Teacher retention seminar

20 March 2018

Welcome!

The Association for Science Education
Promoting Excellence in Science Teaching and Learning

IOP Institute of Physics

THE ROYAL SOCIETY

Royal Society of Biology

ROYAL SOCIETY OF CHEMISTRY

Teacher retention seminar

20 March 2018

Session 1. ‘Government initiatives to improve teacher retention’

Chair: Professor David Read, University of Southampton

Gareth Conyard, Department for Education

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Teacher retention seminar

20 March 2018

Session 2. ‘Teacher retention: facts and factors’

Chair: Professor David Read, University of Southampton

Nick Creagh, TES Global Ltd

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Teacher Retention

Facts and Factors

Nick Creagh – Tes Global

Welcome!

When teachers go

understanding the difference between Teacher Recruitment; School Recruitment; and, Retention

Where it hurts – STEM

the shortage of Maths teachers across the country

How teachers think

an analysis of news articles published on Tes.com in the last 12 months

the results of survey & segmentation work with YouGov in Jan ’17

What next

When teachers go

Understanding the difference between Teacher Recruitment, School Recruitment, and Retention

Teacher recruitment and retention: How does it work?

1 Teacher exits profession

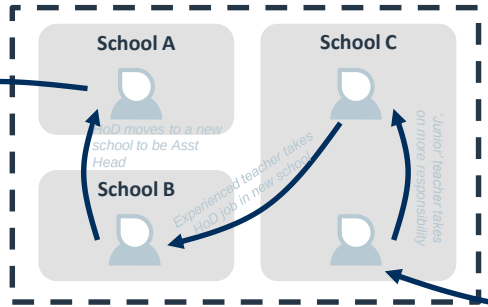
- Retirement
- Quitting teaching to work in other sector
- Moving to teach abroad
- Some short-term absences
- [New role created]

Solved by improved retention

- Workload and staff management
- UK profession competitiveness
- Career management, training and CPD

System issue

2 School recruitment



Solved by recruitment best practice

- Increased school attractiveness
- Standing out from the crowd
- Thinking about recruitment differently
- Improved school retention policies

School issue

3 New entrant enrolment

- NQTs and trainees
- Returners to teaching
- International returners
- [Role redundancy]

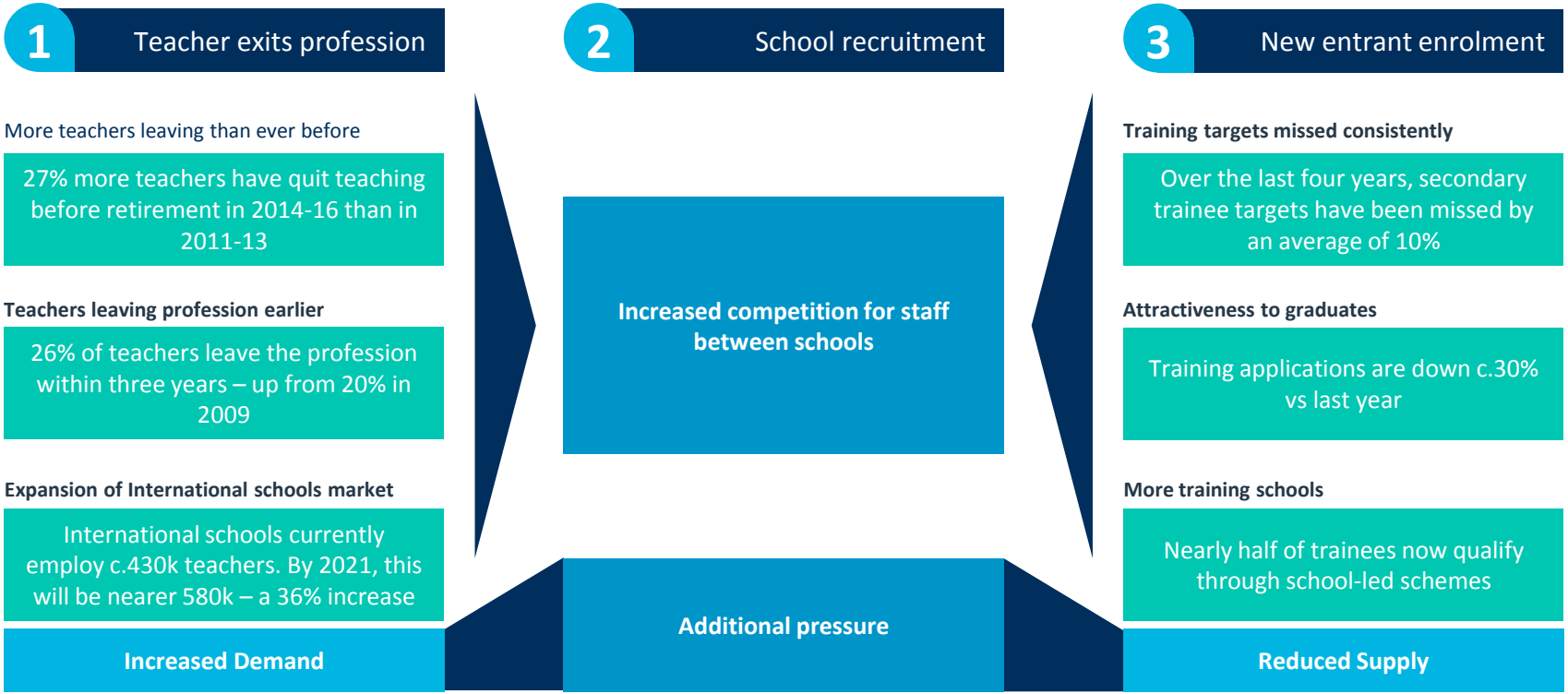
NQT gets first job in school

Solved by improved enrolment

- Profession attractiveness
- Alternative routes into teaching
- School funding / income / efficiency

System issue

Teacher recruitment and retention: Why is it hard?



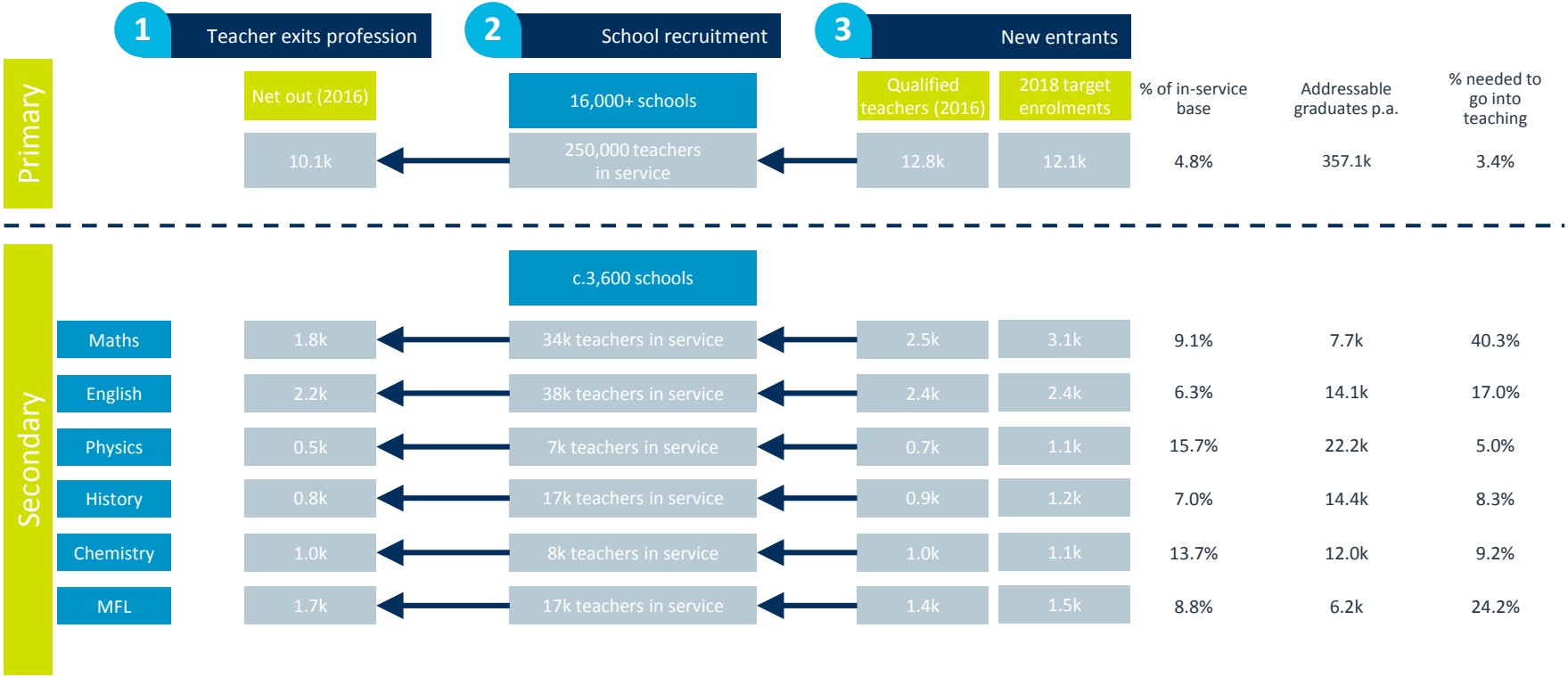
– Source: School Workforce Census, November 2016; TIE; UCAS

Where it hurts

The shortage of Maths teachers across the country

School recruitment is tough – STEM recruitment is brutal

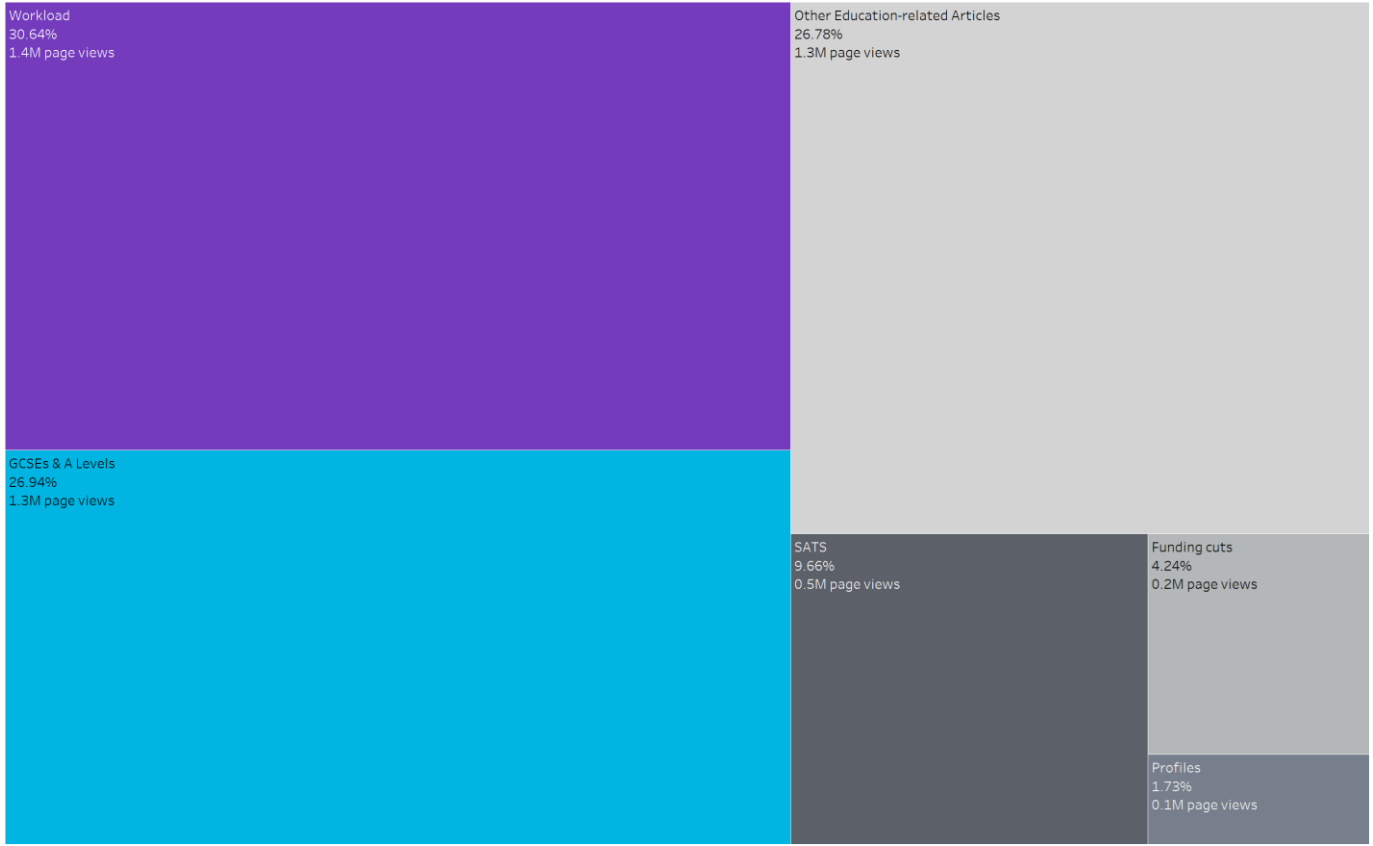
Higher turnover, smaller pools – and more specialist graduates



How teachers think & What teachers believe

YouGov surveys and Tes News articles

What teachers read – a guide to what teachers think?



30.6%

Page views of articles on teacher workload

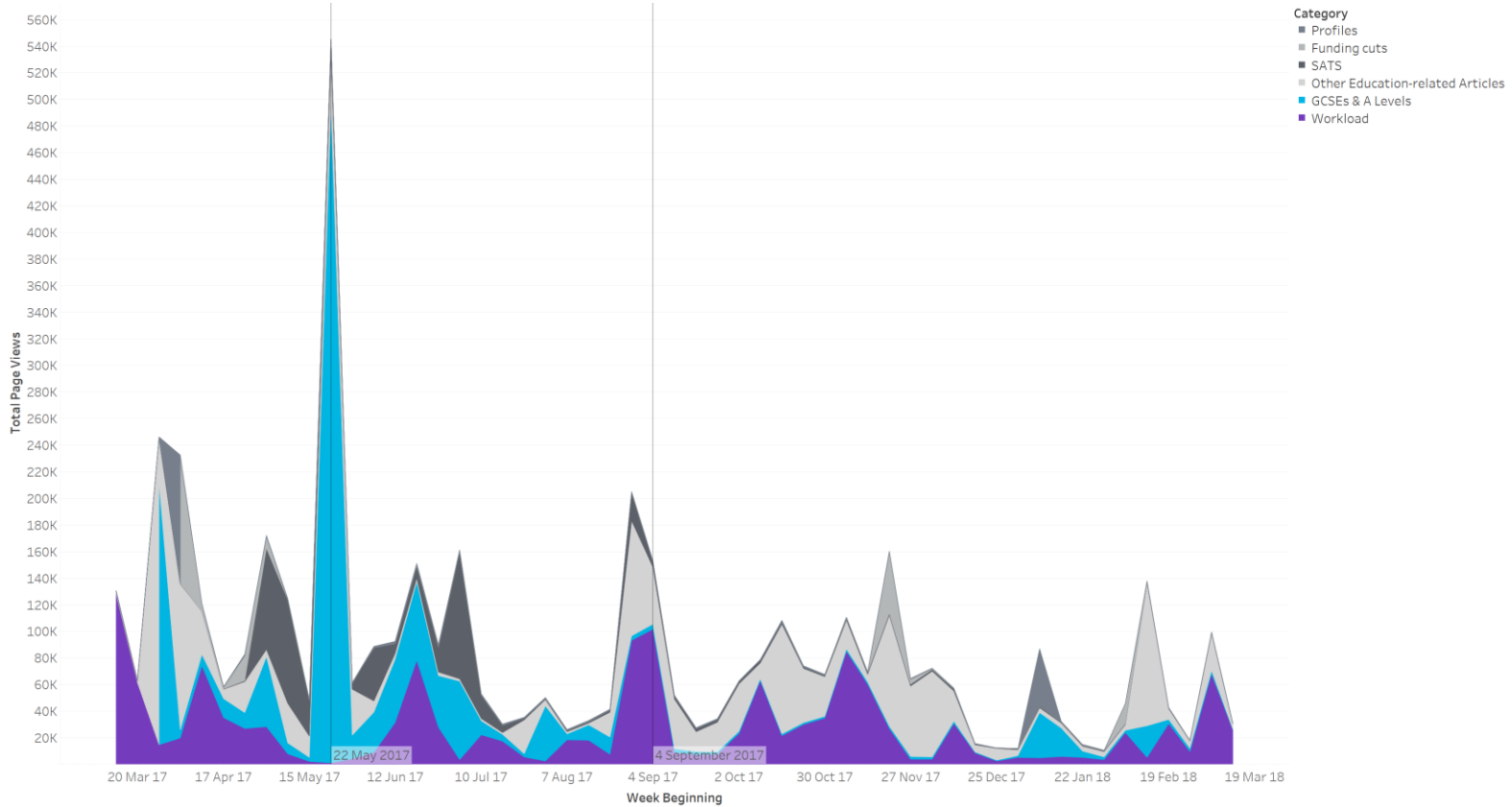
26.9%

Page views of articles on examination concerns / errors

It's no surprise teachers read problem stories…

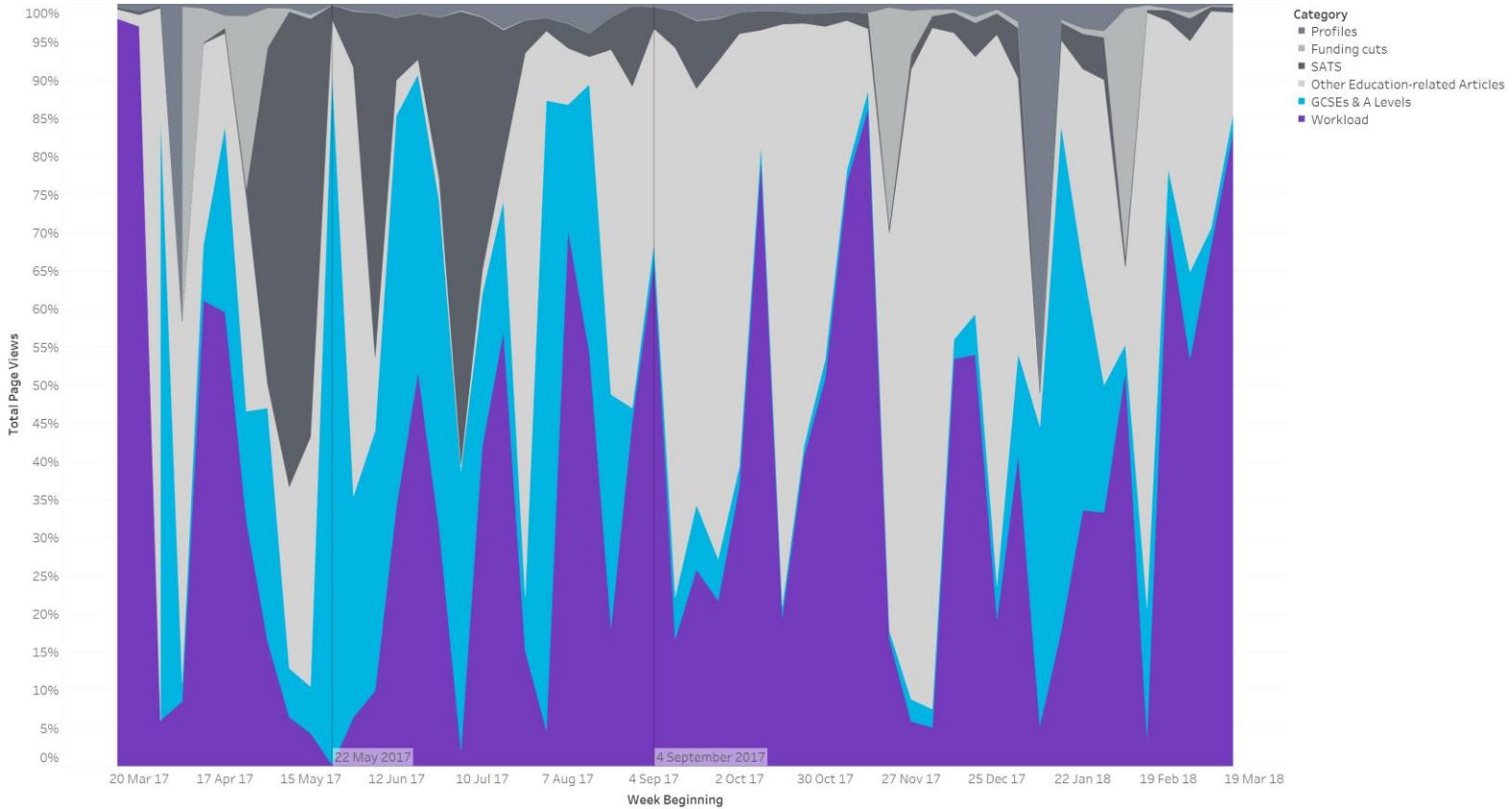
Source: Internal Tes.com data

… and they usually read exam stories during exam time…



– Source: Internal Tes.com data

… but workload stories are read consistently all year round.



– Source: Internal Tes.com data

Understanding our audience – What teachers believe

- Tes & YouGov surveyed 1,000 teachers from across the UK following up with focus groups and interviews

- Looked at:
  - Attitudes to teaching (policy & practice)
  - Digital and online behaviours
  - Classroom behaviours

- Derived six segments to understand the difference in attitudes and behaviours

– Source: YouGov study, commissioned by Tes, Nov '16 – Feb '17

Understanding our audience – What teachers believe

Teacher A
The Bedrock

29% of the teaching population

- Stressed out due to time and paperwork pressures
- Traditional
- Structured
- Principled
- Resistant to change
- Value credibility, reliability and accuracy

Teacher B
The Champion

17% of the teaching population

- Time poor
- Optimistic
- Active planners
- Creative & Flexible
- Digitally savvy
- Confident
- Fearful of change

Teacher C
The Disillusioned Crusader

21% of the teaching population

- Passionate & Opinionated
- At risk of burnout due to perceived lack of autonomy & support
- Pessimistic
- Strict
- Perfectionists
- Principled
- Value resilience & determination

Teacher D
The Muse

15% of the teaching population

- Creative
- Flexible
- Relaxed
- Inquisitive
- Love the good things in life
- Sociable
- Sharing
- Child-centred

Teacher E
The Careerist

10% of the teaching population

- Driven & Focused
- Proactive
- Career-minded
- Sharing
- Value efficiency
- Action-oriented
- Fact-seeking; driven to find and use information

Teacher F
The Maverick

8% of the teaching population

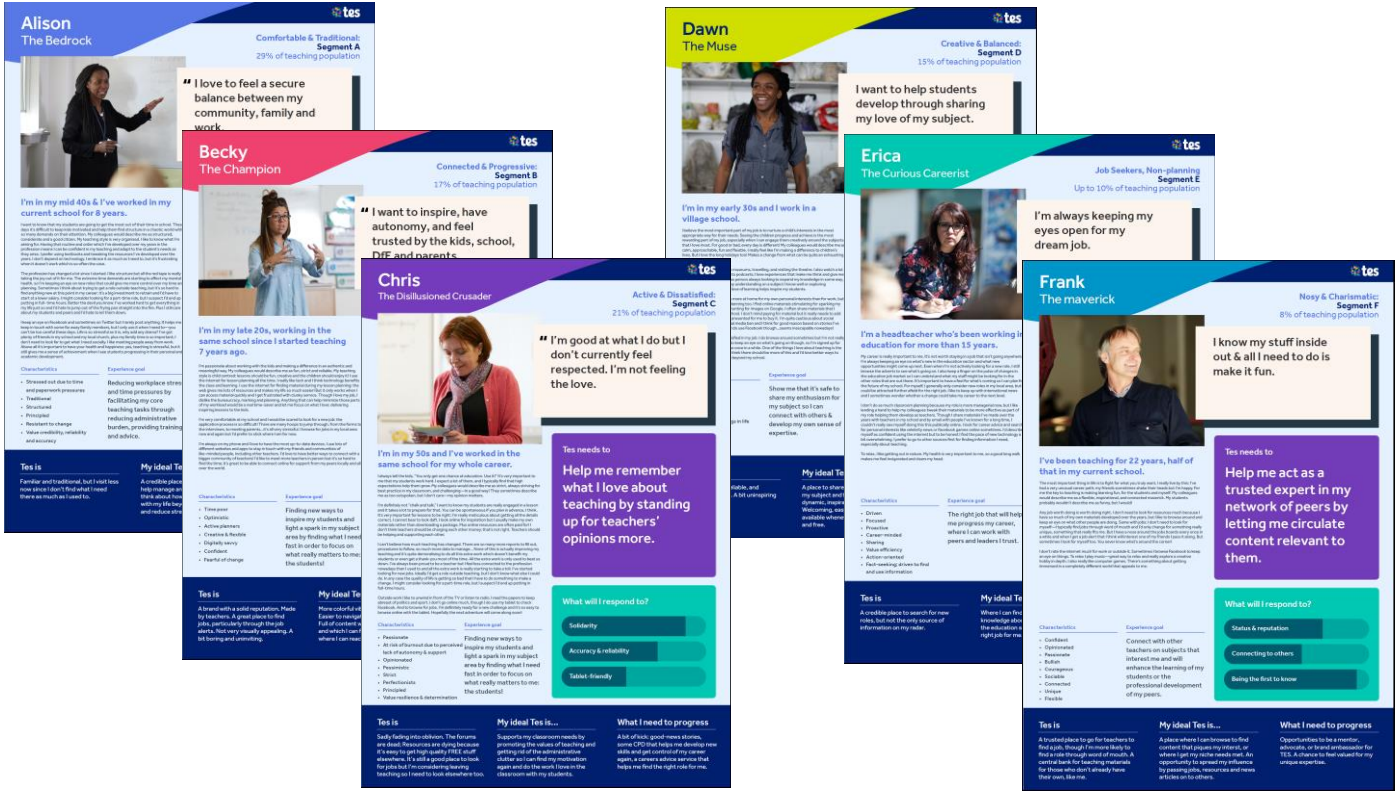
- Confident
- Opinionated
- Passionate
- Bullish
- Courageous
- Sociable
- Connected
- Flexible
- Unique

50%

Population in a segment at risk of leaving

– Source: YouGov study, commissioned by Tes, Nov '16 – Feb '17

Understanding our audience – What teachers believe



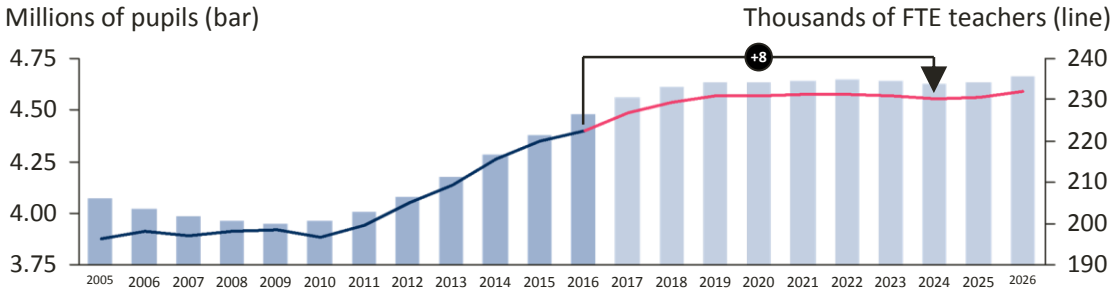
6

Attitudinal segments reflecting the beliefs and thoughts of the teaching community

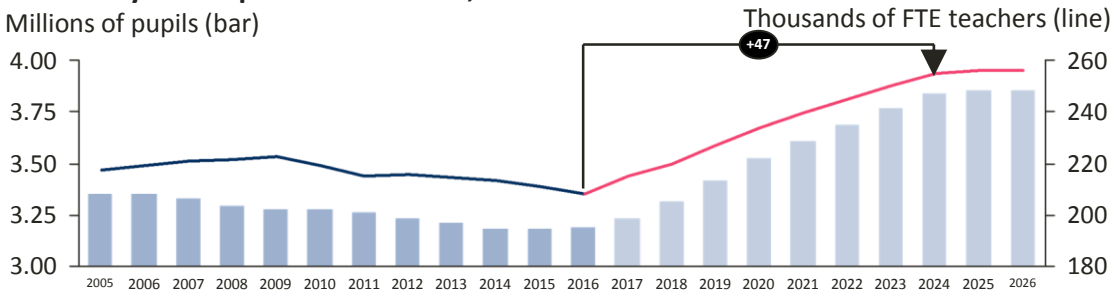
What next?

Primary and secondary schools: teachers and pupils

Primary FTE Pupils and Teachers, actual and estimated



Secondary FTE Pupils and Teachers, actual and estimated



- In 2015, the IFS predicted the number of teachers would need to increase by 30,000 between 2016 and 2020
- Using a similar but updated methodology, Tes predict this to be 34,000 teachers between the same period
- If we extrapolate further taking into account future pupil projections, schools would need an extra 47,000 secondary teachers and 8,000 primary teachers by 2024

Note: Forecasts based on government pupil projections and pupil:teacher ratios from 2005-2016. Institute of Fiscal Studies (IFS) https://www.ifs.org.uk/publications/8027

Questions?

Teacher retention seminar

20 March 2018

Session 3. ‘New insights: findings from the past year’

Chair: Nicole Morgan, Royal Society of Chemistry

Jack Worth, National Foundation for Educational Research
Nancy Wilkinson, The Wellcome Trust
Jenni French, The Gatsby Charitable Foundation
Sam Sims, Education Datalab

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Teacher Retention

Is The Grass Greener Beyond Teaching?

Jack Worth

Teacher retention seminar at Royal Society

Tuesday 20th March 2018

j.worth@nfer.ac.uk

@worth_jack @TheNFER

NFER teacher workforce research

- Nuffield Foundation-funded research on teacher retention and turnover
  - Identifying factors affecting teachers leaving and moving
  - Exploring destinations of teachers who leave
  - Comparing teaching with nursing and policing

- Research with Greater London Authority on London's teacher labour market

- www.nfer.ac.uk/research/school-workforce

Methods for researching teacher retention

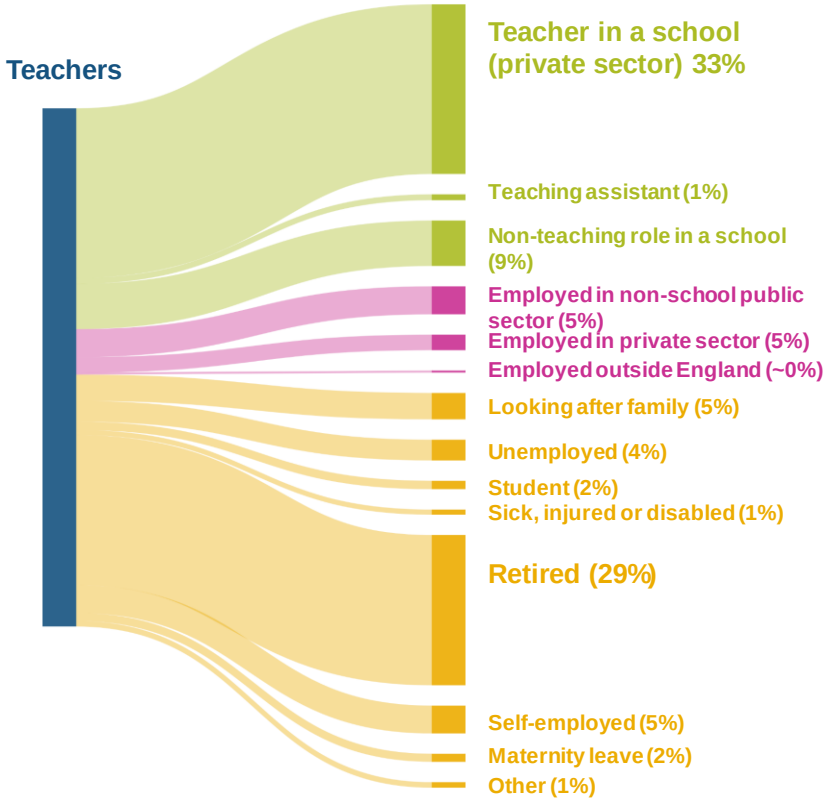
- Survey teachers, identify those considering leaving
  - *Engaging Teachers (NFER 2016)*
  - Intentions ≠ actions
- Survey ex-teachers
  - Very difficult to get a representative sample
- Administrative data, e.g. School Workforce Census
  - Little reliable data on post-teaching destinations
- Employment surveys, e.g. Labour Force Survey
  - *Should I Stay or Should I Go? (NFER 2015)*
  - *Is The Grass Greener Beyond Teaching? (NFER 2017)*

Understanding Society

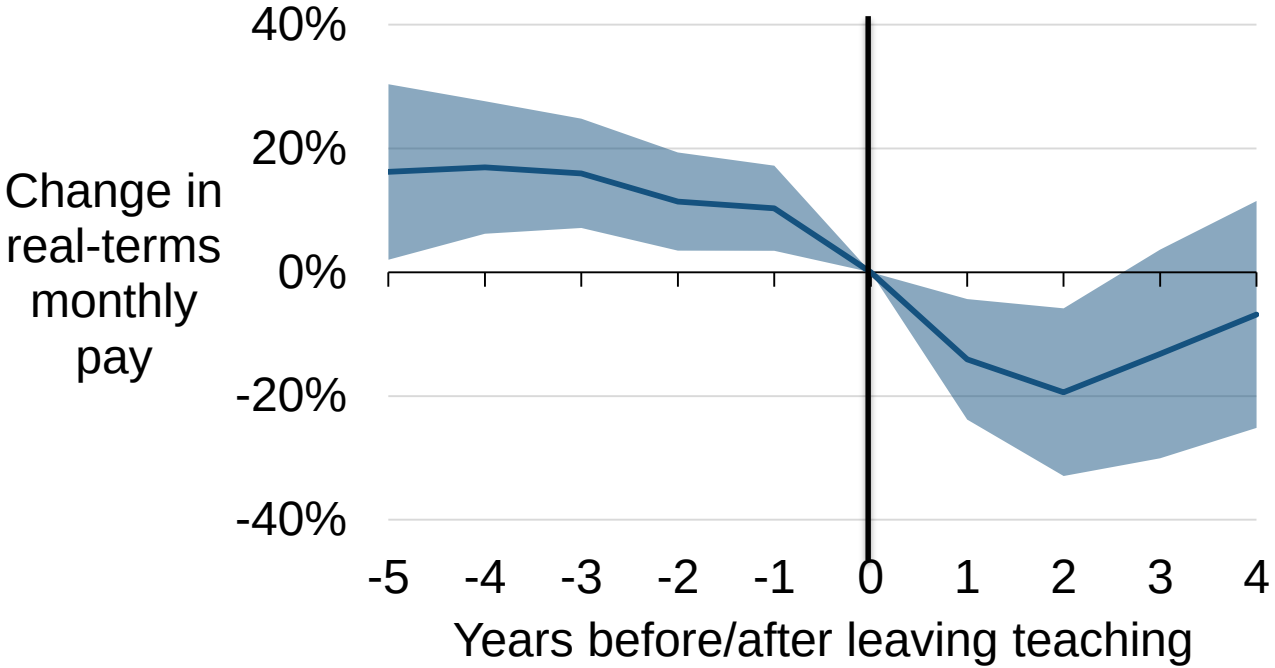
- Use data from the Understanding Society survey
- Survey of 40,000 UK households
- Longitudinal follow-up of every individual
- Seven waves of data (2009/10 – 2015/16)
- Extensive data on individuals' employment, education, family life, health and well-being
- 1,205 state-sector teachers in England, 444 leavers

Evidence for Excellence in Education

Where do teachers go?



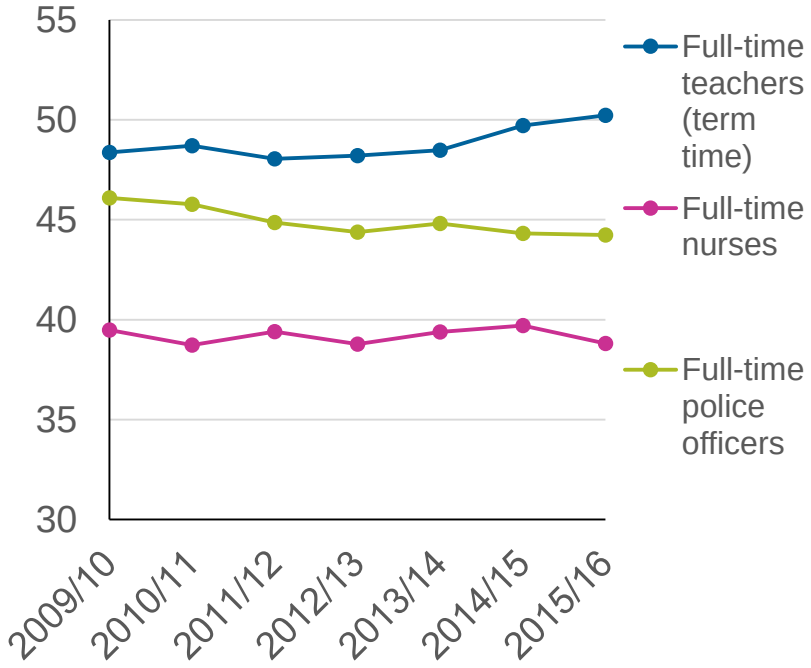
What happens to their pay?



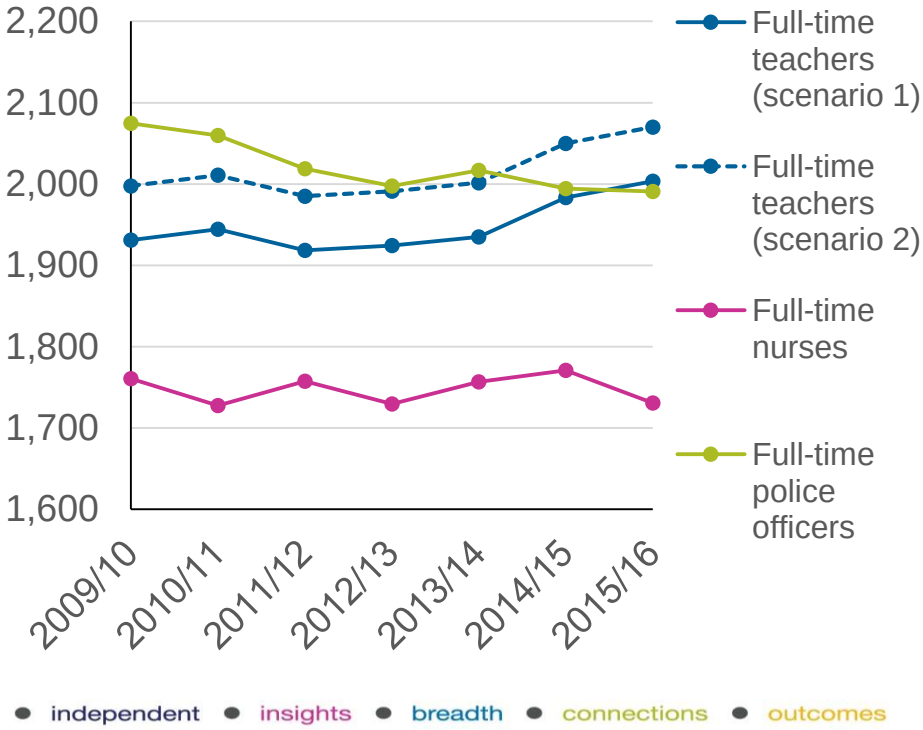
Teachers work long hours

Evidence for Excellence in Education

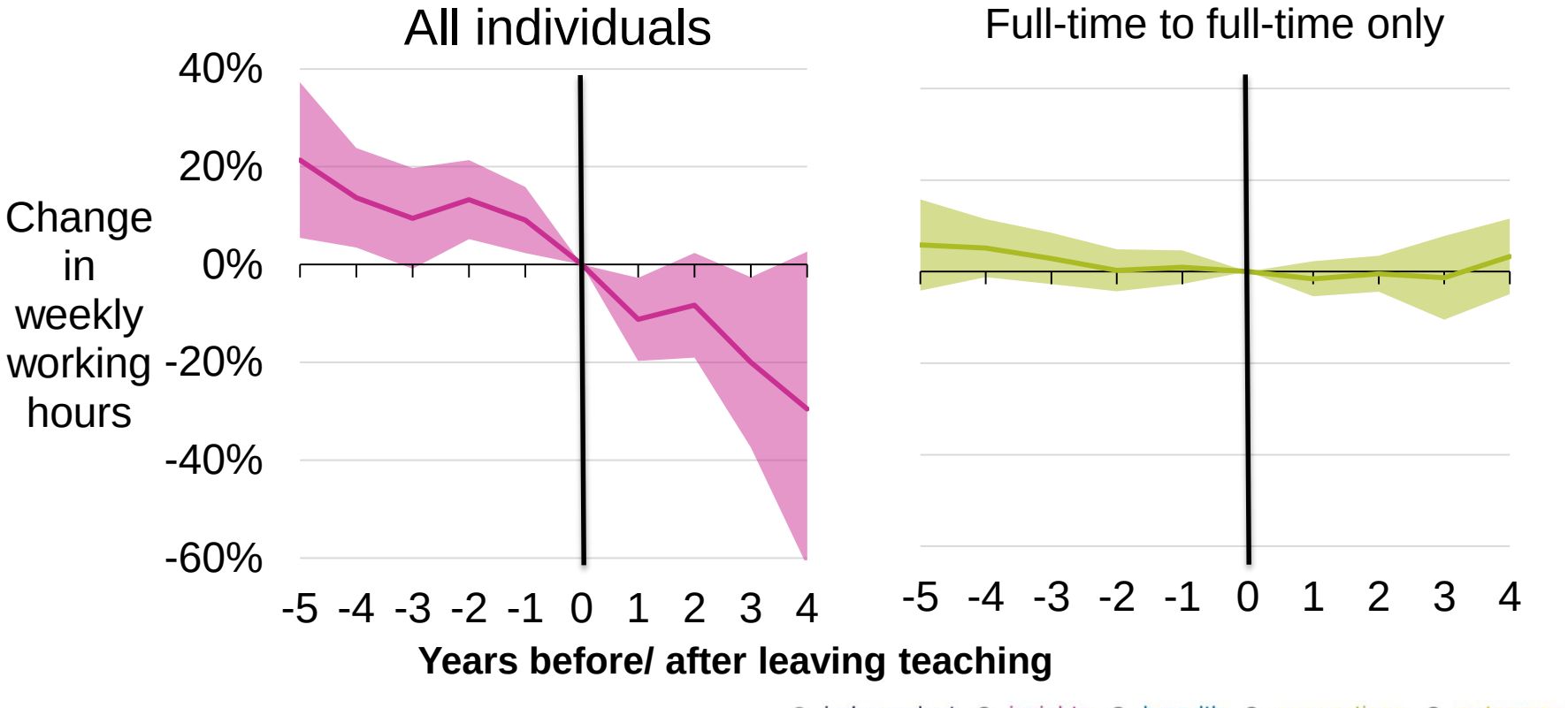
Average weekly working hours



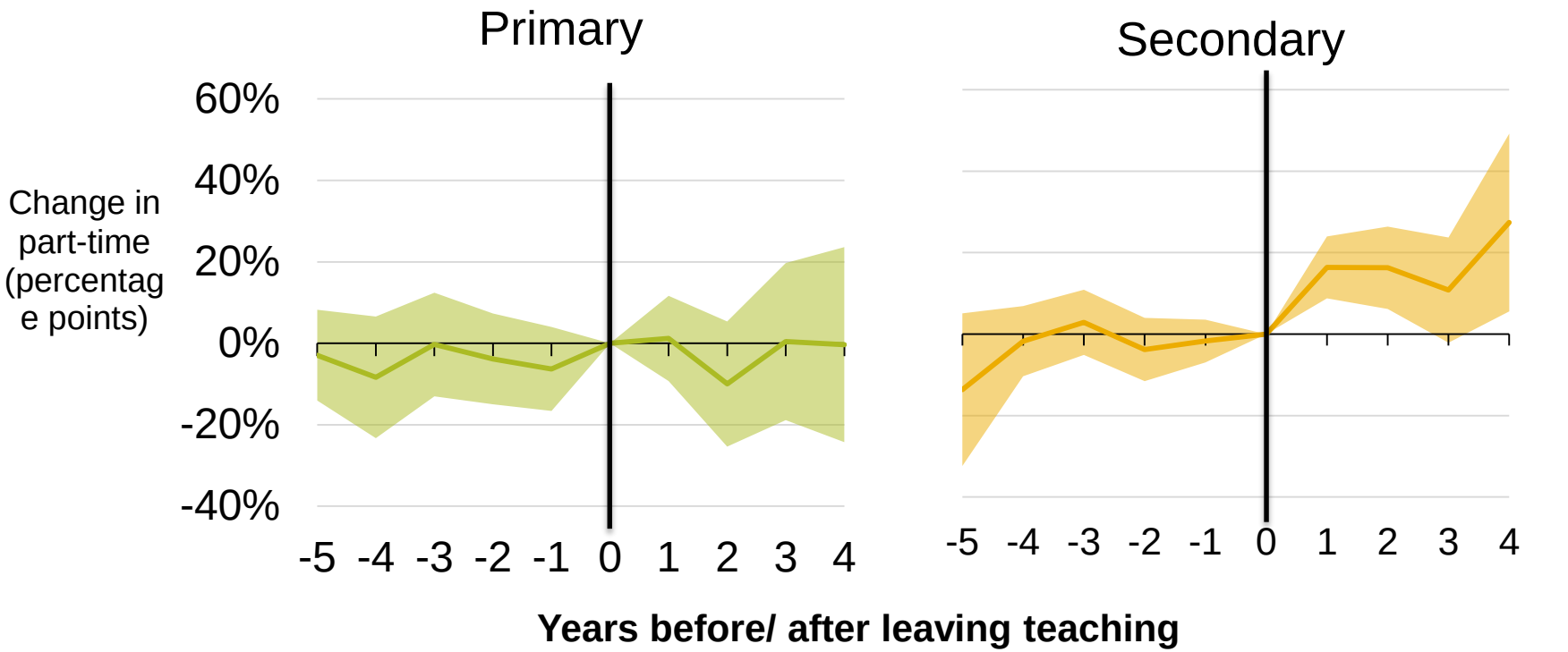
Total annual working hours



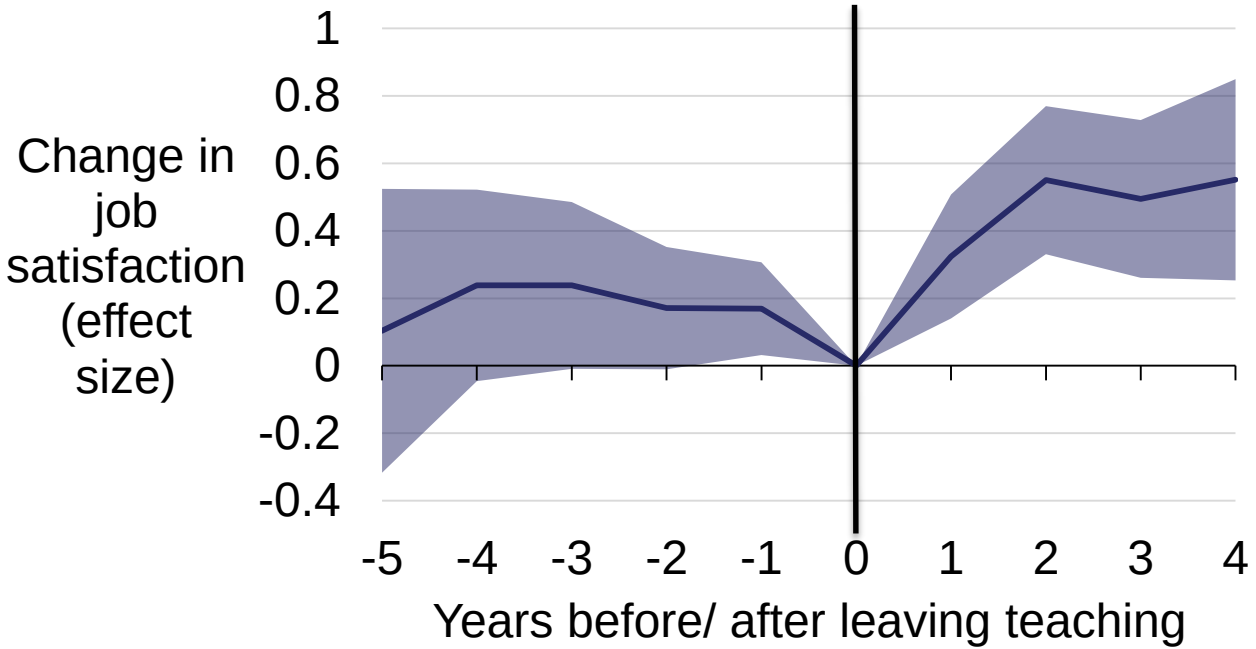
What happens to working hours after leaving?



What happens to part-time working?



What happens to job satisfaction?



Conclusions

- Leavers are not primarily motivated by increased pay
  - More motivated by improved job satisfaction and more flexible working arrangements
- Doesn't necessarily imply that increasing teachers' pay will have no impact on teacher retention
  - Increase must compensate for lower job satisfaction
- Are STEM teachers different?
  - Better outside option than most teachers
  - But they are still teachers!

NFER provides evidence for excellence through its independence and insights, the breadth of its work, its connections, and a focus on outcomes.

This project was funded by the Nuffield Foundation, but the views expressed are those of the authors and not necessarily those of the Foundation.

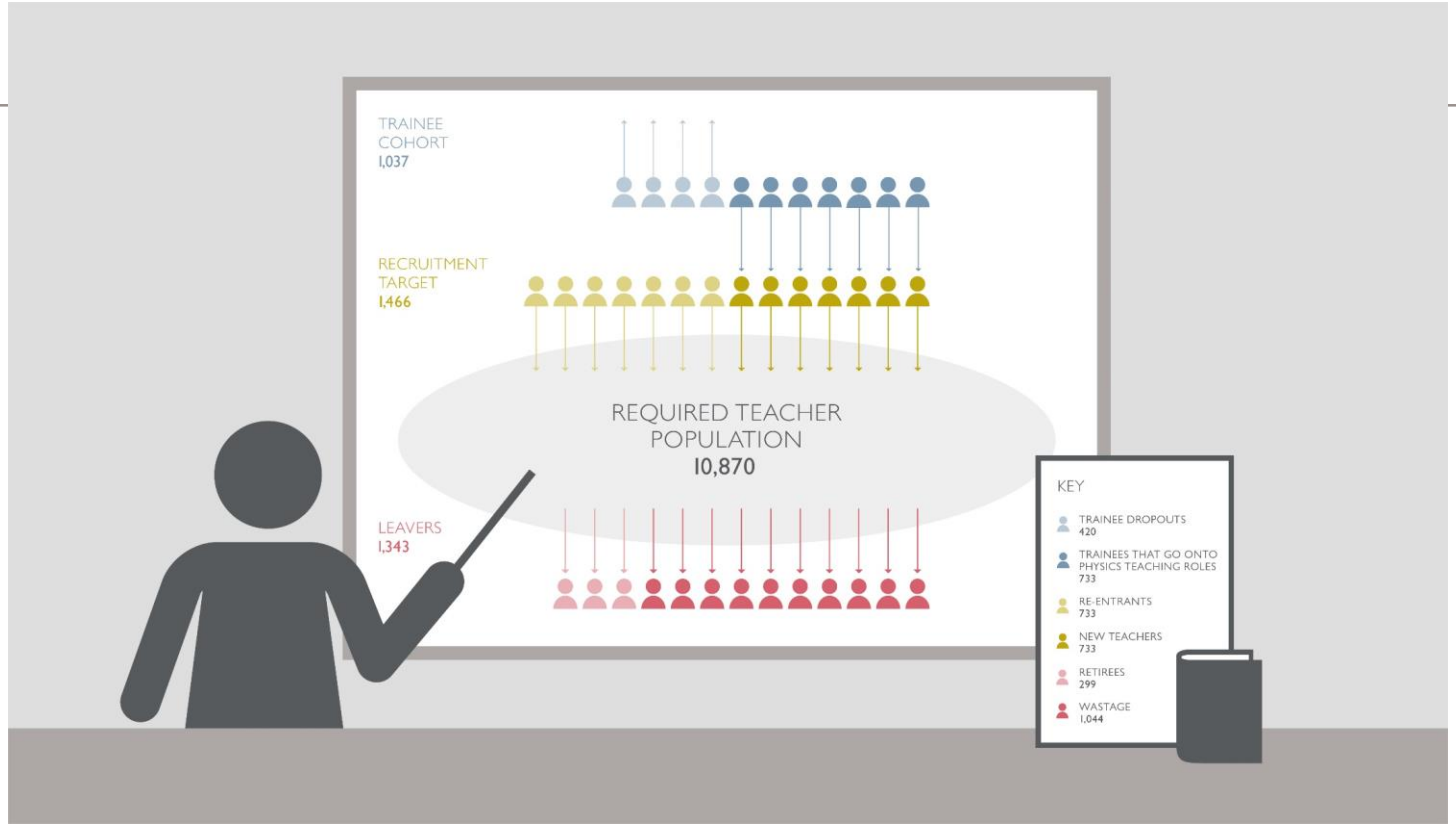
National Foundation for Educational Research
The Mere, Upton Park
Slough
Berkshire
SL1 2DQ

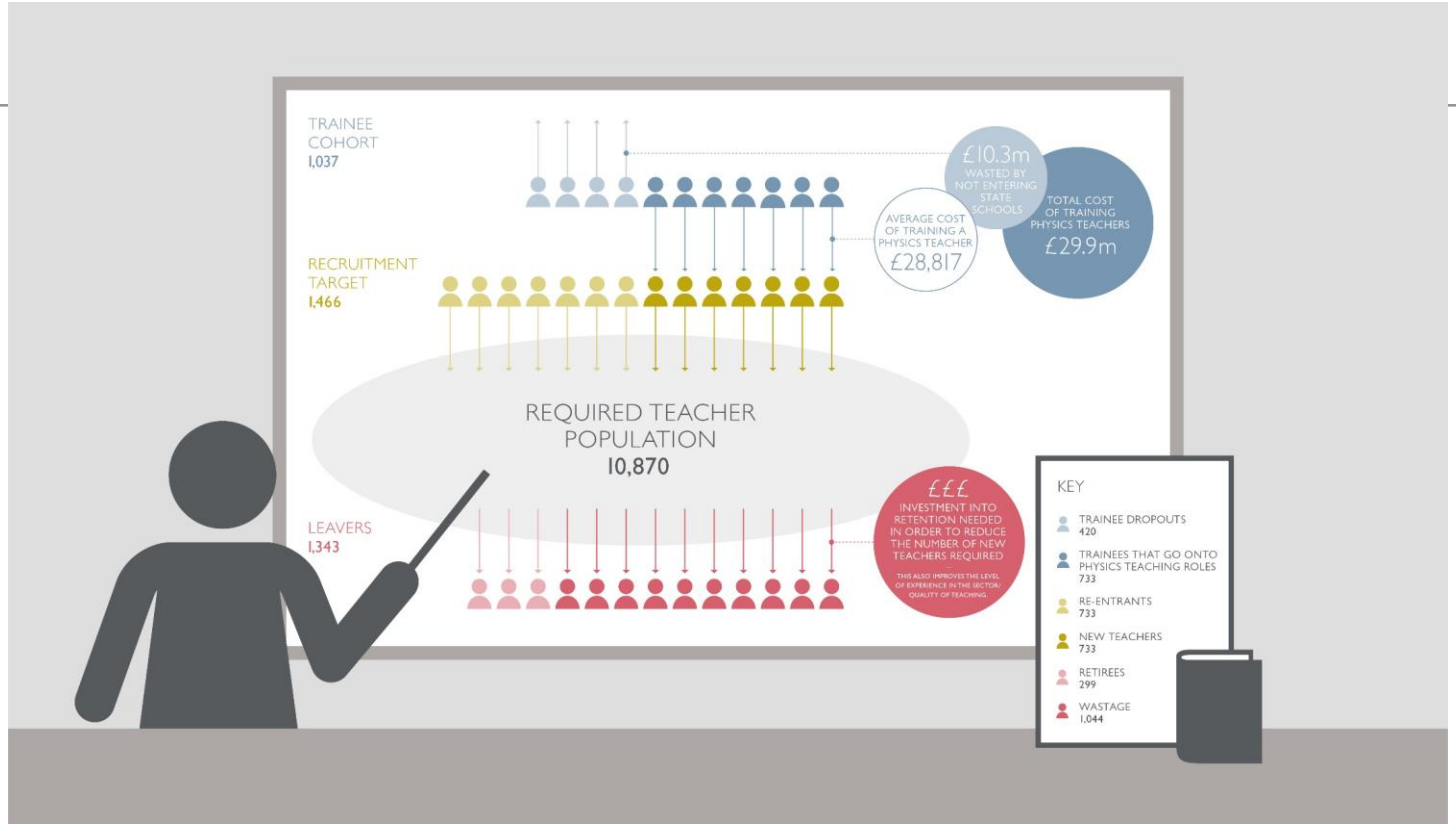
T: 01753 574123
F: 01753 691632
E: enquiries@nfer.ac.uk
@TheNFER
www.nfer.ac.uk

Public

THE ROLE OF SALARY IN RETAINING TEACHERS

GATSBY


TRAINEE COHORT
1,037
RECRUITMENT TARGET
1,466
REQUIRED TEACHER POPULATION
10,870
LEAVERS
1,343
KEY
TRAINEE DROPOUTS
420
TRAINEES THAT GO ONTO PHYSICS TEACHING ROLES
733
RE-ENTRANTS
733
NEW TEACHERS
733
RETIREES
299
WASTAGE
1,044


TRAINEE COHORT
1,037
RECRUITMENT TARGET
1,466
REQUIRED TEACHER POPULATION
10,870
LEAVERS
1,343
£10.3m
WASTED BY NOT ENTERING STATE SCHOOLS
AVERAGE COST OF TRAINING A PHYSICS TEACHER
£28,817
TOTAL COST OF TRAINING PHYSICS TEACHERS
£29.9m
£££
INVESTMENT INTO RETENTION NEEDED IN ORDER TO REDUCE THE NUMBER OF NEW TEACHERS REQUIRED
THIS ALSO IMPROVES THE LEVEL OF EXPERIENCE IN THE SECTOR, QUALITY OF TEACHING
KEY
TRAINEE DROPOUTS
420
TRAINEES THAT GO ONTO PHYSICS TEACHING ROLES
733
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NEW TEACHERS
733
RETIREES
299
WASTAGE
1,044

CHARACTERISING THE EARNINGS AND OUTCOMES FOR PHYSICS TEACHERS

Rebecca Allen, Jack Britton, Luke Sibieta and Anna Vignoles
IFS

Uses sources including HMRC and Labour Force Survey data and School Workforce Census to look at the career and earnings of physics graduates compared with graduates of other subjects.

KEY FINDINGS

Physicists outside of teaching generally earn more than other graduates and have more career options available to them.

In schools, physics graduates seem to earn the same or even less than other teachers despite having higher prior achievement. **Schools are not using their freedom of pay to reward physics teachers more than teachers in non-shortage subjects.**

Physics graduates are more likely than the average teacher of other subjects to leave both their school and the profession as a whole. **Forty per cent of physics graduates who are teaching six- months after graduation leave the profession within three and a half years of graduation.**

THE ROLE OF SALARY IN RETAINING TEACHERS

GATSBY

education datalab

research • analysis • evidence

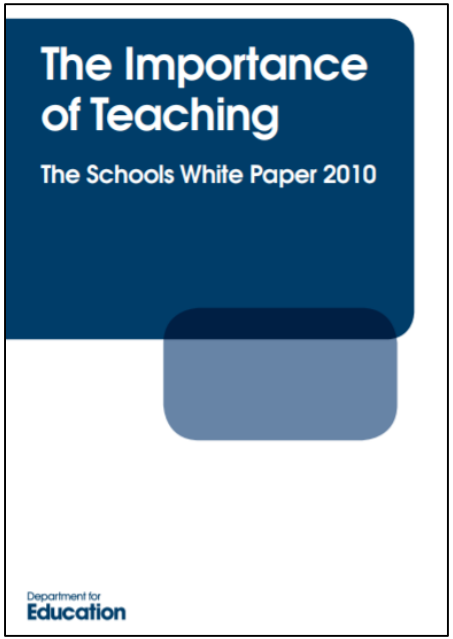
Why do we have a teacher shortage? Things we learned in 2017.

Sam Sims

@sam_sims_

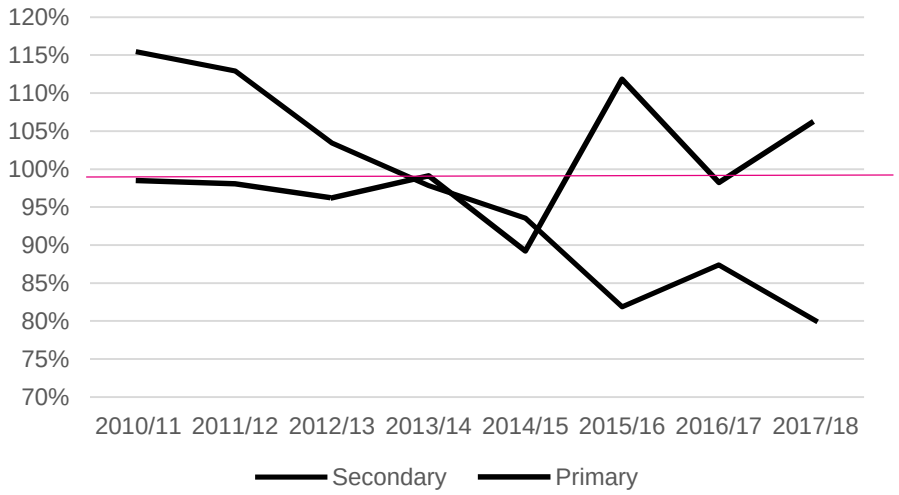
Sam.sims@fft.org.uk

Who remembers this?



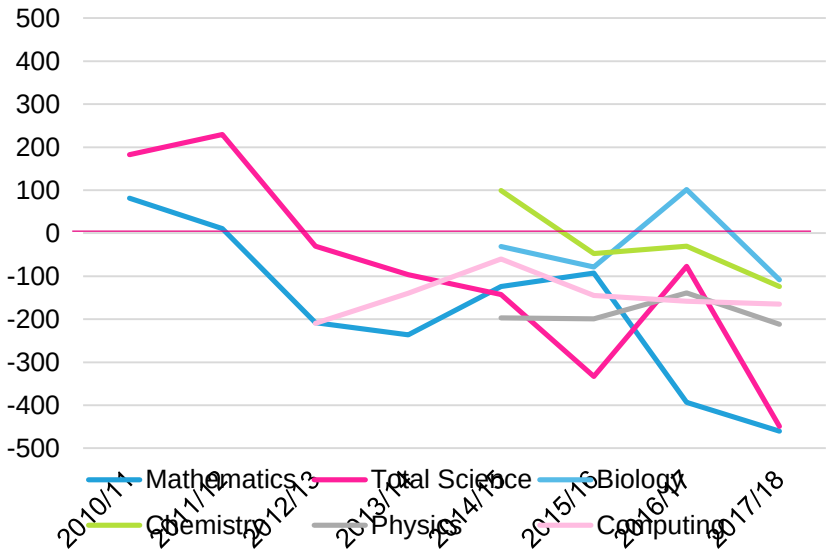
“In England, what is needed most of all is decisive action to free our teachers from constraint and improve their professional status and authority…“

Recruitment against ITT targets



Source: Sims (Unpublished PhD Thesis)

Teacher balance (STEM)



Source: Sims (Unpublished PhD Thesis)

Inequalities in access to subject-specialists

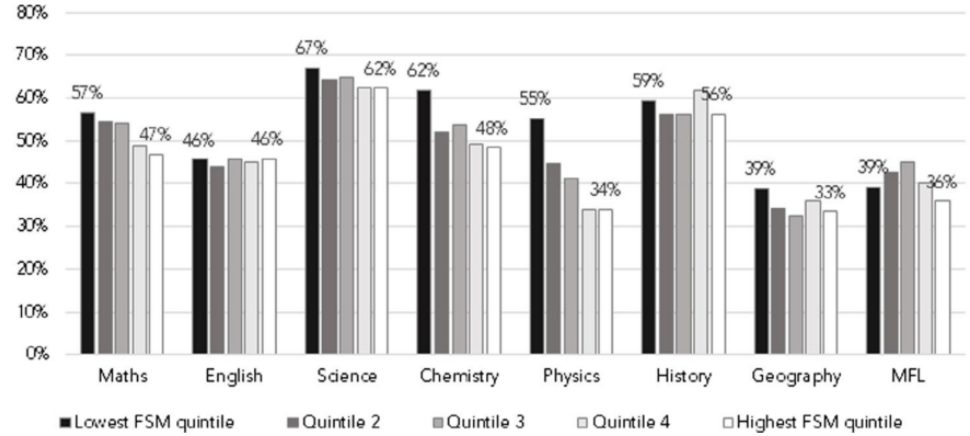
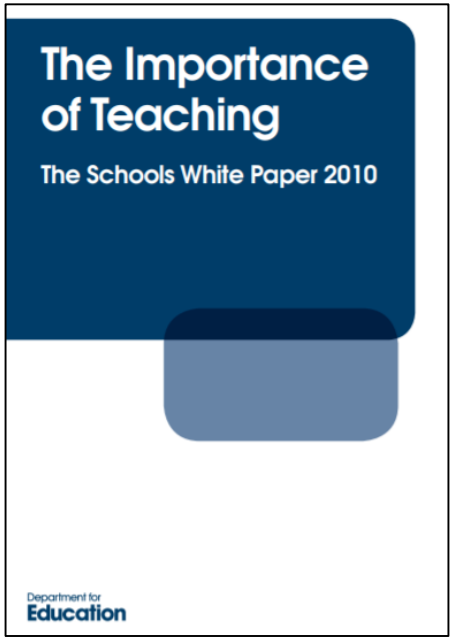


Figure 3. Proportion of teachers with an academic degree in the subject they are teaching by school deprivation quintile, upper secondary schools. Data labels refer to lowest and highest quintile bars.
Note: n = (number of teachers in sample across all subjects) = 50,993.

Sims & Allen (2018)

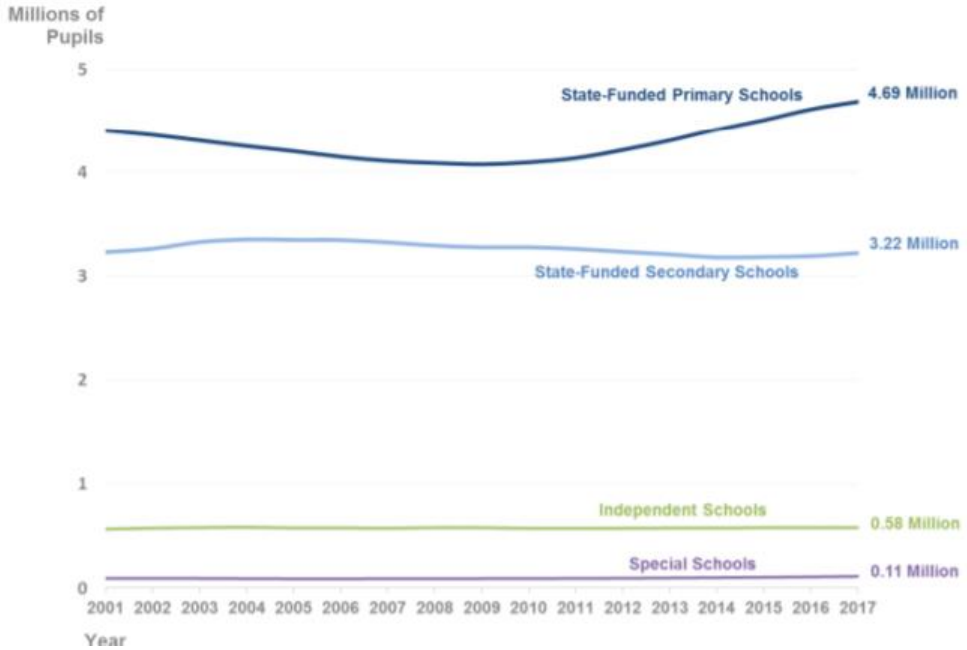
Oh dear.


The Importance of Teaching
The Schools White Paper 2010
Department for Education

Suspects in the teacher shortage “whodunnit”

1. The Pupils (too many of them)
2. The Government (aren’t paying enough)
3. Ofsted / Schools (put teachers off)

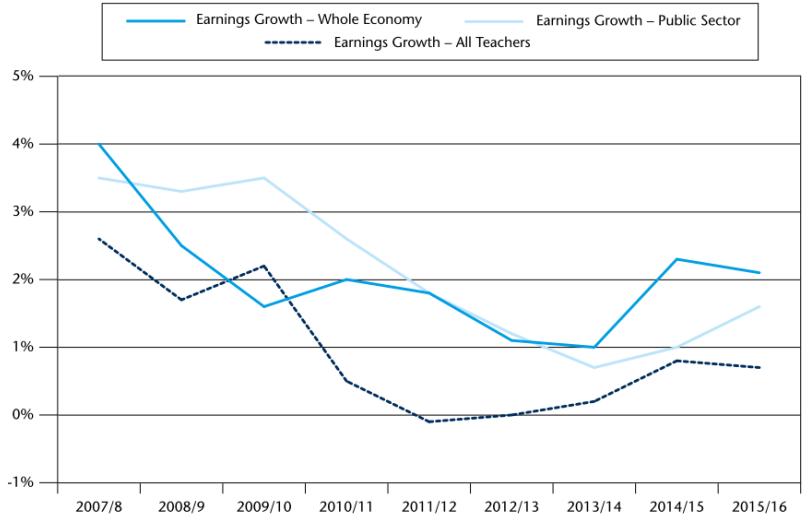
Suspect 1: The Pupils (too many of them)



Source: DfE (2017)

Suspect 2: The Govt (aren't paying enough)

Chart 3
Growth in teachers' median earnings compared to economy-wide earnings growth, 2007/08 – 2015/16[4]



Source: STRB (2017)

Suspect 2: The Govt (aren't paying enough)

Table 1: Average Career-Wide Earnings Inside and Outside Teaching by Degree Subject

	Degree Subject	Median Salary of Teachers	Median Salary of Non-Teachers	Difference (for Teachers)
Non-teachers are paid more	Physics	£31,600	£38,000	-£6,400
	Maths	£35,500	£40,000	-£4,500
	All Science	£32,000	£35,000	-£3,000
	Biology	£31,000	£32,600	-£1,600
Teachers are paid more	English	£28,000	£25,300	£2,700
	MFL	£31,200	£27,700	£3,500
	History	£34,100	£29,400	£4,700
	P.E.	£33,100	£25,000	£8,100

Note: Shows only selected subjects. Chemistry not shown due to small sample sizes. This should not be interpreted as causal evidence, because differences in pay may be due to the type of people who choose to go into teaching, as well as being due to the job itself. Source: [16]

Source: Sims (2018)

Suspect 2: The Govt (aren't paying enough)

Figure 8: Science Teacher Balance

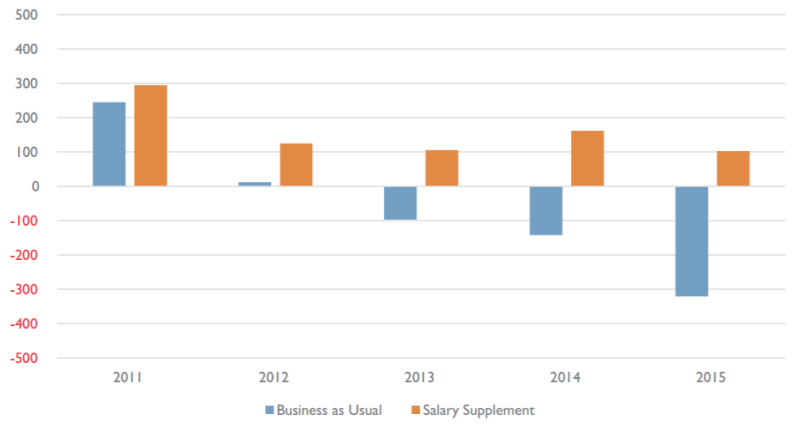
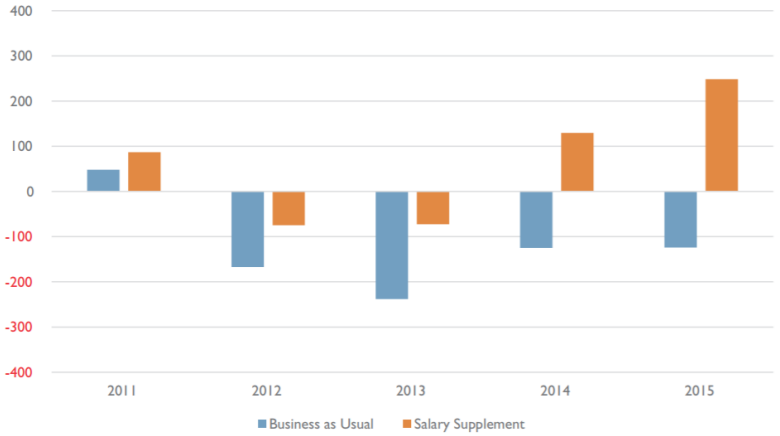


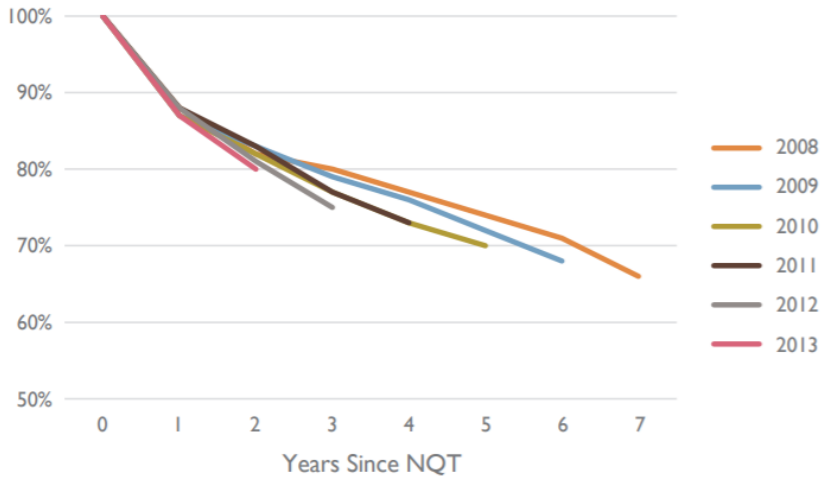
Figure 9: Maths Teacher Balance



Source: Sims (2018)

Suspect 3: Ofsted/Schools (put teachers off)

Figure 2: Proportion of Cohort Still in Teaching



Source: Sims (2018)

If early-career retention frozen at 2009 levels, there would now be an additional 4,398 teachers.

For context, the total shortfall of EBACC teachers is currently 2,080.

Suspect 3: Ofsted/Schools (put teachers off)

Figure 2. Proportion of teachers in NQT year 2010–14 for all state-funded schools

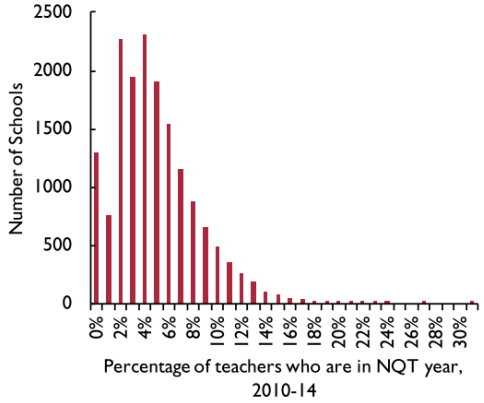
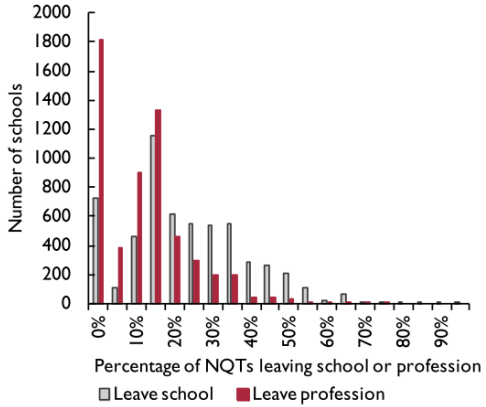


Figure 3. Proportion of teachers in NQT year that leave school or profession 2010–14 for all state-funded schools

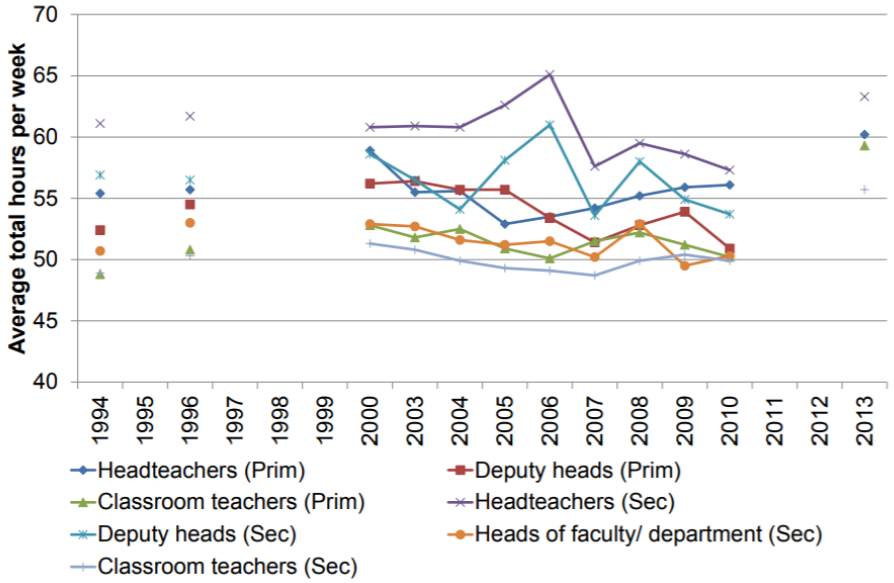


Sims & Allen 2018

- *577 NQTs left these schools 2010-14*
- *“Excess attrition” of 376 NQT teachers*
- *Equivalent to 22 per cent of the nationwide shortfall in 2015*

Suspect 3: Ofsted/Schools (put teachers off)

Figure 1.1: Average weekly hours worked by type of teacher, 1994-2013



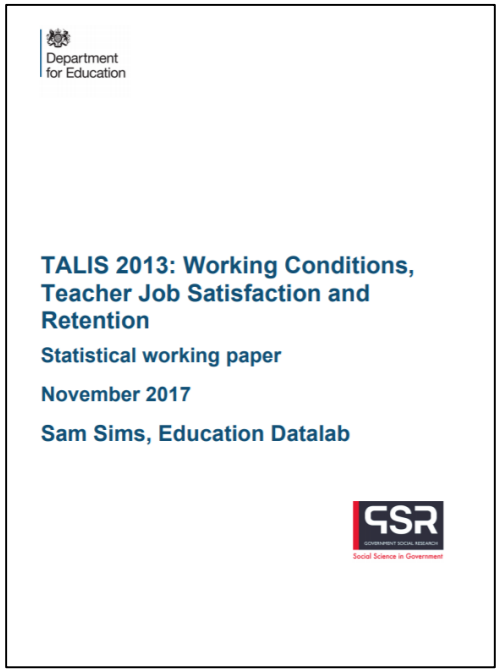
Highton et al 2017

Suspect 3: Ofsted/Schools (put teachers off)

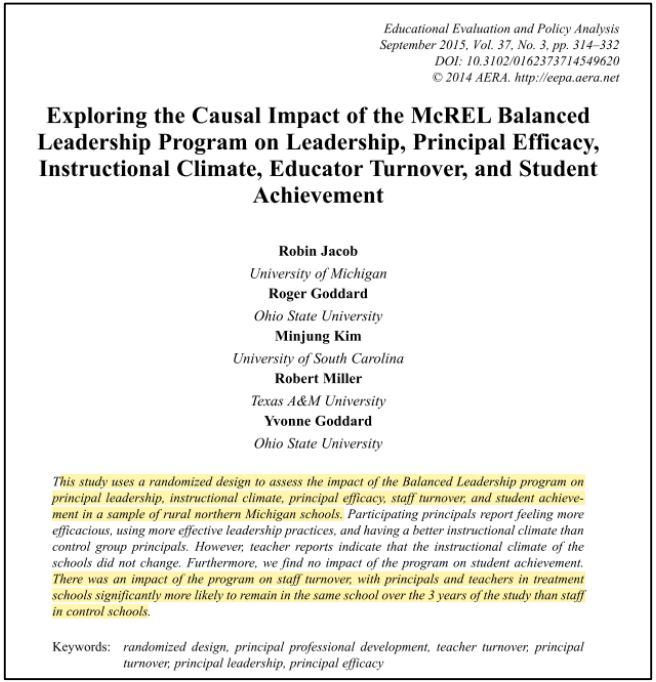
Teacher characteristics are not related to job satisfaction or turnover intentions.

Working conditions really do matter:

- leadership/management
- teacher collaboration
- discipline
- workload
- CPD



Improving retention through leadership



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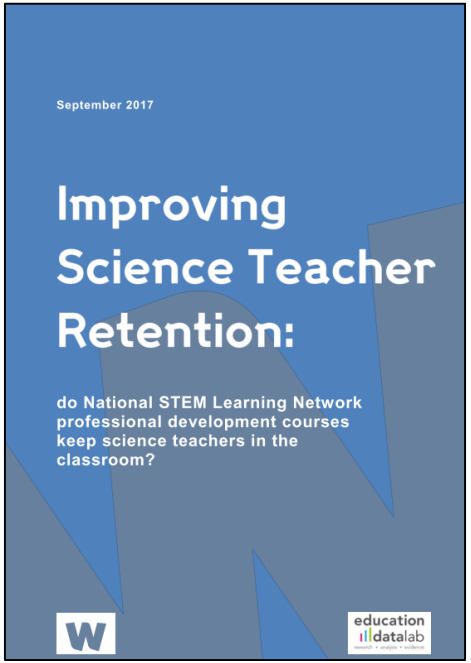
Exploring the Causal Impact of the McREL Balanced Leadership Program on Leadership, Principal Efficacy, Instructional Climate, Educator Turnover, and Student Achievement

Robin Jacob
University of Michigan
Roger Goddard
Ohio State University
Minjung Kim
University of South Carolina
Robert Miller
Texas A&M University
Yvonne Goddard
Ohio State University

This study uses a randomized design to assess the impact of the Balanced Leadership program on principal leadership, instructional climate, principal efficacy, staff turnover, and student achievement in a sample of rural northern Michigan schools. Participating principals report feeling more efficacious, using more effective leadership practices, and having a better instructional climate than control group principals. However, teacher reports indicate that the instructional climate of the schools did not change. Furthermore, we find no impact of the program on student achievement. There was an impact of the program on staff turnover, with principals and teachers in treatment schools significantly more likely to remain in the same school over the 3 years of the study than staff in control schools.

Keywords: *randomized design, principal professional development, teacher turnover, principal turnover, principal leadership, principal efficacy*

Improving retention through CPD



Summary

Pay matters for STEM graduates

Govt is now commissioning evaluations of the Phased Maths Bursaries, which will help us understand this more

Workload is one among several working conditions that relate to retention

We need more evidence on is the causal effect of working conditions on retention and what **policymakers and school leaders can do to improve them** (GL, ASCL)

Teacher retention seminar

20 March 2018

Session 4. ‘Supporting a Government-led strategy on retention’

Chair: Professor David Read, University of Southampton

Verity Prime, Department for Education

The Association for Science Education
Promoting Excellence in Science Teaching and Learning
IOP Institute of Physics
THE ROYAL SOCIETY
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