

## Appendix D: Results of the Regression Analysis

Initial regression analysis of HE entry was conducted by replicating the Harrison et al. (2023) model. The results are shown in Tables D1 (betas for each of the five model steps) and D2 (predictor statistics for the final step). This model was selected as a recent comparable model to assess the relationship between those with care-related experiences and entry into HE. The aim was to provide a conceptual replication of similar care groups and relevant covariates that would enable us to situate our data and analysis within the current field and provide added context to our own models. For example, Table D3 shows the results of using the same outcome variable and set of covariates but the analytic group definitions used in this study instead of the group definitions used in the Harrison et al. study (described below).

It should be noted that the replication model is not an exact replication because, in addition to the different care group definitions, the predictor variables we included were not always exactly the same predictor variables used by Harrison et al. (2023). For example, 'joined the school in the last two years' was included instead of 'changed school mid-year' and 'school Ofsted rating' was not available within our dataset.

For the replication analysis, we created four care groups comparable to the groups used by Harrison et al. (2023), with the general population used as the reference group:

- The first care comparison group, 'care leavers', was comprised of young people with a minimum of 13 weeks of combined care that straddled their 16th birthday. This group is directly comparable to our care leavers group, which meets the statutory definition of care leaver.
- The 'late care-experienced' group was comprised of a subset of our ever in care group. Consequently, for the purpose of replication, we created a comparable group of those in care for a combined period of 13 weeks between ages 14 and 16.
- The 'other care experienced' group is largely comparable to our ever-in-care group, with the exception of the late care separation. For the purposes of the replication analysis, we created a group that includes all young people with experience of care but not care leavers or late care experienced.
- The final group, 'formerly in need', differs from our CIN groups, as we portioned young people 'in need' into two groups of less and more than 6 months of need. For the purposes of replication, we created a comparable group of ever in need but not in care.

Tables D5 and D6 show the results of using a reduced set of covariates; Tables D7 and D8 show the results of the reduced model using only young people with SEN; and Tables D9 and D10 show the results of the reduced model using only young people with no SEN. Tables D11 and D12 show the results of the reduced model, with the addition of several covariates specific to children looked after (CLA), using only children looked after, which corresponds to young people in the care leavers (G1) and ever in care (G2)

groups used in this study. Tables D13 and D14 show the results of the reduced model, with the addition of several covariates specific to children in need (CIN), using only children in need, which corresponds to young people in the CIN > 6 months (G4) and CIN < 6 months (G5) groups used in this study.

## I. Replication Models

Table D1. Logistic regression replication of HE entry by age 22, step model

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>KS2 English (level 4)</b>					
KS2 English not known	-.212***	.070***	-.131***	-.116***	-.117***
KS2 English level 2	-1.528***	-1.090***	-.136	-.051	-.052
KS2 English level 3	-.891***	-.660***	-.047**	-.011	-.012
KS2 English level 5	.920***	.773***	.221***	.201***	.201***
<b>KS2 Maths (level 4)</b>					
KS2 Maths not known	.301***	.157***	.267***	.275***	.276***
KS2 Maths level 2	-.909***	-.859***	.300***	.304***	.302***
KS2 Maths level 3	-.539***	-.531***	.145***	.128***	.128***
KS2 Maths level 5	.682***	.699***	.040***	.023*	.024*
Sex (Female)		.449***	.281***	.243***	.247***
<b>Ethnicity (White)</b>					
Asian		1.083***	1.133***	1.008***	1.008***
Black		1.535***	1.533***	1.350***	1.352***
Mixed		.632***	.509***	.437***	.440***
Other		.847***	.747***	.640***	.640***
<b>Special Educational Needs (None)</b>					
School Action		-.503***	.174***	.196***	.201***
School Action Plus or Statement		-.789***	.395***	.404***	.418***
English not the first language		.755***	.620***	.528***	.525***
KS4_IDACI		-1.248***	-.468***	-.232***	-.226***
Free School Meals Eligibility		-.410***	-.123***	-.048***	-.031***
School Type (Mainstream)		1.994***	-.313***	.224***	.209***
Ever permanently excluded or in PRU/AP		.424***	.691***	.730***	.731***
Ever a persistent absentee		-.820***	-.272***	-.096***	-.090***
Joined the school in the last two years		-.340***	.175***	.258***	.268***
Ever had a Fixed Exclusion		-.975***	-.451***	-.265***	-.256***

<b>GCSE pass rate (continuous)</b>					
<b>Total GCSE point score</b>					
<b>GCSE passes (A–C inc English and Maths)</b>					
<b>Neither Maths or English</b>					
<b>Just Maths</b>					
<b>Just English</b>					
<b>Any KS4 vocational qualification</b>					
<b>Post-16 attainment (L2 at 16, L3 at 18)</b>					
<b>No L2 or L3</b>					
<b>L2 after 16, L3 before 22</b>					
<b>L2 after 16, no L3</b>					
<b>L2 at 16, no L3</b>					
<b>FE study at level 1 or lower</b>					
<b>Post-16 study (School only)</b>					
<b>None</b>					
<b>FE College only</b>					
<b>Mix School and FE College</b>					
<b>Care Group (General population)</b>					
<b>Care leavers</b>					
<b>Late care-experienced</b>					
<b>Other care-experienced</b>					
<b>Formerly in Need</b>					
<b>Constant</b>					
<b>Nagelkerke's <math>R^2</math></b>					
<b>N</b>					

Table D2. Logistic regression replication of HE entry by age 22, final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>KS2 English (level 4)</b>						
KS2 English not known	-0.117	0.030	0.000	0.890	0.838	0.944
KS2 English level 2	-0.053	0.078	0.501	0.949	0.814	1.106
KS2 English level 3	-0.012	0.017	0.484	0.988	0.956	1.022
KS2 English level 5	0.201	0.011	0.000	1.223	1.197	1.249
<b>KS2 Maths (level 4)</b>						
KS2 Maths not known	0.276	0.030	0.000	1.318	1.242	1.399
KS2 Maths level 2	0.302	0.077	0.000	1.353	1.163	1.573
KS2 Maths level 3	0.128	0.016	0.000	1.136	1.101	1.173
KS2 Maths level 5	0.024	0.011	0.026	1.024	1.003	1.046
Sex (Female)	0.247	0.008	0.000	1.280	1.261	1.300
<b>Ethnicity (White)</b>						
Asian	1.008	0.018	0.000	2.741	2.644	2.841
Black	1.352	0.020	0.000	3.865	3.713	4.023
Mixed	0.440	0.019	0.000	1.553	1.495	1.613
Other	0.641	0.028	0.000	1.898	1.798	2.004
Special Educational Needs (None)	0.000	0.000	0.000	0.000	0.000	0.000
School Action	0.201	0.014	0.000	1.223	1.190	1.257
School Action Plus or Statement	0.419	0.026	0.000	1.521	1.445	1.601
English is an additional language	0.526	0.016	0.000	1.692	1.639	1.747
KS4_IDACI	-0.227	0.026	0.000	0.797	0.757	0.839
Free School Meals Eligibility	0.031	0.023	0.000	1.006	0.961	1.053
School Type (Mainstream)	0.205	0.062	0.001	1.228	1.088	1.386
Ever permanently excluded or in PRU/AP	0.734	0.073	0.000	2.084	1.804	2.406
Ever a persistent absentee	-0.090	0.011	0.000	0.914	0.895	0.934
Joined the school in the last two years	0.269	0.031	0.000	1.308	1.231	1.390
Ever had a Fixed Exclusion	-0.256	0.015	0.000	0.774	0.752	0.797
GCSE pass rate (Continuous)	0.016	0.017	0.368	1.016	0.982	1.051
Total GCSE point score	0.007	0.000	0.000	1.007	1.007	1.007
<b>GCSE passes (A–C inc English and Maths)</b>						
Neither maths or English	-0.420	0.023	0.000	0.657	0.628	0.688
Just Maths	-0.222	0.021	0.000	0.801	0.769	0.834
Just English	-0.276	0.020	0.000	0.759	0.729	0.790
Any KS4 vocational qualification	-0.217	0.009	0.000	0.805	0.791	0.819
<b>Post-16 attainment (L2 at 16, L3 at 18)</b>						
No L2 or L3	-0.826	0.028	0.000	0.438	0.414	0.463
L2 after 16, L3 before 22	0.135	0.025	0.000	1.144	1.089	1.202
L2 after 16, no L3	-2.249	0.036	0.000	0.106	0.098	0.113
L2 at 16, no L3	-2.300	0.025	0.000	0.100	0.095	0.105
FE study at level 1 or lower	-0.721	0.020	0.000	0.486	0.467	0.506
<b>Post-16 study (School only)</b>						

<b>None</b>	-1.317	0.044	0.000	0.268	0.246	0.292
<b>FE College only</b>	-1.345	0.012	0.000	0.261	0.255	0.267
<b>Mix School and FE College</b>	-0.808	0.009	0.000	0.446	0.438	0.454
<b>Care Group (General population)</b>						
<b>Care leavers</b>	-0.075	0.061	0.215	0.928	0.824	1.045
<b>Late care-experienced</b>	-0.045	0.077	0.554	0.956	0.822	1.111
<b>Other care-experienced</b>	-0.243	0.060	0.000	0.784	0.698	0.882
<b>Formerly in Need</b>	-0.099	0.012	0.000	0.906	0.884	0.928
<b>Constant</b>	-2.191	0.076	0.000			
<b>Nagelkerke's <math>R^2</math></b>	.564					
<b>N</b>	532,530					

After controlling for the socio-demographic and educational variables, the replication model shows that young people in the care leavers and late care-experienced groups were not statistically less likely to enter HE, which is in line with the Harrison et al. (2023) findings; that is, it suggests that care leavers are likely to pursue HE at similar rates as the general population, after taking account of social and education circumstances. However, we did find evidence that the other care group was statistically less likely to enter HE than the general population. Unfortunately, Harrison et al. reported only the betas, so it is unclear whether it just falls outside the .05 cut-off they applied. We also found the formerly in need group to be statistically less likely to enter HE than the general population, with a similar effect size. The  $\text{Exp}(b)$  .906 implies the odds of entering HE for the formerly in need decrease by 9% compared to the general population. The proportion of variance explained by the model was relatively high (i.e.,  $R^2 = .564$ ), which was comparable to variance explained (i.e.,  $R^2 = .594$ ) by the Harrison et al. model.

Table D3. Logistic regression replication of HE entry by age 22, final model (7 study groups)

	<b>B</b>	<b>S.E.</b>	<b>Sig</b>	<b>Exp(B)</b>	<b>Lower</b>	<b>Upper</b>
<b>KS2 English (level 4)</b>						
<b>KS2 English not known</b>	-0.117	0.030	0.000	0.890	0.838	0.944
<b>KS2 English level 2</b>	-0.053	0.078	0.501	0.949	0.814	1.106
<b>KS2 English level 3</b>	-0.012	0.017	0.484	0.988	0.956	1.022
<b>KS2 English level 5</b>	0.201	0.011	0.000	1.223	1.197	1.249
<b>KS2 Maths (level 4)</b>						
<b>KS2 Maths not known</b>	0.276	0.030	0.000	1.318	1.242	1.399
<b>KS2 Maths level 2</b>	0.302	0.077	0.000	1.353	1.163	1.573
<b>KS2 Maths level 3</b>	0.128	0.016	0.000	1.136	1.101	1.173
<b>KS2 Maths level 5</b>	0.024	0.011	0.026	1.024	1.003	1.046
<b>Sex (Female)</b>	0.247	0.008	0.000	1.280	1.261	1.300
<b>Ethnicity (White)</b>						

<b>Asian</b>	1.008	0.018	0.000	2.741	2.644	2.841
<b>Black</b>	1.352	0.020	0.000	3.865	3.713	4.023
<b>Mixed</b>	0.440	0.019	0.000	1.553	1.495	1.613
<b>Other</b>	0.641	0.028	0.000	1.898	1.798	2.004
<b>Special Educational Needs (None)</b>	0.000	0.000	0.000	0.000	0.000	0.000
<b>School Action</b>	0.201	0.014	0.000	1.223	1.190	1.257
<b>School Action Plus or Statement</b>	0.419	0.026	0.000	1.521	1.445	1.601
<b>English is an additional language</b>	0.526	0.016	0.000	1.692	1.639	1.747
<b>KS4_IDACI</b>	-0.227	0.026	0.000	0.797	0.757	0.839
<b>Free School Meals Eligibility</b>	0.006	0.023	0.798	1.006	0.961	1.053
<b>School Type (Mainstream)</b>	0.205	0.062	0.001	1.228	1.088	1.386
<b>Ever permanently excluded or in PRU/AP</b>	0.734	0.073	0.000	2.084	1.804	2.406
<b>Ever a persistent absentee</b>	-0.090	0.011	0.000	0.914	0.895	0.934
<b>Joined the school in the last two years</b>	0.269	0.031	0.000	1.308	1.231	1.390
<b>Ever had a Fixed Exclusion</b>	-0.256	0.015	0.000	0.774	0.752	0.797
<b>GCSE pass rate (Continuous)</b>	0.016	0.017	0.368	1.016	0.982	1.051
<b>Total GCSE point score</b>	0.007	0.000	0.000	1.007	1.007	1.007
<b>GCSE passes (A–C inc English and Maths)</b>						
<b>Neither Maths or English</b>	-0.420	0.023	0.000	0.657	0.628	0.688
<b>Just Maths</b>	-0.222	0.021	0.000	0.801	0.769	0.834
<b>Just English</b>	-0.276	0.020	0.000	0.759	0.729	0.790
<b>Any KS4 vocational qualification</b>	-0.217	0.009	0.000	0.805	0.791	0.819
<b>Post-16 attainment (L2 at 16, L3 at 18)</b>						
<b>No L2 or L3</b>	-0.826	0.028	0.000	0.438	0.414	0.463
<b>L2 after 16, L3 before 22</b>	0.135	0.025	0.000	1.144	1.089	1.202
<b>L2 after 16, no L3</b>	-2.249	0.036	0.000	0.106	0.098	0.113
<b>L2 at 16, no L3</b>	-2.300	0.025	0.000	0.100	0.095	0.105
<b>FE study at level 1 or lower</b>	-0.721	0.020	0.000	0.486	0.467	0.506
<b>Post-16 study (School only)</b>						
<b>None</b>	-1.317	0.044	0.000	0.268	0.246	0.292
<b>FE College only</b>	-1.345	0.012	0.000	0.261	0.255	0.267
<b>Mix School and FE College</b>	-0.808	0.009	0.000	0.446	0.438	0.454
<b>Groups (General population)</b>						
<b>Care Leavers (G1)</b>	-0.095	0.062	0.123	0.909	0.806	1.026
<b>Ever in Care (G2)</b>	-0.204	0.053	0.000	0.815	0.735	0.904
<b>Ever CPP (G3)</b>	-0.175	0.054	0.001	0.839	0.755	0.934
<b>CIN &gt; 6 months (G4)</b>	-0.157	0.027	0.000	0.855	0.811	0.901
<b>CIN &lt; 6 months (G5)</b>	-0.103	0.019	0.000	0.902	0.869	0.936
<b>FSM Population (G6)</b>	-0.045	0.025	0.073	0.956	0.910	1.004
<b>Constant</b>	-2.191	0.076	0.000			
<b>Nagelkerke's R<sup>2</sup></b>	.564					
<b>N</b>	532,530					

Table D4. Logistic regression replication of HE entry by age 22, final model (FSM comparison group)

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>KS2 English (level 4)</b>						
KS2 English not known	-0.117	0.030	0.000	0.890	0.838	0.944
KS2 English level 2	-0.053	0.078	0.501	0.949	0.814	1.106
KS2 English level 3	-0.012	0.017	0.484	0.988	0.956	1.022
KS2 English level 5	0.201	0.011	0.000	1.223	1.197	1.249
<b>KS2 Maths (level 4)</b>						
KS2 Maths not known	0.276	0.030	0.000	1.318	1.242	1.399
KS2 Maths level 2	0.302	0.077	0.000	1.353	1.163	1.573
KS2 Maths level 3	0.128	0.016	0.000	1.136	1.101	1.173
KS2 Maths level 5	0.024	0.011	0.026	1.024	1.003	1.046
Sex (Female)	0.247	0.008	0.000	1.280	1.261	1.300
<b>Ethnicity (White)</b>						
Asian	1.008	0.018	0.000	2.741	2.644	2.841
Black	1.352	0.020	0.000	3.865	3.713	4.023
Mixed	0.440	0.019	0.000	1.553	1.495	1.613
Other	0.641	0.028	0.000	1.898	1.798	2.004
Special Educational Needs (None)	0.000	0.000	0.000	0.000	0.000	0.000
School Action	0.201	0.014	0.000	1.223	1.190	1.257
School Action Plus or Statement	0.419	0.026	0.000	1.521	1.445	1.601
English is an additional language	0.526	0.016	0.000	1.692	1.639	1.747
KS4_IDACI	-0.227	0.026	0.000	0.797	0.757	0.839
Free School Meals Eligibility	0.006	0.023	0.798	1.006	0.961	1.053
School Type (Mainstream)	0.205	0.062	0.001	1.228	1.088	1.386
Ever permanently excluded or in PRU/AP	0.734	0.073	0.000	2.084	1.804	2.406
Ever a persistent absentee	-0.090	0.011	0.000	0.914	0.895	0.934
Joined the school in the last two years	0.269	0.031	0.000	1.308	1.231	1.390
Ever had a Fixed Exclusion	-0.256	0.015	0.000	0.774	0.752	0.797
GCSE pass rate (Continuous)	0.016	0.017	0.368	1.016	0.982	1.051
Total GCSE point score	0.007	0.000	0.000	1.007	1.007	1.007
<b>GCSE passes (A–C inc English and Maths)</b>						
Neither Maths or English	-0.420	0.023	0.000	0.657	0.628	0.688
Just Maths	-0.222	0.021	0.000	0.801	0.769	0.834
Just English	-0.276	0.020	0.000	0.759	0.729	0.790
Any KS4 vocational qualification	-0.217	0.009	0.000	0.805	0.791	0.819
<b>Post-16 attainment (L2 at 16, L3 at 18)</b>						
No L2 or L3	-0.826	0.028	0.000	0.438	0.414	0.463
L2 after 16, L3 before 22	0.135	0.025	0.000	1.144	1.089	1.202
L2 after 16, no L3	-2.249	0.036	0.000	0.106	0.098	0.113
L2 at 16, no L3	-2.300	0.025	0.000	0.100	0.095	0.105
FE study at level 1 or lower	-0.721	0.020	0.000	0.486	0.467	0.506

<b>Post-16 study (School only)</b>						
<b>None</b>	-1.317	0.044	0.000	0.268	0.246	0.292
<b>FE College only</b>	-1.345	0.012	0.000	0.261	0.255	0.267
<b>Mix School and FE College</b>	-0.808	0.009	0.000	0.446	0.438	0.454
<b>Groups (FSM population)</b>						
<b>Care Leavers (G1)</b>	-0.050	0.062	0.423	0.951	0.842	1.075
<b>Ever in Care (G2)</b>	-0.159	0.052	0.002	0.853	0.770	0.944
<b>Ever CPP (G3)</b>	-0.130	0.053	0.014	0.878	0.792	0.974
<b>CIN &gt; 6 months (G4)</b>	-0.112	0.026	0.000	0.894	0.850	0.941
<b>CIN &lt; 6 months (G5)</b>	-0.058	0.021	0.006	0.944	0.906	0.984
<b>General Population (G7)</b>	0.045	0.025	0.073	1.046	0.996	1.099
<b>Constant</b>	-2.191	0.076	0.000			
<b>Nagelkerke's R<sup>2</sup></b>	.564					
<b>N</b>	532,530					

Where extending this model by using our study's specific groups of children with experience of children's social care (see Table D3) instead of the Harrison et al. (2023) group definitions, we observed a similar pattern of findings, with care leavers not statistically less likely than the general population to enter HE. In addition, all the other care-experienced groups were statistically less likely to enter HE, compared to the general population (see Table D3) and the FSM population (see Table D4). For example, compared to the FSM population, the odds of entering HE were 15% less for those classed as Ever in Care, 12% less for Ever CPP, 10% less for CIN > 6 months, and 6% less for those classed as CIN < 6 months.

## II. Reduced Models

Table D5. Logistic regression replication of HE entry by age 22, reduced step model

	Model 1	Model 2	Model 3	Model 4
<b>Groups (FSM population)</b>				
<b>Care Leavers (G1)</b>	-1.319***	-.753***	-.496***	-.450***
<b>Ever in Care (G2)</b>	-1.329***	-.770***	-.576***	-.560***
<b>Ever CPP (G3)</b>	-1.212***	-.647***	-.489***	-.438***
<b>CIN &gt; 6 months (G4)</b>	-1.053***	-.536***	-.413***	-.387***
<b>CIN &lt; 6 months (G5)</b>	-.443***	-.372***	-.267***	-.231***
<b>General Population (G7)</b>	.635***	.196***	.108***	.058**
<b>Sex (Female)</b>		.461***	.383***	.363***
<b>Ethnicity (White)</b>				
<b>Asian</b>		1.501***	1.546***	1.387***



<b>Black</b>		1.682***	1.750***	1.586***
<b>Mixed</b>		.727***	.671***	.567***
<b>Other</b>		1.097***	1.086***	.924***
<b>Special Educational Needs (None)</b>				
<b>SEN with Statement or EHCP</b>		-1.153***	-.450***	-.399***
<b>SEN without Statement or EHCP</b>		-.822***	-.267***	-.163***
<b>KS4_IDACI</b>		-1.324***	-.742***	-.543***
<b>Free School Meals Eligibility (yes)</b>		-.268***	-.150***	-.132***
<b>School Type (Mainstream)</b>		1.508***	1.145***	1.457***
<b>Fixed Exclusion (yes)</b>		-1.000***	-.698***	-.563***
<b>Ever a Persistent Absentee (yes)</b>		-.816***	-.525***	-.393***
<b>5 A*-C inc EM (yes)</b>			1.923***	1.348***
<b>Post-16 study (School only)</b>				
<b>None</b>				-2.868***
<b>FE College only</b>				-2.030***
<b>Mix School and FE College</b>				-.998***
<b>Constant</b>	-.447***	-1.418***	-2.429***	-1.376***
<b>Nagelkerke's R<sup>2</sup></b>	.080	.256	.398	.475
<b>N</b>	532,530			

Table D6. Logistic regression replication of HE entry by age 22, reduced final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>Groups (FSM population)</b>						
Care Leavers (G1)	-0.450	0.056	0.000	0.638	0.571	0.712
Ever in Care (G2)	-0.560	0.046	0.000	0.571	0.522	0.626
Ever CPP (G3)	-0.438	0.047	0.000	0.646	0.589	0.708
CIN > 6 months (G4)	-0.387	0.023	0.000	0.679	0.649	0.711
CIN < 6 months (G5)	-0.231	0.019	0.000	0.793	0.764	0.824
General Population (G7)	0.058	0.023	0.012	1.060	1.013	1.109
Sex (Female)	0.363	0.007	0.000	1.438	1.418	1.458
<b>Ethnicity (White)</b>						
Asian	1.387	0.014	0.000	4.002	3.895	4.111
Black	1.586	0.019	0.000	4.882	4.707	5.063
Mixed	0.567	0.018	0.000	1.762	1.701	1.826
Other	0.924	0.025	0.000	2.518	2.399	2.644
<b>Special Educational Needs (None)</b>						
SEN with Statement or EHCP	-0.399	0.029	0.000	0.671	0.635	0.710
SEN without Statement or EHCP	-0.163	0.012	0.000	0.850	0.830	0.870
KS4_IDACI	-0.543	0.024	0.000	0.581	0.554	0.609
Free School Meals Eligibility (yes)	-0.132	0.021	0.000	0.876	0.841	0.914
School Type (Mainstream)	1.457	0.045	0.000	4.291	3.929	4.687
Fixed Exclusion (yes)	-0.563	0.013	0.000	0.570	0.555	0.585
Ever a Persistent Absentee (yes)	-0.393	0.01	0.000	0.675	0.662	0.688
5 A*-C inc EM (yes)	1.348	0.008	0.000	3.849	3.788	3.911
<b>Post-16 study (School only)</b>						
None	-2.868	0.042	0.000	0.057	0.052	0.062
FE College only	-2.030	0.010	0.000	0.131	0.129	0.134
Mix School and FE College	-0.998	0.009	0.000	0.369	0.363	0.375
Constant	-1.376	0.051	0.000			
Nagelkerke's R <sup>2</sup>	.475					
N	532,530					

The reduced model shows that young people in all care groups were significantly less likely to enter HE compared to young people in the FSM population group. Although some of the highly-correlated indicators were removed, the main difference between the replication model and the reduced model was the removal of post-16 qualifications. Specifically, when controlling for post-16 qualifications, care leavers were not less likely to enter HE than the FSM population (see Table D4) but, when not controlling for post-16 qualifications, care leavers were less likely to enter HE than the FSM population (see Table D6).

### III. SEN Models

Table D7. Logistic regression replication of HE entry by age 22 for the SEN population, step model

	Model 1	Model 2	Model 3	Model 4
<b>Groups (FSM population)</b>				
Care Leavers (G1)	-.991***	-.766***	-.655***	-.660***
Ever in Care (G2)	-1.189***	-.731***	-.654***	-.656***
Ever CPP (G3)	-1.225***	-.737***	-.699***	-.711***
CIN > 6 months (G4)	-.853***	-.470***	-.452***	-.467***
CIN < 6 months (G5)	-.477***	-.406***	-.354***	-.323***
General Population (G7)	.542***	.080***	-.050	-.050
Sex (Female)		.391***	.339***	.325***
<b>Ethnicity (White)</b>				
Asian		1.113***	1.244***	1.142***
Black		1.587***	1.698***	1.603***
Mixed		.707***	.644***	.581***
Other		1.072***	1.073***	.963***
KS4_IDACI		-.936***	-.426***	-.432***
Free School Meals Eligibility (yes)		-.338***	-.258***	-.223***
School Type (Mainstream)		1.809***	1.297***	1.642***
Fixed Exclusion (yes)		-.879***	-.717***	-.615***
Ever a Persistent Absentee (yes)		-.582***	-.417***	-.324***
5 A*-C inc EM (yes)			2.259***	1.684***
<b>Post-16 study (School only)</b>				
None				-2.916***
FE College only				-1.749***
Mix School and FE College				-.891***
Constant	-1.385***	-2.577***	-2.880***	-1.897***
Nagelkerke's $R^2$	.075	.217	.380	.432
N	90,570			

Table D8. Logistic regression replication of HE entry by age 22 for the SEN population, final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>Groups (FSM population)</b>						
Care Leavers (G1)	-0.66	0.088	0.000	0.517	0.435	0.614
Ever in Care (G2)	-0.656	0.084	0.000	0.519	0.44	0.612
Ever CPP (G3)	-0.711	0.095	0.000	0.491	0.407	0.591
CIN > 6 months (G4)	-0.467	0.046	0.000	0.627	0.572	0.687
CIN < 6 months (G5)	-0.323	0.043	0.000	0.724	0.665	0.788
General Population (G7)	-0.05	0.051	0.321	0.951	0.861	1.05
Sex (Female)	0.325	0.021	0.000	1.385	1.329	1.443
<b>Ethnicity (White)</b>						
Asian	1.142	0.036	0.000	3.133	2.917	3.365
Black	1.603	0.04	0.000	4.969	4.591	5.379
Mixed	0.581	0.049	0.000	1.787	1.624	1.967
Other	0.963	0.061	0.000	2.621	2.325	2.954
KS4_IDACI	-0.432	0.065	0.000	0.649	0.572	0.738
Free School Meals Eligibility (yes)	-0.223	0.044	0.000	0.801	0.734	0.873
School Type (Mainstream)	1.642	0.052	0.000	5.165	4.669	5.713
Fixed Exclusion (yes)	-0.615	0.03	0.000	0.54	0.51	0.573
Ever a Persistent Absentee (yes)	-0.324	0.024	0.000	0.723	0.69	0.759
5 A*-C inc EM (yes)	1.684	0.024	0.000	5.389	5.143	5.647
<b>Post-16 study (School only)</b>						
None	-2.916	0.112	0.000	0.054	0.044	0.067
FE College only	-1.749	0.029	0.000	0.174	0.164	0.184
Mix School and FE College	-0.891	0.029	0.000	0.41	0.388	0.434
Constant	-1.897	0.071	0.000			
Nagelkerke's R <sup>2</sup>	.432					
N	90,570					

Table D9. Logistic regression replication of HE entry by age 22 for the No SEN population, step model

	Model 1	Model 2	Model 3	Model 4
<b>Groups (FSM population)</b>				
Care Leavers (G1)	-.855***	-.784***	-.416***	-.308***
Ever in Care (G2)	-.986***	-.810***	-.556***	-.523***
Ever CPP (G3)	-.939***	-.637***	-.428***	-.335***
CIN > 6 months (G4)	-.832***	-.586***	-.418***	-.361***
CIN < 6 months (G5)	-.373***	-.366***	-.242***	-.202***
General Population (G7)	.557***	.218***	.152***	.100**
Sex (Female)		.473***	.392***	.372***
<b>Ethnicity (White)</b>				
Asian		1.568***	1.601***	1.429***
Black		1.696***	1.759***	1.576***
Mixed		.731***	.674***	.561***
Other		1.099***	1.083***	.909***
KS4_IDACI		-1.378***	-.792***	-.559***
Free School Meals Eligibility (yes)		-.252***	-.114***	-.094***
School Type (Mainstream)		1.418***	.813***	.763***
Fixed Exclusion (yes)		-1.032***	-.699***	-.554***
Ever a Persistent Absentee (yes)		-.854***	-.547***	-.407***
5 A*-C inc EM (yes)			1.879***	1.306***
<b>Post-16 study (School only)</b>				
None				-2.845***
FE College only				-2.072***
Mix School and FE College				-1.009***
Constant	-.243***	-1.340***	-2.106***	-.685***
Nagelkerke's $R^2$	.049	.192	.346	.434
N	441,970			

Table D10. Logistic regression replication of HE entry by age 22 for the No SEN population, final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>Groups (FSM population)</b>						
Care Leavers (G1)	-0.308	0.076	0.000	0.735	0.634	0.853
Ever in Care (G2)	-0.523	0.056	0.000	0.593	0.531	0.662
Ever CPP (G3)	-0.335	0.055	0.000	0.715	0.642	0.796
CIN > 6 months (G4)	-0.361	0.027	0.000	0.697	0.66	0.735
CIN < 6 months (G5)	-0.202	0.022	0.000	0.817	0.783	0.853
General Population (G7)	0.1	0.026	0.012	1.105	1.05	1.163
Sex (Female)	0.372	0.008	0.000	1.45	1.429	1.472
<b>Ethnicity (White)</b>						
Asian	1.429	0.015	0.000	4.177	4.055	4.302
Black	1.576	0.021	0.000	4.838	4.643	5.04
Mixed	0.561	0.02	0.000	1.753	1.687	1.821
Other	0.909	0.027	0.000	2.481	2.353	2.616
KS4_IDACI	-0.559	0.026	0.000	0.572	0.543	0.602
Free School Meals Eligibility (yes)	-0.094	0.024	0.000	0.911	0.868	0.955
School Type (Mainstream)	0.763	0.079	0.000	2.145	1.839	2.503
Fixed Exclusion (yes)	-0.554	0.015	0.000	0.575	0.558	0.592
Ever a Persistent Absentee (yes)	-0.407	0.011	0.000	0.666	0.652	0.68
5 A*-C inc EM (yes)	1.306	0.009	0.000	3.69	3.628	3.753
<b>Post-16 study (School only)</b>						
None	-2.845	0.045	0.000	0.058	0.053	0.064
FE College only	-2.072	0.011	0.000	0.126	0.123	0.129
Mix School and FE College	-1.009	0.009	0.000	0.365	0.358	0.371
Constant	-0.685	0.083	0.000			
Nagelkerke's R <sup>2</sup>	.432					
N	441,970					

Separate regression models were conducted for the SEN and No SEN populations. The patterns of HE entry for our analytical groups were broadly consistent between the two populations. Where we observed a notable difference was between care leavers and those with a CPP who showed a greater reduction in the likelihood of HE entry for those with SEN. Attending a mainstream school and achieving 5 A-Cs also appeared to be of greater importance for the SEN population.

## IV. Extended Models

Table D11. Logistic regression of HE entry by 22 for CLA<sup>1</sup>, step model

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>Ever in Care (ref)</b>					
<b>Care Leavers</b>	.032	.145*	.186*	.223*	.261*
<b>Sex (Female)</b>		.405***	.429***	.454***	.419***
<b>Ethnicity (White)</b>					
<b>Asian</b>		1.541***	1.436***	1.330***	1.375***
<b>Black</b>		1.587***	1.543***	1.444***	1.474***
<b>Mixed</b>		.844***	.783***	.705**	.714***
<b>Other</b>		1.089***	1.073***	1.011***	1.045***
<b>SEN (No SEN)</b>					
<b>SEN with Statement or EHCP</b>		-1.380***	-.934***	-1.031***	-1.014***
<b>SEN without Statement or EHCP</b>		-.607***	-.319***	-.281***	-.287***
<b>KS4_IDACI</b>		-.410*	-.244	-.275	-.281
<b>Free School Meals Eligibility (yes)</b>		-.038	.026	.047	.031
<b>School Type (Mainstream)</b>		1.480***	1.153***	1.328***	1.057***
<b>Fixed Exclusion (yes)</b>		-.780***	-.605***	-.516***	-.442***
<b>Ever a Persistent Absentee (yes)</b>		-.691***	-.402***	-.263***	-.186*
<b>5 A*-C inc EM (yes)</b>			1.790***	1.457***	1.423***
<b>Post-16 study (School only)</b>					
<b>None</b>				-2.817***	-2.796***
<b>FE College only</b>				-1.589***	-1.616***
<b>Mix School and FE College</b>				-1.174***	-1.160***
<b>Primary need (abuse/neglect)</b>					
<b>Child's disability</b>					-.173
<b>Family stress/dysfunction</b>					-.057
<b>Other Need</b>					-.089
<b>Last placement type (Foster)</b>					
<b>Residential</b>					-.918***
<b>Other placement</b>					-.315***
<b>Placement in LA (yes)</b>					
<b>Placement location unknown</b>					-.346**
<b>Placement outside LA</b>					-.240*
<b>Years in continuous care</b>					.014

<sup>1</sup> CLA (i.e., children looked after) in this context are young people in the following two analytic groups used in this study: care leavers (G1) and ever in care (G2).

<b>Number of placement type changes</b>						-0.015
<b>Care Entry Secondary School</b>						.055
<b>Constant</b>	-1.776***	-2.671***	-3.243***	-2.156***	-1.562***	
<b>Nagelkerke's R<sup>2</sup></b>	.000	.276	.361	.401	.406	
<b>N</b>	10,070					

Table D12. Logistic regression of HE entry by age 22 for CLA, final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>Ever in Care (ref)</b>						
Care Leavers	0.261	0.13	0.045	1.298	1.006	1.675
Sex (Female)	0.419	0.073	0.000	1.521	1.318	1.755
<b>Ethnicity (White)</b>						
Asian	1.375	0.128	0.000	3.955	3.078	5.081
Black	1.474	0.116	0.000	4.367	3.481	5.479
Mixed	0.714	0.122	0.000	2.042	1.609	2.591
Other	1.045	0.174	0.000	2.844	2.024	3.997
<b>SEN (No SEN)</b>						
SEN with Statement or EHCP	-1.014	0.155	0.000	0.363	0.268	0.491
SEN without Statement or EHCP	-0.287	0.08	0.000	0.75	0.642	0.877
KS4_IDACI	-0.281	0.209	0.179	0.755	0.501	1.137
Free School Meals Eligibility (yes)	0.031	0.078	0.690	1.032	0.885	1.203
School Type (Mainstream)	1.057	0.158	0.000	2.878	2.11	3.924
Fixed Exclusion (yes)	-0.442	0.084	0.000	0.643	0.546	0.757
Ever a Persistent Absentee (yes)	-0.186	0.085	0.029	0.83	0.702	0.981
5 A*-C inc EM (yes)	1.423	0.081	0.000	4.148	3.54	4.861
<b>Post-16 study (School only)</b>						
None	-2.796	0.293	0.000	0.061	0.034	0.108
FE College only	-1.616	0.106	0.000	0.199	0.161	0.245
Mix School and FE College	-1.16	0.103	0.000	0.313	0.256	0.383
<b>Primary need (abuse/neglect)</b>						
Child's disability	-0.173	0.242	0.475	0.841	0.523	1.352
Family stress/dysfunction	-0.057	0.076	0.449	0.944	0.814	1.095
Other Need	-0.089	0.217	0.683	0.915	0.598	1.4
<b>Last placement type (Foster)</b>						
Residential	-0.918	0.182	0.000	0.399	0.28	0.57
Other placement	-0.315	0.082	0.000	0.73	0.622	0.856
<b>Placement in LA (yes)</b>						
Placement location unknown	-0.346	0.113	0.002	0.707	0.567	0.883
Placement outside LA	-0.24	0.105	0.023	0.787	0.641	0.967
Years in continuous care	0.014	0.018	0.438	1.014	0.979	1.05



<b>Number of placement type changes</b>	-0.015	0.021	0.475	0.985	0.946	1.026
<b>Care Entry Secondary School</b>	.055***	0.089	0.535	1.057	0.888	1.257
<b>Constant</b>	-1.588	0.213	0.000			
<b>Nagelkerke's <math>R^2</math></b>	.406					
<b>N</b>	10,070					

Tables D11 and D12 provide the regression results for the CLA specific groups. Care leavers were statistically more likely to enter HE than those ever in care, with the odds of care leavers entering HE being 1.3 times more likely than those ever in care. The only care-specific predictors that were significant in the model relate to placements. Those in residential care or other care placements were significantly less likely to enter HE compared to those whose last placement was in foster care. Placements outside the local authority, or unknown, were associated with a reduced likelihood of HE entry compared to those placements that were within the local authority. As indicated in the table, none of the additional explanatory variables were significant nor added much to the explanation of HE entry, with no increase in the proportion of variance accounted for (i.e., the  $R^2$ s were .401 & .406, respectively). The largest predictors of HE entry within the model were achievement at KS4 and level 3 qualifications at 18. Ethnicity was also a significant predictor of HE Entry, with those classified as 'White' faring less well than all others.

Table D13. Logistic regression of HE entry by age 22 for CIN, step model

	Model 1	Model 2	Model 3	Model 4	Model 5
<b>CIN &lt; 6 months (ref)</b>					
<b>CIN &gt; 6 months</b>	.610***	.170***	.142***	.136***	.150***
<b>Sex (Female)</b>		.408***	.372***	.365***	.370***
<b>Ethnicity (White)</b>					
<b>Asian</b>		1.441***	1.459***	1.285***	1.286***
<b>Black</b>		1.631***	1.676***	1.550***	1.553***
<b>Mixed</b>		.738***	.644***	.555**	.554***
<b>Other</b>		1.060***	1.040***	.916***	.917***
<b>SEN (No SEN)</b>					
<b>SEN with Statement or EHCP</b>		-.960***	-.402***	-.440***	-.488***
<b>SEN without Statement or EHCP</b>		-.691***	-.248***	-.186***	-.191***
<b>KS4_IDACI</b>		-.710***	-.333***	-.266***	-.262***
<b>Free School Meals Eligibility (yes)</b>		-.362***	-.214***	-.180***	-.186***
<b>School Type (Mainstream)</b>		1.699***	1.309***	1.532***	1.549***
<b>Fixed Exclusion (yes)</b>		-.920***	-.647***	-.550***	-.545***
<b>Ever a Persistent Absentee (yes)</b>		-.827***	-.542***	-.396***	-.394***

<b>5 A*–C inc EM (yes)</b>	1.908***	1.449***	1.447***		
<b>Post-16 study (School only)</b>					
None		-3.055***	-3.054***		
FE College only		-1.737***	-1.735***		
Mix School and FE College		-.908***	-.905***		
<b>Primary need (abuse/neglect)</b>					
Child's disability				.125	
Family stress/dysfunction				.007	
Other Need				-.051	
<b>Age at first episode (under 11)</b>					
Age 11–13				.058	
Age 14+				.097***	
<b>Constant</b>	-1.500***	-2.254***	-3.053***	-2.039***	-2.117***
<b>Nagelkerke’s R<sup>2</sup></b>	.022	.274	.399	.453	.453
<b>N</b>	60,090				

Table D14. Logistic regression of HE entry by age 22 for CIN, final model

	B	S.E.	Sig	Exp(B)	Lower	Upper
<b>CIN &gt; 6 months (ref)</b>						
<b>CIN &lt; 6 months</b>	0.150	0.025	0.000	1.162	1.106	1.222
<b>Sex (Female)</b>	0.370	0.023	0.000	1.447	1.383	1.514
<b>Ethnicity (White)</b>						
<b>Asian</b>	1.286	0.039	0.000	3.619	3.351	3.910
<b>Black</b>	1.553	0.045	0.000	4.725	4.327	5.160
<b>Mixed</b>	0.554	0.048	0.000	1.740	1.585	1.910
<b>Other</b>	0.917	0.067	0.000	2.503	2.196	2.853
<b>SEN (No SEN)</b>						
<b>SEN with Statement or EHCP</b>	-0.488	0.064	0.000	0.614	0.541	0.697
<b>SEN without Statement or EHCP</b>	-0.191	0.031	0.000	0.826	0.778	0.878
<b>KS4_IDACI</b>	-0.262	0.069	0.000	0.769	0.672	0.880
<b>Free School Meals Eligibility (yes)</b>	-0.186	0.024	0.000	0.830	0.792	0.870
<b>School Type (Mainstream)</b>	1.549	0.083	0.000	4.708	3.998	5.544
<b>Fixed Exclusion (yes)</b>	0.545	0.031	0.000	0.580	0.546	0.616
<b>Ever a Persistent Absentee (yes)</b>	-0.394	0.025	0.000	0.674	0.642	0.708
<b>5 A*-C inc EM (yes)</b>	1.447	0.025	0.000	4.251	4.050	4.462
<b>Post-16 study (School only)</b>						
<b>None</b>	-3.054	0.122	0.000	0.047	0.037	0.060
<b>FE College only</b>	-1.735	0.032	0.000	0.176	0.166	0.188
<b>Mix School and FE College</b>	-0.905	0.030	0.000	0.404	0.381	0.429
<b>Primary need (abuse/neglect)</b>						
<b>Child's disability</b>	0.125	0.065	0.055	1.133	0.997	1.288
<b>Family stress/dysfunction</b>	0.007	0.076	0.778	1.007	0.958	1.058
<b>Other Need</b>	-0.051	0.034	0.133	0.950	0.889	1.016
<b>Age at first episode (under 11)</b>						
<b>Age 11-13</b>	0.058	0.031	0.065	1.059	0.996	1.126
<b>Age 14+</b>	0.097	0.025	0.000	1.102	1.049	1.158
<b>Constant</b>	-2.117	0.093	0.000			
<b>Nagelkerke's R<sup>2</sup></b>	.453					
<b>N</b>	60,090					

For the CIN specific model (see Tables D13 and D14), young people recorded as CIN for less than 6 months were statistically more likely to enter HE than those who were recorded as in need for more than 6 months. The inclusion of primary need and age of entry added no additional explanatory power to the model (i.e., the  $R^2$ s were .452 in both cases), although those who entered at age 14+ plus were statistically more likely to enter HE than those under age 11. Ethnicity, attainment at KS4 and mainstream school type were the largest predictors of HE entry in the model. In addition, females and those with KS5 study in schools were more likely to enter HE, while those who were persistently absent were less likely to enter HE.