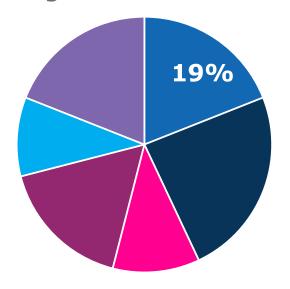
## **Education Enthusiasts**

Education Enthusiasts enjoy school and learning. They describe themselves as organised, smart and determined, and they see hard work as important in life.

## **Segment size**



#### Describe themselves as...

• A thinker 46%



• Persistent 24%



• Serious 17%



#### **Favourite subjects include...**

• Maths 24%



Sciences 24%



#### If I put my mind to it, I can learn almost anything

63%



39%

I'm often nervous in new situations or trying new things

20%

30%

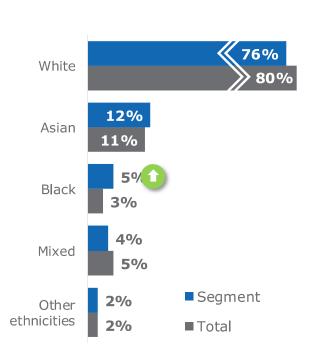
"[My role model is...] my father, who is a G.P. He has shown me the importance of hard work, honesty and values."

Female, Year 7

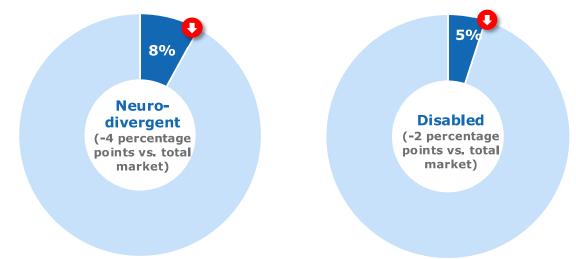
# **Demographic profile**

Education Enthusiasts are significantly more likely to be female and from Black ethnic groups. They are less likely to be neurodivergent.

#### **Ethnicity**



## **Neurodivergence and disability**



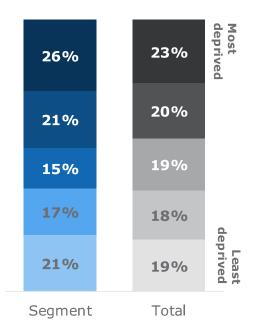
Gender	<b>Education Enthusiasts</b>	Total market
Male	48%	50%
Female	<b>52% 1</b>	50%
Identify in another way	1%	1%

Base: Education Enthusiasts 419

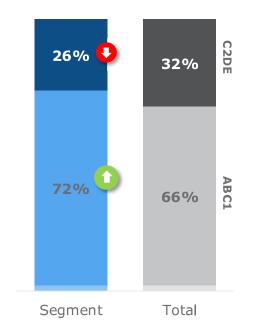
## **Home context**

Education Enthusiasts are not significantly more likely to come from affluent or deprived areas, but they are significantly more likely to live in a household where one or more people is educated to at least degree level.

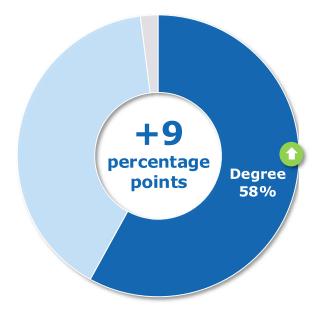
# Index of Multiple Deprivation (IMD) quintile:



**Approximate social grade** 



# Households including 1+degree educated adult

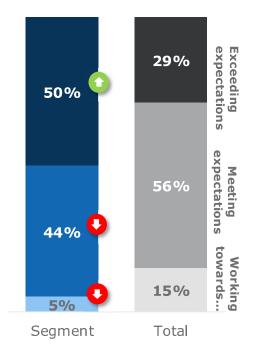


Base: Education Enthusiasts 419

## **Education Enthusiasts in school**

School/college in the UK works well for this segment, they are comfortable in group learning environments and confident with active participation. Many cite maths and the sciences as their favourite subjects.

#### **Academic achievement**



Base: Education Enthusiasts 419





#### **Learning preferences**

I prefer practical lessons, e.g., science experiments, cookery or woodwork

26% strongly agree (-3 percentage points vs. total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

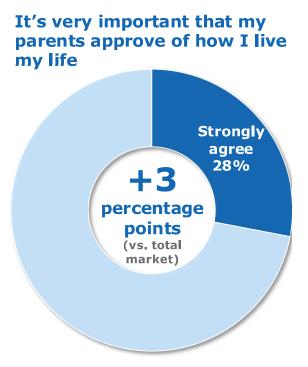
8% strongly agree (-6 percentage points vs. total market)

# **Career priorities**

Education Enthusiasts are ambitious in their careers. They seek engaging, stimulating, challenging roles that stretch them intellectually while adding value to their community or wider society.

#### **Overall career priorities**

Education Enthusiasts	Total market		
49%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
28%	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
15%	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
8%	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies



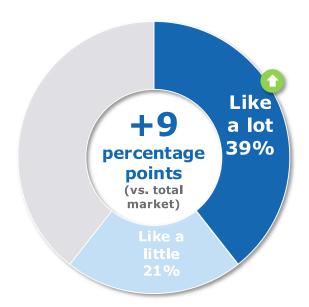
Base: Education Enthusiasts 419

# Sig higher

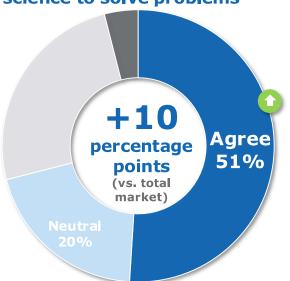
## **Attitudes to computing**

Education Enthusiasts are confident and comfortable in computing. They enjoy the subject and are more likely than average to say they enjoy using the skills they have learned to solve problems.

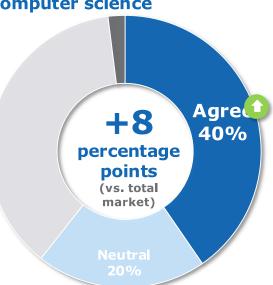
#### **Interest in computing**







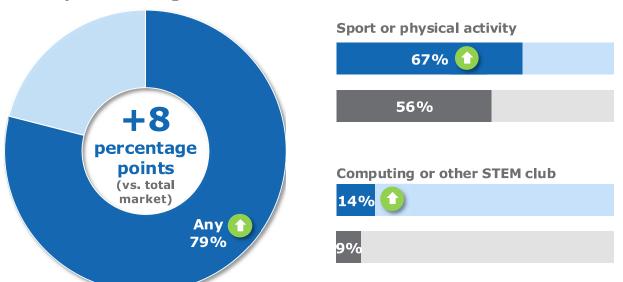
#### I feel I belong in computer science



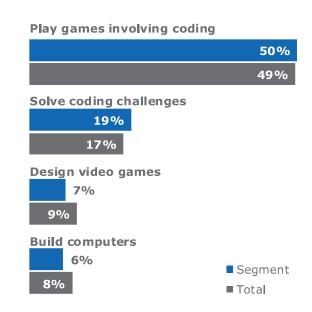
## **Extracurricular engagement**

Education Enthusiasts often take part in organised extracurricular activities (like clubs, lessons or teams). Often keen students of STEM subjects from families that value education, they are the segment most likely to participate in computing or STEM clubs. This does not translate into self-directed computing activities.

#### Participation in organised extracurricular activities



# Participation in self-directed extracurricular computing activities: weekly

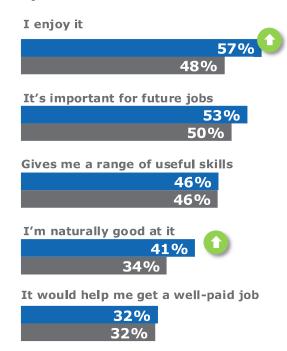


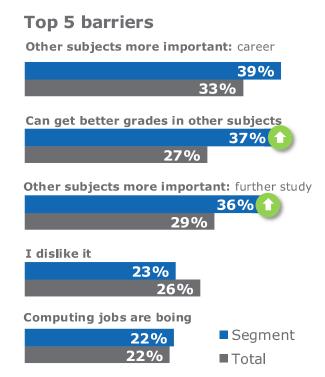
Base: Education Enthusiasts 419

## Motivations and barriers to study computing

Many Education Enthusiasts have ambitious career goals requiring demanding, competitive further study. This segment is more likely to prioritise other STEM subjects over computing since they are likely to achieve higher grades.

#### **Top 5 motivations**







# Improving computing uptake for this segment

Education Enthusiasts are bright, engaged and very academically able. The primary challenges for increasing the study of computing among Education Enthusiasts are **capturing their attention and proving that computing is more worthwhile and interesting than the many other routes available to them**.

Education Enthusiasts often come from homes that value learning and science in their own right and not just as instrumental routes to advancement.

This segment would respond to the prospect of a challenging and fulfilling vocation, using computing to stretch themselves and make a positive impact on society generally.

Increasing the breadth of subjects that Educational Enthusiasts can study would reduce pressure to "drop" the subject before they complete secondary/tertiary education.

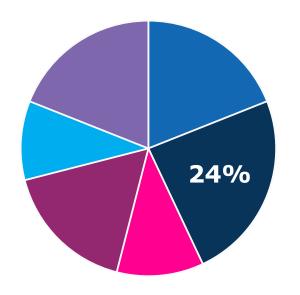
Pursuing grade-parity between computing and other STEM subjects would help make computing a more attractive option for those seeking admission to competitive universities.

Consistent, dedicated coverage of computing in all schools in the run up to national exam decisions would increase the number of Education Enthusiasts that see computing as a viable option for further study.

## **Future Planners**

The Future Planners segment care deeply about, and are planning for their future careers. This segment often describe themselves as self-motivated and believe that it's important to be motivated, enthusiastic and to have a plan for the future.

## **Segment size**



#### Describe themselves as...





• Full of energy 25% 🔒



#### Favourite subjects include...

• Maths 19%



• PE/Sports 15%



## If I put my mind to it, I can learn almost anything



39%

## I'm often nervous in new situations or trying new things



30%

"[My role model is...] Elon Musk... He inspires me because he is forward thinking and has built a very successful business... in a short space of time."

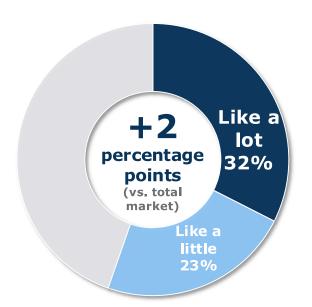
Male, Year 8

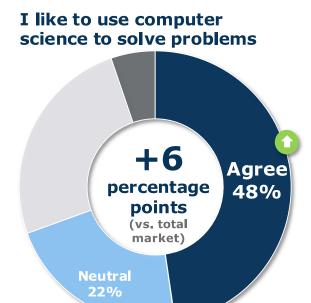


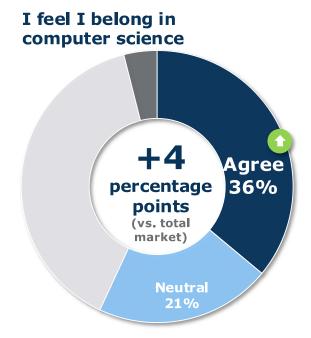
## **Attitudes to computing**

People in the Future Planners segment enjoy the problem-solving aspect of computing, but have only average interest in other aspects.

#### **Interest in computing**







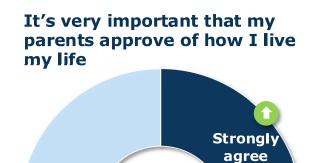
Base: Future Planners. 551.

## **Career priorities**

Having a high-status career is more important to people in the Future Planners segment than other segments. They care about how they are perceived by others, particularly their family.

#### **Overall career priorities**

Future Planners	Total market		
44%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
21%0	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
23%	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
11%	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies



+6

percentage points (vs. total market)

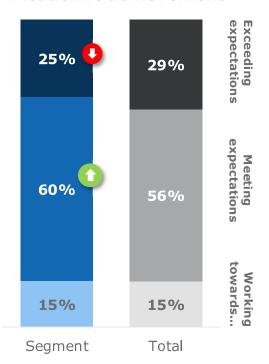


31%

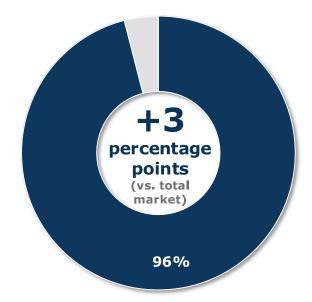
## **Future Planners in school**

The Future Planners segment are typically comfortable at school. They are significantly more likely than average to be meeting expectations for their age and enjoy both their practical and academic lessons.

#### **Academic achievement**



# School/college meets their needs



I prefer practical lessons, e.g., science experiments, cookery or woodwork

**32%** strongly agree (+2 percentage points vs. total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

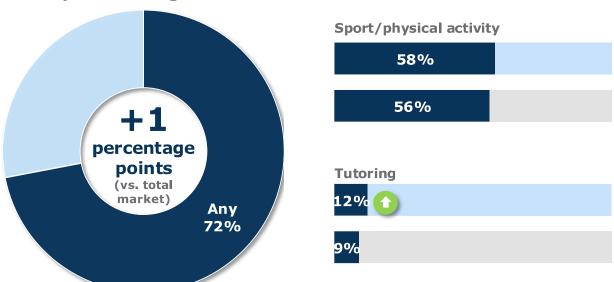
**12%** strongly agree (-2 percentage points vs. total market)

Base: Future Planners. 551.

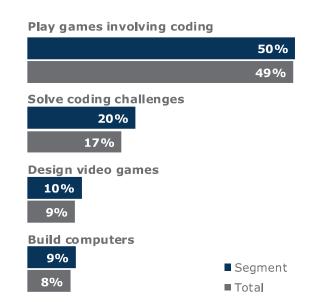
# **Extracurricular engagement**

The Future Planners segment has average uptake of most types of extra-curricular activities. They significantly more likely to be in receipt of extra tutoring, either in subjects the study at school or in something else not covered in school.

#### Participation in organised extracurricular activities



# Participation in self-directed extracurricular computing activities: weekly



Base: Future Planners. 551.



## Motivations and barriers to study computing

Careers come first for Future Planners, so their key motivators to study computing are primarily instrumental – they will pursue it if it will benefit them. They do care about what others think so they can also be persuaded by family. However, they aren't intrinsically enthusiastic about the subject so are easily put off if they see computing as too difficult or not useful enough.

#### Top 5 motivations to study

It will be important for future jobs

53% 50%

Gives me a range of useful skills

50% 46%

I enjoy(ed) it

46% 48%

I'm naturally good at it

36%

It would help me get a well-paid job

35% 34%

Base: Future Planners. 551.

#### Top 5 barriers to study

Other subjects more important: career

29% 33%

Other subjects more important: further study

27% 29%

Computing jobs are boring

27% 22%

I dislike it

25% 26%

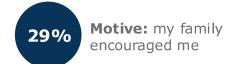
I'm not good at it

25% 25%

■ Segment

■ Total

#### Other segment-specific drivers





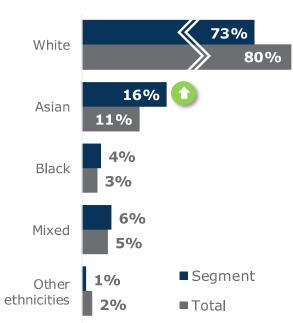




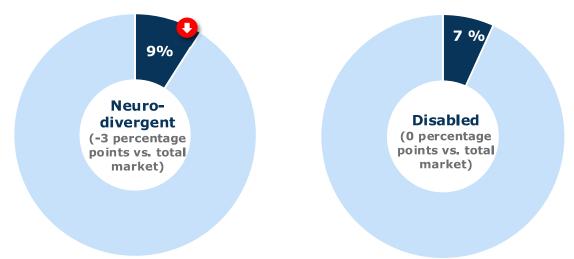
## **Demographic profile**

People in the Future Planners segment are significantly more likely to be male, and from Asian ethnic groups. They are less likely to be neurodivergent.

#### **Ethnicity**



## **Neurodivergence and disability**



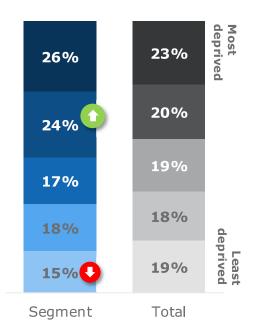
Gender	<b>Future Planners</b>	Total market
Male	54%	50%
Female	46%	50%
Identify in another way	0%	1%

Base: Future Planners. 551.

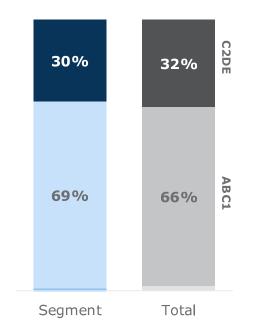
## **Home context**

The Future Planners segment come from homes with average education levels and social grade. They are significantly more likely to come from areas that are more deprived.

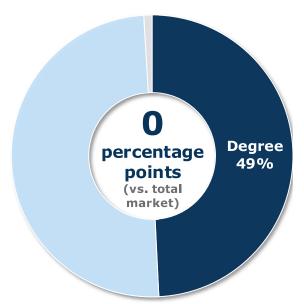
# Index of Multiple Deprivation (IMD) quintile:



## Approximate social grade



# Households including 1+degree educated adult



Base: Future Planners. 551.



## Improving computing uptake for this segment

Future Planners are actively preparing for high-status, high-reward careers. The primary challenges for increasing the study of computing among Future Planners are **convincing them that computing will give them the career attributes they seek, and that this historically difficult subject will pay dividends that make the effort worthwhile.** 

Increasing understanding of computing jobs in wider society is important to engage this segment. Future Planners want to be seen as having a "good job" by their friends or family so computing competes with more familiar professions like law and medicine.

Partnerships with major computing employers could also be advantageous, as Future Planners want to work for well-known and well respected companies.

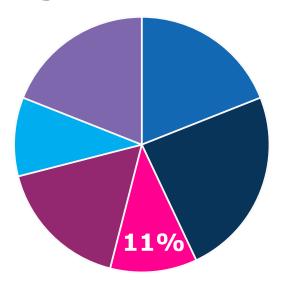
Status is important, so computing careers should be positioned as outward facing (rather than back-room / technical support roles) and job titles should reflect this.

Grade-parity between computing and other STEM subjects is also important for this segment. They will choose the easiest, most efficient route to their goal, meaning they will avoid subjects that seem particularly difficult.

## **Easy-going**

The Easy-going segment describe themselves as sociable and easy to talk to. They're confident and open-minded and enjoy new experiences.

## **Segment size**



#### Describe themselves as...

- Sociable 64%
- Interested in a lot of things 46%
- Adventurous 31% 1

#### Favourite subjects include...

- Maths 14% 🔱
- Geography 5% 🕦

If I put my mind to it, I can learn almost anything

39%

39%

I'm often nervous in new situations or trying new things

19%

30%

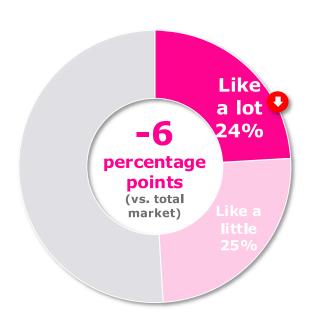
"Molly Mae inspires me she... gets a lot of hate that she doesn't deserve but somehow she stays positive and gets on with her life."

Female, Year 8

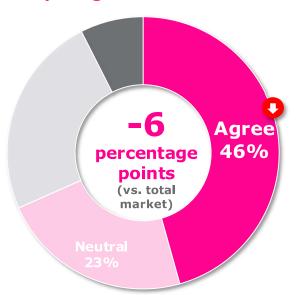
## **Attitudes to computing**

The Easy-going segment are less likely than other segments to feel positively about computing. They are less likely to enjoy studying computing and less likely to understand how it could help them in their future career.

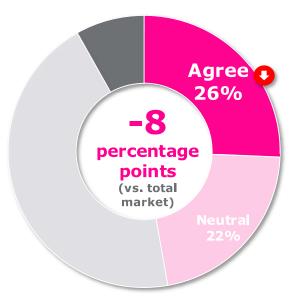
#### **Interest in computing**



In general, I know about the types of jobs that studying computing can lead to



**Studying computing is only** useful if you want to work in programming or coding



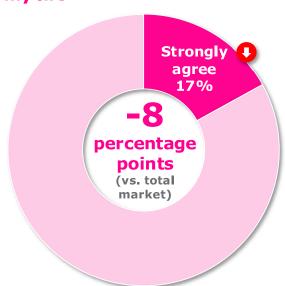
## **Career priorities**

Their relaxed nature means the Easy-going segment are less likely to care what others think of their life choices, and more likely to prioritise enjoyment over success or status. Opportunities to travel and live in new places often appeal, and they are more likely than other segments to and will look for careers that allow them to help others.

#### **Overall career priorities**

Easy-going	Total market		
50%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
34%	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
11%	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
5% <sup>•</sup>	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies

# It's very important that my parents approve of how I live my life

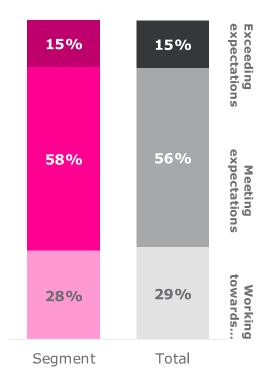


Base: Easy-going. 262.

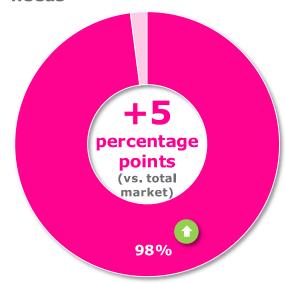
## **Easy-going in school**

Easy-going are generally comfortable at school. They have average academic achievement.

#### **Academic achievement**



School/college meets their needs



I prefer practical lessons, e.g., science experiments, cookery or woodwork

25% strongly agree

(-5 percentage points vs. total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

13% strongly agree

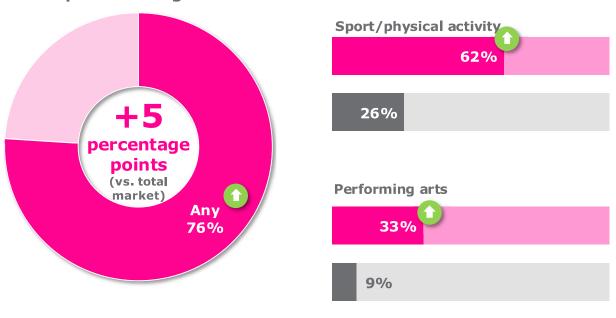
(-1 percentage points vs. total market)



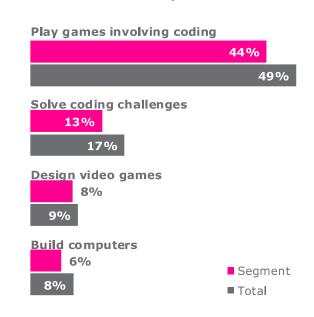
## **Extracurricular engagement**

The Easy-going segment often take part in extra-curricular activities, but these rarely relate to academic subjects. They are the segment most likely to be involved in performing arts, around one in four (25%) have music lessons (vs. 18% total market).

#### Participation in organised extracurricular activities



# Participation in self-directed extracurricular computing activities: weekly



Base: Easy-going. 262.

## Motivations and barriers to study computing

The Easy-going segment are not heavily influenced by social pressures, meaning they are more likely to choose subjects they enjoy than subjects that are seen as prestigious or fashionable. They are susceptible to positive encouragement.

#### **Top 5 motivations to study**

I enjoy it

53% 48%

Gives me a range of useful skills

51% 46%

It's important for future jobs

49% 50%

It would help me get a well-paid job

31% 32%

I'm naturally good at it

**30%** 34%

Base: Easy-going. 262.



Other subjects more important: career



I dislike it



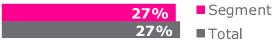
I am not good at it



Other subjects more important: further study



I can get better grades in other subjects



## Other segment-specific drivers



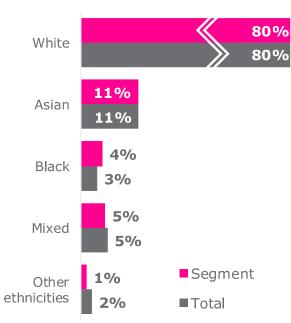




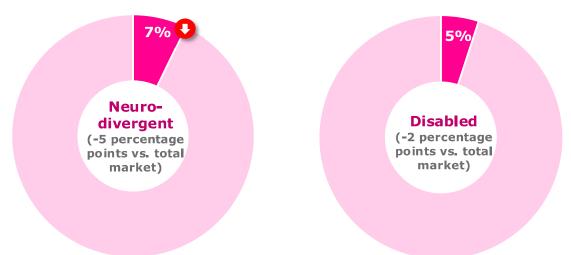
# **Demographic profile**

Easy-going have few distinguishing demographic features. They are less likely to be neurodivergent.

#### **Ethnicity**



#### **Neurodivergence and disability**



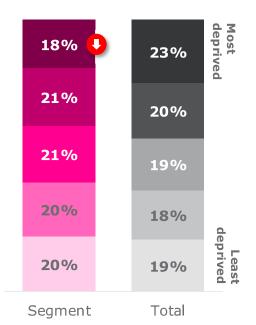
Gender	Easy-going	Total market
Male	46%	50%
Female	54%	50%
Identify in another way	0%	1%

Base: Easy-going. 262.

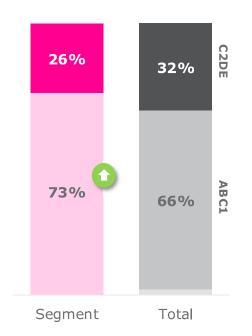
## **Home context**

The Easy-going segment are significantly less likely to live in deprived areas or to come from households of lower social grade.

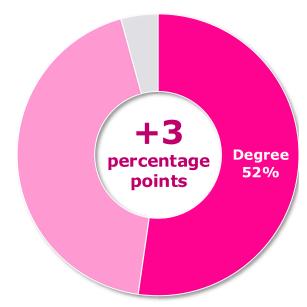
# Index of Multiple Deprivation (IMD) quintile:



## Approximate social grade



# Households including 1+degree educated adult



# Improving computing uptake for this segment

The Easy-going segment is not naturally inclined towards studying computing, they show average academic performance and aren't driven to 'push themselves' to succeed in difficult subjects. **Engaging this segment requires changing how computing is perceived.** 

Challenge negative stereotypes that paint scientists as being boring or lacking social skills. Role models that exemplify adventure and excitement will resonate well.

Show how computing careers involve team-working and positive social interactions. Emphasise how computing careers can offer variety and create opportunities to travel and explore new skills and position computing as a creative subject.

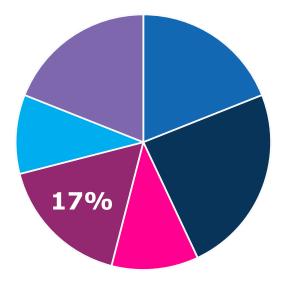
Increasing the breadth of subjects that the Easygoing segment can study past age 14 would also support their desire for varied experiences and reduce pressure on them to drop the subject.

Increasing the amount of group work and collaborative endeavour would also make the study of computing more appealing.

## **Socially Influenced**

The Socially Influenced segment are very conscious of how their peers perceive them. They describe themselves as eager to please and easily swayed by others' views.

## Segment size



#### Describe themselves as...





• Feminine 16% ᡨ

#### Favourite subjects include...

• PE/Sports 15%

• Art 6%





39%

I'm often nervous in new situations or trying new things

34%

30%

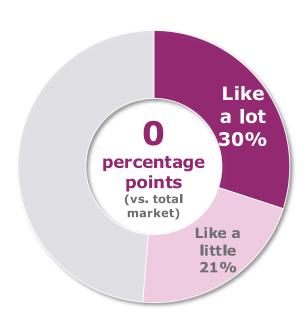
"My Scout leader sets an example for me to follow. She is a strong woman who enjoys life but also has vision to contribute to the society."

Female, Year 12

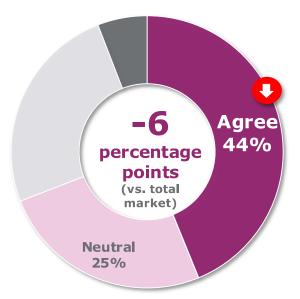
## **Attitudes to computing**

The Socially Influenced segment report average interest in computing as a subject, but they are significantly less likely to know where the subject can lead.

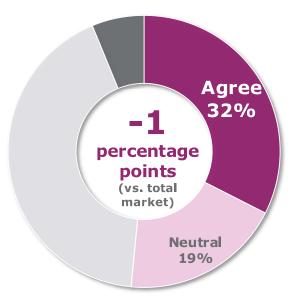
#### **Interest in computing**



In general, I know about the types of jobs that studying computing can lead to



Studying computing is only useful if you want to work in programming or coding



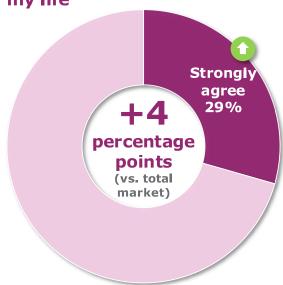
## **Career priorities**

The Socially Influenced segment are not strongly career-oriented. Their concern about how their perceived does not translate into desire for a high-status job. Instead, this segment prioritises a friendly team, job security, and having free time outside their work.

#### **Overall career priorities**

Socially Influenced	Total market		
46%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
25%	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
9% •	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
20% 🔾	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies



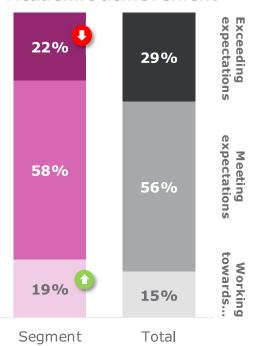


Base: Socially Influenced. 397.

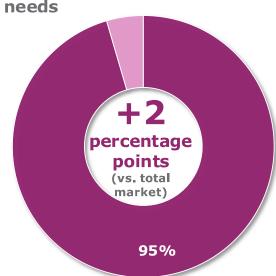
## **Socially Influenced in school**

The Socially Influenced segment are comfortable at school but their focus is on making friends and having fun. They are less likely than other segments to excel in education.

#### **Academic achievement**







I prefer practical lessons, e.g., science experiments, cookery or woodwork

29% strongly agree (= total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

**14%** strongly agree (= total market)

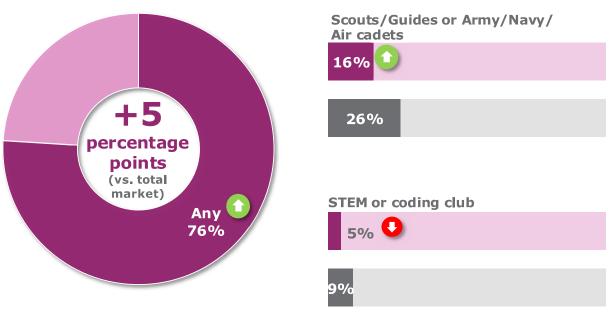
Base: Socially Influenced. 397.

■ Segment ■ Total

## **Extracurricular engagement**

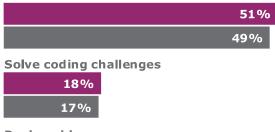
The Socially Influenced segment has above average participation in organised extra activities, but these rarely relate to academic study. They are more likely than average to be Guides, Scouts or Cadets and are also frequently on sports teams (34% vs. 31% of the total market).

#### Participation in organised extracurricular activities









## Design video games



#### **Build computers**



## Motivations and barriers to study computing

The behaviour of those in the Socially Influenced segment is heavily influenced by their peer group. This can act as a motivator to study computing, but while overall uptake of the subject is low, it also represents a significant barrier.

#### **Top 5 motivations to study**

It's important for future jobs

50% 50%

Gives me a range of useful skills

47% 46%

I enjoy it

46% 48%

I'm naturally good at it

34% 34%

It would help me get a well-paid job

30% 32%

Base: Socially Influenced. 397.

#### Top 5 barriers to study

Other subjects more important: career

29% 29%

Can get better grades in other subjects

28% 25%

Other subjects more important: further study

26% 27%

I dislike it

25% 23%

Computing jobs are boring

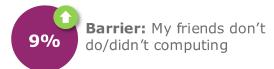
24% 25% ■ Segment

■ Total

## Other segment-specific drivers







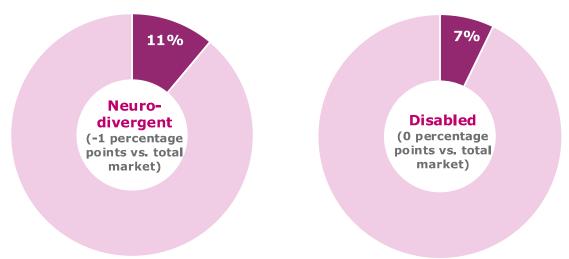


# **Demographic profile**

The Socially Influenced segment are significantly less likely to come from Asian or Black ethnic groups and are significantly more likely to be from White ethnic groups.

# White Asian 7% 11% Black 3% Mixed 5% Other ethnicities 2% Total

## **Neurodivergence and disability**



Gender	<b>Socially Influenced</b>	Total market
Male	53%	50%
Female	46%	50%
Identify in another way	1%	1%

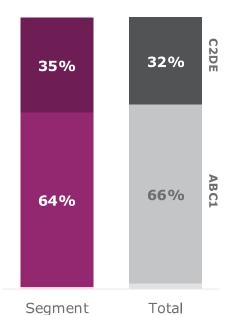
Base: Socially Influenced. 397.

## **Home context**

The Socially Influenced segment are less likely to live in the most deprived areas. Their households have around average education levels and social grade.

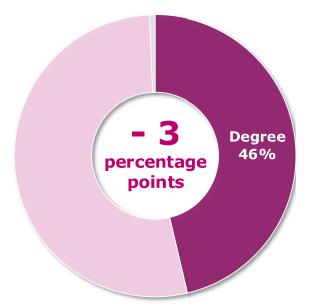
#### **Index of Multiple Deprivation** (IMD) quintile:





**Approximate social grade** 

#### Households including 1+degree educated adult



## Improving computing uptake for this segment

The Socially Influenced segment are less likely to be enthusiastic about education, and less motivated to pursue a challenging career. They are strongly externally focused, meaning their decisions are influenced by how their family and peers behave and what they think. **Engaging this segment with computing requires widespread societal change.** 

Increasing Science Capital across society will improve understanding and appreciation of science by the parents and peers that the Socially Influenced segment look up to. High-profile role-models with mainstream appeal could also make computing more attractive to the Socially Influenced segment.

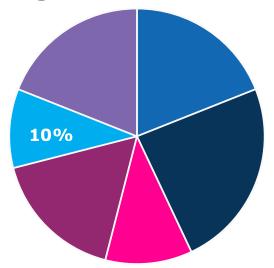
The Socially Influenced segment want jobs that offer security and leave them plenty of free time to pursue their other interests, they're less likely to want a prestigious or intellectually demanding career. Rather than promoting careers where computing is the central activity, show how computing skills can support many different jobs.

The Socially Influenced segment is less likely to choose subjects that they perceive as 'niche'. Improving mandatory provision (before subject choices are made) and increasing general uptake of computing will encourage this segment to take part. Increasing the amount of group work and collaborative endeavour in computing teaching would also make the study of computing more appealing.

### **School Dissenters**

The School Dissenters segment describe themselves as out-spoken, strong-willed, tough and brave. However this outward impression of confidence does not translate into a strong sense of self-efficacy – School Dissenters are less likely to believe they can accomplish their goals.

#### **Segment size**



#### **Describe themselves as...**



• Strong-willed 40% 🔒

• Tough 13% 🔒

#### Favourite subjects include...

Food technology 5%

• Drama 0% 🔼

I'm often nervous in new situations or trying new things

32%

30%

If I put my mind to it, I can learn almost anything

22% 🕕

39%

"I don't have no one I look up to, I find my self inspiration [sic]."

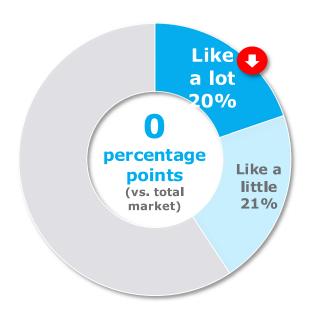
Female, Year 11



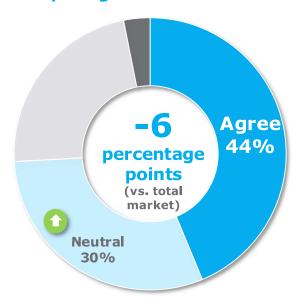
### **Attitudes to computing**

The School Dissenters segment are not positively engaged with the academic subject of computing. They are less likely to say they enjoy it, and know relatively little about where it can lead.

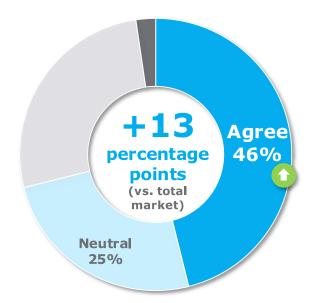
#### **Interest in computing**



In general, I know about the types of jobs that studying computing can lead to



Studying computing is only useful if you want to work in programming or coding



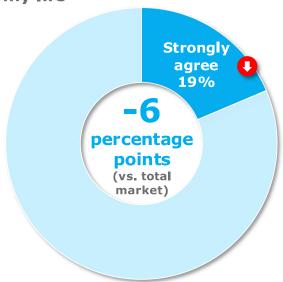
### **Career priorities**

The School Dissenters segment do not have high aspirations for their careers. They are less concerned than other segments with being part of a friendly team or helping others and are more likely to prioritise a short commute and having time outside work to pursue their own interests.

#### **Overall career priorities**

School Dissenters	Total market		
43%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
22%	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
17%	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
17%	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies

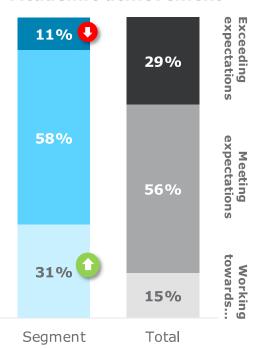
#### It's very important that my parents approve of how I live my life



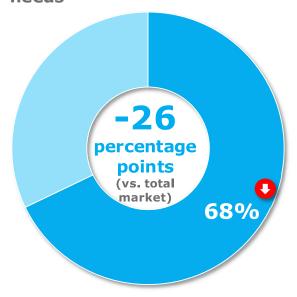
### School Dissenters in school

The School Dissenters segment are not well-served by the school environment. They are significantly more likely than other segments to say the find learning difficult, that they often get into trouble, and that they don't enjoy school. They prefer practical subjects to academic ones, and also gravitate to those requiring less interaction with teachers.

#### **Academic achievement**



School/college meets their needs



I prefer practical lessons, e.g., science experiments, cookery or woodwork

40% strongly agree (+11 percentage points vs. total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

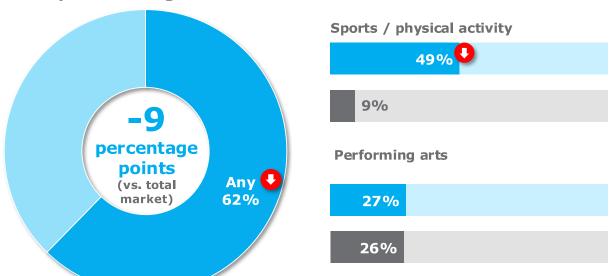
18% strongly agree (+4 percentage points vs. total market)



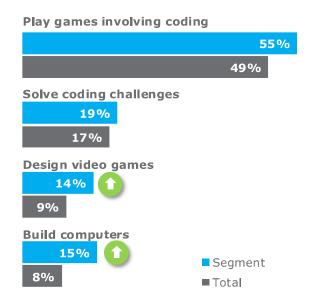
### **Extracurricular engagement**

The School Dissenters segment are significantly less likely to take part in any organised extracurricular activities. In particular they are less likely to be involved in team sports (24% vs. 31% market average). In contrast they are the segment most likely to have self-directed hobbies related to computing. They are significantly more likely to design games and build computers in their free time.

#### Participation in organised extracurricular activities



# Participation in self-directed extracurricular computing activities: weekly



Base: School Dissenters. 217.

### Motivations and barriers to study computing

Following their disengagement with formal education generally, School Dissenters are less likely than other segments to feel motivated to study computing. They are less likely to say they enjoy it, or are good at it (despite their higher engagement with computing outside school).

#### Top 5 motivations to study



Gives me a range of useful skills



It's important for future jobs



I'm naturally good at it



It would help me get a well-paid job



Base: School Dissenters, 217.











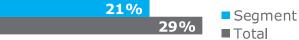
Computing jobs are boring



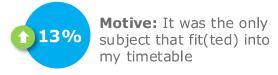
Can get better grades in other subjects

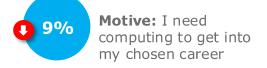


Other subjects more important: further study



#### Other segment-specific drivers









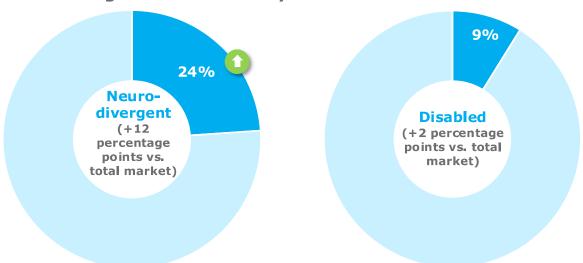
## **Demographic profile**

School Dissenters are the segment with the highest instance of neurodivergence – around one in four (24%) in this segment are neurodivergent compared to 12% of the market generally.

#### **Ethnicity** 82% White 80% 9% Asian 11% 3% Black 3% 6% Mixed 5% Segment 0% Other ethnicities

■ Total

#### **Neurodivergence and disability**



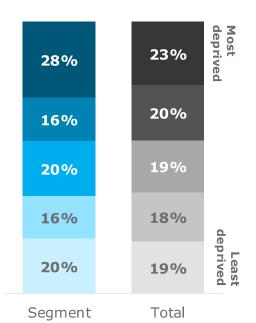
Gender	<b>School Dissenters</b>	Total market
Male	48%	50%
Female	51%	50%
Identify in another way	1%	1%

2%

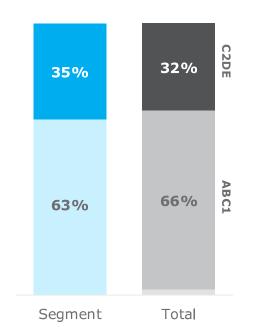
### **Home context**

The School Dissenters segment do not experience significantly higher levels of relative deprivation than the market average. However, they are significantly less likely to come from households where at least one adult is educated to degree level.

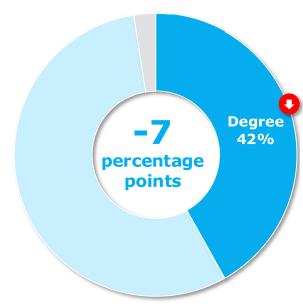
## Index of Multiple Deprivation (IMD) quintile:



#### Approximate social grade



## Households including 1+degree educated adult



Base: School Dissenters. 217.

### Improving computing uptake for this segment

School Dissenters represent an under-used talent pool for computing careers. They are the segment most likely to pursue computing activities in their free time, but **the challenges they face within formal education mean they're unlikely to pursue academic study**.

Improving how formal education provision caters to neurodivergent students is an essential first step and will support this segment's success both within and beyond computing.

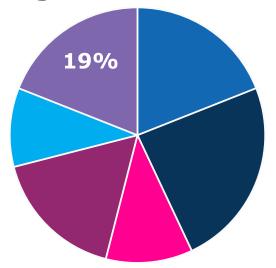
Position computing as a practical, hands-on subject rather than an abstract academic one. Develop non-academic routes into computing careers and challenge perceptions of computing professionals as "brainy scientists" is an important parallel to this.

Foster outreach programmes that can identify computing talent outside formal education and guide potential computing professions into careers.

### **Cautious Thinkers**

Cautious Thinkers describe themselves as quiet, worriers and perfectionists. They can find social interaction difficult and are often nervous to try new things in front of others.

#### Segment size



#### Describe themselves as...





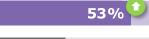
Dislike conflict 39%

#### Favourite subjects include...

• English 11% 🚺



I'm often nervous in new situations or trying new things



If I put my mind to it, I can learn almost anything



30%

39%

"[My role model is] My Mum [she] never stops, even though she has MS. She is forever learning new things, working, exercising, doing housework or driving me to appointment."

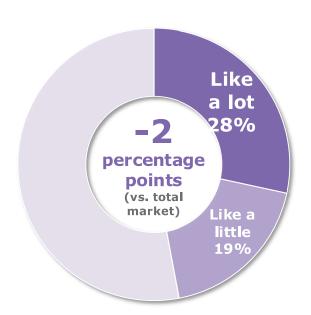
Male, Year 12



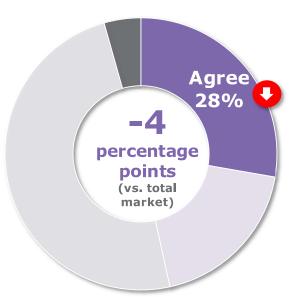
### **Attitudes to computing**

The Cautious Thinkers segment is less likely to feel they belong in computing. They do not enjoy the problem-solving aspects of the subject and don't feel they know about what career opportunities computing can lead to.

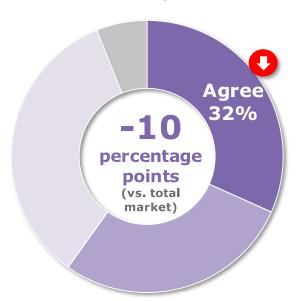
#### **Interest in computing**



## I feel like I belong in computer science



## I like to use computer science to solve problems



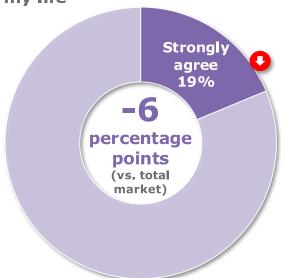
### **Career priorities**

The Cautious Thinkers segment prioritises enjoyment over other considerations when choosing a career. They are less interested than other segments in learning new skills, and are also keen to use the ones they have. This could reflect their lack of confidence and self-efficacy, leading them to choose less risky and less challenging options.

#### **Overall career priorities**

Cautious Thinkers	Total market		
49%	47%	Enjoyment	Doing something I love, doing something different every day, week or year, working in a friendly team, learning new skills
24%	25%	Helping others	Doing something that makes a difference to people's lives, having opportunities to help other people
13%	15%	Status	Earn a lot of money, have an impressive title, be seen as having a good job, being in charge, working for a respected employer
14%	13%	Home comforts	Working close to home / having a short commute, have plenty of free time outside work to see family, friends or to do my hobbies

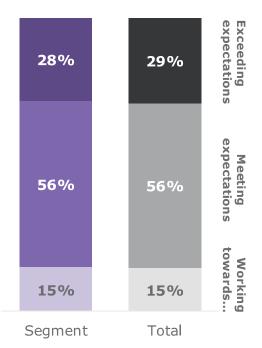
It's very important that my parents approve of how I live my life



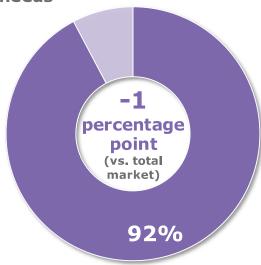
### **Cautious Thinkers in school**

The Cautious Thinkers segment are more likely to survive than thrive in a school environment. They have average academic achievement but are significantly more likely than the market average to say they find it hard to learn in school (40% vs. 32% market average). This segment can be self-conscious and can therefore find group-learning settings difficult.

#### **Academic achievement**



School/college meets their needs



I prefer practical lessons, e.g., science experiments, cookery or woodwork

27% strongly agree (-3 percentage points vs. total market)

My favourite lessons are ones where you get to read to yourself rather than having the teacher talk to me

22% strongly agree (+7 percentage points vs. total market)

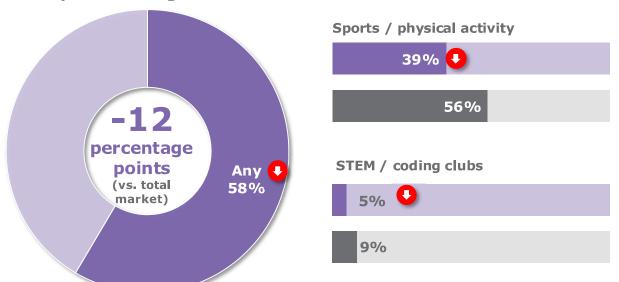
Base: Cautious Thinkers. 261.



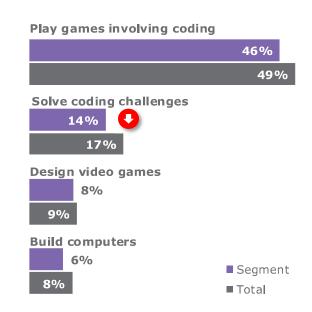
### **Extracurricular engagement**

The Cautious Thinkers segment is less likely to be involved in extracurricular activities, either organised or self-directed. In particular they are significantly less likely to attend coding or other STEM related clubs or to do things like solve coding challenges in their spare time.

#### Participation in organised extracurricular activities



# Participation in self-directed extracurricular computing activities: weekly



Base: Cautious Thinkers. 427.

### Motivations and barriers to study computing

The Cautious Thinkers segment don't see themselves as belonging in computing, and consequently they don't show strong motives to study the subject. Their difficulties in school mean they're less likely to be influenced by their teachers.

#### Top 5 motivations to study

It's important for future jobs

48% 50%

I enjoy it

44% 48%

Gives me a range of useful skills

42% 46%

I'm naturally good at it 33% 34%

It would help me get a well-paid job

31% 32%

#### Top 5 barriers to study

Other subjects more important: career

33% 33%

I dislike it

32% 26%

Other subjects more important: further study 30% 29%

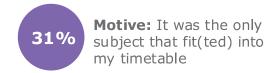
Can get better grades in other subjects

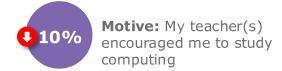
28% 27%

I'm not good at it

■ Segment 28% 25% ■ Total

#### Other segment-specific drivers





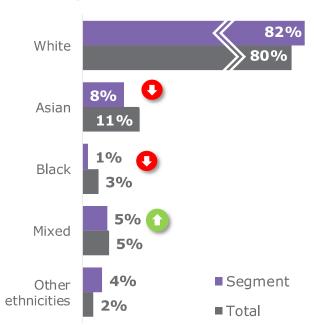


Base: Cautious Thinkers, 427.

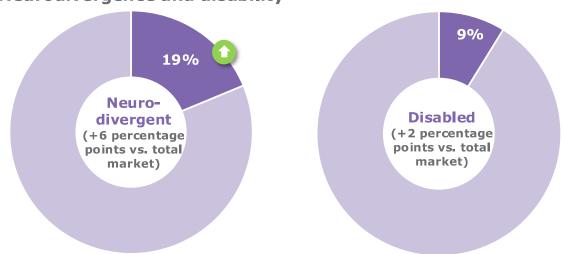
### **Demographic profile**

The Cautious Thinkers segment are more likely to be neurodivergent. They are less likely to come from Asian or Black ethnic backgrounds. The Cautious Thinkers segment are significantly more likely than other segments to describe their gender in a way other than male or female.

#### **Ethnicity**



#### **Neurodivergence and disability**



Gender	<b>Cautious Thinkers</b>	Total market
Male	45%	50%
Female	53%	50%
Identify in another way	2%	1%

Base: Cautious Thinkers. 427.

### -

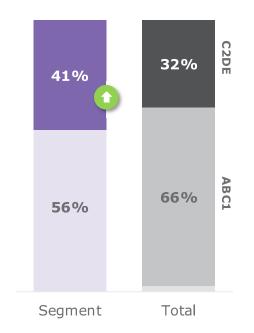
### **Home context**

The Cautious Thinkers segment are significantly more likely to come from households of lower social grade, and from households where no-one is educated to degree level.

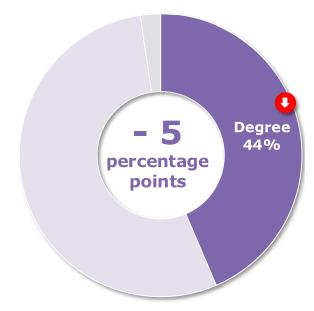
## Index of Multiple Deprivation (IMD) quintile:



#### Approximate social grade



## Households including 1+degree educated adult



### Improving computing uptake for this segment

The Cautious Thinkers segment are risk-averse and have relatively low confidence and self-efficacy. As a group they are less likely to enjoy science subjects, and they generally find the school environment more challenging than other segments. **Engaging them in computing will require changes in formal education generally as well as perceptions of computing.** 

Improving how formal education provision caters to neurodivergent students will improve this segment's school experience generally, allowing them to achieve their potential across the curriculum.

The Cautious Thinkers segment are more likely to come from home of lower socio-economic status and without anyone who has completed tertiary education. They are also significantly less likely to feel they belong in computing. Increasing Science Capital in wider society will support this segment to engage.

Shifting perceptions of computing professionals as "brainy scientists", and reducing the requirement to be competitive would make the subject more appealing.

Cautious Thinkers are less likely to have bold career plans, but they do want their work to help others. Show them how computing skills can be applied to a range of jobs, and can have a positive impact on society.