

Appendix E: Parameter estimates – 2004*Basic model***Table E1: Probability of obtaining grade A***

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE ¹	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	1.583	0.014	-3.039	0.155	-3.942	0.030

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	2.726	0.471	1.508	0.050	0.480	0.260

Table E2: Probability of obtaining at least grade A

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.717	0.016	-3.878	0.102	-2.957	0.042
Health and Social Care Double Award	2.193	0.015	-2.563	0.082	-3.122	0.030
Leisure and Tourism Double Award	2.476	0.012	-3.154	0.135	-3.343	0.021
Applied Art and Design Double Award	1.497	0.009	-1.224	0.125	-1.761	0.019
Applied Business Double Award	2.068	0.017	-3.155	0.082	-2.996	0.035
Applied Science Double Award	3.078	0.010	-4.691	0.248	-4.555	0.020
Engineering Double Award	1.694	0.007	-3.809	0.193	-2.397	0.016
Manufacturing Double Award	1.694	0.007	-3.604	0.293	-2.395	0.016

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	5.540	0.371	1.732	0.080	0.403	0.350
Health and Social Care Double Award	2.716	0.242	1.134	0.044	0.200	0.139
Leisure and Tourism Double Award	6.006	0.585	0.792	0.025	-0.037	0.147
Applied Art and Design Double Award	2.716	0.346	0.932	0.028	0.577	0.146
Applied Business Double Award	1.998	0.203	1.375	0.059	0.197	0.214
Applied Science Double Award	6.047	1.070	0.711	0.021	0.353	0.239
Engineering Double Award	5.447	0.832	0.523	0.017	0.228	0.159
Manufacturing Double Award	7.419	1.381	0.524	0.017	0.178	0.252

¹ Standard error

Table E3: Probability of obtaining at least grade C

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.387	0.010	-0.230	0.052	0.598	0.033
Health and Social Care Double Award	1.698	0.009	1.369	0.058	1.049	0.020
Leisure and Tourism Double Award	2.015	0.008	1.057	0.073	1.054	0.016
Applied Art and Design Double Award	1.256	0.006	1.455	0.097	1.714	0.018
Applied Business Double Award	1.694	0.011	0.884	0.056	0.969	0.025
Applied Science Double Award	2.335	0.006	0.997	0.129	1.141	0.014
Engineering Double Award	1.306	0.005	-0.288	0.089	0.998	0.013
Manufacturing Double Award	1.306	0.005	-0.194	0.132	0.998	0.013

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.794	0.107	1.362	0.060	0.631	0.126
Health and Social Care Double Award	2.102	0.130	0.744	0.028	0.122	0.072
Leisure and Tourism Double Award	3.002	0.200	0.692	0.021	0.114	0.068
Applied Art and Design Double Award	1.825	0.215	0.965	0.028	0.433	0.106
Applied Business Double Award	1.450	0.109	0.914	0.037	0.442	0.096
Applied Science Double Award	3.527	0.372	0.632	0.017	0.426	0.110
Engineering Double Award	1.806	0.202	0.431	0.013	0.028	0.063
Manufacturing Double Award	2.404	0.340	0.431	0.013	0.207	0.096

Table E4: Probability of obtaining at least grade F

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.244	0.012	2.711	0.052	4.095	0.052
Health and Social Care Double Award	1.349	0.013	4.893	0.062	5.209	0.042
Leisure and Tourism Double Award	1.623	0.010	4.451	0.070	4.835	0.026
Applied Art and Design Double Award	1.263	0.012	4.732	0.127	5.377	0.039
Applied Business Double Award	1.417	0.013	3.857	0.067	4.431	0.040
Applied Science Double Award	1.971	0.009	6.384	0.140	6.784	0.030
Engineering Double Award	1.026	0.007	2.788	0.086	4.228	0.023
Manufacturing Double Award	1.026	0.007	3.039	0.113	4.230	0.023

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.465	0.092	2.243	0.122	0.560	0.174
Health and Social Care Double Award	1.227	0.105	0.965	0.049	-0.013	0.085
Leisure and Tourism Double Award	2.486	0.168	0.687	0.027	0.145	0.069
Applied Art and Design Double Award	2.500	0.340	1.509	0.057	0.735	0.188
Applied Business Double Award	1.628	0.132	1.152	0.058	0.413	0.136
Applied Science Double Award	3.649	0.412	0.819	0.027	0.381	0.147
Engineering Double Award	1.621	0.189	0.898	0.030	0.248	0.092
Manufacturing Double Award	1.624	0.248	0.894	0.030	0.276	0.123

*Model with all comparators***Table E5: Applied ICT Double Award**

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-2.686	0.090	0.252	0.066	3.137	0.081
Mean GCSE	1.723	0.016	1.393	0.009	1.215	0.011
GCSEv	-1.115	0.106	-0.341	0.072	-0.388	0.087
Comp 1 ²	-0.588	0.115	0.040	0.082	0.249	0.101
Comp 2	-0.425	0.114	0.353	0.082	0.564	0.103
Comp 3	-0.335	0.166	0.636	0.120	1.048	0.149
Comp 4	-0.035	0.162	0.764	0.122	1.106	0.162

* Comp 5 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
2.396	0.093	1.425	0.052	1.556	0.065

² Comparators specified in the main report or Appendix G

Table E6: Engineering Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.306	0.217	-0.158	0.174	2.319	0.218
Mean GCSE	1.737	0.007	1.344	0.005	1.065	0.007
GCSEv	-0.574	0.242	-0.034	0.179	0.591	0.224
Comp 1	0.431	0.218	0.833	0.175	1.181	0.221
Comp 2	1.192	0.216	1.455	0.173	2.368	0.219
Comp 3	0.614	0.216	0.866	0.173	1.498	0.218
Comp 4	1.123	0.250	1.205	0.192	1.594	0.255
Comp 5	0.776	0.216	1.205	0.173	2.160	0.218
Comp 6	0.135	0.218	0.509	0.174	1.605	0.222
Comp 7	1.402	0.217	1.680	0.174	2.572	0.220
Comp 8	0.364	0.220	0.703	0.176	1.728	0.226

* Comp 9 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.520	0.017	0.433	0.013	0.834	0.028

Table E7: Manufacturing Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-2.939	0.045	0.548	0.034	3.990	0.062
Mean GCSE	1.736	0.007	1.343	0.005	1.063	0.007
GCSEv	-0.632	0.137	-0.789	0.068	-0.860	0.092
Comp 1	0.065	0.052	0.126	0.038	-0.489	0.070
Comp 2	0.825	0.044	0.747	0.033	0.697	0.062
Comp 3	0.246	0.045	0.159	0.033	-0.176	0.062
Comp 4	0.755	0.133	0.492	0.090	-0.081	0.149
Comp 5	0.409	0.046	0.497	0.033	0.489	0.062
Comp 6	-0.230	0.051	-0.198	0.038	-0.074	0.072
Comp 7	1.035	0.045	0.970	0.034	0.897	0.066

* Comp 8 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.522	0.017	0.435	0.013	0.831	0.028

Table E8: Health and Social Care Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-4.861	0.075	0.021	0.032	5.103	0.051
Mean GCSE	2.301	0.016	1.664	0.010	1.331	0.014
GCSEv	2.180	0.090	1.349	0.040	-0.224	0.048
Comp 1	2.329	0.077	1.337	0.033	0.149	0.043
Comp 2	1.586	0.081	1.198	0.043	0.205	0.068
Comp 3	-0.363	0.405	-1.035	0.205	-0.820	0.339
Comp 4	1.405	0.074	1.410	0.040	1.206	0.130
Comp 5	0.979	0.244	0.067	0.191	-0.639	0.314
Comp 6	0.941	0.178	0.214	0.129	-1.055	0.188
Comp 7	1.986	0.084	1.282	0.043	-0.169	0.070
Comp 8	0.732	0.151	0.181	0.104	-1.230	0.197

* Comp 9 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.855	0.035	0.780	0.028	0.824	0.040

Table E9: Leisure and Tourism Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.398	0.022	1.013	0.016	4.866	0.028
Mean GCSE	2.502	0.012	2.052	0.008	1.646	0.010
GCSEv	0.043	0.075	0.101	0.032	-0.400	0.035
Comp 1	0.842	0.136	0.303	0.082	-0.885	0.098
Comp 2	0.805	0.035	0.910	0.026	0.646	0.040
Comp 3	-0.125	0.029	-0.148	0.022	-0.147	0.036
Comp 4	-2.644	0.379	-1.907	0.277	-3.055	0.342
Comp 5	-1.288	0.074	-0.820	0.061	-1.426	0.093

* Comp 6 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.772	0.024	0.688	0.020	0.693	0.026

Table E10: Applied Business Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-4.850	0.094	-0.486	0.074	2.992	0.123
Mean GCSE	2.177	0.018	1.769	0.011	1.465	0.014
GCSEv	1.631	0.110	1.413	0.082	0.992	0.130
Comp 1	2.572	0.099	2.233	0.079	2.036	0.132
Comp 2	1.652	0.095	1.305	0.077	1.372	0.128
Comp 3	-0.667	0.414	-0.293	0.291	-1.461	0.385
Comp 4	0.686	0.144	0.819	0.114	0.451	0.123

* Comp 5 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
1.222	0.051	0.888	0.033	1.100	0.050

Table E11: Applied Science Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-4.519	0.021	1.223	0.015	6.912	0.031
Mean GCSE	3.025	0.010	2.315	0.006	1.961	0.009
GCSEv	-0.436	0.134	-0.337	0.042	-0.378	0.059
Comp 1	-1.124	0.056	-0.933	0.022	-0.502	0.023
Comp 2	0.200	0.020	-0.199	0.026	-0.930	0.099
Comp 3	0.284	0.020	-0.064	0.027	-1.003	0.100
Comp 4	0.254	0.020	0.206	0.028	-0.227	0.101
Comp 5	0.116	0.164	-1.159	0.187	-2.005	0.295
Comp 6	-0.600	0.334	-0.180	0.206	-3.474	0.232

* Comp 7 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.754	0.022	0.648	0.017	0.846	0.027

Table E12: Applied Art and Design Double Award

Fixed terms

	Grade A*		Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.885	0.100	-1.695	0.064	1.756	0.052	5.494	0.107
Mean GCSE	1.584	0.014	1.496	0.009	1.256	0.006	1.265	0.012
GCSEv	0.798	0.147	0.402	0.092	-0.353	0.071	-0.699	0.130
Comp 1	-0.111	0.100	-0.133	0.064	-0.050	0.051	-0.093	0.104
Comp 2	0.003	0.100	0.020	0.064	-0.008	0.052	-0.091	0.106
Comp 3	-0.143	0.134	-0.226	0.083	-0.492	0.074	-0.708	0.130
Comp 4	0.566	0.135	0.343	0.090	0.074	0.079	-0.551	0.163
Comp 5	0.222	0.117	0.111	0.076	0.125	0.063	-0.124	0.131

* Comp 6 baseline

School level variance

Grade A*		Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
1.483	0.049	0.928	0.027	0.958	0.027	1.514	0.056

*Model with median effects***Table E13: Probability of obtaining grade A***

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	-2.964	0.192	-3.917	0.035	1.584	0.014

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	-0.062	0.040	-0.078	0.192

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	2.672	0.465	1.512	0.050	0.451	0.259

Table E14: Probability of obtaining at least grade A

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	-3.478	0.169	-2.945	0.054	1.723	0.017
Health and Social Care Double Award	-2.364	0.142	-3.079	0.047	2.197	0.015
Leisure and Tourism Double Award	-3.085	0.281	-3.395	0.038	2.476	0.012
Applied Art and Design Double Award	-1.200	0.154	-1.737	0.022	1.498	0.009
Applied Business Double Award	-2.757	0.163	-2.993	0.066	2.070	0.017
Applied Science Double Award	-4.822	0.450	-4.521	0.033	3.080	0.010
Engineering Double Award	-4.060	0.392	-2.388	0.031	1.694	0.007
Manufacturing Double Award	-3.801	0.531	-2.392	0.031	1.694	0.007

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	-0.030	0.057	-0.338	0.132
Health and Social Care Double Award	-0.033	0.026	-0.115	0.090
Leisure and Tourism Double Award	0.038	0.023	-0.084	0.165
Applied Art and Design Double Award	-0.061	0.029	0.016	0.159
Applied Business Double Award	-0.003	0.039	-0.238	0.093
Applied Science Double Award	-0.027	0.020	0.130	0.294
Engineering Double Award	-0.006	0.020	0.171	0.233
Manufacturing Double Award	-0.003	0.020	0.141	0.320

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	5.589	0.372	1.736	0.080	0.502	0.343
Health and Social Care Double Award	2.697	0.240	1.125	0.044	0.192	0.138
Leisure and Tourism Double Award	5.999	0.584	0.793	0.025	-0.042	0.147
Applied Art and Design Double Award	2.734	0.348	0.928	0.027	0.581	0.146
Applied Business Double Award	1.871	0.194	1.377	0.059	0.187	0.209
Applied Science Double Award	6.102	1.078	0.710	0.021	0.360	0.239
Engineering Double Award	5.270	0.819	0.522	0.017	0.224	0.158
Manufacturing Double Award	7.032	1.334	0.524	0.017	0.171	0.248

Table E15: Probability of obtaining at least grade C

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	0.080	0.081	0.616	0.044	1.394	0.010
Health and Social Care Double Award	1.367	0.095	0.775	0.033	1.686	0.010
Leisure and Tourism Double Award	1.003	0.148	0.935	0.031	2.016	0.008
Applied Art and Design Double Award	1.511	0.117	1.739	0.022	1.257	0.006
Applied Business Double Award	1.091	0.110	0.892	0.049	1.695	0.011
Applied Science Double Award	0.799	0.227	1.049	0.026	2.334	0.006
Engineering Double Award	-0.574	0.174	0.982	0.025	1.306	0.005
Manufacturing Double Award	-0.155	0.234	0.975	0.025	1.305	0.005

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	-0.026	0.050	-0.261	0.075
Health and Social Care Double Award	0.224	0.021	-0.230	0.063
Leisure and Tourism Double Award	0.089	0.020	-0.050	0.091
Applied Art and Design Double Award	-0.061	0.029	-0.042	0.125
Applied Business Double Award	0.056	0.030	-0.181	0.065
Applied Science Double Award	0.073	0.017	0.104	0.153
Engineering Double Award	0.012	0.017	0.197	0.109
Manufacturing Double Award	0.018	0.017	-0.047	0.148

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.645	0.099	1.367	0.060	0.653	0.119
Health and Social Care Double Award	2.076	0.129	0.774	0.029	0.129	0.073
Leisure and Tourism Double Award	3.009	0.201	0.692	0.021	0.115	0.068
Applied Art and Design Double Award	1.796	0.212	0.961	0.027	0.427	0.105
Applied Business Double Award	1.416	0.107	0.918	0.037	0.432	0.096
Applied Science Double Award	3.541	0.374	0.636	0.017	0.419	0.110
Engineering Double Award	1.825	0.204	0.431	0.013	0.033	0.064
Manufacturing Double Award	2.393	0.338	0.432	0.013	0.205	0.096

Table E16: Probability of obtaining at least grade F

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	2.899	0.079	4.063	0.068	1.248	0.012
Health and Social Care Double Award	4.925	0.092	5.100	0.053	1.343	0.013
Leisure and Tourism Double Award	4.421	0.134	4.706	0.042	1.622	0.010
Applied Art and Design Double Award	4.836	0.151	5.398	0.043	1.264	0.012
Applied Business Double Award	4.249	0.122	4.339	0.069	1.421	0.014
Applied Science Double Award	6.571	0.239	6.609	0.040	1.972	0.009
Engineering Double Award	2.668	0.164	4.198	0.041	1.026	0.007
Manufacturing Double Award	3.042	0.200	4.200	0.041	1.026	0.007

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	0.074	0.078	-0.246	0.095
Health and Social Care Double Award	0.100	0.031	-0.138	0.063
Leisure and Tourism Double Award	0.097	0.024	-0.075	0.084
Applied Art and Design Double Award	-0.052	0.046	-0.142	0.163
Applied Business Double Award	0.072	0.040	-0.312	0.074
Applied Science Double Award	0.152	0.022	-0.308	0.165
Engineering Double Award	0.023	0.026	0.065	0.105
Manufacturing Double Award	0.023	0.026	-0.025	0.128

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.421	0.090	2.283	0.124	0.593	0.173
Health and Social Care Double Award	1.212	0.104	0.970	0.049	-0.008	0.086
Leisure and Tourism Double Award	2.488	0.168	0.683	0.027	0.138	0.069
Applied Art and Design Double Award	2.445	0.335	1.507	0.057	0.687	0.187
Applied Business Double Award	4.249	0.122	4.339	0.069	0.408	0.131
Applied Science Double Award	3.591	0.406	0.810	0.026	0.384	0.145
Engineering Double Award	1.626	0.190	0.897	0.030	0.246	0.092
Manufacturing Double Award	1.624	0.248	0.893	0.030	0.278	0.278

Appendix F: Parameter estimates – 2005*Basic model***Table F1: Probability of obtaining grade A***

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	1.322	0.014	-2.979	0.122	-3.754	0.032
Applied Business Double Award	2.166	0.030	-6.076	0.130	-5.441	0.065

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	2.227	0.341	1.696	0.061	0.222	0.211
Applied Business Double Award	2.836	0.421	1.783	0.101	0.604	0.406

Table F2: Probability of obtaining at least grade A

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.871	0.018	-4.309	0.078	-3.110	0.045
Health and Social Care Double Award	2.154	0.016	-2.416	0.067	-3.170	0.032
Leisure and Tourism Double Award	2.559	0.013	-3.494	0.127	-3.518	0.023
Applied Art and Design Double Award	1.226	0.008	-1.248	0.084	-1.718	0.019
Applied Business Double Award	2.109	0.018	-3.283	0.077	-3.189	0.036
Applied Science Double Award	3.117	0.012	-5.222	0.190	-4.649	0.022
Engineering Double Award	1.713	0.007	-4.283	0.131	-2.397	0.016
Manufacturing Double Award	1.713	0.007	-3.620	0.323	-2.396	0.016

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	3.045	0.215	1.777	0.087	0.328	0.250
Health and Social Care Double Award	2.491	0.183	1.012	0.045	0.220	0.104
Leisure and Tourism Double Award	7.450	0.599	0.716	0.026	0.525	0.133
Applied Art and Design Double Award	1.518	0.185	0.876	0.028	0.533	0.095
Applied Business Double Award	2.299	0.198	1.174	0.056	0.166	0.178
Applied Science Double Award	6.803	0.856	0.669	0.021	0.273	0.177
Engineering Double Award	2.775	0.442	0.550	0.018	0.382	0.109
Manufacturing Double Award	13.238	1.956	0.550	0.018	-0.182	0.278

Table F3: Probability of obtaining at least grade C

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.408	0.010	-0.180	0.047	0.562	0.034
Health and Social Care Double Award	1.668	0.010	1.464	0.049	0.976	0.021
Leisure and Tourism Double Award	1.996	0.009	0.837	0.064	0.964	0.016
Applied Art and Design Double Award	0.997	0.007	1.316	0.075	1.542	0.019
Applied Business Double Award	1.722	0.012	0.923	0.052	0.876	0.026
Applied Science Double Award	2.347	0.007	1.054	0.090	1.097	0.015
Engineering Double Award	1.296	0.005	-0.579	0.074	1.007	0.013
Manufacturing Double Award	1.297	0.005	-0.307	0.117	1.008	0.013

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.621	0.093	1.341	0.062	0.436	0.114
Health and Social Care Double Award	1.828	0.103	0.717	0.030	0.133	0.059
Leisure and Tourism Double Award	2.831	0.172	0.590	0.019	0.142	0.057
Applied Art and Design Double Award	1.500	0.159	0.940	0.028	0.555	0.083
Applied Business Double Award	1.442	0.100	0.864	0.037	0.305	0.088
Applied Science Double Award	3.284	0.252	0.590	0.017	0.403	0.076
Engineering Double Award	1.798	0.165	0.452	0.014	0.089	0.054
Manufacturing Double Award	2.299	0.302	0.452	0.014	0.375	0.086

Table F4: Probability of obtaining at least grade F

Fixed terms

Subject	Mean GCSE		GCSEv		GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.203	0.012	2.666	0.052	3.492	0.051
Health and Social Care Double Award	1.265	0.014	4.327	0.059	4.640	0.041
Leisure and Tourism Double Award	1.557	0.012	4.173	0.070	4.723	0.029
Applied Art and Design Double Award	0.965	0.016	4.071	0.118	5.063	0.049
Applied Business Double Award	1.360	0.016	3.735	0.065	4.383	0.042
Applied Science Double Award	1.904	0.012	6.363	0.096	6.715	0.037
Engineering Double Award	1.023	0.008	2.485	0.077	4.191	0.024
Manufacturing Double Award	1.019	0.008	2.794	0.107	4.189	0.024

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.763	0.106	2.366	0.121	0.749	0.168
Health and Social Care Double Award	1.593	0.117	1.235	0.063	0.180	0.092
Leisure and Tourism Double Award	2.899	0.184	0.756	0.033	0.231	0.077
Applied Art and Design Double Award	2.375	0.328	3.374	0.128	0.919	0.270
Applied Business Double Award	1.646	0.132	1.086	0.063	0.329	0.135
Applied Science Double Award	2.318	0.243	0.933	0.036	0.438	0.114
Engineering Double Award	1.927	0.176	0.928	0.032	0.072	0.085
Manufacturing Double Award	1.706	0.237	0.925	0.032	0.256	0.118

*Model with all comparators***Table F5: Applied ICT Double Award**

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-2.855	0.090	0.183	0.065	2.867	0.087
Mean GCSE	1.879	0.018	1.414	0.010	1.210	0.012
GCSEv	-1.350	0.101	-0.261	0.069	-0.099	0.092
Comp 1	-0.514	0.113	0.226	0.081	0.475	0.109
Comp 2	-0.318	0.114	0.461	0.082	0.858	0.113
Comp 3	-0.697	0.149	0.570	0.109	0.925	0.155
Comp 4	0.035	0.162	0.733	0.120	1.264	0.174

* Comp 5 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
1.982	0.082	1.351	0.050	1.995	0.082

Table F6: Engineering Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.449	0.214	-0.019	0.156	2.595	0.219
Mean GCSE	1.753	0.008	1.328	0.005	1.052	0.008
GCSEv	-0.816	0.230	-0.519	0.160	-0.090	0.222
Comp 1	0.677	0.216	0.767	0.157	0.948	0.222
Comp 2	1.310	0.214	1.281	0.156	2.031	0.219
Comp 3	0.743	0.214	0.729	0.156	1.182	0.219
Comp 4	1.111	0.250	0.967	0.177	0.935	0.255
Comp 5	0.956	0.214	1.109	0.156	1.812	0.219
Comp 6	0.248	0.215	0.402	0.157	1.251	0.223
Comp 7	1.495	0.214	1.489	0.156	2.180	0.221
Comp 8	0.669	0.217	0.654	0.158	1.449	0.226

* Comp 9 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.544	0.018	0.451	0.014	0.865	0.030

Table F7: Manufacturing Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-2.780	0.042	0.621	0.031	3.969	0.060
Mean GCSE	1.751	0.008	1.328	0.005	1.049	0.008
GCSEv	-1.157	0.136	-0.859	0.062	-1.272	0.083
Comp 1	0.011	0.049	0.134	0.037	-0.423	0.069
Comp 2	0.642	0.041	0.639	0.033	0.651	0.059
Comp 3	0.076	0.041	0.088	0.031	-0.192	0.059
Comp 4	0.445	0.136	0.343	0.091	-0.463	0.144
Comp 5	0.289	0.042	0.469	0.031	0.434	0.060
Comp 6	-0.418	0.049	-0.240	0.037	-0.122	0.073
Comp 7	0.828	0.042	0.847	0.032	0.803	0.064

* Comp 8 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.547	0.018	0.457	0.014	0.886	0.031

Table F8: Health and Social Care Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.352	0.058	1.200	0.042	4.606	0.076
Mean GCSE	2.248	0.018	1.638	0.011	1.308	0.015
GCSEv	0.855	0.068	0.232	0.046	-0.212	0.078
Comp 1	0.678	0.057	0.064	0.041	0.138	0.074
Comp 2	-2.965	0.823	-1.481	0.257	-1.218	0.345
Comp 3	-0.157	0.057	0.181	0.049	0.683	0.118
Comp 4	-0.152	0.309	-0.706	0.190	0.585	0.397
Comp 5	-0.578	0.179	-1.073	0.128	-1.144	0.208
Comp 6	0.572	0.068	-0.067	0.050	-0.300	0.089
Comp 7	-0.363	0.122	-0.936	0.089	-1.779	0.138
Comp 8	-1.777	0.102	-1.247	0.049	0.433	0.078

* Comp 9 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.892	0.039	0.788	0.030	1.050	0.050

Table F9: Leisure and Tourism Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.524	0.024	0.952	0.017	4.747	0.031
Mean GCSE	2.576	0.013	2.037	0.009	1.583	0.012
GCSEv	-0.235	0.067	-0.095	0.030	-0.500	0.039
Comp 1	0.591	0.171	0.165	0.098	-1.008	0.123
Comp 2	0.617	0.037	0.939	0.027	0.811	0.050
Comp 3	-0.367	0.032	-0.282	0.024	-0.234	0.043
Comp 4	-2.486	0.365	-2.579	0.244	-2.765	0.341
Comp 5	-1.262	0.081	-0.848	0.066	-1.231	0.114

* Comp 6 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.731	0.026	0.610	0.020	0.762	0.032

Table F10: Applied Business Double Award

Fixed terms

	Grade A*		Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-7.261	0.177	-4.974	0.110	-0.630	0.085	2.720	0.146
Mean GCSE	2.265	0.032	2.191	0.019	1.812	0.012	1.419	0.017
GCSEv	1.044	0.192	1.690	0.117	1.657	0.091	1.164	0.153
Comp 1	2.343	0.177	2.410	0.113	2.338	0.090	2.378	0.156
Comp 2	1.206	0.174	1.501	0.110	1.300	0.088	1.601	0.152
Comp 3	0.586	0.580	-0.419	0.396	-0.958	0.266	-0.770	0.389
Comp 4	1.007	0.236	0.839	0.162	0.943	0.129	0.713	0.203

* Comp 5 baseline

School level variance

Grade A*		Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
1.494	0.087	1.112	0.050	0.861	0.034	1.025	0.053

Table F11: Applied Science Double Award

Fixed terms

	Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-4.606	0.022	1.174	0.015	6.920	0.038
Mean GCSE	3.092	0.012	2.322	0.007	1.912	0.012
GCSEv	-0.690	0.091	-0.078	0.030	-0.385	0.061
Comp 1	-1.299	0.063	-1.031	0.023	-0.605	0.033
Comp 2	-0.022	0.023	-0.141	0.029	-1.271	0.107
Comp 3	0.140	0.023	-0.082	0.029	-1.210	0.111
Comp 4	0.189	0.023	0.306	0.030	-0.484	0.114
Comp 5	0.843	0.222	-0.237	0.192	-0.319	0.396
Comp 6	-1.472	0.330	-0.434	0.181	-3.887	0.223

* Comp 7 baseline

School level variance

Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE
0.705	0.022	0.621	0.018	0.915	0.035

Table F12: Applied Art and Design Double Award

Fixed terms

	Grade A*		Grade A		Grade C		Grade F	
	Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
Constant	-3.536	0.127	-1.730	0.075	1.567	0.059	4.945	0.159
Mean GCSE	1.322	0.014	1.226	0.008	0.997	0.007	0.967	0.016
GCSEv	0.611	0.152	0.502	0.091	-0.139	0.072	-0.616	0.182
Comp 1	-0.271	0.127	-0.012	0.075	-0.032	0.059	0.114	0.157
Comp 2	-0.135	0.128	0.047	0.076	-0.011	0.060	0.182	0.161
Comp 3	-0.460	0.162	-0.302	0.095	-0.441	0.074	-0.539	0.192
Comp 4	0.238	0.162	0.470	0.098	0.275	0.087	0.125	0.246
Comp 5	0.015	0.144	0.161	0.085	0.141	0.070	0.162	0.195

* Comp 6 baseline

School level variance

Grade A*		Grade A		Grade C		Grade F	
Estimate	SE	Estimate	SE	Estimate	SE	Estimate	SE
1.664	0.059	0.883	0.028	0.935	0.028	3.233	0.121

*Model with median effects***Table F13: Probability of obtaining grade A***

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	-2.801	0.153	-3.740	0.037	1.323	0.014
Applied Business Double Award	-6.104	0.181	-5.427	0.072	2.166	0.031

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	-0.037	0.046	-0.268	0.167
Applied Business Double Award	-0.029	0.068	0.062	0.164

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied Art and Design Double Award	2.129	0.332	1.694	0.061	0.226	0.208
Applied Business Double Award	2.855	0.422	1.780	0.101	0.584	0.407

Table F14: Probability of obtaining at least grade A

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	-4.136	0.125	-3.175	0.054	1.875	0.018
Health and Social Care Double Award	-2.273	0.085	-3.184	0.036	2.155	0.016
Leisure and Tourism Double Award	-3.351	0.166	-3.551	0.026	2.559	0.013
Applied Art and Design Double Award	-1.189	0.106	-1.701	0.023	1.227	0.008
Applied Business Double Award	-3.240	0.104	-3.224	0.043	2.109	0.018
Applied Science Double Award	-5.354	0.235	-4.652	0.024	3.117	0.012
Engineering Double Award	-4.331	0.178	-2.381	0.019	1.714	0.007
Manufacturing Double Award	-3.555	0.432	-2.380	0.019	1.714	0.007

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	0.142	0.071	-0.305	0.115
Health and Social Care Double Award	0.029	0.043	-0.266	0.097
Leisure and Tourism Double Award	0.075	0.030	-0.296	0.165
Applied Art and Design Double Award	-0.044	0.031	-0.059	0.113
Applied Business Double Award	0.075	0.050	-0.143	0.109
Applied Science Double Award	0.010	0.027	0.224	0.278
Engineering Double Award	-0.040	0.025	0.030	0.168
Manufacturing Double Award	-0.039	0.025	-0.083	0.458

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	3.229	0.225	1.789	0.088	0.342	0.253
Health and Social Care Double Award	2.448	0.181	1.018	0.045	0.229	0.103
Leisure and Tourism Double Award	7.404	0.594	0.716	0.026	0.524	0.132
Applied Art and Design Double Award	1.485	0.183	0.874	0.028	0.522	0.094
Applied Business Double Award	2.307	0.199	1.178	0.056	-	-
Applied Science Double Award	6.852	0.862	0.669	0.021	0.238	0.178
Engineering Double Award	3.026	0.476	0.548	0.018	-	-
Manufacturing Double Award	14.528	2.109	0.548	0.018	-	-

Table F15: Probability of obtaining at least grade C

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	-0.010	0.070	0.501	0.042	1.409	0.010
Health and Social Care Double Award	1.605	0.061	0.932	0.025	1.670	0.010
Leisure and Tourism Double Award	0.880	0.081	0.936	0.019	1.997	0.009
Applied Art and Design Double Award	1.321	0.094	1.545	0.023	0.997	0.007
Applied Business Double Award	0.974	0.068	0.861	0.031	1.722	0.012
Applied Science Double Award	1.019	0.108	1.061	0.017	2.347	0.007
Engineering Double Award	-0.664	0.093	0.997	0.016	1.296	0.005
Manufacturing Double Award	-0.165	0.146	0.997	0.016	1.297	0.005

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	0.158	0.061	-0.332	0.081
Health and Social Care Double Award	0.121	0.035	-0.369	0.072
Leisure and Tourism Double Award	0.072	0.026	-0.143	0.087
Applied Art and Design Double Award	-0.008	0.032	0.000	0.105
Applied Business Double Award	0.034	0.041	-0.112	0.077
Applied Science Double Award	0.098	0.024	-0.018	0.136
Engineering Double Award	0.025	0.022	0.110	0.094
Manufacturing Double Award	0.030	0.022	-0.286	0.159

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.561	0.089	1.351	0.062	0.435	0.112
Health and Social Care Double Award	1.773	0.101	0.721	0.030	0.151	0.058
Leisure and Tourism Double Award	2.812	0.171	0.590	0.019	0.139	0.056
Applied Art and Design Double Award	1.498	0.159	0.940	0.029	0.554	0.084
Applied Business Double Award	1.432	0.100	0.865	0.037	0.296	0.088
Applied Science Double Award	3.297	0.253	0.590	0.017	0.392	0.076
Engineering Double Award	1.814	0.166	0.453	0.014	0.079	0.054
Manufacturing Double Award	2.232	0.295	0.453	0.014	0.367	0.085

Table F16: Probability of obtaining at least grade F

Fixed terms

Subject	GCSEv		GCSE		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	2.688	0.077	3.513	0.062	1.204	0.012
Health and Social Care Double Award	4.475	0.070	4.630	0.046	1.266	0.014
Leisure and Tourism Double Award	4.207	0.085	4.719	0.033	1.557	0.012
Applied Art and Design Double Award	4.104	0.146	5.076	0.056	0.965	0.016
Applied Business Double Award	3.741	0.082	4.395	0.049	1.361	0.016
Applied Science Double Award	6.322	0.111	6.651	0.039	1.904	0.012
Engineering Double Award	2.452	0.095	4.188	0.028	1.023	0.008
Manufacturing Double Award	2.859	0.133	4.183	0.028	1.019	0.008

Subject	Median		Median * GCSEv	
	Estimate	SE	Estimate	SE
Applied ICT Double Award	-0.051	0.087	0.028	0.104
Health and Social Care Double Award	0.041	0.056	-0.291	0.087
Leisure and Tourism Double Award	0.011	0.037	-0.073	0.094
Applied Art and Design Double Award	-0.034	0.070	-0.023	0.169
Applied Business Double Award	-0.028	0.056	0.018	0.094
Applied Science Double Award	0.206	0.039	-0.097	0.149
Engineering Double Award	0.009	0.035	0.050	0.103
Manufacturing Double Award	0.015	0.035	-0.134	0.146

School variance

Subject	GCSEv		GCSE		Covariance	
	Estimate	SE	Estimate	SE	Estimate	SE
Applied ICT Double Award	1.752	0.105	2.337	0.121	0.747	0.167
Health and Social Care Double Award	1.522	0.113	1.238	0.063	0.193	0.091
Leisure and Tourism Double Award	2.865	0.183	0.755	0.033	0.230	0.077
Applied Art and Design Double Award	2.365	0.327	3.368	0.128	0.925	0.269
Applied Business Double Award	1.647	0.132	1.085	0.063	0.333	0.135
Applied Science Double Award	2.321	0.243	0.922	0.035	0.436	0.114
Engineering Double Award	1.927	0.176	0.928	0.032	0.067	0.085
Manufacturing Double Award	1.699	0.236	0.926	0.032	0.263	0.117

Appendix G: Results 2004 – 2005 (tables and figures)*Applied ICT Double Award***Table G1: Applied ICT Double Award**

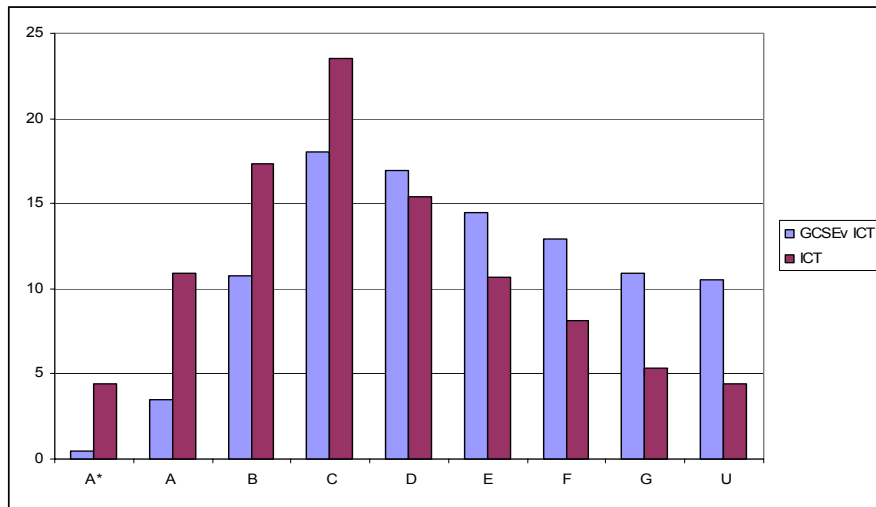
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2331	19,007	23,112
OCR	1494	10,012	11,735
AQA	3851	7,872	8,710
Total entry		36,891	43,557

Table G2: GCSE comparators: Specifications and entry

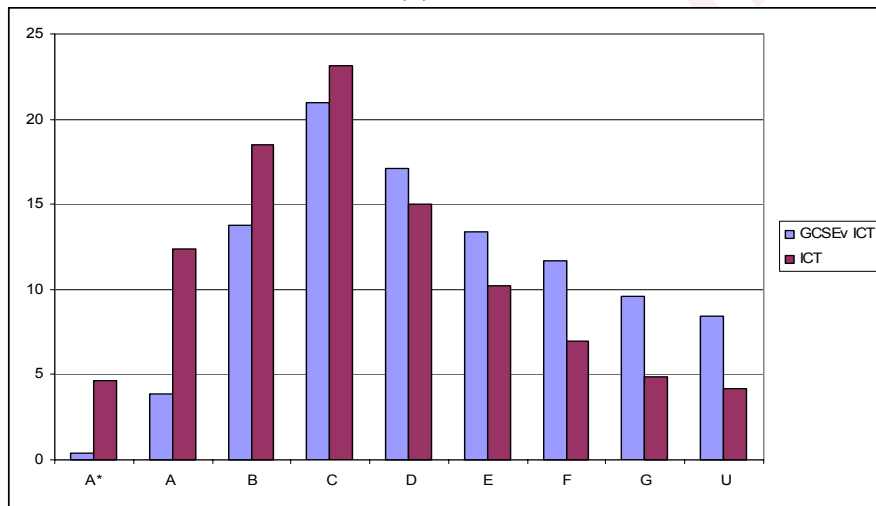
Subject	Awarding Body	Subject code	Entry 2004	Entry 2005
ICT	EdExcel	1185	14,088	14,822
	OCR	1994, 1995	28,298	31,315
	AQA	3521, 3522	28,180	28,532
Total entry			70,566	74,669

Table G3: Predicted probabilities of obtaining at least grade A, grade C and grade F

		2004		2005	
		Centres for GCSEv	Centres for GCSE	Centres for GCSEv	Centres for GCSE
At least a grade A	Mean	0.36	0.58	0.34	0.60
	SD	0.23	0.19	0.32	0.35
	Reference Interval	(0.15,0.95)	(0.31,0.93)	(0.03,0.96)	(0.02,0.99)
At least a grade C	Mean	0.44	0.63	0.39	0.61
	SD	0.23	0.20	0.31	0.32
	Reference Interval	(0.12,0.95)	(0.25,0.89)	(0.01,0.94)	(0.04,0.9)
At least a grade F	Mean	0.45	0.74	0.30	0.53
	SD	0.20	0.18	0.27	0.31
	Reference Interval	(0.09,0.74)	(0.28,0.89)	(0.01,0.83)	(0.03,0.95)



(a) 2004



(b) 2005

Figure G1: Grade comparison among ICT subjects (% in grade)

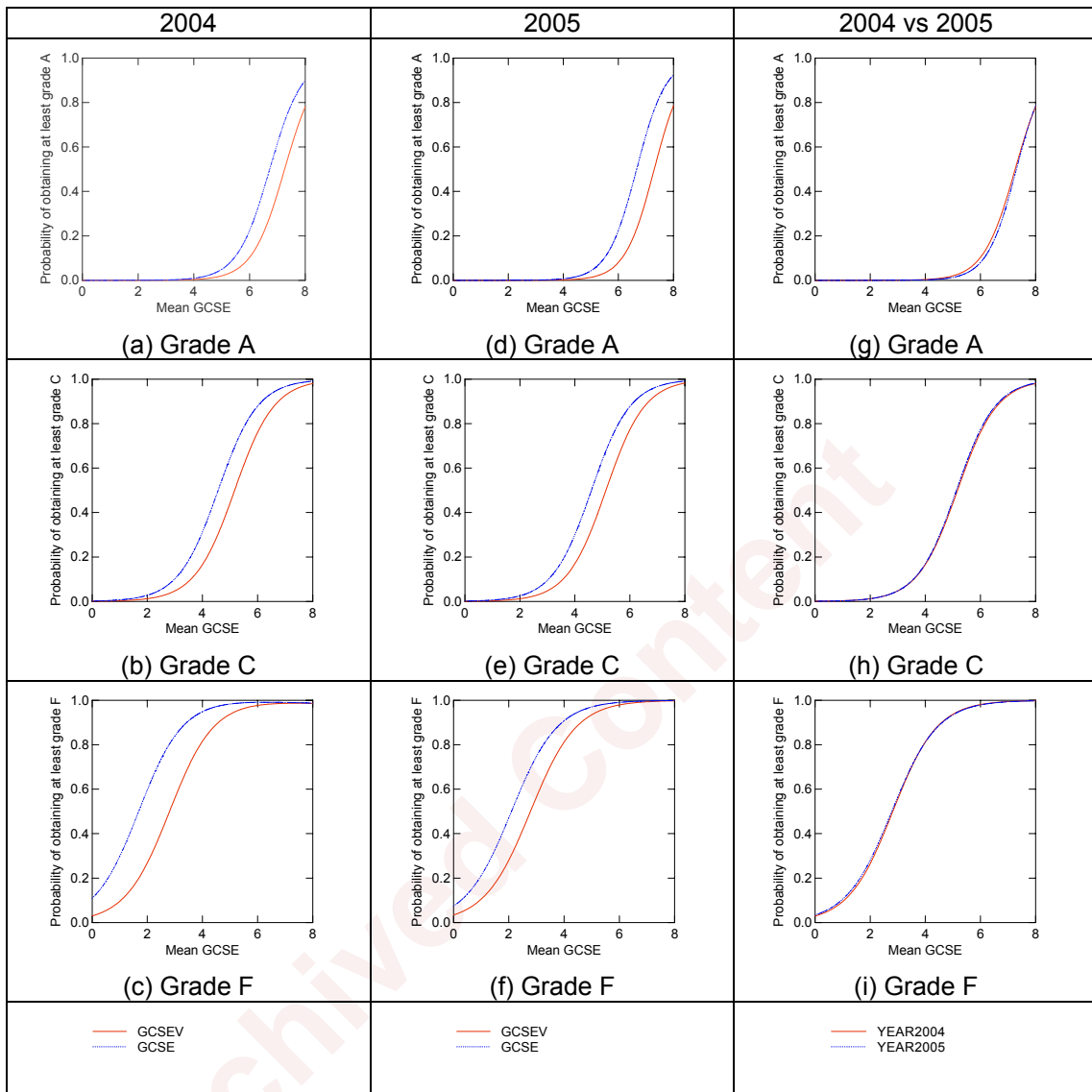


Figure G2: Probabilities of obtaining at least grade A, C and F by mean GCSE for Applied ICT Double Award and its GCSE comparator

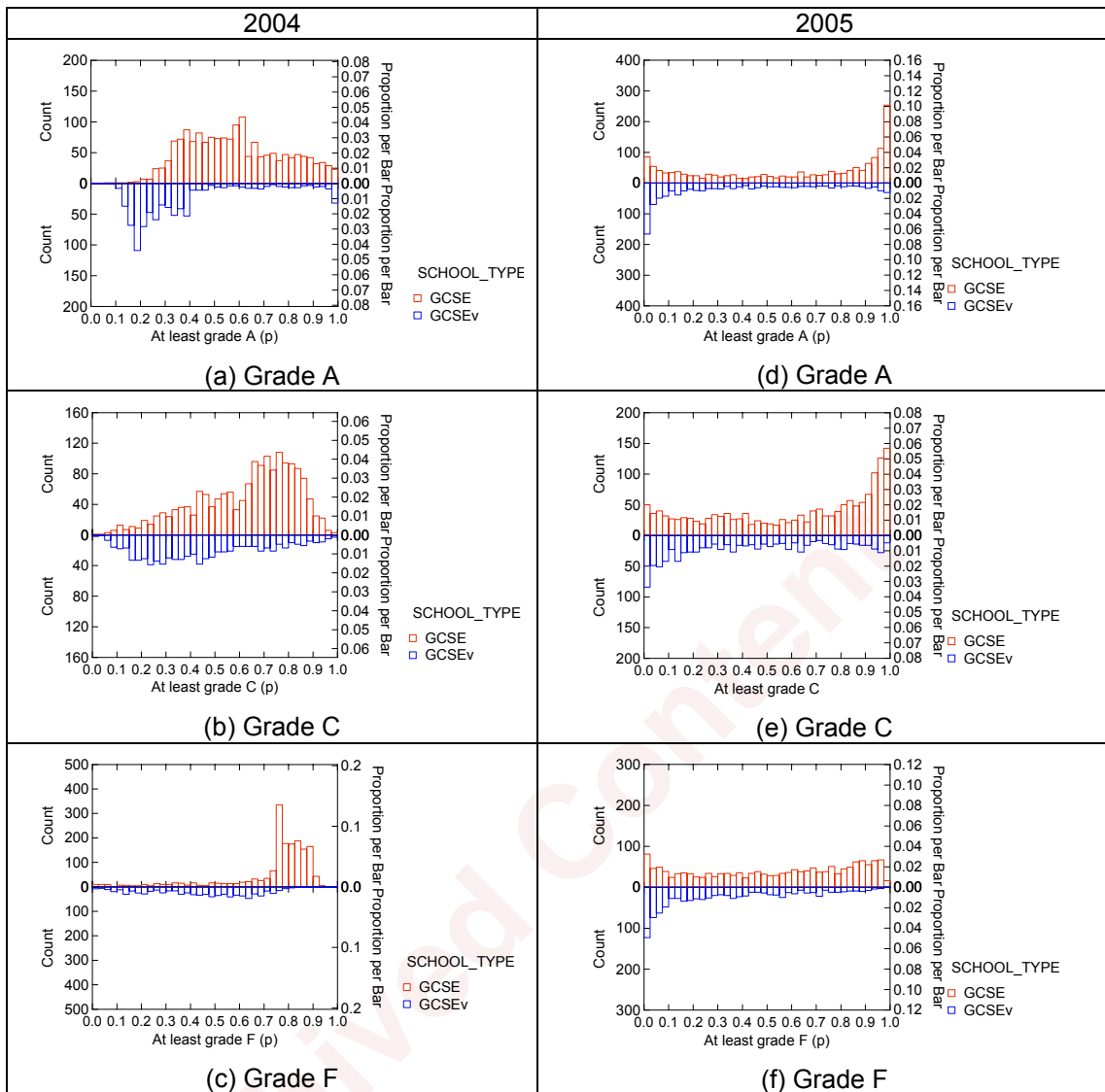
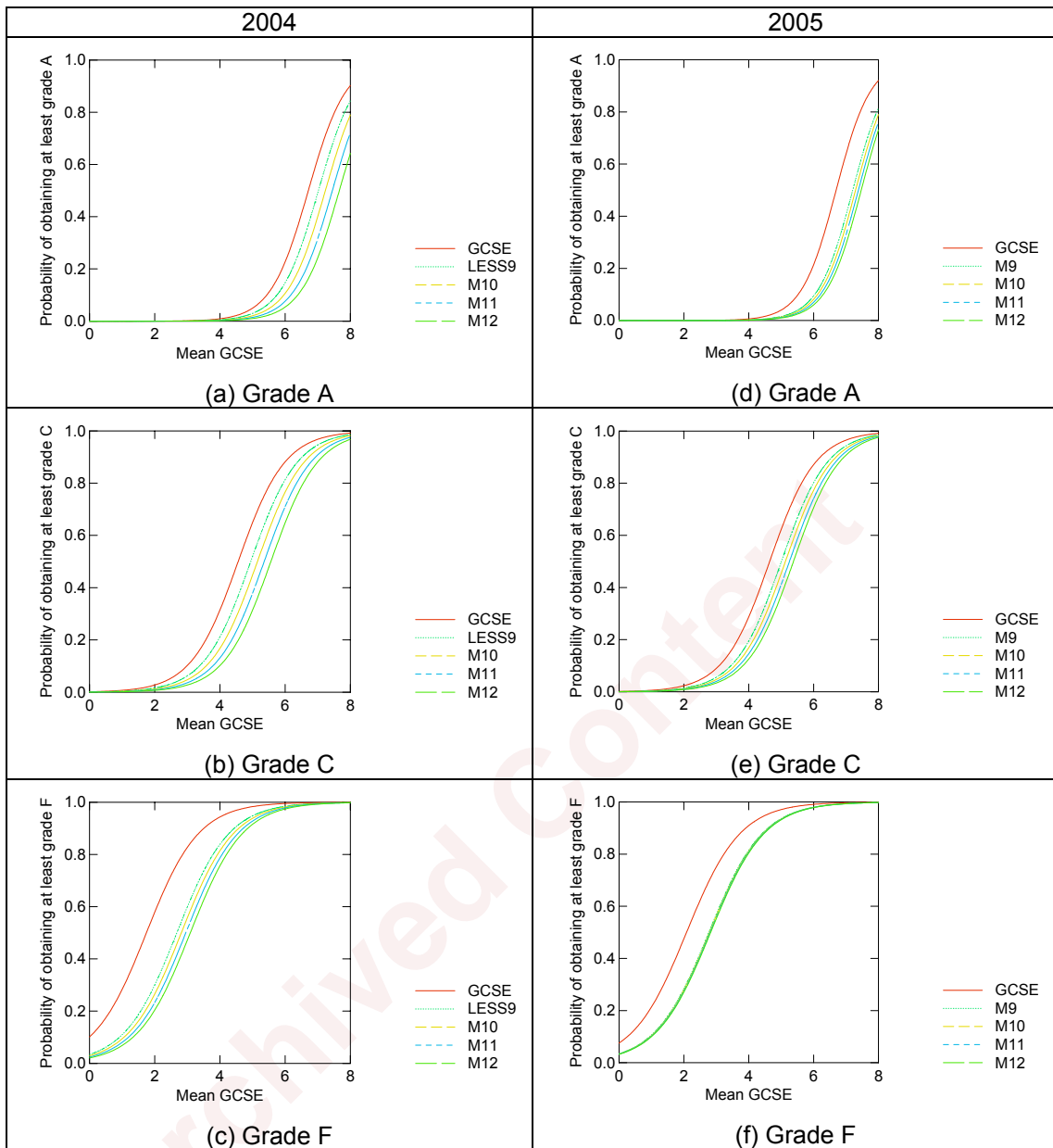


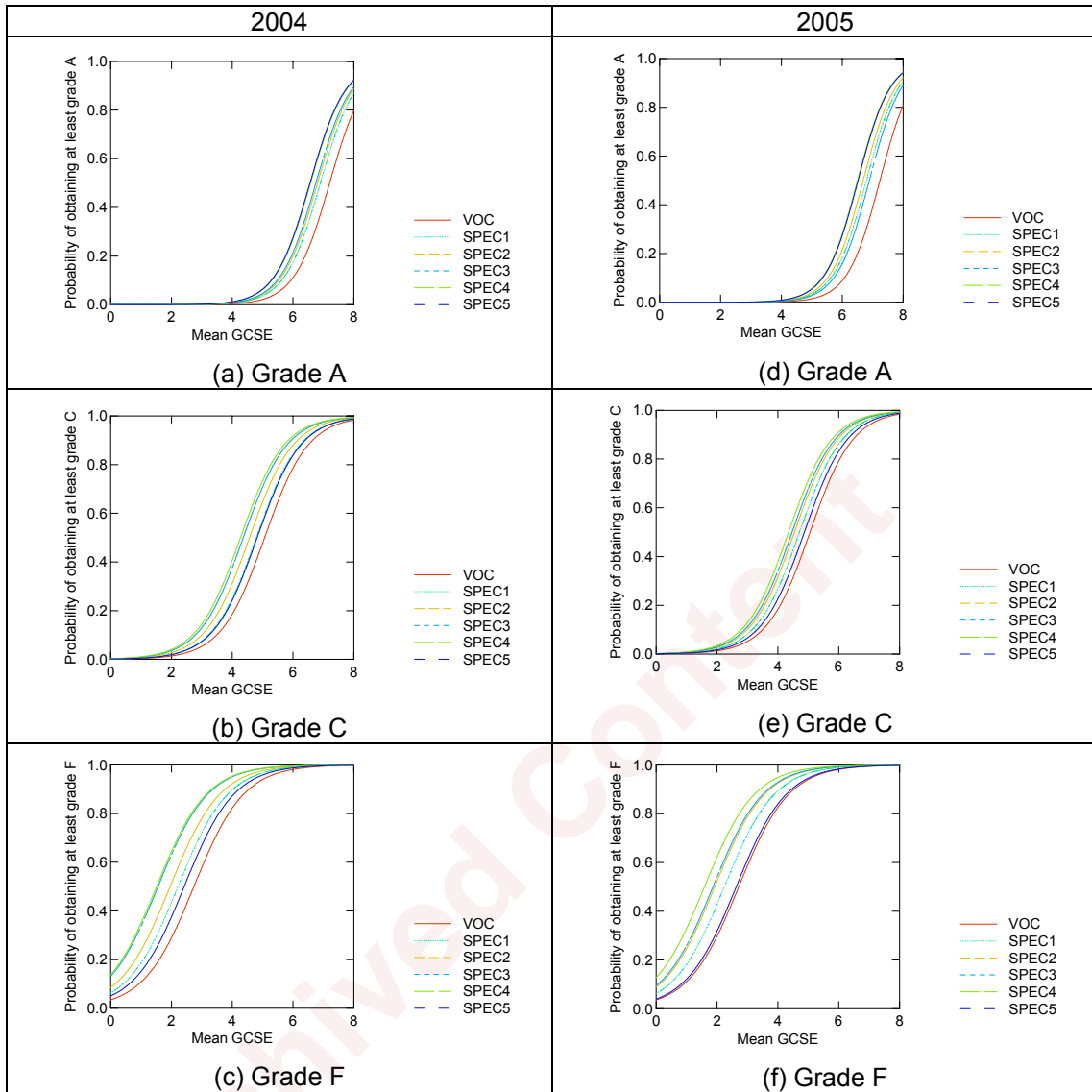
Figure G3: Predicted school effects by type of school³

³ School type GCSE means that the school only offers GCSEs in ICT. A school of the type GCSEv offers the vocational subject.



LESS9/M9 – median number of GCSEs lower or equal to 9
 M10 – median number of GCSEs equal to 10
 M11 – median number of GCSEs equal to 11
 M12 – median number of GCSEs higher or equal to 12

Figure G4: Probability of obtaining at least grade A, C and F in Applied ICT Double Award by the median number of GCSEs in the school



VOC Applied ICT Double Award
 SPEC 1 GCSE in ICT A – OCR
 SPEC 2 GCSE in ICT A – AQA
 SPEC 3 GCSE in ICT B – OCR
 SPEC 4 GCSE in ICT B – AQA
 SPEC 5 GCSE in ICT – EdExcel

Figure G5: Probability of obtaining at least grade A, C and F in Applied ICT Double Award and in its GCSE comparators

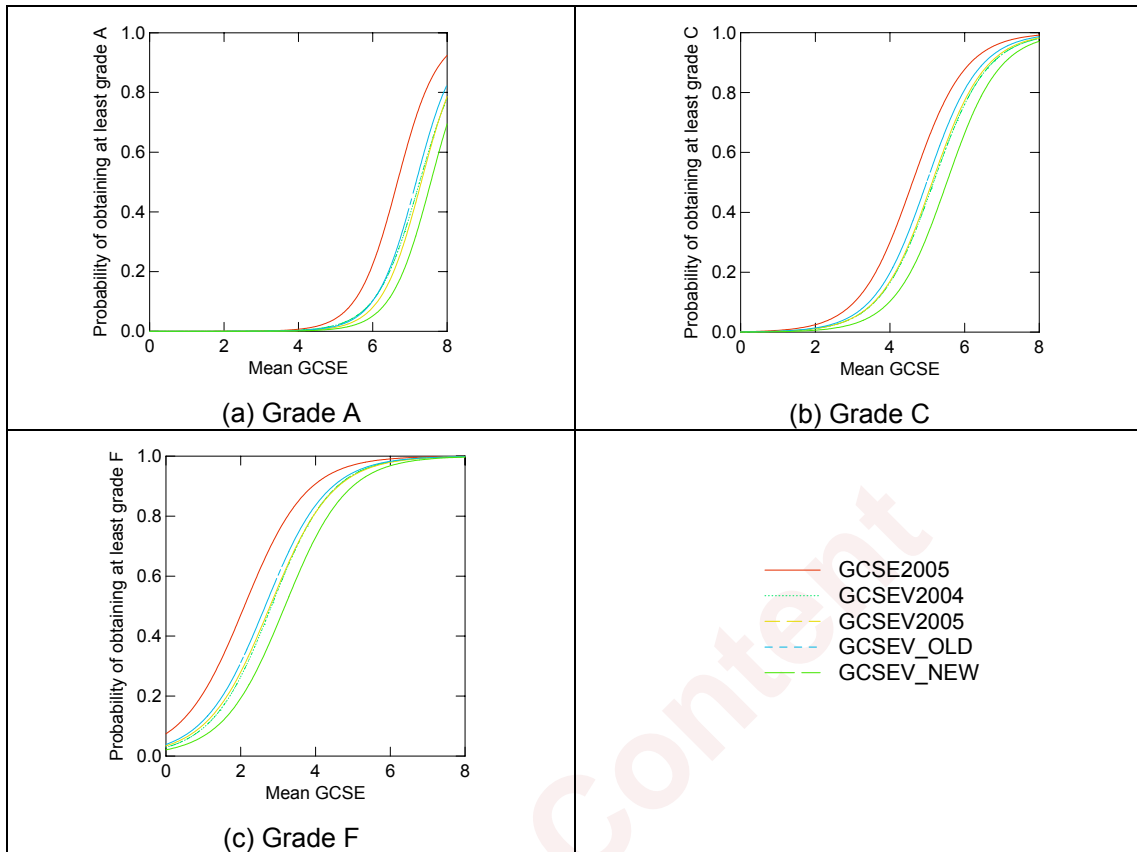


Figure G6: Probability of obtaining at least grade A, C and F in Applied ICT Double Award and in each of its GCSE comparators (including school experience)

Engineering Double Award

Table G4: Engineering Double Award

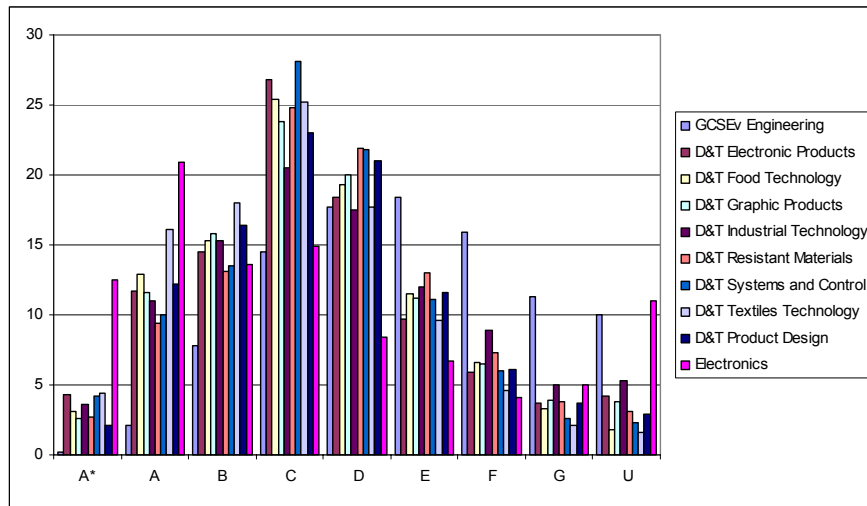
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2316	3,203	4,782
OCR	1492	1,857	2,807
Total entry		5,060	7,589

Table G5: GCSE comparators: Specifications and entry

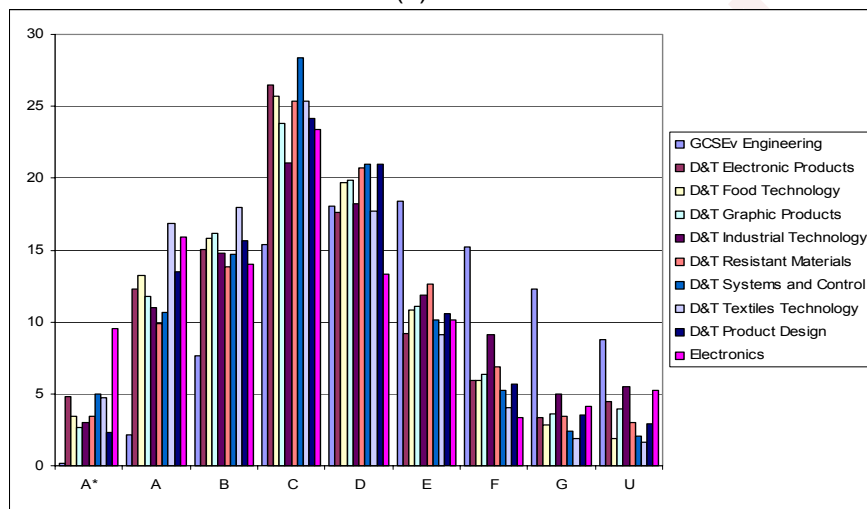
Subject	Awarding Body	Subject code	Entry 2004	Total entry per subject 2004	Entry 2005	Total entry per subject 2005
Design & Technology Electronic Products	OCR	1953	5,346	18,490	5,164	17,119
	AQA	3541	13,144		11,955	
Design & Technology Food Technology	EdExcel	1970	18,895	114,460	21,207	108,247
	OCR	1954	25,856		23,294	
	AQA	3542	69,709		63,746	
Design & Technology Graphic Products	EdExcel	1972	21,946	114,279	22,500	100,371
	OCR	1955	26,329		22,496	
	AQA	3543	66,004		55,375	
Design & Technology Industrial Technology	OCR	1959	1,290	1,290	1,270	1,270
Design & Technology Resistant Materials	EdExcel	1973	12,080	106,846	11,752	99,054
	OCR	1956	29,443		28,175	
	AQA	3545	65,323		59,127	
Design & Technology Systems and Control	EdExcel	1974	17,138	27,370	13,595	22,461
	OCR	1957	3,736		3,457	
	AQA	3546	6,496		5,409	
Design & Technology Textiles Technology	EdExcel	1971	14,028	61,771	13,384	57,470
	OCR	1958	11,620		10,516	
	AQA	3547	36,123		33,570	
Design & Technology Product Design	AQA	3544	13,583	13,583	16,207	16,207
Electronics	AQA	3432	535	535	534	534
Total Entry				458,624		422,733

Table G6: Predicted probabilities of obtaining at least grade A, grade C and grade F

		2004		2005	
		Centres for GCSEv	Centres for GCSE	Centres for GCSEv	Centres for GCSE
At least a grade A	Mean	0.20	0.54	0.23	0.57
	SD	0.26	0.35	0.28	0.35
	Reference Interval	(0.002,0.867)	(0.018,0.989)	(0.003,0.870)	(0.023,0.989)
At least a grade C	Mean	0.27	0.58	0.29	0.61
	SD	0.28	0.32	0.29	0.30
	Reference Interval	(0.007,0.831)	(0.053,0.978)	(0.009,0.884)	(0.074,0.977)
At least a grade F	Mean	0.28	0.63	0.32	0.65
	SD	0.23	0.28	0.25	0.27
	Reference Interval	(0.012,0.716)	(0.102,0.971)	(0.012,0.815)	(0.126,0.969)



(a) 2004



(b) 2005

Figure G7: Grade comparison among Engineering Double Award and the GCSE comparators (% in grade)

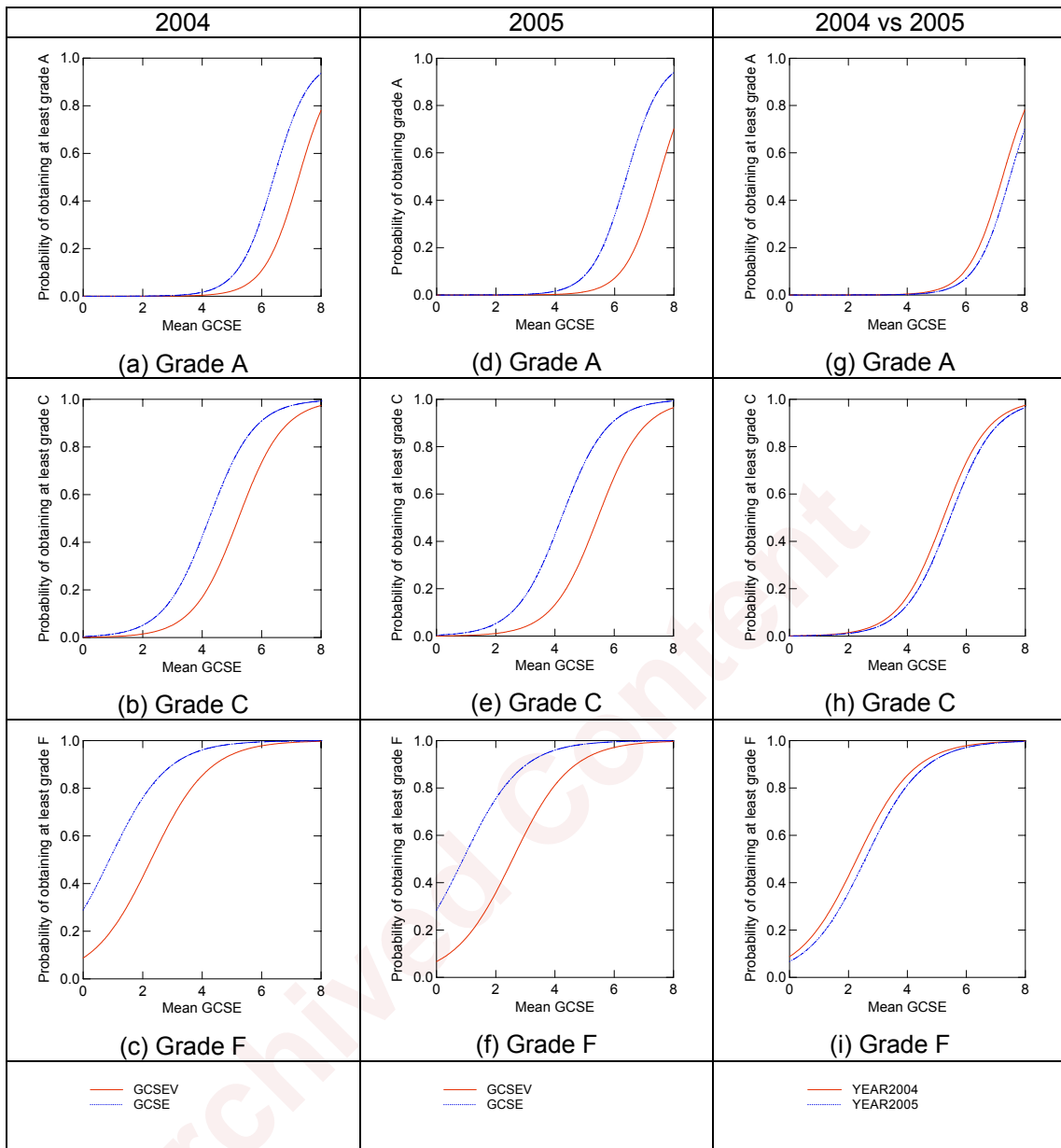


Figure G8: Probability of obtaining at least grade A, C and F in Engineering Double Award and in its GCSE comparators

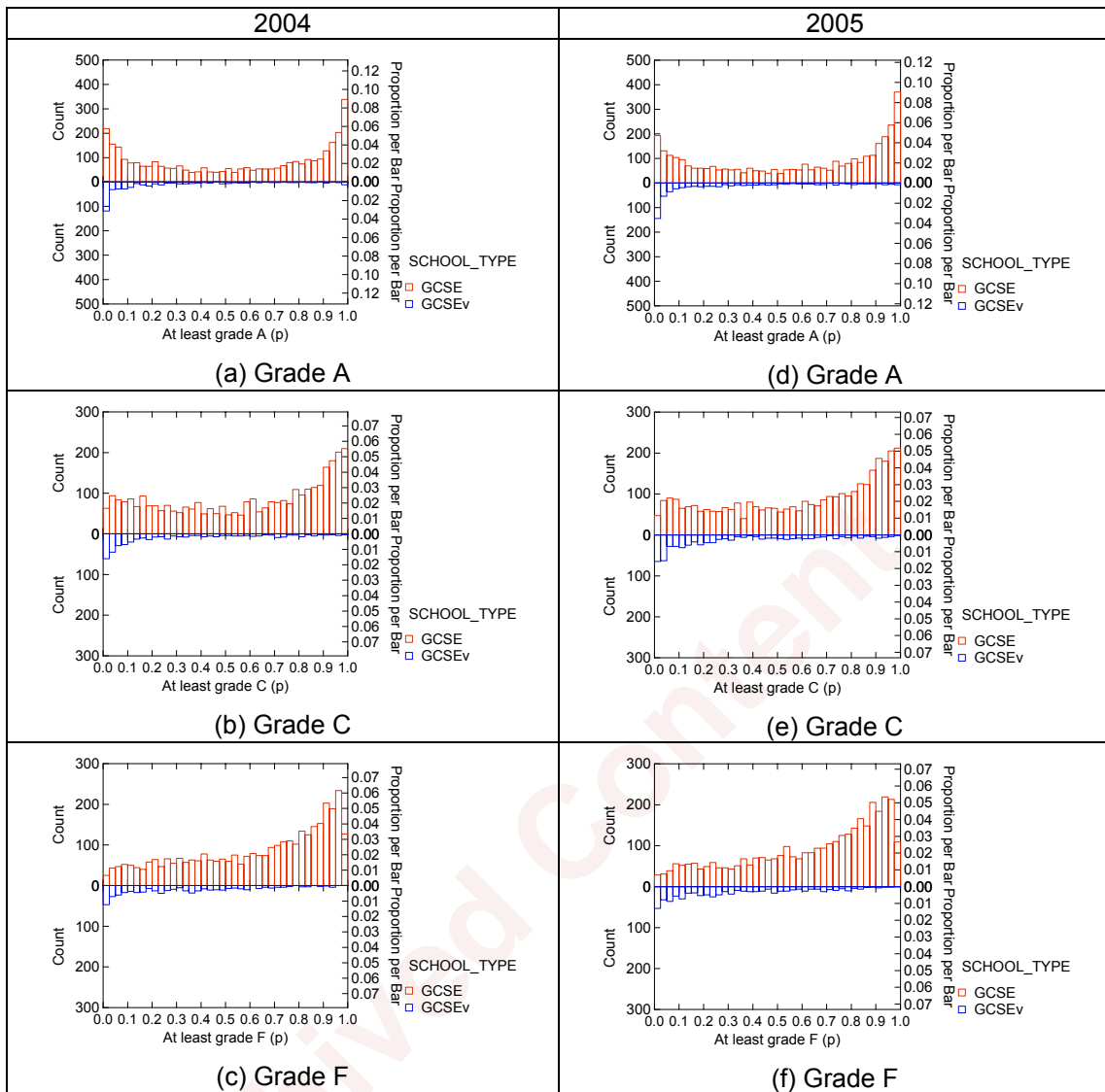
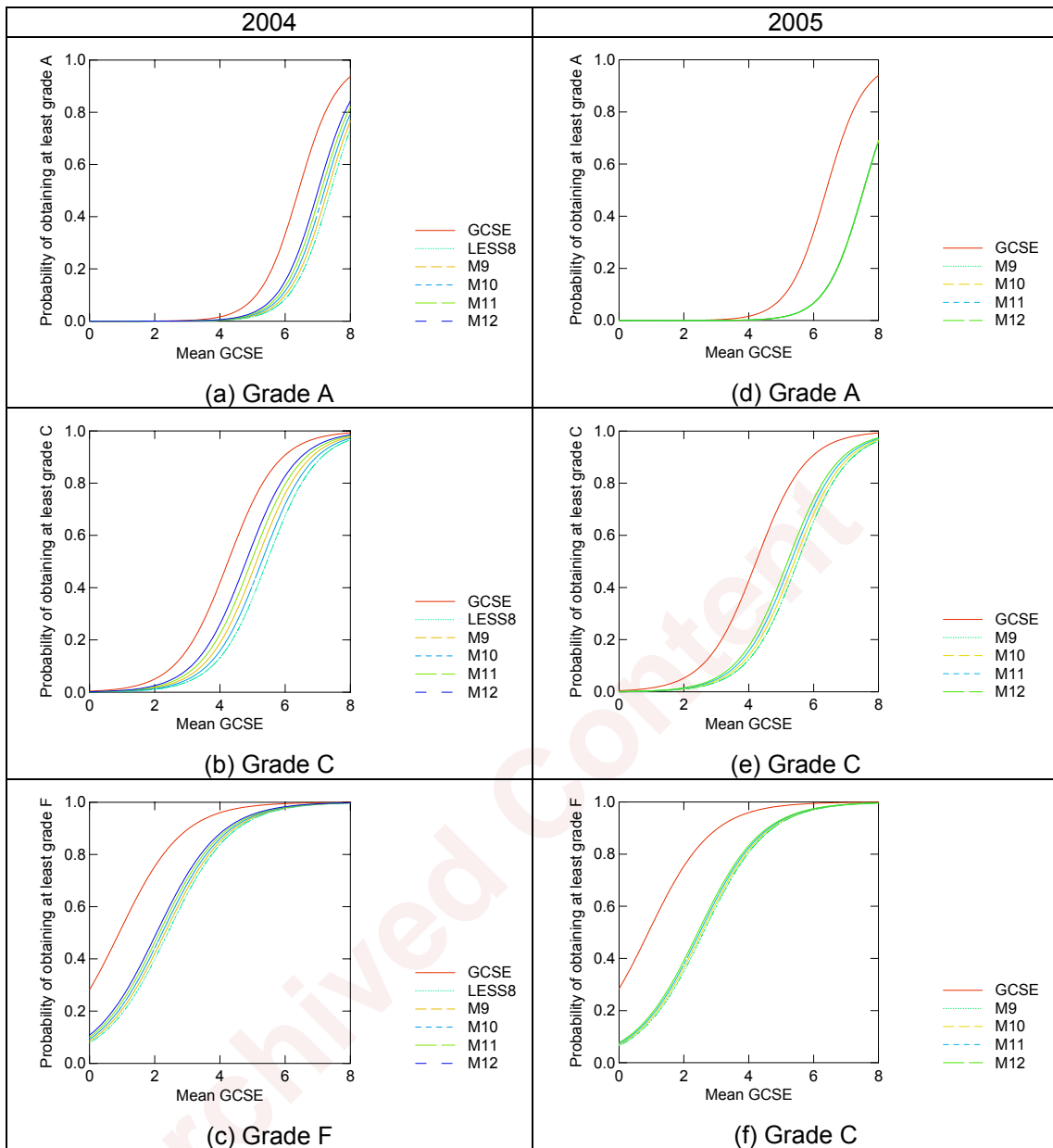
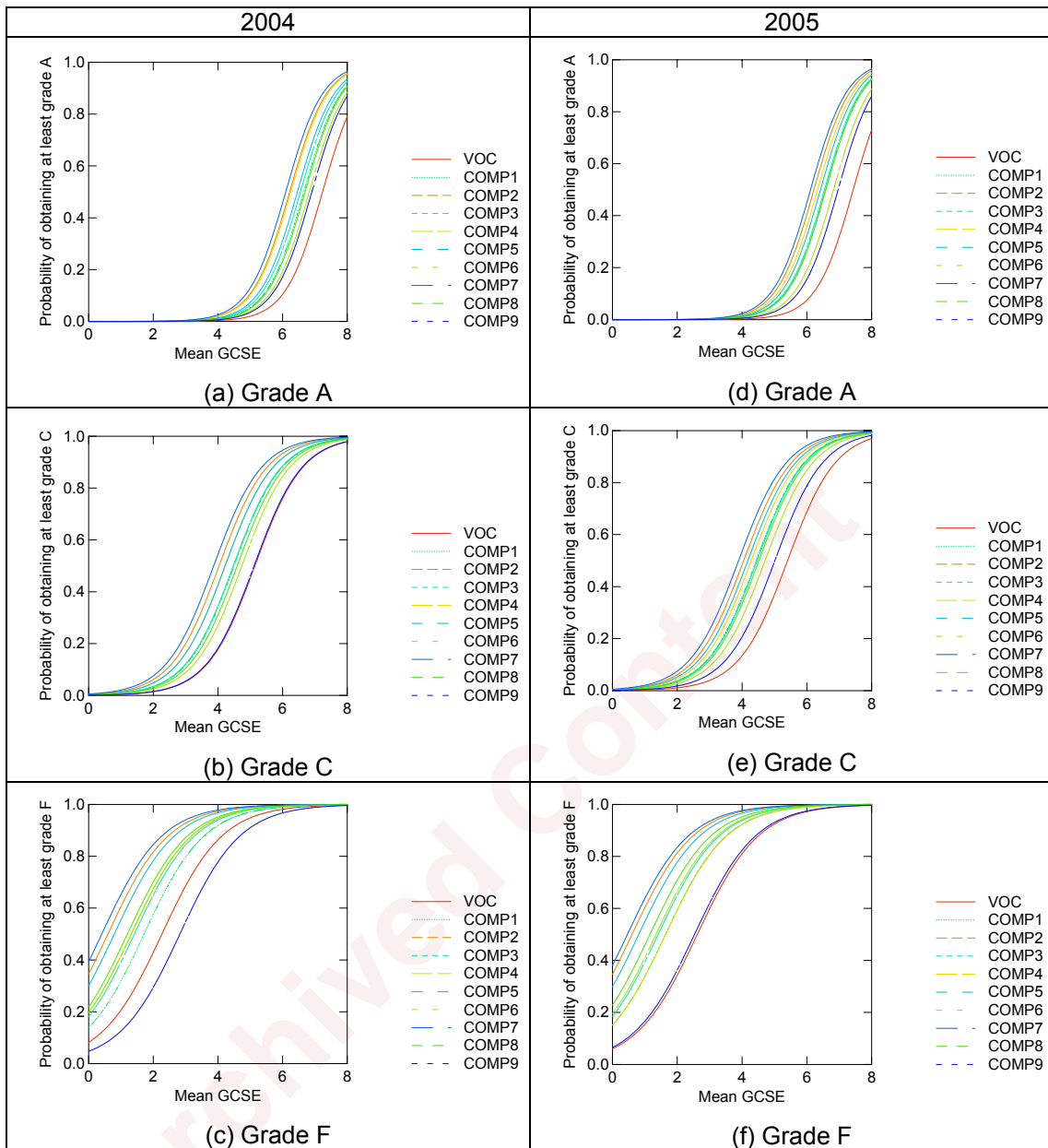


Figure G9: Predicted school effects by type of school



- 2004
- LESS8 – median number of GCSEs lower or equal to 8
 - M9 – median number of GCSEs equal to 9
 - M10 – median number of GCSEs equal to 10
 - M11 – median number of GCSEs equal to 11
 - M12 – median number of GCSEs higher or equal to 12
- 2005
- M9 – median number of GCSEs lower or equal to 9
 - M10 – median number of GCSEs equal to 10
 - M11 – median number of GCSEs equal to 11
 - M12 – median number of GCSEs higher or equal to 12

Figure G10: Probability of obtaining at least grade A, C and F in Engineering Double Award by the median number of GCSEs in the school



- VOC Engineering Double Award
- COMP 1 GCSE in D & T (Electronic Products)
- COMP 2 GCSE in D & T (Food Technology)
- COMP 3 GCSE in D & T (Graphic Products)
- COMP 4 GCSE in D & T (Industrial Technology)
- COMP 5 GCSE in D & T (Resistant Materials)
- COMP 6 GCSE in D & T (Systems and Control)
- COMP 7 GCSE in D & T (Textiles Technology)
- COMP 8 GCSE in D & T (Product Design)
- COMP 9 GCSE in Electronics

Figure G11: Probability of obtaining at least grade A, C and F in Engineering Double Award and in each of its GCSE comparators

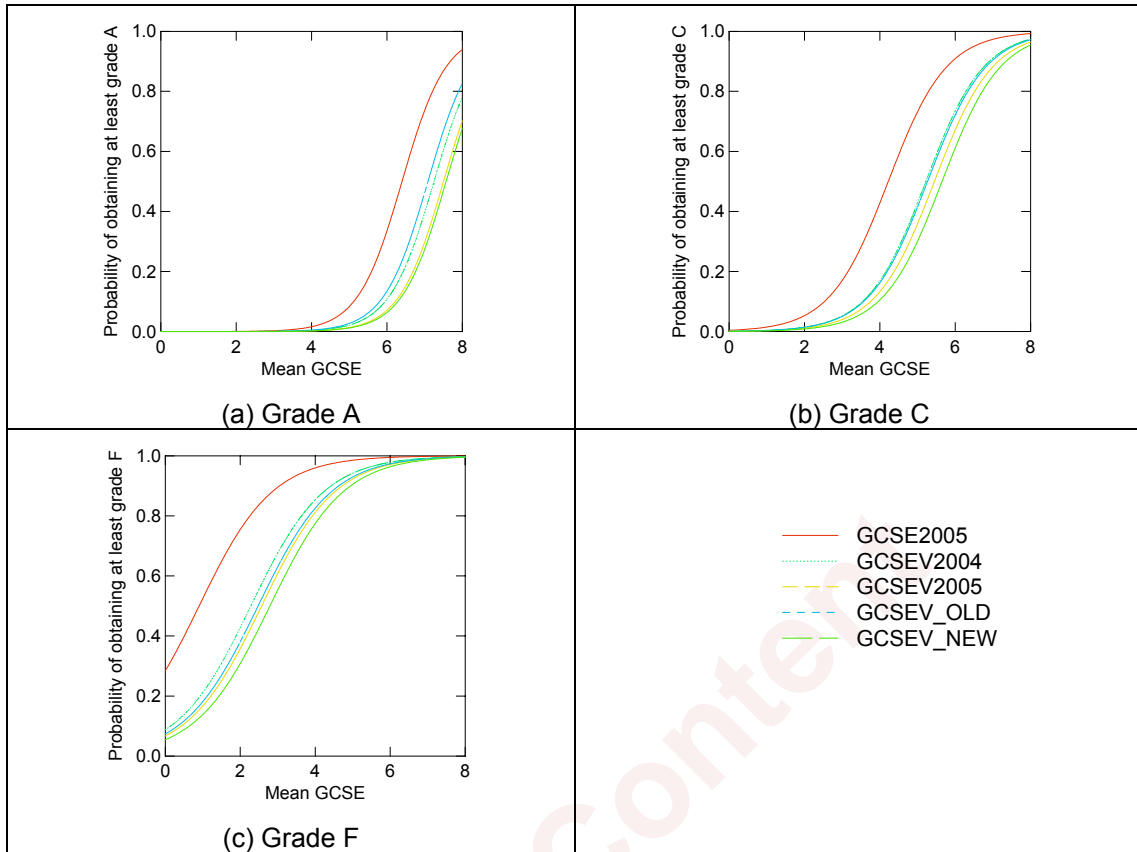


Figure G12: Probability of obtaining at least grade A, C and F in Engineering Double Award and in its GCSE comparators (including school experience)

Manufacturing Double Award

Table G7: Manufacturing Double Award

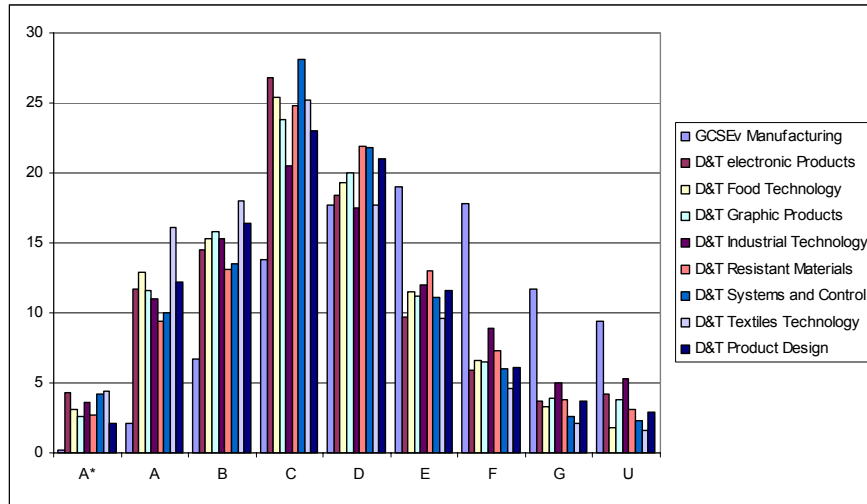
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2351	1,787	2,123
OCR	1496	2,159	2,204
Total entry		3,946	4,327

Table G8: GCSE comparators: Specifications and entry

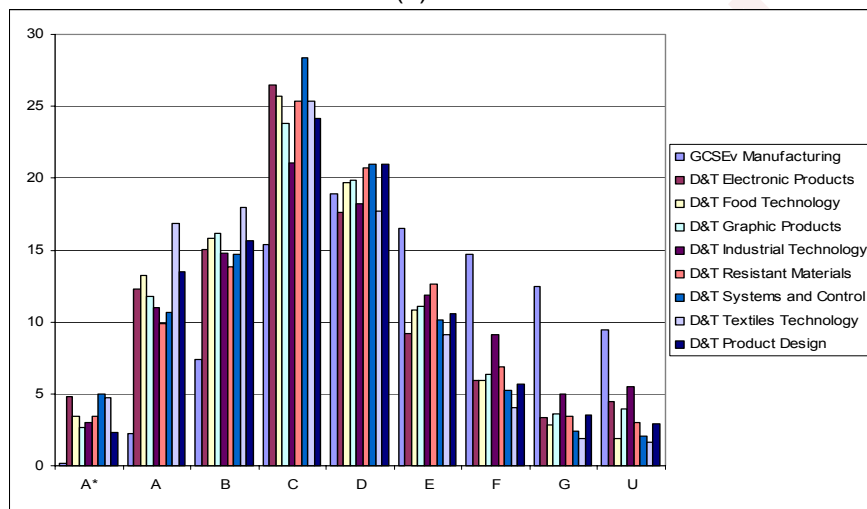
Subject	Awarding Body	Subject code	Entry 2004	Total entry per subject 2004	Entry 2005	Total entry per subject 2005
Design & Technology Electronic Products	OCR	1953	5,346	18,490	5,164	17,119
	AQA	3541	13,144		11,955	
Design & Technology Food Technology	EdExcel	1970	18,895	114,460	21,207	108,247
	OCR	1954	25,856		23,294	
	AQA	3542	69,709		63,746	
Design & Technology Graphic Products	EdExcel	1972	21,946	114,279	22,500	100,371
	OCR	1955	26,329		22,496	
	AQA	3543	66,004		55,375	
Design & Technology Industrial Technology	OCR	1959	1,290	1,290	1,270	1,270
Design & Technology Resistant Materials	EdExcel	1973	12,080	106,846	11,752	99,054
	OCR	1956	29,443		28,175	
	AQA	3545	65,323		59,127	
Design & Technology Systems and Control	EdExcel	1974	17,138	27,370	13,595	22,461
	OCR	1957	3,736		3,457	
	AQA	3546	6,496		5,409	
Design & Technology Textiles Technology	EdExcel	1971	14,028	6,1771	13,384	57,470
	OCR	1958	11,620		10,516	
	AQA	3547	36,123		33,570	
Design & Technology Product Design	AQA	3544	13,583	13,583	16,207	16,207
Total Entry				458,089		422,199

Table G9: Predicted probabilities of obtaining at least grade A, grade C and grade F

		2004		2005	
		Centres for GCSEv	Centres for GCSE	Centres for GCSEv	Centres for GCSE
At least a grade A	Mean	0.19	0.57	0.23	0.55
	SD	0.26	0.35	0.30	0.35
	Reference Interval	(0.001,0.850)	(0.023,0.989)	(0.001,0.929)	(0.019,0.989)
At least a grade C	Mean	0.25	0.60	0.27	0.58
	SD	0.28	0.31	0.30	0.31
	Reference Interval	(0.006,0.902)	(0.065,0.978)	(0.006,0.859)	(0.063,0.974)
At least a grade F	Mean	0.29	0.64	0.30	0.64
	SD	0.24	0.27	0.26	0.26
	Reference Interval	(0.013,0.764)	(0.114,0.968)	(0.009,0.815)	(0.147,0.961)



(a) 2004



(b) 2005

Figure G13: Grade comparison among Manufacturing Double Award and the GCSE comparators (% in grade)

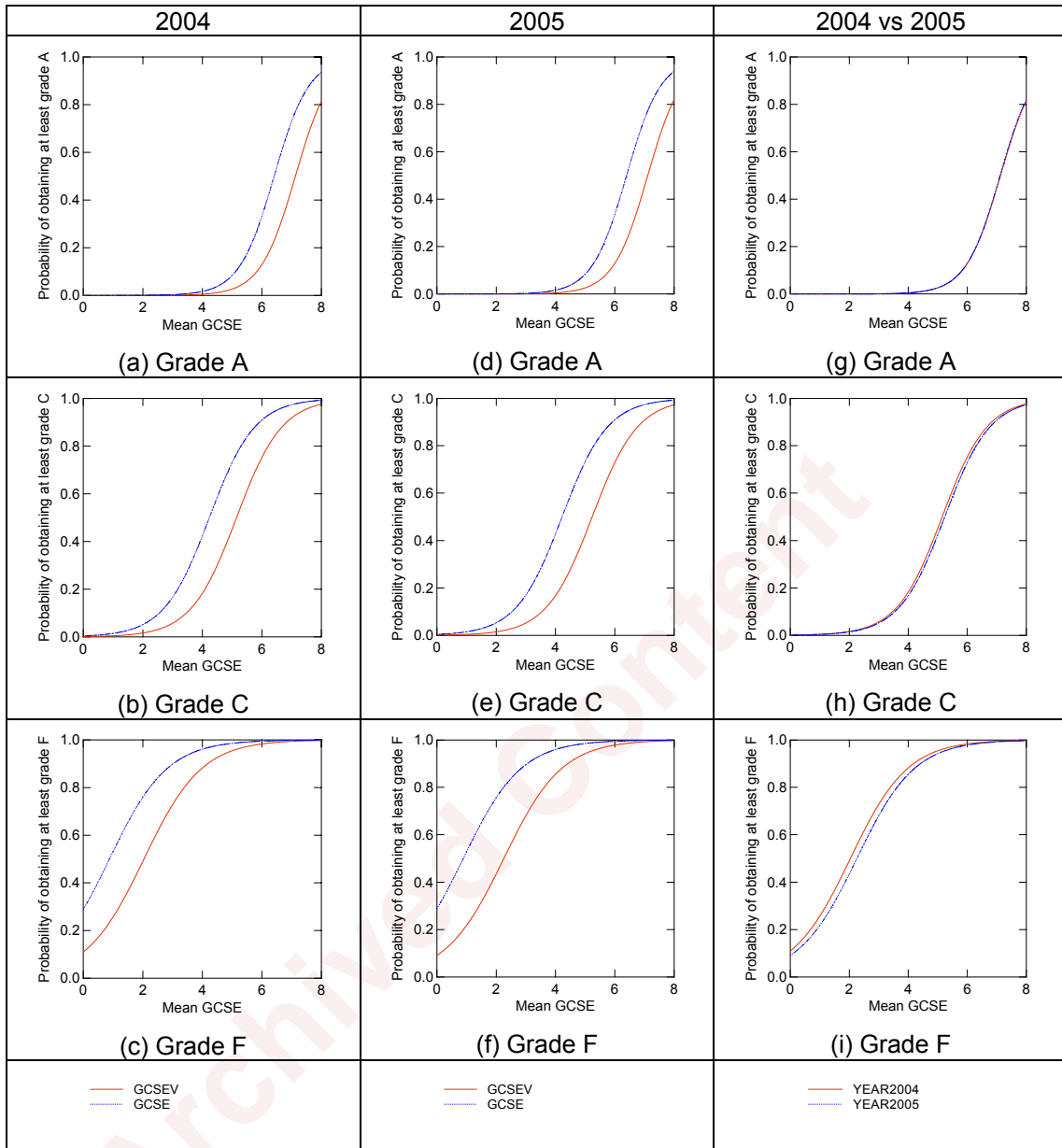


Figure G14: Probability of obtaining at least grade A, C and F in Manufacturing Double Award and in its GCSE comparators

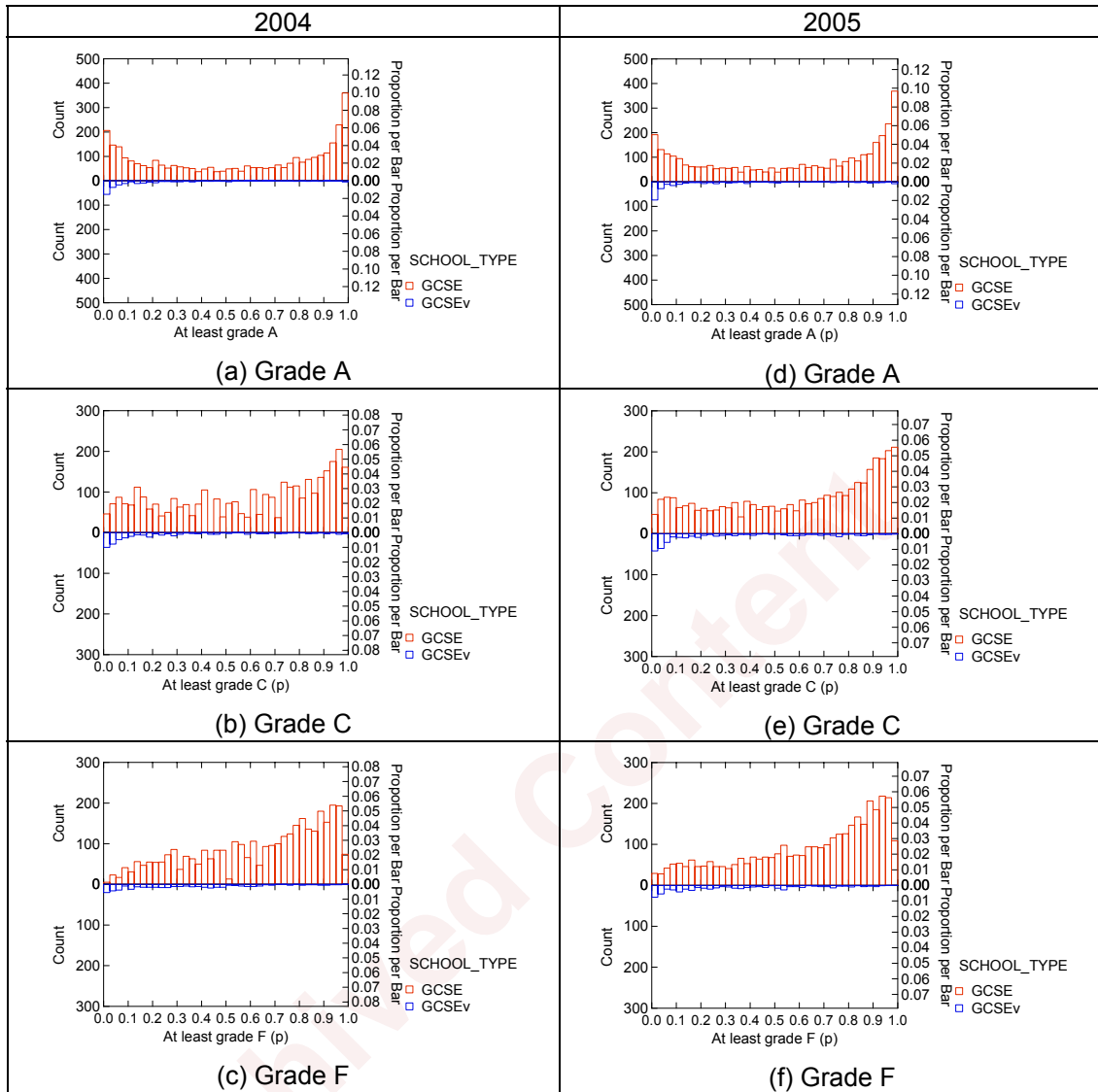
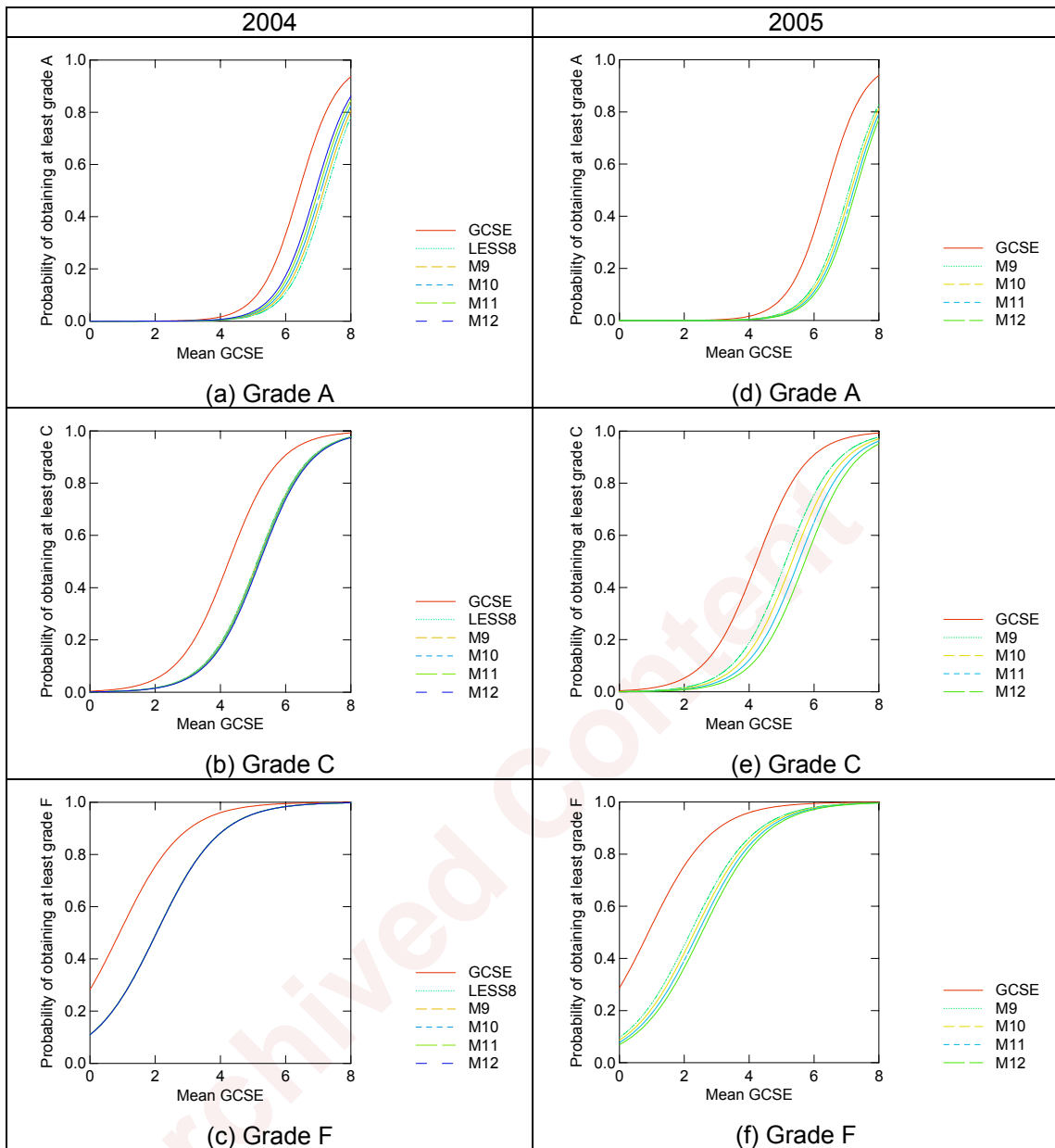


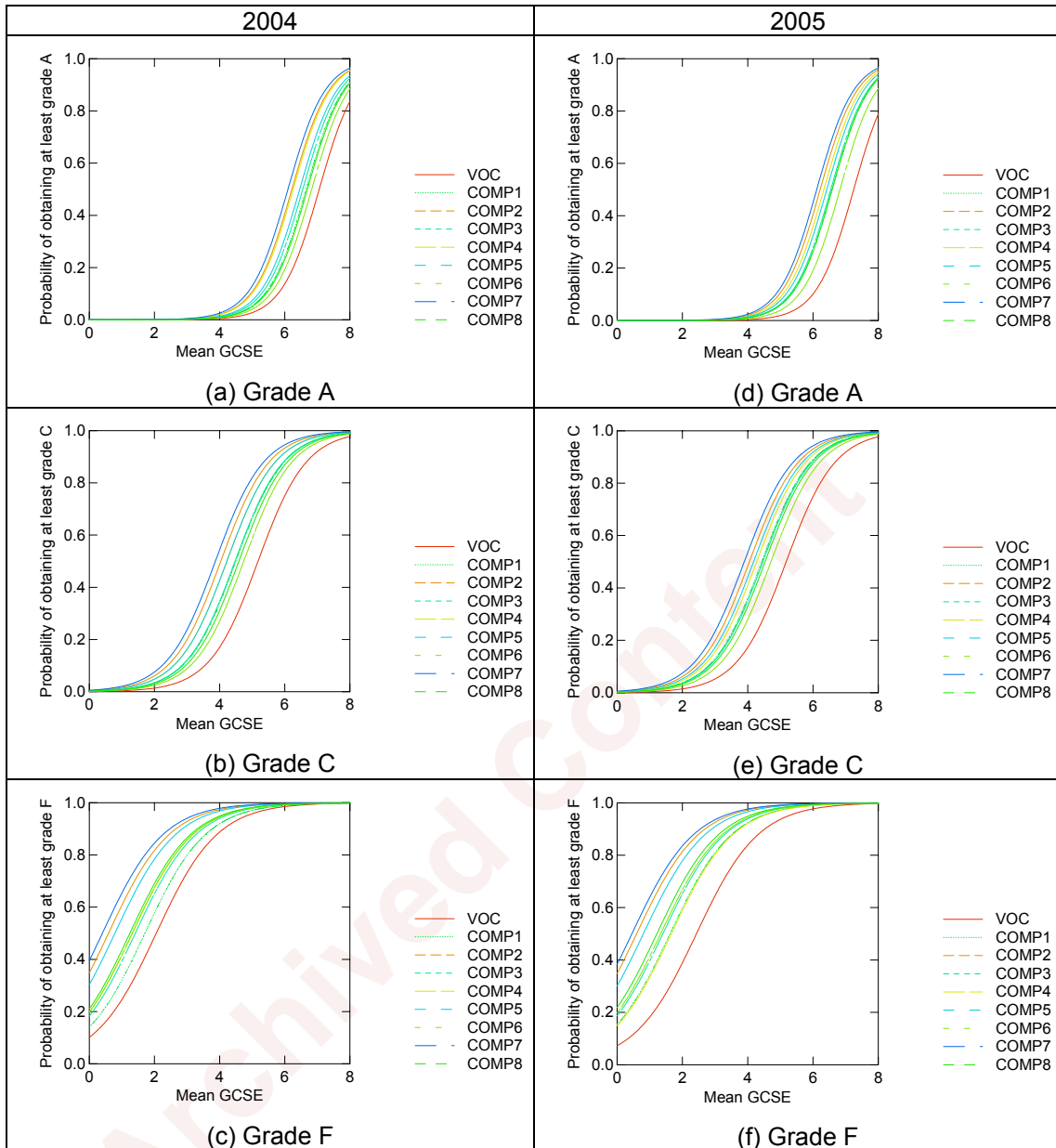
Figure G15: Predicted school effects by type of school



2004
 LESS8 – median number of GCSEs lower or equal to 8
 M9 – median number of GCSEs equal to 9
 M10 – median number of GCSEs equal to 10
 M11 – median number of GCSEs equal to 11
 M12 – median number of GCSEs higher or equal to 12

2005
 M9 – median number of GCSEs lower or equal to 9
 M10 – median number of GCSEs equal to 10
 M11 – median number of GCSEs equal to 11
 M12 – median number of GCSEs higher or equal to 12

Figure G16: Probability of obtaining at least grade A, C and F in Manufacturing Double Award by the median number of GCSEs in the school



- VOC Manufacturing Double Award
- COMP 1 GCSE in D & T (Electronic Products)
- COMP 2 GCSE in D & T (Food Technology)
- COMP 3 GCSE in D & T (Graphic Products)
- COMP 4 GCSE in D & T (Industrial Technology)
- COMP 5 GCSE in D & T (Resistant Materials)
- COMP 6 GCSE in D & T (Systems and Control)
- COMP 7 GCSE in D & T (Textiles Technology)
- COMP 8 GCSE in D & T (Product Design)

Figure G17: Probability of obtaining at least grade A, C and F in Manufacturing Double Award and in each of its GCSE comparators

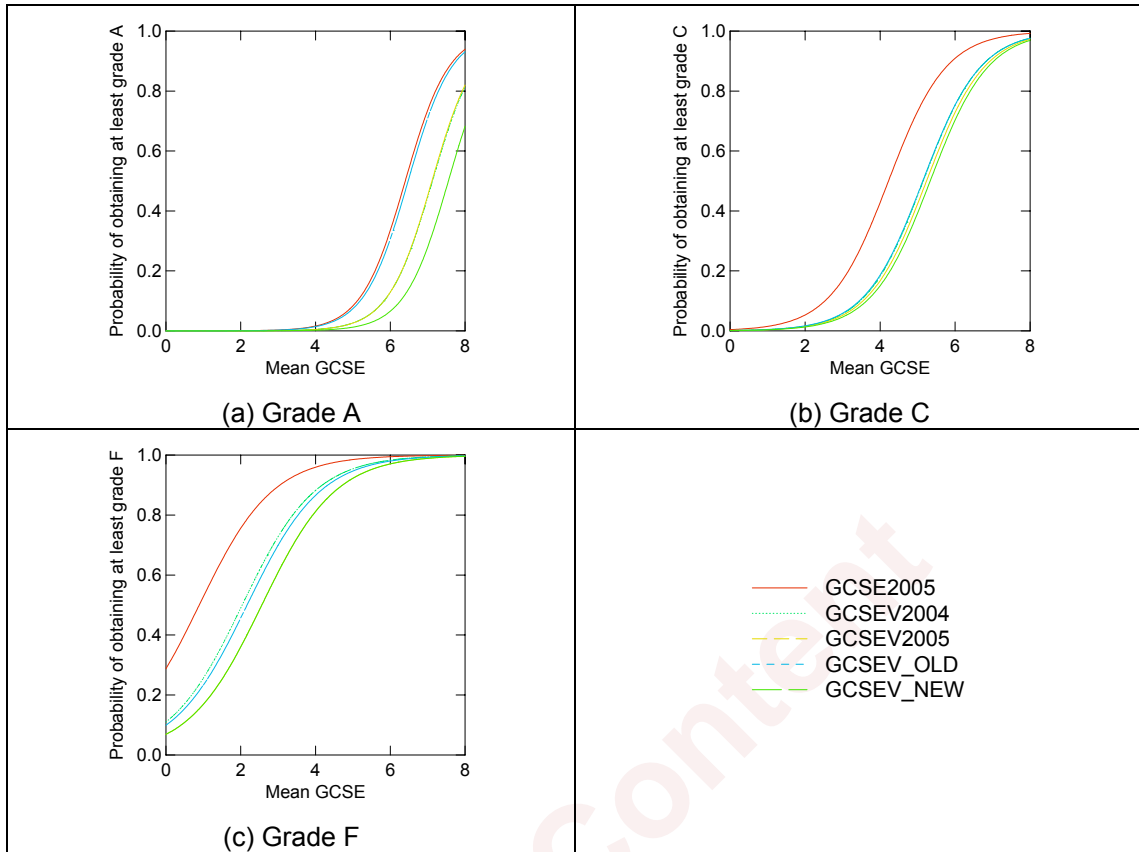


Figure G18: Probability of obtaining at least grade A, C and F in Manufacturing Double Award and in its GCSE comparators (including school experience)

Health and Social Care Double Award

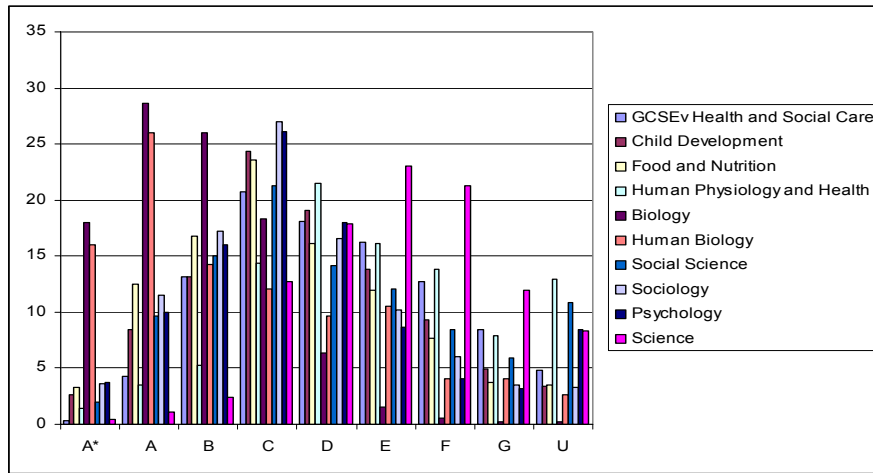
Table G10: Health and Social Care Double Award

Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2321	6,722	8,950
OCR	1493	6,144	9,253
AQA	3821	3,979	4,743
Total Entry		16,845	22,946

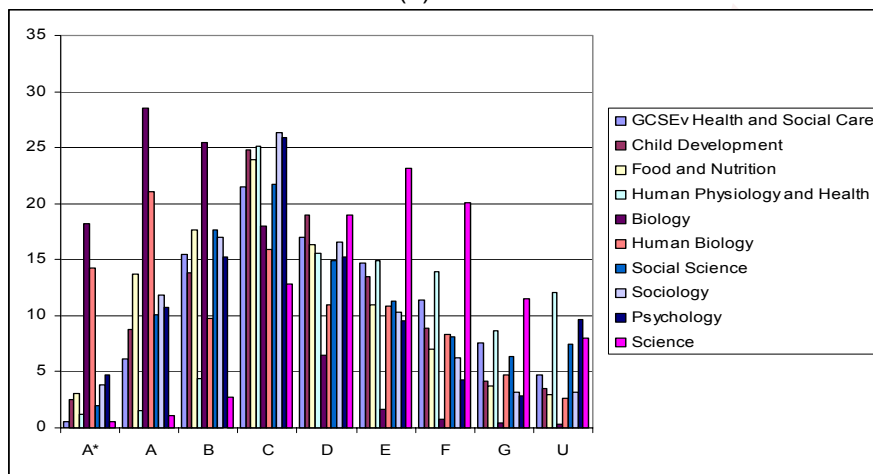
Table G11: GCSE comparators: Specifications and entry

Subject	Awarding Body	Subject code	Entry 2004	Total entry per subject 2004	Entry 2005	Total entry per subject 2005
Home Economics - Child Development	OCR	1972	21,946	36,490	22,500	35,766
	AQA	3561	14,544		13,266	
Home Economics - Food and Nutrition	OCR	1973	12,080	13,958	11,752	13,570
	AQA	3562	1,878		1,818	
Human Physiology and Health	AQA	3417	340	340	322	322
Biology	EdExcel	1520, 1529	9,244	43,665	9,849	47,950
	OCR	1980	9,654		10,884	
	AQA	3413, 3411	24,767		27,217	
Human Biology	AQA	3415	673	673	699	699
Social Science	AQA	3101	1,415	1,415	1,289	1,289
Sociology	OCR	1990	3,225	13,446	3,520	14,670
	AQA	3192	10,221		11,150	
Psychology	OCR	1989	616	1,296	863	2,026
	AQA	3181	680		1,163	
Science (Single Award)	EdExcel	1521, 1535	15,574	54,878	17,353	59,242
	OCR	1984, 1978, 1975	9,724		9,950	
	AQA	3463, 3469	29,580		31,939	
Total entry				166,161		175,534

Performance in GCSE examinations in vocational subjects (GCSEVs) 2004-2005



(a) 2004



(b) 2005

Figure G19: Grade comparison among Health and Social Care Double Award and the GCSE comparators (% in grade)

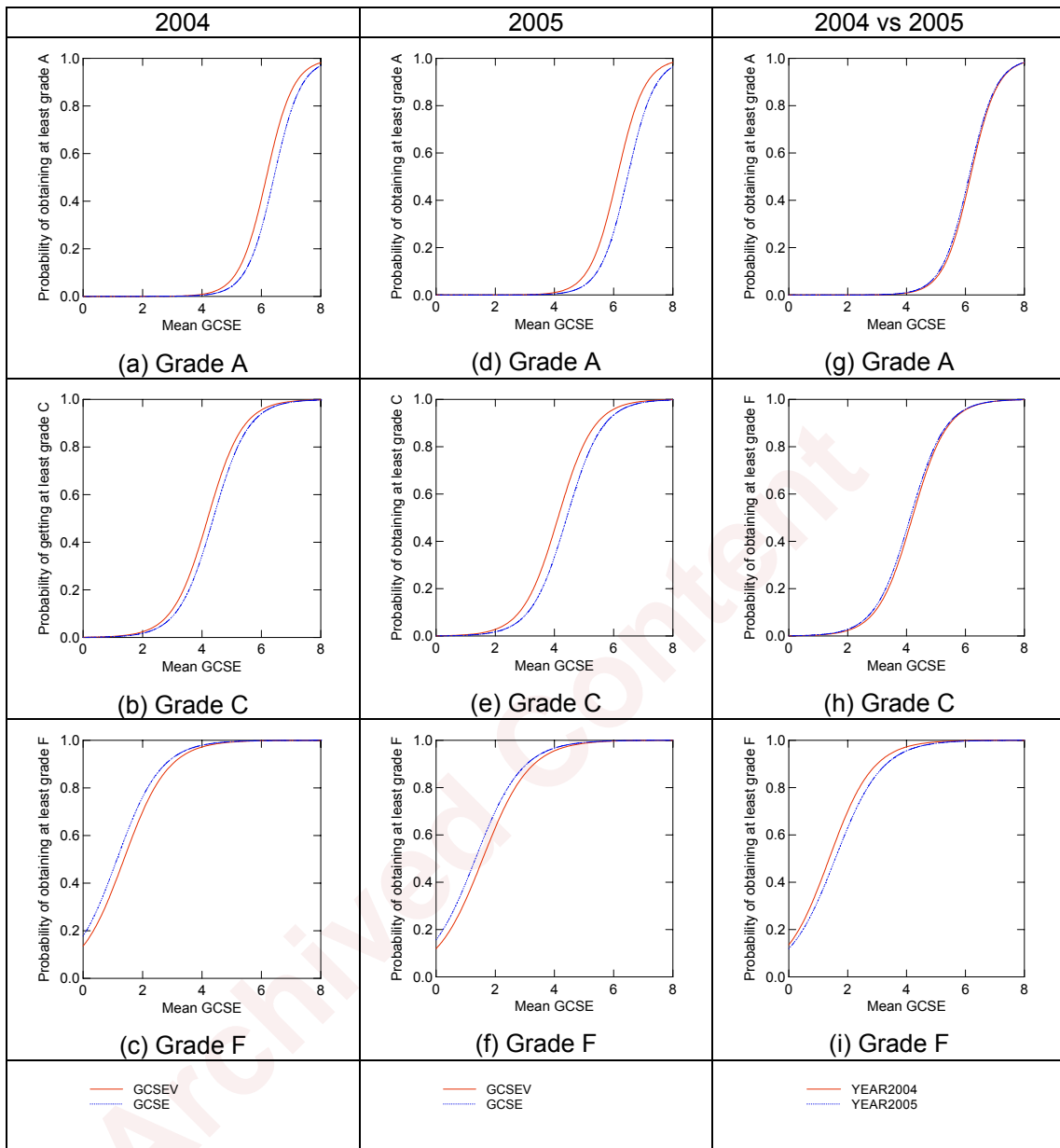
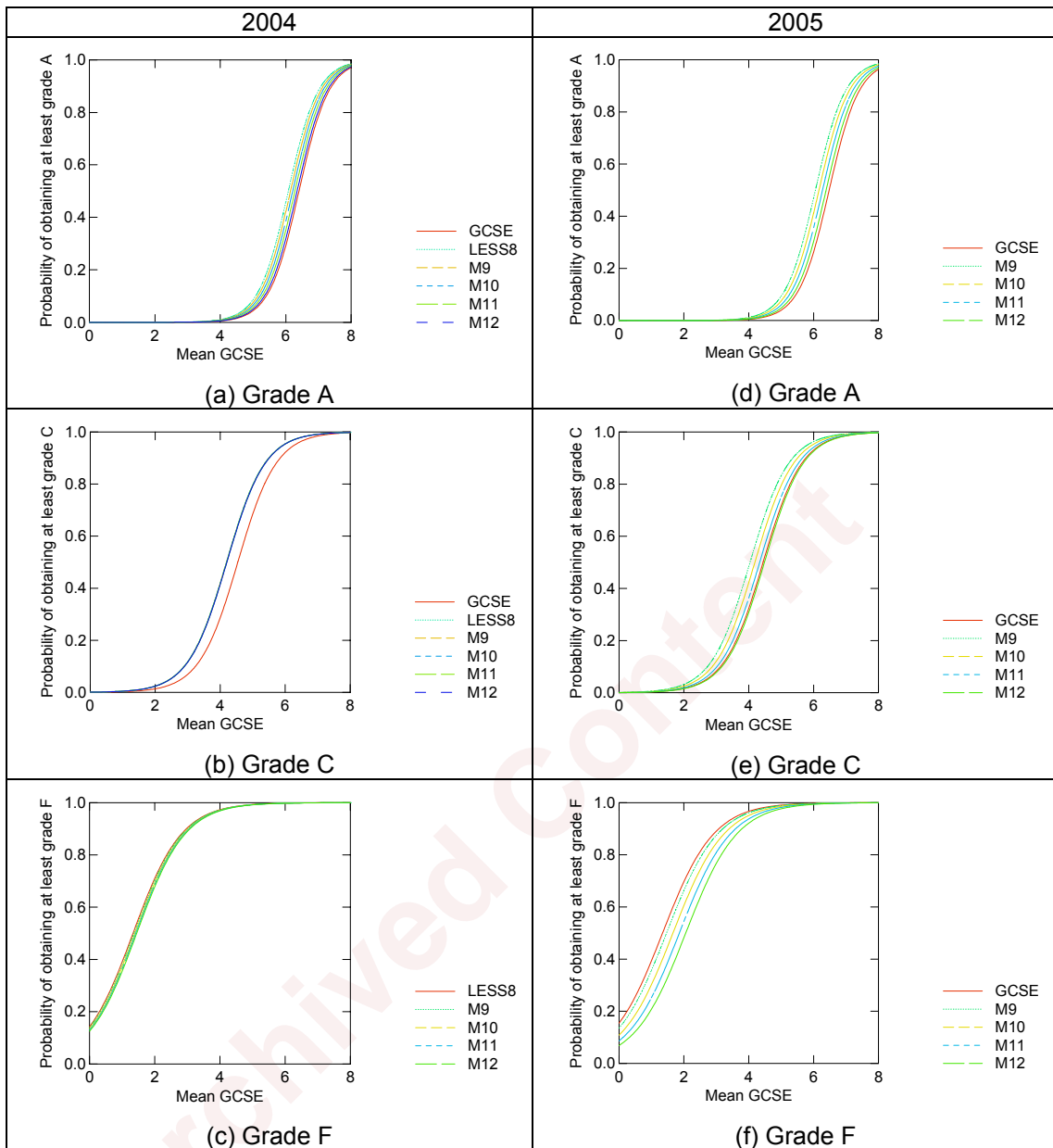


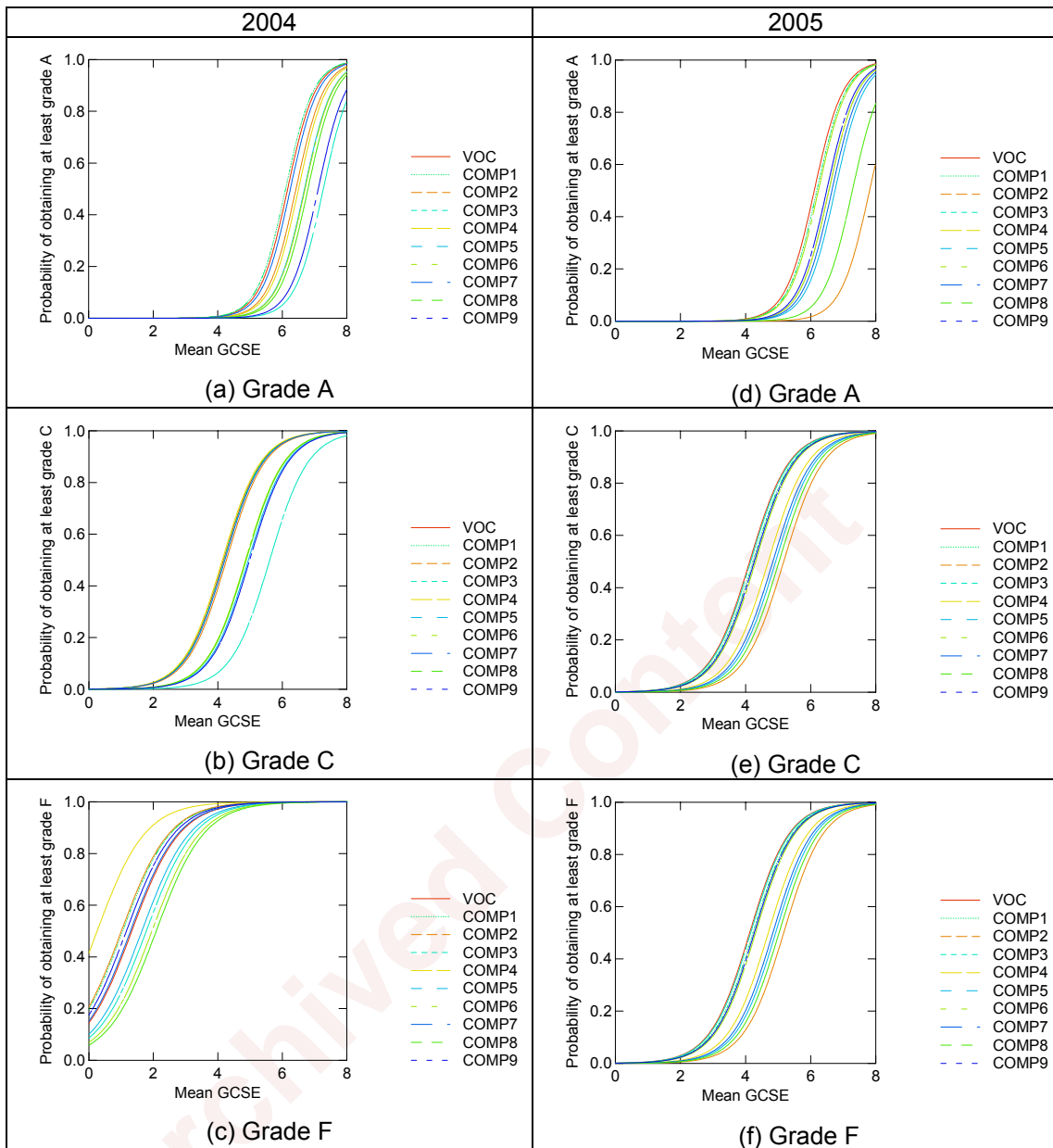
Figure G20: Probability of obtaining at least grade A, C and F in Health and Social Care Double Award and in its GCSE comparators



2004
 LESS8 – median number of GCSEs lower or equal to 8
 M9 – median number of GCSEs equal to 9
 M10 – median number of GCSEs equal to 10
 M11 – median number of GCSEs equal to 11
 M12 – median number of GCSEs higher or equal to 12

2005
 M9 – median number of GCSEs lower or equal to 9
 M10 – median number of GCSEs equal to 10
 M11 – median number of GCSEs equal to 11
 M12 – median number of GCSEs higher or equal to 12

Figure G21: Probability of obtaining at least grade A, C and F in Health and Social Care Double Award by the median number of GCSEs in the school



- VOC Health and Social Care Double Award
- COMP 1 GCSE in Home Economics (Child Development)
- COMP 2 GCSE in Home Economics (Food and Nutrition)
- COMP 3 GCSE in Human Physiology and Health
- COMP 4 GCSE in Biology
- COMP 5 GCSE in Human Biology
- COMP 6 GCSE in Social Science
- COMP 7 GCSE in Sociology
- COMP 8 GCSE in Psychology
- COMP 9 GCSE in Science: Single Award

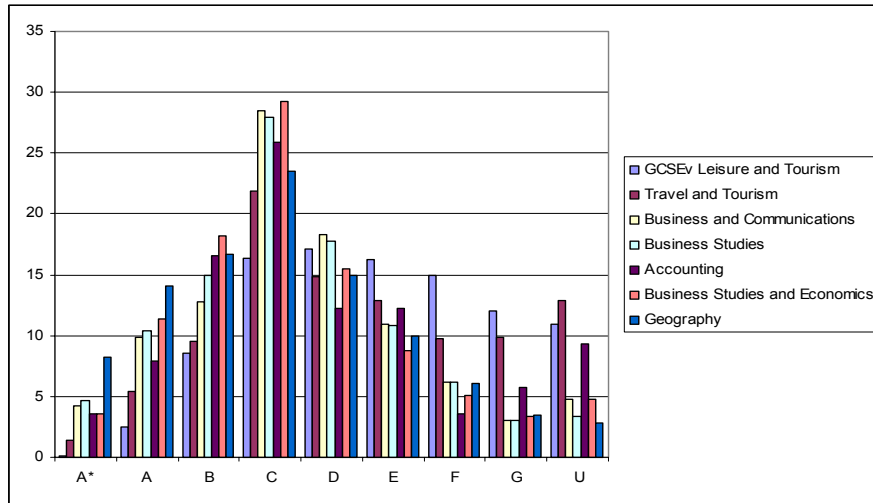
Figure G22: Probability of obtaining at least grade A, C and F in Health and Social Care Double Award and in each of its GCSE comparators

*Leisure and Tourism Double Award***Table G12: Leisure and Tourism Double Award**

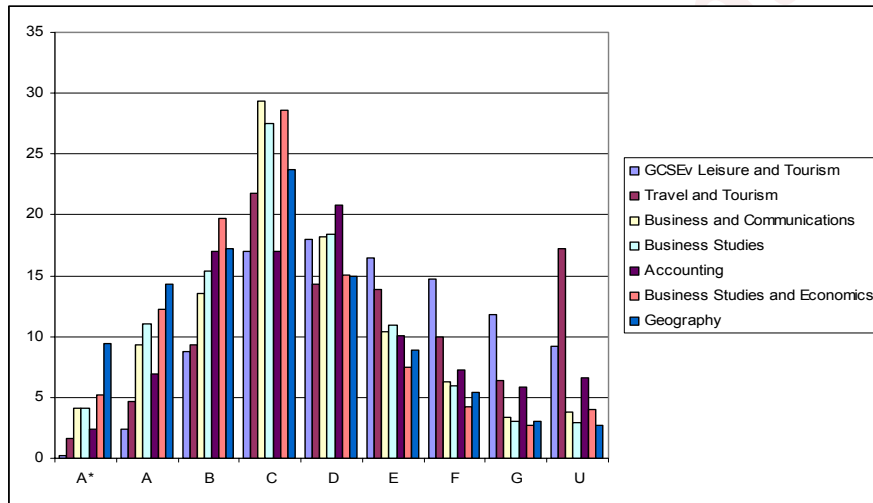
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2346	5,671	7,836
OCR	1495	3,222	3,902
AQA	3841	3,392	4,335
Total Entry		12,285	16,073

Table G13: GCSE comparators: Specifications and entry

Subject	Awarding Body	Subject code	Entry 2004	Total entry per subject 2004	Entry 2005	Total entry per subject 2005
Travel and Tourism	AQA	3591	1,712	1,712	1,388	1,388
Business and Communications Systems	EdExcel	1504	5,395	25,754	6,213	28,227
	OCR	1950	4,077		4,239	
	AQA	3126	16,282		17,775	
Business Studies	EdExcel	1503	16,181	66,269	15,514	63,579
	OCR	1951,1952	15,972		16,301	
	AQA	3132,3133	34,116		31,764	
Accounting	AQA	3122	139	139	288	288
Business Studies and Economics	EdExcel	1171	4,124	4,124	4,119	4,119
Geography	EdExcel	1312,1313	22,146	192,819	22,463	184,907
	OCR	1986,1987,1988	83,353		79,382	
	AQA	3031,3032,3033	87,320		83,062	
Total entry				290,817	1,388	282,508



(a) 2004



(b) 2005

Figure G23: Grade comparison among Leisure and Tourism Double Award and the GCSE comparators (% in grade)

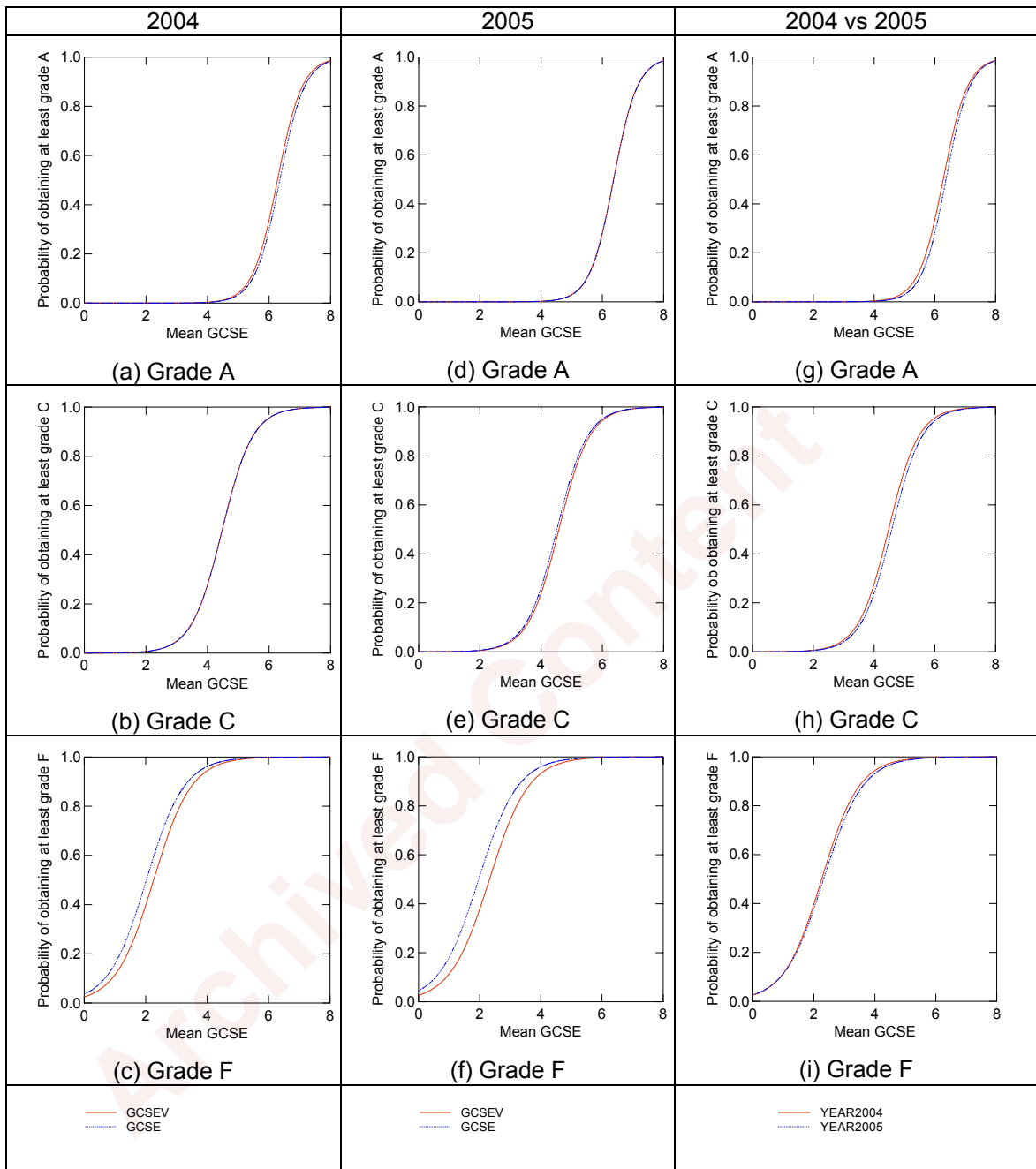


Figure G24: Probability of obtaining at least grade A, C and F in Leisure and Tourism Double Award and in its GCSE comparators

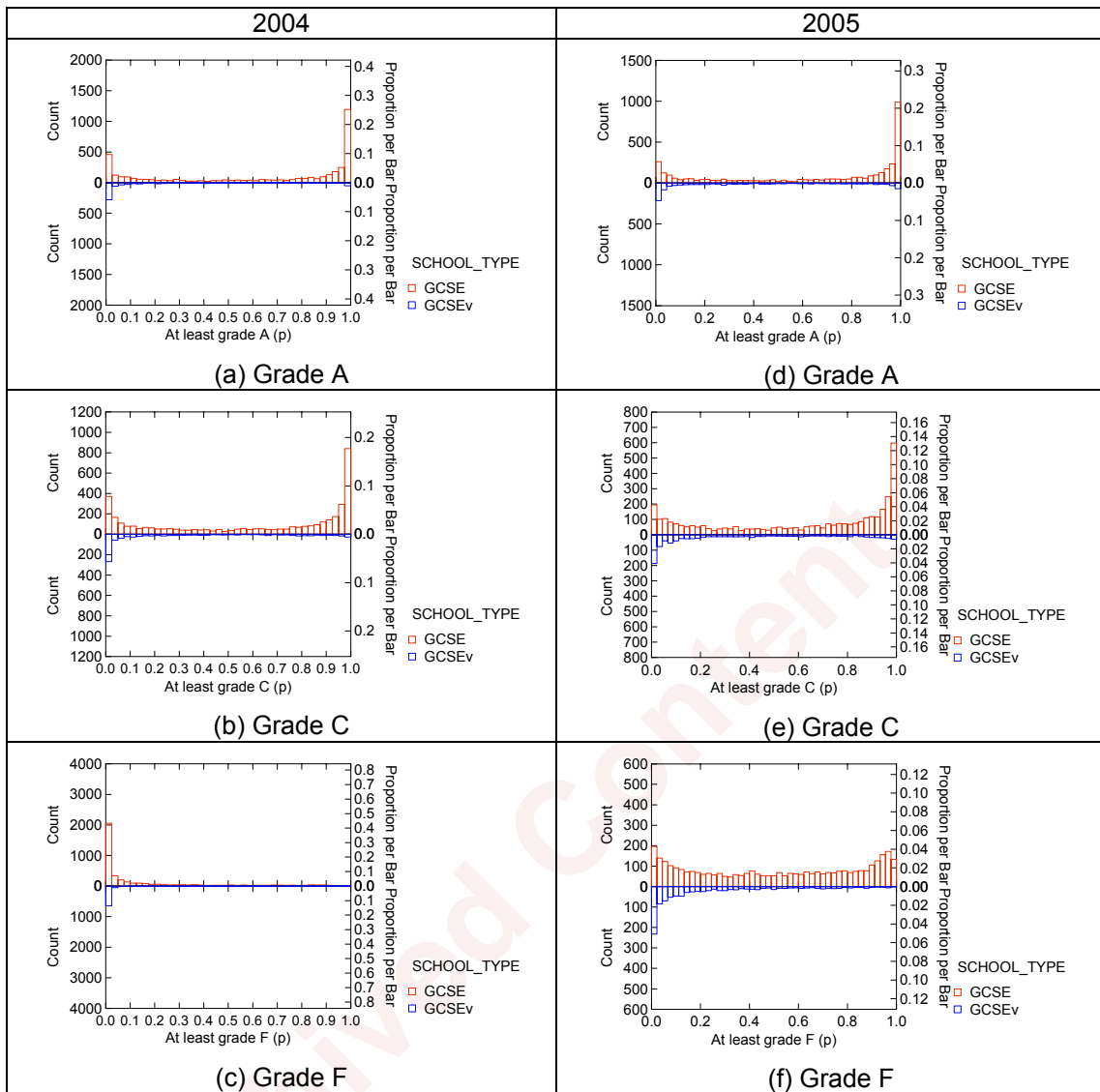
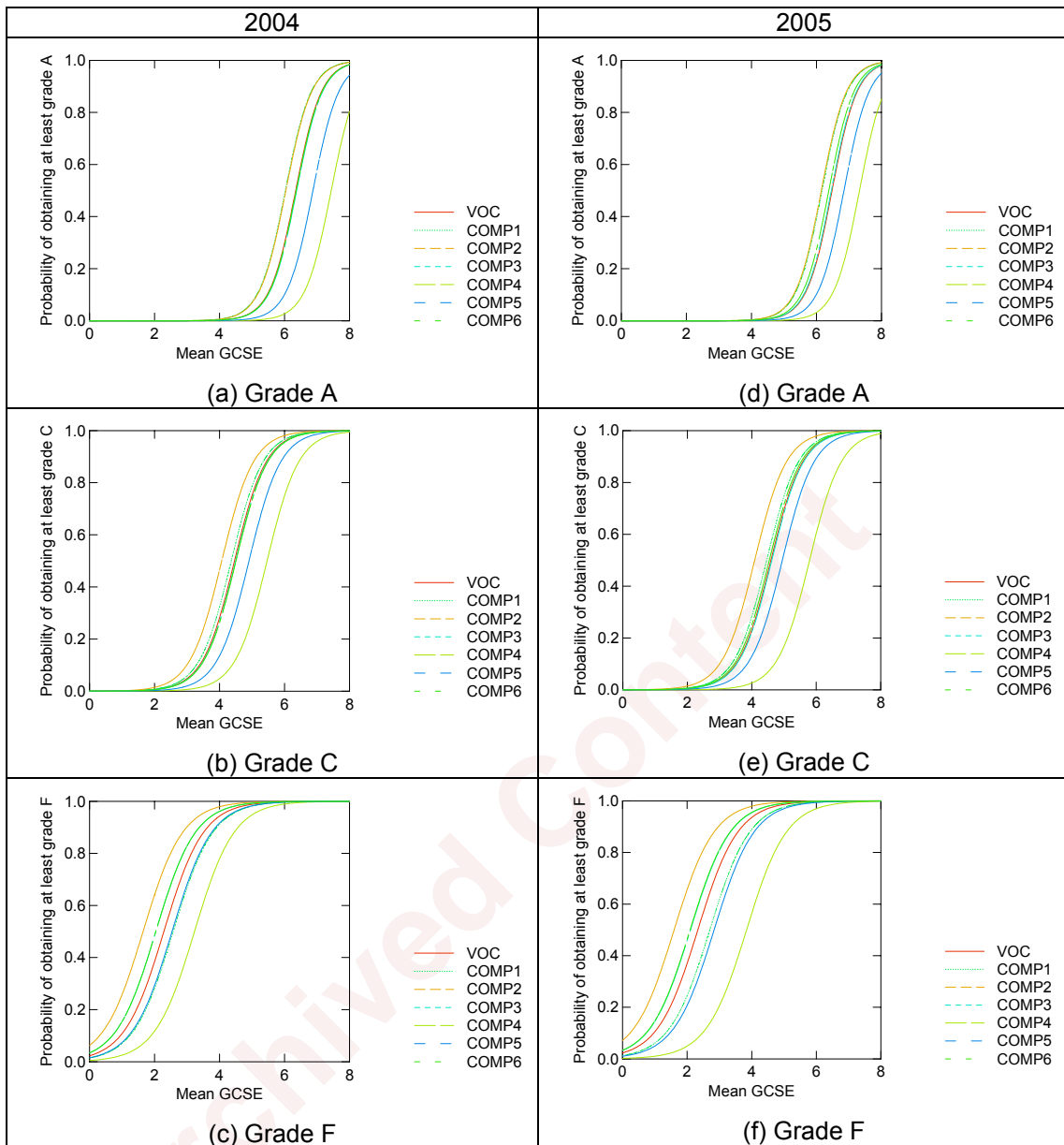


Figure G25: Predicted school effects by type of school



- VOC Leisure and Tourism Double Award
- COMP 1 GCSE in Travel and Tourism
- COMP 2 GCSE in Business and Communication Systems
- COMP 3 GCSE in Business Studies
- COMP 4 GCSE in Accounting
- COMP 5 GCSE in Business Studies and Economics
- COMP 6 GCSE in Geography

Figure G26: Probability of obtaining at least grade A, C and F in Leisure and Tourism Double Award and in each of its GCSE comparators

*Applied Business Double Award***Table G14: Applied Business Double Award**

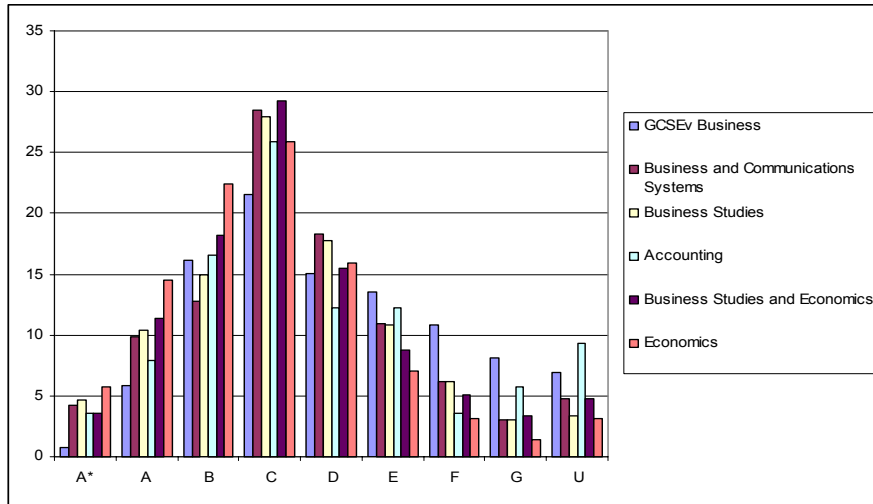
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2306	5,202	6,040
OCR	1491	5,651	6,847
AQA	3831	4,175	5,913
Total Entry		15,028	18,800

Table G15: GCSE comparators: Specifications and entry

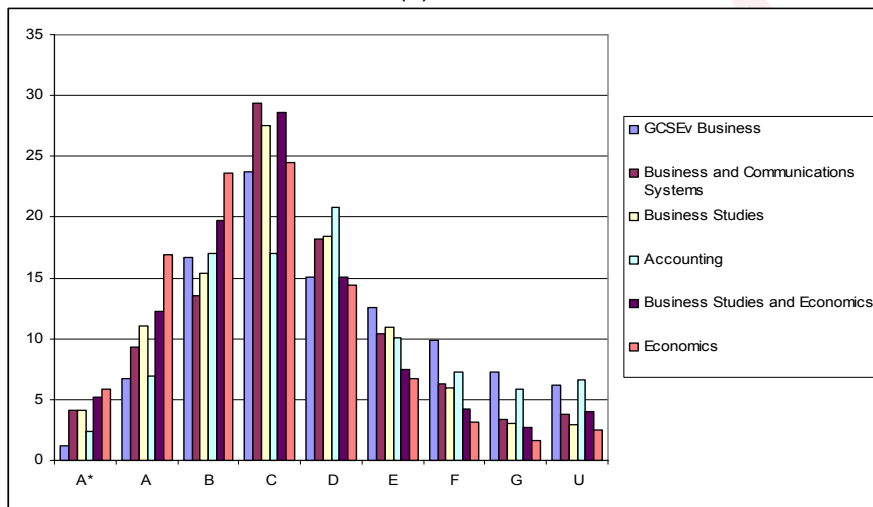
Subject	Awarding Body	Subject code	Entry 2004	Total entry per subject 2004	Entry 2005	Total entry per subject 2005
Business and Communications Systems	EdExcel	1504	5,395	25,754	6,213	28,227
	OCR	1950	4,077		4,239	
	AQA	3126	16,282		17,775	
Business Studies	EdExcel	1503	16,181	66,269	15,514	63,579
	OCR	1951, 1952	15,972		16,301	
	AQA	3132, 3133	34,116		31,764	
Accounting	AQA	3122	139	139	288	288
Business Studies and Economics	EdExcel	1171	4,124	4,124	4,119	4,119
Economics	OCR	1985	1,334	3,188	1,289	2,793
	AQA	3144	1,854		1,504	
Total entry				99,474		99,006

Table G16: Predicted probabilities of obtaining grade A* and at least grades A, C and F

		2004		2005	
		Centres for GCSEv	Centres for GCSE	Centres for GCSEv	Centres for GCSE
Grade A*	Mean			0.39	0.59
	SD			0.34	0.36
	Reference Interval			(0.002,0.972)	(0.014,0.996)
At least a grade A	Mean	0.38	0.58	0.45	0.59
	SD	0.35	0.37	0.35	0.36
	Reference Interval	(0.002,0.974)	(0.009,0.996)	(0.005,0.985)	(0.016,0.996)
At least a grade C	Mean	0.40	0.58	0.48	0.59
	SD	0.32	0.35	0.34	0.34
	Reference Interval	(0.006,0.958)	(0.021,0.991)	(0.016,0.974)	(0.030,0.988)
At least a grade F	Mean	0.26	0.49	0.33	0.52
	SD	0.26	0.33	0.27	0.31
	Reference Interval	(0.004,0.811)	(0.018,0.966)	(0.010,0.844)	(0.038,0.957)



(a) 2004



(b) 2005

Figure G27: Grade comparison among Applied Business Double Award and the GCSE comparator (% in grade)

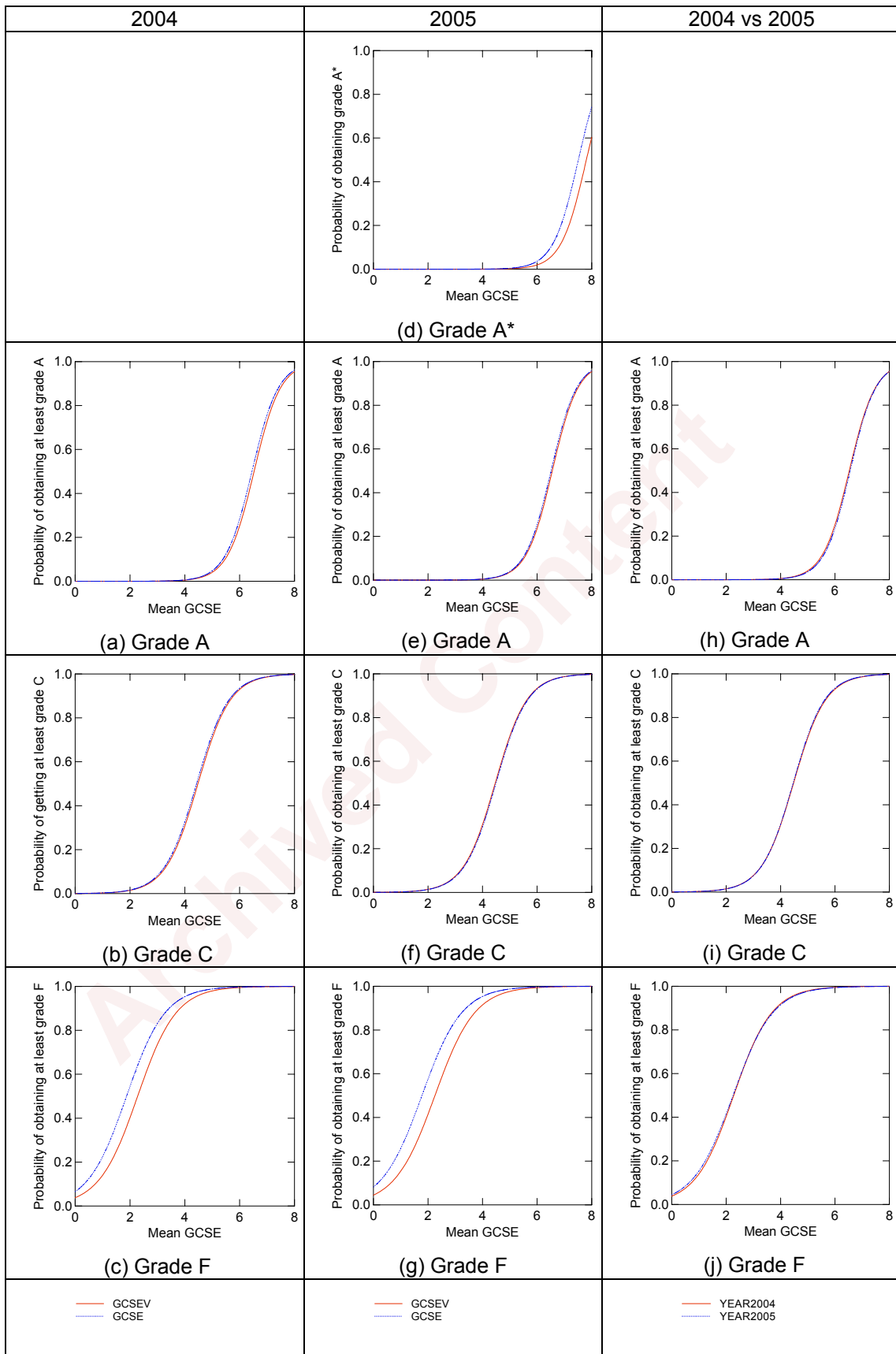


Figure G28: Probability of obtaining grade A*, at least grade A, C and F in Applied Business Double Award and in its GCSE comparators

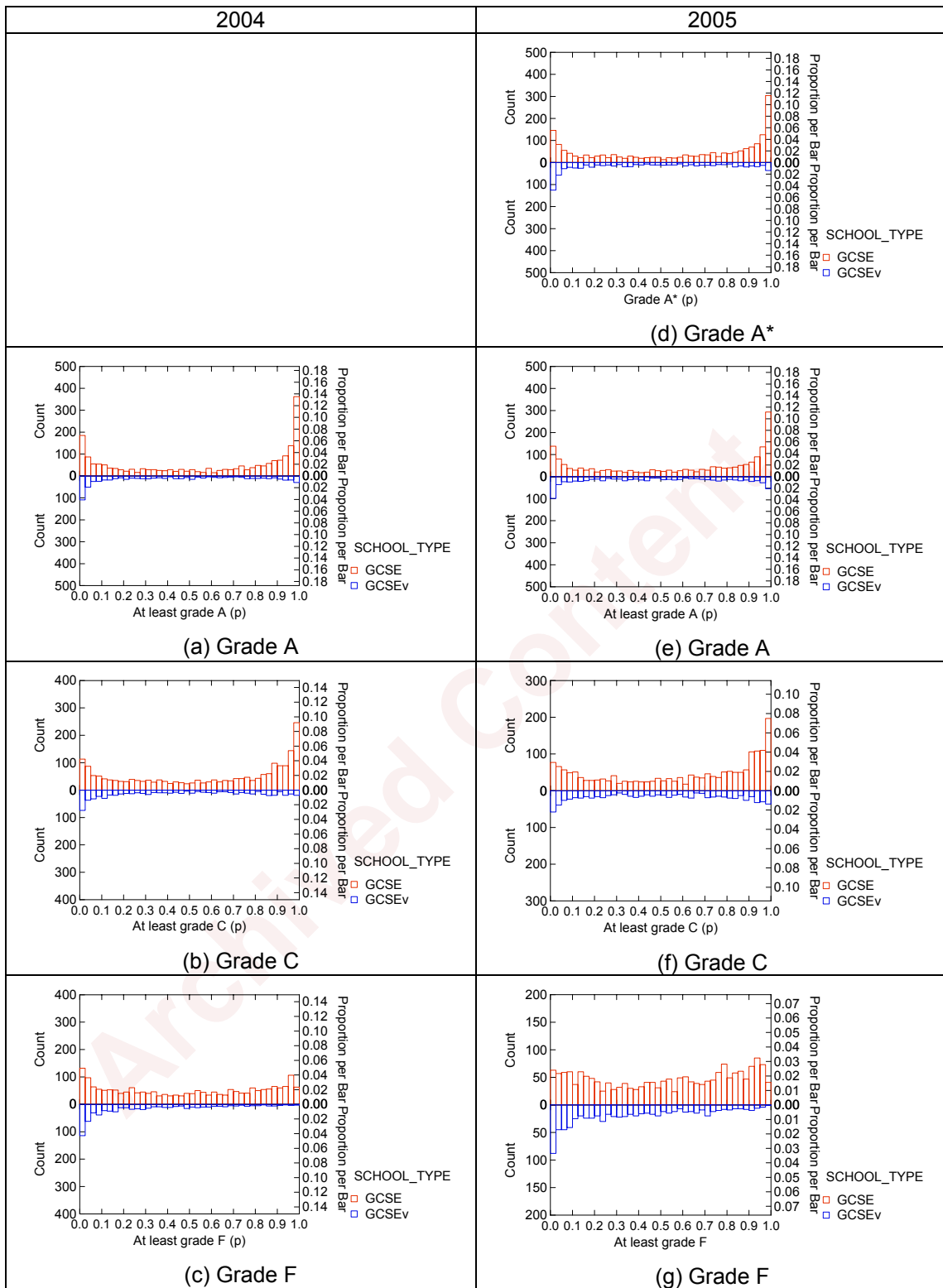


Figure G29: Predicted school effects by type of school

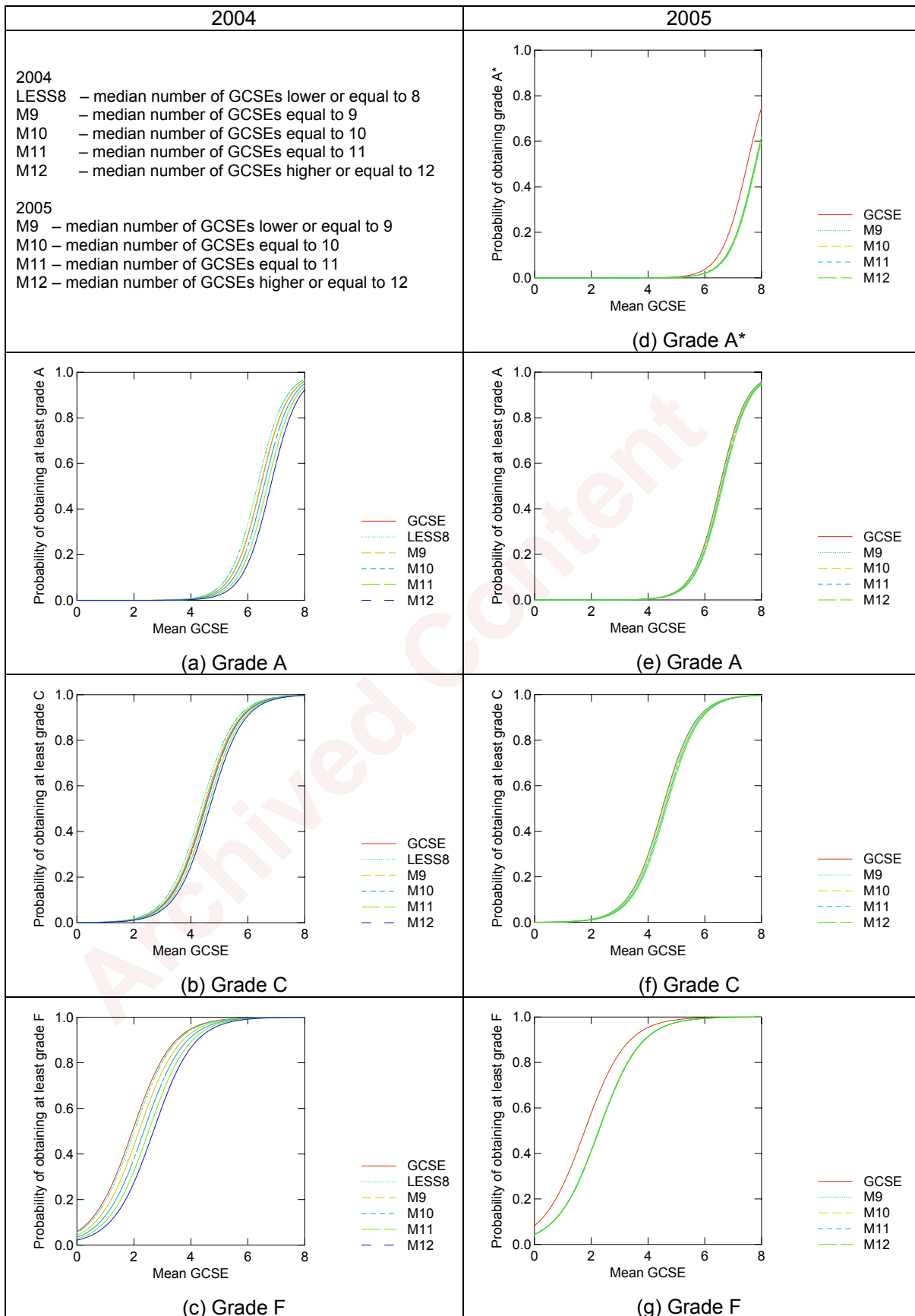


Figure G30: Probability of obtaining grade A*, at least grades A, C and F in Applied Business Double Award by the median number of GCSEs in the school

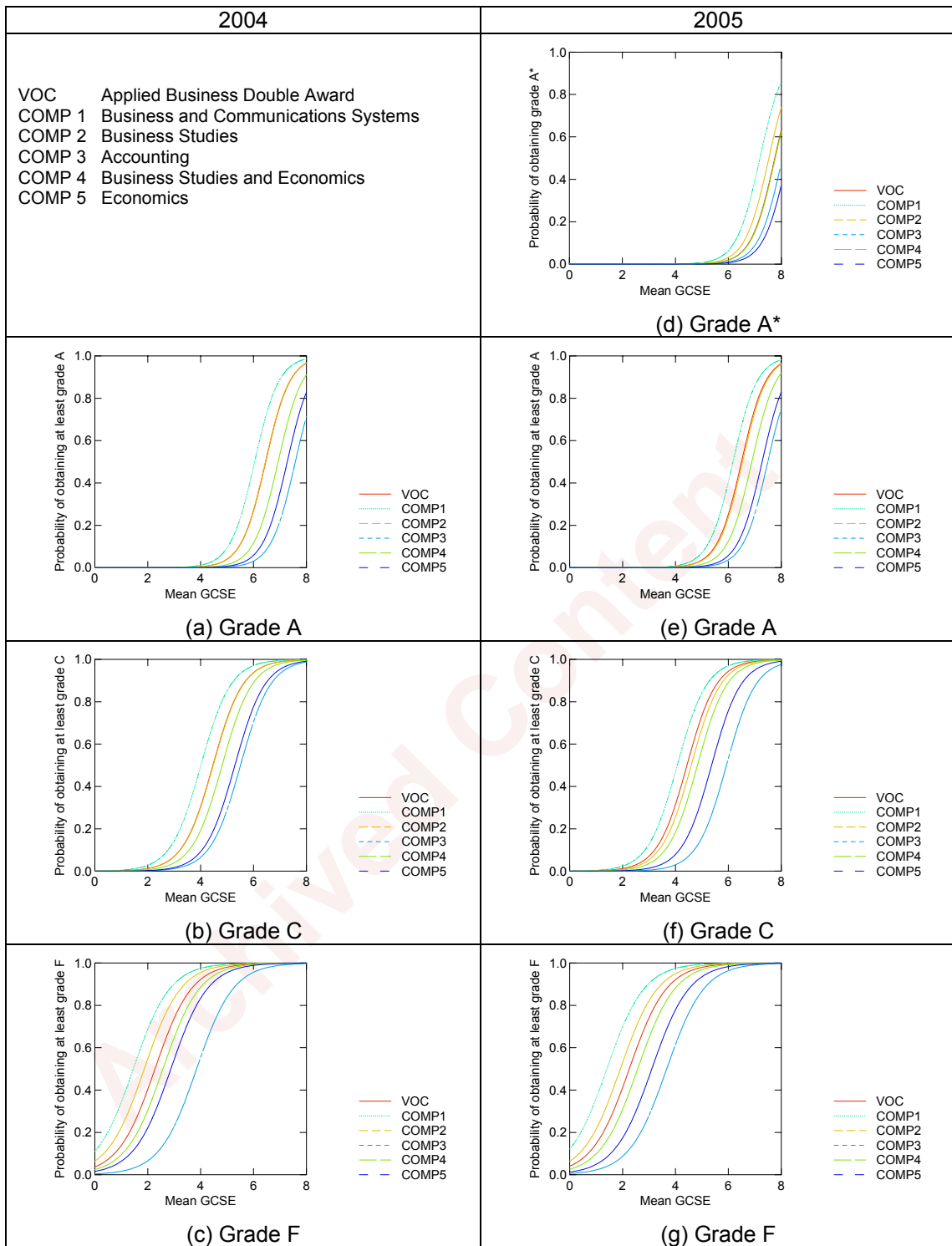


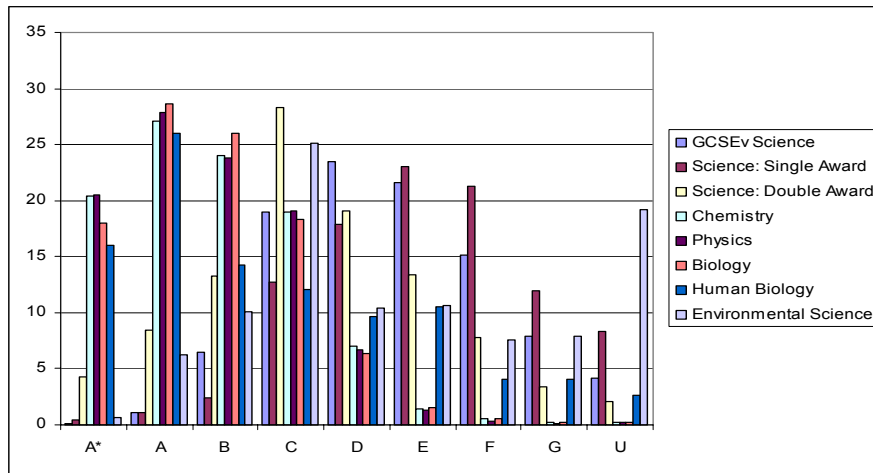
Figure G31: Probability of obtaining grade A*, at least grade A, C and F in Applied Business Double Award and in each of its GCSE comparators

*Applied Science Double Award***Table G17: Applied Science Double Award**

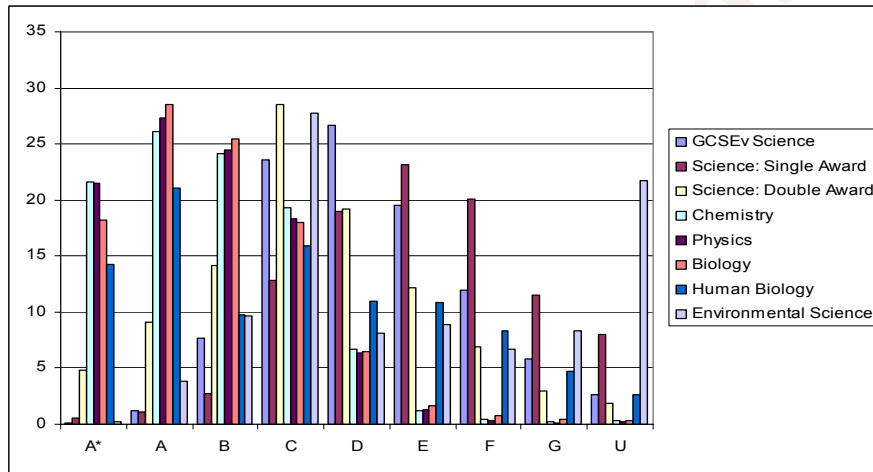
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2371	1,305	2,960
OCR	1497	3,839	6,196
AQA	3861	3,411	7,916
Total Entry		8,555	17,072

Table G18: GCSE comparators: Specifications and entry

Subject	Awarding Body	Subject code	Entry 2004	Total Entry per subject 2004	Entry 2005	Total Entry per subject 2005
Science: Single Award	EdExcel	1521,1535	15,574	54,878	17,353	59,242
	OCR	1984,1978,1975	9,724		9,950	
	AQA	3463,3469	29,580		31,939	
Chemistry	EdExcel	1530,1539	9,438	42,886	10,000	46,272
	OCR	1981	8,876		9,738	
	AQA	3423,3421	24,572		26,534	
Physics	EdExcel	1540,1549	9,022	42,248	9,743	45,773
	OCR	1982	9,566		10,285	
	AQA	3451,3453	23,660		25,745	
Biology	EdExcel	1520,1529	9,244	43,665	9,849	47,950
	OCR	1980	9,654		10,884	
	AQA	3413,3411	24,767		27,217	
Human Biology	AQA	3415	673	673	699	699
Environmental Science	AQA	3441	318	318	519	519
Science: Double Award	EdExcel	1522,1536	86,935	482,072	82,527	455,511
	OCR	1983,1977,1974	114,097		106,401	
	AQA	3462,3468	281,040		266,583	
Total entry				666,740		655,966



(a) 2004



(b) 2005

Figure G32: Grade comparison among Applied Science Double Award and the GCSE comparators (% in grade)

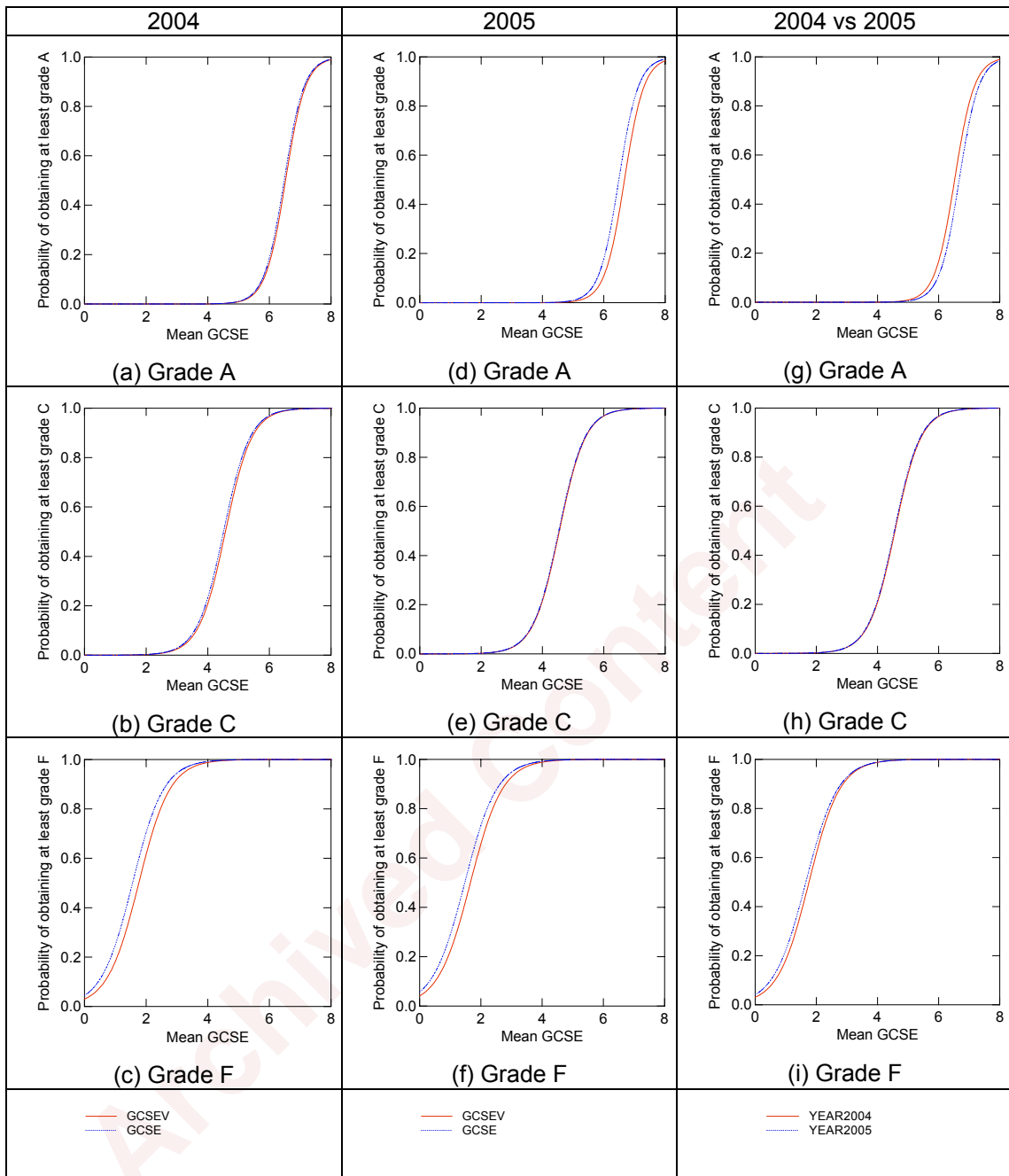
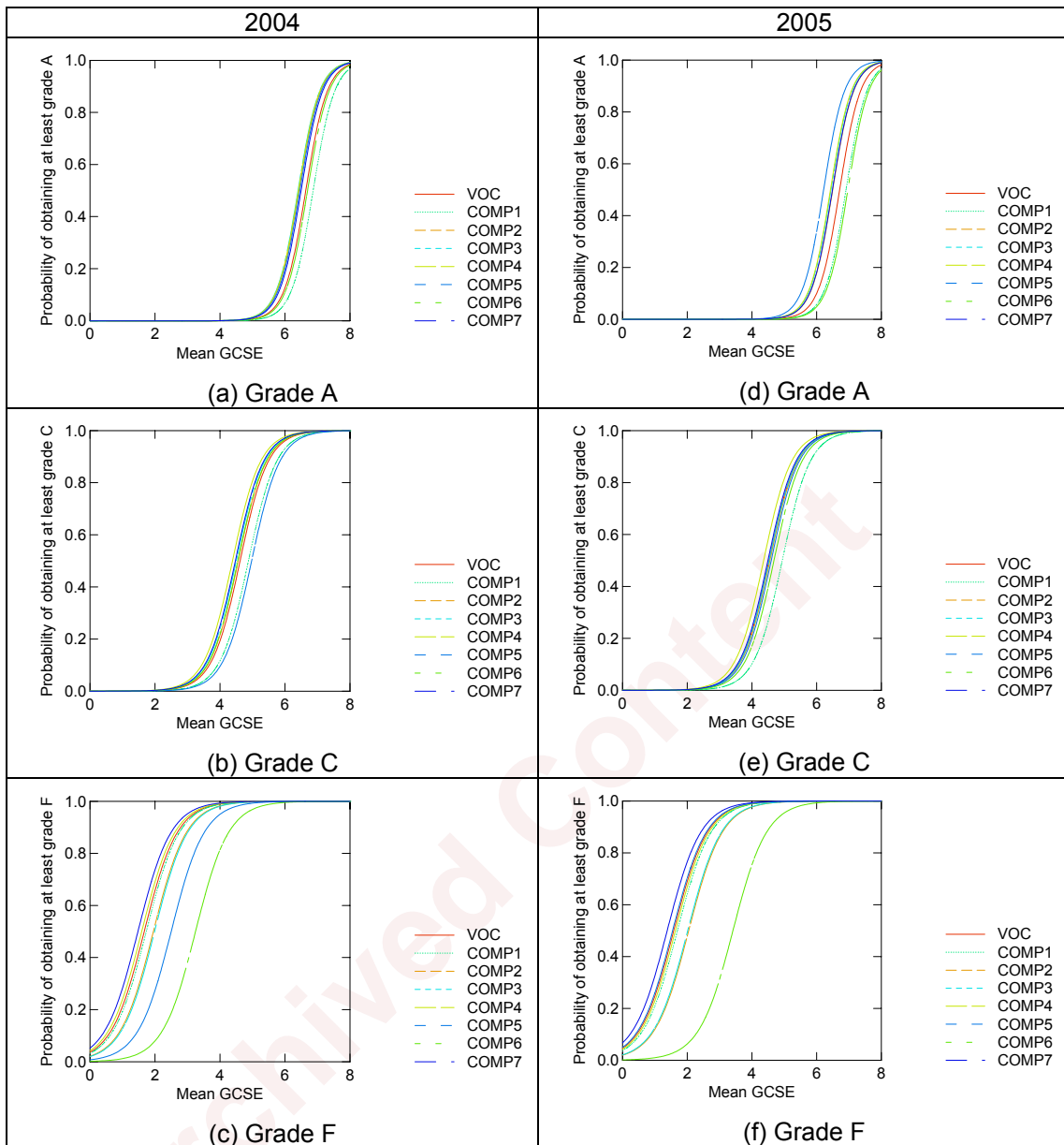


Figure G33: Probability of obtaining at least grade A, C and F in Applied Science Double Award and in its GCSE comparators



- VOC Applied Science Double Award
- COMP 1 GCSE in Science: Single Award
- COMP 2 GCSE in Science: Double Award
- COMP 3 GCSE in Chemistry
- COMP 4 GCSE in Physics
- COMP 5 GCSE in Biology
- COMP 6 GCSE in Human Biology
- COMP 7 GCSE in Environmental Science

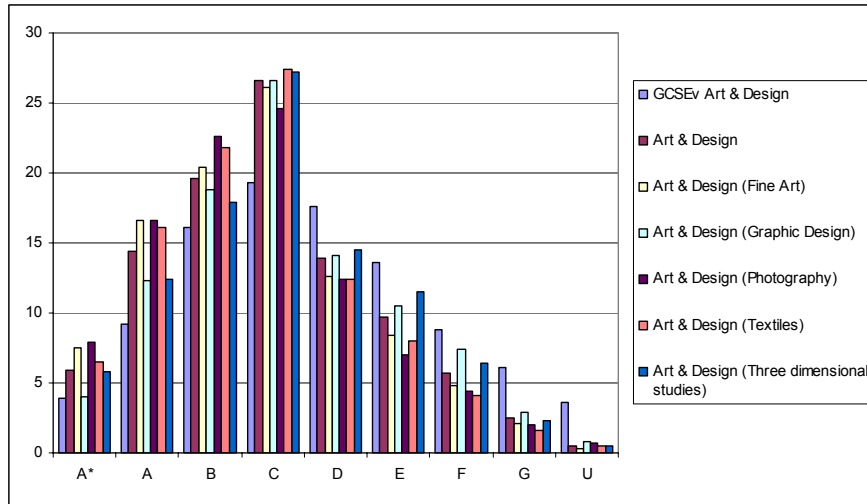
Figure G34: Probability of obtaining at least grade A, C and F in Applied Science Double Award and in each of its GCSE comparators

*Applied Art and Design Double Award***Table G19: Applied Art and Design Double Award**

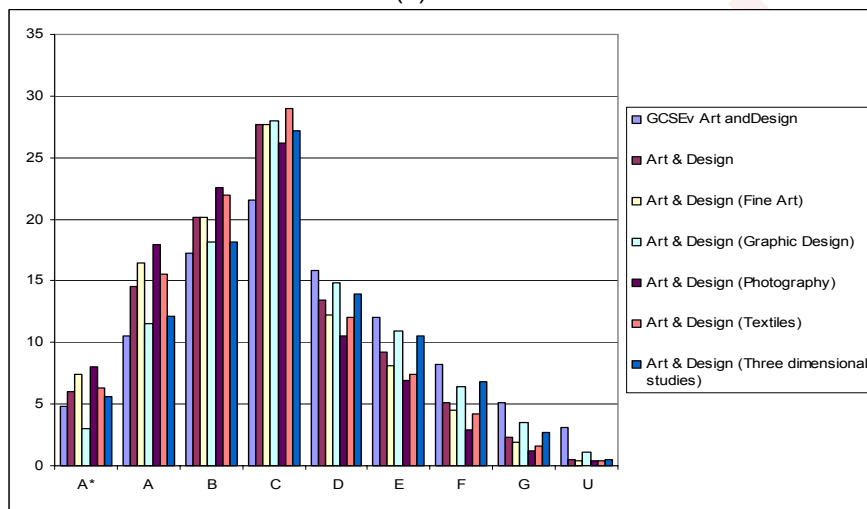
Awarding Body	Subject code	Entry 2004	Entry 2005
EdExcel	2301	1,559	2,219
OCR	1490	1,073	1,271
AQA	3811	1,231	2,046
Total Entry		3,863	5,536

Table G20: Applied Art and Design Double Award

Subject	Awarding Body	Subject code	Entry 2004	Total Entry per subject 2004	Entry 2005	Total Entry per subject 2005
Art and Design	EdExcel	1027	39,082	124,831	37,297	122,856
	OCR	1910	20,239		20,363	
	AQA	3201	65,510		65,196	
Art and Design (Fine Art)	EdExcel	1028	9,675	48,530	9,067	50,849
	OCR	1911	12,722		12,737	
	AQA	3202	26,133		29,045	
Art and Design (Graphic Design)	EdExcel	1032	1,134	4,811	1,012	4,626
	OCR	1912	689		991	
	AQA	3203	2,988		2,623	
Art and Design (Photography)	EdExcel	1031	756	2,529	891	3,116
	OCR	1913	549		634	
	AQA	3206	1,224		1,591	
Art and Design (Textiles)	EdExcel	1030	1,285	6,000	1,364	6,540
	OCR	1914	1,034		1,153	
	AQA	3204	3,681		4,023	
Art and Design (3D Studies)	EdExcel	1029	595	3,983	603	3,668
	OCR	1915	1,046		793	
	AQA	3205	2,342		2,272	
Total entry				190,684		191,655



(a) 2004



(b) 2005

Figure G35: Grade comparison among Applied Art and Design Double Award and the GCSE comparators (% in grade)

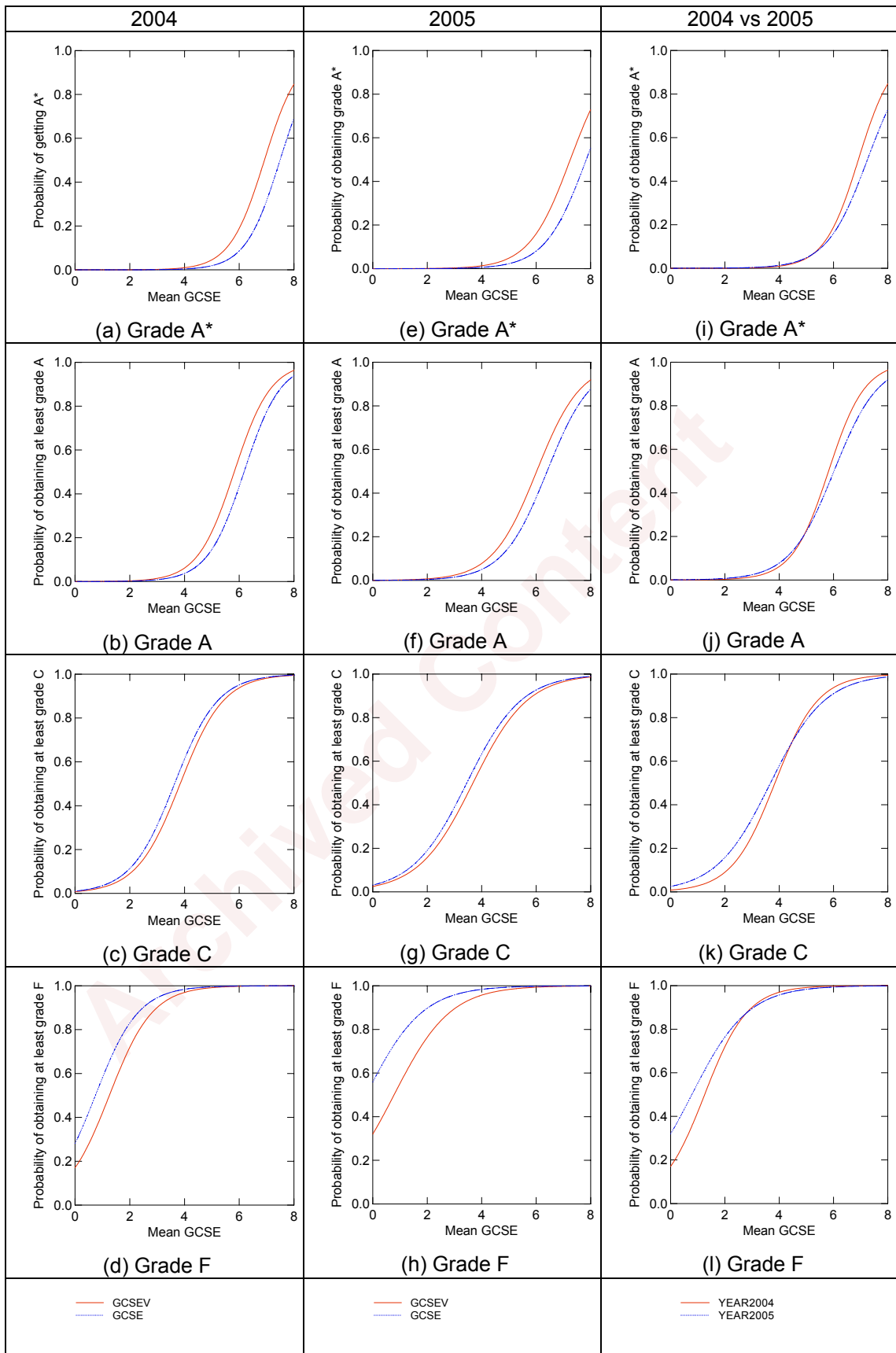
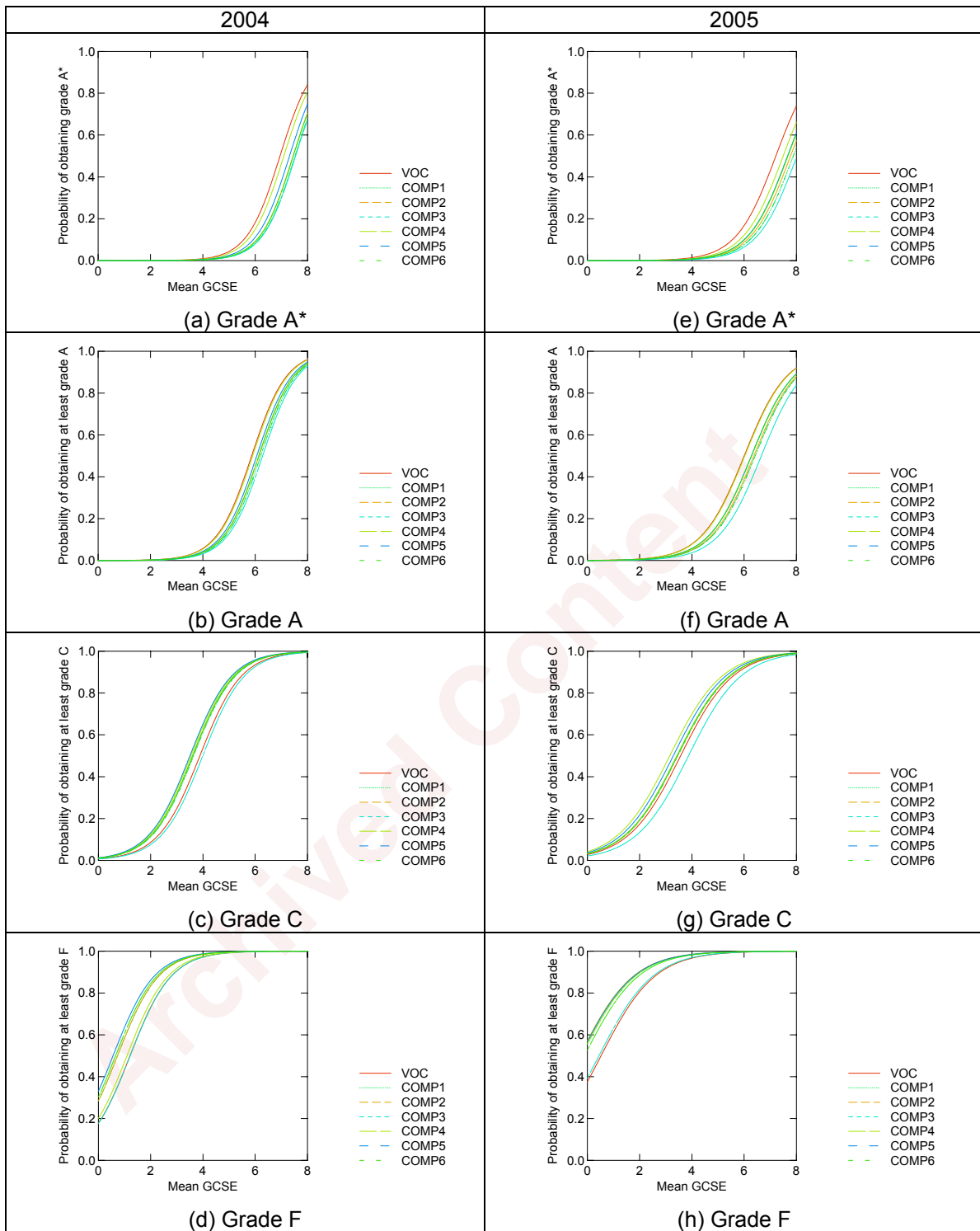


Figure G36: Probability of obtaining grade A*, at least grade A, C and F in Applied Art and Design Double Award and in its GCSE comparators



VOC Applied Art and Design Double Award
 COMP 1 GCSE in Art and Design
 COMP 2 GCSE in Art and Design (Fine Art)
 COMP 3 GCSE in Art and Design (Graphic Design)
 COMP 4 GCSE in Art and Design (Photography)
 COMP 5 GCSE in Art and Design (Textiles)
 COMP 6 GCSE in Art and Design (3D Studies)

Figure G37. Probability of obtaining grade A*, at least grade A, C and F in Applied Art and Design Double Award and in each of its GCSE comparators.

Appendix H: Prior attainment – 2004*Applied ICT Double Award***Table H1: Correlation between overall Key Stage scores and Mean GCSE. Applied ICT Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.85	0.65
KS 3		1.00	0.79
Mean GCSE			1.00

Table H2: Probability of obtaining at least grade A. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.570	0.116	-5.863	0.092	-7.773	0.132
GCSE	-2.722	0.082	-3.172	0.092	-4.678	0.100
Attainment measure	1.282	0.022	1.769	0.026	3.203	0.041
Deviance	27839.2		25264.2		18804.4	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	6.360	0.573	6.560	0.577	10.335	0.840
GCSE	2.388	0.234	2.313	0.215	3.160	0.280
Covariance	1.298	0.527	1.381	0.705	1.677	0.819

Table H3: Probability of obtaining at least grade C. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.957	0.049	-0.930	0.040	-1.039	0.055
GCSE	0.562	0.061	0.454	0.067	0.285	0.079
Attainment measure	1.059	0.012	1.543	0.013	2.649	0.022
Deviance	79846.7		72099.6		56673.9	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.655	0.182	2.914	0.187	4.517	0.306
GCSE	2.290	0.185	2.251	0.183	3.077	0.276
Covariance	0.442	0.253	0.648	0.323	0.823	0.491

Table H4: Probability of obtaining at least grade F. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.125	0.050	2.378	0.046	3.060	0.063
GCSE	4.291	0.111	4.429	0.119	5.225	0.119
Attainment measure	0.777	0.012	1.189	0.016	2.130	0.020
Deviance	52211.1		48615.3		38593.4	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.519	0.176	2.503	0.176	3.181	0.224
GCSE	2.678	0.313	2.402	0.315	2.913	0.343
Covariance	0.472	0.394	0.718	0.417	0.805	0.521

*Engineering Double Award***Table H5: Correlation between overall Key Stage scores and Mean GCSE. Engineering Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.86	0.68
KS 3		1.00	0.81
Mean GCSE			1.00

Table H6: Probability of obtaining at least grade A. Engineering Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.169	0.276	-5.380	0.260	-6.116	0.268
GCSE	-2.312	0.015	-2.531	0.014	-3.234	0.017
Attainment measure	1.198	0.006	1.608	0.008	2.559	0.010
Deviance	260197.7		238460.7		193587.9	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.416	0.711	3.560	0.758	5.080	0.673
GCSE	0.723	0.025	0.600	0.022	0.619	0.022
Covariance	0.549	0.217	0.319	0.120	0.378	0.147

Table H7: Probability of obtaining at least grade C. Engineering Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-1.469	0.100	-1.436	0.114	-1.212	0.120
GCSE	0.466	0.019	0.525	0.014	0.602	0.014
Attainment measure	0.896	0.004	1.243	0.005	1.982	0.007
Deviance	424450.1		394559.5		330223.5	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.342	0.372	3.290	0.385	3.400	0.275
GCSE	0.605	0.019	0.527	0.017	0.532	0.017
Covariance	0.280	0.122	0.134	0.082	-0.044	0.091

Table H8: Probability of obtaining at least grade F. Engineering Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.042	0.095	2.251	0.117	2.439	0.086
GCSE	3.531	0.025	3.679	0.025	3.879	0.022
Attainment measure	0.532	0.008	0.808	0.009	1.437	0.010
Deviance	127186.8		122745.3		98756.7	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.046	0.284	1.934	0.269	1.621	0.189
GCSE	1.058	0.041	0.948	0.037	0.898	0.030
Covariance	0.467	0.105	0.372	0.123	0.248	0.092

*Manufacturing Double Award***Table H9: Correlation between overall Key Stage scores and Mean GCSE. Manufacturing Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.86	0.68
KS 3		1.00	0.81
Mean GCSE			1.00

Table H10: Probability of obtaining at least grade A. Manufacturing Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.913	0.289	-4.717	0.319	-5.807	0.366
GCSE	-2.312	0.020	-2.525	0.016	-3.226	0.020
Attainment measure	1.197	0.007	1.607	0.007	2.556	0.011
Deviance	259848.4		238131.9		193320.0	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.065	0.594	2.173	0.634	4.700	0.742
GCSE	0.728	0.025	0.602	0.021	0.618	0.022
Covariance	0.082	0.020	0.055	0.164	0.267	0.188

Table H11: Probability of obtaining at least grade C. Manufacturing Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-1.474	0.139	-1.355	0.162	-1.287	0.171
GCSE	0.464	0.014	0.531	0.012	0.603	0.013
Attainment measure	0.896	0.004	1.243	0.005	1.983	0.007
Deviance	423382.0		393556.7		329395.8	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.544	0.693	3.818	0.792	4.232	0.560
GCSE	0.601	0.018	0.527	0.017	0.534	0.016
Covariance	0.424	0.163	0.392	0.191	0.230	0.136

Table H12: Probability of obtaining at least grade F. Manufacturing Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.326	0.143	2.557	0.133	3.256	0.156
GCSE	3.528	0.019	3.672	0.020	4.281	0.026
Attainment measure	0.531	0.007	0.804	0.009	1.547	0.011
Deviance	125883.4		121542.8		103307.1	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.272	0.404	2.161	0.499	2.410	0.501
GCSE	1.046	0.037	0.933	0.036	0.840	0.034
Covariance	0.707	0.154	0.651	0.194	0.278	0.194

*Health and Social Care Double Award***Table H13: Correlation between overall Key Stage scores and Mean GCSE. Health and Social Care Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.87	0.72
KS 3		1.00	0.83
Mean GCSE			1.00

Table H14: Probability of obtaining at least grade A. Health and Social Care Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-3.461	0.111	-3.395	0.091	-4.345	0.131
GCSE	-2.617	0.025	-2.876	0.025	-4.456	0.038
Attainment measure	1.590	0.017	2.060	0.019	3.924	0.032
Deviance	67245.6		61937.2		44282.3	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.198	0.060	1.030	0.048	-4.456	0.067
GCSE	1.995	0.276	2.007	0.241	3.462	0.497
Covariance	0.350	0.104	0.279	0.131	0.329	0.179

Table H15: Probability of obtaining at least grade C. Health and Social Care Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	0.171	0.046	0.483	0.050	0.819	0.050
GCSE	0.409	0.026	0.519	0.022	0.552	0.024
Attainment measure	1.448	0.011	2.030	0.015	3.133	0.021
Deviance	101679.2		90916.0		71393.8	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.364	0.063	1.109	0.049	1.125	0.052
GCSE	1.851	0.142	2.055	0.164	3.049	0.182
Covariance	0.448	1.851	0.340	0.080	0.198	0.094

Table H16: Probability of obtaining at least grade F. Health and Social Care Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.332	0.074	3.696	0.066	4.868	0.080
GCSE	3.621	0.039	3.900	0.040	4.888	0.045
Attainment measure	0.865	0.017	1.303	0.019	2.287	0.025
Deviance	40108.4		37727.3		29613.1	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.365	0.080	1.147	0.073	1.130	0.068
GCSE	1.491	0.182	1.383	0.144	1.611	0.163
Covariance	0.450	0.127	0.386	0.098	0.087	0.102

*Leisure and Tourism Double Award***Table H17: Correlation between overall Key Stage scores and Mean GCSE. Leisure and Tourism Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.85	0.67
KS 3		1.00	0.80
Mean GCSE			1.00

Table H18: Probability of obtaining at least grade A. Leisure and Tourism Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.421	0.200	-4.418	0.186	-5.441	0.213
GCSE	-2.458	0.021	-2.855	0.020	-4.216	0.035
Attainment measure	1.592	0.010	2.223	0.012	3.859	0.022
Deviance	156392.6		136898.3		97530.2	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.879	0.613	3.595	0.597	6.689	0.896
GCSE	0.892	0.031	0.796	0.028	1.047	0.038
Covariance	-	-	-	-	0.007	0.257

Table H19: Probability of obtaining at least grade C. Leisure and Tourism Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.476	0.065	0.030	0.074	0.587	0.094
GCSE	0.625	0.016	0.742	0.017	0.882	0.021
Attainment measure	1.350	0.007	1.943	0.009	3.142	0.014
Deviance	234270.5		204681.2		155658.0	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.737	0.209	2.974	0.243	4.612	0.301
GCSE	0.754	0.025	0.693	0.025	0.855	0.031
Covariance	0.254	0.078	0.196	0.073	0.110	0.103

Table H20: Probability of obtaining at least grade F. Leisure and Tourism Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.947	0.080	3.560	0.074	4.988	0.086
GCSE	3.728	0.027	4.076	0.034	5.147	0.036
Attainment measure	1.007	0.011	1.447	0.014	2.408	0.018
Deviance	78816.3		72301.0		56080.4	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.721	0.232	2.635	0.250	3.587	0.412
GCSE	0.958	0.047	0.847	0.044	0.810	0.036
Covariance	0.376	0.027	0.294	0.092	0.140	0.105

*Applied Business Double Award***Table H21: Correlation between overall Key Stage scores and Mean GCSE. Applied Business Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.85	0.65
KS 3		1.00	0.79
Mean GCSE			1.00

Table H22: Probability of obtaining at least grade A. Applied Business Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-3.508	0.105	-3.672	0.082	-4.859	0.114
GCSE	-2.741	0.029	-3.164	0.034	-4.411	0.049
Attainment measure	1.487	0.016	2.070	0.022	3.445	0.030
Deviance	54504.6		48198.4		36041.9	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.765	0.238	1.792	0.164	3.216	0.317
GCSE	1.157	0.062	1.237	0.062	1.867	0.094
Covariance	0.544	0.194	0.518	0.288	0.162	0.378

Table H23: Probability of obtaining at least grade C. Applied Business Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	0.062	0.050	0.271	0.051	0.534	0.072
GCSE	0.514	0.026	0.576	0.027	0.663	0.034
Attainment measure	1.186	0.010	1.714	0.012	2.774	0.020
Deviance	95380.6		84735.9		66299.5	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.516	0.119	1.822	0.144	2.525	0.171
GCSE	0.896	0.040	0.951	0.043	1.427	0.060
Covariance	0.567	0.089	0.696	0.090	0.759	0.119

Table H24: Probability of obtaining at least grade F. Applied Business Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.809	0.068	3.217	0.072	4.300	0.080
GCSE	3.628	0.040	3.895	0.039	4.818	0.045
Attainment measure	0.859	0.016	1.258	0.017	2.166	0.025
Deviance	34594.7		32144.0		25337.4	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.469	0.145	1.667	0.141	2.294	0.204
GCSE	1.147	0.073	1.082	0.071	1.299	0.079
Covariance	0.518	0.105	0.484	0.127	0.568	0.181

*Applied Science Double Award***Table H25: Correlation between overall Key Stage scores and Mean GCSE. Applied Science Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.86	0.69
KS 3		1.00	0.81
Mean GCSE			1.00

Table H26: Probability of obtaining at least grade A. Applied Science Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.884	0.236	-4.994	0.219	-7.345	0.379
GCSE	-2.915	0.015	-3.336	0.016	-5.603	0.031
Attainment measure	1.891	0.008	2.563	0.010	5.170	0.025
Deviance	294218.9		257671.4		165087.6	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.414	0.340	2.852	0.405	6.316	0.872
GCSE	0.906	0.029	0.777	0.025	0.871	0.029
Covariance	0.508	0.128	-	-	-	-

Table H27: Probability of obtaining at least grade C. Applied Science Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.274	0.183	0.278	0.007	0.509	0.170
GCSE	0.593	0.015	0.779	0.015	0.889	0.017
Attainment measure	1.687	0.005	2.448	0.007	3.933	0.012
Deviance	456923.1		383784.6		281335.7	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	4.119	0.450	3.578	0.402	6.458	0.838
GCSE	0.855	0.026	0.800	0.025	0.770	0.022
Covariance	0.719	0.129	-	-	-	-

Table H28: Probability of obtaining at least grade F. Applied Science Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	4.036	0.146	4.670	0.136	5.914	0.146
GCSE	4.353	0.021	4.812	0.026	6.676	0.035
Attainment measure	1.045	0.008	1.554	0.012	2.967	0.018
Deviance	115565.6		104953.6		93756.8	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.876	0.324	2.835	0.347	3.564	0.432
GCSE	1.147	0.044	0.934	0.036	0.841	0.032
Covariance	-	-	-	-	-	-

*Applied Art and Design Double Award***Table H29: Correlation between overall Key Stage scores and Mean GCSE. Applied Art and Design Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.86	0.66
KS 3		1.00	0.80
Mean GCSE			1.00

Table H30: Probability of obtaining grade A*. Applied Art and Design Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.045	0.270	-4.045	0.186	-3.681	0.178
GCSE	-3.836	0.027	-4.094	0.036	-3.523	0.034
Attainment measure	1.047	0.016	1.407	0.018	2.461	0.020
Deviance	49849.460		46948.110		37512.200	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.064	0.755	3.218	0.520	2.116	0.449
GCSE	1.565	0.073	1.506	0.072	1.947	0.082
Covariance	-0.038	0.172	0.452	0.309	0.458	0.282

Table H31: Probability of obtaining at least grade A. Applied Art and Design Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-1.968	0.126	-1.893	0.105	-2.335	0.147
GCSE	-1.788	0.020	-1.930	0.017	-2.667	0.025
Attainment measure	0.945	0.009	1.304	0.010	2.507	0.016
Deviance	122238.9		114281.8		87914.3	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.646	0.238	1.507	0.271	2.816	0.481
GCSE	0.985	0.035	0.955	0.037	1.231	0.043
Covariance	0.490	0.101	0.520	0.117	0.728	0.227

Table H32: Probability of obtaining at least grade C. Applied Art and Design Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	0.488	0.097	0.684	0.087	1.285	0.126
GCSE	1.159	0.018	1.268	0.018	1.646	0.018
Attainment measure	0.777	0.008	1.115	0.009	2.240	0.012
Deviance	143980.5		135180.7		102661.3	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.406	0.169	1.655	0.183	3.215	0.406
GCSE	1.226	0.043	1.220	0.041	1.558	0.051
Covariance	0.427	0.099	0.431	0.120	0.803	0.181

Table H33: Probability of obtaining at least grade F. Applied Art and Design Double Award

Fixed terms

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.296	0.121	3.582	0.152	5.395	0.199
GCSE	4.354	0.045	4.516	0.043	5.969	0.062
Attainment measure	0.551	0.014	0.851	0.018	2.158	0.028
Deviance	33395.1		32201.8		23192.2	

School variance

Subject	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.591	0.182	1.694	0.413	3.063	0.501
GCSE	1.828	0.097	1.711	0.095	1.838	0.102
Covariance	0.793	0.174	0.991	0.153	1.127	0.311

Appendix I: Prior attainment – 2005*Applied ICT Double Award***Table I1: Correlation between overall Key Stage scores and Mean GCSE. Applied ICT Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.80	0.66
KS 3		1.00	0.82
Mean GCSE			1.00

Table I2: Probability of obtaining at least grade A. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.119	0.108	-6.407	0.102	-6.264	0.153
GCSE	-2.963	0.051	-3.789	0.058	-4.347	0.060
Attainment measure	1.459	0.017	2.383	0.025	2.565	0.025
Deviance	44997.250		38527.210		29691.630	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.748	0.294	3.206	0.337	4.629	0.464
GCSE	2.351	0.148	2.340	0.130	3.270	0.179
Covariance	0.750	0.296	0.606	0.344	0.597	0.519

Table I3: Probability of obtaining at least grade C. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.939	0.054	-1.267	0.065	-0.291	0.057
GCSE	0.485	0.045	0.321	0.044	0.802	0.052
Attainment measure	1.109	0.012	1.730	0.014	1.998	0.014
Deviance	92583.130		82224.520		65908.360	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.061	0.136	2.610	0.157	3.623	0.225
GCSE	2.167	0.117	2.127	0.107	2.992	0.149
Covariance	0.605	0.137	0.809	0.191	1.091	0.243

Table I4: Probability of obtaining at least grade F. Applied ICT Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.097	0.059	2.180	0.065	3.578	0.072
GCSE	3.522	0.050	3.620	0.054	4.681	0.056
Attainment measure	0.080	0.014	1.387	0.017	1.575	0.017
Deviance	47053.080		43050.080		35282.470	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.098	0.156	2.182	0.170	2.805	0.204
GCSE	2.402	0.145	2.268	0.155	2.764	0.180
Covariance	0.850	0.141	0.944	0.159	1.008	0.225

*Engineering Double Award***Table I5: Correlation between overall Key Stage scores and Mean GCSE. Engineering Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.81	0.69
KS 3		1.00	0.84
Mean GCSE			1.00

Table I6: Probability of obtaining at least grade A. Engineering Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.391	0.234	-6.158	0.215	-5.413	0.213
GCSE	-2.278	0.016	-2.636	0.019	-2.621	0.018
Attainment measure	1.256	0.007	1.886	0.010	1.859	0.008
Deviance	240745.400		215428.500		179190.000	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.731	0.687	2.899	0.568	2.924	0.547
GCSE	0.761	0.027	0.622	0.022	0.660	0.024
Covariance	0.707	0.179	0.576	0.128	0.366	0.147

Table I7: Probability of obtaining at least grade C. Engineering Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-1.710	0.084	-1.931	0.092	-1.025	0.097
GCSE	0.530	0.016	0.565	0.011	1.098	0.016
Attainment measure	0.926	0.005	1.360	0.006	1.414	0.005
Deviance	381881.200		352129.100		300637.200	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.894	0.270	2.835	0.374	3.587	0.322
GCSE	0.628	0.019	0.535	0.017	0.564	0.018
Covariance	0.361	0.096	0.212	0.087	0.083	0.089

Table I8: Probability of obtaining at least grade F. Engineering Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.883	0.089	1.922	0.103	3.061	0.090
GCSE	3.598	0.023	3.730	0.021	4.642	0.025
Attainment measure	0.597	0.009	0.940	0.010	1.111	0.008
Deviance	112024.000		107613.100		92582.780	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.264	0.294	2.399	0.271	2.715	0.281
GCSE	1.036	0.042	0.902	0.036	0.858	0.037
Covariance	0.434	0.095	0.306	0.087	0.149	0.095

*Manufacturing Double Award***Table I9: Correlation between overall Key Stage scores and Mean GCSE. Manufacturing Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.81	0.69
KS 3		1.00	0.84
Mean GCSE			1.00

Table I10: Probability of obtaining at least grade A. Manufacturing Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.343	0.300	-5.779	0.261	-5.432	0.281
GCSE	-2.277	0.017	-2.632	0.016	-2.615	0.017
Attainment measure	1.256	0.008	1.885	0.009	1.857	0.007
Deviance	240122.900		214915.000		178730.500	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.598	0.635	3.250	0.605	5.478	0.860
GCSE	0.756	0.027	0.617	0.021	0.659	0.024
Covariance	0.410	0.235	0.205	0.187	0.254	0.336

Table I11: Probability of obtaining at least grade C. Manufacturing Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-1.665	0.115	-1.752	0.126	-0.874	0.198
GCSE	0.530	0.013	0.569	0.011	1.104	0.014
Attainment measure	0.926	0.005	1.359	0.006	1.412	0.005
Deviance	379260.300		349807.100		298674.700	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	4.051	0.822	3.905	0.607	4.048	0.891
GCSE	0.627	0.019	0.534	0.017	0.563	0.018
Covariance	0.801	0.152	0.630	0.090	0.483	0.146

Table I12: Probability of obtaining at least grade F. Manufacturing Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.040	0.132	2.114	0.124	3.405	0.148
GCSE	3.600	0.023	3.731	0.021	4.629	0.034
Attainment measure	0.594	0.009	0.931	0.011	1.102	0.008
Deviance	109378.500		105206.500		90875.270	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.056	0.341	2.939	0.363	2.994	0.310
GCSE	1.037	0.042	0.904	0.036	0.849	0.038
Covariance	0.565	0.187	0.410	0.142	0.236	0.162

*Health and Social Care Double Award***Table I13: Correlation between overall Key Stage scores and Mean GCSE. Health and Social Care Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.84	0.72
KS 3		1.00	0.85
Mean GCSE			1.00

Table I14: Probability of obtaining at least grade A. Health and Social Care Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-3.554	0.072	-3.952	0.091	-3.301	0.099
GCSE	-2.633	0.025	-3.289	0.029	-3.746	0.041
Attainment measure	1.497	0.015	2.325	0.018	2.523	0.020
Deviance	74282.880		64178.120		49097.710	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.952	0.165	2.396	0.249	3.443	0.300
GCSE	1.215	0.054	1.002	0.046	1.248	0.070
Covariance	0.012	0.052	0.374	0.087	0.282	0.112

Table I15: Probability of obtaining at least grade C. Health and Social Care Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	0.173	0.044	0.395	0.058	1.744	0.071
GCSE	0.443	0.024	0.475	0.027	1.142	0.025
Attainment measure	1.305	0.011	1.961	0.012	1.991	0.012
Deviance	109107.000		94459.790		77351.140	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.868	0.107	2.380	0.148	3.081	0.185
GCSE	1.505	0.064	0.994	0.047	1.156	0.051
Covariance	0.425	0.076	0.336	0.075	0.246	0.095

Table I16: Probability of obtaining at least grade F. Health and Social Care Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.232	0.061	3.610	0.018	5.238	0.091
GCSE	3.744	0.035	4.033	0.036	5.376	0.058
Attainment measure	0.880	0.016	1.343	0.018	1.453	0.018
Deviance	40869.190		37949.160		30563.200	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.752	0.135	1.791	0.167	2.060	0.211
GCSE	1.307	0.074	1.080	0.078	1.226	0.075
Covariance	0.620	0.093	0.472	0.095	0.245	0.094

*Leisure and Tourism Double Award***Table I17: Correlation between overall Key Stage scores and Mean GCSE. Leisure and Tourism Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.81	0.68
KS 3		1.00	0.83
Mean GCSE			1.00

Table I18: Probability of obtaining at least grade A. Leisure and Tourism Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-5.632	0.234	-6.546	0.179	-5.668	0.246
GCSE	-2.642	0.019	-3.593	0.021	-4.000	0.027
Attainment measure	1.719	0.011	2.841	0.013	2.899	0.015
Deviance	153479.000		126087.100		95202.420	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	5.582	0.991	6.964	0.753	8.001	1.065
GCSE	0.820	0.029	0.760	0.030	0.926	0.036
Covariance	0.907	0.179	0.745	0.163	0.819	0.163

Table I19: Probability of obtaining at least grade C. Leisure and Tourism Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.944	0.059	-0.831	0.079	0.655	0.090
GCSE	0.521	0.018	0.418	0.016	1.085	0.015
Attainment measure	1.408	0.007	2.240	0.010	2.271	0.010
Deviance	224063.800		188490.000		152404.200	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.049	0.224	3.891	0.261	5.076	0.361
GCSE	0.750	0.025	0.683	0.024	0.800	0.028
Covariance	0.459	0.068	0.336	0.072	0.219	0.090

Table I20: Probability of obtaining at least grade F. Leisure and Tourism Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.714	0.061	3.242	0.076	5.105	0.078
GCSE	3.704	0.022	3.978	0.026	5.265	0.036
Attainment measure	1.117	0.011	1.701	0.015	1.738	0.016
Deviance	72662.730		65311.910		52510.110	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.460	0.182	2.657	0.227	3.559	0.320
GCSE	0.940	0.040	0.787	0.038	0.819	0.041
Covariance	0.531	0.078	0.435	0.076	0.269	0.095

*Applied Business Double Award***Table I21: Correlation between overall Key Stage scores and Mean GCSE. Applied Business Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.80	0.65
KS 3		1.00	0.81
Mean GCSE			1.00

Table I22: Probability of obtaining grade A*. Applied Business Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-6.992	0.181	-8.428	0.221	-8.069	0.226
GCSE	-5.088	0.059	-6.172	0.068	-6.789	0.087
Attainment measure	1.812	0.036	2.764	0.041	2.648	0.040
Deviance	20888.520		17883.900		14268.930	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.613	0.443	3.181	0.661	3.939	0.687
GCSE	1.468	0.097	1.715	0.123	2.191	0.136
Covariance	0.892	0.379	1.252	0.553	0.955	0.553

Table I23: Probability of obtaining at least grade A. Applied Business Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.051	0.085	-5.067	0.087	-4.385	0.102
GCSE	-2.920	0.030	-3.671	0.035	-3.945	0.046
Attainment measure	1.584	0.017	2.541	0.023	2.602	0.026
Deviance	64165.050		46838.360		36604.050	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.029	0.247	2.508	0.216	3.369	0.341
GCSE	1.058	0.055	1.198	0.060	1.667	0.093
Covariance	0.490	0.145	0.447	0.160	0.329	0.217

Table I24: Probability of obtaining at least grade C. Applied Business Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.156	0.051	-0.240	0.054	1.123	0.074
GCSE	0.409	0.023	0.364	0.024	1.057	0.031
Attainment measure	1.285	0.011	2.010	0.014	2.104	0.015
Deviance	96203.030		83447.590		67800.420	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.584	0.118	2.023	0.133	2.547	0.185
GCSE	0.911	0.043	1.011	0.045	1.345	0.062
Covariance	0.481	0.082	0.436	0.100	0.453	0.112

Table I25: Probability of obtaining at least grade F. Applied Business Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.661	0.060	2.909	0.065	4.550	0.078
GCSE	3.587	0.040	3.821	0.036	5.066	0.051
Attainment measure	0.948	0.017	1.458	0.021	1.560	0.020
Deviance	34075.500		31251.190		25506.620	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.535	0.134	1.650	0.149	2.234	0.205
GCSE	1.012	0.071	0.976	0.065	1.185	0.083
Covariance	0.471	0.119	0.433	0.116	0.360	0.164

*Applied Science Double Award***Table I26: Correlation between overall Key Stage scores and Mean GCSE. Applied Science Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.83	0.69
KS 3		1.00	0.84
Mean GCSE			1.00

Table I27: Probability of obtaining at least grade A. Applied Science Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-6.258	0.194	-7.220	0.261	-6.953	0.194
GCSE	-3.086	0.017	-4.518	0.020	-5.179	0.024
Attainment measure	1.898	0.008	3.407	0.012	3.468	0.013
Deviance	303854.200		231248.600		168596.500	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.521	0.496	3.794	0.862	4.459	0.552
GCSE	0.902	0.029	0.898	0.030	0.812	0.028
Covariance	0.528	0.237	0.282	0.244	0.323	0.166

Table I28: Probability of obtaining at least grade C. Applied Science Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-0.447	0.067	-0.242	0.098	0.943	0.097
GCSE	0.443	0.016	0.376	0.017	1.224	0.013
Attainment measure	1.652	0.005	2.822	0.008	2.632	0.008
Deviance	442093.300		336295.600		272897.400	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.973	0.241	3.992	0.345	4.917	0.377
GCSE	0.917	0.028	0.759	0.023	0.774	0.024
Covariance	0.677	0.095	0.651	0.091	0.556	0.099

Table I29: Probability of obtaining at least grade F. Applied Science Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	4.234	0.084	4.743	0.100	7.591	0.114
GCSE	4.379	0.022	4.862	0.023	7.533	0.038
Attainment measure	1.159	0.010	1.824	0.013	2.123	0.012
Deviance	101183.400		89215.050		56526.480	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.997	0.214	1.677	0.270	2.853	0.341
GCSE	1.294	0.054	0.925	0.038	1.059	0.049
Covariance	0.730	0.091	0.536	0.097	0.483	0.109

*Applied Art and Design Double Award***Table I30: Correlation between overall Key Stage scores and Mean GCSE. Applied Art and Design Double Award**

	KS 2	KS 3	Mean GCSE
KS 2	1.00	0.81	0.69
KS 3			0.84
Mean GCSE			1.00

Table I31: Probability of obtaining grade A*. Applied Art and Design Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-4.093	0.171	-4.528	0.158	-3.952	0.168
GCSE	-3.887	0.032	-4.298	0.033	-4.526	0.038
Attainment measure	1.061	0.002	1.583	0.019	1.527	0.015
Deviance	49032.250		45527.190		39961.610	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.045	0.408	2.474	0.387	2.797	0.582
GCSE	1.556	0.069	1.532	0.072	1.728	0.078
Covariance	0.184	0.218	0.159	0.218	0.112	0.278

Table I32: Probability of obtaining at least grade A. Applied Art and Design Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	-2.061	0.089	-2.273	0.084	-1.669	0.107
GCSE	-1.812	0.018	-2.049	0.020	-2.020	0.025
Attainment measure	0.957	0.010	1.426	0.012	1.418	0.010
Deviance	121168.600		112165.800		97486.450	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.345	0.174	1.473	0.201	2.136	0.209
GCSE	0.948	0.035	0.963	0.035	1.125	0.042
Covariance	0.453	0.091	0.537	0.102	0.673	0.113

Table I33: Probability of obtaining at least grade C. Applied Art and Design Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	0.765	0.095	0.780	0.098	1.706	0.095
GCSE	0.765	0.095	1.343	0.022	1.907	0.025
Attainment measure	0.811	0.008	1.176	0.009	1.228	0.008
Deviance	136692.300		128340.300		111146.200	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	1.953	0.278	1.951	0.245	2.704	0.251
GCSE	1.242	0.040	1.246	0.041	1.526	0.050
Covariance	0.783	0.111	0.800	0.131	0.969	0.130

Table I34: Probability of obtaining at least grade F. Applied Art and Design Double Award

Fixed terms

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	3.648	0.145	3.878	0.159	5.223	0.181
GCSE	5.315	0.058	5.490	0.058	6.465	0.084
Attainment measure	0.675	0.021	1.056	0.024	1.142	0.020
Deviance	22241.880		21254.020		18508.720	

School variance

	Key Stage 2		Key Stage 3		Mean GCSE	
	Estimate	SE	Estimate	SE	Estimate	SE
GCSEv	2.057	0.291	2.195	0.306	2.549	0.471
GCSE	2.854	0.172	2.701	0.163	2.828	0.173
Covariance	0.925	0.259	0.867	0.231	1.318	0.252