A comparison of sample survey measures of earnings of English graduates with administrative data: Online Appendix

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Online Appendix for Britton, Shephard and Vignoles, "A comparison of sample survey measures of earnings of English graduates with administrative data". All Figure and Table references correspond to the main document.

A Silver Sample summaries

	All				Male				Female			
Cohort	Silver	PAYE	SA	Either	Silver	PAYE	SA	Either	Silver	PAYE	SA	Either
1998	27,019	16,253	3,401	19,654	14,724	8,490	2,298	10,788	12,295	7,763	1,103	8,866
1999	41,911	25,491	4,808	30,299	22,849	13,543	3,227	16,770	19,062	11,948	1,581	13,529
2000	42,996	25,979	4,756	30,735	23,504	13,833	3,336	17,169	19,492	12,146	1,420	13,566
2001	43,783	26,599	4,423	31,022	23,667	14,017	3,115	17,132	20,116	12,582	1,308	13,890
2002	43,694	26,735	3,964	30,699	23,586	14,139	2,762	16,901	20,108	12,596	1,202	13,798
2003	43,697	26,912	3,710	30,622	23,675	14,376	2,612	16,988	20,022	12,536	1,098	13,634
2004	43,473	26,980	3,415	30,395	23,506	14,489	2,423	16,912	19,967	12,491	992	13,483
2005	46,550	29,668	3,225	32,893	25,026	15,888	2,300	18,188	21,524	13,780	925	14,705
2006	46,403	30,122	2,816	32,938	24,745	16,074	2,010	18,084	21,658	14,048	806	14,854
2007	46,580	30,891	2,538	33,429	24,760	16,517	1,829	18,346	21,820	14,374	709	15,083
2008	37,810	25,585	1,721	27,306	20,063	13,691	1,277	14,968	17,747	11,894	444	12,338
2009	10,298	7,103	476	7,579	5,460	3,702	361	4,063	4,838	3,401	115	3,516
2010	4,836	3,481	175	3,656	2,529	1,813	131	1,944	2,307	1,668	44	1,712

Table A1: Number of Silver Sample non-borrowers and tax data in 2011-12. Same format as Table **??**. Cohort denotes the equivalent cohort these individuals would have been in had they borrowed from the SLC.

B Adjusting the Silver Sample

	UK Male							UK Female						
	#18	HE	%Part	Gold	Silver	mHE	%ω	#18	HE	%Part	Gold	Silver	mHE	%ω
2001	364	141	39	110	254	31	12	349	166	48	129	220	37	17
2002	377	145	38	111	266	34	13	355	173	49	128	227	45	20
2003	394	146	37	110	284	36	13	370	177	48	129	241	48	20
2004	390	147	38	107	283	40	14	374	179	48	128	246	51	21
2005	386	156	40	114	272	42	15	382	191	50	136	246	55	22
2006	402	158	39	113	289	45	16	389	194	50	140	249	54	22
2007	400	162	41	112	288	50	17	384	200	52	140	244	60	25

Table A2: Quantifying the adjustment needed to allow for English domiciled graduates who did not borrow and who therefore are in the SS. All non-percentages are in 1,000s. 18 is the number of UK domiciled 18 year olds in mid-year. HE is our estimate of the number of individuals entering HE in that year. % Part is our estimate of UK participation rate. Gold is the number of loans in our SLC database given to English domiciled students. Silver is the number of people not getting a loan from the English part of SLC, mHE is the number of students who are not in our loan database (as they are from Wales, Scotland or N. Ireland or are from England and declined a student loan). ω is our estimator of the percentage of former students in the Silver sample (that is people who were students but did not have a loan from the English part of SLC and are in the Database for non-former English domiciled borrowers). ω will be used to correct the Silver sample in order to compare to the LFS results for non-graduates.

C Numbers behind cross sectional earnings distributions in the main text

Percentile:		1	5	10	20	30	40	50	60	70	80	90	95	99	Mean
2008/09 (M=Male, F=Female)															
GS	M	0.5	2.7	5.7	11.3	16.1	19.7	23.1	26.4	30.0	34.7	43.2	52.2	89.6	25.2
LFS	M	3.4	11.1	15.9	20.0	23.4	26.7	28.9	32.0	35.6	41.2	50.0	61.2	86.7	31.7
Error %	M	100+	100+	100+	77.4	45.2	35.5	25.2	21.1	18.6	18.6	15.7	17.2	-3.2	25.8
LFS	F	0.6	2.9	5.8	11.2	15.5	19.0	22.1	24.8	27.8	31.4	37.6	44.3	69.3	23.0
GS	F	3.5	7.2	12.1	16.8	20.2	23.1	25.6	28.0	31.1	35.6	42.7	49.7	72.3	27.1
Error %	F	100+	100+	100+	49.8	30.3	21.9	15.8	12.9	11.9	13.1	13.5	12.1	4.3	17.9
2009/10 (M=Male, F=Female)															
GS	M	0.5	2.6	5.5	11.2	16.2	20.3	23.9	27.4	31.1	35.9	44.8	55.1	100.9	26.2
LFS	M	4.4	10.8	15.8	20.5	24.6	27.0	29.7	32.3	36.7	41.4	49.1	59.3	90.5	32.1
Error %	M	100+	100+	100+	82.2	51.5	33.1	23.9	18.1	17.9	15.1	9.6	7.6	-10.3	22.1
LFS	F	0.6	3.0	6.0	11.4	15.9	19.5	22.7	25.7	28.8	32.8	39.3	46.5	71.0	23.9
GS	F	3.4	6.7	10.4	17.3	21.0	23.7	26.4	29.1	32.3	36.7	43.1	50.0	77.6	27.6
Error %	F	100+	100+	72.7	51.5	32.4	21.7	16.3	13.1	12.2	11.9	9.6	7.4	9.3	15.6
2010/11 (M=Male, F=Female)															
GS	M	0.6	3.0	6.1	11.8	16.9	20.9	24.6	28.0	31.9	37.1	47.0	60.9	110.1	27.7
LFS	M	4.8	11.5	15.4	19.9	24.7	26.7	29.8	32.0	35.9	41.0	50.5	61.6	102.6	32.3
Error %	M	100+	100+	100+	68.4	46.3	27.7	21.0	14.2	12.6	10.5	7.4	1.2	-6.8	16.6
LFS	F	0.6	3.1	6.1	11.2	15.7	19.4	22.7	25.7	29.0	33.2	39.9	48.0	74.7	24.2
GS	F	3.7	6.1	9.2	15.1	18.5	22.6	25.7	28.3	31.0	35.9	41.0	47.2	61.6	26.0
Error %	F	100+	98.1	52.0	34.9	17.5	16.5	13.0	10.2	6.9	8.4	2.6	-1.5	-17.6	7.4
2011/12 (M=Male, F=Female)															
GS	M	0.6	3.4	6.4	12.1	17.3	21.5	25.3	29.1	33.4	38.9	49.5	65.1	120.8	29.1
LFS	M	6.6	13.2	17.0	21.3	25.0	27.6	30.0	33.2	36.9	43.0	55.0	70.0	100.0	33.8
Error %	M	100+	100+	100+	76.7	44.6	28.4	18.4	14.3	10.7	10.5	11.1	7.4	-17.2	16.3
LFS	F	0.7	3.2	6.0	10.9	15.5	19.3	22.8	26.1	29.5	33.8	40.9	50.2	79.3	24.7
GS	F	3.6	6.9	10.0	15.0	19.0	22.7	26.0	28.8	32.0	36.0	43.0	51.2	80.0	26.9
Error %	F	100+	100+	66.4	37.2	22.2	17.5	14.3	10.5	8.5	6.5	5.2	2.1	0.8	8.9
2012/13 (M=Male, F=Female)															
GS	M	0.8	3.6	6.6	12.3	17.7	22.0	26.0	29.8	34.3	40.4	52.3	69.8	129.1	30.3
LFS	M	5.2	10.0	15.6	21.6	25.2	28.8	31.2	35.0	40.0	45.0	60.0	77.8	100.0	35.4
Error %	M	100+	100+	100+	75.2	42.4	31.1	20.0	17.3	16.7	11.3	14.7	11.4	-22.5	17.1
LFS	F	0.6	2.9	5.5	10.3	14.8	18.7	22.4	26.0	29.5	33.9	41.1	51.2	83.4	24.7
GS	F	3.6	6.8	9.6	15.0	18.5	22.8	26.0	29.0	32.0	37.0	44.0	50.0	70.0	26.8
Error %	F	100+	100+	75.7	44.7	24.8	21.6	16.0	11.7	8.5	9.3	7.1	-2.2	-16.1	8.5

Table A3: Graduate positive earnings distribution for GS and LFS, by gender and year. Figures are in £000's and combine the 1998-2003 cohorts inclusive. The corresponding sample sizes are given in Table **??**.

Percentile:		1	5	10	20	30	40	50	60	70	80	90	95	99	Mean
2008/09 (M=Male, F=Female)															
Corrected SS	M	0.1	0.4	1.0	3.0	6.4	10.6	14.7	18.5	22.4	27.7	36.0	48.3	97.8	18.4
LFS	M	3.8	9.4	12.7	15.3	17.3	19.2	21.1	23.9	26.7	30.1	36.1	42.7	56.7	23.3
Error %	M	100+	100+	100+	100+	100+	81.0	43.6	28.9	19.5	8.7	0.3	-11.7	-42.0	27.0
LFS	F	0.2	0.4	1.1	2.4	4.8	7.4	10.2	13.3	16.7	20.5	27.3	36.9	63.1	13.7
Corrected SS	F	1.9	4.5	5.6	8.0	10.7	13.4	15.0	17.3	19.5	22.7	28.0	33.4	42.8	16.2
Error %	F	100+	100+	100+	100+	100+	80.3	46.9	30.2	16.8	10.3	2.6	-9.5	-32.2	18.3
2009/10 (M=Male, F=Female)															
Corrected SS	M	0.1	0.3	1.6	3.1	6.2	10.1	14.1	18.1	22.2	27.5	35.9	49.1	99.3	18.4
LFS	M	4.5	8.4	12.4	15.1	17.0	19.1	21.0	23.3	26.6	30.7	35.6	41.0	55.0	22.8
Error %	M	100+	100+	100+	100+	100+	89.3	49.1	28.3	20.0	11.8	-.9	-16.6	-44.6	24.1
LFS	F	0.5	0.8	1.5	2.6	4.9	7.5	10.2	13.3	16.8	21.0	28.2	38.2	67.7	14.3
Corrected SS	F	1.4	3.9	5.3	7.1	9.2	12.3	14.2	16.7	19.4	22.6	27.0	32.3	43.1	15.4
Error %	F	100+	100+	100+	100+	87.9	64.0	39.9	25.4	15.2	7.8	-4.5	-15.3	-36.3	8.1
2010/11 (M=Male, F=Female)															
Corrected SS	M	0.1	0.3	0.8	2.9	6.1	10.0	14.1	18.1	22.4	28.1	36.7	50.2	106.2	18.7
LFS	M	4.3	9.1	12.3	14.8	17.2	19.1	21.6	24.7	26.9	30.8	36.9	43.1	66.7	23.5
Error %	M	100+	100+	100+	100+	100+	91.1	52.8	36.1	20.2	9.7	0.8	-14.1	-37.2	25.5
LFS	F	0.1	0.8	1.1	2.6	4.9	7.5	10.2	13.3	16.7	21.1	28.6	39.0	66.1	14.2
Corrected SS	F	1.6	3.8	5.1	6.7	8.6	11.1	13.3	16.0	18.5	21.6	26.7	30.8	64.1	15.5
Error %	F	100+	100+	100+	100+	78.1	48.9	31.3	20.5	10.9	2.4	-6.7	-21.0	-3.1	8.7
2011/12 (M=Male, F=Female)															
Corrected SS	M	0.3	0.5	1.0	3.0	6.2	10.1	14.2	18.0	22.2	27.7	36.2	49.7	103.0	18.6
LFS	M	4.4	8.6	11.7	14.4	16.8	18.5	20.7	23.0	26.0	29.4	35.4	42.5	62.0	22.6
Error %	M	100+	100+	100+	100+	100+	84.2	46.5	27.5	17.2	6.2	-2.3	-14.6	-39.8	21.3
LFS	F	0.1	0.3	0.9	2.2	4.4	6.9	9.5	12.4	15.8	20.1	27.2	38.2	65.3	13.7
Corrected SS	F	1.2	3.6	4.8	6.2	8.2	10.8	13.0	15.0	17.5	20.0	26.0	30.5	45.0	14.4
Error %	F	100+	100+	100+	100+	85.0	57.4	37.2	21.2	11.0	-.6	-4.4	-20.1	-31.1	4.8
2012/13 (M=Male, F=Female)															
Corrected SS	M	0.3	0.6	0.9	3.1	6.5	10.2	14.2	18.1	22.3	28.0	36.8	54.0	104.7	19.2
LFS	M	4.2	7.8	12.0	15.0	17.0	19.2	21.6	24.0	26.5	30.3	36.4	42.0	58.0	23.1
Error %	M	100+	100+	100+	100+	100+	87.9	51.6	32.4	18.9	8.3	-1.1	-22.3	-44.6	20.6
LFS	F	0.1	0.4	1.1	2.4	4.6	6.9	9.3	12.3	15.8	20.2	27.4	39.0	67.1	13.9
Corrected SS	F	1.3	3.0	4.8	6.2	8.0	10.0	12.4	15.6	18.0	21.7	27.5	34.0	55.0	14.9
Error %	F	100+	100+	100+	100+	73.2	44.8	32.4	27.1	14.0	7.5	0.4	-12.8	-18.0	7.1

Table A4: (Corrected) Non-graduate positive earnings distribution for GS and LFS, by gender and year. Figures are in £000's and combine the 1998-2003 cohorts inclusive. The corresponding sample sizes are given in Table **??**.

Percentile:		1	5	10	20	30	40	50	60	70	80	90	95	99	Mean
2008/09 (M=Male, F=Female)															
GS and SS	M	0.3	1.7	3.5	7.4	11.8	15.6	19.1	22.6	26.5	31.5	39.8	51.0	91.1	22.1
LFS	M	3.8	10.0	13.4	16.7	18.9	21.3	24.5	27.2	30.4	34.7	43.3	50.0	77.8	26.8
Error %	M	100+	100+	100+	100+	60.5	36.7	28.2	20.6	14.5	10.2	8.7	-1.9	-14.6	21.4
LFS	F	0.3	1.5	3.1	6.4	9.6	13.1	16.3	19.5	23.1	27.4	34.4	42.0	66.6	18.7
GS and SS	F	2.6	5.1	6.7	10.7	14.2	16.7	19.4	22.3	25.6	30.0	36.7	42.8	62.4	21.2
Error %	F	100+	100+	100+	67.6	47.6	27.5	18.9	14.0	10.5	9.4	6.8	1.8	-6.3	13.5
2009/10 (M=Male, F=Female)															
GS and SS	M	0.3	1.5	3.1	6.7	10.8	15.1	18.8	22.5	26.6	31.6	40.4	53.2	100.5	22.2
LFS	M	4.5	9.1	13.0	16.7	18.9	21.6	24.6	27.2	31.1	35.6	43.1	50.7	73.3	26.7
Error %	M	100+	100+	100+	100+	75.0	43.2	30.6	20.9	16.7	12.5	6.6	-4.7	-27.0	20.1
LFS	F	0.3	1.5	3.2	6.4	9.7	13.2	16.6	19.9	23.8	28.4	35.5	44.0	69.9	19.4
GS and SS	F	2.2	5.0	6.4	9.7	13.7	16.8	20.0	23.7	27.0	30.8	37.7	43.4	68.7	21.7
Error %	F	100+	100+	100+	52.5	42.0	27.3	20.3	19.0	13.3	8.5	6.2	-1.3	-1.8	11.9
2010/11 (M=Male, F=Female)															
GS and SS	M	0.3	1.7	3.5	7.2	11.3	15.5	19.1	22.8	27.1	32.6	41.8	56.8	107.4	23.1
LFS	M	4.5	10.1	12.8	16.0	19.0	22.0	25.0	27.7	30.8	35.9	43.9	52.4	98.5	27.4
Error %	M	100+	100+	100+	100+	67.6	41.8	30.5	21.6	13.4	10.4	5.0	-7.8	-8.3	18.5
LFS	F	0.3	1.6	3.3	6.3	9.4	12.9	16.4	19.9	24.0	28.7	36.2	45.6	73.2	19.7
GS and SS	F	2.4	4.9	6.1	9.2	12.4	16.0	19.0	22.8	26.7	30.8	36.9	43.1	61.6	21.2
Error %	F	100+	100+	85.0	46.1	33.0	24.4	15.9	14.8	11.4	7.2	2.0	-5.5	-15.8	7.7
2011/12 (M=Male, F=Female)															
GS and SS	M	0.3	1.8	3.7	7.4	11.4	15.6	19.2	23.0	27.3	32.9	42.5	58.2	113.4	23.6
LFS	M	4.8	10.0	13.0	16.5	19.0	21.8	24.7	27.7	31.2	36.0	45.0	57.0	85.0	27.7
Error %	M	100+	100+	100+	100+	66.2	40.1	28.4	20.7	14.2	9.3	5.8	-2.1	-25.0	17.1
LFS	F	0.3	1.6	3.2	6.1	9.0	12.4	15.9	19.5	23.8	28.6	36.5	46.4	76.6	19.7
GS and SS	F	1.9	4.8	6.0	9.0	12.5	15.6	18.5	22.0	26.4	31.2	37.8	45.0	66.5	21.1
Error %	F	100+	100+	84.2	48.3	38.0	26.2	16.6	12.9	11.1	9.0	3.6	-3.1	-13.2	7.0
2012/13 (M=Male, F=Female)															
GS and SS	M	0.3	1.9	3.8	7.6	11.6	15.7	19.3	23.1	27.8	33.6	44.2	61.7	114.8	24.2
LFS	M	4.8	8.4	13.0	16.6	19.8	23.0	26.0	29.0	33.0	38.0	48.0	60.0	100.0	29.0
Error %	M	100+	100+	100+	100+	71.2	46.7	34.5	25.4	18.8	13.2	8.6	-2.8	-12.9	19.6
LFS	F	0.3	1.6	3.1	5.9	8.7	11.8	15.3	19.0	23.4	28.4	36.2	46.7	77.5	19.4
GS and SS	F	1.6	4.7	6.0	9.0	12.7	16.1	19.3	24.0	27.6	32.0	40.0	48.0	65.0	21.8
Error %	F	100+	100+	94.4	52.9	46.5	36.0	25.8	26.3	18.2	12.7	10.6	2.7	-16.1	12.2

Table A5: Combined graduate and non-graduate positive earnings distribution for GS and LFS, by gender and year. Figures are in £000's and combine the 1998-2003 cohorts inclusive. Sample sizes are the sum of the corresponding sample sizes in Tables **??** and **??** for the LFS and the weighted sum of these figures for the administrative data.

D Conditional earnings distribution: model based

As the LFS sample size is small we have also built model based versions of this analysis. Figure A1 shows fitted conditional earnings distributions for the earnings above £8,000 for the LFS and GS data for the 1999 cohort 2011/12. This time the estimation of the quantiles

$$\tau = \Pr(Y_{i,t} \leq q_{it}(\tau)|\mathcal{Z}_i) \tag{1}$$

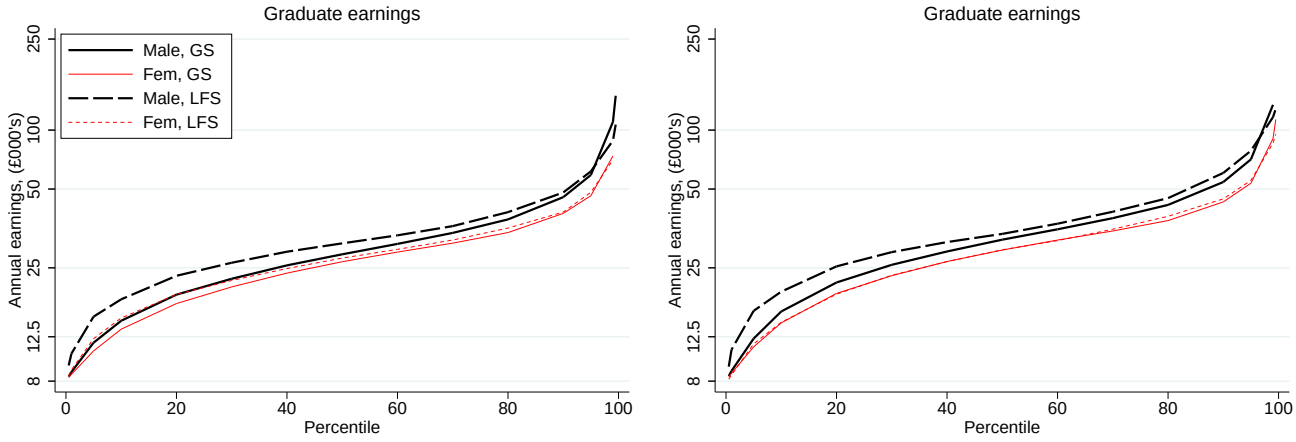
where $Y_{i,t}$ is the earnings for person i at time t, $\mathcal{Z}_i$ are conditioning variables cohort, gender and year known about person i from the SLC database at time of first application for a loan. Here τ is the quantile level and $q_{it}(\tau)$ is the model based quantile, where

$$q_{i,t}(\tau) = \beta_0(\tau) + \beta_1(\tau)Fem_i + \beta_2(\tau)Cohort + \beta_3(\tau)Cohort^2 \tag{2}$$

$$+ \beta_4(\tau)Cohort_i \times Fem_i + \beta_5(\tau)Cohort_i^2 \times Fem_i + \gamma(\tau)'t \tag{3}$$

and Fem is a female dummy, and $Cohort$ is set equal to 0 for individuals who first went to HE in 1998, increasing by 1 with each year. t has a set of year dummies $\gamma(\tau)$.

This model is estimated using a quantile regression at the $100\tau \in \{0.5, 1, 5, 10, 20, ..., 80, 90, 95, 99, 99.5\}$, percentiles, and the plots show the predicted earnings at each percentile.



Model based estimation, 2008/09
earnings > 8k

Model based estimation, 2011/12
earnings > 8k

Figure A1: Graduate earnings, 1999 cohort. Mimics Figure **??** but with model based estimates.

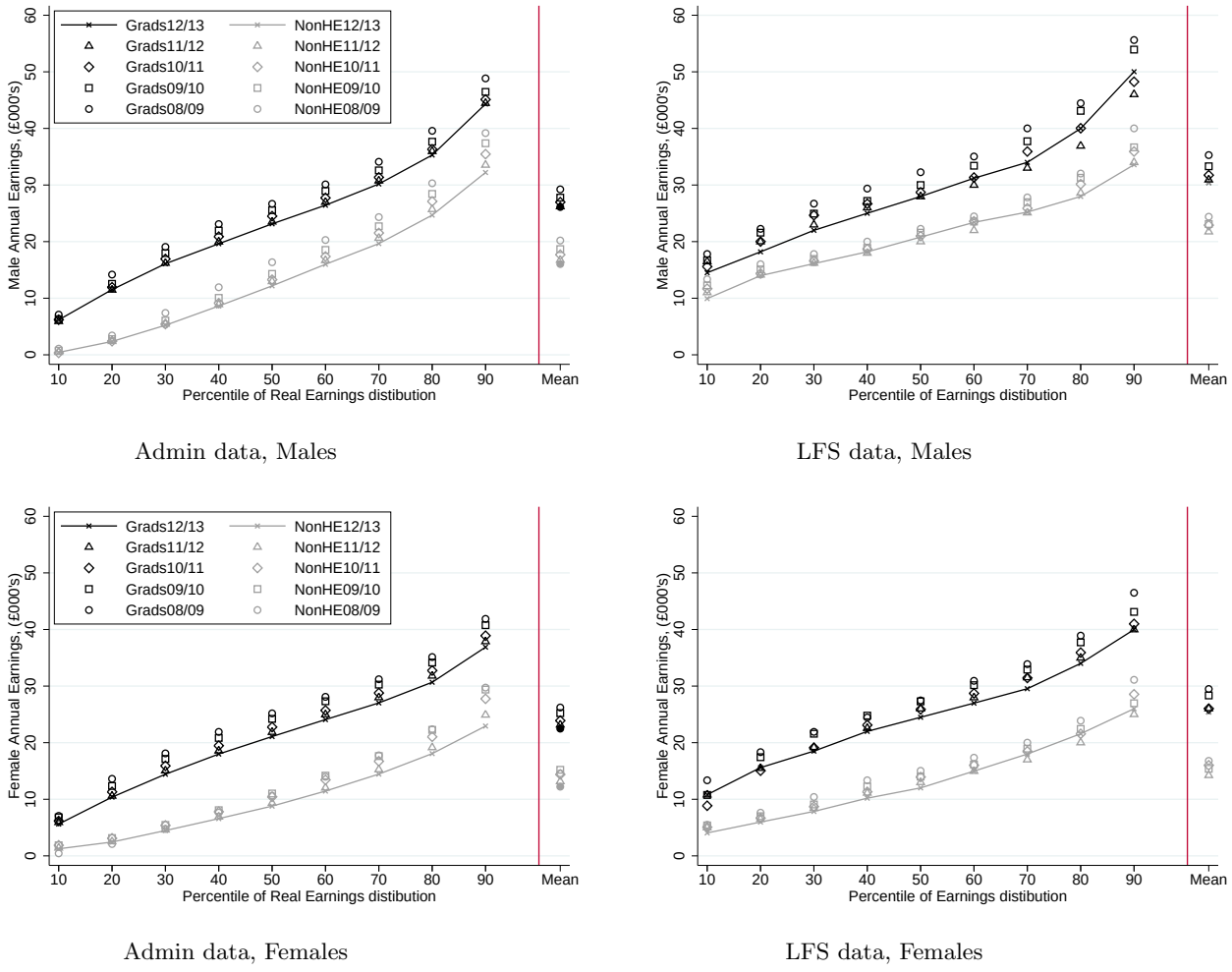
E Earnings through the recession

We investigate earnings growth following the Great Recession that hit the UK in mid-2008. We show the distribution of real earnings for each tax year from 2008/09 to 2012/13 split by gender, for graduates and non-graduates. We use different (pooled) cohorts in different years so as to hold age constant at around 27-29 years old (for example in 2012/13, we use the 2002-2004 cohorts, while in 2011/12 we use the 2001-2003 cohorts). All earnings are in constant (Oct 2012) prices, meaning in the absence of the Great Recession, one might expect earnings of 29 year olds to increase in real terms in subsequent years due to real earnings growth. We use 2008/09 as our first year, when the impact of the recession will only just have started to take effect.

Figure A2 shows dramatic falls in the real earnings of individuals in their late 20's between 2008/09 and 2012/13. For the administrative data, this holds for men, women, graduates and non-graduates. For male graduates, earnings dropped considerably in 2009/10 (this does not imply salaries were actually cut: rather graduates would expect very rapidly rising wages during this period in their lifecycle and this group of individuals had rises which were disappointing compared to earlier cohorts), followed by a fall of similar magnitude, spread over the next 3 years. For women the fall was initially less severe but through time increased to roughly match the impact for men in absolute terms and exceed it proportionally. This potentially is due to the higher share of women working in public sector jobs, where the initial wage impact of the recession was muted.

Overall, the administrative data indicate that at the mean there was a real earnings decline for male graduates in their late 30s over the years 2008/9 to 2012/13. The decline for male graduates was approximately 10% of 2008/9 earnings or £3100. In the LFS data, the decline was similar at around 10% but from a higher level of mean earnings and equating to £4900. For female graduates in their late 30s, the administrative data suggest a decline of 14% at the mean, equating to £3700. Again the LFS data indicate a similar decline of around 14% (£4100). In both cases the year on year declines were greater towards the end of the period and the decline was larger at the median and below. The administrative data suggest an even greater decline in real earnings for non-graduates over the period. The administrative data indicate that at the mean there was a decline over the period of 21% for non-graduate males and 20% for non-graduate females. By contrast, the LFS data indicate a smaller decline in real earnings for non-graduates in their 30s over the period, at 15% for males and 17% for females. The decline in earnings for non-graduates was even greater

at the median and below than at the mean. Both data sets suggest that HE seems to have some insurance value during a difficult labour market. However, the relatively smaller declines in earnings of non-graduates in the LFS data imply less of a protective effect from HE than suggested by the administrative data. It is important to note that the sample sizes of the LFS are very small, and this exercise might be stretching the data too thinly. However, the LFS has been used to investigate this issue before, for example **?** found, conditional on working, large real earnings declines following the recession, particularly for the young (their effects were smaller than those we find here, though their methodology is very different so a direct comparison is difficult).



Admin data, Males

LFS data, Males

Admin data, Females

LFS data, Females

Figure A2: Impact of recession: removing cohort effects. Quantiles of GS earnings of 29 year old borrowers by gender during 5 years of the great recession: 2008/09-2012/13. The same analysis is also reported for non-students using the non-HE sample. Actual numbers are given in the Table A6.

Percentile:	10	20	30	40	50	60	70	80	90	Mean
GS, Males										
2008/09	7.1	14.2	19.1	23.1	26.7	30.1	34.1	39.6	48.8	29.2
2009/10	6.3	12.5	18.0	21.9	25.5	29.0	32.6	37.7	46.5	27.8
2010/11	6.2	11.9	16.9	20.9	24.5	27.7	31.4	36.3	45.1	27.0
2011/12	5.9	11.5	16.2	20.0	23.5	27.0	30.8	36.0	44.5	26.2
2012/13	6.2	11.5	16.1	19.6	23.1	26.4	30.2	35.3	44.3	26.1
Corrected SS, Males										
2008/09	1.1	3.4	7.4	11.9	16.4	20.3	24.3	30.3	39.2	20.2
2009/10	0.7	2.8	6.0	10.1	14.3	18.5	22.7	28.4	37.4	18.7
2010/11	0.3	2.4	5.4	9.1	13.3	17.4	21.5	27.1	35.5	17.7
2011/12	0.5	2.4	5.5	8.9	13.0	16.7	20.6	25.7	33.5	16.8
2012/13	0.4	2.4	5.2	8.6	12.2	16.0	19.7	24.7	32.2	16.0
GS, Females										
2008/09	7.1	13.6	18.1	21.9	25.2	28.1	31.2	35.1	41.9	26.2
2009/10	6.8	12.3	17.1	20.8	24.2	27.3	30.3	34.2	40.8	25.2
2010/11	6.2	11.3	15.9	19.5	22.8	25.7	28.8	32.7	38.9	23.9
2011/12	5.9	10.6	15.1	18.6	21.9	25.0	28.0	31.8	37.9	23.2
2012/13	5.6	10.4	14.4	18.0	21.1	24.1	27.0	30.7	36.9	22.5
Correct SS, Females										
2008/09	0.4	2.1	4.8	7.6	10.6	14.0	17.8	22.4	29.7	14.6
2009/10	1.9	3.1	5.5	8.1	11.0	14.2	17.6	22.3	29.4	15.2
2010/11	1.9	3.1	5.4	7.8	10.4	13.4	16.7	21.0	27.8	14.4
2011/12	1.4	2.5	4.6	6.9	9.3	12.0	15.3	19.2	24.9	13.2
2012/13	1.3	2.4	4.5	6.6	8.8	11.4	14.4	18.1	22.9	12.2
LFS graduates, Males										
2008/09	17.8	22.3	26.7	29.4	32.3	35.0	40.0	44.5	55.6	35.3
2009/10	16.7	21.6	24.9	27.2	30.0	33.4	37.7	43.1	53.9	33.3
2010/11	15.6	20.0	24.7	26.7	28.7	31.3	35.9	40.0	48.3	31.7
2011/12	16.5	20.0	23.0	26.0	28.0	30.0	33.0	36.9	46.0	30.9
2012/13	14.5	18.2	22.0	25.0	28.0	31.2	34.0	40.0	50.0	30.4
LFS non-graduates, Males										
2008/09	13.4	16.0	17.8	20.0	22.3	24.5	27.8	32.0	40.0	24.4
2009/10	12.3	15.1	16.9	18.9	21.6	23.5	27.0	31.3	36.7	23.1
2010/11	11.7	14.4	16.6	18.7	21.0	23.6	25.9	30.2	35.9	22.9
2011/12	11.0	14.1	16.2	18.0	20.0	22.0	25.1	28.6	34.0	21.8
2012/13	9.9	14.0	16.1	18.2	20.8	23.4	25.2	28.0	33.6	21.3
LFS graduates, Females										
2008/09	13.4	18.3	21.9	24.5	27.5	30.9	33.9	38.9	46.5	29.5
2009/10	10.8	17.4	21.6	24.8	27.3	30.2	32.9	37.7	43.1	28.3
2010/11	8.9	15.1	19.1	23.1	25.9	28.7	31.4	35.9	41.0	26.0
2011/12	10.8	15.5	19.2	22.6	26.0	28.0	31.5	35.0	40.0	26.0
2012/13	10.8	15.6	18.5	22.0	24.5	27.0	29.5	34.0	40.0	25.4
LFS non-graduates, Females										
2008/09	5.5	7.6	10.4	13.4	15.0	17.3	20.0	23.9	31.1	16.8
2009/10	5.4	7.0	9.1	12.3	14.0	16.1	18.9	22.4	27.0	15.4
2010/11	5.1	6.7	8.7	11.3	13.9	16.0	18.5	21.6	28.6	16.0
2011/12	5.0	6.5	8.4	11.1	13.0	15.0	17.0	20.0	25.0	14.2
2012/13	4.1	6.0	7.9	10.2	12.0	15.0	18.0	21.6	26.0	13.9

Table A6: Earnings growth figures for administrative and LFS data.

F Numbers behind applied ratio figures in main text

Percentile:		1	5	10	20	30	40	50	60	70	80	90	95	99	Mean
2008/09															
Admin	Grad	0.87	0.96	0.98	1.01	1.04	1.04	1.05	1.06	1.08	1.10	1.15	1.18	1.29	1.10
LFS	Grad	0.97	1.54	1.31	1.19	1.15	1.15	1.13	1.14	1.14	1.16	1.17	1.23	1.20	1.17
Admin	NonGrad	0.53	0.99	0.94	1.24	1.33	1.43	1.44	1.39	1.34	1.35	1.32	1.31	1.55	1.34
LFS	NonGrad	2.06	2.08	2.28	1.92	1.62	1.44	1.40	1.38	1.37	1.33	1.29	1.28	1.33	1.44
2009/10															
Admin	Grad	0.89	0.88	0.91	0.99	1.02	1.04	1.05	1.06	1.08	1.10	1.14	1.19	1.42	1.10
LFS	Grad	1.30	1.60	1.52	1.19	1.17	1.14	1.12	1.11	1.13	1.13	1.14	1.19	1.17	1.16
Admin	NonGrad	0.27	0.42	1.03	1.18	1.27	1.34	1.39	1.36	1.32	1.31	1.27	1.29	1.47	1.29
LFS	NonGrad	3.00	2.17	2.36	2.14	1.85	1.55	1.48	1.39	1.37	1.36	1.32	1.27	1.28	1.48
2010/11															
Admin	Grad	0.98	0.98	1.00	1.06	1.07	1.08	1.08	1.09	1.10	1.12	1.18	1.27	1.47	1.14
LFS	Grad	1.30	1.87	1.66	1.32	1.34	1.18	1.16	1.13	1.16	1.14	1.23	1.30	1.67	1.24
Admin	NonGrad	1.16	0.41	0.68	1.13	1.26	1.34	1.39	1.36	1.34	1.33	1.28	1.29	1.61	1.32
LFS	NonGrad	2.67	2.36	2.42	2.22	1.99	1.72	1.62	1.54	1.46	1.43	1.38	1.40	1.04	1.52
2011/12															
Admin	Grad	0.91	1.06	1.06	1.10	1.11	1.11	1.11	1.11	1.13	1.15	1.21	1.30	1.52	1.18
LFS	Grad	1.84	1.92	1.69	1.42	1.32	1.22	1.15	1.15	1.15	1.20	1.28	1.37	1.25	1.26
Admin	NonGrad	2.60	1.40	1.04	1.35	1.39	1.46	1.49	1.46	1.41	1.37	1.33	1.30	1.58	1.36
LFS	NonGrad	3.00	2.41	2.45	2.31	2.04	1.71	1.60	1.53	1.48	1.47	1.36	1.39	1.38	1.57
2012/13															
Admin	Grad	1.36	1.26	1.21	1.19	1.20	1.17	1.16	1.15	1.16	1.19	1.27	1.36	1.55	1.22
LFS	Grad	1.43	1.48	1.62	1.44	1.37	1.26	1.20	1.21	1.25	1.21	1.36	1.56	1.43	1.32
Admin	NonGrad	2.69	1.53	0.82	1.31	1.40	1.48	1.52	1.48	1.41	1.39	1.34	1.39	1.56	1.38
LFS	NonGrad	3.00	2.59	2.50	2.40	2.12	1.92	1.74	1.54	1.47	1.40	1.32	1.24	1.05	1.55

Table A7: Male:Female earnings ratios split by graduates status, by year.

Percentile:		1	5	10	20	30	40	50	60	70	80	90	95	99	Mean
2008/09															
Admin	M	3.00	3.00	3.00	3.00	2.53	1.86	1.57	1.43	1.34	1.25	1.20	1.08	0.92	1.37
LFS	M	0.88	1.19	1.26	1.31	1.35	1.39	1.37	1.34	1.33	1.37	1.38	1.43	1.53	1.36
Admin	F	2.82	3.00	3.00	3.00	3.00	2.56	2.16	1.86	1.67	1.53	1.38	1.20	1.10	1.68
LFS	F	1.88	1.60	2.19	2.10	1.89	1.73	1.70	1.62	1.60	1.57	1.52	1.49	1.69	1.67
2009/10															
Admin	M	3.00	3.00	3.00	3.00	2.60	2.01	1.70	1.51	1.40	1.31	1.25	1.12	1.02	1.43
LFS	M	0.96	1.28	1.27	1.35	1.44	1.41	1.41	1.39	1.38	1.35	1.38	1.45	1.65	1.41
Admin	F	1.29	3.00	3.00	3.00	3.00	2.59	2.23	1.93	1.71	1.56	1.39	1.22	1.05	1.67
LFS	F	2.40	1.74	1.97	2.44	2.29	1.92	1.85	1.74	1.67	1.62	1.60	1.54	1.80	1.79
2010/11															
Admin	M	3.00	3.00	3.00	3.00	2.75	2.09	1.74	1.55	1.43	1.32	1.28	1.21	1.04	1.48
LFS	M	1.13	1.26	1.25	1.35	1.43	1.40	1.38	1.30	1.34	1.33	1.37	1.43	1.54	1.37
Admin	F	3.00	3.00	3.00	3.00	3.00	2.60	2.24	1.94	1.74	1.57	1.40	1.23	1.13	1.70
LFS	F	2.30	1.60	1.82	2.26	2.14	2.03	1.92	1.77	1.68	1.67	1.54	1.53	0.96	1.68
2011/12															
Admin	M	2.46	3.00	3.00	3.00	2.81	2.14	1.79	1.61	1.50	1.41	1.37	1.31	1.17	1.56
LFS	M	1.49	1.53	1.45	1.48	1.49	1.49	1.45	1.45	1.42	1.46	1.56	1.65	1.61	1.49
Admin	F	3.00	3.00	3.00	3.00	3.00	2.81	2.40	2.11	1.87	1.68	1.50	1.31	1.21	1.80
LFS	F	2.88	1.91	2.10	2.40	2.31	2.10	2.00	1.92	1.82	1.80	1.65	1.68	1.78	1.87
2012/13															
Admin	M	2.55	3.00	3.00	3.00	2.74	2.15	1.83	1.64	1.54	1.44	1.42	1.29	1.23	1.58
LFS	M	1.25	1.28	1.30	1.44	1.48	1.50	1.45	1.46	1.51	1.48	1.65	1.85	1.72	1.53
Admin	F	3.00	3.00	3.00	3.00	3.00	2.72	2.40	2.12	1.87	1.68	1.50	1.31	1.24	1.78
LFS	F	2.80	2.24	2.01	2.40	2.31	2.28	2.10	1.86	1.78	1.71	1.60	1.47	1.27	1.80

Table A8: Graduate:Non Gradaute earnings ratios split by gender, by year.