

Report on Teacher Shortages

The 2018 AGM carried the following motion:

"That this AGM call on Council to investigate and report on the level of teacher number shortages across all sectors including supply teachers and the critical level of shortage in certain subject/geographical areas."

Background

1. This report is an outcome of the 2018 AGM Resolution set out above.
2. The current teacher shortage in Scotland has been well reported in recent years. It was initially perceived as being a shortage in certain geographical areas (such as the North East of Scotland) and limited certain subject areas (such as STEM subjects). The report explores whether shortages are now wider in scale in terms of subject areas and geographical area.
3. Gayle Gorman, Chief Executive of Education Scotland, stated to a recent Parliamentary Education & Skills Committee¹ that:

"We recognise that, where there are teacher shortages, there has been a reduction in the curriculum—that is what our evidence-based inspection shows. That is happening sporadically throughout the country, but predominantly around the edges."

4. This report sought and obtained the views of EIS reps via an online survey in order to determine the scale and effects of teacher shortages in their schools. The Teachers Census was examined, also, in order to identify any trends in the numbers of subject teachers and pupil numbers since 2010 and their potential implications on future teacher shortages.

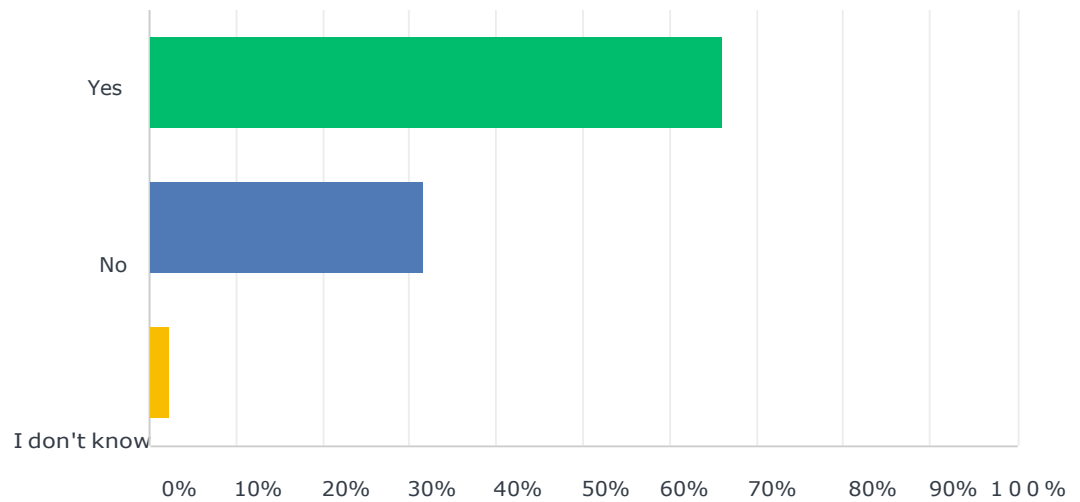
Section 1: Survey of Reps

5. In May 2019, all school EIS reps were surveyed using the online SurveyMonkey platform and were asked three groups of questions – the impact of local authority budget cuts was the third group of questions.
6. The survey was issued to around 1880 school reps: 566 responded to the survey. This is a response rate of 30% which gives a statistically valid result: 68% of respondents were primary teachers, 24% secondary teachers and others were special schools or primary/secondary schools.

¹ <http://www.parliament.scot/parliamentarybusiness/report.aspx?r=12044&mode=pdf>

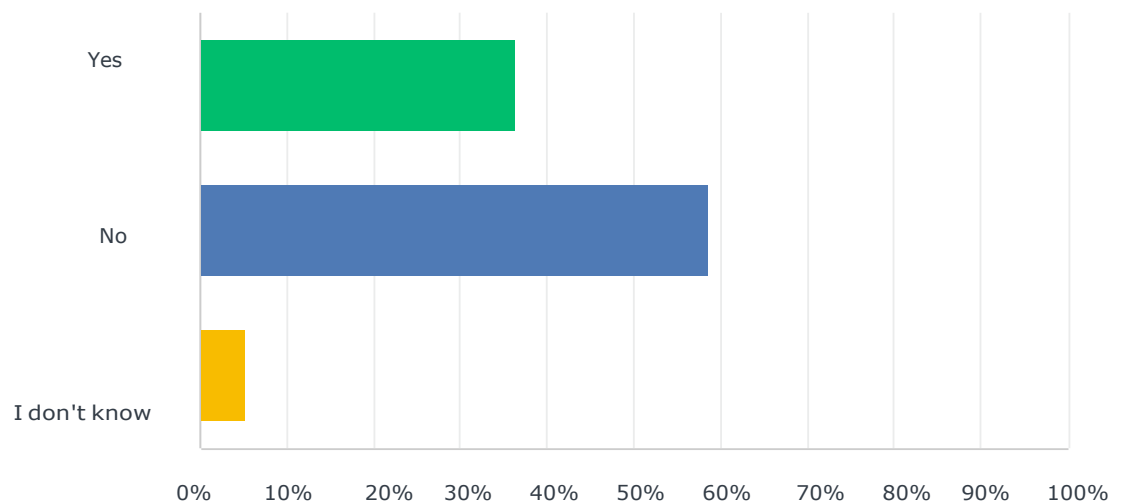
Section 2: Survey Responses

7. Question 1: "Has your school been affected by a teacher shortage?"



ANSWER CHOICES	RESPONSES
Yes	66.20%
No	31.60%
I don't know	2.20%

8. Question 2: "Are there currently any unfilled teacher posts within your school?"



ANSWER CHOICES	RESPONSES
Yes	36.33%
No	58.48%
I don't know	5.19%

9. Question 2 then asked, "If you work in a secondary school, which subjects are (or have been) unfilled?"

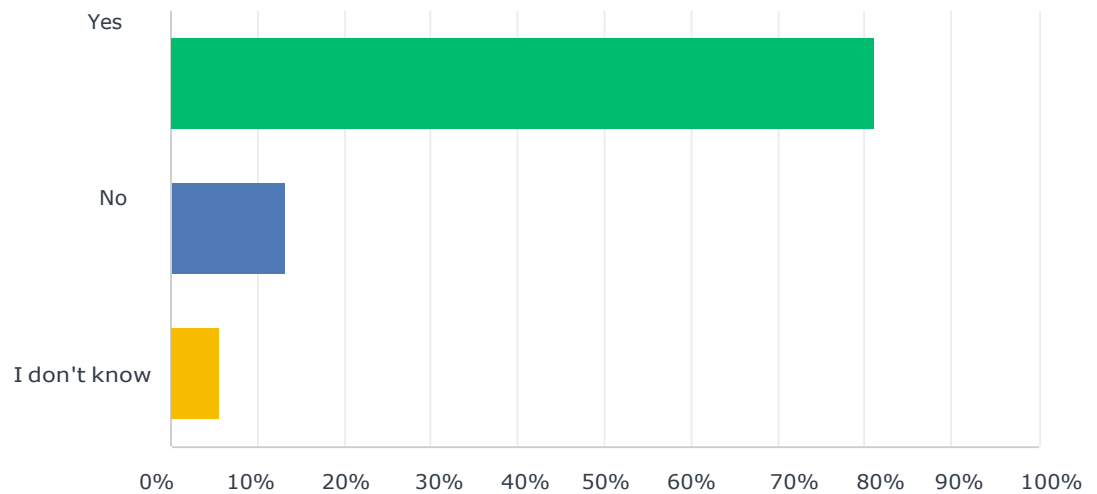
Eighty-seven (87) school reps responded to this open question and the subjects listed as being unfilled are set out in Table 1 below.

Table 1: Ranked Table of Unfilled Subject Teacher Posts Given by School Reps

Maths	34	ASN/SfL	5
English	28	Business	4
Home Economics	27	Geography	4
Technology	25	RE	3
Science	9	History	2
Physics	10		
Biology	2		
Chemistry	1 (Total 22)		
Computers	12	Modern Studies	2
Music	9	PE	2
Modern Foreign Languages	8	Drama	1
Art	5	Gaelic	1

10. Table 1 shows the number of unfilled subject teacher posts identified by EIS representatives in April 2019. It is acknowledged that this is a snapshot of unfilled posts taken at one point of time.
11. Some representatives also made comments in response to Question 2 and a selection is copied below as illustrative examples:
- i. *"I do not work in a secondary school but wish to point out that the only reason we have not been affected by teacher shortage or unfilled posts, is that we have two retired members of staff willing to provide cover"*
 - ii. *"No posts currently unfilled because the school got fed up advertising and re-advertising them (especially home economics) and the pupils were reallocated different areas within the curriculum"*
 - iii. *"Staff absence has meant we are short several posts..."*
 - iv. *"I know that in the English and ICT department, classes have been rotated because of subject specialist shortages. I also know that for several weeks pupils had no maths teacher"*
 - v. *"Maternity leave not covered"*

12. Question 3: "Has your school been unable to obtain supply cover for any period over the last 3 years?"



ANSWER CHOICES	RESPONSES
Yes	81.12%
No	13.25%
I don't know	5.62%

Section 2: Pupil:Teacher Ratios

13. The Scottish Government annually publishes² an annual pupil census, annual teacher census, early learning and childcare data, attendance and absence data and exclusions data. This information allows the number of subject teachers to be tracked between 2010 and 2018 in order to identify any trends in how staffing has changed over the period.

14. Table 3.9 in the 2018 Teacher Census and data from this has allowed the EIS to compile Table 2 showing the number of subject teachers per year from 2010 to 2018 inclusive.

² <https://www2.gov.scot/Topics/Statistics/Browse/School-Education/Datasets>

Table 2: Number of Subject Teachers in Secondary Schools drawn from the Teachers Census

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Number of Secondary Teachers – All Subjects	23,177	22,571	22,460	22,188	21,925	21,590	21,528	21,707	21,861
English	2,794	2,678	2,636	2,590	2,537	2,509	2,466	2,483	2473
French	952	900	860	826	780	744	716	722	688
German	166	153	152	136	128	118	106	100	90
Spanish	78	71	71	93	96	96	95	107	119
Gaelic	59	60	61	60	61	59	60	57	58
Italian	10	11	10	8	8	9	7	6	9
English as an Additional Language	39	32	10	9	7	5	4	5	6
Community Languages	7	8	7	6	6	5	4	5	5
Other Modern Languages	280	286	299	276	300	313	339	354	378
Classical Studies	21	13	12	11	9	10	8	7	7
Mathematics	2,644	2,533	2,504	2,441	2,403	2,350	2,331	2,361	2364
Biology	1,162	1,157	1,169	1,190	1,179	1,165	1,183	1,153	1213
Chemistry	936	928	935	935	937	932	942	982	948
General Science	143	141	143	116	129	128	131	136	144
Physics	868	850	837	822	823	807	814	826	806
Economics	8	6	6	5	5	6	6	3	3
Geography	780	758	760	752	755	750	755	776	755
History	820	817	833	848	865	843	872	887	897
Religious Education	658	665	660	662	660	649	611	620	618
Modern Studies	545	535	520	542	533	525	553	572	595
Media Studies	13	10	11	12	13	11	11	9	13
Business Studies	914	878	881	853	826	821	823	832	861
Computing Studies	699	675	660	649	636	601	594	582	595
Home Economics	910	898	877	871	846	826	786	777	758
Technical Education	1,316	1,305	1,311	1,297	1,277	1,237	1,237	1,245	1225
PSE/Guidance	458	481	508	546	510	517	515	515	498
Art	1,133	1,108	1,121	1,110	1,058	1,063	1,053	1,071	1092
Music	871	862	886	890	895	876	898	891	912
Physical Education	1,711	1,704	1,726	1,735	1,755	1,754	1,796	1,805	1844
Speech and Drama	361	371	370	377	377	383	391	403	409
Learning Support	1,026	941	942	952	811	787	802	821	836
Additional Support Needs: general	165	149	135	130	135	137	131	124	132
Behavioural support	126	110	98	95	93	90	81	71	74
Learning difficulties	195	202	186	154	162	174	159	160	168
Physical disabilities	12	15	14	12	12	7	4	5	7
Hearing impairment	27	27	22	23	21	26	25	28	27
Visual impairment	14	16	14	9	8	11	9	8	8
Other / not known	257	219	214	145	271	247	206	199	229

15. Table 2 shows the total number of secondary teachers falling from 2010 to 2017 and then rising slightly in 2018. The number of secondary pupils mirrors this trend.

Table 3: The Pupil-Teacher ratio for the secondary sector using information from the Teacher Census (2018)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Total Secondary Pupils	301,007	297,109	293,592	289,164	284,762	281,939	280,963	281,993	286,152
Total Secondary Teachers	24,766	24,241	23,980	23,695	23,401	23,059	22,957	23,150	23,317
Pupil Teacher Ratio for Secondary Sector	12.1	12.3	12.2	12.2	12.2	12.2	12.2	12.2	12.3

16. The EIS representatives' survey allows identification of the 5 secondary school subjects most frequently reported as unfilled (i.e. Table 1).

17. Table 4 below uses Teacher Census data to calculate Pupil-Teacher ratios for each these 5 secondary subjects. This is done by dividing the number of secondary pupils (Table 3) by the number of secondary school subject teachers (Table 2).

Table 4: Pupil-Subject Teacher Ratios in Secondary Schools for Shortage Subjects (2010 to 2018) inclusive.

	2010	2012	2013	2014	2015	2016	2017	2018
Pupil-Maths Teacher ratio	113.8	117.2	118.4	118.5	119.9	120.5	119.4	121.0
Pupil-English Teacher ratio	107.7	111.3	111.6	112.2	112.3	113.9	113.5	115.7
Pupil-HE Teacher ratio	330.8	334.7	331.9	336.5	341.3	357.4	362.9	377.5
Pupil-Technology Teacher ratio	228.7	223.9	222.9	222.9	227.9	227.1	226.5	233.6
Pupil-Physics Teacher Ration	346.8	350.7	351.7	346.0	349.3	345.1	341.4	355.0

18. Whilst, the overall Pupil-Teacher ratio in secondary schools has only marginally increased – the national Pupil-Teacher ratio has increased substantially for the subjects that EIS reps have identified as being shortage subjects – English, Maths, Technology Home Economics and Physics.

19. Higher Pupil-Teacher ratios for specific subjects indicate unfilled subject teacher posts within schools i.e. fewer teachers in those subjects. For subjects

of large departments in secondary schools, such as Maths and English, the effect of being one teacher short could lead to larger class sizes/fewer classes and bi-level teaching where 2 examination courses are taught simultaneously within one class.

20. For small department subjects, such as Home Economics - where the Home Economics teacher may be the sole subject teacher - the effect of having one teacher short could lead to that subject not being offered at all at examination level.

Section 3: Pupil & Teacher Number Trends

21. The Scottish Government, employers and the EIS conduct workforce planning in order to anticipate future teacher demand and to plan changes in the workforce. Such plans can include; more ITE places, increased flexible working for teachers (e.g. part-time working), increasing the attractiveness of the profession relative to others (pay, conditions of service, workload etc) and recruitment campaigns.

Table 5: Pupil & Teacher Numbers for Primary & Secondary Sectors

	2010	2011	2012	2013	2014	2015	2016	2017	2018
No of Primary Pupils	365,326	366,429	370,680	377,382	385,212	391,148	396,697	400,312	400,276
No of Primary Teachers	19,797	19,504	19,659	19,944	20,153	20,668	21,252	21,893	22,354
No of Secondary Pupils	301,007	297,109	293,562	289,164	284,762	281,939	280,983	281,993	286,152
Total Secondary Teachers	24,766	24,241	23,980	23,695	23,401	23,059	22,957	23,150	23,317

22. Table 5 shows increasing pupil numbers between 2011 and 2017, which led to a corresponding increase in primary school teachers in order to maintain class sizes and Pupil-Teacher ratio.
23. The increase ('bulge') in primary school pupils between 2011-17 has already begun to move to the secondary school sector – as can be seen by the increase in secondary pupils in 2018. If the primary pupil 'bulge' moves through the secondary sector in a similar manner, then the secondary sector is likely to see a further five years of annual pupil number growth.

24. Without effective workforce planning, the current teacher shortage in the secondary sector – especially in the subjects identified - risks being exacerbated by potential future increases in secondary pupil numbers.

Conclusions

25. It is clear from the survey of EIS reps that most schools have been affected by the shortage of teachers. A third of school reps reported that their school had an unfilled post during the three-week period that the survey was open.
26. The EIS survey shows that over 80% of representatives' responses state that their school has been unable to obtain supply cover during the last 3 years.
27. These findings suggest that teacher shortages are systematic rather than sporadic and would appear to be more prevalent than simply "around the edges" of Scotland.
28. The survey identified the following subjects as being the most difficult to fill in schools (in decreasing order): Maths, English, Home Economics, Technology and Science. An analysis of the Teacher Census showed that (for secondary schools) the Pupil-Teacher ratio for these subjects has shown greater deterioration than the overall Pupil-Teacher ratio over the same period. This shows that these posts have not been filled to the same extent as other posts during the period - creating some teacher shortages.
29. A probable increase in secondary pupil numbers means that the demand for secondary school teachers is likely to increase over the next few years in order to maintain capacity in the secondary school sector. Without effective workforce planning, the current teacher shortage in the secondary sector – especially in the subjects identified - risks being exacerbated by potential future increases in secondary pupil numbers.

Recommendation

1. That the Executive Committee note this report and use it to inform the Time to Tackle Workload Campaign;
2. That further work on supply teachers and geographical aspects of teacher shortages be carried out to inform the Time to Tackle Workload.