

# Fixed effects logistic regression output

## Association between TEF awareness and probability of making three or more applications to gold award providers

**Table 1: Number of observations**

Description	Number
Number of Observations Used	18,341

**Table 2: Response profile**

Made three or more applications to gold award providers	Number
Yes	6,954
No	11,387

**Table 3: Association of predicted probabilities and observed responses**

Statistic	Value	Statistic	Value
Percent Concordant	72.0	Somers' D	0.440
Percent Discordant	28.0	Gamma	0.440
Percent Tied	0.0	Tau-a	0.207
Pairs	79185198	c	0.720

**Table 4: R-square values**

Statistic	Value
Cox-Snell R-square	0.11
Nagelkerke adjusted R-square	0.17

**Table 5: Hosmer and Lemeshow goodness of fit test**

Chi-Square	DF	Pr > Chi-Square	Number of Groups
118.96	8	<.0001	10

**Table 6: Type 3 analysis of effects**

Parameter	DF	Wald Chi-square	Pr > Chi-Square
Sex	1	9.58	0.0020
Ethnic group	5	43.26	<.0001
English region of domicile	8	497.54	<.0001
POLAR4	4	10.14	0.0381
School type attended	7	38.34	<.0001
Number of live at home choices	5	52.97	<.0001
Mean peak drive time between applicants home postcode and the providers to which they applied	6	63.52	<.0001
Number of weeks before the January application deadline the applications were submitted	13	43.04	<.0001
Best three predicted A level point score	12	75.61	<.0001
Best 8 achieved GCSE points score	7	6.70	0.4609
Applied to a course in the JACS3 Subject Group A - Medicine and Dentistry course	1	10.68	0.0011
Applied to a course in the JACS3 Subject Group B - Subjects Allied to Medicine	1	18.46	<.0001
Applied to a course in the JACS3 Subject Group C - Biological Sciences	1	0.84	0.3586
Applied to a course in the JACS3 Subject Group D - Veterinary Sciences and Agriculture	1	16.23	<.0001
Applied to a course in the JACS3 Subject Group F - Physical Sciences	1	0.24	0.6218
Applied to a course in the JACS3 Subject Group G - Mathematical Sciences	1	10.60	0.0011
Applied to a course in the JACS3 Subject Group H - Engineering	1	37.45	<.0001
Applied to a course in the JACS3 Subject Group I - Computer Sciences	1	3.27	0.0706
Applied to a course in the JACS3 Subject Group J - Technologies	1	0.09	0.7634
Applied to a course in the JACS3 Subject Group K - Architecture, Building and Planning	1	6.21	0.0127
Applied to a course in the JACS3 Subject Group L - Social Studies	1	0.01	0.9400
Applied to a course in the JACS3 Subject Group M - Law	1	0.42	0.5146
Applied to a course in the JACS3 Subject Group N - Business and Administrative Studies	1	1.59	0.2080
Applied to a course in the JACS3 Subject Group P - Mass Communication and Documentation	1	14.43	0.0001
Applied to a course in the JACS3 Subject Group Q - Linguistics, Classics and related	1	3.80	0.0513
Applied to a course in the JACS3 Subject Group R - European Languages	1	3.15	0.0761
Applied to a course in the JACS3 Subject Group T - Non-European Languages	1	0.43	0.5115
Applied to a course in the JACS3 Subject Group V - Historical and Philosophical Studies	1	18.05	<.0001
Applied to a course in the JACS3 Subject Group W - Creative Arts and Design	1	1.96	0.1620
Applied to a course in the JACS3 Subject Group X - Education	1	26.39	<.0001
Importance given to emails from universities when deciding where to apply	2	7.60	0.0224
Importance given to social media contact from universities when deciding where to apply	2	1.44	0.4874
Importance given to information sent in the post from universities when deciding where to apply	2	1.45	0.4833
Importance given to university open days when deciding where to apply	2	0.81	0.6673
Importance given to UCAS exhibitions or other UCAS events when deciding where to apply	2	2.56	0.2779
Importance given to online reviews given by other students when deciding where to apply	2	0.11	0.9465

Output from logistic regression models described in 'The Teaching Excellence and Student Outcomes Framework and demand to full time undergraduate higher education'. Published 21 June 2018. [wwwucas.com](http://wwwucas.com)

Parameter	DF	Wald Chi-square	Pr > Chi-Square
Applicant has used online league tables	1	5.32	0.0211
Applicant has used the Complete University Guide website	1	10.43	0.0012
Applicant has used the Student Room website	1	8.80	0.0030
Applicant has used the Unistats website	1	4.49	0.0341
Applicant has used the What Uni? website	1	0.00	0.9818
Applicant has used the Which? University website	1	0.21	0.6500
Importance given to university league tables when deciding where to apply	2	26.26	<.0001
Importance given to likely earning potential of university's graduates when deciding where to apply	2	1.34	0.5126
Importance given to feeling like you fit in with other students at the university when deciding where to apply	2	1.42	0.4916
Importance given to social life or activities available through attending the university when deciding where to apply	2	0.13	0.9357
Importance given to the range of modules covered within the course when deciding where to apply	2	0.03	0.9870
Importance given to the quality of university accommodation when deciding where to apply	2	1.88	0.3899
Importance given to the cost of living at the university when deciding where to apply	2	2.84	0.2419
Importance given to the male to female ratio when deciding where to apply	2	2.59	0.2736
University open days attended prior to applying	3	6.21	0.1020
Whether the applicant had heard of the TEF before applying	2	160.63	<.0001

**Table 7: Parameter estimates**

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Intercept		-2.40	0.66	13.42	0.0002	0.09
Sex (Female)	Male	0.13	0.04	9.58	0.0020	1.14
Ethnic group (White)	Black	0.44	0.09	25.79	<.0001	1.55
Ethnic group (White)	Asian	-0.13	0.06	4.53	0.0334	0.88
Ethnic group (White)	Mixed	-0.02	0.08	0.06	0.8118	0.98
Ethnic group (White)	Other	-0.27	0.15	3.53	0.0604	0.76
Ethnic group (White)	Unknown or Prefer Not To Say	-0.30	0.23	1.75	0.1865	0.74
English region of domicile (London)	North East	-0.18	0.12	2.22	0.1364	0.83
English region of domicile (London)	North West	0.04	0.08	0.24	0.6277	1.04
English region of domicile (London)	Yorkshire and the Humber	0.11	0.08	1.75	0.1857	1.12
English region of domicile (London)	East Midlands	0.92	0.08	142.49	<.0001	2.51
English region of domicile (London)	West Midlands	0.88	0.07	147.19	<.0001	2.42
English region of domicile (London)	East of England	0.62	0.07	78.77	<.0001	1.87
English region of domicile (London)	South East	0.12	0.06	3.34	0.0675	1.13
English region of domicile (London)	South West	-0.46	0.09	28.75	<.0001	0.63
POLAR4 (Quintile 1)	2	0.03	0.07	0.13	0.7134	1.03
POLAR4 (Quintile 1)	3	0.08	0.07	1.25	0.2628	1.08
POLAR4 (Quintile 1)	4	-0.10	0.07	1.89	0.1696	0.91
POLAR4 (Quintile 1)	5	-0.01	0.07	0.02	0.8880	0.99
School type attended (Independent)	Academy	-0.05	0.08	0.43	0.5097	0.95
School type attended (Independent)	Applied Directly	-1.59	1.16	1.86	0.1721	0.20
School type attended (Independent)	Further education	-0.41	0.12	10.88	0.0010	0.66
School type attended (Independent)	Grammar	-0.19	0.14	1.99	0.1581	0.82
School type attended (Independent)	Other	-0.45	0.24	3.61	0.0575	0.64
School type attended (Independent)	Sixth form college	-0.31	0.09	12.34	0.0004	0.74
School type attended (Independent)	State	-0.16	0.09	3.67	0.0552	0.85
Number of live at home choices (0)	0	0.52	0.11	21.46	<.0001	1.68
Number of live at home choices (0)	1	0.60	0.12	24.34	<.0001	1.83
Number of live at home choices (0)	2	0.24	0.14	2.86	0.0906	1.27
Number of live at home choices (0)	3	0.07	0.15	0.20	0.6509	1.07
Number of live at home choices (0)	4	-0.26	0.18	2.08	0.1490	0.77
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	30 to < 60 minutes	0.30	0.07	17.86	<.0001	1.35

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	60 to < 90 minutes	0.33	0.07	20.52	<.0001	1.39
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	90 to < 120 minutes	0.42	0.07	33.18	<.0001	1.52
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	120 to < 150 minutes	0.52	0.08	48.56	<.0001	1.69
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	150 to < 180 minutes	0.50	0.09	32.99	<.0001	1.64
Mean peak drive time between applicants home postcode and the providers to which they applied (Within 30 minutes)	More than 180 minutes	0.49	0.07	45.17	<.0001	1.63
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	1-2 weeks before the deadline	0.05	0.12	0.17	0.6766	1.05
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	2-3 weeks before the deadline	-0.01	0.34	0.00	0.9690	0.99
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	3-4 weeks before the deadline	0.21	0.10	4.22	0.0399	1.24
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	4-5 weeks before the deadline	0.08	0.09	0.71	0.3978	1.08
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	5-6 weeks before the deadline	-0.03	0.09	0.10	0.7461	0.97
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	6-7 weeks before the deadline	-0.02	0.09	0.03	0.8569	0.98
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	7-8 weeks before the deadline	-0.07	0.09	0.56	0.4535	0.94
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	8-9 weeks before the deadline	0.08	0.09	0.74	0.3904	1.08
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	9-9 weeks before the deadline	0.01	0.10	0.00	0.9500	1.01
Number of weeks before the January application deadline the applications where submitted (Applied within 1 week of deadline)	10-11 weeks before the deadline	-0.02	0.11	0.05	0.8274	0.98

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Number of weeks before the January application deadline the applications were submitted (Applied within 1 week of deadline)	11-12 weeks before the deadline	-0.09	0.17	0.30	0.5838	0.91
Number of weeks before the January application deadline the applications were submitted (Applied within 1 week of deadline)	12-13 weeks before the deadline	-0.04	0.11	0.15	0.6991	0.96
Number of weeks before the January application deadline the applications were submitted (Applied within 1 week of deadline)	13 weeks or more before the deadline	0.36	0.09	14.44	0.0001	1.43
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	6 points or lower (equivalent to DDD or lower)	-0.46	0.34	1.86	0.1722	0.63
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	7 points (equivalent to CDD)	-0.31	0.26	1.51	0.2198	0.73
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	8 points (equivalent to CCD)	-0.74	0.20	13.96	0.0002	0.48
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	9 points (equivalent to CCC)	-0.55	0.15	14.10	0.0002	0.58
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	10 points (equivalent to BCC)	-0.58	0.13	19.86	<.0001	0.56
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	11 points (equivalent to BBC)	-0.41	0.12	12.52	0.0004	0.66
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	12 points (equivalent to BBB)	-0.30	0.11	7.69	0.0056	0.74
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	13 points (equivalent to ABB)	-0.12	0.10	1.39	0.2388	0.89
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	14 points (equivalent to AAB)	0.01	0.10	0.01	0.9339	1.01
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	15 points (equivalent to AAA)	0.04	0.09	0.16	0.6934	1.04
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	16 points (equivalent to A*AA)	0.02	0.09	0.06	0.8010	1.02
Best three predicted A level point score (18 points - equivalent to three A levels at A*)	17 points (equivalent to A*A*A)	-0.01	0.09	0.02	0.8886	0.99
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSEs at grade G)	<8 points (<8 GCSEs at grade G)	-0.00	0.15	0.00	0.9775	1.00
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSEs at grade G)	8-15 points (8 GCSEs at grade G to <8 GCSEs at grade F)	-0.01	0.19	0.01	0.9393	0.99
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSEs at grade G)	16-23 points (8 GCSEs at grade F to <8 GCSEs at grade E)	-0.03	0.15	0.03	0.8583	0.97

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSES at grade G)	24-31 points (8 GCSEs at grade E to <8 GCSEs at grade D)	-0.22	0.15	2.36	0.1246	0.80
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSES at grade G)	32-39 points (8 GCSEs at grade D to <8 GCSEs at grade C)	-0.03	0.12	0.05	0.8173	0.97
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSES at grade G)	40-47 points (8 GCSEs at grade C to <8 GCSEs at grade B)	-0.14	0.07	4.55	0.0329	0.87
Best 8 achieved GCSE points score (<8 points - fewer than 8 GCSES at grade G)	48-55 points (8 GCSEs at grade B to <8 GCSEs at grade A)	-0.07	0.05	2.19	0.1390	0.93
Applied to a course in the JACS3 Subject Group A - Medicine and Dentistry course (No)	Yes	-0.35	0.11	10.68	0.0011	0.70
Applied to a course in the JACS3 Subject Group B - Subjects Allied to Medicine (No)	Yes	-0.30	0.07	18.46	<.0001	0.74
Applied to a course in the JACS3 Subject Group C - Biological Sciences (No)	Yes	0.05	0.06	0.84	0.3586	1.05
Applied to a course in the JACS3 Subject Group D - Veterinary Sciences and Agriculture (No)	Yes	0.73	0.18	16.23	<.0001	2.07
Applied to a course in the JACS3 Subject Group F - Physical Sciences (No)	Yes	0.03	0.07	0.24	0.6218	1.03
Applied to a course in the JACS3 Subject Group G - Mathematical Sciences (No)	Yes	0.31	0.09	10.60	0.0011	1.36
Applied to a course in the JACS3 Subject Group H - Engineering (No)	Yes	0.46	0.07	37.45	<.0001	1.58
Applied to a course in the JACS3 Subject Group I - Computer Sciences (No)	Yes	-0.18	0.10	3.27	0.0706	0.84
Applied to a course in the JACS3 Subject Group J - Technologies (No)	Yes	0.08	0.27	0.09	0.7634	1.09
Applied to a course in the JACS3 Subject Group K - Architecture, Building and Planning (No)	Yes	-0.38	0.15	6.21	0.0127	0.68
Applied to a course in the JACS3 Subject Group L - Social Studies (No)	Yes	-0.00	0.06	0.01	0.9400	1.00
Applied to a course in the JACS3 Subject Group M - Law (No)	Yes	-0.05	0.07	0.42	0.5146	0.95
Applied to a course in the JACS3 Subject Group N - Business and Administrative Studies (No)	Yes	0.09	0.07	1.59	0.2080	1.10
Applied to a course in the JACS3 Subject Group P - Mass Communication and Documentation (No)	Yes	-0.47	0.12	14.43	0.0001	0.63
Applied to a course in the JACS3 Subject Group Q - Linguistics, Classics and related (No)	Yes	-0.18	0.09	3.80	0.0513	0.84

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Applied to a course in the JACS3 Subject Group R - European Languages (No)	Yes	-0.26	0.15	3.15	0.0761	0.77
Applied to a course in the JACS3 Subject Group T - Non-European Languages (No)	Yes	-0.15	0.23	0.43	0.5115	0.86
Applied to a course in the JACS3 Subject Group V - Historical and Philosophical Studies (No)	Yes	-0.38	0.09	18.05	<.0001	0.68
Applied to a course in the JACS3 Subject Group W - Creative Arts and Design (No)	Yes	-0.12	0.09	1.96	0.1620	0.89
Applied to a course in the JACS3 Subject Group X - Education (No)	Yes	-0.81	0.16	26.39	<.0001	0.44
Importance given to emails from universities when deciding where to apply (Not applicable)	Important or extremely important	-0.08	0.16	0.26	0.6070	0.92
Importance given to emails from universities when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.03	0.15	0.05	0.8243	1.03
Importance given to social media contact from universities when deciding where to apply (Not applicable)	Important or extremely important	-0.06	0.10	0.35	0.5530	0.94
Importance given to social media contact from universities when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	-0.09	0.09	1.08	0.2986	0.91
Importance given to information sent in the post from universities when deciding where to apply (Not applicable)	Important or extremely important	-0.02	0.09	0.06	0.8134	0.98
Importance given to information sent in the post from universities when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	-0.07	0.09	0.56	0.4555	0.94
Importance given to university open days when deciding where to apply (Not applicable)	Important or extremely important	0.12	0.14	0.76	0.3836	1.13
Importance given to university open days when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.09	0.14	0.43	0.5122	1.09
Importance given to UCAS exhibitions or other UCAS events when deciding where to apply (Not applicable)	Important or extremely important	-0.08	0.06	1.82	0.1771	0.93
Importance given to UCAS exhibitions or other UCAS events when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	-0.02	0.06	0.16	0.6900	0.98
Importance given to online reviews given by other students when deciding where to apply (Not applicable)	Important or extremely important	0.03	0.11	0.08	0.7807	1.03
Importance given to online reviews given by other students when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.02	0.12	0.04	0.8453	1.02
Applicant has used online league tables (Not used)	Yes	0.13	0.06	5.32	0.0211	1.14

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Applicant has used the Complete University Guide website (Not used)	Yes	0.14	0.04	10.43	0.0012	1.15
Applicant has used the Student Room website (Not used)	Yes	-0.13	0.04	8.80	0.0030	0.88
Applicant has used the Unistats website (Not used)	Yes	-0.09	0.04	4.49	0.0341	0.92
Applicant has used the What Uni? website (Not used)	Yes	0.00	0.04	0.00	0.9818	1.00
Applicant has used the Which? University website (Not used)	Yes	-0.02	0.04	0.21	0.6500	0.98
Importance given to university league tables when deciding where to apply (Not applicable)	Important or extremely important	0.62	0.42	2.12	0.1458	1.85
Importance given to university league tables when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.40	0.42	0.87	0.3508	1.49
Importance given to likely earning potential of university's graduates when deciding where to apply (Not applicable)	Important or extremely important	0.08	0.25	0.09	0.7659	1.08
Importance given to likely earning potential of university's graduates when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.03	0.25	0.01	0.9080	1.03
Importance given to feeling like you fit in with other students at the university when deciding where to apply (Not applicable)	Important or extremely important	-0.15	0.28	0.28	0.5984	0.86
Importance given to feeling like you fit in with other students at the university when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	-0.10	0.28	0.13	0.7216	0.91
Importance given to social life or activities available through attending the university when deciding where to apply (Not applicable)	Important or extremely important	0.13	0.47	0.08	0.7741	1.14
Importance given to social life or activities available through attending the university when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.12	0.47	0.07	0.7917	1.13
Importance given to the range of modules covered within the course when deciding where to apply (Not applicable)	Important or extremely important	0.04	0.36	0.01	0.9051	1.04
Importance given to the range of modules covered within the course when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.04	0.36	0.01	0.9193	1.04
Importance given to the quality of university accomodation when deciding where to apply (Not applicable)	Important or extremely important	0.07	0.21	0.13	0.7213	1.08
Importance given to the quality of university accomodation when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.01	0.21	0.00	0.9662	1.01

Parameter - reference group in parentheses	Value	Log odds ratio	Standard Error	Wald Chi-Square	Pr > Chi-Square	Odds ratio
Importance given to the cost of living at the university when deciding where to apply (Not applicable)	Important or extremely important	-0.05	0.22	0.04	0.8375	0.96
Importance given to the cost of living at the university when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.03	0.22	0.01	0.9064	1.03
Importance given to the male to female ratio when deciding where to apply (Not applicable)	Important or extremely important	0.21	0.14	2.36	0.1242	1.23
Importance given to the male to female ratio when deciding where to apply (Not applicable)	Slightly, not very, or not at all important	0.16	0.13	1.60	0.2062	1.18
University open days attended prior to applying (Did not attend any open days)	Yes, I visited all universities I applied to	0.12	0.09	1.77	0.1837	1.13
University open days attended prior to applying (Did not attend any open days)	Yes, I visited some universities I applied to	-0.00	0.08	0.00	0.9816	1.00
University open days attended prior to applying (Did not attend any open days)	Yes, but not at any universities I applied to	0.03	0.11	0.08	0.7787	1.03
Whether the applicant had heard of the TEF before applying (No)	Yes, I knew what it is	0.54	0.04	156.89	<.0001	1.72
Whether the applicant had heard of the TEF before applying (No)	Yes, I'd heard of it but didn't know what it was	0.30	0.05	39.36	<.0001	1.35