



Adult numeracy and financial capability

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Over
11 million

are over-confident in their ability to use numbers in everyday life.

Almost
7.5 million

lack confidence and skills in using numbers in everyday life.

How do we work together to identify and engage people with lower numeracy levels to bring about improved financial capability outcomes?

This summary report accompanies our main research report, Numeracy and Financial Capability – Exploring the links, and associated technical reports.

Numeracy is more than the ability to use numbers or the holding of a maths qualification.

It is also about having the confidence and competence to use numbers and data in everyday situations to make good decisions, including financial ones.

Adult numeracy and financial capability: key findings

Through our modelling, we have confirmed strong links for the first time between adult numeracy and financial capability

- The relationship between the two is both direct and indirect, yet it is **relative to and must be considered alongside** other 'building blocks' of financial capability, such as those related to **confidence and attitudes**.
- It is linked **indirectly** through indicators such as gender, income, education and housing tenure.
- More **directly**, our modelling work has shown that numeracy is a driver of a number of measures of financial capability, including 'keeping up with bills' and 'savings frequency.'
- There is a particularly strong relationship with the amounts people **save**.
- **High numeracy** is linked to a range of **positive** financially capable behaviours.
- To arrive at these conclusions, we measured three **aspects** of numeracy:
 - everyday **money calculations**;
 - reading **financial documents**; and
 - **financial concept calculations**.
- We conclude that reading **financial documents** has the **least** impact – and that the skills and mindset to do **financial concept calculations** has the **most** impact – on financial capability outcomes.

Modelling adult numeracy and financial capability: all being equal

These people are the same in every other way, apart from level of numeracy.



Poor numeracy



High numeracy

Does the person with high numeracy:

- | | |
|------------------------------|---|
| Keep up with bills the best? | Yes but confidence plays a bigger part than numeracy. |
| Save more often? | Yes but confidence and attitudes play a bigger part than numeracy. |
| Have a bigger savings pot? | Yes regardless of confidence, attitudes or other factors - the strongest model. |

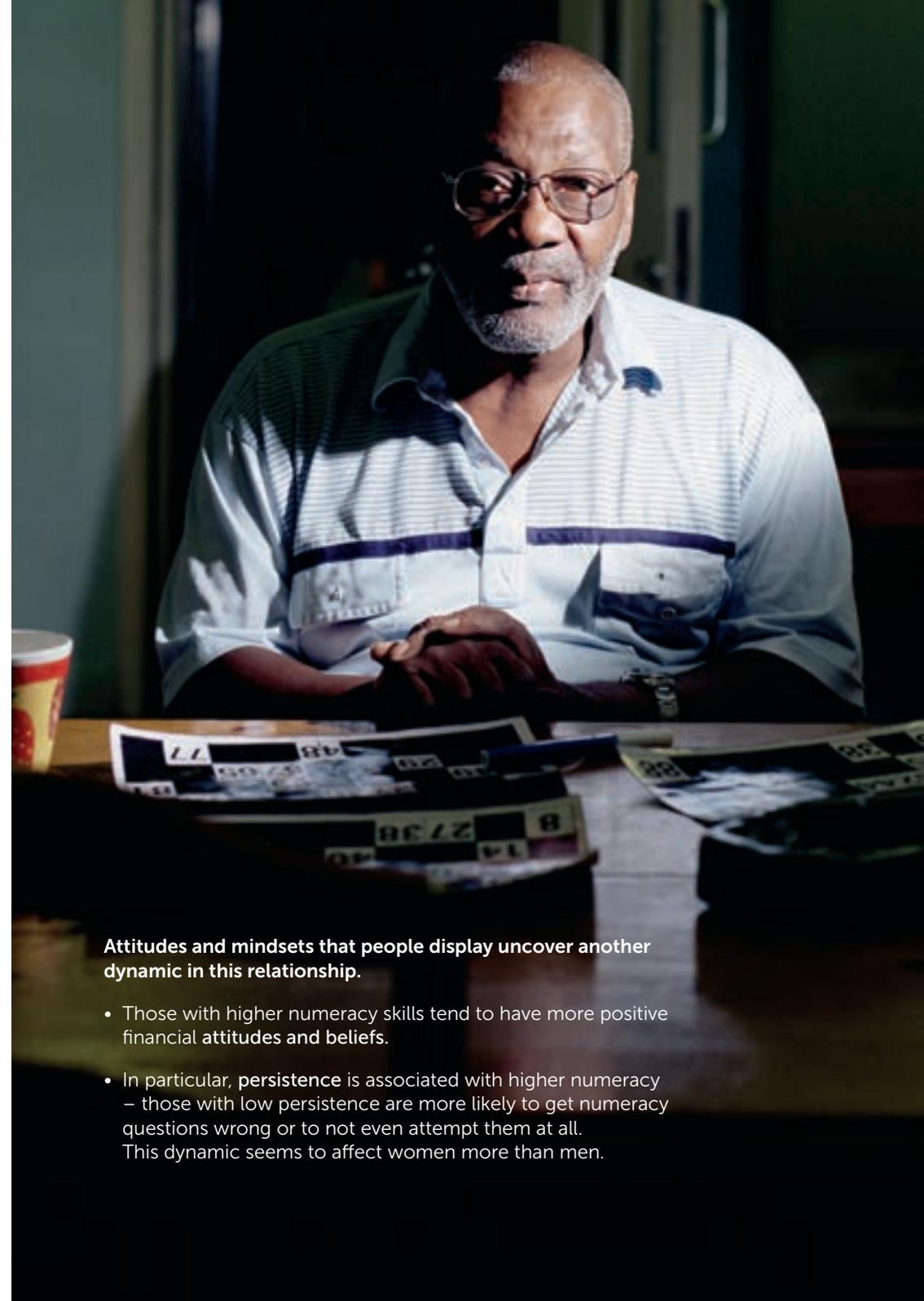
Our numeracy modelling analysis posed the following question:

“Imagine that there are two people who have the same characteristics in everything but their numeracy skills: the same age, gender, income, education level, housing tenure, attitudes and beliefs. Will the person with higher levels of numeracy also have a higher level of the financially capable behaviour that we are testing?”

Impact of confidence and attitudes on numeracy in a financial context

Confidence is a powerful driver in the relationship between adult numeracy and financial capability.

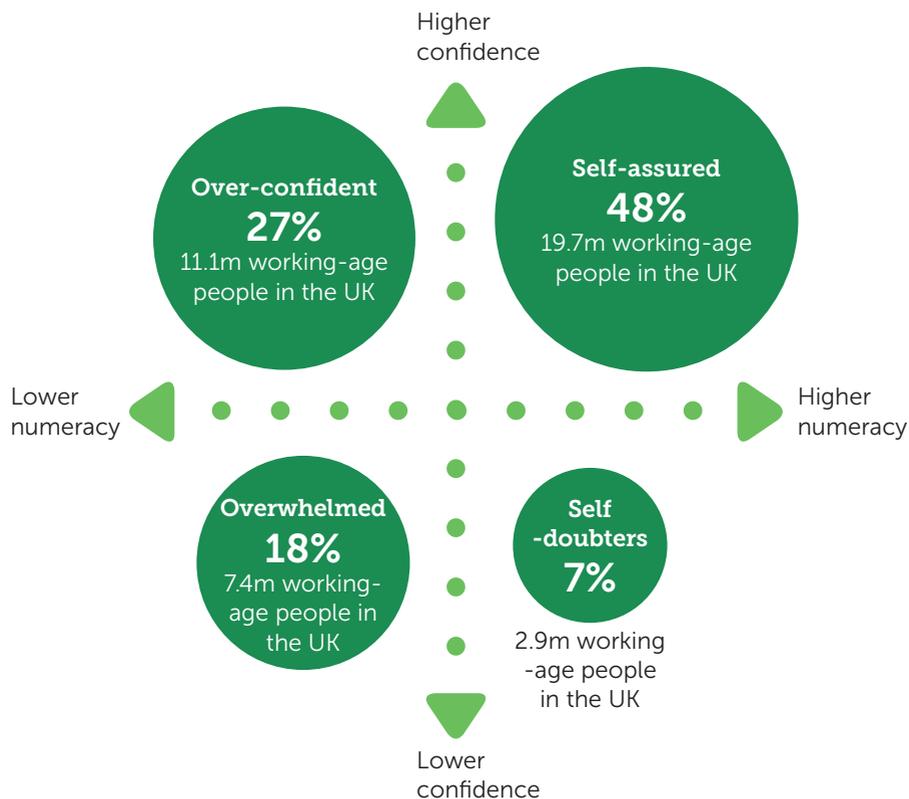
- Numeracy is closely linked to three aspects of confidence:
 - confidence in using numbers every day;
 - confidence in managing money; and
 - confidence in making decisions about financial products and services.
- They are **highly** correlated – those who are very confident in one aspect are likely to be very confident in the others – the converse is also true.
- Confidence in using numbers every day and confidence in managing money are **pre-requisites** for confidence in making decisions about **financial products and services**.
- Around a quarter of working-age adults – equivalent to around **11 million people** in the UK are **overconfident** when it comes to numeracy – that is they have higher levels of confidence in using numbers but lower scores for the numeracy questions.
- This group of over-confident people is associated with some poor financial outcomes – for example, they are the group most likely to **revolve credit**, which puts them at risk of overestimating their ability to meet their commitments.
- Conversely, the overconfident fare better in some ways than those with lower numeracy and lower confidence (the latter equivalent to 18% of the UK population or around 7 million people). For example, they are **more likely** to have savings.



Attitudes and mindsets that people display uncover another dynamic in this relationship.

- Those with higher numeracy skills tend to have more positive financial attitudes and beliefs.
- In particular, **persistence** is associated with higher numeracy – those with low persistence are more likely to get numeracy questions wrong or to not even attempt them at all. This dynamic seems to affect women more than men.

Our modelling allows us to identify consumers with different needs



Over-confident

The over-confident group comprises those scoring 0-6 for numeracy (Poor and Low numeracy) and 7-10 for confidence in using numbers. This represents more than a quarter of working-age adults in the UK. Whilst in general this group does better than those with similar numeracy but lower confidence, there are some areas where over-confidence may be putting them at risk of worse financial outcomes.

Self-assured

The self-assured group comprises those scoring 7-10 for numeracy (Moderate and High numeracy) and 7-10 for confidence in using numbers. Nearly half of working-age adults in the UK (48%) fall into this category. They may still have some numeracy issues but they are doing the best of the four quadrants in terms of financial capability outcomes.

Overwhelmed

The overwhelmed comprises those scoring 0-6 for numeracy (Poor and Low numeracy) and 0-6 for confidence in using numbers and represents around 1 in 5 of working-age adults in the UK. This is the group that struggles the most with financial capability, which, when compared with the Over-confident who also have lower levels of numeracy, confirms the positive effect that confidence can have.

Self-doubters

The self-doubters boost group comprises those scoring 7-10 for numeracy (Moderate and High numeracy) and 0-6 for confidence in using numbers. This is the smallest quadrant – only representing 7% of working-age adults who, whilst they have the numeracy skills to have good financial outcomes, may need to have their confidence boosted, as they do not do as well as the Self-assured.

Source: MAS Adult Numeracy and Financial Capability Survey 2017. Classification based on score at MA1 How confident do you feel working with numbers when you need to in everyday life? Higher = 7-10, lower = 0-6. Numeracy score higher = 7-10, lower = 0-6. Base: All UK respondents n=2086

Socio-economic factors paint a fuller picture of the issues we face

- People with **Poor numeracy** are more likely to be female, younger, less well educated and live in lower income households.
- A quarter of people with **Poor numeracy** already have maths GCSE at grade C or above. This shows that such qualifications on their own may be a poor indicator of numeracy skills, including when applied to financial contexts.
- Women generally have **lower numeracy** levels than men – women are also **less likely to persist** when stuck working something out, which indicates that self-efficacy and self-belief are particularly important to them.
- Women are particularly **less confident** than men in using numbers every day and in choosing financial products and services.
- There are **no differences in age or gender** between those who score the lowest on confidence in every day numeracy or in choosing financial products and services. This suggests that low confidence in these areas remains throughout adult life.
- There is a **'bump' in overconfidence among people aged 25-34** – this may result in part from the delay in having to make some key financial calculations in the period from leaving school to taking on more working-life and/or family responsibilities.
- People in the Money Advice Service **'Squeezed'** segment are proportionately more overconfident than any other.



The 'Squeezed' are one of three core groups of consumers – alongside the 'Struggling' and the 'Cushioned' – that the Money Advice Service has identified as part of a market segmentation of the UK population aged 18+.

'The Squeezed Segment'¹, a Money Advice Service ethnographic study from May 2016, brings this group to life.

It is worth considering these characteristics when exploring solutions to the issues raised around numerical ability and financial capability.

Responding collectively and strategically to these findings and issues

Provision and testing of numeracy skills in a financial context for children and young people in schools and colleges – and for adult learners.

- Money Advice Service is working alongside the Education Endowment Fund and Young Enterprise in secondary schools and colleges in England to test the concept of teaching mathematics in a financial context, with results expected by 2019 – we intend to share findings widely and will seek active engagement with educators across the UK before they come due.
- Offering numeracy skills in a financial context could be particularly important for building the confidence and future financial capability outcomes of 16 and 17 year olds who may be resitting maths qualifications and be on the brink of making independent financial decisions. There may also be benefits to applying these findings to Core Mathematics or Functional Skills qualifications in England, and their equivalents in the devolved nations.
- Adult learners in further education, including apprentices, or in higher education, already making independent financial decisions, could benefit from applying numeracy skills to financial contexts in maths or basic skills qualifications.
- We encourage financial education providers from the commercial and charitable sectors to review and test how they include numeracy skills in a financial context in their provision for the benefit of their learners.



Provision and testing of numeracy skills in a financial context as an integral part of workforce learning and development.

- Employers, unions and providers of workplace support services seeking to improve the skills, productivity and financial wellbeing of the workforce through provision of maths or numeracy qualifications in their learning and training budgets can play an important role in enhancing the financial capability outcomes of their staff or members by ensuring that they have the opportunity to learn and apply confidently numeracy skills in a financial context – more confidence and competence in these decisions may also result in greater take up and optimisation of employee benefits, such as the workplace pension.

Disrupting consumer journeys in a benevolent yet proportionate way for people making financial calculations.

- We recommend that financial services and credit providers, such as utility or phone companies, and regulatory bodies, consider in a proportionate way how these findings may have implications for product design or promotion to their customers who may be overconfident or lack confidence in applying numeracy skills to financial contexts, and risk making sub-optimal calculations and choices as result.



Provision of money guidance, pensions guidance and debt advice.

- We recommend that money guidance, pensions guidance and debt advice agencies review the design of their existing client journeys, including through the training of face-to-face or helpline advisers, such that they can identify and engage their clients where over-confidence or low confidence in applying numeracy skills in a financial context may be a particular issue
- Providers can also look to review and test their web design where guidance in the form of content or tools requires clients to apply numeracy skills in a financial context – in the same way as recommended for financial services and retailers, there may have to be consideration of how to disrupt online guidance journeys in a proportionate way.

Using communication channels to raise the profile of numeracy's role in improving financial capability outcomes.

- Broadcast, print and social media; parliamentarians; public bodies; commentators and influencers: all can play a beneficial role in socialising the issues raised – overconfidence in numerical abilities by over 11 million adults; a lack of persistence, especially by women, in making financial calculations; and low confidence and competence in using numbers by almost 7.5 million adults – and help to turn the tide and, as a result, improve financial capability outcomes for many millions of adults in areas such as savings ratios and informed use of credit.

Deepening even more our understanding of the relationship between numeracy and financial capability.

- Our research has taken us to another level of understanding and sets a new benchmark; however, we call on policy forums, think tanks, research institutions and the world of academia, within the UK and internationally, to collaborate and seek ways to deepen even more our level of understanding of the workings between confidence and competence in using numbers and financial decision making – and the impact these have on financial capability outcomes.
- One contribution comes from a project that the Money Advice Service is funding as part of its What Works Fund, in a partnership led by National Numeracy, which is testing approaches with adults of all ages across different channels.
- We encourage continuing collaboration at the international level under the auspices of the Organisation for Economic Cooperation and Development’s programme on measuring financial literacy to identify whether similar patterns on numeracy and financial capability exist across countries and, if so, to work together to find common methods to improve outcomes where over-confidence or lack of confidence or persistence in using numbers to make financial decisions is an issue.



