

14-19 Qualification Reforms and their Implications for HE

Level 3 vocational qualifications

1. BTEC progression data

2. Review of the BTEC Nationals

1

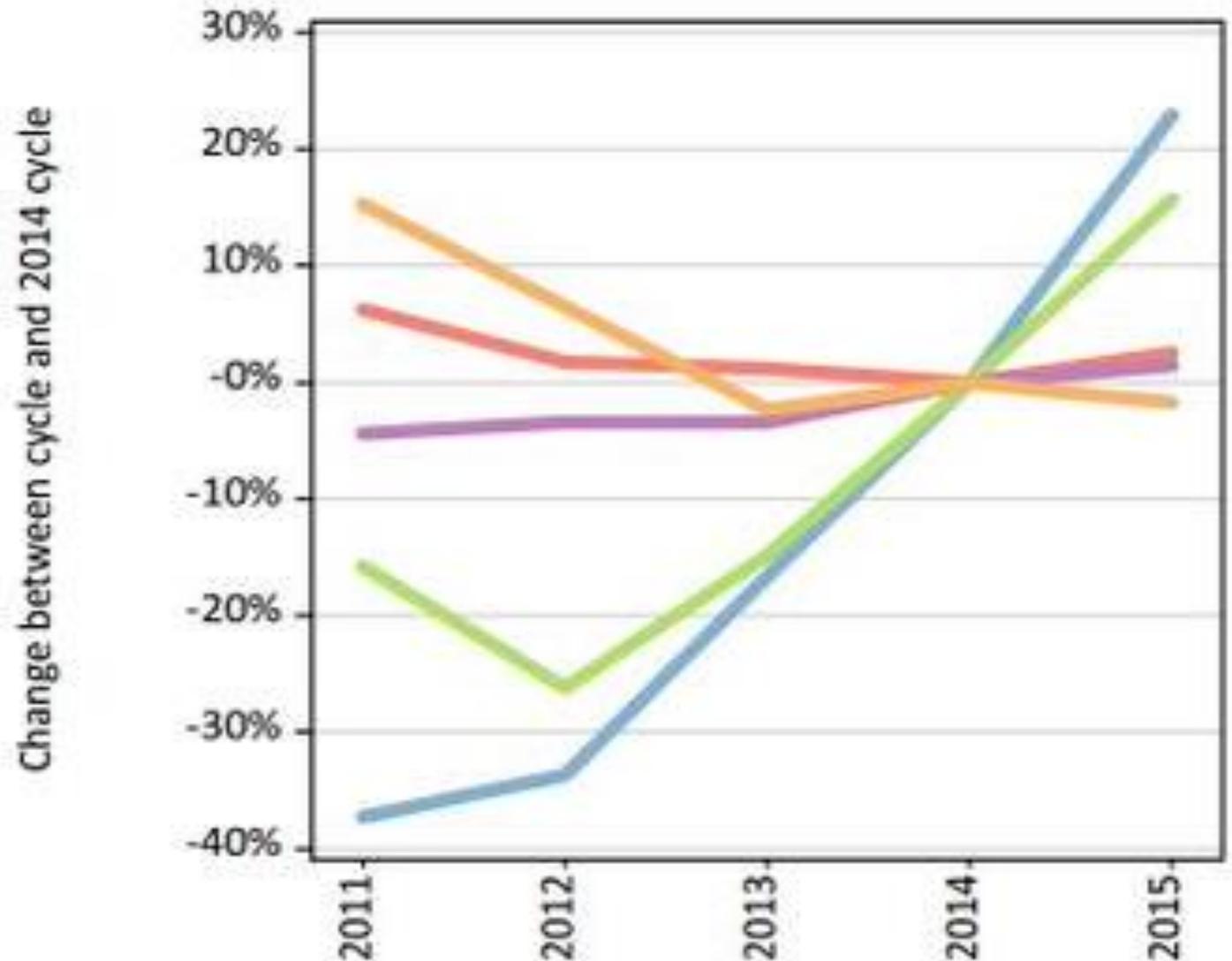
Data on BTEC progression to HE

UCAS data on entry to HE – 2014 End of Cycle Report

- 23.4% of students entered university in 2014-15 with a BTEC compared with just 13.5% in 2008
- Only 26 large providers took fewer than 5% of their intake from BTEC holders in 2014-15 compared with almost double that number (47) in 2008
- Disadvantaged young people over 10% more likely to enter HE than they were a year ago
- Entry rates for young people from all ethnic groups increased
- The proportion of students entering HE with a BTEC is higher in areas with a low rate of entry
- The fastest growing routes to HE are with a BTEC, or a BTEC/A level mix

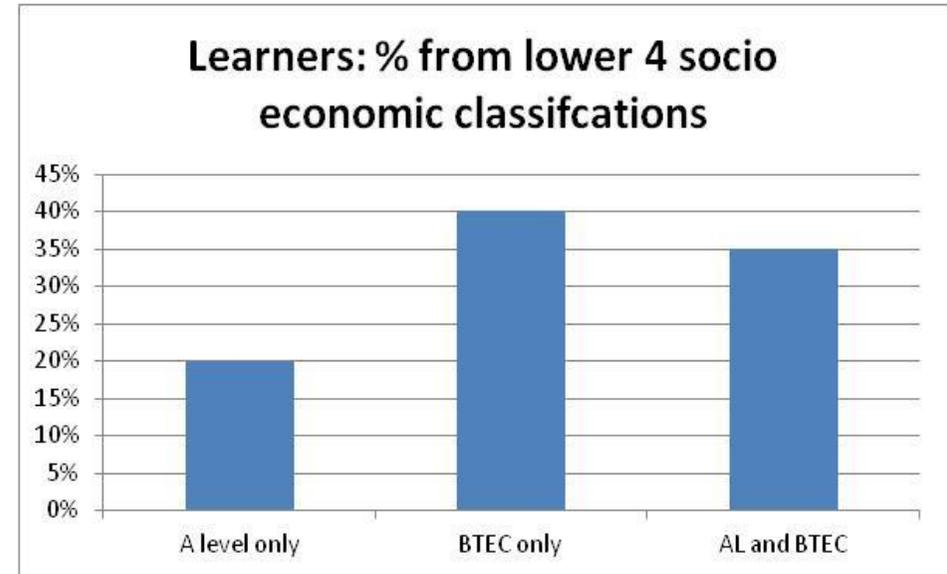
Trends in entry to HE

- A level only
- A level & BTEC
- BTEC only
- SQA only
- IB only



BTEC and social mobility

- 40% of BTEC students, compared to 20% of A level students, come from the bottom 4 socio economic groups (groups 5 to 8)
- For black students this rises to 45% of students

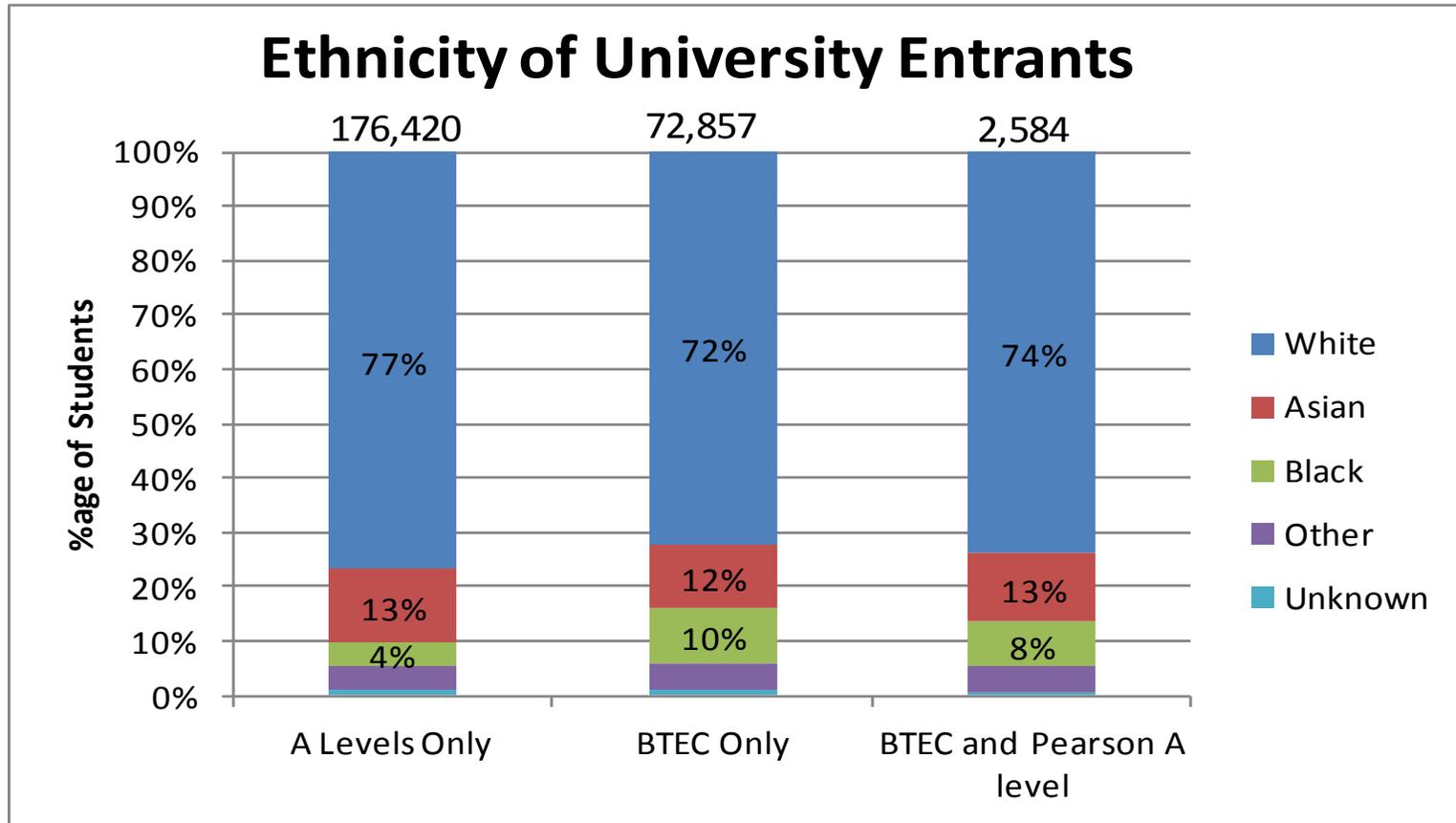


The report *Vocational Progression to Selecting Universities Comparisons and Trends 2010-2013* published by the Western Vocational Progression Consortium in September 2014 had similar findings. It reported:

"... despite significant increases in the number of 'BTEC students' in HE, the widening participation background had remained stable."

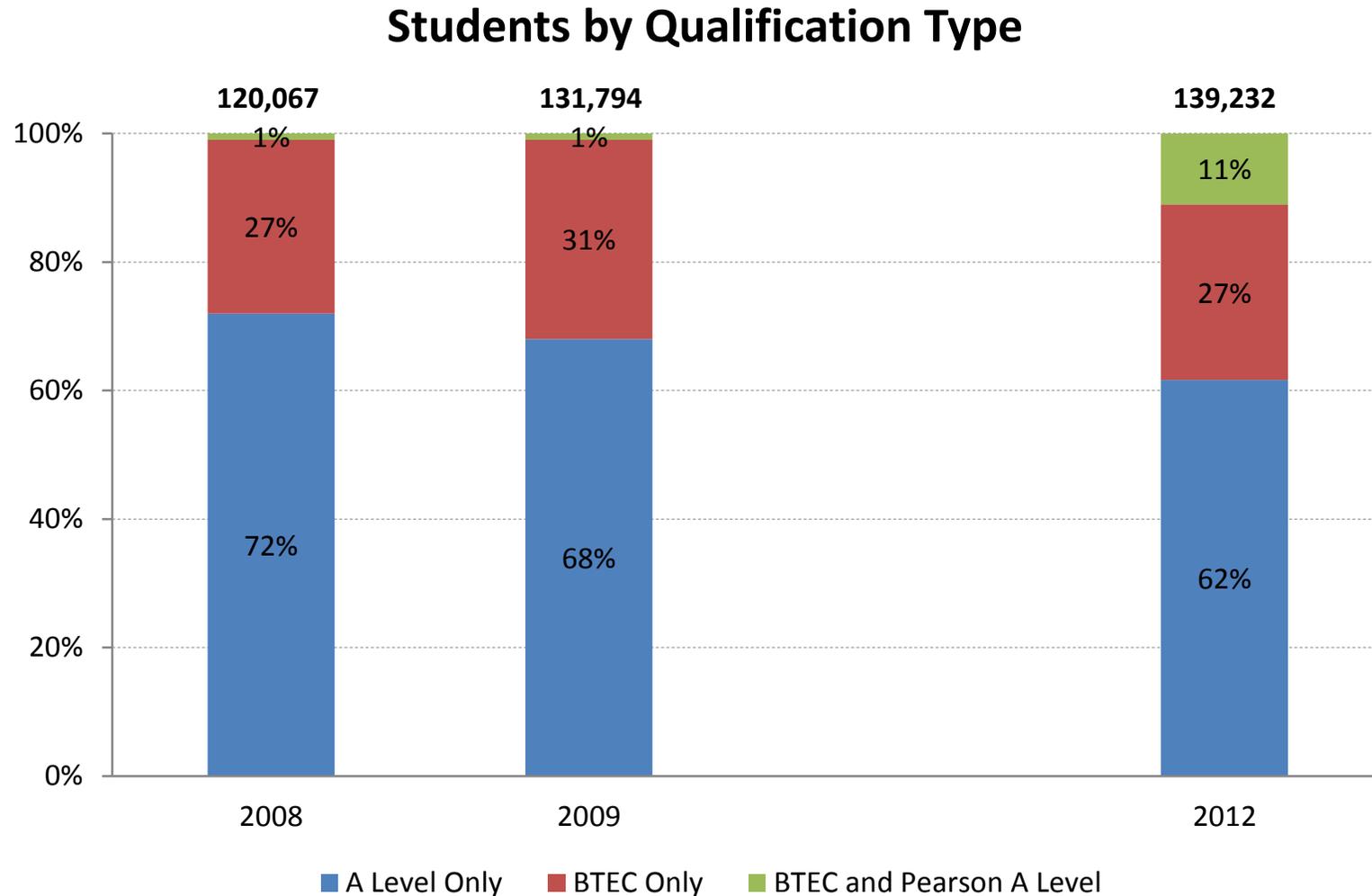
"In addition, 'BTEC students' were also highly likely to come from a family without any parental experience of HE (42.1%)."

The student sample (HESA data 2008/9): ethnicity



Higher proportion of black students progress to university with BTEC

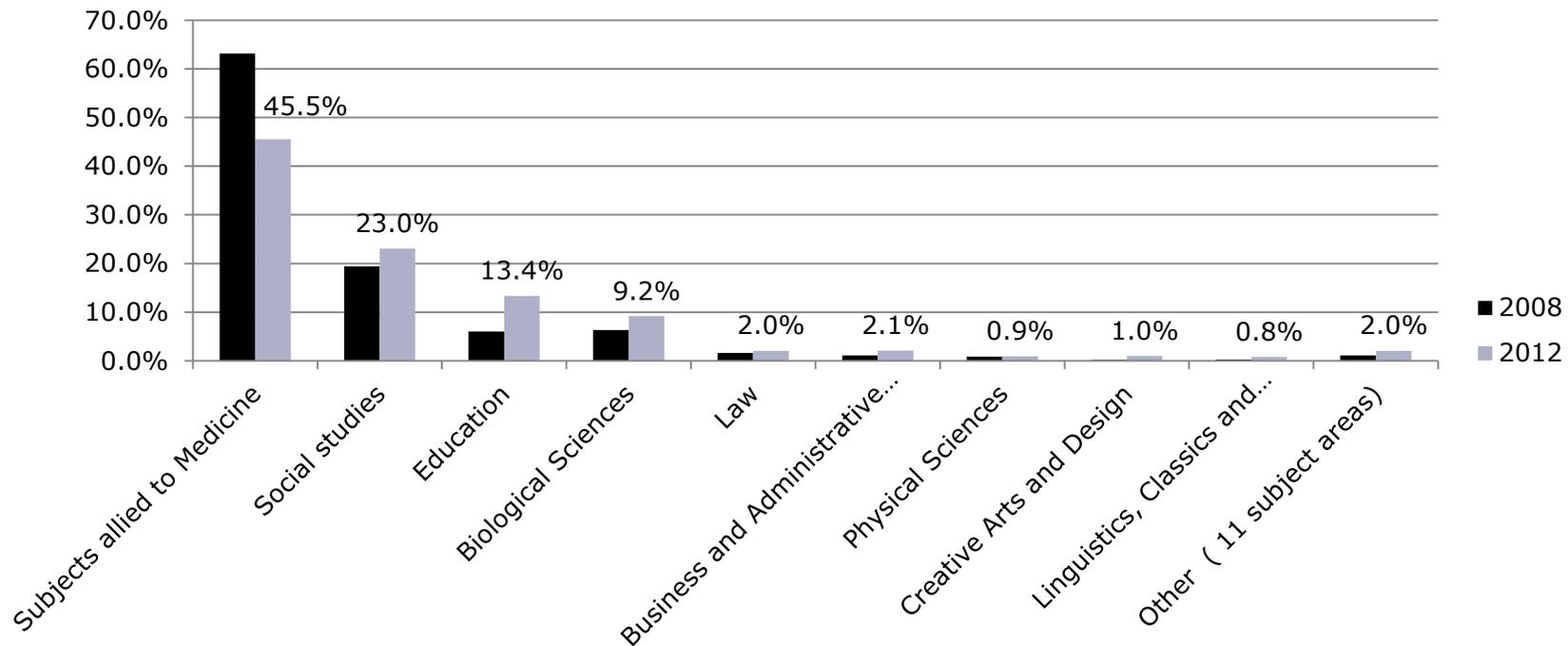
The student sample by qualification type (HESA data)



Courses to which BTEC students progress - comparison 2008 and 2012

- In 2008 70% of BTEC students progressed to a degree subject close to their BTEC subject : this fell to 61% in 2012
- Trend was consistent against all subject areas except engineering where over 80% of learners progressed to a degree in engineering

BTEC Health & Social Care- degree progression



Popular degree subjects for BTEC students – 2012

Degree subject	Learners	%
(C6) Sport & exercise science	5892	9.8%
(W2) Design studies	3862	6.4%
(N1) Business studies	3829	6.4%
(I1) Computer science	3490	5.8%
(B7) Nursing	2651	4.4%
Engineering (total)	2292	3.8%
(W4) Drama	2036	3.4%
(P3) Media studies	1880	3.1%
(N8) Hospitality, leisure, sport, tourism & transport	1815	3.0%
(W6) Cinematics & photography	1651	2.7%
(W3) Music	1575	2.6%
(L3) Sociology	1569	2.6%
(N2) Management studies	1561	2.6%
(X3) Academic studies in education	1529	2.5%
(C8) Psychology	1526	2.5%
(L5) Social work	1352	2.2%
(X1) Training teachers	1252	2.1%
(N4) Accounting	1202	2.0%
(N5) Marketing	1061	1.8%
(I2) Information systems	926	1.5%

University of Manchester – popular degree subjects for A Level students

Degree Subject	2010/2011		2013/2014		Change
	%	Learners	%	Learners	
Social sciences	12.1%	947	13.3%	924	-2%
Natural sciences	9.7%	758	11.8%	822	8%
Nursing and Pharmacology	10.3%	802	10.2%	707	-12%
Biology and Psychology	9.6%	749	9.4%	655	-13%
History and Philosophy	10.0%	780	8.2%	567	-27%
Engeneering	6.9%	539	7.2%	497	-8%
Mathematics and Computer science	7.0%	544	6.9%	479	-12%
Medicine and Dentistry	6.2%	487	6.8%	470	-3%
Linguistics and Classical studies	5.4%	426	6.3%	435	2%
Business and management	6.6%	516	6.0%	415	-20%
Law	3.2%	254	3.8%	265	4%
Languages	4.6%	361	3.1%	217	-40%
Design and Art	2.9%	224	2.8%	196	-12%
Regional studies	1.9%	151	2.0%	136	-10%
Material technology	1.7%	133	1.5%	103	-23%
Architecture	1.3%	99	0.5%	32	-68%
Education studies	0.4%	28	0.2%	12	-56%
Communication studies	0.3%	21	0	9	-56%
Total	100%	7818	100%	6942	-11%

University of Manchester – popular degree subjects for BTEC students

Degree Subject	2010/2011		2013/2014		Change
	%	Learners	%	Learners	
Nursing and Pharmacology	28.7%	47	39.0%	87	86%
Business and management	25.2%	41	16.2%	36	-12%
Engeneering	14.6%	24	8.9%	20	-17%
Social sciences	4.9%	8	6.9%	15	93%
Education studies	4.1%	7	5.1%	12	73%
History and Philosophy	0.6%	1	4.5%	10	900%
Material technology	3.7%	6	3.6%	8	33%
Biology and Psychology	3.7%	6	3.6%	8	33%
Mathematics and Computer science	7.3%	12	3.3%	7	-39%
Natural sciences	1.8%	3	2.5%	6	89%
Regional studies	1.5%	3	1.8%	4	60%
Architecture	1.2%	2	1.3%	3	50%
Linguistics and Classical studies	n.a.	n.a.	1.1%	3	n.a.
Design and Art	1.8%	3	0.9%	2	-33%
Law	0.6%	1	0.9%	2	100%
Languages	0.3%	1	0.4%	1	100%
Total	100%	164	100%	224	37%

Review of the BTEC Nationals

Changes to assessment requirements in the current BTEC Nationals – now implemented

- New rules introduced for all learners starting BTEC Firsts and Nationals courses in September 2014, providing much clearer guidance on what is and is not allowed
- There are restrictions on:
 - **resubmissions** – one only undertaken by the learner independently, with no further guidance
 - **retakes** (available as QCF requires **all** units to be passed) – one only with new task/assignment limited to **pass** only

The review of the BTEC Nationals

Pearson has revised the BTEC National suites of qualifications for first teaching in 2016. The development has been informed by:

- Pearson's research undertaken over the past four years
- DfE criteria for inclusion of vocational qualifications in 16-19 Performance Tables
- External Stakeholder Advisory Groups with membership from HE, employers and professional bodies
- Pearson's World Class Qualifications principles

Pearson research feedback from HE

HE indicated that the strengths of BTEC National students were:

- Teamwork
- Project work
- Practical skills
- Independent learning skills

Weaknesses were:

- The ability to prepare for examinations
- Insufficient factual knowledge
- Maths and/or English skills in some subjects

DfE categories of level 3 vocational qualifications

“**Applied General** qualifications are level 3 (advanced) qualifications that provide broad study of a vocational area.

They are recognised by at least three Higher Education Institutions as fulfilling entry requirements to a range of HE courses, either in their own right or alongside other level 3 qualifications.

Some employers and professional/trade bodies have also pledged support for Applied General qualifications.”

DfE categories of level 3 vocational qualifications

“**Tech Levels** are level 3 (advanced) qualifications for students wishing to specialise in a technical occupation or occupational group.

They lead to recognised occupations, for example in engineering, IT, accounting or professional cookery.

They are recognised by a relevant trade or professional body or at least five employers registered with Companies House that are representative of the industry sector or occupation to which the qualification relates.

As Tech Levels are also designed to help students progress to higher study in those occupational areas, many higher education institutions have also pledged support for Tech Levels.”

DfE criteria for level 3 vocational qualifications

Characteristic	Applied General criteria (2018)	Tech Level criteria (2018)
A. Purpose – progression to...	... range of subjects at a higher level or to employment	... work in specific vocational areas – directly or via HE
B. Size	Min 150 glh	Min 300 glh
C. Recognition	3 HEIs	5 employers/1 PB
D. Appropriate content	Min 60% mandatory	Min 40% mandatory
E. External Assessment	Min 40%	Min 30%
F. Synoptic Assessment	✓	✓
G. Grading	✓	✓
H. Employer involvement		Delivery/assessment
I. Progression	✓	✓
J. Proven Track Record	Take-up in first 2 yrs	Take-up in first 2 yrs

Pearson's approach to the review of BTEC Nationals

- Most existing BTEC National titles across sectors and sizes have now been redeveloped
- They were redeveloped as 'BTECs' and fitted against AG or TL criteria as appropriate
- Both AG and TL developments were informed by External Stakeholder Advisory Groups, which had membership from HE (wide range of university types), employers and professional bodies. These groups:
 - Advised on subject content and scheme of assessment
 - Reviewed draft specifications and assessments
- The BTEC Nationals were accredited to the RQF (Regulated Qualifications Framework – QCF has been discontinued)

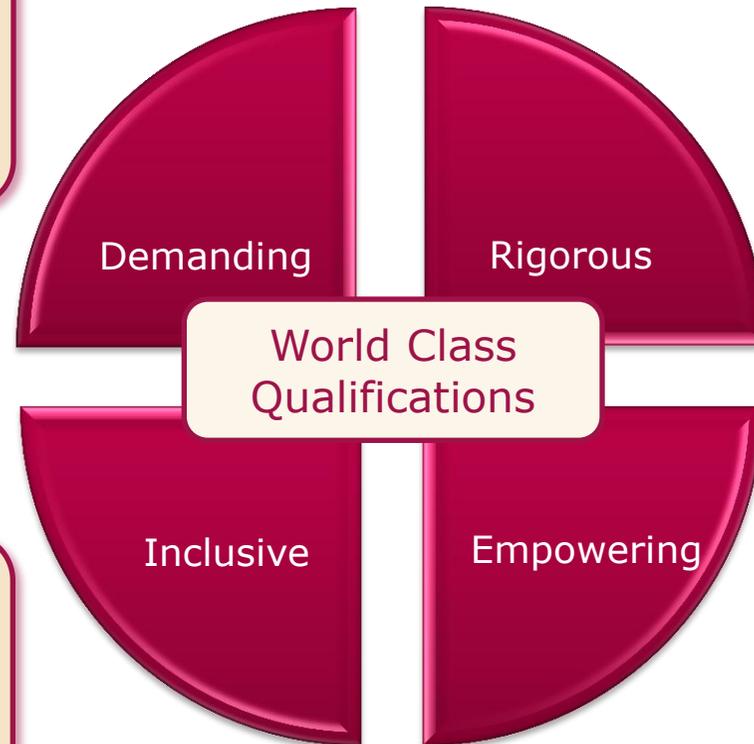
Pearson World Class Qualifications approach

- Pearson's World Class Qualifications programme has brought together a panel of experts from around the world – chaired by Sir Michael Barber - to develop qualifications that uphold internationally benchmarked standards.
- Our approach is based on four principles that define a World Class Qualification:
 - Demanding
 - Rigorous
 - Inclusive
 - Empowering

Design Principles For World-Class Qualifications

The **content** and **assessment** are demanding, meaningful and meet the needs of end-users

The design of **assessments** ensures confidence in the grades awarded



The qualification is **accessible** to all its target group of students

The qualification provides students with the knowledge and skills to **progress** successfully

Implementing our World-Class programme

New International Gold Standard

- high expectations for all



Michael Barber
Chair - Expert Panel

Jason Holt
Holts Group

Janice Kay
Exeter University

Bob Schwartz
Harvard University

Sally Coates
United Learning Trust

Sing Kong Lee
NIE Singapore

Jane Beine
John Lewis

Bahram Bekhradnia
HEPI

Ursula Renold
ETHZ, Switzerland

Peter Hill
Nord Anglia

Jonathan Osborne
Stamford University



External Subject Advisory Groups



Product
Management
&
Customer
Engagement

Qualification
Development
&
Implementation

Assessment
Design
&
Standards

Stakeholders
&
Communications

Academic Suite
BTEC Suite
Apprenticeships
International
Higher Nationals

Features of the revised BTEC Nationals

- External assessment (most subjects have at least one written examination) – at least 33%
- Larger core of mandatory units – at least 50%
- Synoptic assessment
- One resit only for externally assessed units and one resubmission only for internally assessed units
- More emphasis on research skills
- Strengthening and embedding of mathematics and English requirements, where appropriate
- Recognition by HE, employers and professional bodies for both AG and TL qualifications

Reviewing the grading of the BTEC Nationals

Pearson consulted with HE and employers on the grading

As a result of the feedback received, we:

- retained the grades P, M, D and D* for the qualifications
- retained the use of double and triple grades for the two larger sizes
- used one grade for the Foundation Diploma (1.5 A levels)
- made small changes to the algorithms used to determine the qualification grades for each size of qualification

BTEC Nationals – QCF and new RQF titles

QCF BTEC Level 3 qualifications	New RQF BTEC Nationals	A level equivalence
Pearson BTEC Level 3 Certificate (graded P, M, D, D*)	Pearson BTEC Level 3 National Certificate (graded P, M, D, D*)	0.5 x A level
Pearson BTEC Level 3 Subsidiary Diploma (graded P, M, D, D*)	Pearson BTEC Level 3 National Extended Certificate (graded P, M, D, D*)	1.0 x A level
Pearson BTEC Level 3 90-credit Diploma (graded from PP to D*D*)	Pearson BTEC Level 3 National Foundation Diploma (graded P, M, D, D*)	1.5 x A levels
Pearson BTEC Level 3 Diploma (graded from PP to D*D*)	Pearson BTEC Level 3 National Diploma (graded from PP to D*D*)	2.0 x A levels
Pearson BTEC Level 3 Extended Diploma (graded from PPP to D*D*D*)	Pearson BTEC Level 3 National Extended Diploma (graded from PPP to D*D*D*)	3.0 x A levels

Examples of titles

Some more specialist qualifications in the subject suites have slightly different titles from the rest of the suite, although there will be some common content.

For example, in the Computing suite, there are the following

- Applied General qualifications:
 - Pearson BTEC Level 3 National Extended Certificate in Computing
 - Pearson BTEC Level 3 National Foundation Diploma in Computing
 - Pearson BTEC Level 3 National Extended Diploma in Computing
- More specialist Tech Levels:
 - Pearson BTEC Level 3 National Diploma in Computer Science
 - Pearson BTEC Level 3 National Diploma in Computing for Creative Industries
 - Pearson BTEC Level 3 National Diploma in Computer Systems and Network Support
 - Pearson BTEC Level 3 National Diploma in Business Information Systems

Timeframe

- The revised BTEC Nationals in most titles will be introduced for first teaching in September 2016
- Students with these qualifications will progress to HE in autumn 2018

Impact on student achievement

Whenever a new qualification is introduced, there tends to be a dip in student achievement as teachers get used to delivering the new specifications and the qualifications bed in.

This is particularly the case where the changes are extensive. For the BTEC Nationals, there are:

- Significant changes to the content
- The introduction of a large proportion of external assessment
- Changes to the assessment criteria for internally assessed units

Pearson is undertaking modelling work to estimate the likely impact on grade profiles and will share findings with Higher Education to help inform the setting of entry requirements

The Technical Baccalaureate

The Technical Baccalaureate (Tech Bacc) is a DfE performance measure for the 16-19 School and College Performance Tables. It comprises:

- A DfE approved Tech Level qualification
- A DfE approved level 3 mathematics qualification (this includes AS/A levels in Mathematics and Core Maths qualifications)
- The extended project qualification

Some schools and colleges may encourage their students to take this combination of qualifications.

Level 3 academic qualifications

1. AS/A levels

2. Core mathematics

2

AS/A levels

AS/A level developments: key decisions

The following will apply to AS/A levels in **England**:

- A levels and AS levels to be fully linear
- AS levels to be stand-alone and at same level as at present
- The content of the AS may be a subset of the A level content
- No common elements of assessment – i.e. scores on the AS assessments will not contribute to the A level
- Removal of the January series from 2014 onwards
- External assessment as the default method of assessment
- Inclusion of non-exam assessment to be considered on a subject-by-subject basis

Specific proposals in the Ofqual consultation – AS and A level standards

“The grading standard of the new A levels and AS qualifications will not be different from that of the current versions and despite the changes, we are proposing A levels and AS qualifications will remain substantially the same qualifications as at present.”

- Ofqual will ensure that there are ‘comparable outcomes’ for the new AS/A levels
- The overall grade profiles for the new AS/A levels will be similar to the current ones
- There may be changes in outcomes for individual centres according to how successfully they implement the new linear approach

A level review timeline

Subjects for phase 1 (first teaching September 2015, first assessments 2017):

Art and design; Biology; Business; Chemistry; Computer science; Economics; English language; English literature; English language and literature; History; Physics; Psychology; Sociology.

Subjects for phase 2 (first teaching from September 2016, first assessments 2018):

Languages; Geography; Dance; Drama; Music; Religious studies; PE.

Subjects for phase 3 (first teaching from September 2017, first assessments 2019):

Mathematics; Further Mathematics; Design and Technology; Ofqual consulted on the remaining subjects to complete the new A/AS suite from 4 June to 30 July 2014 (*see decisions on later slides*)

Phase 3 AS and A level subjects approved by Ofqual to reform

- Accounting
- Ancient History
- Archaeology
- Classical civilisation
- Design & technology
- Electronics
- Environmental science
- Film studies
- Further mathematics
- Geology
- History of art
- ICT
- Law
- Mathematics
- Media studies
- Music Technology
- Philosophy
- Politics
- Statistics

AS and A level subjects that will not be reformed – last exams summer 2018

- Anthropology
 - Applied art and design*
 - Applied business*
 - Applied ICT
 - Applied science
 - Citizenship studies
 - Communication and culture
 - Creative writing
 - Critical thinking
 - Economics and business*
 - Engineering
 - Health & social care
 - Home economics (Food, etc)
 - Human biology*
 - Humanities
 - Leisure studies
 - Media: comms & production
 - Moving image arts
 - Performance studies†
 - Performing arts†
 - Pure mathematics
 - Quantitative methods
 - Science
 - Science in society
 - Travel and tourism
 - Use of mathematics (AS)
 - World development
- * Last exams summer 2016
† Last exams summer 2017

AS/A levels in Wales and Northern Ireland

- AS/A levels are being revised in Wales and Northern Ireland:
 - Wales – modular, AS 40% of A level, first teaching 2015/2016
 - Northern Ireland – modular, AS 40% of A level, first teaching 2016
- WJEC is also producing linear AS/A levels which meet the Ofqual/DfE requirements and may be used by schools and colleges in England – these qualifications are offered under the brand name of **Eduqas**

Implications of the changes to AS/A levels

Possible patterns of behaviour in schools and colleges:

- Students may continue to take exams in 4 AS levels in year 1 and 3 A levels in year 2
- Students may study 4 AS levels in year 1, but enter the exams only in the one to be dropped, and take 3 A levels in year 2
- Students may take 3 A levels and no AS levels

Implications of the changes to AS/A levels

Possible implications for HE:

- Some courses may no longer be able to ask for a 4th subject at AS
- HE providers may receive less AS results data
- Most students entering HE in 2017 and 2018 will have a mixture of modular and linear A levels
- AS/A levels in Wales and N. Ireland will continue to be modular

Level 3 Core Maths

The post-16 mathematics review

Government has created a definition of purpose for different types of level 3 mathematics qualifications:

- **A level Mathematics** – primarily for those wanting to study mathematics, computing, engineering, economics and the sciences at HE
- **A level Further Mathematics** – aimed at those wanting to study mathematics and physics at HE
- **Core Maths (new)** – for those studying courses where mathematics is important, such as geography, business and the social sciences

Core mathematics

- Intended for all who have achieved GCSE maths A*- C
- Equivalent in size to at least half an A level (180 glh)
- Linear qualifications
- Significant element of synoptic assessment – 25%
- At least 80% external assessment
- To involve selecting and applying mathematical methods and techniques to solve unfamiliar problems and to build skills in mathematical thinking, reasoning and communication
- 2015: first teaching of new specs – first awards 2017 (some early adopters have first awards in 2016)

Core maths

- 6 qualifications are now accredited and approved for use as 'core maths quals' in 16-19 Performance Tables

- Current UCAS points confirmed:

Grade	Points
A	60
B	50
C	40
D	30
E	20

- Pearson core maths qualification:

- *Pearson Edexcel Level 3 Certificate in Mathematics in Context*
- Content: applications of statistics, probability, linear programming, sequences and growth

GCSEs

3

Changes to be made to GCSEs

- A fully linear structure
- Exams as the default method of assessment, except where they cannot provide valid assessment of the skills required
- Inclusion of non-exam assessment to be considered on a subject-by-subject basis
- Tiering to be used only in exceptional cases – it will be decided on a subject-by-subject basis
- A new 9-1 grading scale, with 9 being the highest grade

GCSE review – timetable for GCSE subjects

First teaching 2015/first assessment 2017

- English language, English literature and mathematics

First teaching 2016/first assessment 2018

- Biology, chemistry, physics, combined science (double award), history, geography, languages, art & design, citizenship studies, computer science, dance, drama, food preparation & nutrition, music, physical education and religious studies

First teaching 2017/first assessment 2019

- Design & technology plus other subjects

Phase 3 GCSE subjects approved by Ofqual to reform

- Ancient history
- Astronomy
- Business
- Classical civilization
- Design & technology
- Economics
- Electronics
- Engineering
- Film studies
- Geology
- ICT
- Media studies
- Psychology
- Sociology
- Statistics

GCSE subjects that will not be reformed – last exams summer 2018

- Additional science
- Further additional science
- Applications of mathematics
- Applied business
- Applied ICT
- Applied science
- Business & communication systems
- Business studies & economics
- Environmental & land-based science
- Environmental science
- General studies
- Home economics – child development
- Home economics – textiles
- Hospitality and catering
- Law
- Leisure and tourism
- Manufacturing

GCSE subjects that will not be reformed

Last exams summer 2017

- Additional applied science
- Catering
- Design and technology (Food technology route only)
- Expressive arts
- Home economics – food and nutrition
- Human health and physiology
- Humanities
- Performing arts

Last exams summer 2016

- Digital communication

Comparison of new and old scales

New grading scale	Old grading scale
9	20% of those achieving grade 7 & above
8	
7	A
6	
5	B/C
4	C
3	
2	
1	G

GCSE grades for performance tables/study programmes

- 2015 and 2016:
 - Post-16 funding will be conditional on students continuing to study English and/or maths if they have not achieved a grade C in English (language or literature) and maths
 - Students achieving a C in English literature but not in English language may need to retake language for university entrance
- 2017 onwards:
 - Students will need to achieve a grade 5 in revised GCSEs for EBacc and English & mathematics performance measures
 - In 2017 and 2018, post-16 funding will be conditional on students continuing to study English and/or maths if they have not achieved a grade 4 – to be reviewed for 2019
- Wales will stay A*-G; Northern Ireland still to decide on grade scale
- Which grade will HE institutions require?

Changes to other Pearson qualifications

1. International qualifications

2. HNCs/HNDs

4

International qualifications

International Advanced Levels (IALs)

- For use by international centres only
- All will continue to be modular with an AS/A2 structure
- Content is being revised in line with the changes to the UK AS/A levels
- Revised English Language, English Literature, History and Psychology – first teaching in 2015
- Other subjects to be revised for first teaching in 2016/2017

Revised International GCSEs

- May be used by UK independent schools as well as overseas centres
- All will be linear
- All will be graded 9-1
- English language (A & B), English literature and mathematics (A & B) – first teaching 2016, first awards in 2018
- History, Geography, Science, Chinese, French, Spanish, German, English as a Second Language + others tbc – first teaching 2017, first awards 2019
- All have a route that is 100% external assessment but English language A and English literature have optional coursework pathways

HNCs/HNDs

General features

- HNCs – 120 credits, 8 units (15 credits each all at level 4), 6 out of 8 units mandatory
- HNDs – 240 credits, 16 units (15 credits each unit, 8 at level 4, 8 at level 5), 8 of the 16 units mandatory
- Assessment – there will be:
 - some externally set assignments
 - specific criteria for merit and distinction in each unit
- Where appropriate, units are mapped to professional body standards and students can claim appropriate privileges/membership

Subjects/timeframe

- Business
 - first teaching 2016
 - pathways: General Business; Finance & Accounting; Operations; Human Resources; Marketing; Running a Small Business & Entrepreneurship
- Engineering – first teaching 2017
- Timeframe for other subjects – to be confirmed

Communications to Higher Education

5

Pearson communication strategy on qualification reform

- Presentations on the changes to qualifications to Higher Education including:
 - Visits to individual Higher Education Providers
 - Academic Registrars Council
 - HELOA regional groups
- Pearson extranet to be made available to HE institutions providing:
 - General information sheets outlining the changes to BTEC Nationals, AS/A levels, GCSEs, Core Maths, International Advanced Levels, International GCSEs, HNCs and HNDs
 - BTEC subject guides giving detailed information on the titles, structures and mandatory content of the individual subject qualifications
 - The facility for HE providers to ask questions about the reforms