distinction. A similar set of arrangements applies, although the threshold age is 24 and all graduate students are treated as independent by definition. An outline of the main features of the US assessment is in Appendix 2.

Age thresholds in other areas

Approaches which are analogous to the independence threshold in student support regulations are seen in other areas of state activity and in English law. These are summarised in Table 1. There are age thresholds associated with a range of different rights and permissions, often related to potentially dangerous activities or important responsibilities: purchase of drugs and firearms, entering contractual agreements, use of certain vehicles and so on. Here an overarching principle seems to be protection: of the vulnerable from exploitation and of the general public from harm through irresponsible usage. These are ages of majority where society expects an individual to have acquired a minimum level of maturity.

Elsewhere, financial welfare is the primary concern. Within the benefits system and the national minimum wage regulations there are implicit assumptions about age-related need and available familial resources. There are also value judgements about when parents should no longer be expected to financially support their children. Thus benefit entitlements generally increase with age, as does the minimum wage, although the age thresholds are by no means uniform. They are also subject to some volatility, such as the very recent changes to housing benefit rules, for instance. Here the politically controversial increase of the minimum age for housing benefit claims to 22 years has been justified by its proponents on the grounds that below that age the state should not be subsidising independent living because (it is claimed) children can continue to live with their parents.

Comparing independence thresholds

It is hard to avoid the conclusion that there are some substantial contradictions and inconsistencies in the age thresholds applied for financial assessments. Income Support and Jobseekers Allowance are assessed only on the immediate circumstances of an individual (and their partner, if they have one), with no reference to parents. Thus an 18-year-old is in principle eligible for Jobseekers Allowance regardless of their parental circumstances, whereas a 24 year old undergraduate may not be eligible for certain student support based on their parents' income. Of course Job Seekers Allowance – and certainly Income Support –

arguably cover more basic needs than student support, but the inconsistency is there nevertheless.

Age	Category	Detail	Notes
10	Criminal responsibility	England and Wales	https://www.gov.uk/age-of-criminal-responsibility
16	Benefits	Income support	Only available to 16 and 17 year olds if pregnant or a parent and in other narrowly defined circumstances https://www.citizensadvice.org.uk/benefits/children-and-young-people/young-people-and-benefits/ http://www.nidirect.gov.uk/benefits-for-young-people
	Voting rights	Vote in Scottish elections	Applies to the elections for the Scottish Parliament, local government elections in Scotland and the Scottish independence referendum https://www.gov.uk/voting-in-the-uk/overview
	Age of consent		
	Marriage/Civil Partnership	16 – 17 year olds require parent/guardian consent in England & Wales	Parental consent not required in Scotland http://www.civilpartnerships.org.uk/Registering.htm https://www.citizensadvice.org.uk/relationships/living-together-marriage-and-civil-partnership/getting-married/
	Minimum wage	Rate for 16-17 year olds	£3.87/hour from 1 October 2015. https://www.gov.uk/government/news/new-national-minimum-wage-rates-announced
	Drugs	Purchase tobacco	
	Transport	Moped licence	https://www.gov.uk/ride-motorcycle-moped/bike-categories-ages-and-licence-requirements
17	Transport	Car licence Most motorbike licences	
18	Benefits	Income Support Jobseekers' Allowance	https://www.citizensadvice.org.uk/benefits/children-and-young-people/young-people-and-benefits/
	Voting rights	Vote in all UK elections Stand for election for public office	

Age	Category	Detail	Notes
	Marriage/Civil Partnership		
	Minimum wage	Rate for 18 – 20 year olds	£5.30/hour from 1 October 2015

Table 1: Age thresholds in UK law

Age	Category	Detail	Notes
18	Minimum wage	Rate for 18 – 20 year olds	£5.30/hour from 1 October 2015
	Drugs	Purchase alcohol	
	Finance	Take out a bank loan Enter into financial contracts Company directorship Gamble	
	Education	Leave compulsory education	
	Firearms	Buy fireworks Buy firearms and ammunition	https://www.gov.uk/fireworks-the-law There are certain exceptions: http://content.met.police.uk/Site/firearmslicensingagerestrictions
21	Family law	Legally adopt a child	
	Minimum wage	Rate for 21 and over	£6.70/hour from 1 October 2015
	Transport	HGV and aircraft	Various permissions
22	Benefits	Housing Benefit	New minimum age introduced in July 2015 Emergency Budget https://www.gov.uk/government/speeches/chancellor-george-osbornes-summer-budget-2015-speech
25	National Living Wage		Proposed in July 2015 Emergency Budget, £7.20/hour from April 2016 https://www.gov.uk/government/speeches/chancellor-george-osbornes-summer-budget-2015-speech
	Education	Age at which an undergraduate is considered 'independent'	
30	Education	Proposed upper limit for taught postgraduate student loans	
35	Benefits	Housing Benefit	End of restrictions to rate of Housing Benefit for single persons.

Table 1 (continued): Age thresholds in UK law

Why does this matter for postgraduate students?
State support for undergraduate study does not, with minor exceptions, extend to postgraduate level. There are no generally-available state-backed loans for taught postgraduate study[9] to cover tuition fees and living costs. Thus at present there is no definition, nor even any concept, of an 'independent' taught postgraduate student.

PSS was introduced by HEFCE to support Government policy in investigating, among other things, how to "remove barriers to participation in postgraduate education" (HEFCE grant letter 2014, Annex 1, para. 6). This emphasis, included in successive grant letters from BIS to HEFCE, responds to a number of reports calling for a review of postgraduate student funding in England, especially in the context of significant changes to undergraduate student funding (e.g. Leunig, 2011; Higher Education Commission, 2012; National Union of Students, 2012; Social Mobility and Child Poverty Commission, 2014; Muir, 2014). The scheme has provided £25M funding to 20 pilot projects during 2014/15 to support postgraduate participation. Much of this funding has been directed to scholarships for students, which in a number of funded projects have been targeted at postgraduates from underrepresented backgrounds.

In the absence of pre-existing measures for identifying which groups should be targeted at postgraduate levels, institutions have typically opted for the pragmatic solution of borrowing definitions from undergraduate level. This approach has demonstrated in practical terms what had previously been predicted in principle: the utility of many of these measures begins to break down at postgraduate level. For example, classifying postgraduates by the postcode of their home address is unlikely to be reliable. Young undergraduates' home addresses are likely to be those of their parents, recorded when they apply for a university place. It therefore captures, through geo-demographic data, something about the characteristics of where they were living before becoming an undergraduate. HEFCE divides neighbourhoods into quintiles based on the higher education participation rate of young people living there (e.g. HEFCE, 2012); this measure has been shown to be predictive of a number of different higher educational outcomes (Batey et al., 1999). For a postgraduate however, the home address postcode could be their parents' address; their address as an undergraduate in a studentified area; a transitory address as they move between student status and financial independence; their own owner-occupied property where they live with their family, and so on. That address might capture their 'real' financial situation, but it could also be very misleading. Some institutions have asked students to declare their postcode on initial entry to higher

[9] The exceptions here are loans to support postgraduate initial teacher training (see earlier footnote) and the Professional and Career Development Loan scheme. The latter is tenable on a restricted set of vocational courses only and with strict terms for borrowing and repayment.

education when applying for PSS scholarships. Except where assessing their own graduates, institutions will find it very difficult to verify this information.[10]

These difficulties also point to a conceptual problem: young graduates might be thought of as *in transition* between dependence and independence. They may also be socially mobile, that is in transition between different socio-economic positions – their parents' and their own. As we shall see in section 4, prior research evidence shows these trajectories can be protracted, insecure and potentially volatile. Postgraduate students therefore present quite a different proposition to undergraduates in trying to determine their situation and status.

We know that there are inequalities in access to postgraduate education in England (HEFCE, 2013a; Wakeling, 2009a, 2009b; Wakeling and Hampden-Thompson, 2013). As with undergraduate level, we can usefully divide factors affecting postgraduate participation into two broad categories: financial and non-financial. While public debate has focussed on financial barriers, emerging evidence from PSS points to the importance of non-financial barriers too (Wakeling, 2014). Clearly though, in the absence of a universal postgraduate funding scheme, having independent financial means is a prerequisite for postgraduate study for the large majority of postgraduate students who lack a sponsor. At undergraduate level, financial and non-financial measures are covered by different approaches and measures. Targeting, monitoring, outreach, and 'contextual' offers are directed at potential students from groups evidentially underrepresented in higher education. State support in the form of maintenance grants (and the former National Scholarship Programme[11]) is based on financial measures alone. The division here is between encouraging and assisting young people from particular backgrounds to consider and apply for higher education (non-financial interventions); and, conditional on receiving the offer of a place, assisting them to participate by defraying the costs (financial interventions).

Where, under PSS, institutions have borrowed measures and categories of underrepresentation from undergraduate level, these have frequently been used in the allocation of PSS scholarships. The measures typically used for interventions are therefore employed as a proxy for direct measurement of financial circumstances. This is because it was difficult for institutions to undertake the specialised financial assessment required (which is currently centralised via Student Finance England for undergraduates); *and* out of uncertainty about whose income should be declared, drawing on the ambiguities outlined above. Where institutions did make financial assessments (University College London and the University of Oxford), these did

[10] It also carries the risk that applicants will be tempted to misrepresent their postcode in order to obtain funding. Identifying postcodes which are classified as the lowest quintile can be done online using a look-up facility. Others may honestly forget or misremember their postcode.
[11] Funding from this programme was repurposed for 2015/16 to form PSS.

not uniformly adopt undergraduate rules. Oxford took the decision not to apply an age-based cut-off largely on the pragmatic grounds that it would not have been possible within the time constraints of their project to determine whether these could be applied fairly and consistently. At University College London, the independence threshold of 25 was applied *de facto*, but with some flexibility around this based on individual circumstances (source: personal communications with Oxford and UCL staff).

We are led to conclude that a better understanding of what might constitute independence for postgraduate students could assist in the most effective allocation of postgraduate student funding to remove barriers to participation. In principle, choosing the most appropriate referent for the assessment of household income should help to direct funds to individuals who are the least likely to be able to pay for themselves. An added advantage is that it could also help in non-financial interventions. While the cost per student is lower for this non-financial activity than for most scholarship awards, it is important that targeting and outreach work is also effective and efficient.

Having suggested why independence is potentially important in postgraduate participation, in the next part of this section we consider how we might think about independence for postgraduates. We also outline some of the empirical and normative issues raised in attempting to define independence for postgraduates.

Re-thinking independence

In this section we distinguish between a number of different facets of independence: when do graduates appear to be independent? What kind of characteristics should be considered for defining independence? When *should* graduates be thought of as independent? At what point might parental influence be considered to dissipate? And what is the relationship between independence and the affordability of postgraduate study?

Mutable and immutable background characteristics

In considering what might influence access to postgraduate study (or any educational transition) we can distinguish between background characteristics which are amenable to change over the life course and those which are more enduring or even permanent. We can categorise characteristics as potentially 'mutable' – i.e. relatively amenable to change given propitious conditions – and 'immutable' – i.e. unlikely to change over the life course. An example of mutability might be socio-economic class: one might be socially mobile for instance, particularly upwardly socially mobile through education. An example of immutability might be gender: whilst this is not wholly immutable, the large majority of individuals in the

population do not change gender at any point in their life. Thus the dis/advantage associated with their gender remains with them. In contrast, an upwardly mobile individual, whilst arguably never (or rarely) completely escaping the influence of their parents' socio-economic position, is likely to reach a point sooner or (more likely) later when it becomes absurd to continue to treat them as disadvantaged.

Thus if we are looking to capture the characteristics of potential postgraduate students for the purpose of determining their likely disadvantages, we should measure *immutable* characteristics (arguably gender, ethnicity, disability etc.) in relation to the student alone. We would anticipate that immutable characteristics would attract non-financial interventions.[12] However the optimal referent for *mutable* characteristics will change over time. At some point it will become untenable to use parental background in preference to the student's own position. Only ever using parental position will run the risk of false positive categorisation of some upwardly mobile individuals as disadvantaged, and false negative categorisation of downwardly mobile individuals as advantaged among older groups. Using only the student's own position, the risks invert.

Table 2 presents a highly simplified hypothetical illustration, based on single graduates with no dependants. *This is intended to be illustrative of potential categorisation issues only*; it should not be taken to imply any kind of proposal. Green shading represents a graduate who would be eligible for postgraduate support, using a notional age threshold of 25 for independence and a household income threshold of £25,000. Graduate A is not eligible for support: as a graduate aged under 25 their parental income is above the threshold. Graduate C is eligible support as they are under 25 and parental household income is low. We would argue that these two hypothetical cases are quite straightforward. In contrast, Graduates B and D are arguably miscategorised. Graduate B qualifies for support under the hypothetical rules because they are over 25 and with an annual income under £25,000. However they are from a very well-off family[13] who might reasonably be anticipated (if not expected) to support them in postgraduate study. Graduate D is over 25 and earns (just) over the earnings threshold and therefore does not qualify

[12] Immutable characteristics may be associated with financial means. For instance it is well known that there is a correlation between ethnicity and socio-economic disadvantage. However immutable characteristics do not directly measure financial means. There may be instances where it is considered legitimate to use immutable characteristics in informing the award of scholarships as a form of positive action. This is seen within PSS in the award of funding to women in engineering, and to disabled students, without reference to financial means.

[13] Income of £95,000 p.a. is in the top decile of household income; £19,000 p.a. is roughly in the bottom quintile (source: ONS http://www.ons.gov.uk/ons/rel/household-income/the-effects-of-taxes-and-benefits-on-household-income/historical-data--1977-2013-14/ref--table-14-oecd.xls, accessed 23 July 2015)

for support. However they are highly unlikely to be able to seek parental financial support, nor to be able to fund postgraduate study themselves.

Parent(s)		**Child**
Household income: £95,000 p.a. Educated to degree level Owner occupiers	**Graduate A** Age: 22 Salary: £23,000 Job: graduate trainee management consultant Living away from parents	**Graduate B** Age: 27 Salary: £21,500[14] Job: junior librarian (job held for 2 years) Living with parents
Household income: £19,000 p.a. Educated to GCSE level Social housing tenant	**Graduate C** Age: 23 Salary: £12,500 Job: Accounts clerk (part-time) Living with parent	**Graduate D** Age: 26 Salary: £25,500 Job: Senior lab technician (job held for 1 month) Living away from parent

Table 2: Highly simplified illustration of potential false categorisations of need, based on postgraduate independence threshold of 25

One alternative approach would be to set the threshold age for postgraduates at a different point than for undergraduates, for example at age 25, 28 or 30. Another would be a *phased*, rather than binary approach to measurement, with both parental and filial information taken into account and the weighting given to each shifting with age. For instance at age 22 a student could be assessed only on their parental household income; at 26 this might be weighted 50/50 between their parents' and their own household income; and at 30 their own household income used entirely.

Each approach has its advantages and disadvantages, which we will review below in the light of our consideration of the research base and new secondary analysis of survey data. *We wish to emphasise that we are not seeking to make a case for any particular approach, but instead to present possible approaches in the light of relevant empirical evidence*.

A phased/weighted approach could more accurately capture the trajectory to independence, which is not abrupt and binary in real life. However it is more complex: it could be difficult to operationalise and administer. It might also be harder for potential students, their families and advisers to understand than a simple

[14] Even if Graduate B's age, salary and residence situation was identical to Graduate D, considering them as being the same and ignoring their parental resources creates a barrier for access to postgraduate studies for Graduate D. Graduates from different backgrounds commonly have similar income and this is where the idea of independence, although putatively fair (as it assesses graduates on the same criteria) could still be unfair and mask disadvantage if the cut-off is too early

threshold. Evidence from undergraduate student scholarships (and from the PSS) suggests simple, straightforward schemes are more effective than more complex, ostensibly fairer arrangements. Further, the use of age thresholds is commonplace within British society and legal systems. It is well understood and accepted in connection with a range of rights and responsibilities. It is also adopted in benefits assessments; but it is a very blunt tool.

Having proposed types of (mutable) characteristics we might refer to in seeking to define independence, in the following sections we consider different aspects of independence and what they might mean for (post)graduates.

Manifest signs of independence (empirical)

As already noted, graduates' status as independent adults, along with that of young adults generally, is ambivalent. We review existing research evidence in this area in section 4. The existing student support regulations for undergraduates are concerned with the *financial* independence of a young person, whereby the regulations provide a set of rules for determining whether the student's own or their parent/guardians' financial circumstances should be assessed when allocating funding to those with greatest need. As noted above, this is not thought to be based on an empirical analysis of when financial independence is typically achieved but instead on an assumption about the age at which it applies, plus a set of exceptions. However we can arguably identify aspects of a graduate's circumstances which signal independence from parents. This could include, for example:

- having a certain income level oneself (i.e. from employment, not through transfer of resource from parents);
- living away from the parental home;
- forming a co-resident intimate partnership;
- becoming a parent.[15]

There is potential to measure some of these circumstances for graduates using national survey data. There are also problems with taking these manifest measures at face value. In particular, living away from home, especially in the current challenging housing market, may depend on parental subsidy.

Latent views of independence (normative)

Overlapping this (notionally) empirical concept of financial independence is a normative one: at what age *should* parents cease to be responsible for their children? As noted in Table 1, there are legal markers of when adulthood and independence are attained but they are inconsistent. However they carry an implicit or latent view of when a young person should be seen as independent. As we shall see, culturally

[15] These are the four major markers of adulthood proposed by Spéder *et al*. (2014).

ideas shift over time and between sub-groups of the population (and vary internationally). We might also distinguish between a broader social expectation of parental support and parents' own sense of obligation to their children. Legislation and regulation in relation to age thresholds may reflect social mores, but they also potentially *create* a perception of parental obligation.[16] In any case, there is limited evidence on subjective/normative views of independence. To establish such a view, primary research would be needed to ask specific questions of a nationally representative sample (e.g. via an omnibus survey) about when people would consider a young person independent and when they would think the obligation for parental support should cease. Public opinion might cohere around a particular age threshold, or it might instead relate to certain life events (e.g. getting married).

There is some evidence on age of *adulthood*, although we should note that this is distinct from *independence*. Using the European Social Survey third round, Spéder et al. (2014) looked at subjective views on the age of adulthood in 25 European countries, including the UK. While there was variation within and between countries, 20 – 21 emerged as a common response. The UK mean was lower – about 18 for women and 20 for men. The survey also asked respondents to identify what they thought were the most important markers of adulthood. The researchers report "in the United Kingdom and Ireland, having a job and leaving the parental home are the most important markers" (p.885).

There is also some evidence on public opinion about who should pay for higher education. Zimdars et al. (2011), reporting on questions asked in the British Social Attitudes Survey 2010, found the majority supported the view that some, but not all families should pay the costs of higher education. The public were relatively equally split about whether students should be required to take out a loan to fund higher education, but there was majority support for grants being available for some students. These views were consistent across social class, educational level and political affiliation. We should note though that respondents are likely to have had undergraduate study as their frame of reference for these opinions.

Parental influence

While establishing a graduate's financial in/dependence allows us to identify when we could or should assess their own or their parents' means for financing postgraduate study, the influence of parental background is expected to linger. An extensive body of research in the sociology of education has shown the effect of background characteristics on educational continuation declines with each successive educational transition, but does not disappear completely (e.g. Mare,

[16] It has been argued that there is a trend in recent decades towards a familialisation of welfare, a situation already seen in many southern European countries and which may be enhanced by proposed changes to benefits rules by the current UK Government.

1981; Hansen, 1997).[17] Parents who are financially well-off might continue to contribute to major purchases and life events (car, house, births, marriages, higher degrees) throughout their children's lives. Moreover knowledge of a latent 'safety net' or future legacy could lead to different decision-making and risk-taking behaviour for graduates from different backgrounds.[18] Again, evidence from the sociologies of education and social mobility underline the different decision-making practices of young people with similar academic attainment but different socio-economic backgrounds based on their perceived risk. Breen and Goldthorpe's (1997)[19] theory of relative risk aversion, for instance, contends that children's primary objective is seek to attain at least the same socio-economic position as their parents. Given this imperative, educational decision-making will vary by social class. The child of a barrister would need to continue to postgraduate study to attain their parent's status, whereas the graduate child of a barista would evaluate the risk of continuing to postgraduate level very differently, given both the cost and the chance to 'bank' significant upward mobility already. Thus both material and cultural resources bear on postgraduate decision making.

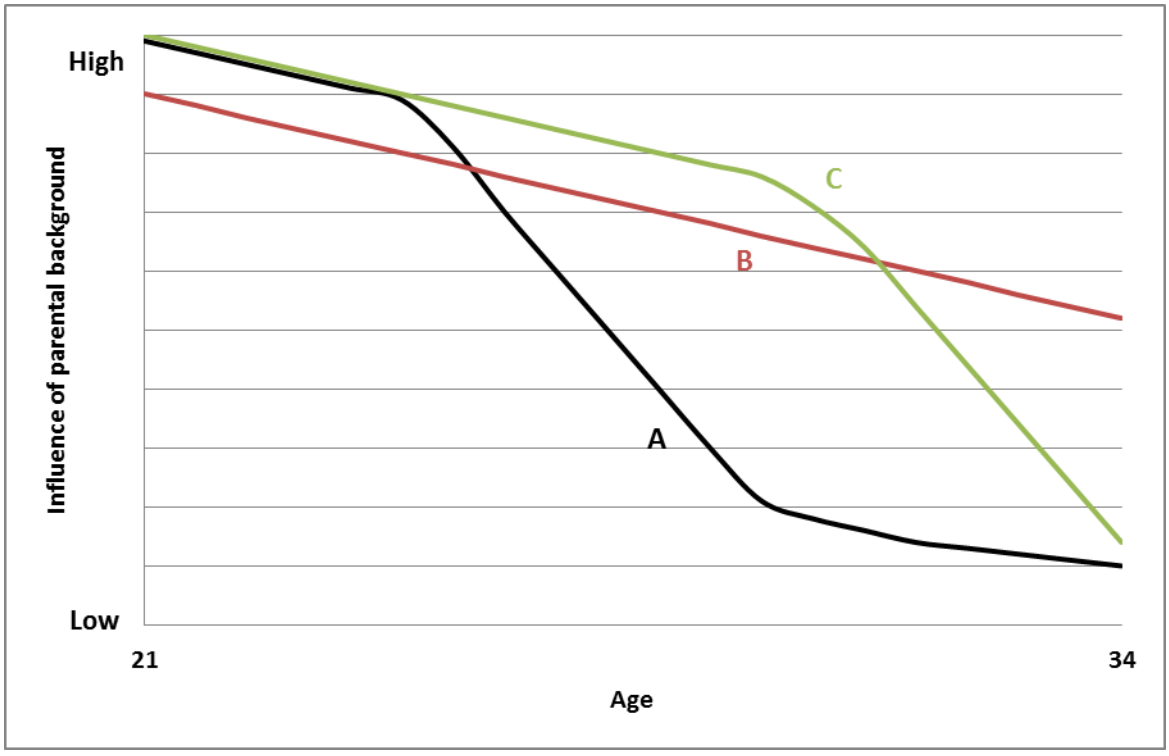


Figure 1: Change in notional influence of parental socio-economic background on filial circumstances over time for graduates (hypothetical illustration)

[17] Recent evidence from the USA suggests inequality might be 'U' shaped, with parental SES differences resurgent among advanced degree holders (Torche, 2011).

[18] In addition, of course, levels of social and cultural capital vary by socio-economic class.

[19] Other sociological theories – such as those of the French sociologist Pierre Bourdieu – would provide a different explanation for the sociological processes involved, but the empirical outcomes tend to be similar (Devine, 2004).

Figure 1 provides different notional representations of parental influence on graduates over time using socio-economic position. At some point in each trajectory, notionally, the individual's own position becomes more influential than their parents'. Trajectory A (black line) posits the influence of parental socio-economic position as high initially, but falling away rapidly as the individual's own situation becomes more important. Whilst parental background does not completely lose its influence, by the end of the period it is minimal. Trajectory B (red line) shows a slower and steadier decline, with parental influence continuing to be important for a significant period. Trajectory C (green line) suggests parental influence continuing to be strong at younger ages before declining rapidly.

There is no way accurately to plot, with real data, the influence of parental background over time. As already stated, there is little research evidence or data available on the transfer of resources between parents and graduate children (whether co-resident or living apart). We could (and later do) plot other changes such as social mobility and household formation, but these are much less direct measures of parental influence. We can (and again do) draw on qualitative research about continued parental influence on and support for graduate children, but we cannot make population-based generalisations from these studies. If we could come up with a plot like Figure 1, we would expect to see a whole range of different trajectories for individuals. The change in influence of parental background over time might also vary systematically according to parental background. For instance, parental background might be more influential on filial circumstances for those at the extreme ends of the income distribution. Moreover there is the possibility that parental influence might increase again in later life for certain groups following inheritance, for instance. Nevertheless, hypothetically we could plot a 'line of best fit' through the individual trajectories. We would then be able to specify an optimal age at which a graduate could be considered independent in relation to entering postgraduate study. However, there remains the possibility that such an empirically-determined optimal age would be politically and normatively unacceptable. Some would suggest such a threshold might be 35 or even 40, rather than 25.

Affordability

A final conceptual distinction is required. A graduate might be considered financially independent, in that they are (for example) living away from home and supporting themselves with income from employment. For many, if not most younger graduates in this situation, it is unlikely they could afford to pay for a year's full-time postgraduate study, including up-front tuition fees and living costs.[20] To

[20] We do not have robust evidence on the cost of full-time taught postgraduate study to students. The Student Incomes and Expenditure Survey covers undergraduates only. Universities UK found a median fee of £4,605 in 2011/12 (HEFCE, 2013b, p. 47), but this is expected to have increased since then. Using the Living Wage as a guide, we would expect a single individual to need about £15,000

afford this they are likely to need substantial savings and/or access to substantial borrowing on amenable terms. For graduates with their own dependants, affordability becomes markedly more challenging.

Relating concepts to empirical evidence

Having critically reviewed the conceptual basis for student independence, we now turn in section 4 to match these ideas against evidence from existing studies and new primary research undertaken during this project. First of all, we consider the broad intra- and international trends in young people's trajectories to adulthood, noting how shifts over time are leading to increasing uncertainty. We outline prior research pointing to particular markers of adulthood but also noting the complexity of these markers and shifts in their meaning. We also show how socio-economic background and other factors impact on young people's trajectories into adulthood, including the transfer of resource from parents to children through their twenties and beyond, noting weaknesses in the available data.

We then conduct new analysis on these questions using the best available datasets. We look at the age distribution of postgraduate students in comparison to undergraduates. Our research questions focus on graduates' age in relation to markers of *manifest independence* for UK graduates, and indicators of *parental influence* through the association of parental background and differential graduate outcomes. Our final research question draws together these findings to test a particular operationalisation of an independence threshold for postgraduates. This allows us to illustrate the possible impact of one definition of postgraduate independence using real data. It will highlight the size and nature of marginal groups in relation to a hypothetical threshold. This will in turn help us to understand issues of miscategorisation and optimisation of the targeting of taught postgraduate student funding.

per annum to cover living costs (based on a 37 hour week @£7.85/hour). This is close to the current stipend rate for research students outside London (£14,057).

4. TRANSITIONS TO ADULTHOOD: KEY THEMES AND PREVIOUS EVIDENCE

In this section we review extant evidence as to how young adults' trajectories have changed over recent decades and discuss the increasing role of families in supporting their offspring through their mid and late twenties. We comment on the implications of these changes in terms of access to, and funding of, postgraduate education.

Delayed, diverse, non-linear pathways to adulthood

Contemporary paths to adulthood are increasingly protracted, diverse and less certain (Billari & Liefbroer, 2010; Holdsworth & Morgan, 2005; Stone et al., 2014). Partly as a result of the decline of the youth labour market, young people are on average spending an increasing amount of time in education. Education has become more valuable as jobs have become impermanent and work careers increasingly fluid (Settersten, 2012). Higher education is increasingly a necessity for obtaining secure employment, decent wages and benefits. The delay in leaving full-time education has had concomitant delays in other milestones to adulthood including the age at which young people attain residential independence from the parental home (Berrington & Stone, 2014); enter partnerships and marriage (Beaujouan & Ní Bhrolcháin, 2012); and become parents (Berrington et al. forthcoming).

However, this general pattern of a delay in transitions to adulthood masks considerable intra-cohort diversity with pathways through young adulthood being shaped, for example, by gender, class, ethnicity, and geographical location (Côté and Bynner, 2008). Women traditionally left the parental home earlier than men and were more likely to leave for family formation. However changing gender roles and in particular the feminisation of higher education has meant that young women have become increasingly like young men, at least in terms of their leaving home behaviour (Berrington and Stone, 2014). Going away to university and living "away from" the parental home has been the tradition for middle-class children (Holdsworth, 2009) and the expansion in higher education in the late 1980s and early 1990s was associated with a decrease in the average age at which young adults left home in the UK (Berrington et al., 2009). However, the expansion of the higher education sector and diversification of student intake has seen an increase in the numbers of higher education students remaining in the parental home whilst studying (Holdsworth, 2009). Transitions to residential independence have become increasingly non-linear, with return to the parental home commonplace among those in their early twenties, especially at the completion of full-time studies (Stone et al.,

2014). Pathways to residential independence have also become more diverse as a result of the ethnic diversification of the UK population.

Increasing uncertainty

Increasingly, young adults' trajectories into adulthood are becoming more uncertain as a result of changing opportunity structures and more limited support from the welfare state (Settersten, 2012). Instability in young adults' lives is viewed in a more positive vein by Arnett (2004) who argues that young adults now have more freedom to try out different possibilities, for example, in terms of possible jobs, partners and so forth. However, many authors highlight the increased risks associated with growing individualism and reductions in welfare support for young adults (Côté and Bynner, 2008; Berrington et al., 2014). The impact of increased economic uncertainty on transitions to adulthood has been the topic of much debate extending back prior to the recent economic downturn (e.g. Mills and Blossfeld, 2005). Particularly in continental Europe, economic uncertainty has been seen as an important factor driving a 'postponement transition' whereby moving out of the parental home, into marriage and parenthood have been delayed to older ages and transitions have become de-standardized in terms of their timing and sequencing (Billari and Liefbroer, 2010). In the UK, the pattern has been somewhat different with early transitions to adulthood (e.g. teenage parenthood) remaining more common among those from the poorest socio-economic backgrounds (Berrington et al forthcoming). The UK also stands out from many (particularly southern and eastern European) countries in that the transition to residential independence traditionally took place at an early age. In recent years however, an increasing proportion of young adults remain living with their parents for longer. Whilst predating the economic downturn starting in 2008 (especially among women in their early twenties), the trend for co-residence with parents accelerated in the period 2008 to 2012 (Berrington and Stone, 2014). Unemployment is associated with a higher likelihood of remaining in the parental home especially for men in their late twenties and early thirties (Berrington et al., 2014). Young adults on low incomes are increasingly being forced into the private rental sector as a consequence of high house prices, large deposits required or home purchase, and the reduction in the social rental sector. Given the high costs of rent, and restrictions in the level of housing benefit for young single adults, more young adults are remaining in the parental home for longer.

The increased diversity and non-linearity of trajectories into adulthood means that educational policies which were based on the expectation a traditional, linear trajectory through young adulthood are increasingly out of step with lived reality. Furthermore, as Settersten (2015, p. 129) notes, in the USA

> It assumes that education is heavily front loaded and that once individuals have it they are good for the long haul and have little need to return later on.

The need for postgraduate education, for example to deepen learning or enhance skills, is likely to extend beyond individuals in their twenties, for example, among those who may take time out to have children.

Privatisation/familialisation of welfare

The increased emphasis on family as the required source of financial and other support for young adults is not a new phenomenon – for example in the early 1980s benefits were made more restrictive for 16 and 17 year olds (Berrington and Stone, 2014). However, this trend has been accelerated as a result of the economic downturn, problems of housing affordability, and through recent policy changes. In 2012 Prime Minister David Cameron signalled his intention that families should take responsibility for young adults who are not economically independent (The Telegraph 2012). Recent policy changes include restrictions in the level of housing benefit available for single young adults aged under 35. The planned move to make most 18 – 21 year olds ineligible is a further indicator of the shifting of responsibility for young adults to their parents.

The shift in responsibility for young adults towards parents has been well documented in the USA where growing inequality in wealth means that there is increased inequality in the ability of US parents to help their children (Fingerman et al., 2015). Swartz and colleagues (2011) describe how parents are an important safety net during times of negative life events, but that they also provide an important scaffold enabling their children to acquire post-secondary education. Parents give more material and financial support for example during times of unemployment but gradually withdraw their support as the young adult attains markers of adulthood e.g. through cohabitation, marriage and so on. As noted by Grundy and Henretta (2006) parents of adult children are increasingly becoming a 'sandwich generation' where adult children are requiring assistance for longer at the same time as increasing longevity means the older parent generation require care for longer. Thus increasing demands on parents to support their adult children through extended education may introduce trade-offs between one generation and another.

Given increasing socio-economic inequalities in the UK (Dorling, 2015) it would seem likely that differences in the level of support available to young adults from different class backgrounds will have increased. Henretta and colleagues (2012) show how, in the US, money for college expenses was greater for young adults from higher socio-economic backgrounds and for those whose parents had remained living together. Fingerman and colleagues (2015) also show that the amount of financial support received by young adults was significantly higher for those with parents of high socio-economic status. Settersten (2012) argues that it is parents on relatively low incomes, but who are not eligible for state support who, as a result of

the privatization of risk, find it hardest to provide support for their adult children. This group is often referred to in popular discourse as the 'squeezed middle'.

Support from parents and other family members

Family members provide different sorts of support for young adults including financial transfers, help with rent and mortgage costs, provision of free board and lodging and childcare for grandchildren. Whilst socio-economically advantaged parents may facilitate their children's independence by helping with housing costs for non-coresident children (Heath and Calvert, 2013), more disadvantaged parents may provide help through co-residence (Fingerman et al., 2015) Other benefits less easily measured include advice, help with job search, facilitation of job placements and internships and general emotional support (Lewis et al., 2015; Fingerman et al., 2015.[21] There are differences across Europe in the nature of parental support.

> In southern Europe, parents support their children mainly through co-residence, and little economic support passes the walls of the house. In the Nordic countries, in contrast, parent–child co-residence is non-normative. Children leave their parents' home early and receive direct and explicit help from them. The continental countries fall in-between. (Albertini and Kohli, 2013, p.828).

For continental Europe Albertini and Radl (2012) show how intergenerational transfers of financial support towards adult children fuel social immobility. They argue that greater and more prolonged investments are required in order for 'service class' children to achieve the same socio-economic status as their parents. Some US research suggests parents of all income levels spend around ten per cent of income on adult children. Given income inequalities, this can amount to substantial absolute differences in parental financial support (Wightman et al., 2012).

In the UK, there is less empirical evidence as to the different ways in which parents support their offspring[22]. Some limited quantitative data about support from parents who are living outside a young person's household were collected within the British Household Panel Study (Chan, 2008; Chan and Ermisch, 2011). Chan and Ermisch (2011) found that 13% of children received financial help from parents in 2006, whereas 24% of parents reported having given it. Their analysis suggested that support increased in line with need, especially around critical life events. They detect a small increase in support between 2001 and 2006, and one would expect this trend to continue (and perhaps accelerate) given the prevailing macroeconomic conditions. What their report does not do is focus on our particular population of interest, British graduates aged 21 – 34, where patterns may (now) differ

[21] We should note that support will not always be unidirectional, especially as the age of the young adult increases.

[22] However, see Grundy and Henretta (2006) for some insights using older data.

considerably. We have updated this analysis using Understanding Society data (section 6.4).

Qualitative insights provide a more rounded view of the many different types of reciprocal exchange that goes on between parents and their adult children. Heath and Calvert's (2013) middle-class sample of university graduates were residentially independent, yet many remained financially and materially dependent on their parents, but to varying degrees. A variety of financial assistance was reported, both in the type (flight tickets to clothes), the amount (ten pounds to tens of thousands of pounds); and in terms of the regularity of support. More significant transfers included substantial monetary exchanges to offset costs to cover rent or mortgage deposits, or the purchase of properties by parents or grandparents as investment properties which were then rented out to young adult family members at reduced rent. A similarly diverse range of parental support was reported by young adults interviewed by Soaita and McKee (2015). In the latter project, significant inequalities in parental resources, such as parental savings, were found. The young people tended not to conceptualise these in terms of a mechanism creating/reinforcing inequalities, but tended to conceptualise differential family help as a 'lucky' or 'unlucky' family circumstance.

In a project investigating inter-generational exchange, Joseph and Rowlingson (2015) found that parental support for adult children was related to the idea of their "duty" as a parent, and the desire to support them to become independent, get married and become established in a vocation. The interviewees noted the apparent paradox in the fact that they were supporting their adult children financially so that they become financially independent. Lewis and colleagues (2015) focused their qualitative research on middle-class parents co-residing with their children who were university graduates. Some of these middle class parents were providing material and emotional support to their offspring (recent graduates) thereby providing them the freedom not to have to take any job but to wait to find a "proper graduate career job". This is consistent with the idea that young adults from more advantaged socio-economic backgrounds will have greater possibilities to explore and experiment during "emergent adulthood" than those from poorer socio-economic backgrounds.

Relatively little research in the UK has considered the importance of changes in family structure – parental separation and repartnering for example – on the ability and willingness of parents to continue to support adult children. In the US, studies have generally found that, net of other factors, those whose biological parents stayed together are likely to receive the most support. Berrington and Stone (2014) find that in the UK the percentage of those aged 14 – 16 living with two biological parents declined from 70% to 55%, counterbalanced in the main by an increase from 15% to 26% in the percentage living in a lone parent family. The proportions living in a

blended family, with one natural and one step parent, remained more constant, at around 12%. We know very little about how increasingly complex family lives impact on the ability and willingness to support non-co-resident children as they reach their early twenties.

Postgraduate education in young adults' trajectories

In order to discuss how, and when, young adults should be supported to undertake taught postgraduate study (PGT) in the UK it is helpful to briefly review existing knowledge as to the reasons why young adults undertake PGT and the factors which are associated with lower progression rates among young adults from poorer socio-economic backgrounds. This is important because it might help us understand whether PGT is something which should be supported by Government funding and whether it is something which should be supported as part of reducing social inequalities and enhancing social mobility.

There are a variety of motivations for undertaking postgraduate study ranging from a desire to compensate for under-achievement in a first degree (Brooks and Everett, 2009), the need to improve employment prospects, or to gain progression in a current career (d'Aguiar and Harrison, 2015) and intrinsic motivations (Wakeling et al., forthcoming 2015a). The use of further postgraduate study as a way of obtaining additional work skills is thought to be particularly relevant in the research and development sectors. Much attention has focused on the underemployment of recent cohorts of graduates (Chevalier and Lindley, 2009; Purcell et al., 2012). Returning to postgraduate study can be an attractive option for graduates who perceive themselves overqualified for their current job, but not immediately capable of finding a better job (Scurry and Blenkinsopp 2011; d'Aguiar and Harrison, 2015). Related to this idea is the suggestion that, due to 'credential inflation' some young adults undertake a higher degree in order to "gain the edge" over other graduates in a competitive job market awash with graduates. These motivations are underlined by recent findings from a major PSS project (Ellison and Purcell, 2015; Mellors-Bourne, 2015; Wakeling et al., forthcoming 2015a, 2015b).

Graduates from lower socio-economic backgrounds (whether defined using occupational class, parental education or type of secondary school attended) are underrepresented among those progressing to higher degrees (Wakeling and Hampden-Thompson, 2013). A number of possible explanations for this difference have been put forward in the literature. Firstly, those from poorer socio-economic backgrounds are less likely to have been in receipt of significant amounts of financial aid from their parents or grandparents. They are likely to end their first degree with considerable debts and hence would be more worried about taking on even more debt. Not only are the levels of student debt likely to be higher from those who have not had so much financial support from their parents as undergraduates, but past

research also suggests that working-class young adults may be more debt averse. Callender and Jackson (2015) found that among appropriately qualified sixth-form students, those from low social classes are more debt averse than those from other social classes, and are far more likely to be deterred from going to university because of their fear of debt, even after controlling for a wide range of other factors. Other studies show few differences in levels of debt aversion according to class background with the current generation of students being more accepting of, and prepared for, indebtedness than their forebears (Harrison et al., 2015). Early evidence from one PSS project involving six research-intensive universities finds little direct association between graduate debt levels and progression to postgraduate study, controlling for a range of other factors. The exception is students with the very highest levels of debt (Wakeling et al., forthcoming 2015a).

Secondly there may be cultural and social reasons why graduates from working class backgrounds do not enter postgraduate study, including a lack of knowledge about sources of potential financial support e.g. through research council/university scholarships. There are also arguments which relate to the different reactions graduates from working class backgrounds might have to their employment upon leaving university. Tomlinson (2007) suggests that graduates from poorer backgrounds might have lower expectations regarding graduate employment, and be more resigned to less prestigious occupational trajectories. These lower expectations could arise from an awareness of persisting structural barriers to their advancement e.g. access to internships (Bathmaker et al, 2013).

We must also take note of the fact that, due to changes in the labour market, it takes longer nowadays for young adults to establish a secure, financially stable career, even for graduates (Barbieri, 2009; Settersten, 2015). In the UK recent evidence for all young adults shows a significant proportion are employed in routine and semi-routine jobs. For some, and especially for graduates, these may be temporary jobs, before achieving a "graduate job". Others however remain in this type of insecure work well into their thirties (Berrington et al., 2014). As discussed in section 3 even when a young person has managed to get a job with a relatively good income, this does not mean they will have sufficient savings to fund a postgraduate course. In the absence of external funding, such as through a scholarship or sponsorship, young graduates must look either to a bank loan, or to private sources of funding – most commonly their parents.

Summary

In summary, we must view the decision to undertake further postgraduate study in the context of increasing uncertainties in the young adult life course. Young people's transitions into adulthood are becoming more protracted, complex and non-linear.

The timing and sequencing of young people's trajectories to adulthood vary according to gender, parental class and ethnicity.

The meaning of the 'traditional markers' of adulthood are not always straightforward to interpret, and hide some complexity. For example, residential independence is not necessarily associated with financial independence, with richer parents especially providing financial transfers to enable their offspring to become and remain residentially independent.

Better evidence is needed on transfer of resources from parents to children. The evidence we have suggests this can be substantial, but that it varies widely too in terms of type, amounts and regularity. Increasing uncertainty in young adults' life courses has been a trend for many decades. However, the 2008 economic downturn and subsequent austerity policies have accentuated the trend towards young adults being increasingly reliant upon family support well into their twenties. This increased expectation for parents to support their adult children comes at a time when the costs of higher education have increased. Thus there is the question, for which we have little empirical evidence, as to the extent to which parents should be expected to fund their children through extended education. We note that, as a result of increased longevity, the burden on 'sandwich generation' parents is growing.

Nowadays it takes longer for young adults to become financially secure – even for those with a first degree. Many graduates are unemployed or underemployed. Even those currently on a good income are unlikely to be able to afford to self-fund postgraduate study. Thus in the absence of external sponsorship (e.g. from a research council) potential postgraduate students must rely on family support – leading to inequality in access. It is not clear from previous studies by what age graduates are financially secure. In a subsequent section we attempt to provide some answers by examining the changing occupational and income distribution of graduates as they move through the age range between 21 and 34.

5. DATA AND METHODS

The research questions

In the previous section, we reviewed evidence on young people's trajectories to adulthood in contemporary Britain. This provides the foundation for the investigation of graduates' situations, to which we now turn. We are seeking to answer the following research questions, which are informed by our review of the prior research:

1. What is the age distribution of UK-domiciled postgraduate taught students and how does this differ by broad subject area?

2. How can we measure young adults' demographic and socio-economic statuses in terms of markers of independence?

3. How do young graduates' circumstances relate to their parents' socio-economic background?

4. What evidence is available as to whether parents provide on-going financial support to adult children?

5. What would the distribution of eligible/ineligible young graduates look like if the age threshold for independence was 25 years?

To answer these questions, we first review the suitability of available datasets about our target population, before explaining how we have gone about our analysis. We then present our results.

Review of datasets

Labour Force Survey

A key source of data used in this research is the Labour Force Survey (LFS), the largest, nationally representative household survey in the UK which collects data about employment, unemployment and various other socio-economic and demographic characteristics (e.g. education, occupation, income, marital status etc.). Because LFS data are collected in four quarters every year, it is also known as the Quarterly Labour Force Survey (QLFS). The LFS provides both an individual and a household data file for each quarter. In addition, a special licence version of the individual dataset including additional information, such as parental occupational

class, is available upon application. As the current research makes use of all the three types of data, these are briefly summarised. The main strengths and weaknesses are presented in Table 3 below.

Household LFS

Since we are interested in the household living arrangements of young adults we use the household, rather than the individual, LFS. Despite around 60 thousand households being interviewed annually in the LFS, research like ours which focuses on a specific group such as young graduates results in a reduced sample. Therefore, in order to increase the sample size, data from the October-December quarters for the last three years (2012, 2013 and 2014) are combined.

Individual Special Licence LFS

None of the standard LFS data (individual or household versions) provides information about the socio-economic characteristics of the family of origin. This information started to be collected only recently and it is available in the special licence data of the July-September quarter, 2014. However, as this is an individual dataset with relatively little household information attached, it is difficult to derive information on living arrangements. The socio-economic background of the family of origin is provided in the form of SOC2010 codes which we then code into the National Statistics Socio-economic Classification (NS-SEC) schema (Rose, Pevalin and O'Reilly, 2005).

The UK Household Longitudinal Study (Understanding Society)

The UK Household Longitudinal Study (UKHLS), also known as Understanding Society, is a nationally representative household panel survey which began in 2009/10 (Knies, 2014). Just over 30,000 households were interviewed in the first wave. The survey provides data about a wide range of topics including socio-economic and demographic characteristics and family background. Crucially for this investigation, information on the respondent's parents is collected enabling us to examine how young adults' circumstances relate to parental educational and occupational class background.

Furthermore, since Understanding Society is a household panel, variables describing household composition and relationships within households can be easily derived. Data on various sources of income, earned and non-earned, are available and (gross and net income) are available at both the individual and household level.

Given that UKHLS is longitudinal study, the respondents are interviewed annually. There is a trade-off however, between using data from more recent panel waves, which will be more contemporaneous, with the disadvantage of panel attrition, which is more severe for young adults. Given the particularly high rates of attrition

for young mobile adults (Lynn et al., 2012) for the majority of our analyses we use data from wave 1 (2009/10). However, as described below also use data from wave 3 where this information was not collected in wave 1.

The third wave of UKHLS includes relevant information for the scope of this research, which was not collected in the previous waves, namely whether respondents receive regular financial support from parents. Therefore, the analysis showing parental support received from parents relies on data from wave 3 of UKHLS. As explained in the sample coverage section, two sub-samples are extracted from wave 3: graduates; and the general population. While the graduates sample includes only respondents from UKHLS, the subsample for the general population also includes an additional sample from the British Household Panel Study (BHPS), UKHLS's sister longitudinal study running from 1991 to 2009.

Other potential datasets

Several other datasets were examined as potential candidates for answering the research questions raised in the current report. Their strengths and weaknesses are summarised in Table 3. A first candidate was the Family Resources Survey, a general household survey which covers a variety of topics about households, families and individuals while focusing on social security benefits. Despite several advantages, including very detailed information on sources of income, we did not use this survey since crucially no information was available on parental socio-economic background.

A second potential dataset was the Longitudinal Study of Young People in England which also provides a series of relevant variables and has very detailed information on parental socio-economic status. The study started in 2004 when respondents were 13 years old and the last available wave was collected in 2010 when the respondents were 20 years old. Given the young age of the respondents, this data would not be appropriate to explore the age when graduates become independent from parents.

Finally, the Student Income and Expenditure Survey provides useful information regarding the various sources of income that students use to support themselves during their studies. However, the data are limited to undergraduate students and mostly to those under 25. It would have been very useful to have a similar dataset for postgraduate students, covering a broader age range so we could examine whether the financial support received from parents by postgraduate students changes with age in terms of amount and relative importance to other sources of income, ideally by parental socio-economic status.

Labour Force Survey (LFS)	
STRENGTHS • Recent data (latest quarter Oct-Dec 2014) • Large sample size (all: 95,950; age 21-34: 15,546) • Includes individual's receipt of benefits • Has a full relationship grid so can identify with whom the young adult is living • Father's and mother's occupation asked in one quarter per year	**WEAKNESSES** • Information only on earnings. Information on non-earned income not available • No household level earnings variable or total income variables • Data on parental occupational class are available only for July-September quarter for 2014 under special licence; poorly documented
UKHLS (Understanding Society)	
STRENGTHS • Both earned and non-earned income (both net and gross). • Has a full relationship grid so can identify with whom the young adult is living • Has parental education as well as parental occupation • Has an ethnic boost • From wave 2 incorporates BHPS sub-sample, thereby increasing sample size	**WEAKNESSES** • Attrition rates, especially for young adults, quite high. When using data for wave 3 (2011/12) we assume that weights properly adjust for differential attrition of young adults since wave 1 (2009/10) • Smaller sample size than LFS (just over 30,000 households responded in wave 1)
Family Resources Survey (FRS)	
STRENGTHS • Relatively small sample size (2012/13: 20,196 households, compared to around 60,000 in LFS and >30,000 in USoc) • On the individual level dataset we know the relationship of everyone to everyone else and hence could derive living arrangements • Income from any regular payments received from friends and relatives outside household including in head of benefit unit's income	**WEAKNESSES** • No parental background information e.g. father/mother occupation • In the actual FRS datasets no household level derived variables are available e.g. for household income. • Poorly documented • Research team not experienced in its use
Longitudinal Study of Young People in England (LSYPE)	
STRENGTHS • Contains a range of relevant variables • Focus is on young people's occupational and educational transitions	**WEAKNESSES** • LSYPE respondents first interviewed in spring 2004 (age 13) and annually until 2010 • Age 13 to 19/20, so respondents too young for the purpose of our analysis
Student Income and Expenditure Survey	
STRENGTHS • Provides information about sources of income used by students to financially support themselves while enrolled in education (including the amount received)	**WEAKNESSES** • Does not include postgraduates; the sample is limited mostly to undergraduates under the age of 25
Living Costs and Food Survey	
STRENGTHS • Useful information about spending patterns and the cost of living	**WEAKNESSES** • Very small sample size for the age group 21-34 and even smaller when limiting the sample to graduates.

Table 3: An analysis of the strengths and weaknesses of the considered datasets

Shortcomings of available data

Despite their many strengths, the LFS and UKHLS present some limitations, the most pressing of which is effective sample size. By restricting our attention to graduates aged 21-34 we reduce the sample available for analysis. When considering young graduates' general socio-economic circumstances this is not so much of a problem since we are able to combine data from three years of the same LFS quarter. The standard errors around these descriptive statistics are therefore rather small, indicating that the estimated statistics (e.g. means, percentages) are precise, i.e. close to the real parameters in the population.

However, in order to examine how young graduates' circumstances differ by parental socio-economic status we need to use data from either the LFS special licence dataset (which currently only includes one quarter of 2014), and UKHLS. Therefore, the sample of young graduates for whom we can link parental education and parental class is not as large. The reduction in the sample size due to limited availability of information on parental characteristics together with the fact that more layers of information are introduced in the descriptive tables leads to a smaller number of observations in the cells. This is in turn reflected in larger standard errors, hence less precise estimates for the descriptive analysis showing differences by parental background.

Research questions for which we have no suitable data

Parental household income for non-co-resident parent-child dyads
To estimate the advantage or disadvantage of the family of origin we rely on the education and social class of the parents. However, it would have been beneficial if data on parental income were available. We could only obtain this information for the co-resident parents who answered the questionnaire. However, the proportion of graduates living with their parents is rather small, especially after their mid-20s.

Details on amount of inter-generational transfers of resources from parent to child (whether or not co-resident) and savings
Information on the financial support from parents could help us to investigate the advantage/disadvantage among young graduates and assess whether there is a certain age (on average) when offspring stop receiving financial help from their parents. However, little data is available on intergenerational transfers from parents to children. Yet, based on UKHLS (wave 3), we assessed *whether* young graduates receive financial support from parents and how this changes across age.

Popular views on the age at which young people should be considered independent
Cultural factors could also play an important role in defining an age for independence. For instance, UK data from the European Social Survey collected in 2006 suggests that the perceived age of adulthood in the UK is 18 for women and about 20 for men (Speder et al., 2014). However, given that it is rather common for parents to support their children while enrolled in a university programme, the age until when parents are willing to support their children might be later than the adulthood age perceived by the general population. As we have already discussed, regulations and some legislation already implicitly make this assumption. Ideally, it would have been useful to also draw on subjective/cultural indicators, particularly for the age when parents consider that the offspring should become independent and the age until which they are willing to financially support their offspring. However, we could not identify such data.

In addition, other demographic aspects for which we do not have the appropriate data may be important. For instance, while we do not take into account whether graduates come from a single or dual parent family, this could also be a marker of disadvantage. Although from UKHLS it would be possible to know whether the young adults' parents were together at age 16 we do not have information about the marital status of the parents at the date of the interview. Also, we do not know about the current willingness and ability of parents to provide financial support. This might depend upon the relationship between the two biological parents, the relationship between the parents and the young adult and other life course factors e.g. demands of support from other family members, such as a second family. Fingerman et al. (2015) suggest that if there are a lot of siblings each child on average gets less financial support.

Methods

The analyses in this report rely on descriptive statistics, more specifically means, percentages, and quartiles displayed in the form of tables and graphs together with standard errors, confidence intervals and the corresponding sample sizes.

Sample coverage
The analysis was confined to relevant sub-groups based on the age, education and migration status of the respondent. In all the datasets, the following groups were selected (a) young males and females aged between 21-34, (b) who were born in the UK or migrated to the UK before the age of 15 and (c) had obtained a university degree prior to the date of the interview but no further education. The only exception was the UKHLS wave 3 data, where we included an additional sample to the graduate sample, namely respondents aged between 20-54, all levels of education. The reason for this was to compare financial transfers from non-resident

parents for graduates and the general population across the life course. This also served to assess whether there is an overall educational gradient in the financial support received from parents.

Sample size

The descriptive analysis in this report relies on four different samples from different datasets. After selecting the relevant sub-groups as defined in (a), (b) and (c) above, the sample sizes for the four datasets were the following[23]:

1. **UKHLS, wave 1** comprises 1,727 respondents, 698 males (40%) and 1,029 (60%) females. Please note that only those who lived outside the parental home at the date of the interview were asked the question about parental support (see Appendix 3); this reduced the sample considerably.

2. The sample size of **UKHLS wave 3** is 835 for the graduates sample, 288 males (34%) and 547 females (66%). The general sample, which included those aged between 20 and 54, all levels of education, consisted of 16,676 respondents: 6,941 (41%) males and 9,735 females (59%).

3. **LFS Household data**, **Oct-Dec quarters 2012, 2013, 2014 combined** consists of 7,634 respondents, 4,261 (56%) females and 3,373 males (44%).

4. **LFS Special Licence Individual data, July-Sept 2014** includes 2,331 respondents, 997 males (43%) and 1,334 females (57%).

Weighting

In order to generalize the current results to the UK population, we have used survey weights. The UKHLS is a complex survey in terms of sampling, therefore strata were also used in addition to probability/population weights. We use cross-sectional weights for main respondents and proxies (i.e. when the questions were answered by one member of the household on behalf of another respondent). This means that the results based on UKHLS wave 1 can be generalised for the 2011 UK population and the results based on UKHLS wave 3 to the 2013 UK population. LFS data provides probability weights. Therefore, the descriptive analyses use the corresponding weights for each year (i.e. 2012, 2013, 2014).

[23] The sample size in each table might vary as the cases with missing data on key variables were temporarily removed from the analysis; however, some respondents had missing values for some variables but not for others, therefore this might also vary depending on the table – the number of missing cases are indicated in the notes of each table.

Confidence intervals

The confidence intervals were constructed based on the standard errors generated using survey weights. These are used to indicate the precision around the point estimate (e.g. mean, proportion etc.). The wider the confidence interval, the less precise the estimate and vice-versa. The confidence intervals are also used to assess statistical significance of between group differences – i.e. whether the differences between two means or proportions are consistent and likely to exist in the real population of UK graduates or if they could be due to chance.

6. RESULTS

6.1 What is the age distribution of UK-domiciled postgraduate taught students and how does this differ by broad subject area?

Figure 2 compares the percentage age distribution for UK-domiciled undergraduate and postgraduate taught students. The majority of undergraduates are aged 18 or 19 when they start their studies. In contrast, the age distribution of PGT students is more dispersed. Almost two thirds of new PGT students are aged over 25, with just over 40% being aged over 30 years.

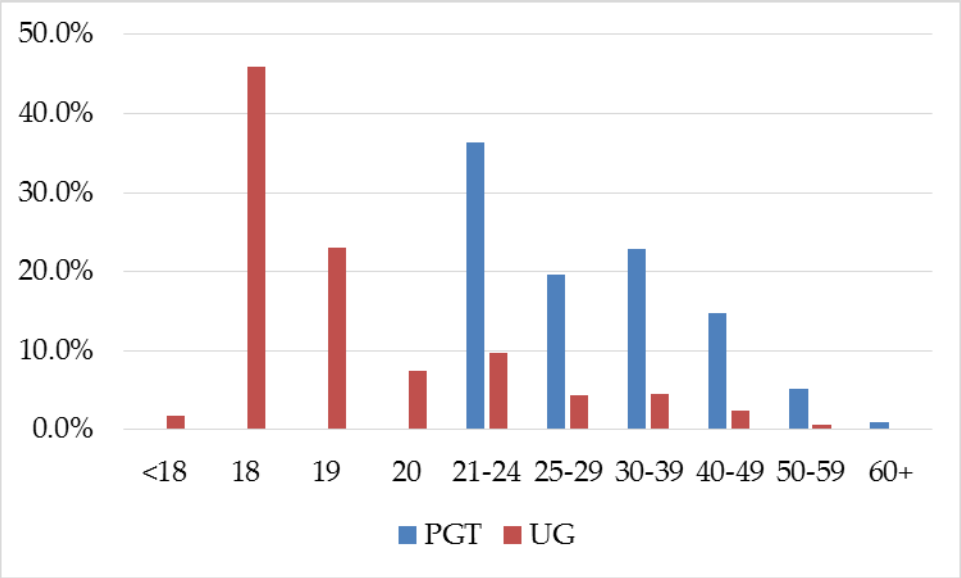


Figure 2: Percentage age distribution for UK-domiciled undergraduate and postgraduate taught students. Source: Authors' analysis of HESA[24] data

Table 4 shows the percentage age distribution according to subject area. The largest numbers of PGT students are in the areas of Business and Administrative Studies, Subjects Allied to Medicine, Social Studies, Education and Biological Sciences. Whilst half of the PGT students in the Physical and Biological Sciences are aged under 25, only one fifth of those studying PGT courses in Subjects Allied to Medicine, and Education are in this youngest age group. At the same time over half of the PGT students in the areas of Business & Administrative Studies, Subjects Allied to Medicine, and Education are aged over 30. UK-domiciled students undertaking taught postgraduate courses in Social Studies seem to be more evenly spaced over the age range. We did not have access to data about the sponsorship of students in different subjects, but we can surmise that this varies by age and field of study. For

[24] Higher Education Statistics Agency

instance many students in Subjects Allied to Medicine and Business and Administrative Studies are likely to be employer-sponsored.

Subject (ranked by number of UK domiciled PGT students 2013/14)	Percentage age distribution					Total UK domiciled PGT students
	<25	25-29	30-39	40-49	50 +	All (100%)
Business & Administrative Studies	30	18	29	19	5	13,695
Subjects Allied to Medicine	20	20	30	23	8	9,100
Social Studies	42	19	20	14	5	8,940
Education	19	22	28	22	9	7,925
Biological Sciences	50	19	16	10	4	7,745
Creative Arts & Design	44	19	16	11	9	5,195
Engineering & Technology	39	22	24	11	4	4,045
Historical & Philosophical Studies	49	13	12	11	15	3,660
Mathematical & Computing Sciences	41	19	23	13	4	3,375
Languages	55	14	14	8	8	3,155
Medicine & Dentistry	28	27	31	11	3	2,840
Law	42	16	20	14	8	2,705
Physical Sciences	61	16	13	6	3	2,540
Architecture, Building & Planning	43	23	19	11	4	2,320
Mass Communications & Documentation	57	21	13	7	3	2,290
Veterinary Sciences, Agriculture and related	41	22	22	10	5	675
TOTAL	37	19	22	15	6	80,345

Table 4: Age distribution of UK-domiciled PGT students according to broad subject area. Source: Authors' analysis of HESA Student Record data

6.2 How can we measure young adult's demographic and socio-economic statuses in terms of markers of independence?

The aim of the following analyses is to use the best available data to document the circumstances of graduates across the young adult age ranges in order to inform the debate as to when young adults become 'independent'. 'Graduate' refers to those who have an undergraduate degree but not a postgraduate degree. It is thus the population eligible for undertaking their first postgraduate qualification. The analyses only include those graduates who were either born in the UK or who migrated to the UK prior to age 15.

Demographic indicators of independence

Leaving home

The proportion of male and female graduates living in the parental home (Figure 3) decreases rapidly from age 21 to age 28. While at the age at 21, 80% of male graduates and 70% of females graduates live with their parents, at the age of 28, only 28% of male graduates and 12% of female graduates live in the parental home. After this age, the decline is very slow. By the age of 34, less than 10% of graduates live with their parents (7% males and 3% females). It should be noted that current co-residence may be the result of having never left the parental home, or having left but then returned to the parental home. We should note here too that young adults often live in 'complex' households which may involve sharing with friends, sharing with others among whom may be co-resident couples. These arrangements confound the use of household income as a variable in many cases.

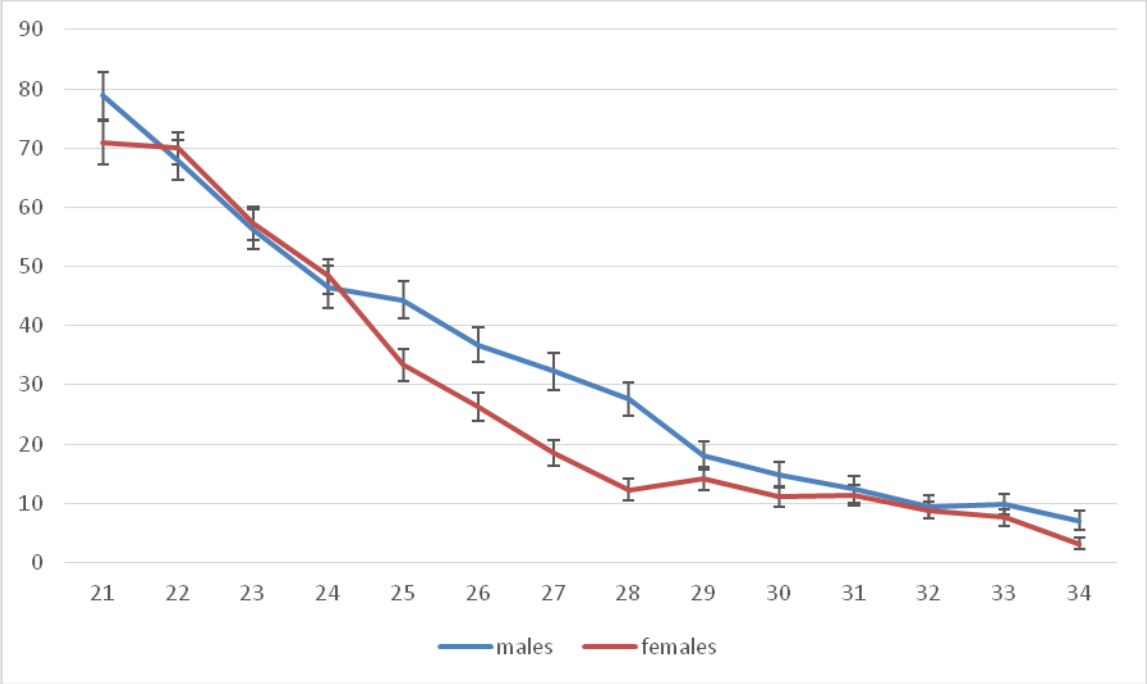


Figure 3: Percentage of UK graduates currently living in the parental home by age and gender (95% CI). Source: LFS Household dataset, 2012, 2013, 2014 Oct-Dec quarters combined

Partnership formation

At age 21 almost no graduates are married and only a tiny minority are cohabiting.[25] However the percentage who are cohabiting increases steadily from 5% (males) and 14% (females) at the age of 21 to 33% and 40% in the peak ages (26 for females and 28

[25] That is to say in a co-residential partnership outside of formal marriage.

for males). After the age of 29, the proportion of graduates who are cohabiting begins to decrease while the proportion of married graduates increases. By the age of 34, 64% of female graduates are married and 20% cohabiting while 56% of male graduates are married and 21% cohabiting.

If we consider age 25 as the current cut-off age for 'independence' as defined for undergraduates, then we can see that 47% of women have a co-residential partner at this age, whilst 27% of men have. We might question however, whether cohabiting and married partners have the same level of commitment in their relationship, including pooling of financial resources.

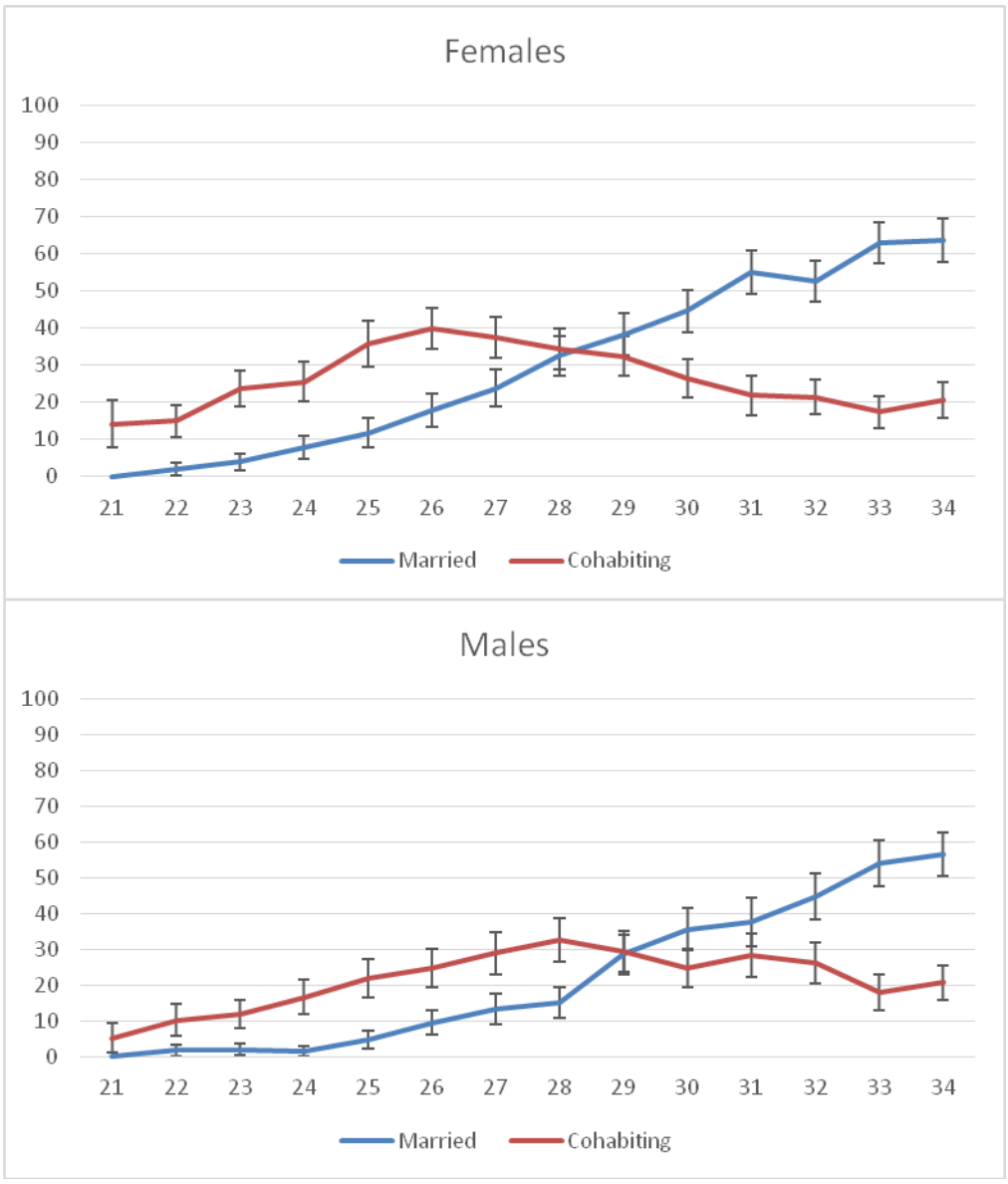


Figure 4: Percentage of UK graduates living as a couple by single years of age (95% CI). Source: LFS Household dataset, 2012, 2013, 2014 Oct-Dec quarters combined

Parenthood

Parenthood is generally postponed among male and female graduates. Figure 5 shows that at age 25 only 9% of female graduates and just 3% of male graduates is a parent. By the age of 28, only 20% of female graduates and 10% of male graduates have dependent children in the household. After this age, the proportion of graduates having children increases rapidly, reaching 65% for women and 48% of males at the age of 34.

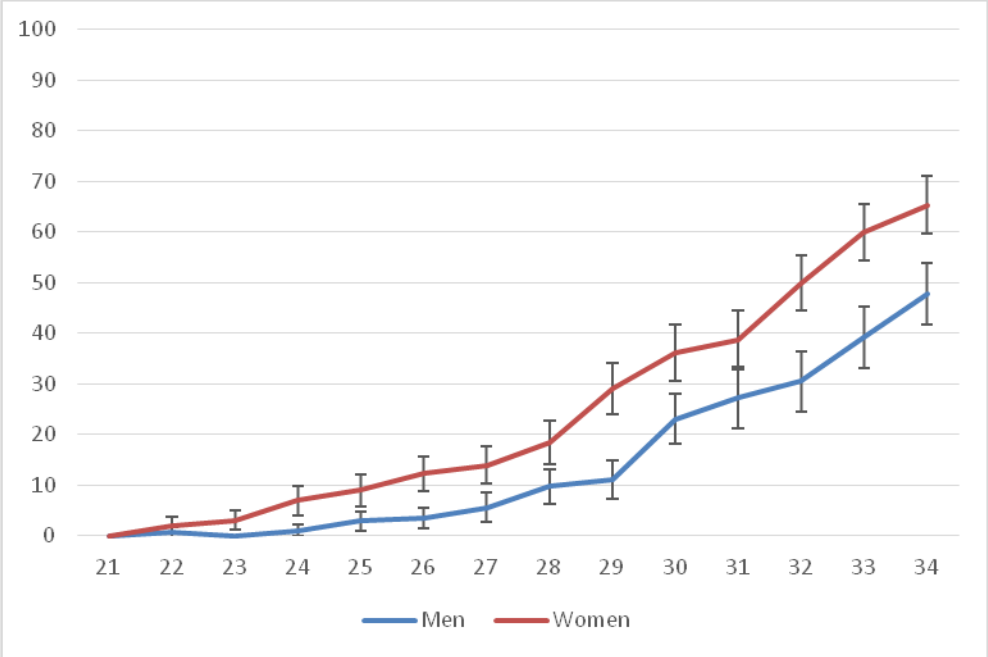


Figure 5: Percentage of UK graduates who report having a dependent child in the household by age and gender (95% CI). Source: LFS Household dataset, 2012, 2013, 2014 Oct-Dec quarters combined

Transition from higher education to employment

The proportion of male graduates in employment increases progressively from 76% at the ages 21 – 24 to 93% between the ages 30 and 34. However, while the proportion of female graduates in employment increases from 76% for those aged 21 – 24 to 88% for those aged 25 – 29, there is no further increase after the age of 29. This results in a slightly lower proportion of female graduates aged 30 – 34 in employment compared to their male counterparts.

Unemployment is highest among the youngest age group, 21 – 24 (7% of male and 10% of female graduates). The level of unemployment is slightly higher for males but females show a higher level of economic inactivity instead, particularly among those aged 30 – 34. This economic inactivity at older ages is likely to be due to caring

for children since, as Figure 5 shows, motherhood increases rapidly in the early thirties.

The proportion of young graduates enrolled as 'full-time students' decreases from around 10% for males and females aged 21 – 24 to 2% for those aged 30 – 34. Female graduates show a slightly higher level of enrolment in full-time education than males.

Graduates'	21-24		25-29		30-34		Total	
economic activity	Women	Men	Women	Men	Women	Men	Women	Men
In employment	76.5	75.8	88.5	89.7	88.7	93.1	85.1	86.9
	1.3	*1.5*	*0.8*	*0.9*	*0.9*	*0.8*	*0.6*	*0.6*
Unemployed (ILO)	6.6	10.0	1.9	4.1	1.8	2.7	3.2	5.3
	0.7	*1.0*	*0.3*	*0.6*	*0.3*	*0.5*	*0.3*	*0.4*
Econ. inactive	5.7	4.2	5.0	2.8	7.6	2.2	6.0	3.0
	0.7	*0.7*	*0.5*	*0.5*	*0.7*	*0.4*	*0.4*	*0.3*
F-t student	11.2	10.1	4.7	3.5	1.9	2.0	5.7	4.8
	1.0	*1.0*	*0.6*	*0.5*	*0.4*	*0.4*	*0.4*	*0.4*
Total N	**1150**	**875**	**1584**	**1251**	**1527**	**1247**	**4261**	**3373**

Table 5: Economic activity distribution (column percentages) of UK graduates according to gender and age (standard errors in italics). Source: LFS Household dataset, 2012, 2013, 2014 Oct-Dec quarters combined

Occupational class distribution of young adults

Among graduates, 46% of males and 44% of females in the youngest age group (i.e. 21 – 24) are employed in managerial and professional occupations. This increases steadily for both male and female graduates, reaching 73% for females and 75% for males aged 30 – 34. At all ages the proportion of male graduates in managerial and professional occupations is slightly higher than that of women. Since Table 6 includes those unemployed, this gender difference is not due to gender differences in the likelihood of being unemployed. On the contrary, the proportion of unemployed men is slightly higher than of women.

GRADUATES	21-24		25-29		30-34		Total	
Five class NS-SEC, Current job	Women	Men	Women	Men	Women	Men	Women	Men
Management & professional	44.0	45.9	63.9	67.6	73.4	75.8	61.7	64.8
	1.7	*2.0*	*1.3*	*1.4*	*1.2*	*1.3*	*0.8*	*0.9*
Intermediate	21.1	15.9	20.9	13.7	14.9	10.4	18.9	13.1
	1.3	*1.4*	*1.1*	*1.1*	*1.0*	*0.9*	*0.7*	*0.6*
Small employers & own account	0.7	4.1	2.2	2.8	3.7	5.1	2.3	4.0
	0.3	*0.7*	*0.4*	*0.5*	*0.5*	*0.6*	*0.2*	*0.3*
Lower supervisory & technical	3.7	2.7	1.9	3.4	1.6	2.3	2.3	2.8
	0.6	*0.6*	*0.4*	*0.5*	*0.3*	*0.4*	*0.3*	*0.3*
Semi-routine, routine	22.4	19.7	9.0	8.1	4.4	3.6	11.1	9.5
	1.4	*1.5*	*0.8*	*0.8*	*0.6*	*0.6*	*0.5*	*0.6*
Unemployed	8.1	11.8	2.1	4.4	2.0	2.8	3.7	5.8
	0.9	*1.2*	*0.4*	*0.6*	*0.4*	*0.5*	*0.3*	*0.4*
Total	**953**	**744**	**1421**	**1162**	**1376**	**1193**	**3750**	**3099**

Table 6: NS-SEC distribution (column percentages) of UK graduates according to age and gender (standard errors in italics). Source: LFS Household dataset, 2012, 2013, 2014 Oct-Dec quarters combined

Income distribution of young adults

The income of graduates rises rapidly with age, particularly for men. Gender differences in median income are larger at older ages, with men having a higher income than women. Also, males show a greater increase in the gross income from mid/late 20s to early 30s across all the income quartiles.

Income	21-24		25-29		30-34		Total	
quartiles	Women	Men	Women	Men	Women	Men	Women	Men
25%	511	300	1200	1500	1418	2000	1033	1142
50%	1208	1083	1793	2057	2171	2700	1726	2000
75%	1726	1652	2336	2702	3001	3617	2385	2848
N	**234**	**177**	**389**	**257**	**406**	**264**	**1029**	**698**

Note: all respondents included regardless of activity status; the total gross personal income includes both earned and non-earned income.

Table 7: Median and lower and upper quartiles of total gross monthly personal income for each age group by gender. Graduates. Source: Understanding Society, wave 1, 2009-2010

Summary

To summarise section 6.2, we see *some* indication that markers of adulthood for graduates converge around ages 28-30. By age 28, most graduates are married or co-habiting; parenthood begins in earnest at this point and there seems to be some

stabilising of occupational position and income. We can certainly say that, using the undergraduate 'exceptions' for independence (marriage or cohabitation; parenthood), many graduates would be considered independent at age 25, a substantial majority would be at age 28; and most, *but not all*, would be by age 30. However we must also sound a note of caution. Given the absence of data about transfer of resources from parents to children, the meaning of and context for independence is not known. As we noted in section 4, some scholars have argued that apparently independent young adults continue to rely financially on their parents. So while we can identify these manifest markers of adulthood among graduates, we cannot determine the extent which parental influence continues.

6.3 How do young graduates' circumstances relate to their parents' socio-economic background?

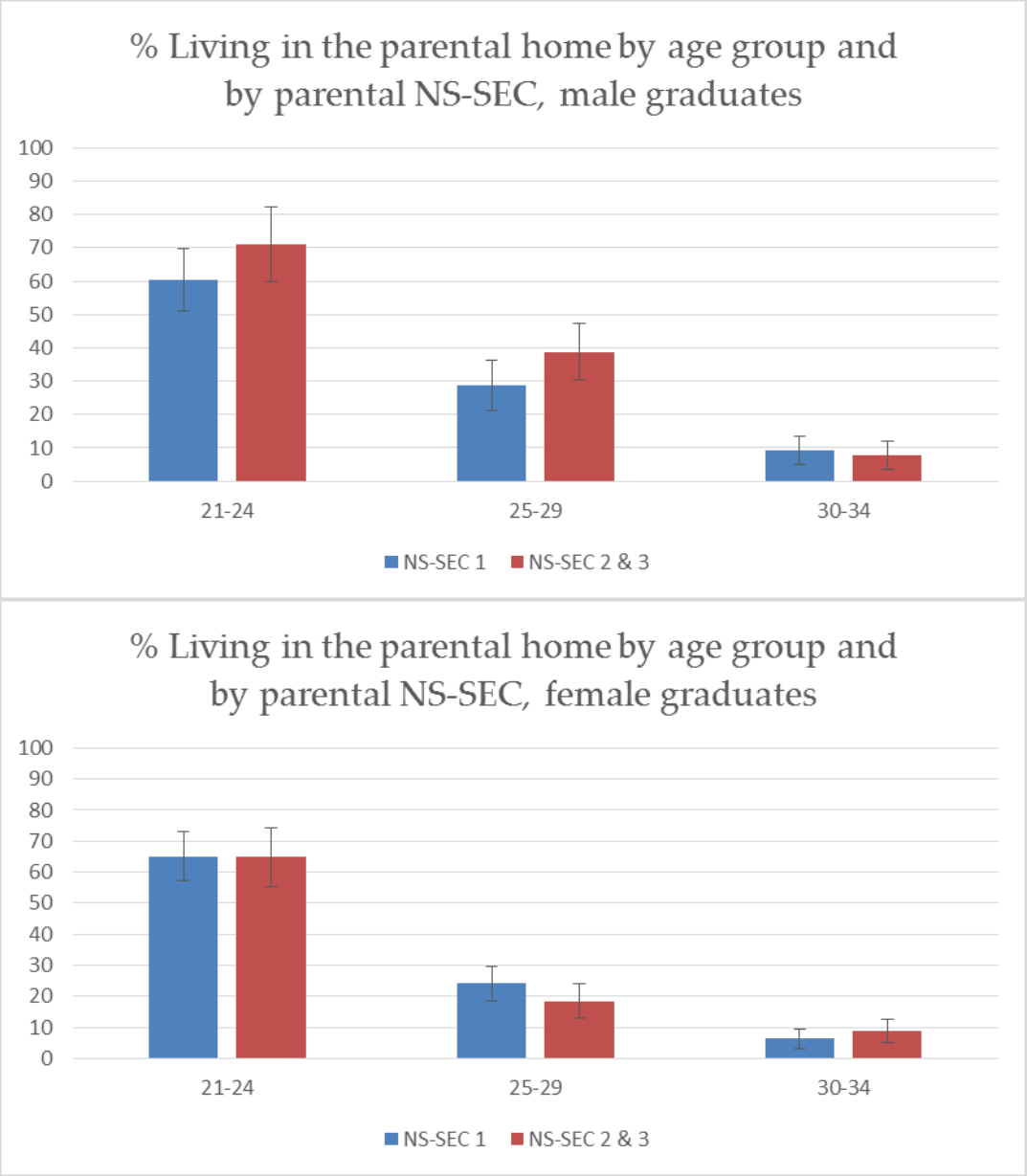
Ideally we would like to see how graduate transitions to independent living, economic activity status and occupation differ according to parental socio-economic position. There are only a few surveys that ask respondents about the occupation and education of their parents. One such data source is the UK Labour Force Survey. Since 2014, at the request of the Social Mobility Commission, a new question concerning parental occupation has been included in the Labour Force Survey. However, the question is only asked in one of the quarterly surveys – the July-September round. Hence, at the moment, we only have information on parental background for those individuals who were interviewed in the July-September quarter of 2014. In due course these data can be augmented by responses to the July-September 2015 quarter. The relatively small sample sizes available for analysis are reflected in the lack of precision in estimates presented below, with large confidence intervals around estimates. Thus many of the differences, e.g. by parental background, whilst being suggestive of a possible difference, are not statistically significant.

A second source of data is Understanding Society (otherwise known as the UKHLS) which asks respondents about both the occupation and highest educational level of the respondent's mother and respondent's father. Although the overall sample size for UKHLS is large, once we focus in on graduates in specific age groups the sample available for analysis is significantly reduced. Hence again, many of the observed differences are not statistically significant.

The descriptive analyses by parental background employ a dominant-parent approach (i.e. main earner when the respondent was 16 for the LFS data; and the parent with the highest occupation or the highest education when respondent was 16 in the Understanding Society data).

Graduates' living arrangements by parental social class

Data from the 2014 LFS (July-September quarter) suggest that a higher proportion of male graduates from NS-SEC 2&3 backgrounds (i.e. intermediate, routine and manual occupations) live with their parents before the age of 30 compared to their counterparts from NS-SEC 1 backgrounds. However, these differences are not statistically significant. This pattern is not seen for female graduates.



Note: this analysis uses the 3-class version of parental NS-SEC whereby NS-SEC 1 corresponds to classes 1 & 2 in the 8-class version; and NS-SEC 2 corresponds to classes 3-4; and NS-SEC 3 covers classes 5-7.

Figure 6: Percentage of graduates living in the parental home by age group, parental socio-economic class (3-class NS-SEC) and gender. Source: LFS Special licence July-Sept quarter, 2014

Graduates' occupations by parental social class and education

Tables 8 and 9 show the graduates' occupational distribution according to parental class background. Both the graduates' and the parents' occupations are coded according to the 3-level NS-SEC classification. (1=Higher managerial, administrative and professional occupations, 2=Intermediate occupations, 3=Routine and manual occupations). To gain sufficient cell counts, the parents in NS-SEC groups 2 and 3 are combined.

Before the age of 30, the proportion of male graduates from poorer social class backgrounds achieving an NS-SEC 1 occupation is lower compared to their counterparts from NS-SEC 1 backgrounds (i.e. 45% vs. 62% for the 21-24 age group and 74% vs. 63% for the 25-29 age group) (Table 8). Instead, a higher proportion of graduate males from lower parental backgrounds are employed in intermediate, routine and manual occupations. Male graduates from lower parental backgrounds achieve the same level of managerial positions as their counterparts from NS-SEC 1 backgrounds only after the age of 30.

There is not a substantial difference by parental NS-SEC with regard to employment status among male graduates, with just a lower level of unemployment among those from NS-SEC 2 & 3. This might only reflect the fact that those from lower class backgrounds might start working at earlier ages.

	21-24		**25-29**		**30-34**		**Total**	
	Parental NS-SEC							
Graduates' NS-SEC	**NS-SEC 1**	**NS-SEC 2& 3**	**NS-SEC 1**	**NS-SEC 2& 3**	**NS-SEC 1**	**NS-SEC 2& 3**	**NS-SEC 1**	**NS-SEC 2& 3**
Higher managerial, administrative & professional (NS-SEC 1)	61.9	44.8	74.0	62.8	77.4	76.4	70.6	63.6
	4.5	6.1	3.8	4.4	3.4	3.4	2.3	2.6
Intermediate (NS-SEC 2)	12.4	17.1	10.9	17.7	14.6	15.8	12.6	16.9
	2.7	4.3	2.7	3.4	2.9	2.9	1.6	2.0
Routine & manual (NS-SEC 3)	12.2	22.4	10.1	16.9	6.4	6.3	9.7	14.3
	2.7	4.7	2.6	3.3	1.9	1.9	1.4	1.9
Unemployed	13.6	15.6	4.9	2.6	1.6	1.6	7.1	5.3
	2.8	4.1	1.7	1.3	0.9	0.9	1.2	1.2
100% Total N	**144**	**81**	**137**	**139**	**158**	**161**	**439**	**381**

Note: cases with missing data for parental NS-SEC excluded.

Table 8: Distribution (column percentages) of UK graduates' NS-SEC and unemployment by age and parental NS-SEC, males. Source: LFS Special licence July-Sept quarter, 2014

Table 9 shows the parental class differences in the occupational attainment among female graduates. It reveals a similar pattern as that displayed by male graduates.

However, as opposed to males, these differences are present in the first and last age groups (i.e. 21-24 and 30-34) with stronger differences within the first age group. While the proportions of female graduates in intermediate occupations do not differ much by parental background, a higher proportion of those from lower backgrounds are concentrated in routine and manual occupations. In addition, they are also slightly more prone to be unemployed.

Graduates' NS-SEC	21-24		25-29		30-34		Total	
	Parental NS-SEC							
	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3
Higher managerial, administrative & professional (NS-SEC 1)	55.0	40.7	66.7	66.5	78.3	71.7	67.2	60.8
	4.5	5.3	3.3	3.8	3.0	3.2	2.1	2.4
Intermediate (NS-SEC 2)	20.3	22.0	19.8	20.5	16.2	17.3	18.8	19.8
	3.5	4.0	2.8	3.2	2.6	2.7	1.7	1.9
Routine & manual (NS-SEC 3)	18.2	27.3	11.9	13.0	3.9	8.0	11.1	15.4
	3.4	4.3	2.2	2.7	1.6	1.9	1.4	1.7
Unemployed	6.5	10.0	1.6	0.0	1.6	3.0	3.0	4.0
	2.2	2.8	0.9	0.0	0.9	1.2	0.8	0.9
100% Total N	**136**	**115**	**216**	**165**	**211**	**195**	**563**	**475**

Note: cases with missing data for parental NS-SEC excluded; full-time students and all economically inactive respondents excluded.

Table 9: Distribution (column percentages) of UK graduates' NS-SEC and unemployment by age and parental NS-SEC, females. Source: LFS Special licence July-Sept quarter, 2014

Relying on data from Understanding Society, Table 10 presents differences in graduates' occupational attainment by parental education. Males and females were combined[26] in order to increase the sample size. For the same reason, with respect to parental education, the analysis only differentiates between parents with or without a university degree.

Among the youngest graduates (21-24), a higher proportion of those from lower educational backgrounds are in managerial and professional jobs than those whose parents had a university degree (47% vs. 40%). However, after the age of 25, those whose parents had a university degree are more likely to have jobs at the top. This difference is more pronounced for those aged 25-29 (i.e. 73% of graduates having at least one parent with a university degree have a NS-SEC 1 occupation vs. 66% of those for whom none of the parents have a university degree).

[26] The gender differences are not large.

Graduates NS-SEC (MALES & FEMALES)	Age group/parental education							
	21-24		25-29		30-34		Total	
	Univ. deg. or higher	Below univ. degree	Univ. deg. or higher	Below univ. degree	Univ. deg. or higher	Below univ. degree	Univ. deg. or higher	Below univ. degree
Higher managerial, administrative & professional (NS-SEC 1)	40.3	47.3	73.3	66.5	75.2	72.5	65.5	64.2
	5.8	*4.3*	*4.2*	*2.8*	*4.2*	*2.8*	*2.9*	*1.9*
Intermediate (NS-SEC 2)	22.5	16.7	14.6	19.4	18.2	16.7	17.9	17.8
	4.9	*3.3*	*2.9*	*2.3*	*3.5*	*2.3*	*2.2*	*1.5*
Routine & manual (NS-SEC 3)	19.7	21.1	5.6	10.7	4.3	6.6	8.8	11.7
	4.8	*3.4*	*2.0*	*1.7*	*1.9*	*1.4*	*1.7*	*1.2*
Unemployed	17.5	14.9	6.5	3.4	2.2	4.2	7.9	6.4
	4.4	*3.3*	*2.3*	*1.0*	*1.3*	*1.2*	*1.6*	*1.0*
100% Total N	**81**	**177**	**148**	**334**	**137**	**343**	**366**	**854**

Note: observations with missing data for parental education excluded; full-time students and all economically inactive respondents excluded based on activity status (i.e. variable a_jbstat5); the unemployed category includes all those who were unemployed or worked as an unpaid worker in family business (variable a_jbstat) at the date of the interview. ??As with Table 8, do these variables need to be explained??

Table 10: Graduates' NS-SEC (current job) by parental education by age group. Source: Understanding Society, wave 1, 2009-2010

Graduates' incomes by parental social class

The total gross income[27] of male graduates is systematically higher for those whose parents have NS-SEC 1 backgrounds in each age group (Table 11). Earnings increase across each age group, although the increase is more substantial between 21-24 and 25-29 than between 25-29 and 30-34. Female graduates in the first two age groups show little

[27] Including income from all sources, e.g. earnings, benefits, investments and financial transfers from others who are not members of the respondent's household.

	Age group and parental background							
	21-24		25-29		30-34		Total	
	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3
25%	500	269	1501	1472	2167	1600	1192	1100
50%	1200	865	2200	1901	2818	2500	2030	1846
75%	1700	1500	2800	2700	3800	3382	2843	2800
N	**105**	**57**	**133**	**96**	**123**	**101**	**361**	**254**

Note: all respondents, regardless of their activity status were included; observations with missing data for parental NS-SEC are excluded.

Table 11: Quartiles of UK graduates' total personal gross income by age and parental NS-SEC, males. Source: Understanding Society, wave 1, 2009-2010 ??To be clear, this table should include the top header "Age group/parental background" similarly to Table 10, for example??

difference by parental background (Table 12). However, differences appear more salient for those aged 30-34.

	Age group and parental background							
	21-24		25-29		30-34		Total	
	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3	NS-SEC 1	NS-SEC 2& 3
25%	503	668	1200	1200	1655	1210	1101	1002
50%	1243	1167	1850	1666	2318	1952	1800	1663
75%	1708	1800	2385	2341	3276	2844	2453	2346
N	**126**	**81**	**218**	**142**	**200**	**168**	**544**	**391**

Note: all respondents, regardless of their activity status were included; observations with missing data for parental NS-SEC excluded

Table 12: Quartiles of UK graduates' total personal gross income by age and parental NS-SEC, females. Source: Understanding Society, wave 1, 2009-2010 ??To be clear, this table should include the top header "Age group/parental background" similarly to Table 10, for example??

Summary

Examining variation in young graduates' circumstances by parental socio-economic class draws out some important differences. While living arrangements do not appear to be strongly affected by parental position, employment-related markers for children do show substantial variation. This is in the direction which we would expect, based on previous evidence about the relationship between social class

origins and destinations, even for those who have achieved a university degree. Our results here show that both male and female graduates from socio-economically disadvantaged backgrounds have relatively lower earnings than more advantaged graduates and are also less likely to be in professional/managerial occupations. These differences change across age cohorts and gender; we also need to acknowledge that they are based on comparatively small samples. It is also the case that these differences are a tendency, not a given. Some graduates from disadvantaged backgrounds have high earnings and occupations and vice versa.

6.4 What evidence is available as to whether parents provide on-going financial support to adult children?

Understanding Society, wave 3 asks questions about intergenerational support, including a question asking whether respondents received financial help from parents. This question was also previously included in BHPS waves 2001 & 2006 and it has been used in previous studies tackling intergenerational support (e.g. Chan & Ermisch, 2011). It should be noted, however, that the question refers only to parents living outside the household; thus, it refers to the financial support received from parents for those not living with their parents.

	Males	**Females**
21-24	42.4	28.9
	11.7	*6.5*
Sub-total N	**28**	**68**
25-29	22.3	21.2
	4.3	*3.2*
Sub-total N	**123**	**225**
30-34	13.4	21.1
	2.9	*2.6*
Sub-total N	**171**	**296**
All graduates	19.2	22.0
	2.5	*1.9*
Total N	**288**	**547**

Table 13: Graduates receiving regular or frequent financial support from parents outside the household by age group, males (SE in italics and sample size in bold). Source: Understanding Society, wave 3, 2011-2012

Among the graduates who answered the question regarding whether they receive regular or frequent financial support from parents, 42% of males and 28% of females aged 21 – 24 answered 'yes'. However, the proportion of those receiving financial support from parents decreases with age. Only 13% of males and 21% of females received financial support from parents in their early 30s. Female graduates appear to receive less financial support than males between the ages of 21 and 24 but more support between the ages of 30 and 34. Overall, 19% of male graduates and 22% of female graduates aged 21 – 34 received financial support from parents. Unfortunately the data does not include the *amount* of support provided.

Therefore, relying on data from Understanding Society, wave C (data collected between 2011 and 2012), Table 13 shows the financial parental support received by graduates by age group. The sample size in each cell is rather small, in particular for the younger age group as many of those young graduates still live with their parents, and hence they were not asked the question. Other reasons for the small sample size for this particular data are attrition, proxy respondents and missing cases.

Age group	Employed		Unemployed		Econ. inactive		FT student		Total	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
20-24	23.3	30.7	29.6	39.2	40.6	29.7	53.2	53.0	30.8	35.2
	2.6	2.6	*5.5*	5.8	*12.8*	4.1	*5.1*	4.5	*2.3*	1.9
Total N	**366**	**446**	**113**	**112**	**20**	**182**	**128**	**170**	**570**	**820**
25-34	17.2	21.4	35.8	28.9	14.4	27.1	32.2	37.5	19.0	23.7
	1.1	1.1	*4.4*	4.0	*4.9*	2.0	*7.5*	6.5	*1.0*	1.0
Total N	**1,715**	**1,897**	**173**	**166**	**60**	**744**	**47**	**84**	**1,817**	**2,630**
35-44	11.4	14.5	26.6	27.3	26.6	14.9	9.4	14.2	13.1	15.1
	0.8	0.8	*4.1*	4.2	*4.4*	1.5	*9.5*	7.4	*0.8*	0.7
Total N	**2,351**	**2,767**	**155**	**154**	**130**	**728**	**7**	**28**	**2,433**	**3,418**
45-54	7.2	12.1	19.1	17.5	6.6	14.8	21.4	51.2	7.8	12.9
	0.7	0.8	*4.2*	3.9	*3.2*	1.8	*19.6*	19.2	*0.7*	0.7
Total N	**1,945**	**2,419**	**134**	**110**	**170**	**509**	**4**	**9**	**2,121**	**2,866**

Table 14: Respondents receiving regular or frequent financial support from parents outside the household by economic activity status and age group (SE in italics and sample size in bold). Source: Understanding Society, wave 3, 2011-2012

Age group	Degree & higher		Other higher		A-level etc.		GCSE & lower		Total	
	Males	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*	*Males*	*Females*
20-24	38.8	35.6	34.3	35.1	29.9	38.4	26.3	31.6	30.8	35.1
	6.3	4.4	6.8	5.7	3.4	3.1	3.8	3.3	2.3	1.9
Total N	**102**	**165**	**64**	**91**	**261**	**341**	**191**	**304**	**562**	**812**
25-34	16.0	19.5	19.1	26.8	17.8	24.1	23.1	27.2	19.0	23.8
	1.7	1.5	3.2	2.9	2.0	1.9	2.1	1.8	1.0	1.0
Total N	**658**	**986**	**195**	**330**	**532**	**678**	**586**	**876**	**1,796**	**2,611**
35-44	10.2	12.9	10.6	15.6	14.9	15.5	15.6	16.6	13.2	15.1
	1.2	1.1	2.1	1.8	1.8	1.6	1.4	1.2	0.8	0.7
Total N	**792**	**1,103**	**302**	**534**	**587**	**700**	**942**	**1,315**	**2,416**	**3,401**
45-54	7.1	10.0	5.2	13.7	9.4	13.2	8.7	14.2	8.0	12.9
	1.2	1.2	1.5	1.7	1.5	1.7	1.2	1.1	0.7	0.7
Total N	**599**	**769**	**281**	**483**	**477**	**500**	**867**	**1,253**	**2,095**	**2,829**

Table 15: Respondents receiving regular or frequent financial support from parents outside the household by educational level and age group (SE in italics and sample size in bold). Source: Understanding Society, wave 3, 2011-2012

Tables 14 and 15 set out variation in continued parental support across employment status, age and gender; and child's education level, age and gender respectively. While parental support is more frequently mobilised where children are in difficult economic circumstances, it nevertheless declines by age. However some individuals report continued support into late middle age. Parental support varies less markedly across the child's educational background.

Here then, we have some indicative evidence of continued parental influence well beyond the late twenties for some individuals. We have no way to determine whether such a safety net might exist in principle for others who do not need to draw on it. The limitations of the available data limit the conclusions we can draw, but there appears to be case for further investigation.

6.5 What would the distribution of eligible/ineligible young graduates look like if the age threshold was 25?

Tables 16 and 17 represent an attempt to illustrate how one particular operationalisation of independence might look. We wish strongly to stress that this illustration is based on a small sample size and that it is intended to be indicative only. We are not suggesting that this particular threshold – or indeed any threshold – for independence should be adopted for taught postgraduate students. Rather we wish to use the presentation as a specific example to help focus consideration of the issues.

In this case then we present a distribution of eligible/ineligible young graduates for postgraduate funding if the age threshold was age 25 (as in the case of undergraduates). We use parental NS-SEC as a proxy for parental income.[28] Using the 3-level NS-SEC classification, we assume that parental NS-SEC groups 1 and 2 (Higher managerial, administrative, professional, and intermediate occupations) are above the threshold, and that NS-SEC 3 (routine and manual workers) would fall below the income threshold of £25,000 per annum. Graduates' income is based on gross income from all sources. Graduates are coded separately according to whether they have a co-resident partner (either cohabiting or marital). We also identify whether the graduate has a co-resident dependent child. Both of these situations would, for undergraduates, lead to allocation of 'independent' status. Finally we identify whether the graduate lives with a parent or lives away from both parents; this is for context.

While Table 16 defines graduate's income solely on their own income (total personal gross income, i.e. from earned and non-earned sources), in Table 17 a graduate's

[28] This is because, as already noted in section 5, in the datasets available it is not possible to calculate parental household income for graduates who do not reside with their parents.

income is constructed by adding together his/her income and his/her partner's income if they live with a partner. For those not living with a partner, their income remains the same.

The tables show weighted column percentages. This helps to see the distribution of eligible/ineligible graduates by parental income, own income, and presence of a co-residential partner, within each age group split between those with and without a dependent child.

The green shaded cells are those graduates who would be eligible for support assuming all graduates aged 25 and over are independent, that graduates of any age who have a child are independent and that a means test is applied to the relevant household's residual income (as with undergraduates). The eligible group includes only a small number of individuals whose own income is above the threshold but who qualify because their parents have a low income. A significant number of young adults who originate from privileged backgrounds but who are themselves on low incomes are not eligible for support. For example, among those aged 21-24 with no dependants almost three quarters of the total are ineligible. These cells are shaded in yellow. This high percentage reflects the selection of graduates from more socio-economically advantaged backgrounds.

Under this scenario of an age cut-off for independence of 25 there are a considerable number of graduates aged 25+ who come from advantaged backgrounds, but who would qualify for support because their own income is below the threshold. An example is shown by the cells shaded green with dots, which indicate graduates aged 25 – 27 with no dependants who come from a privileged background but have incomes below the threshold. Arguably the Government does not need to be funding some of these individuals, assuming that their parents are able and willing to support them.

The group aged 25 – 27 who come from poorer socio-economic backgrounds, but whose income is above the threshold and who are not eligible for support, are shaded in red. We note that this group is not large numerically. However, in part, this low percentage relates to the lower number of graduates from poorer backgrounds.

In Table 17 below we add the partner's income for those graduates living in a couple. The same shading is applied as before. The key change that including a partner's income makes is a reduction in the number of graduates whose own (and partner's) income falls below the threshold. This is particularly relevant for the group aged 25 – 27 and originating from more advantaged backgrounds who are living with a partner. The addition of the partner's income reduces the percentage

Parental income	Living with partner/parents	Own income	21-24		25 - 27		28-34	
			Dependants	No dependants	Dependants	No dependants	Dependants	No dependants
Below threshold	Single, living with parents	Below threshold	0.0	6.0	0.0	2.9	0.3	2.3
		Above threshold	0.0	0.8	0.0	1.1	0.0	1.0
	Single, living away from parents	Below threshold	0.0	1.7	0.9	1.2	1.1	2.2
		Above threshold	0.0	0.0	0.5	0.8	0.0	1.5
	Living with partner	Below threshold	14.9	2.3	8.5	2.2	7.3	3.7
		Above threshold	0.0	0.6	13.2	0.8	8.9	3.7
Above threshold	Single, living with parents	Below threshold	8.0	42.8	5.4	22.1	0.0	6.5
		Above threshold	13.8	2.5	0.0	5.0	1.2	3.2
	Single, living away from parents	Below threshold	0.0	20.6	8.2	11.8	1.9	7.9
		Above threshold	3.0	4.4	2.6	8.5	1.3	12.6
	Living with partner	Below threshold	60.3	13.8	40.2	21.8	33.7	16.9
		Above threshold	0.0	4.4	20.7	21.8	44.4	38.5
		Total N (100%)	**12**	**357**	**52**	**298**	**350**	**481**

Note: Male and female graduates; 177 cases with NS-SEC dominant parent excluded

Table 16: Eligibility table: Males and females. Based only on respondent's own income. Source: Understanding Society, wave 1, 2009-10

Parental income	Living with partner/parents	Own income	21-24		25 - 27		28-34	
			Dependants	No dependants	Dependants	No dependants	Dependants	No dependants
Below threshold	Single, living with parents	Below threshold	0.0	6.3	0.0	3.0	0.4	2.5
		Above threshold	0.0	0.9	0.0	1.2	0.0	1.1
	Single, living away from parents	Below threshold	0.0	1.8	0.9	1.2	1.2	2.4
		Above threshold	0.0	0.0	0.5	0.8	0.0	1.6
	Living with partner	Below threshold	0.0	0.2	2.6	0.3	0.3	0.0
		Above threshold	3.7	2.6	18.2	2.8	16.0	7.1
Above threshold	Single, living with parents	Below threshold	10.3	45.0	5.8	23.0	0.0	6.9
		Above threshold	17.8	2.6	0.0	5.2	1.4	3.4
	Single, living away from parents	Below threshold	0.0	21.6	8.8	12.3	2.2	8.5
		Above threshold	3.8	4.7	2.7	8.9	1.4	13.4
	Living with partner	Below threshold	4.5	1.9	5.3	3.0	1.0	1.5
		Above threshold	60.0	12.5	55.1	38.1	76.2	51.6
		Total N (100%)	**10**	**340**	**48**	**284**	**311**	**450**

Note: Male and female graduates; 284 cases with missing information either on parental NS-SEC or on partner's income (for those living with a partner) excluded

Table 17: Eligibility table: Males and females. Based on respondent's and partner's income if in a couple

eligible significantly from 22% to 3%. Note that this policy of including the partner's income assumes that both cohabiting and married partners would be willing and able to support the graduate in undertaking extended study. We have no evidence available as to the extent to which cohabiting partners of this age group may be willing to do this. This is important given that the majority of partnerships are cohabiting at this age (see section 6). We have no way of knowing whether graduates would adapt their behaviour to maximise their chances of acquiring support if independence rules were adopted. For example, the discussion above suggests that there is a substantial group who would be eligible for support based on their own income alone, but not if their partner's income is counted. This could lead couples to live separately to ensure qualification. Such behaviour would not benefit a married couple, but it might lead a graduate considering taught postgraduate study to delay marriage.

6.6 Summary of key findings

- At the age of 25 a higher proportion of males (44%) than females (34%) live with at least one of their parents; at the age of 28, most graduates live away from parents.
- Male graduates from intermediate, routine and manual occupations (NS-SEC 2 & 3) backgrounds show a slightly higher chance of living in the parental home in their 20s.
- At age 25, the majority of co-residential partnerships among graduates are cohabiting unions; among graduates aged 25, 38% of females and 21% of males are in a cohabiting union and only about 11% of female graduates and about 5% of male graduates are married.
- After the age of 28, marriage becomes more prevalent than cohabitation among male and female graduates and a substantial majority are in one or the other relationship.
- Also, the proportion with dependent children is very low prior to age 25 and only starts to increase rapidly after the age of 28.
- The proportion of graduates enrolled as full-time students decreases after 25, with only 2% of graduates being in full-time education after the age of 30.
- After the age of 25, almost 90% of all graduates are in employment.
- Before 25, only 45% of graduates are in managerial and professional occupations; however, after the age of 30, around 75% of graduates have such positions.
- Graduates from lower socio-economic backgrounds tend to take more time to achieve higher managerial, administrative and professional (NS-SEC 1) occupations compared to their counterparts from better off backgrounds. In addition, they also display smaller total gross income.

- Overall, 19% of male graduates and 22% of female graduates aged 21 – 34 received regular or frequent financial support from parents. The financial support received from parents diminishes with age; female graduates receive less financial support than males in their early 20s but more support in their early 30s.
- In the general population (all levels of education, aged 20 – 54), parental support also decreases with age; women receive slightly more parental support than males at all ages.
- Both males and females who are economically inactive, unemployed, and especially those who are full-time students, receive more parental support than those who are employed; this holds for all the age groups although the parental support diminishes across the life-course.
- Highly-educated males in the youngest age group (i.e. 20 – 24) receive the highest level of parental support (39% reported that they receive regular/frequent financial support from parents). Young females (20 – 24) show smaller differences by education but still, young females whose highest education is less than A-levels receive less parental support than say a female who has completed A-levels (i.e. 32% vs. 38%). However, after the age of 25 lower educated men and women receive more parental support compared to their higher educated counterparts.
- In order to make a very approximate estimate of the implications of (for example) adopting an age threshold for independence at 25 we apply this threshold to Understanding Society survey data. If we include only graduates' own income, most under 25s would be ineligible for support as their parental income is too high. There are some individuals aged over 25 from disadvantaged backgrounds whose income means that they would be ineligible for support. Numerically this is a small group, in part reflecting the relatively fewer numbers of students who undertake a first degree from lower social class backgrounds. However not insubstantial numbers of those aged 25 – 27 from advantaged backgrounds would qualify for support based on their own income.
- If partner's income is additionally included for those in a co-residential partnership the proportion of eligible 25 – 27 year olds from advantaged backgrounds is reduced, but this makes an assumption that (often cohabiting) partners are willing to subsidize their partner's extended education.

7. DISCUSSION

In this report we have considered what 'independence' might mean at taught postgraduate level, and examined key indicators which could be used to inform its definition and measurement. Since the point is to contribute to the expansion and widening of taught postgraduate study among UK students, the optimal solution would balance cost to the public purse, avoidance of deadweight, minimisation of the burden on parents for adult children, and targeting of any public support to those who are least able to afford to support themselves but are most meritorious. Our findings suggest that these principles are in tension. For instance, the empirical evidence suggests that a substantial number of graduates are not manifestly independent under the age of 28. Even those with reasonable income from a job are unlikely to have the savings to be able to undertake postgraduate study without external support e.g. from parents. Requiring parents to continue to support their children through undergraduate *and* postgraduate education to this age considerably extends their financial burden, possibly to an extent that is culturally and politically unacceptable. Offering blanket support to all graduates risks inefficient use of public funds since many parents *are* actually supporting their children to this age. *Not* offering support means poorer students cannot continue, but those able to draw on parental support, even into their late twenties and beyond, can do so, thus introducing (or rather continuing) socio-economic inequalities.

Noting these difficulties, in Table 18 below we present possible options for an age threshold for independence and outline some advantages and disadvantages with each. We would anticipate that any age threshold would be accompanied by exceptions related to a graduate's own family situation similar to those used at undergraduate level. An obvious addition would be to rule that a graduate who was classed as independent when an undergraduate would automatically be considered independent. We include complete rejection of the independence approach as an option. We also review siting the threshold at 25, 28, 30 and 35. A further option is a phased approach, which we specify here as a lower threshold of 25; an interim period aged 25 – 27 where both the graduate's own household income and their parents' is considered; and an upper threshold of 28 at which parental income is disregarded.

There are some key points to reiterate in connection with Table 18:

1. The current *de facto* situation for the large majority of postgraduates without sponsorship is effectively complete reliance on family support. Those who do not have the means are therefore already disadvantaged. Our results do not seem to support a view that all postgraduates are, by definition, independent.

Age threshold	Advantages	Disadvantages
Age 30 cut off for all funding. Not using any means testing (e.g. BIS proposed loan scheme)	• Simple to understand • Easy to administer – no means testing required • Targets youngest graduates: should maximise social and economic dividend for individual and society • No complications from other independence criteria (e.g. cohabiting/marriage, parenthood)	• Takes no account of individual's/family's ability to pay. Consequences (a) deadweight where could already afford to pay; (b) disadvantaged graduates over age threshold potentially barred from participation • Risk of credential inflation: makes participation easier for those already best placed to do so and therefore further underlines need for more than undergraduate study to attain a 'graduate' job • Expensive for government • Over 40% of UK-domiciled PGTs are aged over 30 • Age 30 cut-off is out of step with changing nature of life course in modern society and increases in life expectancy. Potentially disadvantageous for those who take time out for childcare.
No threshold (all postgraduates considered independent)	• Simple to understand • No expectation/burden on parents • Would allow large numbers of potential postgraduates to access taught postgraduate study • No complications from other independence criteria (e.g. cohabiting/marriage, parenthood)	• For scholarships, results in very large number of false positives if means-tested (low-earning, young graduates from comfortable financial background) • For loans, deadweight for younger, advantaged students; risk of credential inflation • Inconsistent with undergraduate level/PGCE • Data indicates that substantial proportion of young graduates do not attain markers of adulthood before age 28 • Punishes early upward mobility: younger graduates from disadvantaged backgrounds with income over the threshold unlikely to be able to afford cost postgraduate study (false negative). They may also benefit less from parental social and cultural capital.

Table 18: Advantages and disadvantages of different age thresholds for postgraduate funding

Age threshold	Advantages	Disadvantages
25	• Consistent with undergraduate approach • Limits expectation/burden on parents • Enhances targeting of resource to more financially disadvantaged families • Fits with some data about markers of adulthood	• Extends expectation of family support to postgraduate level (although this is *de facto* the current situation) • Some risk of false positives if means-tested (low-earning, mid-twenties young graduates from comfortable financial background) • Punishes early upward mobility: younger graduates from disadvantaged backgrounds with income over the threshold unlikely to be able to afford cost of postgraduate study by this age (false negative). They may also benefit less from parental social and cultural capital. • Data indicates many graduates remain in transition at this age • May create 'externalities'/unintended incentives associated with other independence criteria (e.g. cohabitation)
28	• Arguably consistent with undergraduate system based on 'plus 7' principle (18+7=25; 21+7=28) • Data indicates 28 as a pivot point for markers of adulthood (especially cohabitation/marriage, parenthood, living away from parents, employment) • Risk of false positives diminishes	• Extends expectation of family support to postgraduate level (although this is *de facto* the current situation) • Small risk of false positives if means-tested (low-earning, late-twenties young graduates from comfortable financial background) • Punishes early upward mobility: younger graduates from disadvantaged backgrounds with income over the threshold may be unable to afford cost of postgraduate study by this age. They may also benefit less from parental social and cultural capital. • Data indicates many graduates remain in transition at this age • May create 'externalities'/unintended incentives associated with other independence criteria (e.g. cohabitation) • Some parents may refuse to contribute

Table 18 (continued): Advantages and disadvantages of different age thresholds for postgraduate funding

Age threshold	Advantages	Disadvantages
Phased approach (e.g. lower threshold of under 25; transitional phase 25 – 27; upper threshold 28 and over	• Retains link with undergraduate approach while recognising complexity of postgraduate situation • Mitigates effect on advantaged parents and disadvantaged children by sharing state and family/individual contribution during mid-twenties • Data indicates 25 – 28 as period of transition, with 28 as a pivot point • Risk of false positives diminished	• Extends expectation of family support to postgraduate level (although this is *de facto* the current situation) • Small risk of false positives if means-tested (low-earning, late-twenties young graduates from comfortable financial background) • Punishes early upward mobility: younger graduates from disadvantaged backgrounds with income over the threshold may be unable to afford cost of postgraduate study by this age. They may also benefit less from parental social and cultural capital. • May create 'externalities'/unintended incentives associated with other independence criteria (e.g. cohabitation)
30	• Some markers of adulthood present for majority of graduates by age 30 (but only one quarter of male graduates and one third of female graduates aged 30 are parents) • Social mobility trajectories beginning to stabilise	• Very substantial expectation placed on parents, probably beyond the *de facto* expectation in many cases • Parents of older graduates likely to refuse to contribute • Upwardly mobile likely to have reasonable chance to support themselves by their thirties
35	• Markers of adulthood present for almost all graduates by age 35 – many graduates would be classed as independent before attaining age 35 using other rules (marriage, parenthood etc). • Social mobility trajectories 'stable' by this point	• Very substantial expectation placed on parents – probably politically untenable • Parents of older graduates very likely to refuse to contribute. Many will not have the spare finance if have reached retirement. • Older parents likely to be reaching retirement. (Average age of all mothers in England and Wales today is 30 (ONS, 2014) and this will be higher for those who are the mothers of graduate children) • Upwardly mobile likely to have reasonable chance to support themselves by their thirties • May create 'externalities'/unintended incentives associated with other independence criteria (e.g. cohabitation)

Table 18 (continued): Advantages and disadvantages of different age thresholds for postgraduate funding

2. Our data suggest that age alone is not a useful measure of advantage and disadvantage, nor of eligibility and non-eligibility. However it does give a basis for determining an appropriate reference for measuring mutable characteristics (especially household income).

3. Clearly, there remain a number of important matters about which we were unable to identify suitable data for further investigation. We make recommendations for further research in the next section.

4. The data does not provide the answer to where an independence threshold *should* be drawn, because such a decision involves normative and political, not simply empirical, considerations.

5. Different funding regimes will overlay differently on this (e.g. universal loans; targeted loans; studentships; hybrid scheme). If there is no assessment at all – i.e. a blanket scheme in which everyone gets an identical award/loan – then independence judgements do not apply. They would, however, still be relevant to targeting of postgraduate widening participation activity.

Our analysis suggests that transposing the idea of independence from undergraduate to postgraduate level is tenable in principle and could offer advantages in the efficient and effective targeting of public support to achieve policy aims in connection with postgraduate education. If a particular definition is adopted it will inevitably create winners and losers, although as already noted, so does the status quo. Adopting an – or any – definition is a political as much as an empirical question and the optimal option depends on the precise policy goals desired. While we believe we have presented the best available data, there are some significant gaps which limit the potential for insight. Moreover, even with extensive additional data there are likely to be unintended consequences of any new policy which cannot readily be foreseen through analysis of cross-sectional data. Nevertheless, even if the status quo continues, we hope that our analysis can assist higher education institutions and others who are interested in action to widen postgraduate participation to best calibrate their strategies.

If the policy aim is to widen participation in taught postgraduate study, our findings provide evidence that a uniform funding solution, whereby all graduates have access to precisely the same public grant or loan support, will not be successful. Graduates from advantaged backgrounds are much better placed to continue to draw on parental support in early adulthood. They also typically have higher incomes than graduates from more disadvantaged backgrounds. We think there is a case for targeting additional funds at graduates with low financial resources, which will include some students categorised as independent. We are particularly

concerned that a low age threshold for independence will increase the risk of 'false negatives' – those individuals who are upwardly mobile from disadvantaged backgrounds into managerial/professional occupations, but who will continue to be unable to afford to fund themselves for a substantial post-graduation period until they have achieved financial security. Current trends in student debt levels and housing costs indicate that this period of financial uncertainty is lengthening. Our own view is that the evidence points to a threshold for independence of at least 28 years of age.

Graduates from disadvantaged backgrounds, who are at risk of being 'false negatives', are an especially important group. This group includes many of those successfully targeted in undergraduate widening participation activities. There are implications for social justice if this group is able to access undergraduate education only to find postgraduate study unavailable to them. Moreover it means the potential for wastage of talent, which the UK can ill afford.

A longer-term view emerging both from the literature and our own research points to the need for a new approach to higher education which recognises changed demographic realities. Discussing the US case, Settersten (2015) argues that several demographic forces have combined to transform early adulthood. These include the expansion of higher education itself, delays to marriage and parenthood whereby most young adults live away from the parental home for a period before establishing their own household, and young adults' lengthy path to financial security. Life expectancy continues to increase, as does the length of the period of healthy living. Partly as a result of these trends, retirement ages are also increasing and retirement is also becoming a more gradual transition. Yet the 'front-loaded' model of higher education in England, as elsewhere, continues to reflect an anachronistic model of trajectories to adulthood from the mid-twentieth century. It is both likely and desirable that higher education, especially postgraduate education, continues to expand. Yet trying to cram ever more activity into the so-called 'rush hour of life', when young adults also face establishing relationships, careers and families, looks increasingly both untenable and unnecessary. Women, who represent the majority of undergraduate and postgraduate students, are disproportionately affected by these pressures, especially given biological age limits on fertility.

8. RECOMMENDATIONS FOR FURTHER RESEARCH

Arising from our conceptual and empirical investigations, we have identified the following areas where further research would be beneficial. In most cases this would require primary research collecting new data.

Transfer of resources between parents and adult (graduate) children
Very limited data is available about transfer of financial and other resources from parents to children. Qualitative research suggests this can be considerable, but we are unable to determine how representative this picture is, nor whether there are systematic differences across age, socio-economic group, child's circumstances and so on. Limited data exist about these topics, but they suffer from relatively small sample size and a lack of quantification of transfer (i.e. they identify kind, but not volume). For our purposes we would be most interested in the transfer from parents to graduates.

The association of income of non-co-resident parents with graduate circumstances
We were unable to investigate whether graduate children's circumstances varied according to parental income where children did not live with a parent. This clearly affects the validity of Tables 16 and 17, which are based on the strong assumption that parents from routine and manual (NS-SEC 3) occupations have incomes of less than £25,000 per annum, and those from NS-SEC 1 (Higher managerial, administrative and professional) and 2 (Intermediate) occupations are above that threshold. This information could potentially be collected via a traditional sample survey, including those operated by the Office for National Statistics and its agents. Care would be needed here about accuracy if adult children are asked to report on parents' income It may be possible to collect such data via administrative data linkage, using the newly agreed powers in the Small Business Enterprise and Employment Act 2015 where graduates' income data can now, with certain permissions, be linked to their HESA Student Record data. Linking onward to parents is theoretically possible, but may be both logistically tricky and ethically controversial.

Investigate the costs of postgraduate study by extending the Student Income and Expenditure Study to include taught postgraduates
There is little reliable information about the income and expenditure of postgraduate students.[29] The Student Income and Expenditure Survey covers only undergraduate

[29] There is some data available via a relatively recent NUS study (2012b) although this was based on a non-probability sample recruited via an online survey so it is not possible to determine how representative it is.

students and focuses on under 25s. A better understanding of the costs and outgoings borne by taught postgraduates, including their tuition fees, would be helpful. We also need detailed data on postgraduates' sources of income from grants and scholarships, savings, loans and gifts, including resources in cash and in kind from family and friends. Such a survey would allow a much fuller picture of the financial situation of postgraduates to be established including, crucially, how this might vary across students from different backgrounds and in different situations.

Extend research on association between parent and filial socio-economic position for graduates

The analysis presented in section 6.3 using the LFS Special Licence data could be repeated, adding the next round of the data which will be collected again in the July-September 2015 quarter.

Examine the characteristics of postgraduates with studentships or scholarships

Many postgraduate studentships are awarded on the basis of academic merit or other non-financial criterion. It cannot be determined, from existing data, whether such students are in financial need. PSS pilot projects will provide quite detailed information about the characteristics of their studentship holders and further data will be available on these students via HESA's 2014/15 Student Record return. It would useful to have similar data about other kinds of postgraduate studentship and scholarship holders to determine whether these awards represent an important source of funding for students who could not otherwise afford to fund postgraduate study. Although they are out of scope in our study, understanding the characteristics of research studentship holders would also be useful. We note that little is known about the socio-economic background of Research Councils UK award holders, for instance.

Collect and analyse new data on subjective/cultural indicators of independence.

We have noted in several places that we have no data to indicate at what age parents of graduates, nor indeed the general public, might consider children *should* become independent. Nor do we have any public or parental opinion about the age to which parents would be willing to financially support their offspring. This would be very helpful contextual data in considering where to place an independence threshold for taught postgraduates if such an approach were to be adopted.

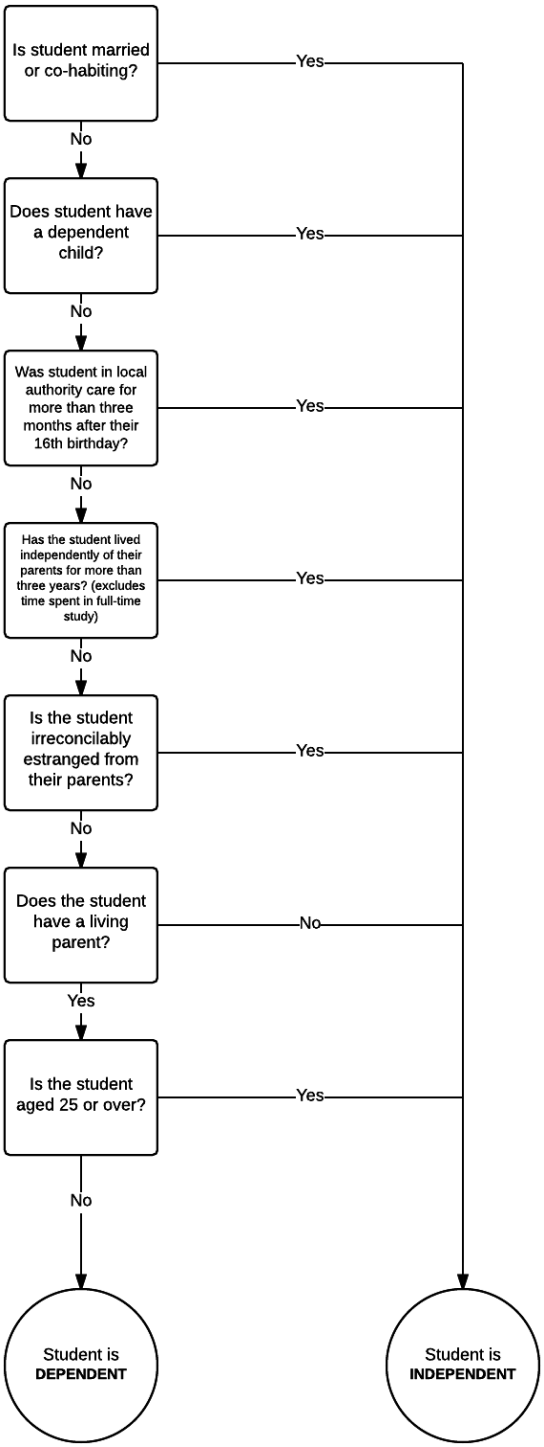
Collect and analyse new data on the role of family dynamics in student support

During the course of our research we have noted complex patterns of family formation, both in relation to a potential postgraduate's parents (step-parents, single parents, step siblings) and their own situation (e.g. co-resident partner). Although we have considered this in connection with postgraduates, the parental aspects are likely to apply equally to undergraduate student support. The amount of support provided could depend upon the relationship between the two biological parents,

the relationship between the parents and the young adult and other life-course factors e.g. demands of support from other family members e.g. a second family. It is also unclear whether relatively new co-resident partners during a transitional phase in graduates' lives are willing or able to provide support for an independent student. This is an area where student funding regulations are likely to influence behaviour.

APPENDIX 1

Figure A 1: Flowchart showing tests for independent status, as derived from Education (Student Support) Regulations 2011[30]



[30] See: http://www.legislation.gov.uk/uksi/2011/1986/schedule/4/made

APPENDIX 2

Higher education students and dependency status in the USA

Federal Student Aid (FSA), which is an office of the US [Federal] Department of Education, makes a financial assessment of the means of students for the purpose of awarding grant and loan funding to higher education students. The FSA distinguishes between dependent and independent students for this purpose. There is a clear articulation of the purpose of this distinction on their helpful webpages (https://studentaid.ed.gov/sa/fafsa/filling-out/dependency, accessed 23 July 2015):

> The *federal student aid programs* are based on the concept that it is primarily your and your family's responsibility to pay for your education. And because a dependent student is assumed to have the support of parents, the parents' information has to be assessed along with the student's, in order to get a full picture of the family's financial strength. If you're a dependent student, it doesn't mean your parents are required to pay anything toward your education; this is just a way of looking at everyone in a consistent manner.

The website then gives a summary of the criteria for determining independence, similar to that in Appendix 1

All applicants for *federal student aid* are considered either "independent" or "dependent." Dependent students are required to include information about their parents on the *FAFSA*. By answering a few questions, you can get a good idea of which category you fit into.

- Will you be 24 or older by Dec. 31 of the school year for which you are applying for financial aid?
- Will you be working toward a master's or doctorate degree (such as M.A., M.B.A., M.D., J.D., Ph.D., Ed.D., etc.)?
- Are you married or separated but not divorced?
- Do you have children who receive more than half of their support from you?
- Do you have dependents (other than children or a spouse) who live with you and receive more than half of their support from you?
- At any time since you turned age 13, were both of your parents deceased, were you in *foster care*, or were you a ward or dependent of the court?
- Are you an *emancipated minor* or are you in a *legal guardianship* as determined by a court?
- Are you an unaccompanied youth who is *homeless* or self-supporting and at risk of being homeless?
- Are you currently serving on active duty in the U.S. armed forces for purposes other than training?
- Are you a veteran of the U.S. armed forces?

If none of the criteria listed above apply to you, you may be considered a *dependent student* and may be required to provide your parents' financial information when completing the FAFSA. If you answered yes to any of these questions, then you may be an *independent student*. You may not be required to provide parental information on your FAFSA.

(https://studentaid.ed.gov/sa/fafsa/infographic-accessible)

With the exception of the inclusion of a question about service in the armed forces and the age threshold being 24, rather than 25, these criteria are practically identical to those invoked in England.

APPENDIX 3:

Flow charts of samples

Figure A 2: Flowchart sample size and sample derivation for LFS household datasets combined (2012, 2013, 2014)

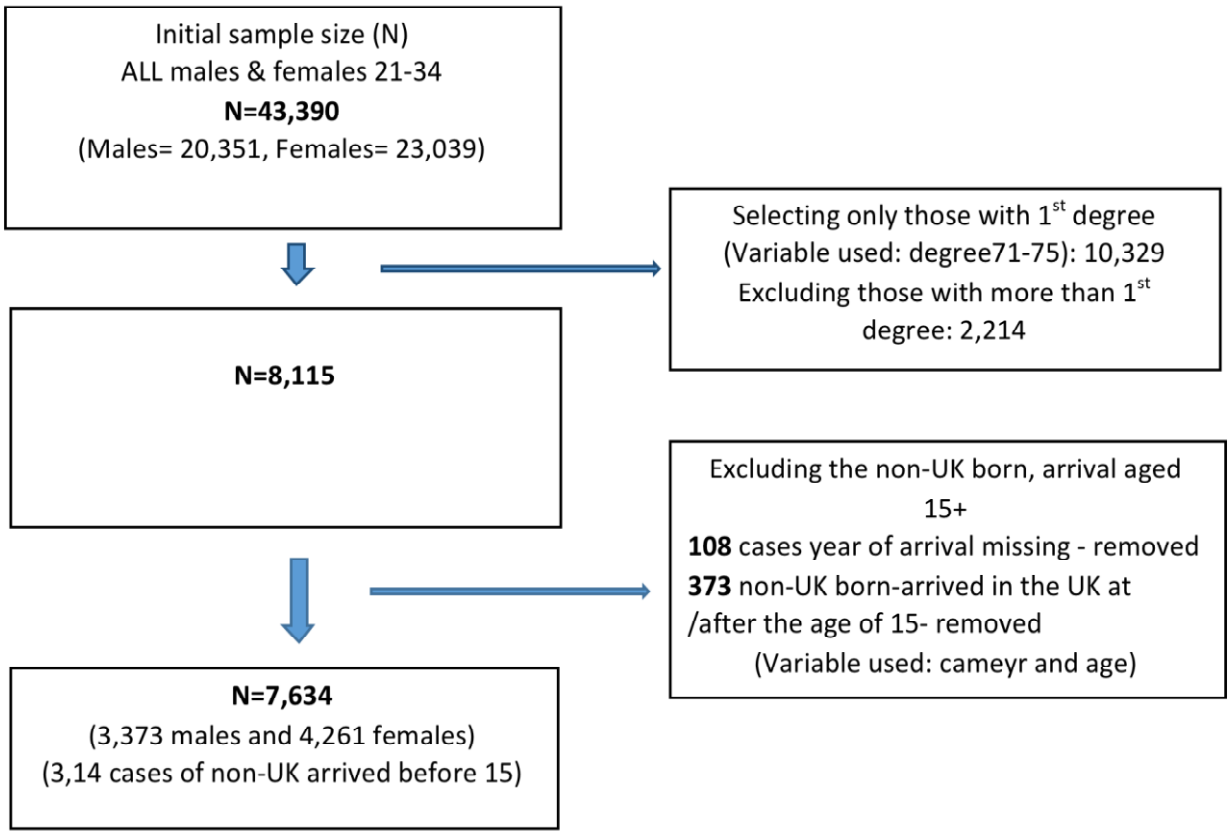


Figure A 3: Flowchart sample size and derivation for LFS Special Licence dataset, July-Sept quarter, 2014

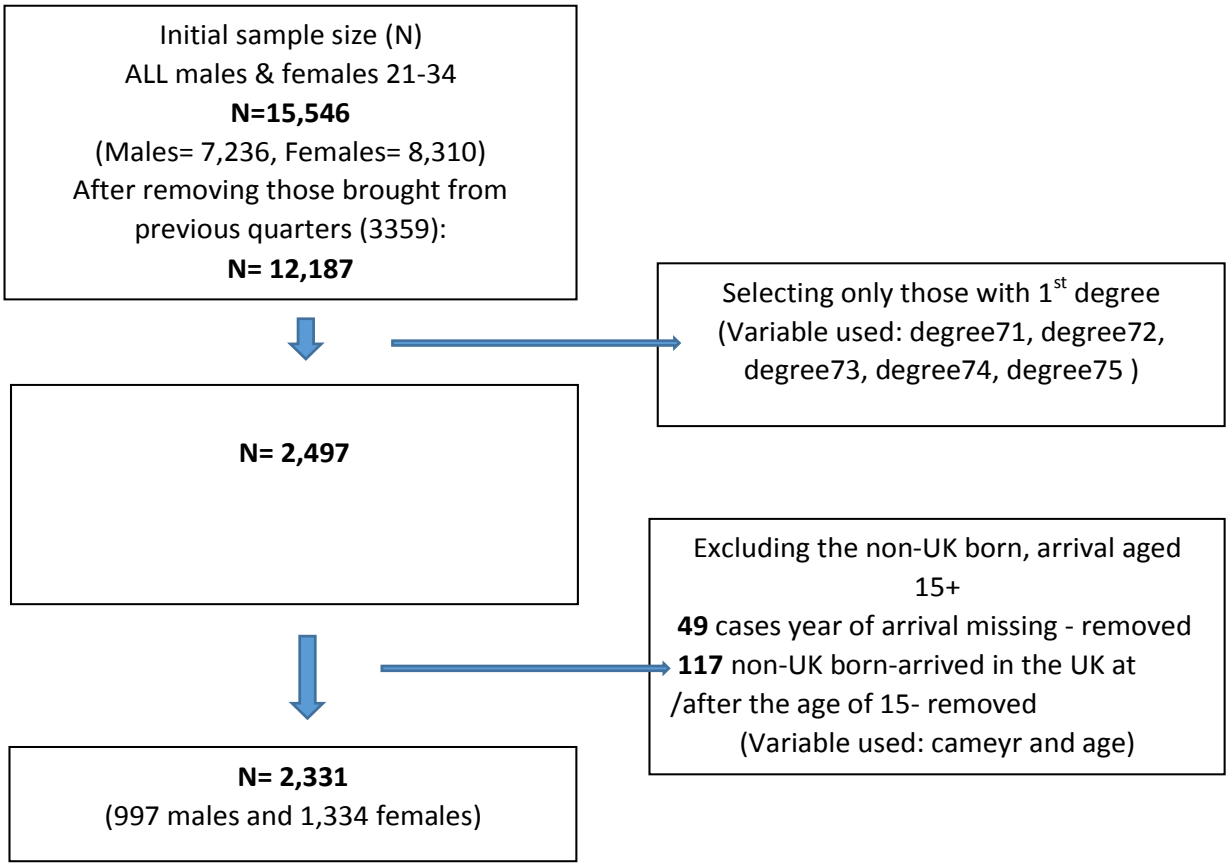


Figure A 4: Flowchart sample size and derivation for UKHLS, wave 1, 2009-2010

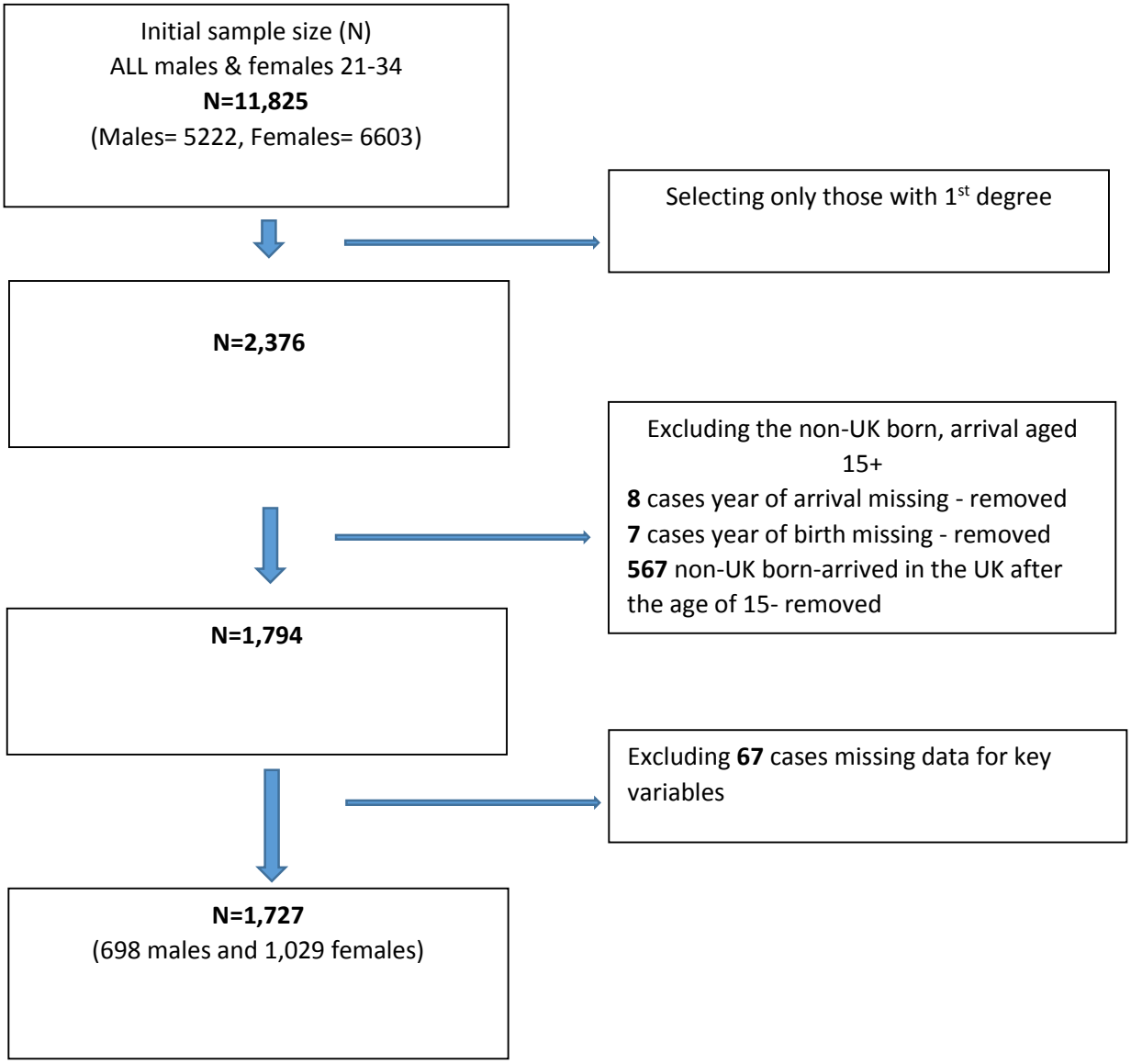


Figure A 5: Flowchart sample size and sample derivation for UKHLS, wave 3, 2011-2012. Graduates. (Only UKHLS sample, no BHPS boost)

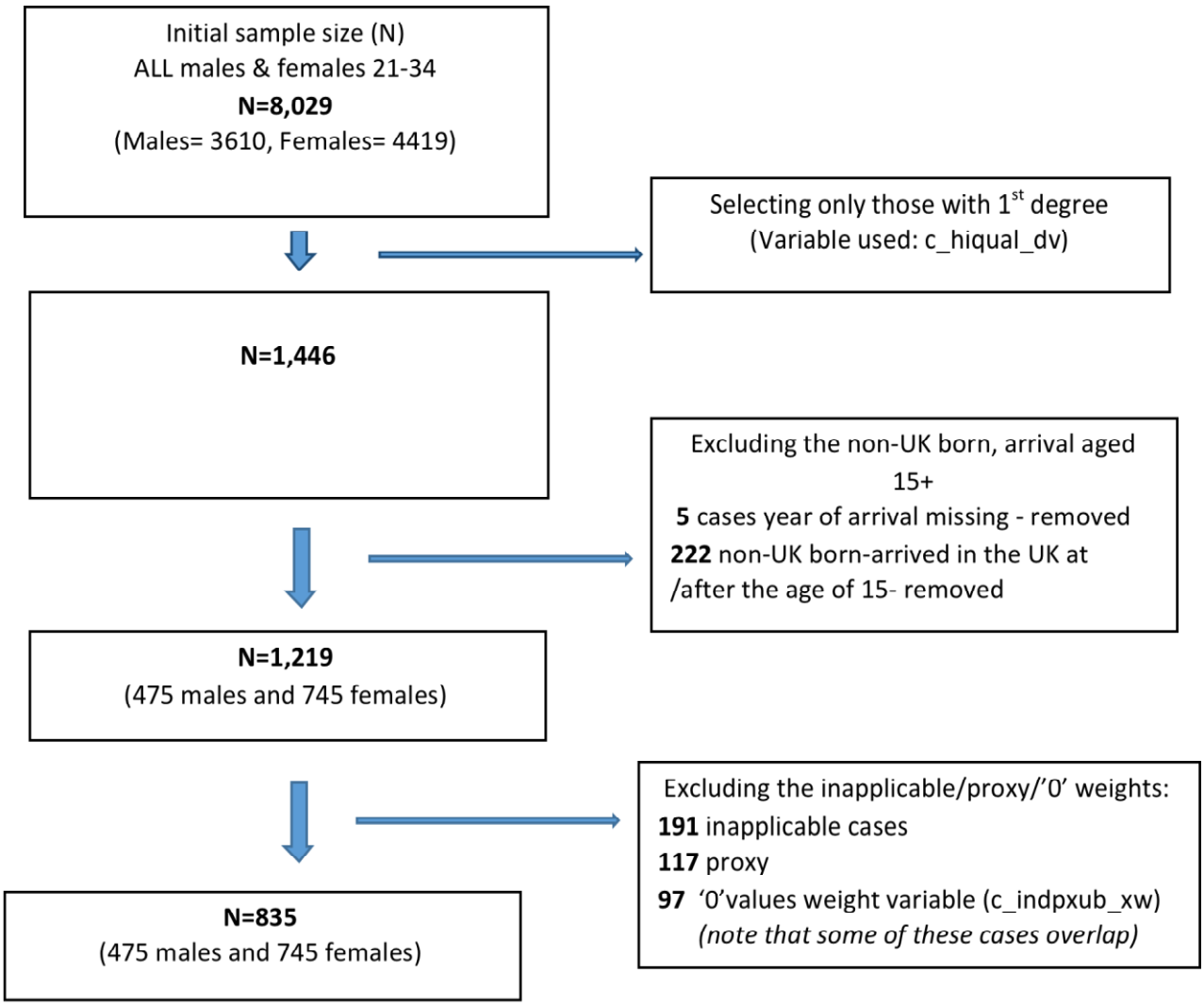
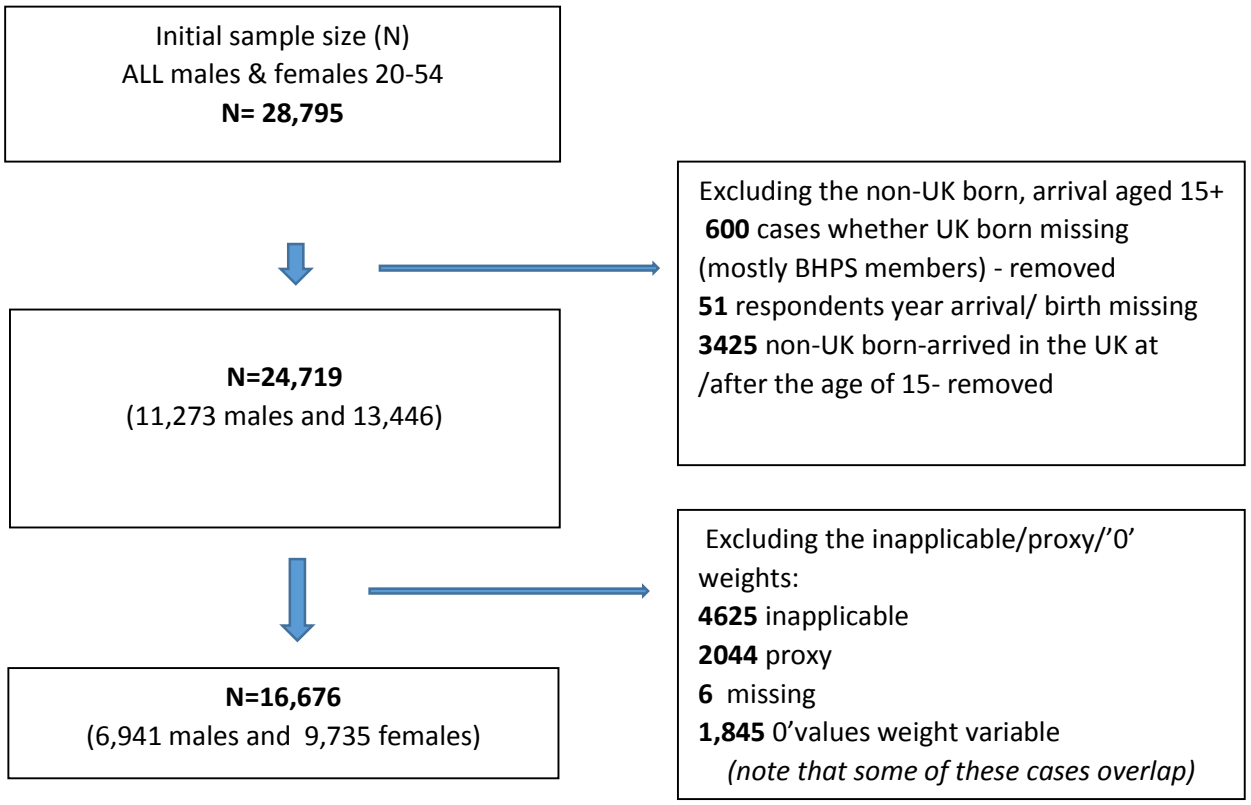


Figure A 6: Flowchart sample size and sample derivation for UKHLS, wave 3, 2011-2012. All respondents aged 20-54. (Including BHPS boost)



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