

# **Results of the 2024 Grattan Institute survey on primary school maths**

**Supplement to *The Maths Guarantee: How to boost students' learning in primary schools***

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## 1 Survey purpose and methods

Grattan Institute surveyed primary teachers and school leaders to better understand teachers' experiences teaching maths in Australian primary schools.

Our survey was hosted online through the software Qualtrics. We advertised the survey on Facebook, Instagram, X, and LinkedIn, and promoted it via Grattan Institute's newsletter and social media channels.

We offered people no financial incentive to participate. To increase take-up, we also promoted the survey through principal associations, several diocese and government department newsletters, and the promotional channels of other education organisations. The survey was open from 4 July 2024 to 14 October 2024.

Participation in the survey was voluntary. To maintain anonymity, we did not collect the name of participants' schools, but rather asked them to self-identify their school's characteristics (such as its size, remoteness, and the approximate level of advantage of the school's community).

A total of 1,745 people took the survey. We excluded 386 responses that were low quality: for example if respondents did not complete more than one non-demographic question. We also verified that there were no duplicate responses from the same internet address.

We weighted responses against population data on Australian primary school teachers.<sup>1</sup>

While the teachers who completed the survey appear to be approximately representative of the population of Australian teachers (see Chapter 2), it remains possible that the views of teachers who

chose to participate in this survey may be different from i) the views of teachers who knew of the opportunity but decided not to participate, and/or ii) the views of teachers who we missed in our recruitment efforts. For this reason, caution should be taken when generalising the survey findings.

The survey had six main sections:

1. Introduction and initial demographic questions
2. Questions on maths teaching approaches in the respondent's school
3. Questions to respondents who teach maths about their confidence with the subject
4. Questions to respondents who teach maths about their engagement with professional learning
5. Questions to school leaders about their confidence in leading improvement in the way their school teaches and the support they receive from government
6. Open-ended questions about the big challenges and opportunities for primary maths teaching in Australia.

The detailed questions are listed in Chapter 3 of this supplement. All chart data can be found online at [grattan.edu.au](https://grattan.edu.au).

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1. We use the same method as the Social Research Centre (2023).

## 2 Survey representativeness

Table 2.1: Teacher survey demographics compared to alternative sources

	Grattan survey		Population data	
	Count	%	Count	%
Sex				
Female	1,427	82%	129,560	82%
Male	297	17%	28,207	18%
Prefer not to say	20	1%	No population data available	
Something else	1	0%		
Total	1,745	100%	157,767	100%
Main teaching role				
Generalist teacher	969	56%	No population data available	
No teaching load	360	21%		
Tutor	130	7%		
Specialist subject teacher	111	6%		
Relief teacher	92	5%		
Other	83	5%		
Total	1,745	100%		
Leadership responsibilities*				
No leadership role	1,185	68%	No population data available	
One or more leadership roles	560	32%		
Principal	245	-%		
Deputy principal	186	-%		
Instructional leader	425	-%		

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**Table 2.1** – *continued from previous page*

	Grattan survey		Population data	
	Count	%	Count	%
Team leader	192	-%		
Pastoral or wellbeing leader	48	-%		
Other leadership role	206	-%		
<i>Total</i>	1,745	100%		
<b>Years of teaching experience**</b>				
Less than 5 years	113	6%	8,173	18%
5-9 years	207	12%	6,461	14%
10-20 years	490	28%	12,480	28%
More than 20 years	935	54%	17,584	39%
<i>Total</i>	1,745	100%	44,698	100%
<b>Stage of schooling***</b>				
Primary	1,439	82%	138,613	88%
Combined	224	13%	13,074	8%
Special	82	5%	6,080	4%
<i>Total</i>	1,745	100%	157,767	100%
<b>Sector</b>				
Government	1,085	62%	109,372	69%
Catholic	443	25%	27,307	17%
Independent	217	12%	21,088	13%
<i>Total</i>	1,745	100%	157,767	100%

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**Table 2.1** – *continued from previous page*

	Grattan survey		Population data	
	Count	%	Count	%
<b>Jurisdiction</b>				
NSW	391	22%	46,753	30%
Vic	704	40%	43,059	27%
Queensland	251	14%	32,598	21%
WA	141	8%	16,526	10%
SA	83	5%	10,649	7%
Tas	62	4%	3,282	2%
ACT	46	3%	2,936	2%
NT	67	4%	1,963	1%
<i>Total</i>	1,745	100%	157,767	100%
<b>Remoteness<sup>†</sup></b>				
Metropolitan	1,026	59%	112,114	71%
Regional	501	29%	29,236	19%
Rural	174	10%	13,394	8%
Remote	44	3%	3,024	2%
<i>Total</i>	1,745	100%	157,767	100%
<b>Level of advantage or disadvantage<sup>‡</sup></b>				
Mostly disadvantaged	397	23%	37,528	24%
A fairly even mix of advantaged and disadvantaged students	758	43%	51,766	33%
Mostly advantaged	590	34%	67,975	43%
<i>Total</i>	1,745	100%	157,268	100%

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**Table 2.1** – *continued from previous page*

	Grattan survey		Population data	
	Count	%	Count	%
<b>School size<sup>§</sup></b>				
Up to 50 students	60	3%	4,238	3%
51 to 100 students	81	5%	5,598	4%
101 to 200 students	221	13%	16,523	10%
201 to 300 students	283	16%	20,158	13%
301 to 400 students	298	17%	24,503	16%
401 to 500 students	261	15%	21,993	14%
501 to 600 students	197	11%	17,799	11%
601 to 700 students	102	6%	14,456	9%
701 to 800 students	81	5%	8,793	6%
801 to 900 students	50	3%	5,470	3%
901 to 1,000 students	37	2%	4,515	3%
More than 1,000 students	51	3%	13,517	9%
<i>Total</i>	1,722	100%	157,563	100%

Notes: Totals may vary and percentages do not always sum to 100 per cent due to rounding.

\*Options add up to more than 1,745 because respondents could select multiple leadership responsibilities.

\*\*Population total smaller than true population because years of experience comes from a survey dataset. See AITSL (2024).

\*\*\*Population data for teachers working in special schools do not provide breakdowns by primary or secondary schooling. We have assumed half of teachers working in special schools work with primary aged children.

<sup>†</sup>ACARA's school profile dataset categorises schools' remoteness by comparing schools' geographic coordinates to the ABS's remoteness classification; to preserve anonymity we asked survey respondents to self-identify their school's remoteness.

<sup>‡</sup>Teachers in our survey self-identified the extent to which their school's student population was advantaged/disadvantaged. ACARA's school profile dataset categorises level of disadvantage/advantage using the Index of Community Socio-Educational Advantage (ICSEA). This score is derived from variables including parental school and non-school education and occupation, the school's geographical location, and proportion of Indigenous students. To determine the proportion of all teachers working within each disadvantage level, we have added the number of teachers within the bottom, middle, and top third of schools along the ICSEA distribution. The ACARA dataset had missing ICSEA percentiles for 146 schools, which is why the total staff count is lower for this category.

<sup>§</sup>23 respondents skipped this question. 62 schools in ACARA's dataset had missing values for their size, which is why the total staff count is lower for this category.

Sources: *Grattan survey*: 2024 Grattan Institute survey on primary school maths. *ACARA*: ACARA school counts, school profile, and staff numbers datasets – ACARA (2024a), ACARA (2024b) and ACARA (2024c). *AITSL*: Australian Teacher Workforce Dataset – AITSL (2024).

### 3 Survey questions

Table 3.1: Questions asked in 2024 Grattan Institute survey on primary school maths

Question		Response format
<b>About you</b>		
<b>Q1</b>	<b>Are you currently employed as a teacher or leader in an Australian school?</b> <i>Options: Yes; No</i>	Select one
<b>Q2</b>	<b>What type of school do you work in?</b> <i>Options: Primary; Secondary; Combined primary and secondary; None of the above</i>	Select one
<b>Q3</b>	<b>How would you describe your gender?</b> <i>Options: Female; Male; Something else (please specify); Prefer not to say</i>	Select one
<b>Q4</b>	<b>Which option best describes the bulk of your current teaching load?</b> <i>Options:</i> <ul style="list-style-type: none"> <li>• No teaching load – I do not have face-to-face teaching hours in my timetable</li> <li>• Generalist teacher – I teach a range of learning areas to a single class</li> <li>• Specialist subject teacher – I teach one or more specialist learning areas (e.g. physical education, music, languages, art) to multiple classes</li> <li>• Small group or individual instruction – I do not have my own regular class, and most of my face-to-face teaching hours are spent with students in small group settings such as learning support</li> <li>• Cover teaching – I do not have my own regular class, and most of my face-to-face teaching hours are cover (or relief teaching)</li> <li>• Other: _____(write-in)</li> </ul>	Select one, logic to Q6
<b>Q5</b>	<b>Do you have additional school leadership responsibilities? Please select all that apply.</b> <i>Options: Principal; Deputy principal; Instructional leader; Faculty (e.g. Languages) or year level (e.g. Year 3) team leader; Pastoral leader or wellbeing coordinator; Other: _____ (please specify)</i>	Multi-select

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Table 3.1 – continued from previous page

Question	Response format
<b>Q6</b> You indicated you are a dedicated subject teacher. Which key learning area(s) best describes your specialism? Please select all that apply. <i>Options: English; Health and Physical Education; Humanities and Social Sciences; Languages; Mathematics; Science; Technologies; The Arts; Religious Education; Work Studies; Learning support; Other: _____ (please specify)</i>	Multi-select
<b>Q7</b> Do you currently teach maths to primary school students at least once a week? <i>Options: Yes; No</i>	Select one, logic to Q8
<b>Q8</b> To which year level(s) do you currently teach maths? If you are currently teaching multiple year levels or teaching a combined class, please select all year levels that apply. <i>Options: Foundation; Year 1; Year 2; Year 3; Year 4; Year 5; Year 6; Not applicable</i>	Multi-select
<b>Q9</b> Do you have a formal leadership role for improving mathematics teaching at your school? <i>Options: Yes; No</i>	Select one
<b>Q10</b> How many years' teaching experience do you have? <i>Options: Fewer than 2 years; At least 2 but less than 5 years; At least 5 but less than 10 years; At least 10 but less than 20 years; 20 or more years</i>	Select one
<b>Q11</b> In what year did you complete your teaching qualification? If you have not yet completed your teaching qualification, please enter your expected date of completion.	Write-in (Numeric only)

*The following two questions were only asked to respondents who indicated they teach maths (Q7) or had a formal leadership role for improving maths (Q10).*

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Table 3.1 – continued from previous page

Question	Response format
<p><b>Q12 What was the highest level of mathematics you studied in Year 12?</b></p> <p><i>Options:</i></p> <ul style="list-style-type: none"> <li>• No senior mathematics</li> <li>• Essential or foundational mathematics – Entry level Year 12 mathematics subject typically involving foundational maths for everyday life, e.g. Mathematics Life Skills (NSW); VCE Foundation Mathematics (Vic); Essential Mathematics (SA, NT)</li> <li>• General mathematics – Lower intermediate mathematics subject typically involving topics such as finance, data analysis, networks and matrices, but not calculus, e.g. HSC Mathematics Standard (NSW), VCE General Mathematics (Vic)</li> <li>• Mathematical methods – Upper intermediate mathematics subject typically involving algebra, calculus, statistics, and functions, e.g. HSC Mathematics Advanced (NSW), VCE Mathematical Methods (Vic)</li> <li>• Specialist mathematics – Advanced mathematics subject typically involving calculus, vectors, complex numbers, and developing proofs e.g. HSC Mathematics Extension 1 or 2 (NSW), VCE Specialist Mathematics (Vic)</li> </ul>	Select one
<p><b>Q13 Did you major in mathematics at university or have a tertiary maths or engineering qualification prior to becoming a teacher?</b></p> <p><i>Options: Yes; No</i></p>	Select one
<p><b>About your school</b></p> <p><i>If respondents taught at multiple schools, they were asked to provide the details of the school they worked at most.</i></p>	
<p><b>Q14 Is your school a specialist school for students with a disability?</b></p> <p>These schools provide specialised education for students with specific disabilities and high needs. They have specific enrolment eligibility criteria related to their disability specialisation.</p> <p><i>Options: No; Yes; Unsure</i></p>	Select one
<p><b>Q15 Would your school be considered an alternative school?</b></p> <p>Examples of alternative schools include Montessori schools, Steiner schools, and children's hospital schools.</p> <p><i>Options: No; Yes; Unsure</i></p>	Select one

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Table 3.1 – continued from previous page

Question	Response format
<b>Q16 Which school sector do you primarily work in?</b> <i>Options: Government; Catholic; Independent</i>	Select one
<b>Q17 Which state or territory do you primarily work in?</b> <i>Options: NSW; Vic; Qld; WA; SA; Tas; NT; ACT</i>	Select one
<b>Q18 How would you describe the level of socio-economic advantage and disadvantage of the students at your school?</b> <i>Options: Mostly advantaged; A fairly even mix of advantaged and disadvantaged students; Mostly disadvantaged</i>	Select one
<b>Q19 Where is your school located?</b> <i>Options: Metropolitan; Regional; Rural; Remote</i>	Select one
<b>Q20 How many primary students are enrolled at your school?</b> <i>Options: Up to 50 students; 51 to 100 students; 101 to 200 students; 201 to 300 students ... 901 to 1,000 students; more than 1,000 students</i>	Select one
<b>How maths is taught at your school</b>	
<b>Q21 Which of the following best describes how your school schedules maths in the timetable?</b> If you teach a class (e.g. Year 2A or Grade 5B), answer in relation to that class's timetable. <i>Options:</i> <ul style="list-style-type: none"> <li>• Each class has a designated 'maths block' – Each class's timetable has a specific time allocated for maths</li> <li>• We have a common approach but no scheduled 'maths block' – Teachers are expected to spend an agreed amount of time teaching maths, but it is up to teachers when to teach it</li> <li>• Teacher discretion – It is up to teachers to decide when and how much maths to teach</li> <li>• Other: _____(write-in)</li> </ul>	Select one

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Table 3.1 – continued from previous page

Question	Response format
<b>Q22</b> <i>[For respondents teaching maths]</i> <b>How many hours of maths instruction do your students receive weekly?</b> If you teach multiple classes or use a fortnightly timetable, please provide the average time per class per week. Options: Less than 2 hours (120 minutes); 2 hours (120 minutes); 2.5 hours (150 minutes); 3 hours (180 minutes) ... 9.5 hours (570 minutes); 10 hours (600 minutes) or more; Not applicable.	Select one
<b>Q23</b> <i>[For respondents not teaching maths]</i> <b>How many hours of maths instruction do students at your school receive weekly?</b> Please provide the average time per class per week across year levels. Options: As above	Select one
<b>Q24</b> <b>To what extent do you agree with these statements about your school?</b> <i>Options: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree; Not applicable</i> a) My school values maths learning as much as literacy learning b) My school supports teachers to develop the subject knowledge needed to teach maths confidently c) Teachers at my school agree on what effective maths teaching looks like d) Teachers at my school are expected to use agreed textbooks or lesson materials as part of a whole-school approach to teaching maths e) My school has mapped out exactly what students are taught in maths in each term of primary school f) My school has documented lesson plans that cover the F-6 maths curriculum g) All students at my school are taught by teachers with strong mathematics subject knowledge	Select one
<b>Q25</b> <b>Consider the teachers currently teaching maths at your school.</b> <i>Options: No teacher; Some teachers; About half of teachers; Most teachers; All teachers; Unsure</i>	Select one

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Table 3.1 – continued from previous page

Question	Response format
<p>a) What proportion of teachers at your school understand the developmental continuum of maths from Foundation to Year 6? (i.e. how maths learning builds year on year, and the critical concepts to master)</p> <p>b) What proportion of teachers at your school understand the developmental continuum of maths from Foundation to Year 10?</p> <p>c) What proportion of teachers at your school could confidently teach Year 6 maths topics (e.g. negative numbers, decimals, fractions, the Cartesian plane)?</p> <p>d) What proportion of teachers at your school have good mental arithmetic (e.g. can add, subtract, multiply, and divide in their head)?</p>	
<b>How you feel about teaching maths</b>	
<i>These questions were only asked to respondents who indicated that they taught maths.</i>	
<p><b>Q26</b> To what extent do you agree with these statements?  <i>Options: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree; Not applicable</i></p> <p>a) I did well in maths at school</p> <p>b) I am good at maths</p> <p>c) I am good at English</p> <p>d) Maths is my favourite learning area to teach</p> <p>e) I enjoy teaching maths</p> <p>f) I enjoy teaching English</p> <p>g) I would feel confident teaching topics from the Year 6 maths curriculum (e.g. negative numbers, decimals, fractions, the Cartesian plane)</p>	Select one

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Table 3.1 – continued from previous page

	Question	Response format
	h) I would feel confident supporting high-achievers with topics from the Year 7 and 8 maths curriculum (e.g. algebra, factorisation, $\pi$ / Pi, Pythagoras' theorem)	
<b>Q27</b>	<p><b>To what extent do you agree with the following statements?</b></p> <p>These questions are adapted from the Victorian Department of Education's resources on mathematics anxiety. See Buckley (2020).  <i>Options: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree; Not applicable</i></p> <p>a) I feel nervous when teaching maths</p> <p>b) If I could avoid teaching maths, I would</p> <p>c) I worry more about my teaching of maths than my other subjects</p> <p>d) I feel more anxious being observed while teaching maths than while teaching other learning areas</p>	Select one
<p><b>Your engagement with maths professional learning</b></p> <p><i>These questions were only asked to respondents who indicated that they taught maths.</i></p>		
<b>Q28</b>	<p><b>Thinking about the past 12 months, how often did you receive feedback from a leader or coach on your maths classroom teaching?</b></p> <p>Leaders and coaches might include members of the school leadership team (such as the principal or assistant principal), school instructional leaders (such as a numeracy lead), and year level team leaders. Also include feedback from any external coaches or consultants who are working with your school.</p> <ul style="list-style-type: none"> <li>• <i>Never</i></li> <li>• <i>Once a year or less</i></li> <li>• <i>2-4 times a year</i></li> <li>• <i>5-10 times a year</i></li> </ul>	Select one

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Table 3.1 – continued from previous page

	Question	Response format
	<ul style="list-style-type: none"> <li>• 1-3 times a month</li> <li>• Once a week or more</li> <li>• Not applicable</li> </ul>	
<b>Q29</b>	<p><b>Of the total time you spent on professional learning in the past 12 months, approximately what proportion was maths-specific?</b></p> <p><i>Options: 0 per cent; 10 per cent; 20 per cent ... 90 per cent; 100 per cent; Not applicable</i></p> <ul style="list-style-type: none"> <li>• Externally-run professional learning (e.g. workshops or courses led by education departments, universities, professional associations, maths consultants, etc.)</li> <li>• School-run professional learning (e.g. staff professional learning meetings)</li> </ul>	<p>Slider response, logic to Q30 and Q31 (skipped if 0 per cent or not applicable selected)</p>
<b>Q30</b>	<p><b>Please indicate the extent to which you agree or disagree with each statement in relation to externally-run professional learning.</b></p> <p><i>Options: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree; Not applicable</i></p> <p>a) In the past 12 months, I could easily access the professional learning I needed to improve how I teach specific maths topics (e.g. fractions, angles, units of measurement)</p> <p>b) The professional learning I undertook in the past 12 months built my subject knowledge of specific maths topics (e.g. fractions, angles, units of measurement)</p> <p>c) The professional learning I undertook in the past 12 months increased my understanding of how to address common student misconceptions</p> <p>d) I feel more confident to teach maths effectively because of the professional learning I undertook in the past 12 months</p>	<p>Select one</p>

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Table 3.1 – continued from previous page

Question	Response format
<b>Q31 Please indicate the extent to which you agree or disagree with each statement in relation to school-run professional learning.</b>  Statements and options as above	Select one
<b>Your confidence leading maths improvement and your perspective on government support</b> <i>These questions were only asked to principals, deputy principals, and respondents with a formal leadership responsibility for improving maths (i.e. Q10).</i>	
<b>Q32 To what extent do you agree with the following statements?</b> <i>Options: Strongly disagree; Disagree; Neither agree nor disagree; Agree; Strongly agree; Not applicable</i>  a) Beginning teachers (i.e. teachers with less than 5 years' experience) have strong mathematics content knowledge b) I feel confident that my school has a carefully sequenced maths curriculum in place across all year levels c) There are high-quality professional development courses available outside school to improve teachers' maths subject knowledge d) I feel at least as confident about my school's strategy for improving maths, as I do about our strategy to improve literacy e) The government provides valuable advice on how my school can improve maths teaching f) The government provides clear advice on selecting high-quality mathematics curriculum materials	Select one
<b>Q33 What proportion of teachers at your school do you think are hesitant to teach upper primary (Year 5 and Year 6) because of the mathematics involved?</b> <i>Options: No teachers; Some teachers; About half of teachers; Most teachers; All teachers</i>	Select one
<b>Open response questions</b>	
<b>Q34 What are the biggest challenges for primary maths teaching in Australia?</b>	Open text

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**Table 3.1** – *continued from previous page*

	<b>Question</b>	<b>Response format</b>
<b>Q35</b>	<b>What would help improve primary maths teaching in Australia?</b>	Open text
<b>Q36</b>	<b>Is there anything else you would like to add?</b>	Open text
<b>Q37</b>	<b>Would you be open to us contacting you to hear more?</b> If so, please leave your email address or phone number.	Open text

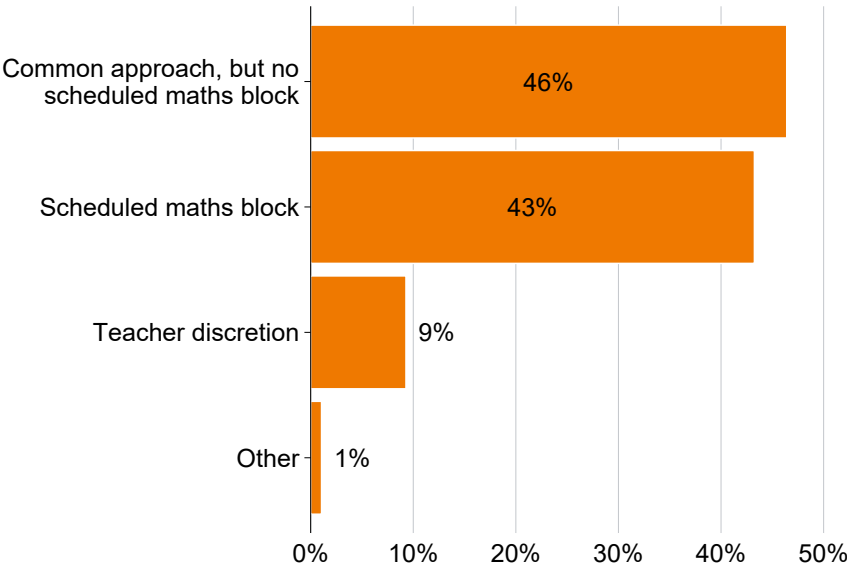
## 4 Supplementary charts

This section contains charts referenced in Chapter 3 of *The Maths Guarantee: How to boost students' learning in primary schools*. All charts use data from Grattan Institute's 2024 maths survey of primary school teachers and school leaders.

### 4.1 How maths is taught at your school

**Figure 4.1: Which of the following best describes how your school schedules maths in the timetable?**

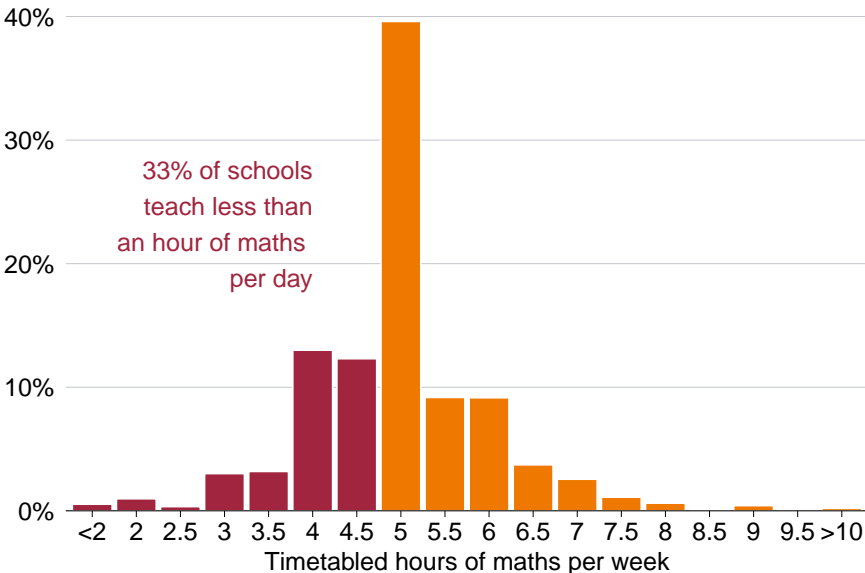
Proportion of respondents who selected each option



Notes: Total number of responses was 1,523. Percentages do not add to 100 per cent due to rounding.

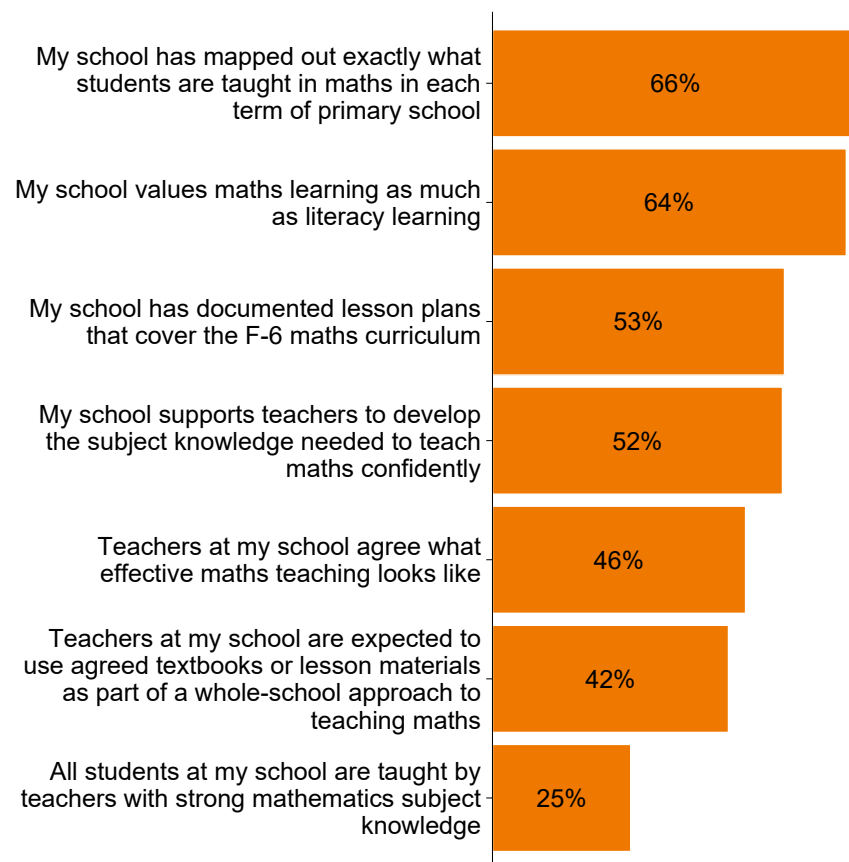
**Figure 4.2: How many hours of maths instruction do your students receive weekly?**

Proportion of respondents who selected each option



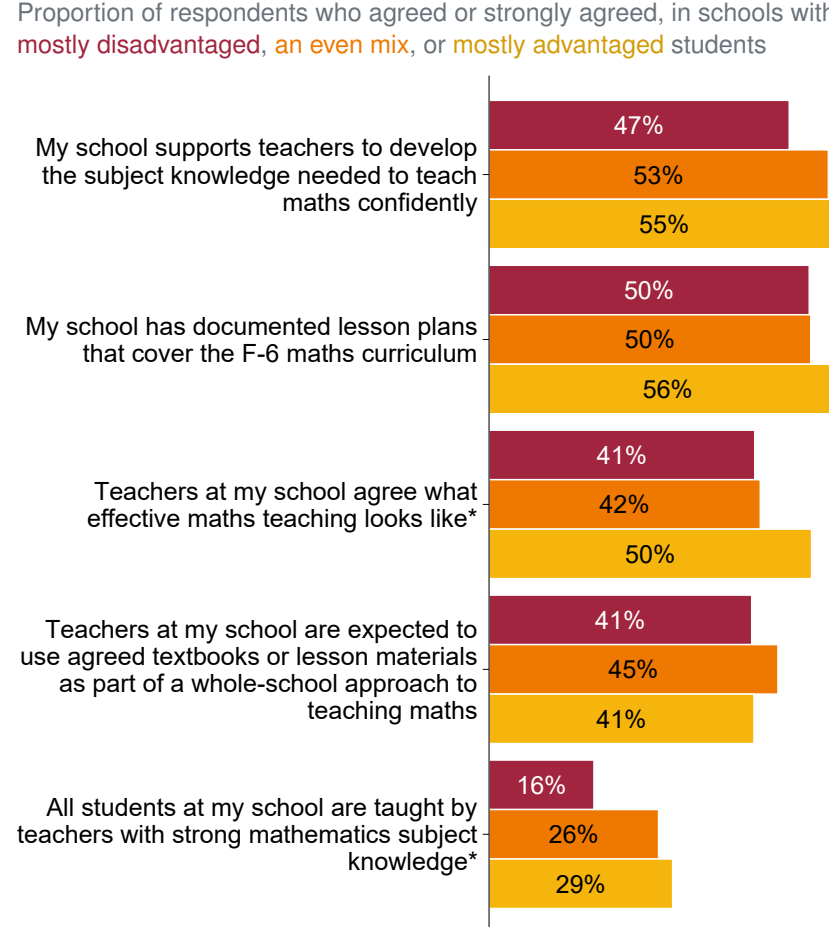
Note: Total number of responses was 1,213.

**Figure 4.3: Prioritisation, coordination, and maths curriculum planning**  
Proportion of respondents who agreed or strong agreed with each statement



Note: Total responses to statements varied by statement between 1,501 and 1,513.

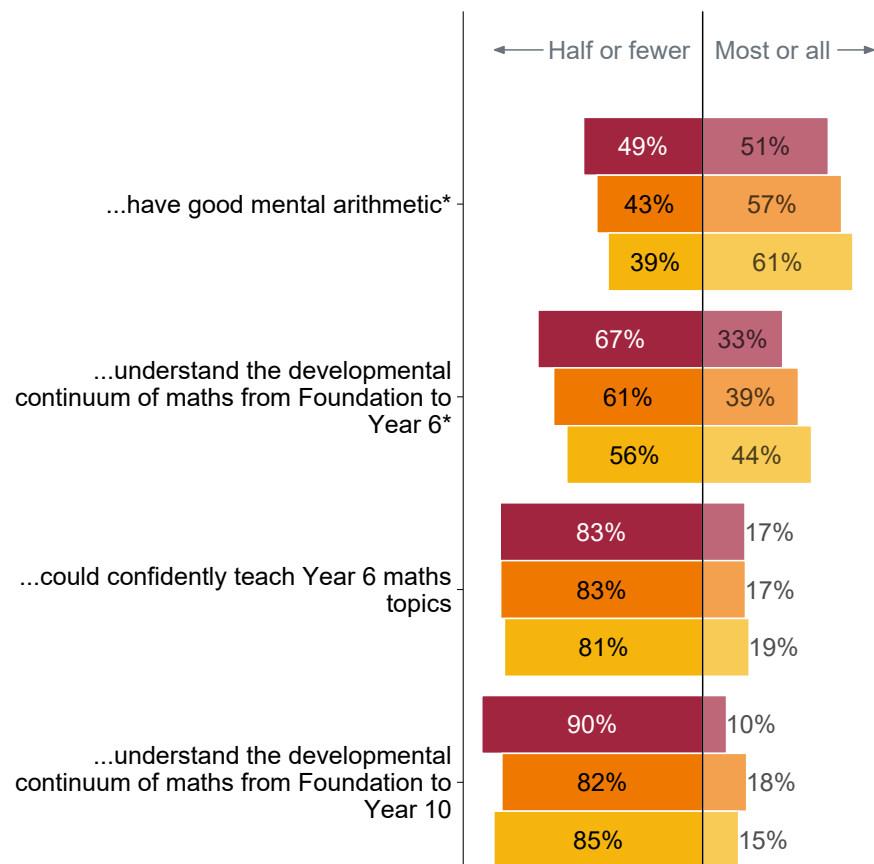
**Figure 4.4: Prioritisation, coordination, and maths curriculum planning, by level of school advantage**  
Proportion of respondents who agreed or strongly agreed, in schools with mostly disadvantaged, an even mix, or mostly advantaged students



Notes: Total responses varied by statement between 345 and 351, 647 and 654, and 507 and 511 for each group. Statements marked with an asterisk indicate a significant difference (at the 90 per cent interval) between the proportion of teachers in disadvantaged and advantaged schools who agreed or strongly agreed with the statement.

**Figure 4.5: Teachers' perspectives of their colleagues' maths knowledge, by level of school advantage**

Proportion of respondents who said each statement was true for half or fewer (left-hand side) or for most or all teachers (right-hand side) by whether their school had **mostly disadvantaged**, **an even mix**, or **mostly advantaged** students

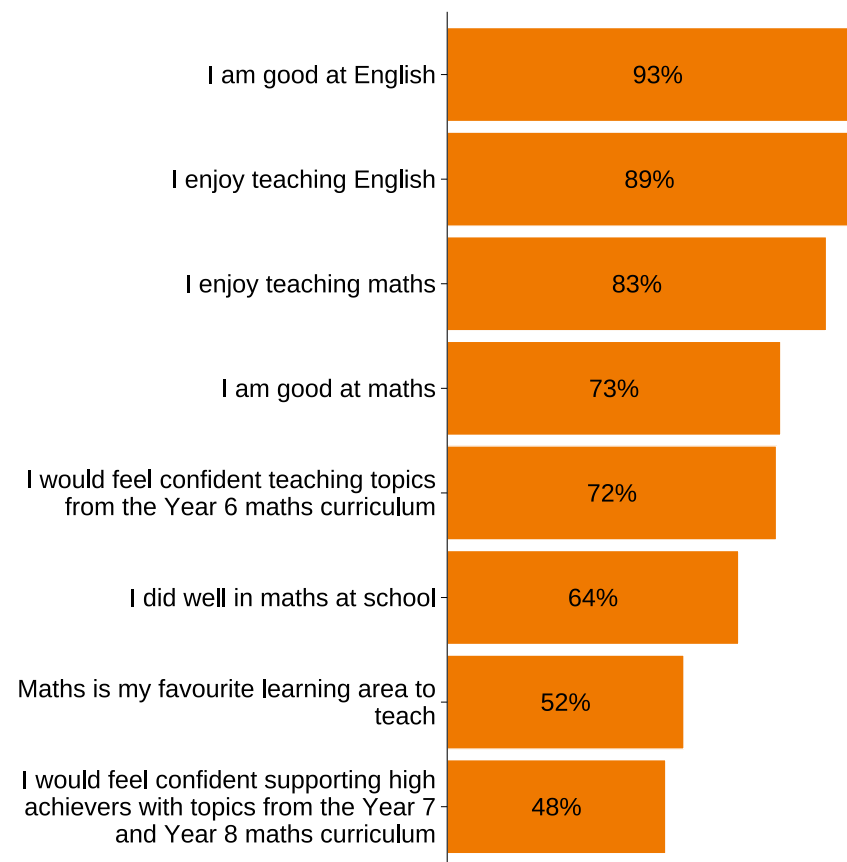


Notes: Total responses varied by statement between 305 and 337, 590 and 625, and 436 and 484 for each group. Statements marked with an asterisk indicate a significant difference (at the 90 per cent interval) between the proportion of teachers in disadvantaged and advantaged schools who agreed or strongly agreed with the statement.

## 4.2 How do you feel about teaching maths?

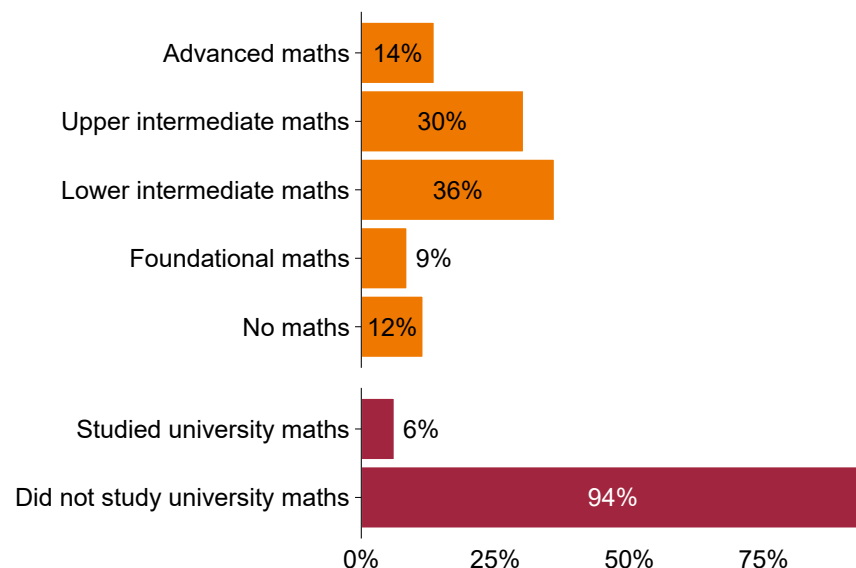
**Figure 4.6: Teachers' self-reported confidence in maths**

Proportion of teachers who agreed or strongly agreed



Note: Total responses to statements varied by statement between 1,606 and 1,637.

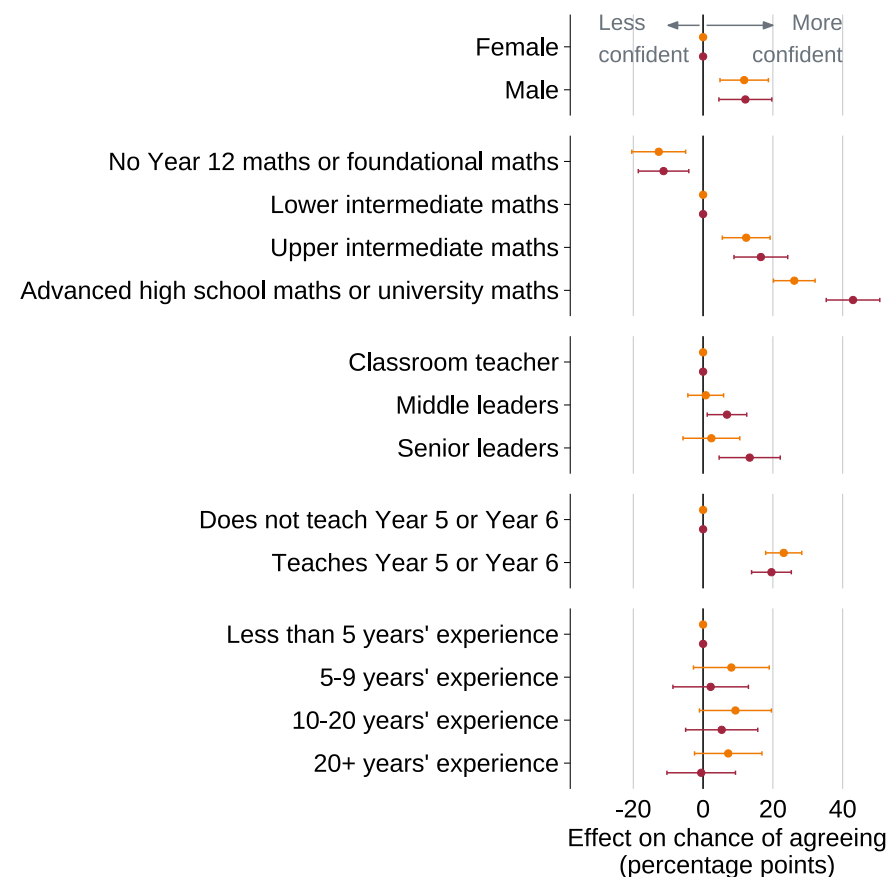
**Figure 4.7: Whether teachers studied maths in Year 12 and/or university**  
Proportion of respondents who selected each option



Notes: Total number of responses was 1,672. Percentages for Year 12 maths do not add to 100 per cent due to rounding.

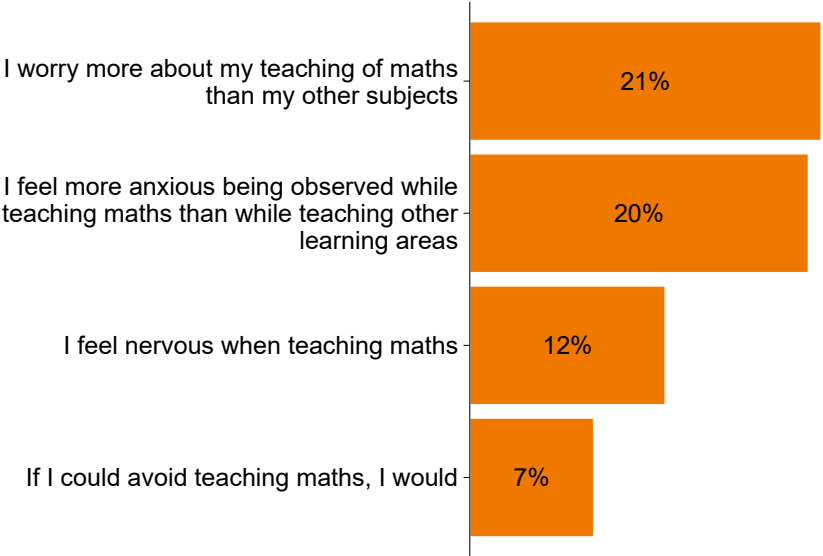
**Figure 4.8: Teachers' self-reported confidence teaching Year 6 and Year 7 and Year 8 maths, by key characteristics**

Effects of respondent's characteristics on percentage-point likelihood of agreeing or strongly agreeing, all else being equal



Notes: Coefficients are from a linear regression model predicting the likelihood of agreeing with the statements 'I would feel confident teaching topics from the Year 6 maths curriculum (e.g. negative numbers, decimals, fractions, the Cartesian plane)' and 'I would feel confident supporting high-achievers with topics from the Year 7 and Year 8 maths curriculum (e.g. algebra, factorisation,  $\pi$ /Pi, Pythagoras' theorem)'. Error bars show the 90 per cent confidence interval on the estimates.

**Figure 4.9: Teachers' nervousness about maths teaching**  
Proportion of respondents who agreed or strongly agreed with each statement



Note: Total responses to statements varied by statement between 1,604 and 1,617.

**Figure 4.10: Whether teachers worry more about teaching maths than other subjects, by teacher characteristics**

Effects of respondents' characteristics on percentage-point likelihood of agreeing or strongly agreeing, all else being equal

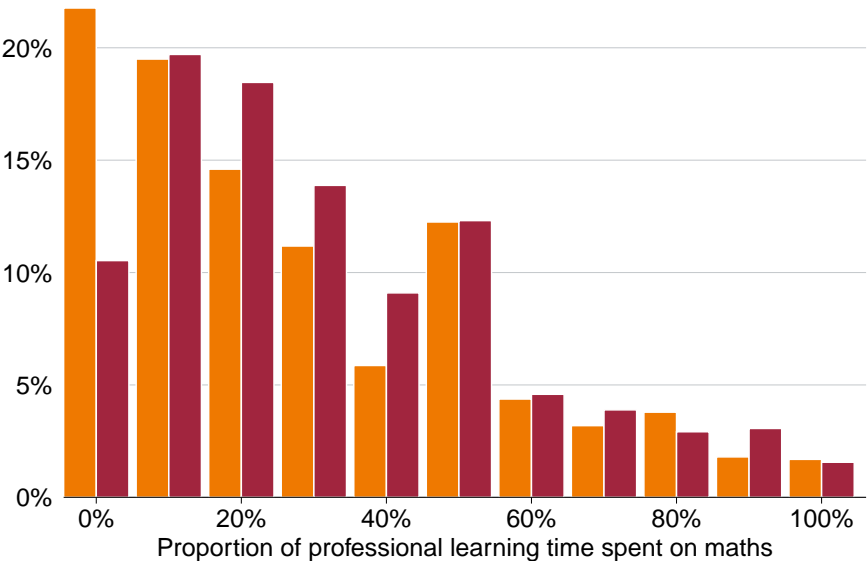


Notes: Coefficients are from a linear regression model. Error bars show the 90 per cent confidence interval on the estimates.

4.3 Your engagement in professional learning

Figure 4.11: The proportion of **externally-led** and **school-run** professional learning time spent on maths

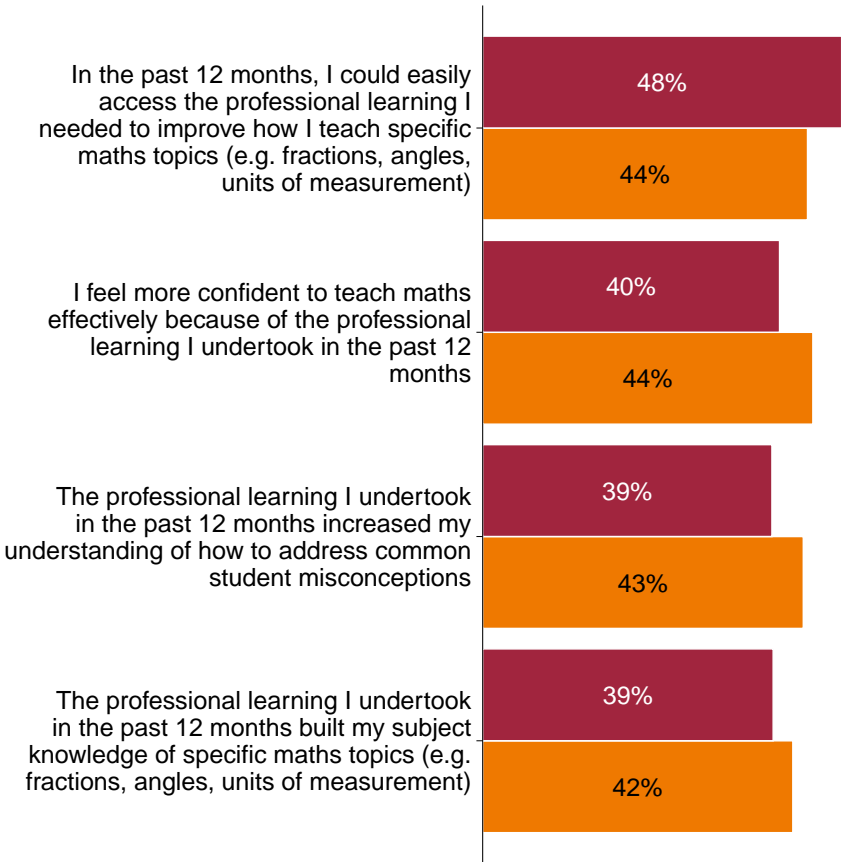
Proportion of teachers who selected each option



Note: Total responses to the questions on externally-led and school-run professional learning were 1,196 and 1,227 respectively.

Figure 4.12: Teachers' views on the quality of **school-run** and **externally-led** professional learning

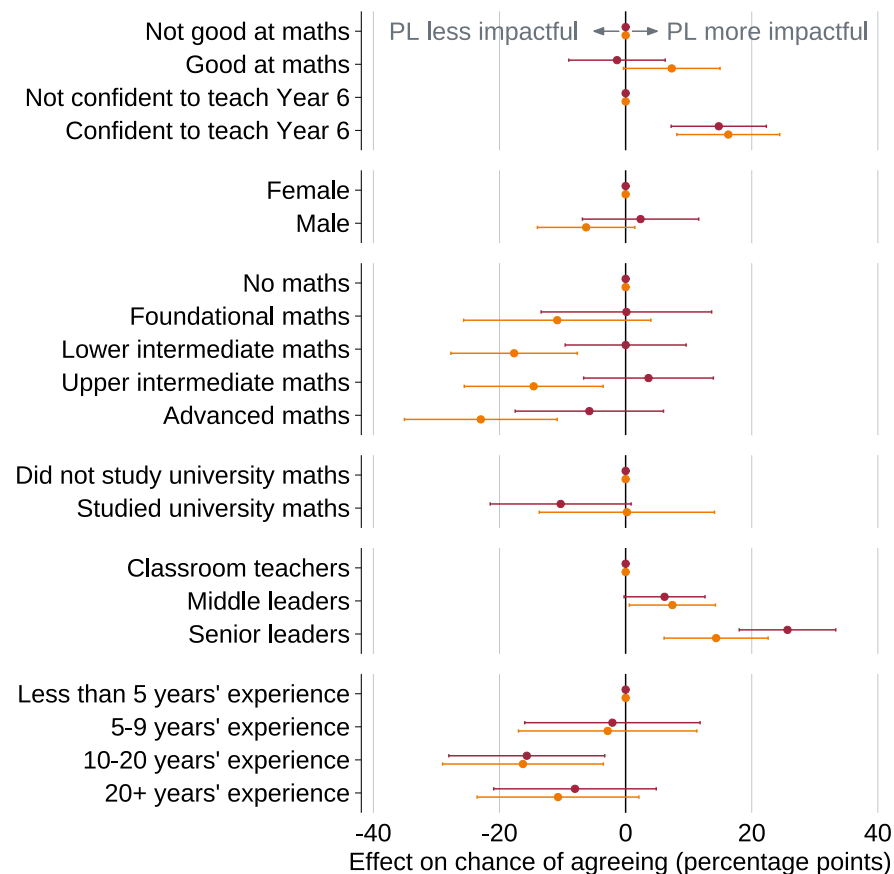
Proportion of teachers who agreed or strongly agreed with each statement



Note: Total responses to statements varied by statement between 1,178 and 1,371.

**Figure 4.13: Whether teachers felt more confident to teach maths effectively because of the **school-run** and **externally-led** professional learning they undertook in the past 12 months, by teacher characteristics**

Effects of respondents' characteristics on percentage-point likelihood of agreeing or strongly agreeing, all else being equal

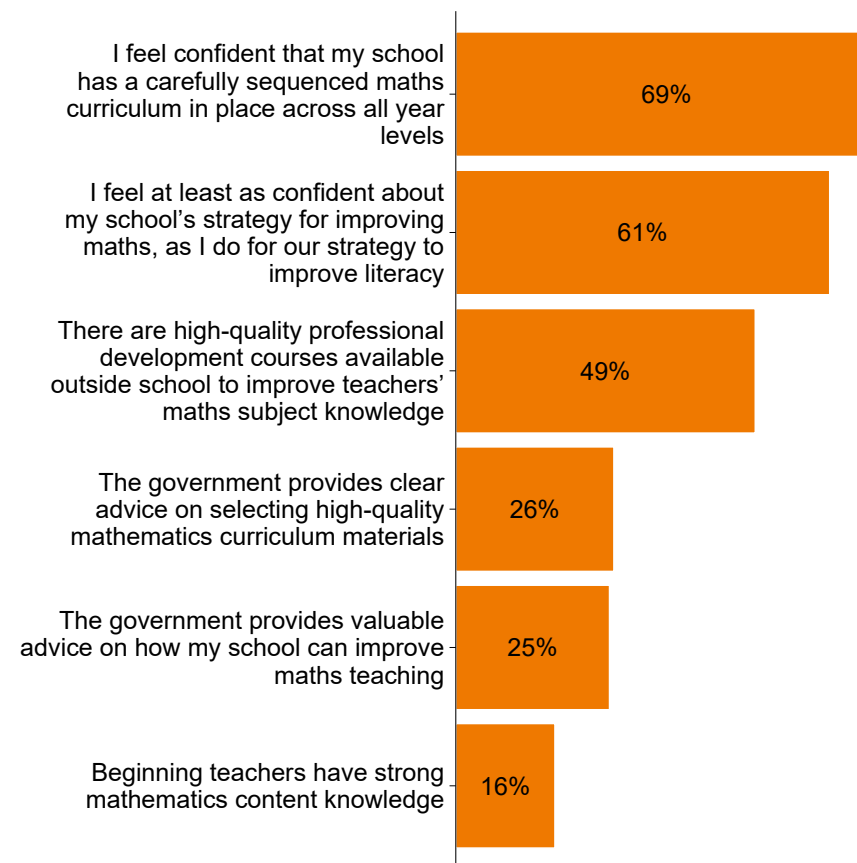


Notes: PL = Professional Learning. Coefficients are from a linear regression model. Error bars show the 90 per cent confidence interval on the estimates.

### 4.3.1 Your confidence leading maths improvement and your perspective on government support

**Figure 4.14: Leaders' confidence in leading maths improvement and perspectives on government support**

Proportion of leaders who agreed or strongly agreed with each statement



Notes: Total responses to statements varied by statement between 709 and 727.



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