Department for Education

A comparison of GCSE results and AS level results as a predictor of getting a 2:1 or above at university

(Supporting analysis: 14 May letter from David Laws to Kevin Brennan)

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Contents

Background

This study forms part of the evidence base as to whether AS level results are necessary to predict University outcomes, or whether GCSE results alone would suffice. This study looks at how GCSE results compare to AS Level results at estimating the probability of a student attaining at least a 2:1 at university, which is considered to be the key labour market outcome.

Key Findings

- Neither GCSE or AS results predict whether student will get a 2:1 or better with great accuracy (approximately 70% accurate)

- GCSE results are marginally better at predicting whether a student will go on to get a 2:1 or above than AS level results (69.5% accuracy compared to 68.4%).

- The effect of combining GCSE and AS Level results adds a negligible degree of accuracy to predictions.

- Without AS Level results, we can still predict degree performance to a similar level of accuracy.

Analysis

This study uses logistic regression models, which estimate the probability of getting a 2:1 based on a student's prior attainment and the university that they attended. Three models were produced for comparison. The first used GCSE results as the measure of prior attainment (Model 1), the second used AS Level results (Model 2), and the third used both GCSE and AS results (Model 3). All of the models included a dummy variable for each university, so as to account for the probability of getting a certain classification at a given university. The University of Manchester was used as the baseline, as this institution had the most students in the models. Tables of the coefficients for each of the logistic regression models used in this study can be found in the technical annex that follows.

In total, 88,000 students were included in the models, across 151 Higher Education Institutions (HEIs). To be included, the students must have finished Key Stage 5 in 2008, and obtained an undergraduate degree classification in 2011. The study does not discriminate between degree subjects, but does include an indicator of the university attended.

Logistic regression model 1 predicted whether or not students would get a 2:1 or above with 69.5% accuracy while model 2 predicted with 68.4% accuracy. Neither of these figures is especially high, given that you would expect 50% accuracy by randomly guessing the outcomes with no consideration of student prior attainment. Hence, although GCSEs appear to more accurately predict whether a student will get a 2:1 or better in their degree, neither is especially accurate. Model 3 returned a prediction accuracy of 70.1%; only a gain of 0.6% accuracy on using GCSE results alone.

In terms of model fit, the pseudo-R^2 values suggest that there is not a very strong relationship between prior attainment and whether or not a student gets a 2:1 or better. The (Nagelkerke) R^2 values of 0.19, 0.16, and 0.21 for the models 1, 2, and 3 respectively suggest that neither GCSE nor AS level results are especially good predictors for degree outcome. While these cannot be interpreted exactly as you would an R^2 value from an Ordinary Least Squares regression, they are a good indication that there is not a very strong relationship between prior attainment and degree classification. Once again, combining AS and GCSE results only increases the strength of the relationship by a negligible amount.

The main result of this study is, therefore, that if we did not have AS level results, we could still predict degree performance using GCSE results alone to a similar, albeit weak, level of accuracy.

Limitations of the Study

This study only includes students who finished key stage 5 in 2008 and took a 3 year undergraduate degree immediately after. Therefore we do not include students who took gap years or anyone who takes a 4 year course. Hence the 88,000 students included do not constitute the entirety of the potential cohort.

While there are coefficients for each university, this is simply to account for the difference in distribution of degree classifications for each university within our sample. Because degrees are not standardized, and universities have entirely different standards of intake, it would not be fair to compare two universities based on their coefficients in this study.

Technical Annex

GCSE Results Model Specification:

Tests for model fit:

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
101535.3393	0.136546628	0.187677

Variables, coefficients and significances

Variable	B	Exp(B)	Sig.
Anglia Ruskin University	-0.3100991	0.7333743	0.00153635
Arts Institute at Bournemouth	-0.5778739	0.5610901	2.38032E-05
Bath Spa University	0.3259929	1.3854055	0.001804864
Birmingham College of Food Tourism & Creative Studies	-0.4100774	0.6635989	0.04840889
Bournemouth University	-0.1902571	0.8267466	0.070194659
University of Brighton	-0.2265972	0.7972419	0.010662697
Brunel University	0.3969469	1.487277	7.87072E-06
Buckinghamshire Chilterns University College	-0.242328	0.7847987	0.099199448
Canterbury Christ Church University	0.0578187	1.0595229	0.535692155
University of Northumbria at Newcastle	0.137788	1.1477322	0.062702159
City University	0.2669312	1.3059506	0.013408754
Conservatoire for Dance and Drama	-0.1285056	0.8794086	0.705721058

Variable	B	Exp(B)	Sig.
Coventry University	0.4535157	1.5738357	9.90927E-08
De Montfort University	0.1111882	1.1176052	0.164209852
Glasgow School of Art	-0.3896459	0.6772966	0.562117978
Goldsmiths College	0.2792016	1.3220738	0.025049147
Harper Adams University College	-3.0340405	0.0481208	5.29413E-07
Imperial College of Science, Technology & Medicine	-0.5214445	0.5936624	0.000470478
University of Winchester	0.2606715	1.2978013	0.014093314
Kings College London	0.1013475	1.1066611	0.28869885
Kingston University	0.185026	1.2032497	0.019628733
Leeds College of Music	0.8312883	2.2962751	0.001299306
Leeds Metropolitan University	-0.2392625	0.7872082	0.000732481
Leeds Trinity and All Saints	-0.6497903	0.5221552	2.19125E-05
Liverpool Institute for Performing Arts	1.5129558	4.5401309	3.79403E-05
Liverpool Hope University	0.4773112	1.6117349	0.000255106
Liverpool John Moores University	0.2079793	1.2311877	0.005154237
London Metropolitan University	0.2174287	1.2428768	0.118468279
London School of Economics and Political Science	0.2878825	1.3336006	0.051589298
London South Bank University	0.1978351	1.2187614	0.244438059
Loughborough University	-0.1721457	0.8418565	0.036938384
Manchester Metropolitan University	0.0514037	1.0527477	0.464461799
College of St Mark and St John	-0.1866706	0.829717	0.308705414

Variable	B	Exp(B)	Sig.
Middlesex University	0.5223491	1.6859835	8.31602E-06
Norwich School of Art and Design	-0.0007977	0.9992026	0.996368429
Nottingham Trent University	-0.2680739	0.7648512	0.000107317
Oxford Brookes University	0.2993448	1.3489747	0.003261252
Queen Margaret University, Edinburgh	-21.347111	5.359E-10	0.998755038
Queens University of Belfast	0.1158695	1.1228493	0.718463055
Ravensbourne	-0.5537575	0.574786	0.005727415
Robert Gordon University	-1.6310916	0.1957158	0.057160227
Rose Bruford College	1.0925582	2.9818926	0.000300643
Royal Agricultural College	-0.8582136	0.4239187	0.000597642
Royal Holloway and Bedford New College	0.5882547	1.8008427	8.28347E-09
Sheffield Hallam University	0.2232468	1.250129	0.001304297
Southampton Solent University	-0.3288794	0.7197298	0.000153195
Staffordshire University	-0.2758845	0.7589006	0.003961269
University College for Creative Arts at Canterbury	-0.3142229	0.7303562	0.019738985
University of West London	0.3535742	1.4241487	0.040708498
University of Birmingham	0.2484702	1.2820626	0.000524414
University of Bolton	0.0273529	1.0277304	0.882412226
University of Liverpool	0.4494136	1.5673928	1.41205E-07
University of the Highlands & Islands	-21.665953	3.896E-10	0.999122304
University of Chichester	0.1612942	1.1750306	0.178842762

Variable	B	Exp(B)	Sig.
University of Northampton	0.388373	1.4745798	0.000119407
University of Worcester	-0.1498911	0.8608017	0.18301312
University of Central England in Birmingham	0.6574457	1.9298566	8.09625E-15
University of Central Lancashire	-0.1099886	0.8958444	0.16106963
University of Durham	0.0961808	1.1009581	0.287945521
University of East London	0.0473163	1.0484536	0.717173546
University of Gloucestershire	0.4786794	1.6139417	1.75475E-05
University of Greenwich	0.106809	1.1127218	0.282680613
University of Hertfordshire	0.353759	1.4244118	1.21743E-05
University of Huddersfield	0.032133	1.0326549	0.727782185
University of Hull	-0.1675347	0.8457473	0.030197169
University of Kent	0.4758371	1.6093609	1.56158E-09
University of Lincoln	0.0982037	1.1031875	0.221723079
University of Bedfordshire	0.199227	1.220459	0.087527825
University of Nottingham	0.023096	1.0233647	0.751269084
University of Portsmouth	-0.0240625	0.9762247	0.7389665
University of Salford	-0.1011204	0.9038242	0.246345337
University of Sheffield	0.3430369	1.4092208	1.22143E-05
University of Southampton	0.4009322	1.493216	2.02438E-06
University of Sunderland	-0.2027155	0.8165105	0.028574629
University of Surrey	0.1840259	1.202047	0.145287135
Teesside University	-0.1451158	0.8649221	0.1311588

Variable	B	Exp(B)	Sig.
University of the Arts, London	-0.1470414	0.8632582	0.156987397
University of Warwick	0.0969867	1.1018457	0.276615127
University of the West of England, Bristol	0.2524565	1.2871835	0.00128677
University of Westminster	0.2969379	1.3457317	0.000902561
University of Wolverhampton	0.0448735	1.0458956	0.623116931
University of York	-0.0524548	0.9488972	0.533620152
Writtle College	-0.8031256	0.4479267	0.033032431
York St John University	0.03398	1.034564	0.736942951
Aston University	-0.1024802	0.902596	0.468453311
Birkbeck College	-21.59327	4.19E-10	0.998930666
Courtauld Institute of Art	-0.0067464	0.9932763	0.990657616
Glasgow Caledonian University	0.434996	1.5449568	0.738550789
Heriot-Watt University	-3.0528904	0.0472222	5.06704E-05
Heythrop College	0.4266574	1.5321276	0.142588129
Institute of Education	-22.563041	1.589E-10	0.998798023
University of Keele	0.3882667	1.474423	0.000277068
University of Lancaster	0.3703117	1.448186	6.02233E-06
Napier University	-2.3612748	0.0942999	0.002775423
Open University	-3.4197919	0.0327192	0.000962324
University of Oxford	0.7421559	2.1004591	2.48755E-07
Queen Mary and Westfield College	-0.1006047	0.9042904	0.236638729
Roehampton University	0.0699158	1.0724179	0.470181914

Variable	B	Exp(B)	Sig.
Royal Veterinary College	-0.8947117	0.4087254	0.001171747
School of Oriental and African Studies	1.0087095	2.7420601	3.7255E-05
St Georges Hospital Medical School	-0.6810889	0.5060656	0.000868479
University of Aberdeen	-1.3067897	0.2706876	0.037000384
University College London	0.2853638	1.3302458	0.010799799
University of Bradford	-0.2696664	0.7636342	0.020621904
University of Bristol	0.1091894	1.1153736	0.294763901
University of Buckingham	0.5266067	1.693177	0.221492133
University of East Anglia	0.1242599	1.1323101	0.143525706
University of Edinburgh	-0.723612	0.4849973	0.013647773
University of Essex	0.0915748	1.0958987	0.317132765
University of Exeter	0.8486282	2.3364396	7.78715E-19
University of Glamorgan	0.3675925	1.4442533	0.023005723
University of Glasgow	-2.3065202	0.0996073	0.003306238
University of Leeds	0.3115786	1.3655791	2.28808E-05
University of Leicester	0.4591287	1.5826944	4.81102E-08
University of Cambridge	-0.2168872	0.8050208	0.034563953
University of Newcastle-upon-Tyne	0.1517579	1.1638784	0.064347601
University of Paisley	-21.191815	6.259E-10	0.999136816
University of Plymouth	-0.3464118	0.7072212	3.84477E-06
University of Reading	0.4998834	1.6485291	5.64619E-08
University of St Andrews	-1.121161	0.3259012	0.00214642

Variable	B	Exp(B)	Sig.
University of Stirling	-0.5207805	0.5940567	0.498833833
University of Strathclyde	-1.0985956	0.3333389	0.261425341
University of Sussex	0.6398786	1.8962507	6.87495E-10
University of Ulster	0.3488984	1.4175051	0.691406011
Bishop Grosseteste University College	-0.0110998	0.9889616	0.947146398
Cardiff University	0.4365065	1.5472922	5.44257E-06
Central School of Speech and Drama	0.9741165	2.648826	0.011571456
Edge Hill University	-0.1270212	0.880715	0.233882477
Edinburgh College of Art	0.9040826	2.4696653	0.439081378
Guildhall School of Music & Drama	0.3820728	1.4653187	0.482014613
Newman College of Higher Education	-0.1664677	0.8466502	0.316253075
Glyndwr University	-2.45555	0.085816	7.74523E-05
Royal Northern College of Music	-21.719453	3.693E-10	0.999377064
University of Cumbria	0.0513302	1.0526705	0.64570579
St Marys University College, Twickenham	0.0709578	1.0735359	0.566038936
Swansea Institute of Higher Education	-0.1429478	0.8667993	0.618534287
University of Chester	-0.0724237	0.9301367	0.446719483
University of Abertay Dundee	-21.408428	5.04E-10	0.999250521
University of Bath	-0.7121651	0.4905809	7.90743E-07
University of Derby	0.0927731	1.0972127	0.350290594

Variable	B	Exp(B)	Sig.
University of Dundee	-0.2270263	0.7968998	0.636614349
University of Wales, Newport	0.0794916	1.0827364	0.744223741
University of Wales Institute, Cardiff	0.1363878	1.1461263	0.353015427
Swansea University	0.373072	1.4521889	0.002044892
Aberystwyth University	-0.0818904	0.9213729	0.429557104
Bangor University	0.0857579	1.0895425	0.420780102
University of Wales Trinity St David	0.4583817	1.5815125	0.139164378
Trinity Laban	0.9392593	2.5580859	0.030356199
University College Falmouth	0.3039913	1.3552573	0.036212294
University Campus Suffolk	-1.2939471	0.2741864	8.55215E-12
KS4 Average Point Score	-0.1387992	0.8704028	0
KS4 Average Point Score Squared	0.0031322	1.0031372	0
Constant	0.1623664	1.1762911	0.022818303

Classification Table (predicted values above 0.5 are predicted a 2:1 or above)

		Predicted Outcome	
		Below a 2:1	2:1 or Above
Observed Outcome	Below a 2:1	12402	18799
	2:1 or Above	8079	48742

Overall Prediction Accuracy: 69.5%

AS Level Results Model Specification:

Tests for model fit

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
103520.499	0.116851915	0.160608

Variables, coefficients and significances

Variable	B	Exp(B)	Sig.
Anglia Ruskin University	-0.4516337	0.6365873	3.261E-06
Arts Institute at Bournemouth	-0.6314391	0.5318259	3.024E-06
Bath Spa University	0.1771159	1.1937694	0.0869723
Birmingham College of Food Tourism & Creative Studies	-0.6087545	0.5440281	0.003311
Bournemouth University	-0.3667277	0.6929983	0.0004128
University of Brighton	-0.3619293	0.6963316	3.643E-05
Brunel University	0.1745957	1.1907647	0.046619
Buckinghamshire Chilterns University College	-0.4520043	0.6363514	0.0019125
Canterbury Christ Church University	-0.0877305	0.9160077	0.3432542
University of Northumbria at Newcastle	0.0304055	1.0308724	0.6781351
City University	0.0288236	1.029243	0.7858726
Conservatoire for Dance and Drama	-0.2012674	0.8176937	0.544263
Coventry University	0.3104622	1.3640555	0.0002307
De Montfort University	-0.1271552	0.880597	0.107147
Glasgow School of Art	0.1430325	1.1537673	0.8261339

Variable	B	Exp(B)	Sig.
Goldsmiths College	0.1136318	1.1203396	0.3552495
Harper Adams University College	-2.9411552	0.0528047	1.123E-06
Imperial College of Science, Technology & Medicine	-0.500444	0.6062614	0.0004701
University of Winchester	0.0365777	1.0372549	0.727216
Kings College London	0.1721974	1.1879123	0.0660577
Kingston University	0.0166267	1.0167657	0.8320936
Leeds College of Music	0.7694114	2.1584954	0.0026152
Leeds Metropolitan University	-0.3552802	0.700977	3.986E-07
Leeds Trinity and All Saints	-0.838547	0.4323382	3.259E-08
Liverpool Institute for Performing Arts	1.5007012	4.4848328	4.036E-05
Liverpool Hope University	0.2692623	1.3089985	0.036829
Liverpool John Moores University	0.0639809	1.066072	0.3840545
London Metropolitan University	-0.0097186	0.9903284	0.9436601
London School of Economics and Political Science	0.3273198	1.387245	0.0218666
London South Bank University	-0.1503996	0.8603641	0.3741744
Loughborough University	-0.1604678	0.8517453	0.0491611
Manchester Metropolitan University	-0.0951167	0.9092668	0.1694668
College of St Mark and St John	-0.3236758	0.7234848	0.0762198
Middlesex University	0.2841476	1.3286291	0.0143743
Norwich School of Art and Design	0.0107753	1.0108335	0.9502994
Nottingham Trent University	-0.3891309	0.6776456	1.313E-08

Variable	B	Exp(B)	Sig.
Oxford Brookes University	0.2866644	1.3319771	0.0043977
Queen Margaret University, Edinburgh	-21.649111	3.962E-10	0.9987302
Queens University of Belfast	0.1661609	1.180763	0.5994752
Ravensbourne	-0.6484592	0.5228507	0.0010369
Robert Gordon University	-1.2615655	0.2832103	0.1360959
Rose Bruford College	0.7320425	2.0793232	0.0142299
Royal Agricultural College	-0.9523165	0.3858462	0.000126
Royal Holloway and Bedford New College	0.551179	1.7352978	4.564E-08
Sheffield Hallam University	0.0981775	1.1031586	0.1529188
Southampton Solent University	-0.548327	0.5779159	1.823E-10
Staffordshire University	-0.4152777	0.6601569	1.146E-05
University College for Creative Arts at Canterbury	-0.4515095	0.6366664	0.0007429
University of West London	0.0383399	1.0390843	0.8229729
University of Birmingham	0.2545155	1.2898365	0.0003126
University of Bolton	-0.0699555	0.9324354	0.7031178
University of Liverpool	0.4169937	1.517393	7.64E-07
University of the Highlands & Islands	-21.322945	5.49E-10	0.9991403
University of Chichester	-0.025321	0.9749969	0.8317332
University of Northampton	0.1697686	1.1850306	0.0899766
University of Worcester	-0.274669	0.7598236	0.0138297
University of Central England in	0.486776	1.6270621	6.662E-09

Variable	B	Exp(B)	Sig.
Birmingham			
University of Central Lancashire	-0.3202052	0.726	3.624E-05
University of Durham	0.3073397	1.3598028	0.0005216
University of East London	-0.20594	0.8138819	0.112228
University of Gloucestershire	0.3103223	1.3638646	0.0049346
University of Greenwich	-0.1242468	0.8831619	0.2079295
University of Hertfordshire	0.1225658	1.1303935	0.1253011
University of Huddersfield	-0.1487775	0.8617609	0.104308
University of Hull	-0.3080476	0.7348803	5.346E-05
University of Kent	0.3400811	1.4050616	1.209E-05
University of Lincoln	-0.0111063	0.9889552	0.8888502
University of Bedfordshire	-0.0735232	0.9291146	0.5245409
University of Nottingham	0.1231306	1.1310322	0.0864044
University of Portsmouth	-0.1609546	0.8513307	0.0239494
University of Salford	-0.2926801	0.7462608	0.0006789
University of Sheffield	0.3417068	1.4073476	9.909E-06
University of Southampton	0.4152377	1.5147307	6.292E-07
University of Sunderland	-0.3799948	0.683865	3.31E-05
University of Surrey	0.0184459	1.018617	0.8825494
Teesside University	-0.3209125	0.7254867	0.0007765
University of the Arts, London	-0.166326	0.8467701	0.1036423
University of Warwick	0.0980446	1.103012	0.2615057
University of the West of England,	0.1672216	1.1820162	0.0313347

Variable	B	Exp(B)	Sig.
Bristol			
University of Westminster	0.0675019	1.0698322	0.4454214
University of Wolverhampton	-0.1291996	0.8787985	0.1539282
University of York	0.0101416	1.0101932	0.9027236
Writtle College	-0.9411799	0.3901672	0.0127387
York St John University	-0.0622959	0.9396049	0.533316
Aston University	-0.2155163	0.8061251	0.1218406
Birkbeck College	-21.974572	2.861E-10	0.9989101
Courtauld Institute of Art	0.2974803	1.3464618	0.6082322
Glasgow Caledonian University	0.3971739	1.4876146	0.7583794
Heriot-Watt University	-3.190205	0.0411634	1.875E-05
Heythrop College	0.2513413	1.2857488	0.3753024
Institute of Education	-22.467722	1.747E-10	0.9987598
University of Keele	0.3338279	1.3963028	0.0015763
University of Lancaster	0.3056681	1.3575317	0.0001547
Napier University	-2.3684571	0.0936251	0.0022613
Open University	-3.4508539	0.0317185	0.0008036
University of Oxford	1.2333707	3.432781	3.419E-18
Queen Mary and Westfield College	-0.1723223	0.8417079	0.0398693
Roehampton University	-0.1563938	0.8552223	0.1026558
Royal Veterinary College	-0.549903	0.5770058	0.04489
School of Oriental and African Studies	0.78904	2.2012822	0.0010568

Variable	B	Exp(B)	Sig.
St Georges Hospital Medical School	-0.4860276	0.6150648	0.0156806
University of Aberdeen	-1.0576853	0.3472587	0.0980749
University College London	0.4273964	1.5332604	8.952E-05
University of Bradford	-0.4628379	0.6294947	5.116E-05
University of Bristol	0.2767791	1.3188749	0.006751
University of Buckingham	0.2376745	1.2682963	0.584572
University of East Anglia	0.0766894	1.0797067	0.3601607
University of Edinburgh	-0.3257599	0.7219785	0.2485549
University of Essex	-0.0937273	0.9105311	0.2994612
University of Exeter	0.9222266	2.5148837	2.69E-22
University of Glamorgan	0.2497	1.2836403	0.1222507
University of Glasgow	-2.3262408	0.0976622	0.0027764
University of Leeds	0.3556534	1.4271128	1.004E-06
University of Leicester	0.3414208	1.4069451	3.83E-05
University of Cambridge	0.2703184	1.3103815	0.0068179
University of Newcastle-upon-Tyne	0.2329665	1.2623392	0.0040815
University of Paisley	-21.831173	3.302E-10	0.9990985
University of Plymouth	-0.3990243	0.6709744	7.329E-08
University of Reading	0.4505368	1.5691543	7.289E-07
University of St Andrews	-0.9654786	0.3808009	0.0056203
University of Stirling	-0.3621398	0.696185	0.6143389
University of Strathclyde	-1.2146752	0.2968064	0.1896404
University of Sussex	0.5438618	1.7226465	1.145E-07

Variable	B	Exp(B)	Sig.
University of Ulster	0.5940896	1.8113811	0.5048092
Bishop Grosseteste University College	-0.1173668	0.889259	0.4807402
Cardiff University	0.4310632	1.5388928	5.307E-06
Central School of Speech and Drama	0.9613835	2.6153122	0.0118181
Edge Hill University	-0.3372994	0.7136951	0.0014813
Edinburgh College of Art	0.6804327	1.974732	0.5667155
Guildhall School of Music & Drama	0.4900552	1.6324063	0.3616892
Newman College of Higher Education	-0.3010584	0.7400345	0.0672238
Glyndwr University	-2.6103305	0.0735102	2.689E-05
Royal Northern College of Music	-21.216453	6.107E-10	0.9994013
University of Cumbria	-0.0277285	0.9726524	0.8014458
St Marys University College, Twickenham	-0.08896	0.9148822	0.4688521
Swansea Institute of Higher Education	-0.2053411	0.8143695	0.4771459
University of Chester	-0.1955463	0.8223853	0.0375809
University of Abertay Dundee	-21.704427	3.749E-10	0.9992466
University of Bath	-0.6758698	0.5087137	1.676E-06
University of Derby	-0.0704174	0.9320047	0.4744987
University of Dundee	-0.1267623	0.880943	0.7883323
University of Wales, Newport	0.030557	1.0310286	0.8995713
University of Wales Institute, Cardiff	0.1565654	1.1694873	0.2826937

Variable	B	Exp(B)	Sig.
Swansea University	0.3489679	1.4176036	0.0036033
Aberystwyth University	-0.0962798	0.9082098	0.3484965
Bangor University	0.0122404	1.0123156	0.9072471
University of Wales Trinity St David	0.2586984	1.2952431	0.4018021
Trinity Laban	0.8849601	2.4228877	0.0416756
University College Falmouth	0.1450441	1.1560905	0.311376
University Campus Suffolk	-1.4820795	0.2271648	3.014E-15
AS Level Average Point Score	-0.011123	0.9889386	9.399E-22
AS level Average Point Score Squared	0.0001987	1.0001988	2.35E-162
Constant	-0.3833837	0.6815513	1.647E-08

Classification Table (predicted values above 0.5 are predicted a 2:1 or above)

		Predicted Outcome	
		Below a 2:1	2:1 or Above
Observed Outcome	Below a 2:1	11220	19981
	2:1 or Above	7811	49010

Overall Prediction accuracy: 68.4%

AS Level and GCSE Results Model Specification:

Tests for model fit:

-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
100171.6371	0.149820797	0.205922

Variables, coefficients and significances:

Variable	B	Exp(B)	Sig.
Anglia Ruskin University	-0.0243853	0.9759096	0.8060741
Arts Institute at Bournemouth	-0.3515377	0.7036053	0.0110193
Bath Spa University	0.5580819	1.7473178	1.324E-07
Birmingham College of Food Tourism & Creative Studies	-0.0700119	0.9323827	0.7393397
Bournemouth University	-0.0220559	0.9781855	0.8361232
University of Brighton	-0.001838	0.9981637	0.9836302
Brunel University	0.5756002	1.7781976	1.379E-10
Buckinghamshire Chilterns University College	0.0673421	1.0696614	0.6513626
Canterbury Christ Church University	0.3139633	1.3688395	0.0009165
University of Northumbria at Newcastle	0.359971	1.4332878	1.528E-06
City University	0.3539212	1.4246429	0.0011762
Conservatoire for Dance and Drama	-0.0061281	0.9938906	0.9860007
Coventry University	0.730748	2.0766333	2.176E-17
De Montfort University	0.3962792	1.4862843	1.01E-06
Glasgow School of Art	-0.0309622	0.9695122	0.9634902
Goldsmiths College	0.413689	1.5123867	0.0009788
Harper Adams University College	-2.6972203	0.0673926	9.262E-06
Imperial College of Science, Technology & Medicine	-0.6834982	0.5048478	3.985E-06
University of Winchester	0.4833252	1.6214572	6.825E-06
Kings College London	0.103904	1.109494	0.2815868

Variable	B	Exp(B)	Sig.
Kingston University	0.4713886	1.6022176	4.407E-09
Leeds College of Music	1.0288685	2.7978983	8.703E-05
Leeds Metropolitan University	0.0324861	1.0330195	0.6516964
Leeds Trinity and All Saints	-0.3556175	0.7007406	0.0213375
Liverpool Institute for Performing Arts	1.7522897	5.767794	2.039E-06
Liverpool Hope University	0.7507373	2.1185615	1.199E-08
Liverpool John Moores University	0.4787603	1.6140722	2.093E-10
London Metropolitan University	0.5207671	1.6833185	0.0002047
London School of Economics and Political Science	0.1208771	1.1284862	0.411489
London South Bank University	0.5019783	1.6519862	0.003377
Loughborough University	-0.0728053	0.9297819	0.3824108
Manchester Metropolitan University	0.2981098	1.3473097	2.854E-05
College of St Mark and St John	0.1192535	1.1266555	0.5204123
Middlesex University	0.8494532	2.3383678	7.568E-13
Norwich School of Art and Design	0.3107905	1.3645033	0.0793068
Nottingham Trent University	-0.0356886	0.9649407	0.6110039
Oxford Brookes University	0.4974351	1.644498	1.264E-06
Queen Margaret University, Edinburgh	-21.323312	5.488E-10	0.9987202
Queens University of Belfast	0.2316992	1.2607404	0.473645
Ravensbourne	-0.266489	0.7660644	0.1887555
Robert Gordon University	-1.2253765	0.2936471	0.1567015

Variable	B	Exp(B)	Sig.
Rose Bruford College	1.2602715	3.5263787	3.645E-05
Royal Agricultural College	-0.6459496	0.5241646	0.0107324
Royal Holloway and Bedford New College	0.6533144	1.9219003	1.998E-10
Sheffield Hallam University	0.4772138	1.611578	1.283E-11
Southampton Solent University	-0.0555886	0.9459283	0.5278447
Staffordshire University	0.0037201	1.003727	0.9694107
University College for Creative Arts at Canterbury	-0.0629594	0.9389816	0.643849
University of West London	0.6444694	1.904976	0.0002136
University of Birmingham	0.2739528	1.3151528	0.0001449
University of Bolton	0.3525873	1.4227439	0.0587905
University of Liverpool	0.5115613	1.6678932	2.535E-09
University of the Highlands & Islands	-21.267184	5.805E-10	0.999126
University of Chichester	0.4293621	1.5362773	0.0004119
University of Northampton	0.6831417	1.9800888	2.563E-11
University of Worcester	0.1215527	1.1292489	0.2855181
University of Central England in Birmingham	0.9419043	2.5648611	4.463E-28
University of Central Lancashire	0.1268345	1.1352291	0.1110122
University of Durham	0.0548069	1.0563366	0.5481507
University of East London	0.360199	1.4336146	0.0064615
University of Gloucestershire	0.7124766	2.0390349	2.56E-10
University of Greenwich	0.4029689	1.4962604	6.438E-05

Variable	B	Exp(B)	Sig.
University of Hertfordshire	0.6229789	1.8644739	2.902E-14
University of Huddersfield	0.2967492	1.3454778	0.001526
University of Hull	0.0298041	1.0302527	0.7032266
University of Kent	0.6384133	1.8934741	9.586E-16
University of Lincoln	0.3686084	1.4457214	6.087E-06
University of Bedfordshire	0.4903904	1.6329536	3.19E-05
University of Nottingham	0.0407202	1.0415606	0.5795657
University of Portsmouth	0.1903123	1.2096273	0.0091942
University of Salford	0.1283607	1.136963	0.1457148
University of Sheffield	0.356015	1.4276289	6.396E-06
University of Southampton	0.4274267	1.5333068	5.111E-07
University of Sunderland	0.0956153	1.1003357	0.3073772
University of Surrey	0.2836878	1.3280183	0.0259053
Teesside University	0.1500065	1.1618418	0.1235748
University of the Arts, London	0.1037537	1.1093272	0.3238924
University of Warwick	0.0006802	1.0006804	0.9939426
University of the West of England, Bristol	0.5030449	1.6537492	2.416E-10
University of Westminster	0.5275906	1.6948438	5.149E-09
University of Wolverhampton	0.3738838	1.4533683	5.474E-05
University of York	-0.0567558	0.9448247	0.5047213
Writtle College	-0.4917457	0.6115579	0.1949684
York St John University	0.2985138	1.3478542	0.0036292

Variable	B	Exp(B)	Sig.
Aston University	-0.004647	0.9953638	0.9739107
Birkbeck College	-21.519844	4.509E-10	0.9989344
Courtauld Institute of Art	0.0193568	1.0195454	0.9733575
Glasgow Caledonian University	0.7303327	2.0757712	0.5721717
Heriot-Watt University	-2.9834941	0.0506157	8.094E-05
Heythrop College	0.5355235	1.7083424	0.0667449
Institute of Education	-22.694874	1.392E-10	0.9987503
University of Keele	0.5795663	1.7852641	7.656E-08
University of Lancaster	0.4269342	1.5325519	2.23E-07
Napier University	-2.153608	0.1160646	0.0065485
Open University	-3.1518279	0.0427739	0.0023355
University of Oxford	0.6058505	1.8328104	2.63E-05
Queen Mary and Westfield College	-0.0090476	0.9909933	0.9160463
Roehampton University	0.3154335	1.3708534	0.0012894
Royal Veterinary College	-0.7561291	0.4694802	0.0073204
School of Oriental and African Studies	0.9749332	2.6509901	6.596E-05
St Georges Hospital Medical School	-0.5298727	0.5886799	0.010116
University of Aberdeen	-1.2181199	0.2957858	0.059835
University College London	0.2007816	1.2223578	0.0739556
University of Bradford	-0.0586957	0.9429937	0.6198555
University of Bristol	0.0218694	1.0221103	0.8344438
University of Buckingham	0.6544829	1.9241472	0.1313416

Variable	B	Exp(B)	Sig.
University of East Anglia	0.209457	1.2330083	0.0144969
University of Edinburgh	-0.7923695	0.4527707	0.0078222
University of Essex	0.2509505	1.2852464	0.0066681
University of Exeter	0.8649584	2.3749072	2.789E-19
University of Glamorgan	0.6149135	1.8494965	0.0001797
University of Glasgow	-2.1477128	0.1167509	0.006712
University of Leeds	0.3469818	1.414791	2.829E-06
University of Leicester	0.5484968	1.7306496	9.609E-11
University of Cambridge	-0.3635538	0.6952013	0.000399
University of Newcastle-upon-Tyne	0.2127122	1.2370286	0.0100941
University of Paisley	-21.210212	6.145E-10	0.9991084
University of Plymouth	-0.0960785	0.9083927	0.2066657
University of Reading	0.5832077	1.7917768	3.064E-10
University of St Andrews	-1.1983986	0.3016769	0.0010674
University of Stirling	-0.2241707	0.7991787	0.768511
University of Strathclyde	-1.0555612	0.3479971	0.2837945
University of Sussex	0.6850268	1.9838249	5.149E-11
University of Ulster	0.772016	2.1641247	0.3870314
Bishop Grosseteste University College	0.2702266	1.3102614	0.1113899
Cardiff University	0.4541009	1.5747569	2.519E-06
Central School of Speech and Drama	1.1765256	3.2430867	0.0025905
Edge Hill University	0.1450826	1.1561351	0.1794272

Variable	B	Exp(B)	Sig.
Edinburgh College of Art	1.0912348	2.9779491	0.3538039
Guildhall School of Music & Drama	0.6157334	1.8510136	0.2625521
Newman College of Higher Education	0.1395184	1.1497199	0.4068576
Glyndwr University	-2.2337998	0.1071206	0.0003364
Royal Northern College of Music	-21.15397	6.501E-10	0.999403
University of Cumbria	0.3442171	1.4108849	0.0023482
St Marys University College, Twickenham	0.3430769	1.4092771	0.0060529
Swansea Institute of Higher Education	0.1917028	1.2113105	0.5102172
University of Chester	0.1863522	1.2048465	0.0526243
University of Abertay Dundee	-21.290321	5.672E-10	0.9992484
University of Bath	-0.6969662	0.4980942	2.078E-06
University of Derby	0.4050556	1.4993859	5.723E-05
University of Dundee	-0.0452625	0.9557466	0.9269248
University of Wales, Newport	0.3567348	1.428657	0.150144
University of Wales Institute, Cardiff	0.419281	1.5208677	0.0047218
Swansea University	0.5827951	1.7910376	1.784E-06
Aberystwyth University	0.1506915	1.162638	0.1513184
Bangor University	0.3032001	1.3541855	0.0048496
University of Wales Trinity St David	0.7294729	2.0739871	0.0194526
Trinity Laban	1.1066651	3.0242561	0.012154
University College Falmouth	0.5249122	1.6903104	0.0003449

Variable	B	Exp(B)	Sig.
University Campus Suffolk	-1.0592259	0.3467241	3.005E-08
KS4 Average Point Score	-0.1016377	0.9033568	3E-189
KS4 Average Point Score Squared	0.0023964	1.0023993	0
AS Level Average Point Score	-0.0073843	0.9926429	7.424E-10
AS Level Average Point Score Squared	0.0001277	1.0001277	1.844E-62
Constant	-0.7183806	0.4875411	1.346E-16

Classification Table (predicted values above 0.5 are predicted a 2:1 or above)

		Predicted Outcome	
		Below a 2:1	2:1 or Above
Observed Outcome	Below a 2:1	13094	18107
	2:1 or Above	8217	48604

Overall Prediction Accuracy: 70.1%