

Great Teaching, Inspired Learning Beginning Teacher support evaluation report

Centre for Education Statistics and Evaluation



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Contents

List of abbreviations	7
Executive summary	8
1. Background	11
2. GTIL actions targeting beginning teachers	12
3. Methods	15
4. Evaluation findings	17
4.1 Need for support by early career teachers	17
4.2 Strengthened induction for beginning teachers	19
4.3 Beginning teacher support funding for permanent beginning teachers	22
4.3.4 Release time in second year of permanent appointment	31
4.3.5 Impact of support in second year of permanent appointment	33
4.3.6 Improving support for beginning teachers	34
4.4 Teacher Mentor (temporary teacher support) program	36
4.4.1 Mentoring	37
4.4.2 Limitation of Teacher Mentor program	41
4.4.3 Impacts of the Teacher Mentor program	41
5. Discussion	43
5.1 Findings to date	43
5.2 Concluding comments	46
6. References	47

Appendix A: Teacher Mentor (temporary teacher support) schools – 2014 and 2015	48
Appendix B: School principal survey	50
Appendix C: Permanent beginning teacher survey – year 1	55
Appendix D: Permanent beginning teacher survey – year 2	63
Appendix E: Temporary beginning teacher survey	68
Appendix F: Focus on Learning Teacher Survey	74
Focus on Learning teacher survey	75
Appendix G: Statistical analyses	75
The impact of beginning teacher support funding on areas of teaching practice	76
The impact of beginning teacher support funding on teacher confidence	80
The impact of Teacher Mentors on TBT retention	82

List of Tables

Table 1: The four release stages of the Strong start, Great teachers resource	12
Table 2: Funding by school year: first year BTSF payments	13
Table 3: Funding by school year: second year BTSF payments	13
Table 4: Online surveys	15
Table 5: Sources of administrative data	16
Table 6: Differences in ratings for drivers of student learning between permanent teachers with two years or less teaching experience and those with more than two years' teaching experience, by year	17
Table 7: Differences in ratings for drivers of student learning between temporary or casual teachers with two years or less prior teaching experience and those with more than two years' teaching experience, by year	18
Table 8: Differences in ratings for drivers of student learning between temporary or casual teachers and permanent teachers with two years or less prior teaching experience, by year	18
Table 9: Relative impacts of support for 2014-2015 and 2013 PBTs in areas of teaching practice	27
Table 10: Teacher Mentor schools 2014 and 2015	48
Table 11: Survey respondents and response rates, by school location	53
Table 12: Number of schools by type of school and location	53
Table 13: Population characteristics and sample characteristics: School type and school location	54
Table 14: Sample characteristics: School type and school location	61
Table 15: Employment characteristics of sample	61
Table 16: Teaching experience in other sectors	62
Table 17: Sample and population characteristics: School type and school location	67
Table 18: Employment characteristics of sample	67
Table 19: Sample and population characteristics by school type and location	73
Table 20: Proportional odds ratios of 2014-2015 PBTs reporting a higher impact of support received in the first year of their permanent appointment than 2013 PBTs	77
Table 21: Proportional odds ratios of 2014-2015 PBTs with two years or less prior teaching experience reporting a higher impact of support received in the first year of their permanent appointment than those with more than 2 years prior teaching experience	77
Table 22: Proportional odds ratios of 2014-2015 PBTs accredited at Conditional or Provisional reporting a higher impact of support received in the first year of their permanent appointment than those accredited at Proficient upon commencement	78
Table 23: Proportional odds of 2014 PBTs with two years or less teaching experience prior to their appointment reporting a higher impact of support than PBTs with more than two years teaching experience prior to their appointment	78
Table 24: Proportional odds ratios of TBTs at schools with a Teacher Mentor compared with 2014-2015 TBTs at schools with no dedicated Teacher Mentors on the impact of support received on aspects of teaching	79
Table 25: Coefficients of the predicted average marginal effects of confidence ratings at completion of one year of teaching, accounting for commencement confidence ratings by analysis type	81

List of Figures

Figure 1: Induction support provided to beginning teachers.....	19
Figure 2: Use of Strong start, Great teachers resource, by school type.....	20
Figure 3: Helpfulness of SSGT in supporting aspects of teaching practice.....	21
Figure 4: Average total hours of overall release time received by PBTs in the first year of their permanent appointment.....	22
Figure 5: Regularity of PBTs' release time in first year of appointment.....	22
Figure 6: Average hours of BTSF release time received by 2014-2015 PBTs, by years of experience.....	23
Figure 7: Average hours of mentoring received by 2013 and 2014-2015 PBTs during the first year of their appointment.....	25
Figure 8: Probability of confidence rating for PBTs at commencement and at completion of the first year of their appointment by year of commencement.....	28
Figure 9: Probability of confidence rating for 2014-2015 PBTs at commencement and at the completion of their first year of appointment by level of prior teaching experience.....	29
Figure 10: Probability of confidence rating for 2014-2015 PBTs at commencement and at the completion of their first year of appointment by level of accreditation (n=1,291).....	30
Figure 11: Average hours of overall release time received by 2013 and 2014 second year PBTs.....	31
Figure 12: Average hours of BTSF release time received by 2014 second year PBTs, by years of experience.....	31
Figure 13: Probability of confidence rating for PBTs at the completion of their second year of their appointment by year of commencement (n=918).....	33
Figure 14: Probability of confidence rating for PBTs with two years or less experience at the completion of their second year of their appointment by year of commencement (n=353).....	34
Figure 15: Temporary beginning teacher support needs at commencement of appointment.....	36
Figure 16: Percentage of temporary beginning teachers who received mentoring in 2014 or 2015.....	37
Figure 17: Types of mentoring support for temporary beginning teachers.....	38
Figure 18: The frequency of mentoring received by temporary beginning teachers.....	39
Figure 19: Types of activities conducted with Teacher Mentors.....	40

List of abbreviations

AITSL	Australian Institute for Teaching and School Leadership
BOSTES	Board of Studies Teaching and Educational Standards
BTSF	Beginning Teachers Support Funding
CESE	The Centre for Education Statistics and Evaluation
GTIL	Great Teaching, Inspired Learning: A Blueprint for Action
MCEETYA	Ministerial Council on Education, Employment, Training and Youth Affairs
NAPLAN	National Assessment Program – Literacy and Numeracy
PBT	Permanent Beginning Teacher
PDP	Performance and Development Plan
SSGT	Strong start, Great teachers.
SSP	Schools for Specific Purposes
TAA	Teacher Accreditation Authority
TBT	Temporary Beginning Teacher

Executive summary

Great Teaching, Inspired Learning (GTIL) is the NSW Government's plan to improve the quality of teaching in NSW schools. This evaluation report focuses on key reforms under GTIL designed to support teachers at the beginning of their careers. Specifically, the evaluation examines GTIL actions 6.1 and 6.2 which encompass induction for all beginning teachers, and 7.1 and 7.2 which encompass mentoring and release time for permanent beginning teachers and temporary beginning teachers.

Release time and mentoring for permanent beginning teachers

Under the Beginning Teacher Support Funding policy, schools are funded to provide teachers with an additional two hours of release time and one hour of mentoring per week from an experienced colleague in the first year of their first permanent appointment in a NSW government school. In the second year of permanent appointment an additional one hour of release time with no additional funding for mentoring is provided.

According to self-reported surveys, first year permanent beginning teachers in 2014 and 2015 received more overall release time than permanent beginning teachers in 2013, prior to GTIL, (54 cf. 30 hours per year) and more regular release time. However, the amount of overall release time received by first year permanent beginning teachers in 2014 and 2015 is still substantially less than what they are eligible for under the Beginning Teacher Support Funding policy alone (approximately 80 hours per year). When asked about Beginning Teacher Support Funding specific release time, first year permanent beginning teachers in 2014 and 2015 reported receiving an average of 37 hours per year which is just under half of their entitlement. The most release time is being received by less experienced teachers (two years or less teaching experience) and primary school teachers.

Similar to release time, first year permanent beginning teachers in 2014 and 2015 reported receiving more mentoring from an experienced colleague than first year permanent beginning teachers in 2013 (22 cf. 16 hours per year). Again, first year permanent beginning teachers with two years or less prior teaching experience received more mentoring than more experienced first year permanent beginning teachers (24 cf. 20 hours per year), although this is still around half of the 40 hour per year entitlement under the Beginning Teacher Support Funding policy. Aligned with the intent of providing mentoring, first year permanent beginning teachers in 2014 and 2015 reported receiving significantly higher levels of assistance than 2013 first year permanent beginning teachers across a number of areas of teaching practice including 'using the Australian Professional Standards for Teachers (the Standards) for reflective practice', 'differentiating teaching to student needs', 'providing feedback to students', and 'using student data to guide practice'. First year permanent beginning teachers also reported undertaking lesson observations and team or co-teaching with their mentors.

In the second year of their permanent appointment, permanent beginning teachers still reported receiving around half of the release time they are entitled to under the Beginning Teacher Support Funding policy (approximately 21 hours per year) and were more likely to take the time in accumulated blocks rather than regularly. Permanent beginning teachers that had two years or less teaching experience prior to the start of their permanent appointment did not report receiving more second year Beginning Teacher Support Funding release time than more experienced permanent beginning teachers.

A key finding regarding the use of second year release by permanent beginning teachers was that although it was commonly used for self-guided professional learning, 64 per cent of recipients reported using some of it for general administrative tasks. This suggests that either appropriate provisions are not being made by all schools to allow permanent beginning teachers to use second year Beginning Teacher Support Funding release time as intended or that permanent beginning teachers themselves do not value the release time as much in their second year as they do in their first year. It could also be that the accompanying provision of mentoring support adds more structure around the use of Beginning Teacher Support Funding release time.

Principals reported that the main barrier to providing additional release time and mentoring for permanent beginning teachers has been finding and timetabling regular relief to cover classes for both permanent beginning teachers and mentors. This is particularly an issue when teachers were appointed later in the year after timetables for the year are set.

Compared to the support received by permanent beginning teachers in 2013, the mentoring and release time for permanent beginning teachers in 2014 and 2015 received in the first year of their appointment appear to be having a self-reported positive impact on developing key areas of teaching practice aligned to the Standards and their confidence to teach. The greatest benefits appear to be for first year permanent beginning teachers with less than two years prior teaching experience and those who have not yet attained Proficient Teacher accreditation. At this point there is no evidence that the equivalent of one hour weekly Beginning Teacher Support Funding release time in a teachers' second year is having the same impacts.

Given that first year permanent beginning teachers are reporting benefits of the increased release time and mentoring, but are reporting receiving about half their entitlement on average, consideration should be given to what can be done to increase average release time and mentoring for first year permanent beginning teachers. Given the lack of evidence for benefits for second year permanent beginning teachers, consideration should also be given to whether the release time can be made more beneficial and if not, whether it should be continued. These questions will be examined in the later report on beginning teacher support.

Teacher Mentor (temporary teacher support) program

The Focus on Learning teacher survey into the prevalence of seven evidence-based drivers of student learning in NSW government schools suggested that inexperienced temporary teachers have similar support needs to inexperienced permanent teachers. Furthermore, more than half of the temporary beginning teachers surveyed in 2014 and 2015 indicated that when they began their appointment they needed moderate or considerable support in a range of teaching areas aligned to the Standards.

Eight Teacher Mentors were deployed across 39 schools in 2014 and 47 schools in 2015 under GTIL to provide mentoring support at schools with high numbers of temporary beginning teachers. Based on survey responses, temporary beginning teachers at schools supported by a Teacher Mentor were more likely to report receiving mentoring, and more regular mentoring, than temporary beginning teachers at the same schools in 2013 and across other schools in 2014. However, this difference disappeared by 2015 suggesting that there has been an increased system-wide focus on mentoring temporary beginning teachers in 2015. The reasons for this are unclear but could relate to schools broadening the use of Beginning Teacher Support Funding for permanent beginning teachers and the increased focus on accreditation under GTIL.

Aligned with the primary intent of the Teacher Mentor role, temporary beginning teachers reported receiving the most support from Teacher Mentors around demonstrating practice against the Standards, and identifying and preparing evidence for submissions to attain Proficient accreditation. This explains the fact that the only significant temporary beginning teacher-reported impact of mentoring by Teacher Mentors relative to models of support provided to temporary beginning teachers at other schools is around preparing for accreditation, with no differential increase in confidence to teach or retention in NSW government schools.

Induction support for beginning teachers

Surveys of principals suggest that only one-third of schools are using the Strong start, Great teaching resource to support the induction and mentoring of beginning teachers. Strong start, Great teaching was developed under actions 6.1 and 6.2 of GTIL to support schools to align the support they provide beginning teachers to best practice and the Standards. Of those principals whose schools that have used the Strong start, Great teaching resource, the majority found it helpful, suggesting that broader promotion of the resource and its benefits is required.

Concluding comments

Overall the findings presented in this report confirm previous findings from an early evaluation of beginning teacher support conducted by CESE in 2015. This led to revisions to the policy around eligibility for Beginning Teacher Support Funding release time and mentoring from April 2016, such that release time and mentoring is now only available for permanent beginning teachers with less than two years prior teaching experience and who are yet to be accredited at Proficient. From Term 1 in 2017 two hours of release time and one hour of mentoring will also be expanded to temporary beginning teachers on a one year contract with less than two years prior teaching experience and who are yet to be accredited at Proficient.

1. Background

Great Teaching, Inspired Learning (GTIL) is one of several education reforms currently being implemented in NSW. GTIL sets out 16 reform areas comprising 47 actions which span the career cycle of a teacher, from initial teacher training and induction for beginning teachers, recognising and supporting experienced teachers, to school succession planning and support for new and established school leaders. Some actions are the responsibility of the Board of Studies Teaching and Educational Standards (BOSTES), others by the three education sectors.

GTIL complements a set of initiatives that contribute to the Government's broader reform agenda, including: *Local Schools, Local Decisions; the Rural and Remote Education Blueprint; Quality Teaching, Successful Students; Every Student, Every School; the Literacy and Numeracy Action Plan; and Connected Communities.*

The Centre for Education Statistics and Evaluation (CESE) is undertaking an evaluation of selected initiatives within GTIL. It focuses on the extent to which key reforms have been implemented, which of those reforms are most important for achieving outcomes for students, aspects of the reforms that are working well, and aspects that could be improved. A primary aim of the evaluation is to determine whether there are identifiable improvements in the quality of teaching practices as a result of the initiatives being evaluated.

Scope

This report focuses on key GTIL reforms being implemented by the NSW Department of Education (the Department) that are designed to support teachers at the beginning of their careers. This includes mentoring and release time for permanent beginning teachers (PBTs) under the Beginning Teacher Support Funding (BTSF) policy and support for temporary beginning teachers (TBTs) with a focus on the Teacher Mentor (temporary teacher support) program. These reforms are outlined in more detail below.

2. GTIL actions targeting beginning teachers

Actions 6.1 and 6.2 — Strengthened induction for beginning teachers

Actions 6.1 and 6.2 state that the induction each permanent beginning and casual and short-term temporary beginning teacher receives will be strengthened to support their entry to the profession and to enhance their teaching skills.

The two key initiatives designed to support teacher induction are the online induction resource Strong start, Great teachers (SSGT), and professional learning courses available on a new platform called Teaching Standards in Action which was completed in December 2015.

All teachers, including casual and short-term temporary teachers will be able to access the SSGT online induction resources and registered professional learning courses from the Teaching Standards in Action resource with the support of their school. Only the SSGT resource is within the scope of this report. As such, Teaching Standards in Action is not discussed in this report, but can be addressed in the final report, once data is collected from teachers who have accessed the platform.

The SSGT resource¹ provides information, advice, guidance and ideas that can be used by schools to support school-based induction programs. The resource was progressively released between February 2014 and June 2015 as outlined below.

Table 1:

The four release stages of the Strong start, Great teachers resource

Phase	Details	Release date
1	Provides practical guides, advice, suggestions and planners to support beginning teachers and schools during the periods of initial contact, orientation and in the first weeks and first terms of teaching.	February 2014
2	Introduces the process of reflecting on practice through the lens of the Standards.	November 2014
3	Continues the process of reflecting on teaching through the Standards and explores the areas of questioning and feedback.	January 2015
4	Continues the process of reflecting on teaching through the Standards and explores the areas of differentiating learning and peer and self-assessment for students.	June 2015

Action 7.1 — Restructured teaching loads for beginning teachers supported by mentoring and collaborative practices

Action 7.1 states that the responsibilities or teaching loads for beginning teachers employed on a permanent (or long-term temporary basis) should be restructured so they can be supported by mentoring and collaborative practices.

Beginning Teachers Support Funding

From 2014, funding was provided to government schools to support PBTs for the initial two years of their first appointment. This includes Teacher Librarians, Careers Advisers and English as a Second Language tutors.

The first year of funding provides schools the equivalent of two hours per week release time for the beginning teacher and one hour per week release time for an experienced teacher to provide mentoring support. Second year funding is equivalent to one hour per week release time for the beginning teacher only. Teachers commencing a permanent appointment in 2013, or earlier, under the previous beginning teachers support funding policy received only one hour of release time in their first year and there was no additional funding for mentoring support.

¹ Available at www.ssgt.nsw.edu.au

Schools do not have to apply for BTSF; it is automatically distributed to all schools when eligible teachers commence. A memorandum describing the accountability processes for use of the funds was sent to principals on 10 June 2014. It specified that principals account for expenditure through the annual school report. Directors of Public Schools NSW must also verify that principals are using the funds against the following four conditions as part of their annual performance appraisal:

- Beginning permanent teachers have reduced responsibilities or teaching loads sufficient to support the development of their skills in the first year;
- Beginning permanent teachers are provided with ongoing feedback and support that is embedded in the collaborative practices of the school;
- Mentoring structures and collaborative practices support beginning permanent teachers within the school or across a cluster of schools, and any teacher mentors have access to specific training and flexibility in their teaching responsibilities to support classroom observation and provide structured feedback; and
- Beginning permanent teachers have access to professional learning that focuses on classroom and behaviour management, strategies to build student engagement, collaborative professional practices within the school and productive relationships with parents and caregivers.

Tables 2 and 3 outline total expended funding by school year and the number of teachers and schools supported.

Table 2:

Funding by school year:
first year BTSF payments

Source: Human Resources,
Department of Education,
July 2016

School year	Details \$m	Number of teachers	Number of schools
2014	27.6	2,132	1,001
2015	28.7	2,192	1,045
2016 (up to 30 June)	25.3	1,899	958

Note: these figures include additional and adjustment payments accounting for staff movements

Table 3:

Funding by school
year: second year BTSF
payments

Source: Human Resources,
Department of Education,
July 2016

School year	Details \$m	Number of teachers	Number of schools
2015	8.9	2,201	1,021
2016 (up to 30 June)	6.4	1,573	871

Teacher mentors (temporary teacher support)

Since 2014, eight Teacher Mentors positions have been established under GTIL to provide support to communities of schools with high numbers of temporary beginning teachers. The Teacher Mentor positions support communities of schools in the following locations:

- Bathurst
- Fairfield
- Gunnedah
- Holroyd
- Liverpool
- Tamworth
- Wagga Wagga
- Warringah

A list of school locations for 2014 and 2015 can be found at Appendix A. The locations of each of the Teacher Mentor positions were determined in consultation with Executive Directors, Public Schools NSW, by identifying schools with significant numbers of temporary beginning teachers in the early stages of their career.

A review of school locations was conducted around the end of the first year of the program, with the number of schools supported by the eight positions rising from 39 to 47 schools for 2015². Five of the original Teacher Mentors continued in their roles in 2015 with changes to mentors in the remaining three roles. In each location the Teacher Mentor position was attached to a base school.

Teacher Mentors are intended to support temporary beginning teachers (TBTs) to develop their teaching practice and to guide them through the process of identifying and submitting evidence to achieve Proficient accreditation. This includes engaging temporary beginning teachers in activities such as team teaching, lesson demonstration, classroom observation, reflection against the Australian Professional Standards for Teachers (the Standards) and critical evaluation of practice; and providing support for schools to strengthen their understanding of the Standards and developing sustainable structures to support temporary beginning teachers.

A key condition of the program has been the identification of exemplary practitioners to work as Teacher Mentors, selected via a locally managed merit selection process. Teacher Mentors are expected to demonstrate a deep understanding of the Australian Professional Teaching Standards and the process of achieving Proficient teacher accreditation.

² Six of the 2014 schools were removed and another 14 schools were added across the eight communities of schools in 2015.

3. Methods

The evaluation draws from a number of purposive and administrative data sources, outlined below. Statistical analyses using these data are described in the appendices.

Surveys

Surveys were conducted each year with principals, PBTs, TBTs and other teachers. Table 4 shows the administration schedules, numbers of respondents and response rates for each of these surveys. Survey instruments and details of the samples, including their representativeness to underlying populations, are described in appendices B to F.

Table 4:
Online surveys

Online Surveys	Date	Number of respondents	Response Rate
CESE annual principal survey	annually from Term 1, 2016	n=624 (n=387 metro, n=237 provincial, remote and very remote)	49.2%
Permanent beginning teacher survey, year 1	quarterly from Term 1, 2015	n=2,896 (6 terms)	51.3%
Permanent beginning teacher survey, year 2	quarterly from Term 1, 2016	n=987 (2 terms)	30.7%
Temporary beginning teacher survey	annually from Term 4, 2014	n=1,674 (2 years)	41.5%
Focus on Learning teacher survey	annually from 2014	n=29,100 (2 years)	

Interviews and focus groups

Semi-structured interviews and focus groups were conducted in November and December 2015 with more than 120 individuals across schools supported by Teacher Mentors (temporary beginning teacher support) in 2014 and/or 2015. This included:

- Temporary beginning and casual teachers: focus groups (n=90+ participants)
- Teacher Mentors 2014 & 2015: interviews (n=11)
- Principals: interviews & mini-groups (n=19)
- Directors, Public Schools NSW: interviews (n=5)

Lines of enquiry aimed to understand what support has been provided through the program, the impact of that support on teaching practices for program participants, which aspects of the program are working well and the elements that could be improved.

Document analysis

Documents and other reports were reviewed to monitor implementation and assist in the evaluation of GTIL. Documents analysed included: program, policy, regulatory and other strategy documents; periodic updates for the Minister; meeting minutes and briefings; documents related to key features of GTIL; media releases; relevant academic literature and conference proceedings; and workforce reports.

Table 5:

Sources of administrative data

Administrative data

This report draws from the following administrative data sources:

Data	Source	Notes
Teacher accreditation data	Human Resources Directorate, Department of Education	Teacher accreditation data collected by BOSTES was sourced from the Human Resources Directorate
Beginning teacher appointment data	Human Resources Directorate, Department of Education	Information from the Department's permanent and temporary employee databases
Teacher Mentor program	Human Resources Directorate, Department of Education	Information about the schools and staff involved in the Teacher Mentor (temporary teacher support) program

Statistical analyses

Statistical analyses including model specifications are described in Appendix G.

4. Evaluation findings

4.1 Need for support by early career teachers

The FoL survey was used to explore the self-reported prevalence of evidence-based drivers of student learning (Hattie, 2009) amongst permanent and temporary teachers with different amounts of self-reported teaching experience.

Table 6 shows that in both 2014 and 2015 permanent teachers with two years or less teaching experience report significantly lower scores on most measured drivers of student learning, with the exceptions of 'collaboration with colleagues' and 'using technology'.

Table 6:

Differences in ratings for drivers of student learning between permanent teachers with two years or less teaching experience and those with more than two years' teaching experience, by year

Source: Focus on Learning teacher survey

Drivers of student learning	Teachers with two years or less experience	
	2014 (n=10,564)	2015 (n=9,228)
Collaboration with colleagues	●	▲
Learning culture	▼	▼
Teaching strategies	▼	▼
Data informs practice	▼	▼
Technology	●	▼
Inclusive school	▼	▼
Parent involvement	▼	▼

- ▲ Mean scores are higher and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- ▼ Mean scores are lower and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- Mean scores are not statistically different from teachers with greater than two years' experience.

Similarly, Table 7 shows that temporary or casual teachers with two years or less teaching experience reported significantly lower scores than more experienced temporary teachers on most of the measured drivers of student learning with the exception of 'collaboration with colleagues' and 'using technology'.

Table 7:

Differences in ratings for drivers of student learning between temporary or casual teachers with two years or less prior teaching experience and those with more than two years' teaching experience, by year

Source: Focus on Learning teacher survey

Drivers of student learning	Teachers with two years or less experience	
	2014	2015
Collaboration with colleagues	▲	▲
Learning culture	▼	▼
Teaching strategies	▼	▼
Data informs practice	▼	▼
Technology	●	●
Inclusive school	▼	▼
Parent involvement	▼	▼

- ▲ Mean scores are higher and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- ▼ Mean scores are lower and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- Mean scores are not statistically different from teachers with greater than two years' experience.

Table 8 compares the mean reported scores for each driver of student learning between temporary and casual teachers with two years or less experience and permanent teachers with two years or less experience. In both 2014 and 2015 there were no significant differences between the two groups of teachers with the exception of 'using technology' in both years and 'collaboration with colleagues' in 2014.

Table 8:

Differences in ratings for drivers of student learning between temporary or casual teachers and permanent teachers with two years or less prior teaching experience, by year

Source: Focus on Learning teacher survey

Drivers of student learning	Teachers with two years or less experience	
	2014	2015
Collaboration with colleagues	▼	●
Learning culture	●	●
Teaching strategies	●	●
Data informs practice	●	●
Technology	▼	▼
Inclusive school	●	●
Parent involvement	●	●

- ▲ Mean scores are higher and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- ▼ Mean scores are lower and statistically significantly different from teachers with greater than two years' experience ($p < .05$).
- Mean scores are not statistically different from teachers with greater than two years' experience.

Together these data confirm that teachers with two years or less of prior teaching experience, irrespective of their employment status, are the ones requiring the most support to improve their teaching practice.

4.2 Strengthened induction for beginning teachers

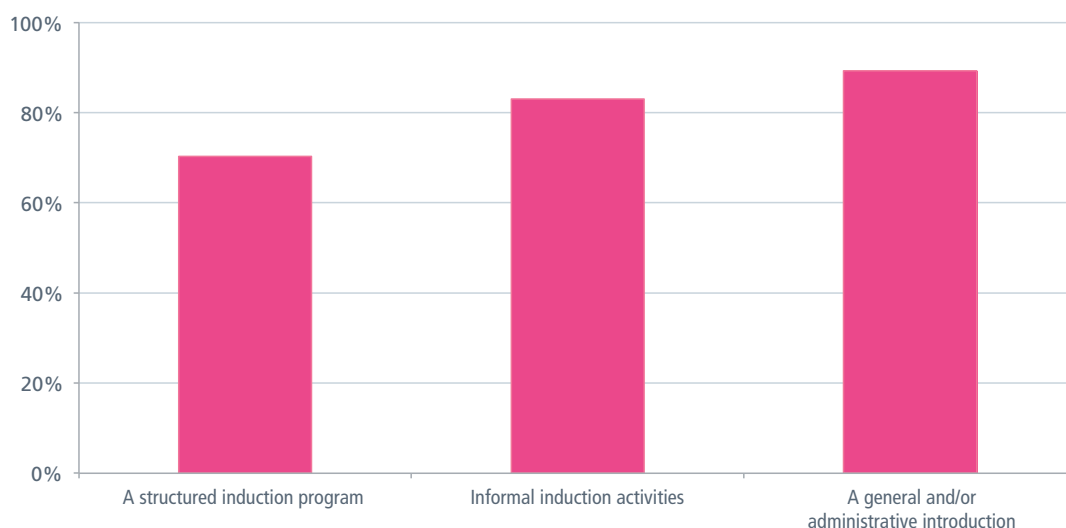
4.2.1 Induction for beginning teachers

Principals were asked what induction support is provided for beginning teachers at their school. Figure 1 shows that the majority of respondents indicated that their school offered a structured induction program (70%), informal induction activities (83%), and a general or administrative introduction to the school (89%)³.

Figure 1:

Induction support provided to beginning teachers

Source: Principal survey, 2016



Secondary schools (85%) are more likely to offer a structured induction program than primary schools (65%), as were metropolitan schools (75%) compared to non-metropolitan schools (57%) (data not shown).

All 2014-2015 PBTs were asked in surveys to identify improvements to the induction they received in the first year of their permanent appointment. Of those that responded (n=398), nearly one in five reported they did not receive a structured induction supporting the findings from the survey of principals. Another 12 per cent indicated that they did not require an induction due to prior teaching experience acquired as a casual or temporary teacher but a number suggested that they would have valued this when starting their teaching career. Just over twenty percent of respondents indicated that they would have valued a complete and thorough induction to teaching and to the school upon entry to the profession. Many of these teachers reported that their induction was ad hoc and unstructured. This included a number who reported that they were not provided with or made aware of things such as Departmental and school-based policies and procedures, information about the school and community or a description of staff roles in the school.

³ The introduction to this question in the principals' survey stated that teacher induction refers to professional learning support during the first 2 years of a teacher's career, or after a period of absence from teaching, or retraining in a new subject area, or starting at a new school. It may encompass structured and informal methods to reflect on and develop teaching practice.

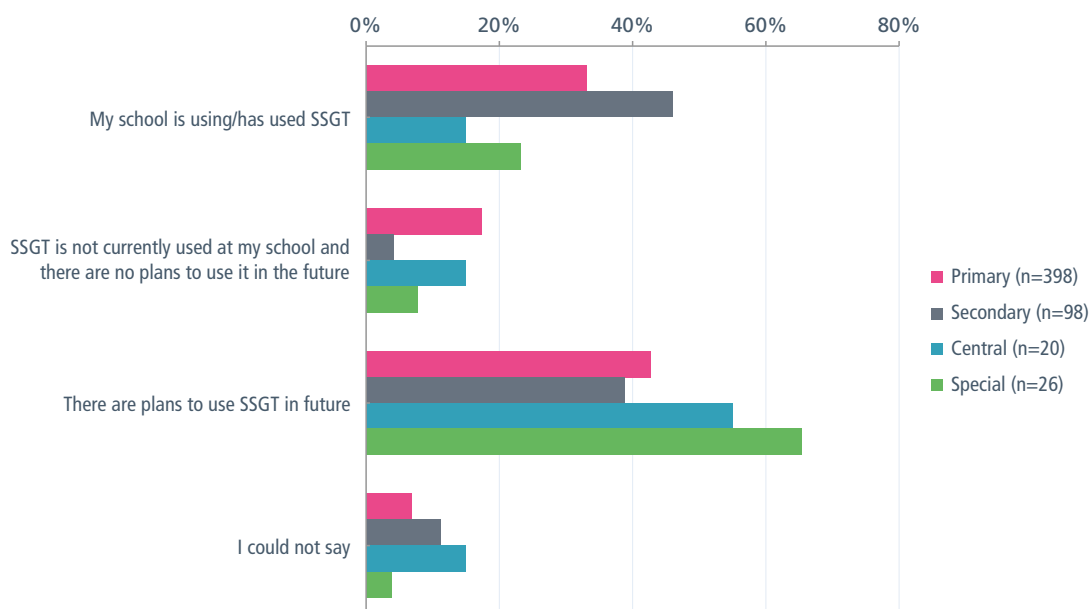
4.2.2 Strong start, Great teachers induction resource

As mentioned previously, the SSGT online induction resource is designed to support schools to provide a high quality structured induction program for beginning teachers. When asked to describe their school's use of the SSGT resource in the 2016 principal survey, a third of principals (34%) indicated that they were currently using or had used the resource to support induction processes at their school. More than 40 per cent (44%) planned to use the resource in future and just under 15 per cent said that the resource was not currently used at their school (data not shown).

Figure 2 shows that a higher proportion of secondary schools are using or have used SSGT (46%) compared with primary schools (33%).

Figure 2:
Use of Strong start,
Great teachers resource,
by school type

Source: Principal survey,
2016



Of principals who indicated they were currently using the SSGT resource (n=185), 17 per cent indicated that it is very helpful and 49 per cent indicated that it is quite helpful. The remainder indicated that it is somewhat helpful with no principal currently using SSGT indicating that it is not helpful at all.

Compared with principals, awareness of the SSGT resource was much lower among PBTs which may reflect the intention that the resource be used to support beginning teachers in conjunction with or solely by supervisors. More than 85 per cent of PBTs and 90 per cent of TBTs surveyed were unaware of the resource at the time of taking the survey⁴. Only fifteen per cent were either using it themselves or were aware that their supervisor had used it to support them. Further, 23 per cent of PBTs that reported being aware of the SSGT resource indicated that they received no support in using it⁵.

⁴ Note: SSGT questions were asked only of teachers who commenced from Term 3 2014 onwards.

⁵ Source: Year 1 permanent beginning teacher surveys – 2015 and Terms 1 and 2, 2016

Figure 3 shows that amongst PBTs surveyed in 2015 and 2016 who rated the helpfulness of the SSGT resource (n=113) for aspects of their teaching on a scale of 1-10, they on average rated the resource between six and seven. This suggests that the content of the SSGT resource is quite useful for beginning teachers to develop their teaching practice.

Figure 3:

Helpfulness of SSGT in supporting aspects of teaching practice

Source: Year 1 permanent beginning teacher surveys



Together these data suggest that while the majority of schools are offering some form of structured induction program to beginning teachers, a substantial number are not. In particular temporary beginning and casual teachers appear to be less likely to be offered a structured induction program than permanent beginning teachers.

Those schools that are using SSGT to guide their structured induction of beginning teachers appear to find the resource useful, suggesting that the content and structure have good utility for schools. However, only one-third of schools appear to be using the resource to support their induction processes although a large number of schools signalled intent to use the resource in the future. It is unclear why these schools have not used SSGT to date but overall the data suggests that there is a need for greater promotion of the resource and the way in which it can support schools to deliver a structured induction program for beginning teachers.

4.3 Beginning teacher support funding for permanent beginning teachers

4.3.1 Release time in first year of permanent appointment

All 2014 and 2015 first year PBTs were asked to indicate how much overall release time they received in the first year of their permanent appointment. Figure 4 shows that 2014-2015 PBTs reported receiving significantly more overall release time than 2013 PBTs (54 cf. 30 hours per year) ($t(2,432)=13.71$, $p<.001$). However, combining regular release time and additional BTSF release time, PBTs in 2015 and 2015 might expect to receive up to 120 hours in the first year of their permanent appointment.

Amongst the 2014-15 cohort, PBTs with 2 years or less prior experience reported receiving significantly more overall release time than teachers with more than two years prior experience (59 cf. 49 hours per year) ($t(1,370)=3.79$, $p<.001$). Similarly, PBTs not yet accredited at Proficient reported receiving significantly more overall release time than PBTs already accredited at the start of their permanent appointment (58 cf. 51 hours per year) ($t(1,272)=2.75$, $p<.01$).

Figure 4:

Average total hours of overall release time received by PBTs in the first year of their permanent appointment.

Source: Year 1 permanent beginning teacher surveys

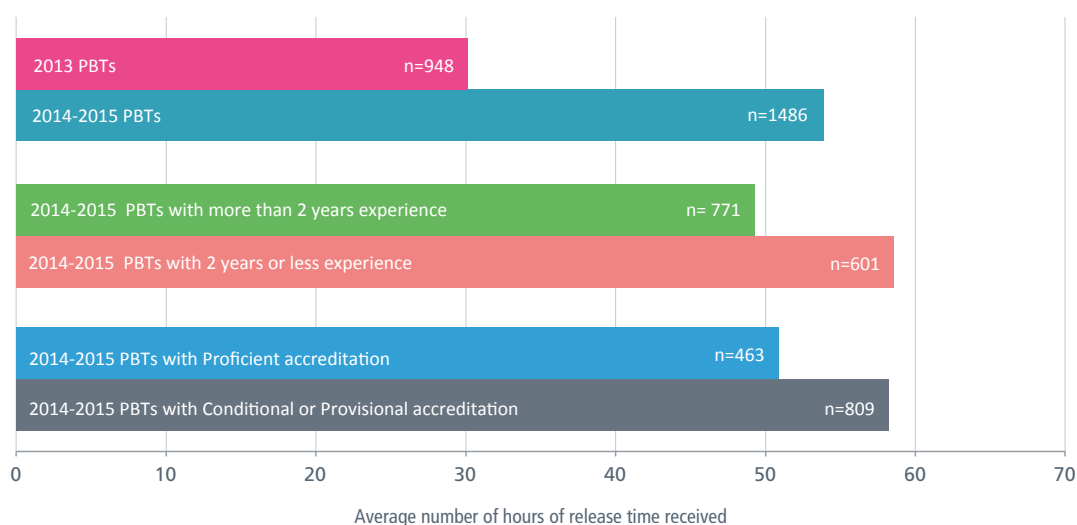
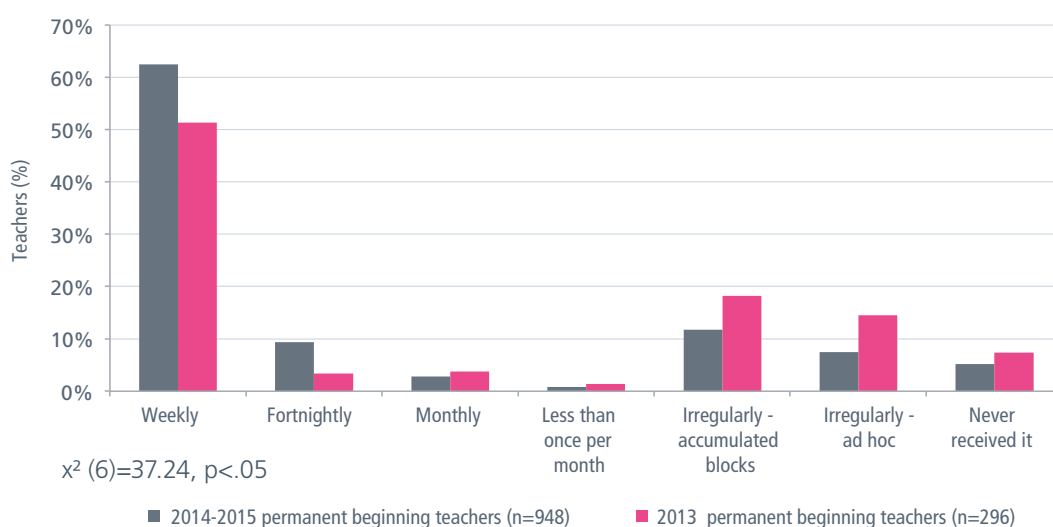


Figure 5 shows that while over half of PBTs in 2013 and 2014-2015 reported receiving release time weekly or fortnightly in the first year of their appointment, a higher percentage reported receiving release time weekly in 2014-2015 (63% cf. 50%). Overall 2014-2015 PBTs reported receiving release time more regularly than 2013 PBTs ($\chi^2(6)=37.24$, $p<.05$). The 2013 group were more likely to receive release time irregularly, either ad hoc or in accumulated blocks.

Figure 5:

Regularity of PBTs' release time in first year of appointment

Source: Year 1 permanent beginning teacher surveys



Taken together survey findings suggest that the BTSF policy has increased the amount of release time taken by PBTs, although the average hours received in 2014 and 2015 are still considerably lower than the BTSF entitlements alone (54 cf. 80 hours per year). More 2014-2015 PBTs received release time regularly, compared with 2013 PBTs who were more likely to receive release time irregularly, either ad hoc or in accumulated blocks. Those most likely to receive more release hours had been teaching for two years or less or were not yet accredited as Proficient at the time of their permanent appointment.

Beginning Teacher Support Funding release time in first year of permanent appointment

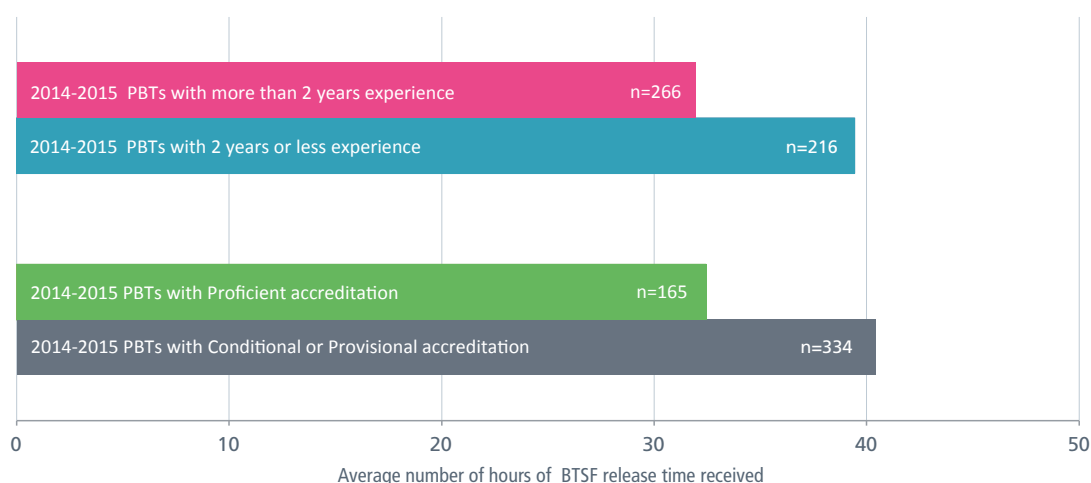
Of PBTs who reported being aware of BTSF (approximately 80%) the average hours of first year BTSF release time reported being received was lower than expected at 37 hours. This is just under half of the approximately 80 hours per annum entitlement under the BTSF policy. However, it is important to acknowledge that not all PBTs might be able to distinguish between BTSF release time and other release time that they are entitled to. As such the amounts of BTSF release time PBTs reported receiving could be inaccurate. Currently schools are not required to report on how many hours of BTSF release time PBTs access.

Figure 6 shows that notwithstanding the potential inaccuracy of self-reporting, 2014-2015 PBTs with two years or less experience prior to appointment received significantly more BTSF release time than those with more than two years' experience (39 cf. 31 hours per year) ($t(480)=3.12, p<.01$). PBTs accredited as Conditional or Provisional upon appointment also received significantly more than PBTs accredited at Proficient or above upon appointment (40 cf. 32 hours per year) ($t(497)=3.13, p<.01$), which is not surprising given that many of these had less than two years teaching experience prior to their permanent appointment.

Figure 6:

Average hours of BTSF release time received by 2014-2015 PBTs, by years of experience

Source: Year 1 permanent beginning teacher surveys



Primary school teachers also reported receiving significantly more BTSF release time (39 cf. 32 hours per year) than secondary school teachers across 2014 and 2015 ($t(553)=2.93, p<.01$) (data not shown). Analysis by school type was also performed by years of experience to see if this was true for teachers with two years or less teaching experience and teachers with greater than two years teaching experience. These results were significant for both groups (data not shown), indicating that irrespective of teaching experience, primary school teachers reported receiving significantly more BTSF release time than secondary school teachers.

Surveys of PBTs also indicated that BTSF first year release time was most commonly received regularly each week (50%). The next most common was time taken irregularly in blocks (17%). Very few teachers (2%) said they never received this release time.

Barriers to PBTs accessing first year BTSF release time

Principals who reported in the principals' survey that not all of their PBTs receive regular weekly BTSF release time were asked to comment on barriers to providing this (n=113). Nearly half indicated that they were either unable to cover classes (44%) or that some teachers were not interested in receiving release time (50%). Not providing release time due to being unable to cover classes was a barrier for more secondary school (49%) than primary school principals (34%). This aligns with the observation that primary school PBTs reported receiving more BTSF release time than secondary school PBTs. Expanding on the challenges finding suitable relief, a number of principals commented on the difficulty of employing casuals for a limited time in rural and remote areas, splitting classes in secondary schools, finding suitably experienced casuals for certain subject areas and student behavioural issues in class stemming from relief. One primary principal explained that *'it was harder to provide [release] for itinerant staff with a specialist qualification, while a provincial secondary principal noted that 'if I have a maths teacher who needs release, finding a qualified teacher to work two hours is impossible'*.

A number of secondary principals also highlighted timetabling issues, suggesting that as timetables were created the year prior, regular beginning teacher relief demanded major timetable restructuring, particularly where teachers started late in the year.

One in five surveyed PBTs echoed principals' views, saying that they were unable to use BTSF release time effectively due to a lack of visibility over release days, a limited ability to plan ahead and insufficient structure around activities for release time. This could help explain why almost one-third of PBTs reported receiving their release time in ad hoc arrangements. One teacher explained: *'The extra release for being a new teacher was not given regularly; it was given ad hoc... Sometimes you were told ahead of time that you had a release day coming up, other times [you were told] just last minute because they had a casual in, which didn't give you time to prepare/use the time as effectively as you could have. The release time would be very helpful if you could use it to focus on areas of your need (such as accreditation for me...).'* Another teacher explained: *'The other ad-hoc times I was given were completely useless to me as I wasn't informed until the last minute that I was being released and therefore had to suddenly write a lesson plan for a different teacher to take my class'*.

In terms of how teachers used release time, while independent classroom and lesson preparation (32%) were the two most common activities, roughly 13 per cent of surveyed PBTs commented that they were not always able to use the additional BTSF release time to undertake professional learning activities due to competing administrative tasks or commitments co-ordinating extracurricular activities and school events. One teacher said: *'Planning work, organising excursions and notes, organising fundraising activities, contacting parents about students, completing paperwork for data, organising activities [for students] ...[all this] leaves little time to engage in formal professional learning with so much else I'm involved in.'* Another teacher explained: *'During my standard release I marked, planned, did admin and made parent calls. I used BT funds to take additional block time to spend with my mentor as well as other specialised staff within the school for things I determined I needed. [But] there is not enough release time to do professional learning. This has to be done in private time after the other administrative tasks are complete.'*

Surveyed PBTs also commonly expressed the desire for a clearer understanding of the policy by both themselves and the senior executive staff at the school. One teacher suggested that new teachers were not confident about accessing the release time: *'The guilt and extra work of applying for release time, preparing lessons for that release time etc. is unfair to burden new teachers with. The onus to ask for release time should not be left to the beginning teacher!'*

Teachers gave mixed opinions about how this release time should be allocated: one in ten (of n=430) wanted more flexibility in terms of how often they took it and when. However another one in five wanted structured and planned release time; i.e. release time scheduled into the timetable and following specific focus areas of teaching practice or accreditation. Approximately one in ten wanted more customised support to address the individual learning needs of the beginning teacher.

Taken together, the barriers to allocating and using relief time cited by principals and teachers may help to explain why the hours of BTSF release time received by permanent beginning teachers are on average lower than expected. Nearly half of all principals saw finding relief to cover classes a major barrier to providing BTSF release time (44%), citing multiple challenges around splitting classes (in high schools), accessing casual relief including locating maths or specialist relief teachers, and having sufficient notice about eligible teachers to timetable in advance. But principals also indicated that teachers appreciated the flexibility of the policy and that some teachers preferred to accumulate BTSF release time rather than taking it regularly each week. PBTs suggested that BTSF release time should be scheduled and focused and (whether taken weekly or in a block of time) that it be planned in advance.

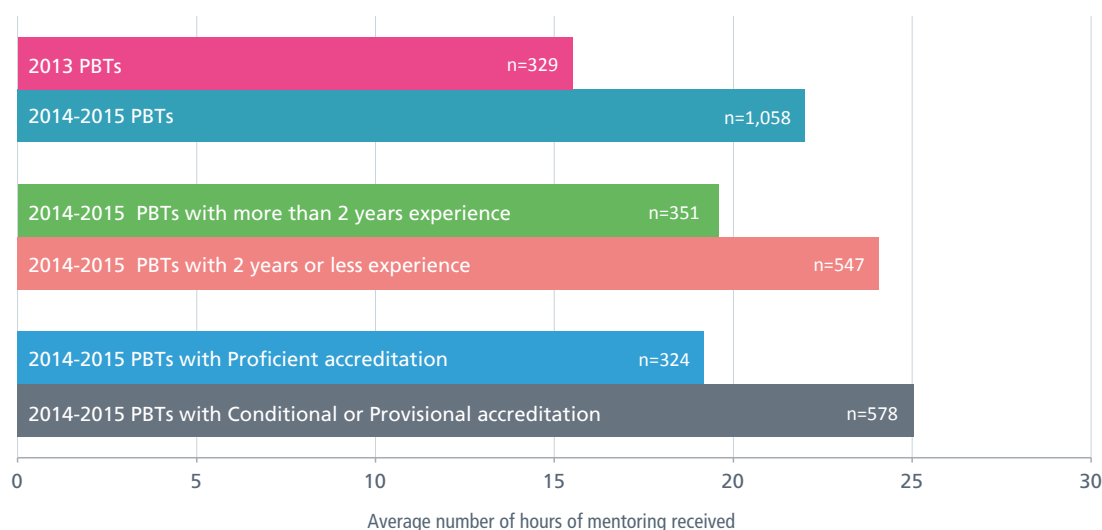
4.3.2 Mentoring in first year of permanent appointment

Figure 7 shows that since the introduction of the BTSF policy in 2014, PBTs report receiving significantly more mentoring during the first year of their appointment compared with those who commenced in 2013 (22 cf. 16 hours per year) ($t(1,385)=4.37, p<.001$). Within the 2014-2015 PBT cohort, those with two years or less teaching experience reported receiving significantly more mentoring during the first year of appointment than teachers with more than two years' teaching experience (24 cf. 20 hours per year) ($t(896)=2.98, p<.01$). Furthermore, PBTs that began their permanent appointment accredited at Conditional or Provisional received significantly more mentoring than those that commenced at Proficient (25 cf. 19 hours per year) ($t(900)=3.48, p<.001$).

Figure 7:

Average hours of mentoring received by 2013 and 2014-2015 PBTs during the first year of their appointment

Source: Year 1 permanent beginning teacher surveys



Survey responses revealed that 2014-2015 first year PBTs were more likely than 2013 first year PBTs to receive mentoring regularly – either each week (27% cf. 16%) or fortnightly (15% cf. 10%). 2014-2015 PBTs were less likely to receive mentoring irregularly, either ad hoc or in blocks, compared to their 2013 counterparts (38% cf. 62%). Only nine per cent of 2014-2015 PBTs said they never received mentoring, although this was slightly higher than reported by 2013 first year PBTs (7%).

PBTs who commenced in 2014 and 2015 reported receiving significantly higher levels of assistance than 2013 PBTs across eight areas of teaching practice: 'using the teaching standards for reflective practice', 'differentiated teaching', 'being observed teaching', 'class observation', 'team or co-teaching', 'providing feedback to students', 'using student data to guide practice', and 'professional networking' ($p<.05$) (data not shown).

Teachers were also asked to indicate whether they received support for any other professional learning activities not listed in the survey. Within this group (n=372) about one in ten said they received support in understanding Departmental and school-based policies and systems, daily routines, activities and administrative tasks. Forty per cent said they received help organising events such as excursions, extracurricular activities (dance, music groups, drama and debating) and coordinating sporting teams and events/carnivals. One in seven reported they received support in implementing learning support programs including literacy and numeracy programs (e.g. Language, Learning and Literacy or L3, Targeted Early Numeracy, Reading Recovery), as well as student support programs such as the SRC, gifted and talented and special needs students, and working with Aboriginal students. Additionally, one in five said they received help settling into school life, with personal development, wellbeing, time management, using technology, and other professional development activities such as professional development plans, goal setting, and professional writing.

PBTs who commenced in 2014-2015 also reported in surveys being most likely to receive the most support for their teaching practice from head teachers/assistant principals and deputy principals (44%) or from other colleagues (34%). Six per cent indicated that they received the most support from a school-based induction or mentoring coordinator, which could be a legacy from models of beginning teacher support prior to GTIL.

2014-2015 PBTs also reported significantly greater levels of satisfaction that the mentoring they received was customised to their needs than the 2013 PBTs (78% cf. 68%) ($\chi^2(1)=12.40$, $p<.05$). There were no significant differences by teaching experience, school type (primary or secondary) or location at a five percent level of significance confirming broad customisation of the support PBTs are receiving.

Barriers to providing mentoring for permanent beginning teachers

Principals that had PBTs at their school in 2015 (n=281) were asked in the principals' survey about whether they experienced barriers to providing PBTs with mentoring by an experienced teacher. While the majority did not report barriers, 22 per cent (n=62) indicated that they were unable to provide relief for potential mentors on a regular basis due to timetabling clashes. Nineteen per cent of principals that responded (n=53) indicated that some teachers who gained a new permanent position were not interested in receiving mentoring. Related to this, a small number of PBTs (n=17), all previously teaching for more than two years, indicated they did not require any mentoring support due to their prior teaching experience and were instead in a position to support others. As one teacher reported: *'I was supporting another teacher not receiving [mentoring]; my support time was used to support him as I am an experienced teacher'*.

A smaller number of principals reported that they had experienced other barriers including a lack of suitable or sufficiently skilled mentors in the school and a disinterest amongst experienced teachers in mentoring new teachers. One principal in a metropolitan area reported that their school overcame timetabling and resourcing challenges by drawing in resources from outside the school: *'we decided to employ recently retired teachers to mentor as this would not affect class time and this has been a great resource'*. Finally, a small number of principals (n=4) saw late funding (delays to the receipt of funding) or insufficient funding to cover the release time of executive staff (e.g., Head Teachers, Assistant Principals and Deputy Principals) as a barrier.

Numerous principals also commented that providing mentoring for PBTs who had considerable prior teaching experience was a challenge, either because they felt the targeting was inappropriate or because providing mentoring might conflict with the teacher's own perceptions about their teaching skills.

All 2014-2015 PBTs were asked to identify further improvements to the mentoring they received in the first year of their permanent appointment. Many of the 452 responses echoed themes raised by principals including allocating a suitable mentor with relevant subject or stage knowledge, offering a regular and structured mentoring program, and targeting mentoring to only those PBTs that need support.

4.3.3 Impact of support in first year of permanent appointment

Impacts on areas of teaching practice

PBTs were asked to rate the impact of the professional support they received during the first year of their appointment across key areas. Impact was measured on a 10 point scale and was analysed using ordered logistic regression (more details about model specifications and regression outputs can be found at Appendix G).

Table 9 shows that the 2014-2015 PBTs were significantly more likely to report a larger impact from the professional support they received in the first year of their appointment than 2013 PBTs, across all key practice areas measured ($p < .05$). The data also shows that amongst the 2014 and 2015 cohort, PBTs with two years or less prior teaching experience were significantly more likely to report a greater impact from the support they received than more experienced PBTs, in all key practice areas measured ($p < .05$).

PBTs from 2014 and 2015 that commenced their appointment Conditionally or Provisionally accredited were only significantly more likely to report a greater impact of first year support received than PBTs that commenced at Proficient, around 'assessing, providing feedback and reporting on student learning,' and 'effectively engaging with parents and carers' ($p < .05$). The narrower range of impacts relative to impacts by years of prior teaching experience could be explained by the fact that 32 per cent of 2014-2015 PBTs with more than two years prior teaching experience were accredited at Conditional or Provisional upon commencement of their permanent appointment.

Table 9:

Relative impacts of support for 2014-2015 and 2013 PBTs in areas of teaching practice

Source: Year 1 permanent beginning teacher surveys

Areas of teaching practice	Comparisons		
	2014-2015 cf. 2013	2014-2015 two years or less cf. more than two years prior teaching experience	2014-2015 Conditional or Provisional cf. Proficient at commencement
Differentiating teaching across the full range of needs and abilities	▲	▲	●
Knowledge of the curriculum and how to teach it	▲	▲	●
Planning and implementing a range of effective teaching strategies	▲	▲	●
Creating a safe, positive and supportive learning environment	▲	▲	●
Assessing, providing feedback and reporting on student learning	▲	▲	▲
Identifying, planning and engaging in professional learning	▲	▲	●
Collaborating with colleagues to improve professional knowledge and practice	▲	▲	●
Effectively engaging with parents & carers	▲	▲	▲

▲ Proportional odds ratios are greater than 1.0 ($p < .05$), suggesting that the first group of teachers had a higher impact of support than the comparison group.

● Proportional odds ratios are not statistically different than 1.0 ($p > .05$), suggesting that both groups compared were equally likely to report a given impact of the support they received.

Ordered logistic regression testing was again used to assess the impact of teaching support on 2014-2015 PBTs on areas of their teaching practice to see if there were any significant differences between primary and secondary school teachers. Testing showed that the odds of primary teachers reporting a larger impact from their professional support were significantly greater than secondary teachers in only two areas: 'differentiating teaching across the full range of needs and abilities' and 'identifying, planning and engaging in professional learning' (data not shown).

Taken together, these findings suggest that the support received in the first year of a permanent appointment has had a greater impact on the 2014-2015 PBTs eligible for BTSF support compared with their 2013 counterparts. Within amongst 2014-2015 PBTs, the impact is greater for those with two years or less experience that were yet to be accredited at Proficient upon commencement of their permanent appointment.

Impact on confidence to teach

Permanent beginning teachers were also asked to rate how confident they were in their teaching knowledge and skills at the commencement of their permanent appointment and one year later. Confidence was measured on a 10 point scale (1-10).

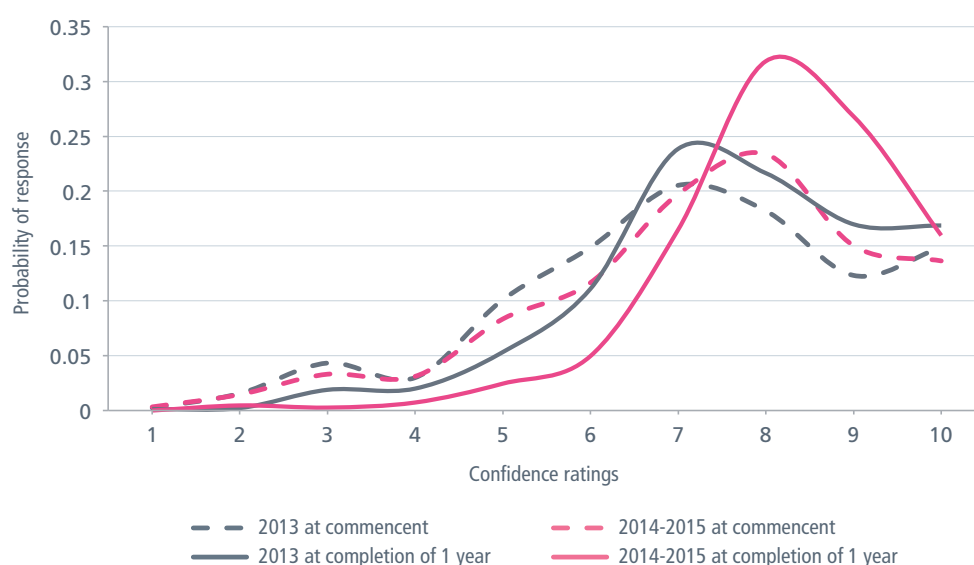
A Wilcoxon signed-rank test was performed to determine whether or not the 2014 and 2015 PBTs' confidence in their teaching knowledge and skills increased between commencing their first permanent appointment and after completing one year of teaching. The results indicate that the confidence of PBTs from both the combined 2014 and 2015 cohort and 2013 comparison cohort significantly increased over the first year of a permanent appointment with the Department (2014-2015 cohort, $z=20.63$, $p<.001$; 2013 cohort, $z=12.03$, $p<.001$).

Having established that the confidence of PBTs in both groups improved significantly by the end of their first year, multinomial and firth logistic regression was used to determine whether there was a significant difference in confidence between the 2013 and 2014-2015 PBT groups at the completion of their first year of teaching (more details about model specifications and regression outputs can be found at Appendix G).

Figure 8 presents the probability of having a particular confidence rating at commencement and at the completion of one year of teaching by commencement year (2014-2015 vs. 2013). The analysis revealed that at the commencement of their permanent appointment, commencement year was only weakly related to confidence ($\chi^2_{(9)} = 19.2$, $p = .02$, pseudo $R^2 = <.005$). However, after they had completed the first year of their appointment, commencement year was more strongly related to confidence ($\chi^2_{(9)} = 130.0$, $p<.01$, pseudo $R^2 = .02$). PBTs who commenced in 2014 or 2015 have a significantly higher adjusted probability of having a confidence rating of 8 or 9 and a significantly lower adjusted probability of having a confidence rating between 3 and 7 than those who commenced in 2013. This suggests that PBTs supported under the GTIL BTSF policy grew in confidence to a greater extent during the first year of their appointment than the 2013 cohort.

Figure 8:
Probability of confidence rating for PBTs at commencement and at completion of the first year of their appointment by year of commencement

Source: Year 1 permanent beginning teacher surveys



n=2,411

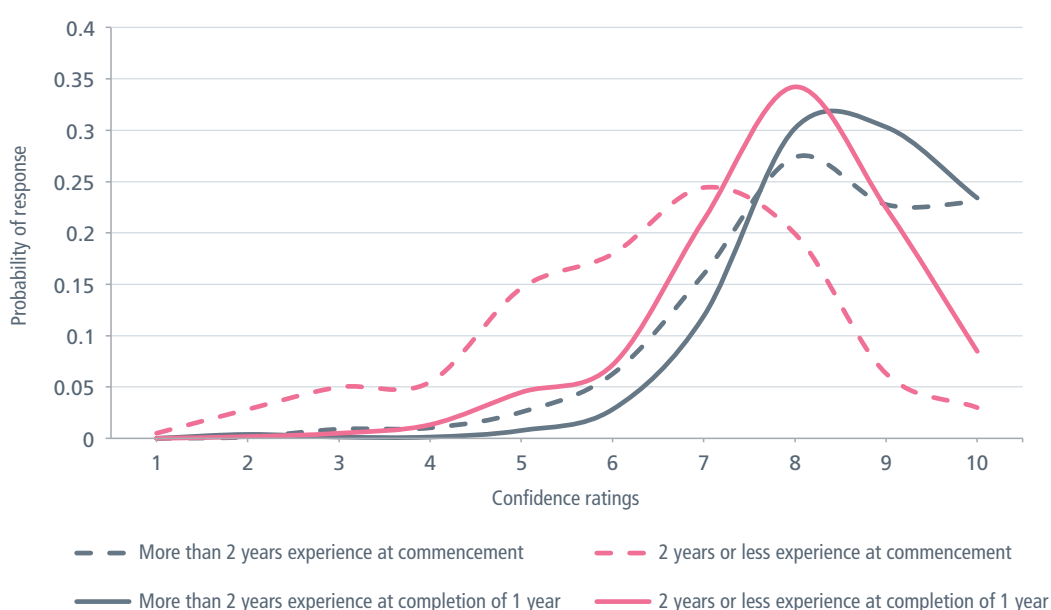
To determine whether the BTSF policy has had a greater effect on the confidence growth of less experienced teachers and those not accredited at Proficient or above, separate models were developed with the sample restricted to the 2014-2015 cohort. The models included binary variables for prior teaching experience with the Department⁶ and accreditation status⁷ upon permanent appointment to test for these differential effects.

Figure 9 presents the probability of PBTs who commenced in 2014 or 2015 having a particular confidence rating at commencement and at the completion of one year of teaching by prior teaching experience (two years or less vs. more than two years). At the commencement of their permanent appointment, commencement year was strongly related to confidence ($\chi^2_{(9)} = 379.6$, $p < .001$, pseudo $R^2 = .07$), with more experienced teachers rating their confidence higher. After one year of their permanent appointments, commencement year was less strongly related to confidence ($\chi^2_{(9)} = 121.1$, $p < .01$, pseudo $R^2 = .03$). This suggests that teachers with two years or less prior teaching experience at the commencement of their permanent appointment grew in confidence more rapidly over the first year of their appointment in 2014-2015 than more experienced teachers, suggesting that they benefited more from the BTSF mentoring and release time.

Figure 9:

Probability of confidence rating for 2014-2015 PBTs at commencement and at the completion of their first year of appointment by level of prior teaching experience

Source: Year 1 permanent beginning teacher surveys



To exclude the possibility that inexperienced teachers closed the confidence gap with more experienced teachers solely as a function of time, the one year growth in confidence of PBTs with two years or less experience was compared between the 2013 and 2014-2015 cohorts. At the commencement of their permanent appointment, commencement year was only weakly related to confidence ($\chi^2_{(9)} = 17.7$, $p = .04$, pseudo $R^2 = <.005$). However, after they had completed the first year of their appointments, commencement year was more strongly related to confidence ($\chi^2_{(9)} = 79.3$, $p < .001$, pseudo $R^2 = .02$). PBTs who commenced in 2014 or 2015 have a significantly higher adjusted probability of having confidence rating between 8 and 10 and a significantly lower adjusted probability of having a confidence rating of 3, 6 or 7 than those who commenced in 2013 (see Appendix G).

To determine whether or not this growth was restricted only to those PBTs with two years or less teaching experience, the confidence ratings of 2014-2015 and 2013 PBTs with more than two years' teaching experience were also compared. At the commencement of their permanent appointment, commencement year was only weakly related to confidence ($\chi^2_{(9)} = 30.5$, $p < .001$, pseudo $R^2 = .01$). At the end of the first year of their permanent appointment, commencement year was still very weakly related to confidence ($\chi^2_{(9)} = 56.6$, $p < .001$, pseudo $R^2 = .01$)⁸. Even still, PBTs who commenced in 2014-2015 with more than two years prior teaching experience had a significantly higher adjusted probability of having a confidence rating of 8 or 9 and a significantly lower adjusted probability of having a confidence rating between 3 and 6 than those who commenced in 2013 (see Appendix G).

⁶ 1 = two years or less prior teaching experience and 0 = more than two years prior teaching experience.

⁷ 1 = accredited at Proficient or above and 0 = not accredited at Proficient or above.

⁸ Note the change in pseudo R^2 for the less experienced teachers was greater between year of commencement than it was for the more experienced teachers.

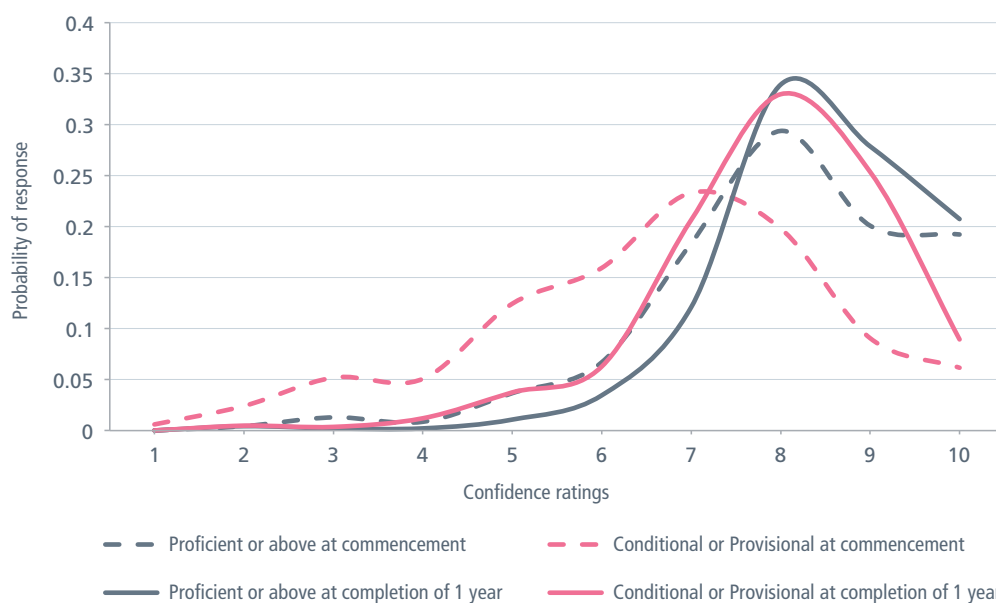
Together, this suggests that while the growth in confidence is greatest for PBTs with less than two years' experience, the BTSF support has also improved the confidence of PBTs with more than two years of teaching experience, albeit to a lesser extent.

Finally, the analysis sought to determine what impact the BTSF support had on PBTs not yet accredited at Proficient (i.e. those holding Conditional or Provisional accreditation). Figure 10 shows that at commencement of their permanent appointment, accreditation status was strongly related to confidence, with those teachers already accredited at Proficient reporting much higher confidence to teach ($\chi^2_{(9)} = 226.1, p < .001, \text{pseudo } R^2 = .04$). However, after they had completed the first year of their appointments, accreditation status was less strongly related to confidence ($\chi^2_{(9)} = 61.8, p < .01, \text{pseudo } R^2 = .01$). This suggests that PBTs who commenced in 2014-2015, who were yet to gain Proficient accreditation, gained the most benefit from the BTSF mentoring and release time.

Figure 10:

Probability of confidence rating for 2014-2015 PBTs at commencement and at the completion of their first year of appointment by level of accreditation (n=1,291)

Source: Year 1 permanent beginning teacher surveys



n=1,291

Taken together, the comparison of confidence in 'teaching knowledge and skills' at commencement and one year after, suggests that all 2014-2015 PBTs, but particularly those with less than two years of experience and Conditionally or Provisionally accredited, are more likely to have higher levels of confidence after completing the first year of their appointment than their 2013 counterparts. Coupled with the assessment of impact across aspects of teaching practice, this suggests that first year support under the BTSF policy is having a positive impact on PBTs, and particularly so for those with two years or less prior teaching experience who have not yet attained Proficient accreditation.

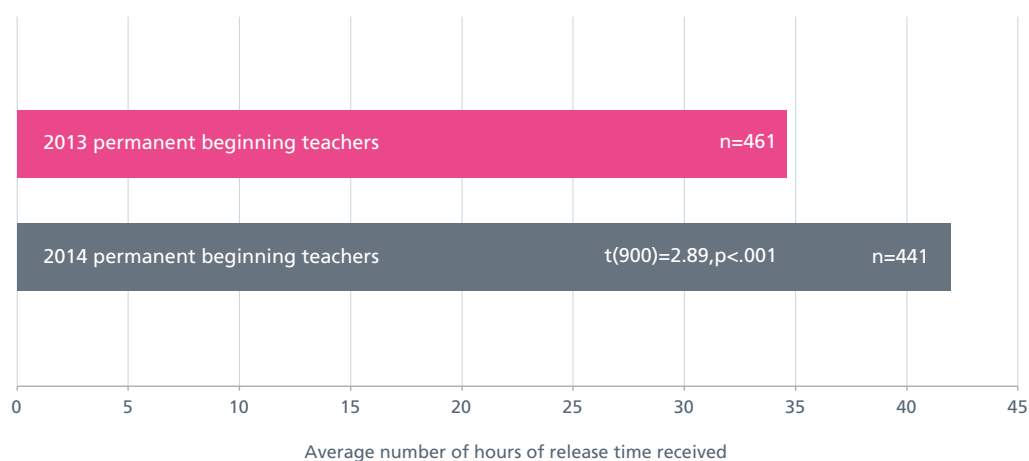
4.3.4 Release time in second year of permanent appointment

PBTs were surveyed about how much total release time they received in the second year of their appointment. Figure 11 shows that PBTs from the 2014 cohort reported receiving significantly more overall release time in the second year of their permanent appointment than PBTs from the 2013 cohort (42 cf. 35 hours per year). This is expected given that no additional release time was provided to the 2013 cohort in the second year of their permanent appointment as it was to the 2014 cohort under GTIL.

Figure 11:

Average hours of overall release time received by 2013 and 2014 second year PBTs

Source: Year 2 permanent beginning teacher surveys



Furthermore more than half of all 2014 PBTs in their second year (57%) reported receiving release time weekly and another ten per cent received it fortnightly. Seventeen per cent received it irregularly and 13 per cent said that they never received any release time, which was a higher proportion compared with first year PBTs.

Beginning Teacher Support Funding release time in second year of permanent appointment

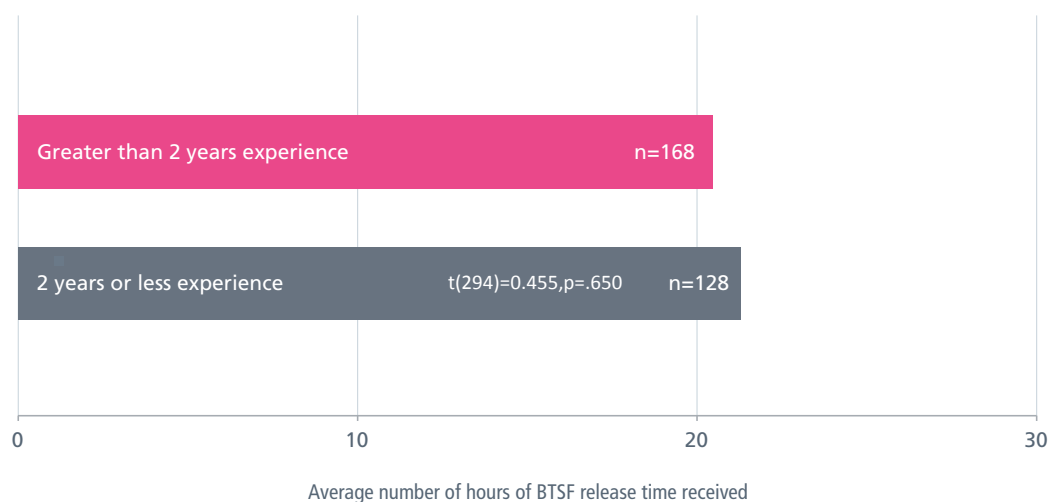
While nine out of 10 PBTs from the 2014 cohort reported being aware of second year BTSF, the average hours of second year BTSF release time they reported receiving was only 20.8 hours, which is approximately half of their entitlement. However, as with the self-reported receipt of first year BTSF release time, these figures should be treated with caution as it is possible that some teachers are not able to distinguish between BTSF release time and other release time.

Figure 12 shows that in contrast to first year BTSF release time, PBTs received statistically similar amounts of second year BTSF release time irrespective of their teaching experience prior to commencing their permanent appointment. Furthermore, the approximately 20 hours per annum received in 2014 is around half of the actual entitlement under the BTSF policy.

Figure 12:

Average hours of BTSF release time received by 2014 second year PBTs, by years of experience

Source: Year 2 permanent beginning teacher surveys



As with first year BTSF release time, second year BTSF release time was also most commonly reported as received regularly each week but at a lower rate (37% cf. 50%). Time taken irregularly in accumulated blocks was higher (21%) than for PBTs who received BTSF release time in their first year. However, compared with first year PBTs, a higher proportion of second year PBTs said that they never received BTSF release time (9% cf. 2%).

This nine per cent (n=32) was asked why they did not receive second year BTSF release time. The main reason cited was that teachers were unsure about or unaware of their entitlement. Other reasons cited were that additional release time was not required due to many years of teaching experience or release time funding was instead allocated to support attending professional development courses/sessions/seminars.

Survey responses indicated that 64 per cent of PBTs reported spending varying amounts of their second year BTSF release time on administrative tasks. Thirty per cent reported spending 'a great deal of time' on general administrative tasks including lesson planning, marking and planning school events. Twenty per cent reported spending a 'great deal of time' receiving support from a mentor or other colleagues which is interesting given that schools were not provided with accompanying resources to support mentoring for second year PBTs. Ten per cent said that they spent 'a great deal of time' on 'self-guided professional learning'.

Barriers to PBTs accessing second year BTSF release time

Principals who reported in the principals' survey that not all of their PBTs receive regular weekly BTSF release time in the second year of their appointment were asked to comment on barriers to providing this (n=93). Compared with providing release time for first year PBTs, a smaller proportion (23%) indicated that they were 'unable to cover classes during release time' for second year PBTs. This is presumably due to the lesser time commitment relative to first year BTSF release time.

One in four of these principals also said that their school had teachers commencing a permanent appointment that had many years of prior teaching experience and either did not need or want additional regular release time. Related to this, one in seven said teachers preferred taking time in blocks which was easier and less disruptive to the timetable.

A substantial number of 2014 PBTs surveyed also expressed frustration that they had to spend second year BTSF release time catching up on administrative tasks, which some saw as a lost opportunity to work on developing their teaching practice. As one teacher explained: *'My workload was so large that I found myself using the extra release time to catch up on paperwork and complete my Proficient accreditation application. Neither of these activities contributed to my skill set as a teacher, other than improving my ability to navigate the national standards and talk about how I use them..'*

Other teachers felt that taking release time contributed to more administration: *'As valuable as release time is, it always takes a lot of work to prepare for/ catch up on absences from the classroom' and '[release time] meant I had to prepare casual lessons and so had to do just as much work as I would have if I just took the classes.'*

A number also expressed a desire for improved communication and clarification about support provided under the policy, eligibility rules, as well as a set of guidelines for the use of second year BTSF release time. Some of these teachers suggested they did not receive release time due to a lack of awareness of this opportunity: *'I didn't receive any real release time, as I and other beginning teachers at my school were not made aware that such time was available. There was no consistent support and most of my beginning teacher funds were not spent on my personal development or support. I only discovered [it] late in my second year ...It was too late to really use the funds effectively by this stage.* Others suggested that they should be informed well in advance when they would receive release time to allow sufficient time to plan its use.

4.3.5 Impact of support in second year of permanent appointment

Impacts on areas of teaching practice

Ordered logistic regression was used to test for significant differences of the impacts of overall support received in the second year of appointment between PBTs from the 2014 and 2013 cohorts⁹. Unlike the impact of the support received by first year PBTs, there were no significant differences in the reported impacts of support received in the second year between the two cohorts (data not shown).

Furthermore the only significant difference in reported impact between second year PBTs who commenced in 2014 with two years or less teaching experience and those who commenced with more than two years' experience was around 'effectively engaging parents and carers' ($p=.03$) (see Appendix G). No significant differences were identified between primary and secondary PBTs (data not shown).

These findings suggest that unlike the mentoring and release time support under the BTSF policy in the first year of a teacher's permanent appointment, the additional hour of release time in the second year has not had a significant impact on the teaching practice of PBTs.

Impact on confidence to teach

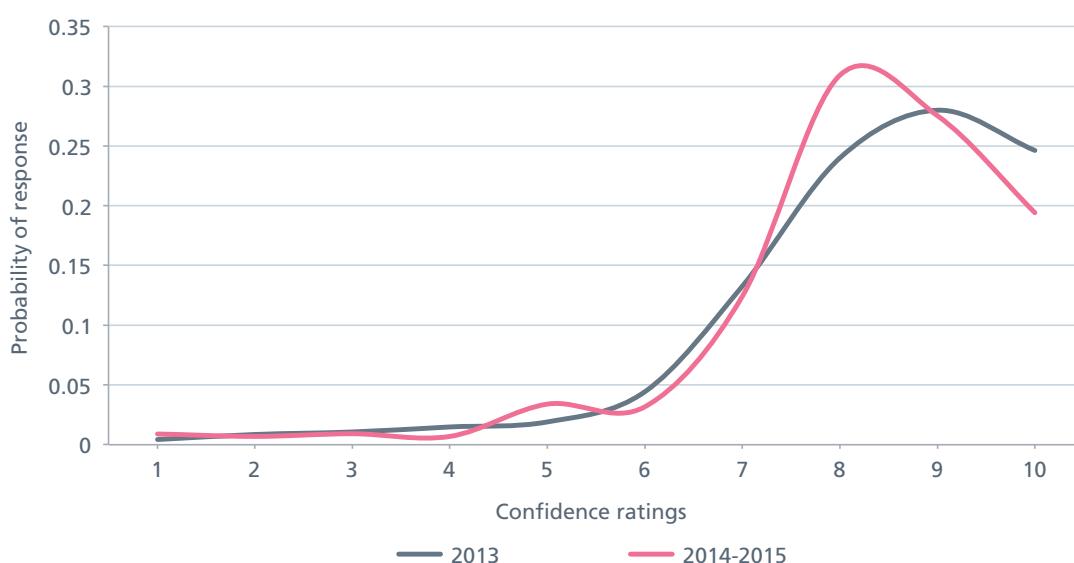
Second year PBTs were also asked to rate how confident they were in their teaching knowledge and skills at the end of the second year of their appointment. Confidence was again measured on a 10 point scale (1-10). Multinomial and first logistic regression was used to determine whether there were any statistically significant differences on teacher confidence ratings for second year PBTs that commenced in 2014 compared to 2013. Self-reported confidence at the end of the first year of a teacher's permanent appointment (as measured separately in the Year 2 PBT survey) was accounted for in the model.

Figure 13 shows that there was no significant difference in confidence at the end of the second year of permanent appointment between PBTs from the 2014 and 2013 cohorts at a five per cent level of significance ($\chi^2(9)=12.3$, $p=n.s.$, pseudo $R^2 = .004$).

Figure 13:

Probability of confidence rating for PBTs at the completion of their second year of their appointment by year of commencement (n=918)

Source: Year 2 permanent beginning teacher surveys



n=918

As the greatest impact of first year BTSF support on confidence was for PBTs with less than two years of experience, multinomial and first logistic regression was also performed to determine whether there were any statistically significant differences on teacher confidence ratings for second year PBTs in 2014-2015 and 2013 with two or less years' teaching experience.

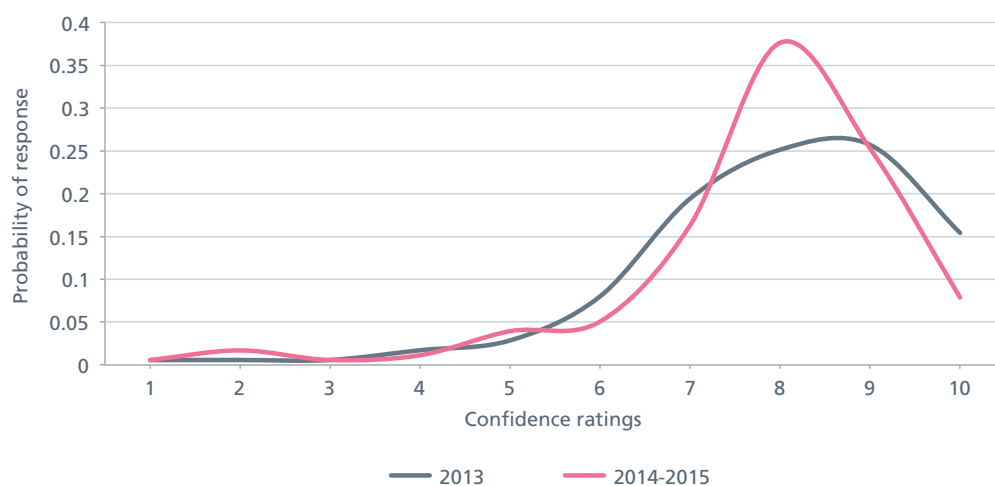
Figure 14 shows that after accounting for self-reported confidence at the end of the first year of a teacher's permanent appointment, the year of commencement is no longer a significant predictor of confidence at the end of the second year of appointment ($\chi^2(9)=12.0$, $p=n.s.$, pseudo $R^2 = .01$).

⁹ The impacts were measured on a 10 point impact scale ranging from 1='no impact at all' to 10 = 'very large impact'. Data was subsequently condensed into five categories: 1 & 2= 'no impact at all' to 9 & 10 = 'very large impact'.

Figure 14:

Probability of confidence rating for PBTs with two years or less experience at the completion of their second year of their appointment by year of commencement (n=353)

Source: Year 2 permanent beginning teacher surveys



Similarly, after accounting for confidence at the end of the first year of a teacher's permanent appointment, whether a PBT was accredited at Proficient, or Conditional or Provisional, is no longer a significant predictor of confidence at the end of the second year of appointment at a five per cent level of significance (n=274; $\chi^2=(9)27.3$, p=n.s., pseudo $R^2 = .01$) (data not shown).

Together these findings suggest that the additional one hour per week of BTSF release time for PBTs in the second year of their appointment is not having a significant impact on teaching practice or confidence in the teaching knowledge and skills of those teachers. This is irrespective of their prior teaching experience or accreditation status at the commencement of their permanent appointment.

4.3.6 Improving support for beginning teachers

Principals with teachers in their first or second year of a permanent appointment and PBTs themselves were asked in the surveys to provide general comments on what might have further improved their school's ability to support these teachers. Three key themes emerged from the responses to this question (n=188):

- better targeting funding to reach early career teachers
- improved communication of BTSF guidelines and PBT appointments
- professional support for mentors

Targeting funding

A number of principals suggested that many PBTs eligible for BTSF support had many years of teaching experience and did not require the support provided through this initiative, which echoed comments made by PBTs in both their first and second year. Principals felt that funds would be better invested in temporary and/or casual teachers who were more likely to be in the early stages of their career. Principals also reported equity concerns in only providing funding to PBTs. One principal suggested: *'it was difficult having funds for one PBT when I had four young teachers on temporary contracts needing support as well. It felt unfair.'* Another principal commented: *'I have seven temporary teachers [in their] first and second year teaching in my school, and no funding to support them'*. There was strong consensus that the funding allocation should be more flexible and determined by a beginning teacher's experience rather than their permanency.

Communication of guidelines and appointments

One in seven principals reported a need for improved communication about the administration of the BTSF policy. This includes clearer guidelines around the policy intent and expectations for beginning teachers and mentors. Some principals wanted more guidance on how the funds should be expended and how best to support beginning teachers and mentors.

In keeping with this theme, some principals also suggested that communication to beginning teachers could be improved, noting that many beginning teachers commence their appointment with little understanding of the policy. This finding echoes the suggestions by PBTs about improving communication about the policy to teachers eligible for BTSF. This also suggests that not all principals have seen the Department's BTSF Procedures¹⁰ which provide guidelines on how the funding can be spent and examples of professional learning activities to support quality teaching practices.

A number of principals also commented that improvements to the timing of PBT appointments would better facilitate planning, timetabling and allocating mentoring support for PBTs. This reflects comments from PBTs that advance notice about release time would help them to plan for, and make better use of this time.

Many principals reported having insufficient time to timetable release and coordinate support for beginning teachers and suggested that new permanent appointments be made prior to the end of the school year to allow sufficient planning time. In particular, appointments made late in Term 4 made it difficult to structure release time once school timetables were set, and splitting classes was seen as disruptive to teaching and learning. This supported comments made by PBTs in secondary schools who felt that splitting classes was a barrier to taking BTSF release time.

Support for mentors

One in three principals reported a need for experienced mentors who could provide quality support on a regular and consistent basis, as well as support from other members of school staff and the school's network. These principals suggested that mentors require explicit training and professional learning to support beginning teachers in activities such as class demonstrations and classroom observations.

This finding echoed comments made by PBTs in their first and second year who expressed a desire for better structured, and fewer ad hoc mentoring sessions, focused on developing specific areas of teaching practice. Some principals suggested that network level support from experienced staff would be useful for smaller schools that might not be able to provide adequate mentoring from within the school.

¹⁰ The BTSF policy PD/2007/0367/V04 was revised in April 2016. New implementation guidelines can be found here: https://www.det.nsw.edu.au/policies/staff/prof_learn/begin_teach/implementation_1_PD20070367.shtml

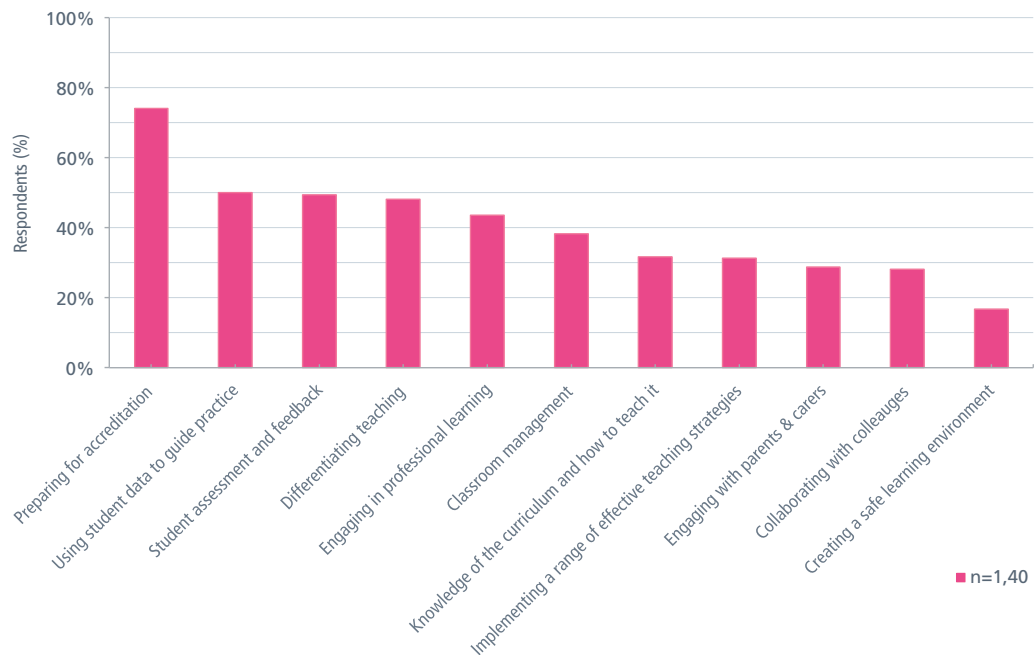
4.4 Teacher Mentor (temporary teacher support) program

As shown previously, results from the FoL teacher survey suggest that TBTs need the same amount of support as PBTs. In another survey, TBTs were asked to indicate the level of support they needed in a range of areas related to their teaching practice¹¹ when they began their appointment. Figure 15 shows that the area with the greatest reported need for support was in preparing for accreditation. Approximately half of all respondents also indicated that at the commencement of their temporary appointment they needed moderate or considerable support in areas including: 'using data to guide practice', 'student assessment and feedback', 'differentiating teaching', 'engaging in professional learning' and 'classroom management'.

Figure 15:

Temporary beginning teacher support needs at commencement of appointment

Source: Temporary beginning teacher surveys, 2015



Note: Survey respondents were asked to rate their support needs on an ordinal scale of none, minimal, moderate and considerable. Responses of moderate and considerable were combined and are displayed in this figure.

¹¹ The questions were developed to align with the Australian Professional Teaching Standards

4.4.1 Mentoring

The receipt of mentoring

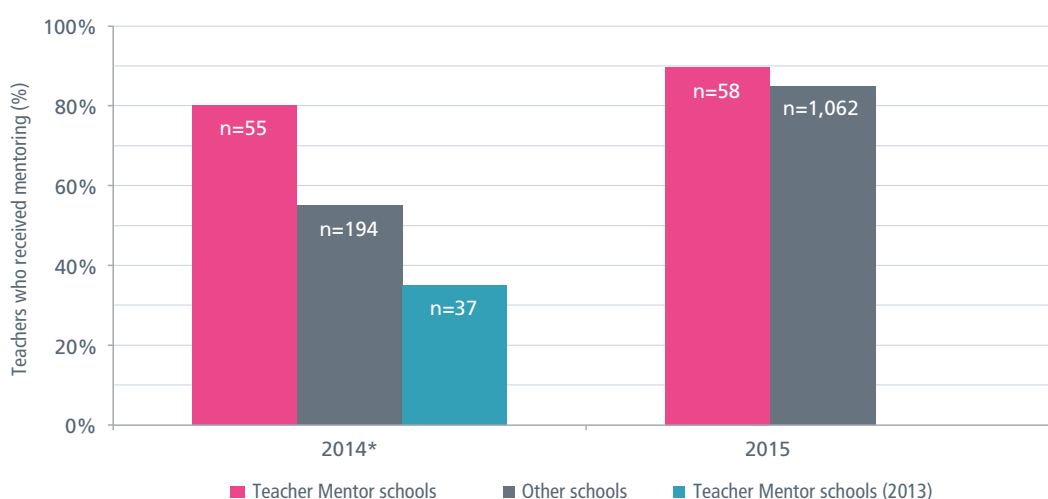
Figure 16 shows that the introduction of the Teacher Mentor program in 2014 increased the percentage of TBTs who reported receiving mentoring support across the 39 supported schools, compared to other schools (80% cf. 55%). Furthermore, a higher percentage of TBTs across those 39 schools reported receiving mentoring in 2014 relative to 2013 (80% cf. 35%) suggesting that some of the increase was due to the appointment of the Teacher Mentors.

However, in 2015 the percentage of temporary beginning teachers who reported receiving mentoring support was similar across the 47 schools receiving Teacher Mentor support and other schools (90% cf. 85%). This indicates a greater system-wide focus on providing mentoring support for TBTs in 2015 compared to 2014. This could be a response to the increased focus on accreditation since the start of GTIL.

Figure 16:

Percentage of temporary beginning teachers who received mentoring in 2014 or 2015

Source: Temporary beginning teacher surveys



*Teacher Mentor schools vs other schools $\chi^2(1) = 19.53, p < .01$

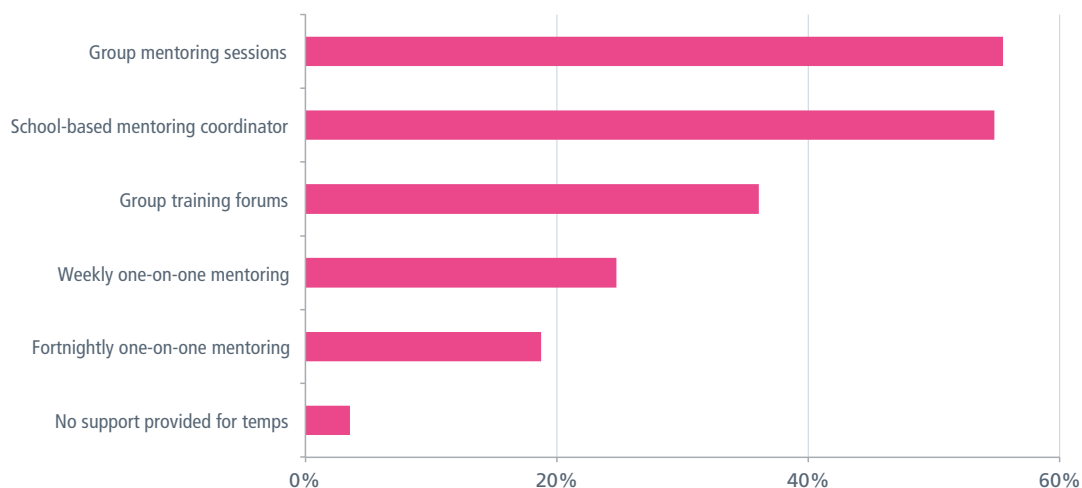
Principals were also surveyed in 2016 about whether they provided TBTs access to mentoring support at their schools. Figure 17 shows that 55 per cent of respondents indicated that TBTs have access to a school-based mentoring coordinator when they commence at their schools. More than a third (36%) said that temporary beginning teachers had access to group training forums. More than forty per cent received either weekly (25%) or fortnightly one-on-one mentoring (19%).

Importantly, only a very low proportion of principals indicated that no mentoring support was provided by their school for temporary beginning teachers (3.5%). Although this is lower than indicated by TBTs it does highlight that mentoring support for TBTs is widespread across all NSW government schools and not only in schools supported by a Teacher Mentor. Furthermore, the responses from principals suggest that there is some structure to this mentoring of TBTs.

Figure 17:

Types of mentoring support for temporary beginning teachers

Source: Principal survey, 2016



In the 2015 survey of TBTs, almost 70 per cent of TBTs from non-Teacher Mentor schools reported receiving mentoring from one or more experienced teachers from within their school compared to 36 per cent of TBTs across the 47 Teacher Mentor supported schools (data not shown). Of TBTs at the 47 schools supported by a Teacher Mentor in 2016, 61 per cent of those who indicated that they received mentoring reported that more than half of their total mentoring was from the Teacher Mentor allocated to their school (data not shown).

While more TBTs at Teacher Mentor schools receive their support from dedicated mentors outside the school, PBTs, and TBTs not at mentor schools, were more likely to receive mentoring support from within the school. Unlike TBTs at Teacher Mentor schools, fewer than 10 per cent of PBTs reported receiving most of their support from a school-based induction or a mentoring coordinator.

This aligns with findings from site visits where TBTs across the 47 schools reported considerable variability in the receipt of mentoring from experienced teachers within their schools. Some teachers felt quite unsupported by the school or their supervisors, while others reported that they had a supportive supervisor. Some who said they felt well supported by their supervisor nonetheless said that the Teacher Mentor had helped them to feel less alone in juggling the demands of a new job, getting to know their students, and learning what constituted, and how to deliver, good teaching practice.

Together the survey and consultation findings suggest that mentoring for TBTs has increased across all NSW government schools and the allocation of a Teacher Mentor results in a redistribution of responsibility for mentoring TBTs away from internal staff.

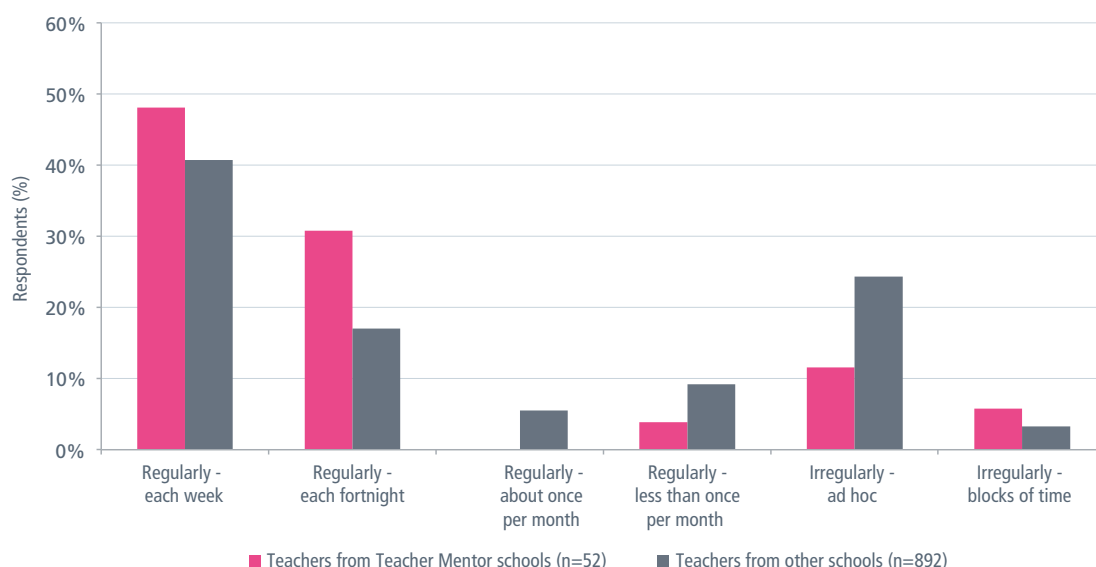
The frequency of mentoring

Figure 18 shows that TBTs at schools supported by a Teacher Mentor that reported receiving mentoring, received more frequent mentoring than TBTs at other schools. Seventy-nine per cent of respondents from schools allocated a Teacher Mentor reported receiving regular mentoring (at least fortnightly) compared to 58 per cent of respondents from other schools.

Figure 18:

The frequency of mentoring received by temporary beginning teachers

Source: Temporary beginning teacher surveys, 2015



However, there was no significant difference in the percentages of TBTs from both groups who reported the frequency of total mentoring they received suited or somewhat suited their needs (data not shown).

Mentoring activities

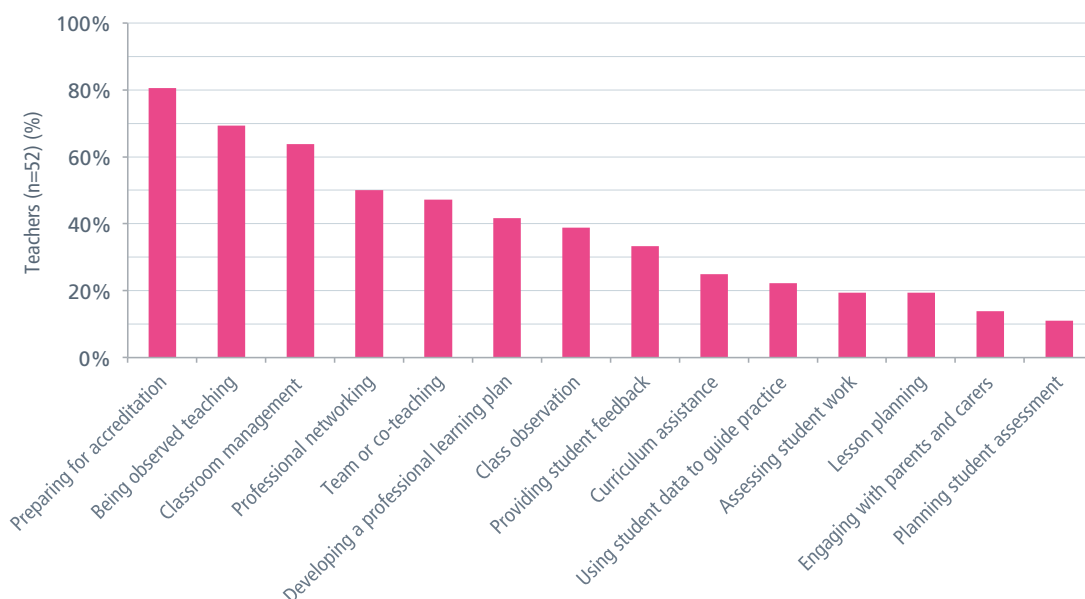
Figure 19 shows that the most commonly reported activity undertaken with Teacher Mentors was preparing for accreditation (81%). During site visits Teacher Mentors and TBTs elaborated on this as supporting TBTs to understand and demonstrate practice against the Australian Professional Standards for Teachers at Proficient, and preparing evidence of this for their submissions. Figure 19 also shows that TBTs are engaging in a wide range of other, yet related, activities with their Teacher Mentors including support around classroom management.

Comments from TBTs during site visits suggested that while initially daunted by the process, many valued classroom observations where they were given supportive collegial feedback designed to improve their practice, rather than it being used as a performance assessment tool. Nearly 70 per cent of TBTs reported being observed teaching compared with fewer 2014-2015 first year PBTs (47%). However a much lower proportion received assistance with curriculum with only 25 per cent of TBTs being supported in this activity compared with 46 per cent of 2014-2015 first year PBTs. This could reflect that TBTs at schools supported by a Teacher Mentor are primarily mentored by the Teacher Mentors rather an experienced colleague within the school such as a stage or faculty lead.

While support around preparing for accreditation was viewed as the main area of support from Teacher Mentors, some TBTs commented that a great value of the program was that support was tailored to their individual needs. During site visits most TBTs said that they received feedback, support and advice targeting areas of practice where they individually needed most assistance. Many TBTs said that working with a Teacher Mentor significantly improved their understanding of the Australian Professional Standards for Teachers and how to apply them in their teaching practice.

Figure 19:**Types of activities conducted with Teacher Mentors**

Source: Temporary beginning teacher survey, Term 4, 2015



During site visits many TBTs across the 47 supported schools spoke about their lack of knowledge about and avoidance of accreditation before being put in contact with a Teacher Mentor. They particularly valued support in determining what constitutes accreditation 'evidence' and how to appropriately annotate it. Many admitted that they were reluctant to ask for help or reveal their inexperience as it was seen as potentially damaging to their prospects of permanent employment. Teacher Mentors monitored the progress of individual teachers on accreditation and helped these individuals improve areas of weakness.

Many TBTs reported that supervisors and other more experienced teachers in their schools often did not understand the requirements for accreditation and that beginning teachers often had little or no knowledge of existing avenues of support when completing their accreditation. Teacher Mentors also reported being approached by supervisors of beginning teachers with requests for information about Proficient accreditation.

Site visit interviews revealed that Teacher Mentors also acted as knowledge brokers for principals and school executives: answering questions about accreditation processes, supporting principals with submitting accreditation documentation and accreditation reporting, and assisting a number of principals during their transition to becoming a Teacher Accreditation Authority (TAA). Principals also commented that the Teacher Mentor allocated to their school had helped to fill knowledge gaps and increase the understanding of accreditation processes amongst stage or faculty leaders.

In 2014 and 2015, Teacher Mentors also ran generalised professional learning sessions on various topics for the TBTs at the schools they supported. A number provided an induction into the teaching profession, running structured induction programs with sessions at regular intervals e.g. weekly or fortnightly for 6 weeks. Those who attended commented during focus groups that they valued the ability to share experiences with peers in a group setting. Others said this was the first time they had received a general overview of policies and procedures since they first commenced teaching. Most were keenly aware that they carried the same teaching load of colleagues who were beginning permanent positions but with fewer supports. The vast majority of interviewees were grateful to have access to a Teacher Mentor.

4.4.2 Limitation of Teacher Mentor program

One key challenge identified by TBTs seeking mentoring was time in the absence of accompanying release time. It was somewhat easier for secondary teachers with free periods to spend time with Teacher Mentors, while some TBTs reported that with the demands of a full teaching load (including staff meetings and other obligations) they had to wait until after school or in lunch breaks. They recognised that Teacher Mentors worked long days and were generous with their own time (e.g. working over lunch or following after-school staff meetings) to ensure that these teachers had access to mentoring. There was also a perception that PBTs were the 'haves' and that TBTs were the 'have nots'. TBTs very often carried the same load as their permanent peers but did not receive release time and thus felt more pressure to complete their accreditation requirements.

4.4.3 Impacts of the Teacher Mentor program

Self-reported impact on teaching practice

TBTs who reported receiving mentoring were asked to rate the impact of the mentoring they received across a range of areas aligned with the Australian Professional Standards for Teachers. Relative impacts between TBTs at schools supported by Teacher Mentors and TBTs at other schools were compared using ordered logistic regression¹².

TBTs at schools supported by a Teacher Mentor were only significantly more likely to report a larger impact from the mentoring they received than TBTs at other schools around supporting them to 'prepare for accreditation' (proportional odds ratio=2.396, $p < .001$) (see Appendix G).

TBTs who reported receiving mentoring were also asked to rate on a 1-10 ordinal scale their confidence as a teacher upon commencement as a temporary beginning teacher with the Department, and their confidence at the time of taking the survey¹³. As with the analysis for PBTs, multinomial and fifth logistic regression was performed to determine whether there were any significant differences in teacher confidence ratings for TBTs at schools supported by Teacher Mentors and TBTs at other schools. After accounting for confidence scores at commencement of their temporary appointment and length of that appointment at the time of taking the survey, there were no significant differences between the groups ($\chi^2(7)=3.7$, $p = n.s.$, pseudo $R^2 < .005$).

During focus groups with TBTs, there was strong agreement that the regular mentoring received from the Teacher Mentor gave TBTs an independent space which allowed them to reflect on and improve their practice. The independence of the Teacher Mentors appears to be crucial for encouraging this reflective practice. Many TBTs admitted in focus groups that they did not like asking too many questions lest it draw attention to their inexperience or compromise their future employment prospects. In all focus groups it was emphasised that having an independent Teacher Mentor to ask any questions that they were not comfortable raising with colleagues was extremely important for building their confidence to admit when they needed help, and knowing where to go to seek advice within their school.

The retention of temporary beginning teachers

Anecdotally, there are concerns about the lower retention of temporary teachers within NSW government schools relative to permanent teachers. This is supported by a separate survival analysis of rural and remote teachers where the risk of temporary teachers leaving the Department was found to be around 1.3 times higher ($p < .001$) than the risk of permanent teachers leaving the Department (CESE, 2016).

For this study, a survival analysis was undertaken to assess whether the support by Teacher Mentors has increased the retention of TBTs in NSW government schools. Two stratified Cox regression models were fitted to Department appointment records to compare the transitions from employment with the Department to non-employment with the Department (and vice versa) of TBTs from 2011 ($n=4,161$) and 2014 ($n=4,079$). The technical details of these models are presented in Appendix F.

¹² The impacts were measured on a 5 point impact scale ranging from 1='no impact at all' to 5 = 'very large impact'.

¹³ Surveys of TBTs are conducted late in Term 4, with the sample restricted to teachers that began their first temporary appointment with the Department in Terms 1 to 3 of the same year. The length of appointment is controlled for in all statistical analyses

The analysis revealed that the risk of TBTs leaving the Department is significantly lower for those that began in 2014 compared to those that began in 2011 (HR = 0.85, $p < .001$). The main effect on retention of TBTs being appointed to one of the 39 schools supported by a Teacher Mentor under GTIL was not significant (HR=1.00, $p = .97$) suggesting that across 2011 and 2014 being appointed at one of those schools has no differential impact on TBT retention. However, the interaction between being appointed at one of those schools and exposure to a Teacher Mentor (i.e. appointment in 2014) was also not significant (HR = 1.16, $p = .n.s.$).

A significant factor leading to the extended non-appointment of a temporary teacher from the Department is the availability of a new contract at the conclusion of one contract. One possible impact of mentoring for TBTs is that they are better prepared to teach than un-mentored TBTs making them more competitive when applying for future temporary or permanent appointments. Furthermore, site visits revealed that some Teacher Mentors have supported TBTs prepare their resumes to better highlight evidence of their effective practice. Therefore, a separate analysis was undertaken to look at the impact of exposure to a Teacher Mentor on the time of post contract non-employment with the Department. The rationale being that support from a Teacher Mentor could reduce this time with mentored TBTs gaining additional appointments faster than other TBTs. However, there were also no significant effects detected for the impact of the Teacher Mentor program on the transition of TBTs from a state of post contract non-employment with the Department to re-appointment, accounting for breaks due to school holidays.

These data suggest that while TBTs who began with the Department in 2014 have been retained with the Department significantly longer than those who began in 2011, the Teacher Mentor program has had no impact on this. Furthermore, the Teacher Mentor program has not increased the likelihood that a TBT will be re-appointed with the Department following the end of a contract.

5. Discussion

5.1 Findings to date

Release time and mentoring for permanent beginning teachers

Survey findings suggest that the BTSF policy has contributed to an increase in the amount of overall release time taken by PBTs in the first year of their appointment compared to those who commenced in 2013 (54 cf. 30 hours per year). In particular, PBTs with two years or less prior teaching experience at the time of their appointment or who were not yet accredited at Proficient appear to be the greatest beneficiaries of the additional release time.

The average hours of overall release time are still considerably lower than might be expected. Combined with regular release time, PBTs might expect to receive up to 120 hours in the first year of their permanent appointment. The size of the reported discrepancy should be treated with caution as the receipt of release time is self-reported with administrative data not available. However, principals and PBTs cited several barriers using BTSF release time that provides additional evidence that PBTs are on average not receiving their full allocation. The major barriers appear to be accessing casual relief for PBTs and ensuring that time spent away from class is utilised for developing teaching practice as opposed to PBTs undertaking general administration tasks. Principals and PBTs strongly agreed that there is a need for BTSF release time to be planned and scheduled in advance to better focus the time on professional learning activities. Whether this means regular weekly sessions or accumulated blocks probably depends on the needs and preferences of individual PBTs, which the flexibility in the policy permits.

Similar to release time, 2014-2015 PBTs on average received more mentoring from an experienced colleague across key areas of professional practice during the first year of their appointment compared with those who commenced in 2013. However, the average amount of mentoring reported by PBTs (22 hours per year) is roughly half of the one hour per week equivalent in mentoring specified under the BTSF policy. As with providing BTSF release time to PBTs, principals also reported that the main barrier to releasing experienced teachers to mentor PBTs was finding suitable relief to cover classes on a regular basis.

Although second year PBTs eligible for BTSF on average are receiving more release time than their 2013 counterparts, they appear to be accessing only half of their entitlement of the equivalent of one hour per week. Moreover, unlike first year PBTs with less than two years of teaching experience, PBTs in their second year with less teaching experience reported receiving the same amount of BTSF release time as PBTs with more teaching experience. Compared with first year PBTs, second year PBTs were also less likely to take BTSF release time regularly each week but more likely to take it irregularly in accumulated blocks.

Compared with providing two hours of release time for first year PBTs, fewer principals indicated that they had experienced barriers to providing the equivalent of one hour per week, although the main reason was the same (unable to provide relief to cover classes).

An indication of the utility of BTSF release time for second year PBTs comes from PBTs' reported use of this time. Whereas PBTs used their release time in the first year of their appointment for professional learning activities and mentoring, nearly 30 per cent of PBTs reported using their second year release on administrative tasks including lesson preparation, marking and organising school events. Second year PBTs were also considerably more likely to report spending a small amount of their release time on professional learning activities than they were in their first year.

The reasons for this are unclear but PBTs reported a number of suggestions about how second year release time could be improved. This included greater transparency about the policy and appropriate options to use the release time, more structure around their use of release time, and concurrent support focused on developing specific areas of their teaching practice. This latter point suggests that if the additional second year release time was accompanied by structured support from an experienced mentor, it could be more valuable for PBTs. There is a question about the value of providing additional release time for PBTs in their second year under the current arrangement if the purpose of that release time is to support professional development.

Survey findings suggest that the additional release time and mentoring for PBTs in the first year of their appointment is having a positive impact on their teaching practices and confidence to teach. While all PBTs who receive the support appear to benefit, the greatest impacts appear to be for those PBTs with two years or less prior teaching experience and those yet to be accredited at Proficient or above. However, this is based on self-report with no objective measure of PBT development against the Standards captured as part of this evaluation. Although PBTs have received more mentoring under the BTSF policy, the quality and/or alignment of this mentoring against the drivers of student learning and the Standards is unknown.

Second year BTSF release time on the other hand appears to not have a significant impact on the teaching practice or confidence to teach of PBTs, irrespective of their years or prior teaching experience or accreditation status. This could reflect the fact that second year release time is on average not being taken in full, commonly used for administrative tasks and is not accompanied by mentoring from an experienced colleague.

Teacher Mentor program

The FoL teacher survey indicated that inexperienced temporary teachers have the same need for support as inexperienced permanent teachers. The Teacher Mentor program is a response to this need, albeit across a small number of schools. In the year of introduction of the Teacher Mentor program, TBTs at schools supported by Teacher Mentors clearly reported receiving considerably more mentoring support than TBTs at the same schools in the previous year and TBTs across other schools. Furthermore, support by Teacher Mentors appeared to be more frequent than mentoring provided to TBTs across other schools.

In 2015 the difference between reported support by TBTs at schools supported by a Teacher Mentor and other schools closed, suggesting a systemic increase in support for TBTs in 2015. The reason for this is unclear but could reflect a combination of the broader use of BTSF for PBTs to also support TBTs, the increased focus on accreditation under GTIL and at least in primary schools the early response to the Quality Teaching, Successful Students initiative¹⁴.

It is apparent from TBT survey responses that where schools are supported by a Teacher Mentor, responsibility for a considerable portion of mentoring TBTs is shifted from experienced teachers within schools to the Teacher Mentors. This creates a risk of less support being provided to TBTs from stage and subject leaders, possibly limiting the potential for early career development.

TBT and principal survey findings suggest that the main impacts of the Teacher Mentor program to date has been helping TBTs work towards Proficient accreditation and helping stage and/or subject area leaders to better understand accreditation processes. It was clear from surveys of TBTs and site visits that the predominant activity Teacher Mentors are undertaking with TBTs is helping them understand and demonstrate the Australian Professional Standards for Teachers and prepare submissions to achieve Proficient accreditation.

As TBTs do not receive any additional release time for mentoring support, the opportunities for TBTs to access additional professional support from Teacher Mentors is limited. This is further exacerbated by the fact that Teacher Mentors support a considerable number of TBTs across up to eight schools each.

¹⁴ From Term 3 in 2015, primary schools will receive additional staffing resource allocations based on student enrolments to facilitate collaborative practices, mentoring and coaching and support for all teachers with accreditation processes and the new Performance and Development Framework (<http://www.dec.nsw.gov.au/about-the-department/our-reforms/quality-teaching-successful-students>)

Focus groups with TBTs at schools supported by Teacher Mentors did provide some evidence of the benefits of having a mentor that is independent of the school. TBTs reported often being reluctant to draw attention to areas where they need professional support for fear that it might harm their prospects of being reappointed to another temporary appointment or gaining permanency. However, the benefits of this independence need to be weighed up against the capacity constraints of having a single mentor working across up to eight schools. Greater benefit for the teaching practice of TBTs might be provided by structured internal mentoring aligned to the Australian Professional Standards for Teachers, akin to the system intent for PBTs.

There are concerns about the retention of early career temporary teachers in the profession. This has been confirmed for rural and remote teachers where the retention of temporary teachers is significantly less than permanent teachers (CESE 2016). Analysis of the retention of TBTs suggests that compared to the years preceding GTIL, the retention of temporary beginning teachers has increased. However, exposure to Teacher Mentors has not had an impact on the retention of TBTs suggesting that broader systemic factors are responsible for the increased retention since the start of GTIL. Although increasing teacher retention is not a stated aim of Teacher Mentors, it might be expected that a dedicated support program for a subset of TBTs would increase the retention of teachers.

Beginning teacher induction

Findings from the FoL teacher survey indicate that on average teachers with two years or less teaching experience need more support to develop their teaching practice, when compared with teachers with more teaching experience. The SSGT resource is intended to sit alongside and support the BTSF release time and mentoring provided under GTIL. It takes a perspective of teacher induction that encompasses a structured and customised program to develop the skills of early career teachers through the lens of the Australian Professional Standards for Teachers. However, less than half of principals indicated that their school was using SSGT despite most being aware of it, suggesting that the remaining schools have developed their own induction programs.

One in five PBTs indicated that they wanted a more structured induction when they began teaching which supports findings from the principals' survey that fewer schools offer a structured induction program compared with those that offer a general administrative introduction. Many PBTs also reported that they wanted more structure in their mentoring sessions. Although PBTs have received more mentoring under the BTSF policy, the quality and/or alignment of this mentoring against the drivers of student learning and the Standards is unknown. Given the apparent desire for a more structured induction program by a considerable number of PBTs, there appears to be merit in schools more closely using the SSGT resource to support the induction and mentoring of beginning teachers. Of school principals that reported using SSGT at their school, around two-thirds have found it helpful, further supporting its broader uptake.

5.2 Concluding comments

There is evidence that not all teachers are receiving BTSF release time and mentoring allocations in full, suggesting that the BTSF policy has not been fully implemented as planned. The flexibility within the policy about how release time is allocated might mean that PBTs are not always aware whether they have received their full entitlement of release time and mentoring under the policy. However, there is enough evidence to suggest that more information from schools about how BTSF is being used to support PBTs is required.

Despite variations in the implementation of BTSF support across the system, there is some evidence that the mentoring and release time received by PBTs in the first year of appointment is having a positive impact on developing their teaching practice and confidence to teach, particularly for inexperienced teachers who are not yet accredited at Proficient.

At this point, there is little evidence that BTSF release time for the second year of a PBT's appointment is either being used in full, as intended or having a significant impact on teaching practice. The lack of impact is not surprising given that second year PBTs reported spending much of their overall release time on administrative tasks rather than developing quality teaching practices. The guidelines for the BTSF policy indicate that BTSF release time should be used for structured activities which help develop quality teaching practices, ideally tied to teachers' performance development plans. It is important that these guidelines continue to be communicated to schools to ensure BTSF is used as intended. For the second year of PBT release time, PBTs might benefit from having accompanying mentoring support. Although, given finite resources for beginning teacher support, this needs to be weighed against the benefits of expanding support for TBTs in their first year.

There is enough evidence in this report to suggest that all early career teachers that are not yet accredited at Proficient have similar support needs and can benefit from regular additional release time for professional learning and mentoring from an experienced colleague. This includes TBTs and casual teachers, who represent a considerable proportion of early career teachers.

The data in this report confirm previous findings from an early evaluation of beginning teacher support conducted by CESE in 2015. As a result of this early evaluation, the policy around eligibility for BTSF release time and mentoring was revised, such that from April 2016 release time and mentoring is only available for PBTs with less than two years prior teaching experience and who are yet to be accredited at Proficient¹⁵. Furthermore, from Term 1 in 2017 the savings from this revision will be re-allocated to partially support the provision of two hours of release time and one hour of mentoring to TBTs on a one year contract with less than two years prior teaching experience and who are yet to be accredited at Proficient. As data becomes available from Term 2 in 2017, the impacts of the revised BTSF policy will be evaluated including the comparative access to release time and mentoring by TBTs relative to PBTs.

15 In April 2016 the Beginning Teachers Support Funding Policy (PD/2007/0367/V02), which outlines the Department's policy for the support of permanent beginning teachers in their first two years of teaching, was replaced with policy PD/2007/0367/V04, available at: https://www.det.nsw.edu.au/policies/staff/prof_learn/begin_teach/PD20070367.shtml.

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Appendix A: Teacher Mentor (temporary teacher support) schools – 2014 and 2015

Table 10:
Teacher Mentor schools
2014 and 2015

Group	2014 Schools	2014 participation	2015 participation
Tamworth	Hillvue Public School	✓	
Tamworth	Oxley High School	✓	✓
Tamworth	Peel High School	✓	✓
Tamworth	Tamworth Public School		✓
Tamworth	Tamworth High School	✓	
Tamworth	Westdale Public School	✓	✓
Tamworth	Barraba Central School		✓
Tamworth	Manilla Central School		✓
Bathurst	Blayney High School	✓	✓
Bathurst	Denison College - Kelso Campus	✓	✓
Bathurst	Denison College - Bathurst Campus	✓	✓
Bathurst	Lithgow High School	✓	✓
Bathurst	Oberon High School	✓	✓
Bathurst	Portland Central School	✓	✓
Bathurst	Blayney Public School		✓
Gunnedah	Curlewis Public School	✓	
Gunnedah	Gunnedah High School	✓	✓
Gunnedah	Gunnedah Public School	✓	✓
Gunnedah	Gunnedah South Public School	✓	✓
Gunnedah	Tambar Springs Public School	✓	
Gunnedah	Boggabri Public School		✓
Gunnedah	Quirindi High School		✓
Wagga Wagga	Coolamon Central School	✓	✓
Wagga Wagga	June High School	✓	✓
Wagga Wagga	Koorinal High School	✓	✓
Wagga Wagga	Mount Austin High School	✓	✓
Wagga Wagga	Wagga Wagga High School	✓	✓
Wagga Wagga	Ashmont Public School		✓
Wagga Wagga	Mount Austin Public School		✓
Wagga Wagga	Lake Albert Public School		✓

Table 10:
Teacher Mentor schools
2014 and 2015

Group	2014 Schools	2014 participation	2015 participation
Wagga Wagga	Forest Hills Public School		✓
Wagga Wagga	Sturt Public School		✓
Holroyd	Blaxcell Street Public School	✓	✓
Holroyd	Greystanes Public School	✓	
Holroyd	Hilltop Road Public School	✓	✓
Holroyd	Westmead Public School	✓	✓
Holroyd	Old Guildford Public School		✓
Warringah	Manly West Public School	✓	
Warringah	Northern Beaches Sec College — Balgowlah Boys High School	✓	✓
Warringah	Northern Beaches Sec College — Mackellar Girls High School	✓	
Warringah	Seaforth Public School	✓	✓
Warringah	Narrabeen Lakes Public School		✓
Warringah	Narrabeen Sports High School		✓
Fairfield	Bonnyrigg High School	✓	✓
Fairfield	Bossley Park High School	✓	✓
Fairfield	Fairfield West Public School	✓	✓
Fairfield	Lansvale Public School	✓	✓
Fairfield	St Johns Park High School	✓	✓
Fairfield	Lansvale East Public School		✓
Liverpool	Bonnyrigg Heights Public School	✓	✓
Liverpool	Green Valley Public School	✓	
Liverpool	James Busby High School	✓	✓
Liverpool	Liverpool Boys High School	✓	
Liverpool	Liverpool West Public School	✓	✓
Liverpool	Busby Public School		✓
Liverpool	Heckenberg Public School		✓

Appendix B: School principal survey

Questions about GTIL were administered as part of the first annual CESE principal survey, a larger survey which included questions covering the GTIL Blueprint as well as other major education reforms. This evaluation uses findings from the 2015 survey relating to permanent and temporary and casual beginning teachers.

Questionnaire

The principal survey was launched in Term 1 2016, and will be repeated in 2017 and 2018, enabling measurement of changes over time.

Q no.	Question	Response instruction	Response categories
Beginning teacher induction			
Teacher induction refers to professional learning support during the first 2 years of a teacher's career, or after a period of absence from teaching, or retraining in a new subject area, or starting at a new school. It may encompass structured and informal methods to reflect on and develop teaching practice.			
1	In 2014 or 2015, did you have any teachers who were new to teaching? (i.e. casual, temporary or permanent teachers in their first year <u>after</u> graduating from a teaching degree).	Single response	Yes No
2	When these graduate teachers began teaching at your school, on average how prepared were they for teaching?	Single response	Not prepared Somewhat prepared Mostly well prepared Well prepared I could not say
3	What induction support does your school provide for beginning teachers i.e. teachers who are new to teaching? (<i>Select one answer for each row.</i>)	Single response, matrix: Yes No	A structured induction program for beginning teachers (<i>if selected go to next question, otherwise skip</i>) Informal induction activities for beginning teachers, not part of an induction program. A general and/or administrative introduction to the school for beginning teachers
4	Please indicate which teachers are eligible to attend the structured induction program for staff new to teaching. (<i>Select one answer for each row.</i>)	Single response, matrix: Yes No	Permanent beginning teachers Temporary beginning teachers Casual beginning teachers
5	<i>The Strong start, Great teachers resource is available online to support schools to develop and implement induction processes for new teachers.</i> Which of the following statements best describes your school's use of the <i>Strong start, Great teachers</i> resource?	Single response	The resource is not currently used at my school to support induction process(es) and there are no plans to use it in the future There are plans to use the resource to support future induction process(es) My school is using (or has used) the resource to support induction process(es) I could not say whether the resource is being used
6	How helpful has the Strong start, Great teachers resource been as a resource to provide support to beginning teachers in your school?	Single response	Not at all helpful Somewhat helpful Quite helpful Very helpful
7	In 2015, did you have any teachers who were in their first year of a <u>permanent</u> appointment with the Department?	Single response	Yes No

Q no.	Question	Response instruction	Response categories
8	<p><i>From 2014, schools received Beginning Teacher Support Funding to provide additional support to teachers commencing their first permanent appointment in a NSW government school.</i></p> <p>How was this additional release time allocated to permanent beginning teachers in the first year of their appointment in 2015?</p>	Single response	Regularly each week Irregularly each week Regularly but in longer blocks of time Irregularly but in longer blocks of time Ad hoc/varied for each individual I could not say
9	<p>In 2015, did you encounter any of the following barriers to providing 2 hours of additional release time <i>regularly</i> each week for permanent beginning teachers in their first year?</p> <p>Q9a. Did you encounter any other barriers, not listed above, to providing 2 hours of additional release time regularly each week for permanent beginning teachers in their first year? <i>(please specify)</i></p>	Single response, matrix: Yes No	Unable to cover classes during additional release time Some teachers who gained a new permanent position not interested in receiving regular release time 9a. <free field>
10	<p><i>Beginning Teacher Support Funding includes release for an experienced teacher to mentor a teacher in the first year of a new permanent appointment.</i></p> <p>In 2015, did you encounter any of the following barriers to providing permanent beginning teachers with this mentoring by an experienced teacher? <i>(Select all that apply)</i></p>	Multi response	Unable to provide relief for experienced teachers on a regular basis Unavailability of supervising mentors due to competing priorities Some teachers who gained a new permanent position not interested in receiving mentoring Other (please specify) <free field>
11	In 2015, were any teachers at your school in their second year of a permanent appointment with the Department?	Single response	Yes No
12	<p><i>From 2014, schools received Beginning Teacher Support Funding to provide release time for teachers in their second year of a permanent appointment.</i></p> <p>How was this additional release time allocated to permanent beginning teachers who were in the second year of their appointment in 2015?</p>	Single response	Regularly each week Irregularly each week Regularly but in longer blocks of time Irregularly but in longer blocks of time Ad hoc/varied for each individual I could not say
13	<p>In 2015, did you encounter any of the following barriers to providing this release time to permanent beginning teachers in their second year?</p> <p>Q13b. Did you encounter any other barriers not listed above, to providing this release time to permanent beginning teachers in their second year? <i>(please specify)</i></p>	Single response, matrix: Yes No	Unable to cover classes during additional release time 13b. Other <free field>
14	What might have further improved your school's ability to support beginning teachers commencing at your school?	Open-ended	<free field – limit characters to 400>
Teachers beginning a temporary appointment			
Question only asked of schools without Teacher Mentors			
15	In 2015, did you have any teachers at your school in their first year of a temporary appointment with the Department?	Single response	Yes No
16	In 2015, what types of mentoring support did your school provide to temporary beginning teachers in their first year?	Multi response	Weekly one-on-one mentoring sessions Fortnightly one-on-one mentoring sessions Group mentoring sessions Group training forums Access to a school-based mentoring coordinator [NA] No mentoring support was provided for temporary beginning teachers Other <open field>

Q no.	Question	Response instruction	Response categories
17	In 2015, who provided ongoing mentoring support for temporary beginning teachers at your school?	Multi response	Principal Deputy Principal(s)/ Assistant Principal(s) Head Teacher/stage coordinator(s) Classroom teacher School-based mentoring coordinator Mentoring coordinator from outside school Other <free field>
<p>Questions only asked of Principals at 47 schools allocated Teacher Mentors in 2015</p> <p>Teacher Mentor (temporary teacher support) program</p> <p>In 2015, eight Teacher Mentor positions were allocated to communities of schools, including your school, to support temporary beginning teachers</p>			
18	Please indicate your level of agreement with the following aspects of the Teacher Mentor program at your school in 2015	Single response, matrix: Completely disagree Mostly disagree Slightly disagree Slightly agree Mostly agree Completely agree [NA] I could not say	The amount of time spent at my school with beginning teachers was adequate The allocation of teacher support to my school was aligned with school needs
19	Please rate the impacts the Teacher Mentor allocated to your school has had on the following areas.	Single response, Matrix: No impact Low impact Moderate impact High impact	The classroom practice of temporary beginning teachers Supporting temporary beginning teachers to prepare for accreditation Freeing up other experienced teachers at your school to focus on stage and/or subject area leadership Helping stage and/or subject area leaders better understand the professional development and support needs of beginning teachers Helping stage and/or subject area leaders better understand the accreditation processes
20	What improvements would you make to the Teacher Mentor program?	Open-ended	<free field – limit characters to 300>

Respondent profiles

The number of respondents for the 2016 CESE school principal survey was n=1111, drawn from a population of N=2213 schools. Principals in metropolitan areas had the highest response rates (61.5% of the survey population), while response rates for provincial, remote and very remote areas¹⁶ were slightly staggered at just below 50 per cent.

Table 11:

Survey respondents and response rates, by school location

Location	Survey invitations	Respondents	Response rate %
Metropolitan	629	387	61.5%
Provincial	437	216	49.4%
Remote	34	16	47.1%
Very remote	11	5	45.5%
Total	1111	624	

The majority of respondents (73.6%) were primary school principals, followed by secondary school principals (17.9%); these numbers are proportionate to school types across NSW.

Table 12:

Number of schools by type of school and location

Location	Primary/infants	Secondary	Central	SSP	Total
Metropolitan	285	79	0	23	387
Provincial	162	32	17	5	216
Remote	9	1	6	0	16
Very remote	3	0	2	0	5
Total	459	112	25	28	624

¹⁶ MCEETYA remoteness classification (See Jones, 2004).

Sampling frame

A small group of schools classified as 'Other' were excluded from the sample outlined above due to their school type or location (e.g. Environmental Education Centres, Norfolk Island Central School, Saturday School of Community Languages).

Outside of the aforementioned exclusions for the sampling frame, other principals excluded from the sample were Executive Principals of multi-campus schools and Principals, School Leadership.

Table 13:

Population characteristics and sample characteristics: School type and school location

		Sample = n	Population = N	Sample* %	Population %
		(n=624)	(N=2213)		
School Type	Primary/Infants	459	1608	73.6%	72.7%
	Secondary	112	401	17.9%	18.1%
	Central/Community	25	66	4.0%	3.0%
	SSPs	28	113	4.5%	5.1%
	Other	0	25	0.0%	1.1%
Location	Metropolitan	387	1297	62.0%	58.6%
	Provincial	216	859	34.6%	38.8%
	Remote	16	42	2.6%	1.9%
	Very Remote	5	13	0.8%	0.6%

Note: due to rounding, some % may sum to <100%.

* The sample represents approximately 28% of the total population (n=2213).

The characteristics of the survey sample are roughly proportionate to those of the population, with a very slight underrepresentation of metropolitan and provincial schools and a very slight overrepresentation of remote schools.

Appendix C: Permanent beginning teacher survey – year 1

In 2015, CESE commenced quarterly surveys of PBTs at the end of their first year of a permanent appointment to understand what support has been provided to these teachers and the impact of that support on teaching practices. The survey will be sent to all PBTs who commenced a permanent position quarterly each year until the end of 2017. Analyses of six waves of this survey inform this report.

The survey analysis uses a comparison group approach: it compares findings for teachers who were eligible for BTSF from 2014-2015, with teachers who commenced a permanent appointment in 2013 and were not eligible for this support.

Questionnaire

This survey of teachers who commenced a permanent appointment in 2013 and 2014 is being conducted quarterly (in four tranches) from 2015. Below is a sample questionnaire for teachers who commenced in Term 2, 2015.

Q no.	Question	Response instruction	Response categories	
Demographics				
1	What is your current employment status?	Select one	Full-time Part-time	
2	What is your current teacher accreditation level?	Select one	Not required to be accredited at this time Provisional Conditional Proficient Other (please specify) <free field>	(Not req) Do not ask in 2018 (Other) Please specify
3	When did you gain your current status as a <u>permanent</u> teacher at a NSW government school?	Select one	2015 Pre-2015 I am a temporary teacher undertaking retraining	(2015s) Skip to Q5 (Pre-2015s) Go to next question (Temp teachers) End survey – you do not qualify
4	Please write the year in which you gained your current status as a <u>permanent</u> teacher at a NSW government school.		<free field>	Pre-2015s only End survey – you do not qualify page
5	At what NSW government school was your <u>permanent</u> appointment in 2015?	Please type school name only	<free field – predictive text>	Limit characters to 60
6	Is [Q5] your current school?	Select one	No Yes	(No) Skip to Q8
7	How long have you been teaching at [Q5]?	Please enter a number rounded to the nearest year or half year e.g. '4' or '3.5'. If less than half a year, enter 0.	<free field - numerical>	(All) Skip to Q10
8	At what NSW government school is your current appointment?	Please type school name only	<free field – predictive text>	Limit characters to 60

Q no.	Question	Response instruction	Response categories	
9	How long have you been teaching at [Q8]?	Please enter a number rounded to the nearest year or half year e.g. '4' or '3.5'. If less than half a year, enter 0.	<free field – predictive text>	Limit characters to 60
Teaching Experience				
10	Prior to commencing your permanent appointment at [Q5], did you have any teaching experience? (<i>Do not count professional experience placements e.g. practicum teaching as part of your teaching degree</i>).	Select one	Yes No	(No) Skip to Q13
11	Before commencing your permanent appointment in 2015, how many years of teaching experience did you have? (Include teaching experience at non-government schools) (Do not count professional experience placements as part of your teaching degree).	Please enter a number rounded to the nearest year or half year e.g. '4' or '3.5'. If less than half a year, enter 0.	<free field (numerical – allow decimals)>	
12	Please indicate if you have ever taught at the following schools prior to Term 2 2015?	Select employment status for each school type. Please select all that apply.	Multi response, matrix: [N/A I have not taught at this school type; casual; temporary; permanent] NSW government school Catholic school Independent school Interstate school Overseas school	**Adjust time period to match quarterly cohort of PBTs being surveyed
13	During the first 12 months after commencing your permanent appointment, what were you teaching in a NSW government school?	Select one	Primary (K-6) Secondary Both Primary and Secondary Early Childhood/Preschool	(Secondary, Both) Skip next question
14	During the first 12 months after commencing your permanent appointment, which of the following duties were you undertaking in NSW government schools?	Tick all that apply	Special Education English as a Second Language Teacher-librarian [NA] None of the above	(All) Skip next question
15	During the first 12 months after commencing your permanent appointment, which of the following duties were you undertaking in NSW government schools?	Tick all that apply	Special Education English as a Second Language Careers Advisor Teacher-librarian [NA] None of the above	
16	When you began your permanent appointment at [Q5], how confident were you in your teaching knowledge and skills to be an effective classroom teacher?		1-10 scale: [1 = not at all confident and 10 = very confident]	
Mentoring				
A mentor is an experienced colleague who supports you professionally. Mentoring allows mentors and mentees to share their professional and personal expertise and experiences and takes different forms. It may involve multiple mentors and may be conducted one-on-one or in a group setting.				
17	During the first year of your permanent appointment at [Q5], how many hours of mentoring did you receive per term? If unsure, give your best estimate.	Please enter a number for each term e.g. 5 hours is '5'	Term 2, 2015 <free field - numerical> Term 3, 2015 <free field - numerical> Term 4, 2015 <free field - numerical> Term 1, 2016 <free field - numerical>	**Rotate terms for Tranche 2

Q no.	Question	Response instruction	Response categories	
18	During the first year of your permanent appointment at [Q5], on average how regularly did you receive mentoring support?	Select one	Regularly - each week Regularly - each fortnight Regularly - about once per month Regularly - less than once per month Irregularly - ad hoc Irregularly - accumulated blocks of time (e.g. used for training course or collaborative work) [NA] I never received mentoring	
19	Please indicate who assisted you with the following activities during the first year of your permanent appointment at [Q5]? (Do not include School Development Days).	Please select all that apply Please select 'no-one' if you did not receive any support for a given activity	Multi response, matrix: [mentor(s)/ other person(s)/no-one] Differentiating teaching to meet a range of student learning needs Understanding and implementing the curriculum Planning and preparing lessons or units of work Classroom and behaviour management strategies Planning, developing and implementing student assessments Interpreting student data to evaluate learning and guide teaching practice Having a class I was teaching being observed by someone else Observing classes being taught by a mentor(s) or other colleagues Team or co-teaching Connecting with professional teacher networks and/or committees Effectively engaging parents/carers Preparing for accreditation Using the Professional Standards for Teachers as a framework for reflective practice Provision of structured feedback to students Other activities <free field>	
20	Who provided you with the most support for your teaching practice during the first year of your permanent appointment at [Q5]?	Select one	Principal Deputy Principal Head teacher(s)/Assistant Principal (e.g. stage coordinator or head teacher of the subject area you were teaching in) Colleague(s) School-based induction or mentoring coordinator Induction or mentoring coordinator outside your school Other (please specify) <free field>	
21	How satisfied were you that the professional support you received was customised to suit your needs?	Select one	Extremely satisfied Very satisfied Moderately satisfied Slightly satisfied Not at all satisfied	
<p>Release Time For the purposes of this survey, 'release time' includes all release from face-to-face (RFF) time in primary schools or non face-to-face teaching periods in secondary schools.</p>				

Q no.	Question	Response instruction	Response categories	
22	During the first year of your permanent appointment at [Q5], how many hours of release time from classes did your school provide you with per term? (Do not include School Development days).	Please enter a number for each term e.g. 5 hours is '5'	Term 2, 2015 <free field - numerical> Term 3, 2015 <free field - numerical> Term 4, 2015 <free field - numerical> Term 1, 2016 <free field - numerical>	**Rotate terms for Tranche 2
23	During the first year of your permanent appointment at [Q5], on average how regularly did you receive release time?	Select one	Regularly - each week Regularly - each fortnight Regularly - about once per month Regularly - less than once per month Irregularly - ad hoc Irregularly - accumulated blocks of time (e.g. used for training course or collaborative work) I never received release time	(Never received) Go to Q26
24	How much of this release time did you spend undertaking the following activities?		Single response, matrix [none; a little; a moderate amount; a great deal] Self-guided professional learning Support from mentor(s) or other colleagues in classroom preparation (e.g. curriculum and assessment planning) Support from mentor(s) or other colleagues with classroom and behaviour management strategies Observing classes being taught by a mentor(s) or other colleagues General support from mentor(s) or other colleagues Attending conferences or seminars Undertaking training courses (including online training) Participating in online forums Other activities (in total) <free field>	
25	How helpful has this release time been in supporting your professional learning?	Select one	Not at all helpful Somewhat helpful Quite helpful Very helpful	
Release time for Permanent Beginning Teachers [2015s]				
Schools receive Beginning Teachers Support Funding to provide <u>additional</u> support to teachers beginning a permanent appointment in a NSW government school. It is equivalent to 2 hours release time per week in the first year, and 1 hour per week in the second year. This release time is a subset of the total release time described in the previous section. Schools have some flexibility in how this funding is allocated.				
26	Prior to completing this survey, were you aware of this Beginning Teachers Support Funding?	Select one	Yes No Unsure	(No, Unsure) Skip to Q29
27	During the first year of your permanent appointment at [Q5], how many hours of this specific release time did your school provide you with?	Please enter a number	Term 2, 2015 <free field - numerical> Term 3, 2015 <free field - numerical> Term 4, 2015 <free field - numerical> Term 1, 2016 <free field - numerical>	**Rotate terms to match cohort

Q no.	Question	Response instruction	Response categories	
28	During the first year of your permanent appointment at [Q5], on average how regularly did you receive this release time?	Select one	Regularly - each week Regularly - each fortnight Regularly - about once per month Regularly - less than once per month Irregularly - ad hoc Irregularly - accumulated blocks of time (e.g. used for training course or collaborative work) I never received any of this specific release time	
Overall support				
29	During the first year of your permanent appointment at [Q5], how much support did you receive in each of the following areas?	Select one response for each activity.	Single response, matrix: [none (I needed support but did not receive it); minimal support; moderate level of support; considerable support; N/A – I did not need support] Differentiating teaching to meet a range of student learning needs My knowledge of the curriculum and how to teach it Planning and implementing a range of effective teaching strategies Creating and maintaining a safe, positive and supportive learning environment for my students Assessing, providing feedback and reporting on student learning Identifying, planning and engaging in professional learning to improve my teaching practice Collaborating with colleagues to improve my professional knowledge and practice Effectively engaging parents/carers Preparing for accreditation	Note: Those who select N/A will not be asked corresponding impact questions in Q31.
30	How much impact has this support had on the following aspects of your teaching practice?		1-10 scale: [1 = no impact and 10 = very large impact] Differentiating teaching to meet a range of student learning needs My knowledge of the curriculum and how to teach it Planning and implementing a range of effective teaching strategies Creating and maintaining a safe, positive and supportive learning environment for my students Assessing, providing feedback and reporting on student learning Identifying, planning and engaging in professional learning to improve my teaching practice Collaborating with colleagues to improve my professional knowledge and practice Effectively engaging parents/carers Preparing for accreditation	**Filter responses as per PPLs survey so don't see response items where 'none' selected for Q30
31	At present, how confident are you in your teaching knowledge and skills to be an effective classroom teacher?		1-10 scale: [1 = not at all confident and 10 = very confident]	

Q no.	Question	Response instruction	Response categories	
Strong start, Great teachers				
<i>Strong start, Great teachers</i> is an online resource focused on supporting high quality induction for beginning teachers.				
32	Are you aware of the <i>Strong start, Great teachers</i> resource designed to support induction for beginning teachers?	Select one	<p>I was unaware of the resource before this survey</p> <p>I am aware that my school/supervisor has used it to support my teaching practice</p> <p>I am aware that my school/supervisor has used it to support my teaching practice and I have used it independently</p> <p>I am not aware of my school/supervisor using it to support my teaching practice but I have used it independently</p> <p>I am not aware of my school/supervisor using it to support my teaching practice and I have not used it</p>	Upload image (first & last option) Skip to next section (i.e. Further comments)
33	How helpful has the <i>Strong start, Great teachers</i> resource been in supporting the following aspects of your teaching? (Select N/A if you have not used the resource for any of the following aspects of your teaching)	Multiple response, matrix	<p>1-10 scale: [1 = not at all helpful - 10 = very helpful; N/A = not used]</p> <p>Orientation to the school and to teaching</p> <p>Using assessments to improve student learning</p> <p>Classroom and behaviour management strategies</p> <p>Planning and preparing lessons or units of work</p> <p>Reflective practice</p> <p>Providing effective feedback to students</p> <p>Effective teacher questioning</p> <p>Differentiating learning to meet students' needs</p> <p>Student peer and self-assessment</p>	
34	Who provided you with support to use the <i>Strong start, Great teachers</i> resource?	Select all that apply	<p>No-one</p> <p>Principal</p> <p>Deputy Principal</p> <p>Head teacher(s)/Assistant Principal (e.g. stage coordinator or head teacher of the subject area you were teaching in)</p> <p>Teacher Quality Advisor(s)</p> <p>Other colleague(s)</p> <p>Other <free field></p>	
Further comments				
35	What might have further improved your experience of the induction, mentoring or release time that you received in the first year of your permanent appointment?	<free field>	<p>Induction <free field– cap characters at 200></p> <p>Mentoring <free field– cap characters at 200></p> <p>Release time <free field– cap characters at 200></p>	Non mandatory question

Respondent profiles

The characteristics of the survey sample and population for teachers who commenced a permanent appointment in 2013 or in 2014-2015, including school type and location, and years of teaching experience are outlined below.

Table 14:

Sample characteristics:
School type and school
location

Characteristics		2013 teachers		2014-2015 teachers	
		Population (%) N=2027	Sample (%) n=1047	Population (%) N=3617	Sample (%) n=1836
School Type	Secondary	45.70	44.74	42.01	42.43
	Primary	49.63	49.76	50.72	50.27
	Central/Community	3.30	3.47	4.18	4.19
	SSPs	1.25	1.93	2.99	2.94
	Infants	0.12	0.10	0.11	0.16
Location	Metropolitan	72.47	71.92	74.01	73.95
	Provincial	25.56	26.27	24.08	24.36
	Remote	.94	1.43	1.6	1.25
	Very Remote	.006	0.38	.30	.44

Note: due to rounding, some % may sum to <100%.

Table 15 shows that in 2013 and 2014-2015 the population and sample share similar characteristics in terms of school type and remoteness. This is confirmed by the non-significance of chi-squared tests comparing the observed and expected distribution of respondents by either school type ($\chi^2(4) = 2.379$, $p = .666$, and $\chi^2(4) = 0.373$, $p = .985$ for 2013 and 2014-2015 respectively) or remoteness ($\chi^2(3) = 1.02$, $p = .796$, and $\chi^2(3) = 1.663$, $p = .645$ for 2013 and 2014-2015 respectively). Table 15 also shows that the two samples (2013 and 2014-2015) share similar characteristics in terms of school type and remoteness. This is confirmed by the non-significance of chi-squared tests comparing the respondents from each sample by either school type ($\chi^2(4) = 4.586$, $p = .332$) or remoteness ($\chi^2(3) = 1.556$, $p = .669$).

Table 15 shows the employment characteristics of the sample. Less than half of the sample had less than two years of teaching experience, and the remaining (more than 50 per cent) had more than 2 years of teaching experience.

Table 15:

Employment
characteristics of sample

Characteristics		2013 (%)	2014-2015 (%)
Respondents	Number included in analysis	n=1,050	n=1,846
	Current School		
	Same as first permanent appointment (%)	98.27	95.52
Prior teaching experience	2 years or less	45.21	43.08
	2 ≤ 5 years	23.85	26.56
	>5 years	30.94	30.36
Employment status	Full-time	90.38	93.45
	Part-time	9.62	6.55

Table 16 shows that of those who had previous teaching experience, the most common sector (around 90 per cent) was NSW Government.

Table 16:

Teaching experience in other sectors

School type	2013 (n=)		2014-2015 (n=)	
	n	%	n	%
NSW Government	908	88.93	1573	92.04
Catholic	172	16.85	302	17.67
Independent	142	13.91	236	13.81
Interstate	49	4.80	84	4.92
Overseas	138	13.52	191	11.18

Appendix D: Permanent beginning teacher survey – year 2

In 2016, CESE commenced quarterly surveys of PBTs at the end of their second year of a permanent appointment to understand what support has been provided to these teachers and the impact of that support on teaching practices. The survey will be sent to all PBTs who commenced a permanent position each year, on a quarterly basis, until the end of 2017. Analyses of two waves of this survey inform this report.

The survey analysis uses a comparison group approach: it compares findings for teachers who were eligible for support in their second year of teaching under the BTSF policy from 2014, with teachers who commenced a permanent appointment in 2013 and were not eligible for this support.

Questionnaire

This survey of teachers who commenced a permanent appointment in 2013 and 2014 is being conducted quarterly (in four tranches) from 2016. Below is a sample questionnaire for teachers who commenced in Term 2, 2015.

Q no.	Question	Response instruction	Response categories	Programming logic
Demographics				
1	What is your current employment status?	Select one	Full-time Part-time	
2	Before commencing your permanent appointment in 2014, how many years of teaching experience did you have (include teaching experience at non-government schools)? <i>(Do not count professional experience placements as part of your teaching degree).</i>	Please enter a number rounded to the nearest year or half year e.g. '4' or '3.5'. If less than half a year, enter 0.	<free field (numerical – allow decimals)>	
3	What is your current teacher accreditation level?	Select one	Not required to be accredited at this time Provisional Conditional Proficient Other (please specify) <free field>	(Proficient) go to next Q All others skip next Q
4	When did you attain your Proficient Accreditation?		2016 2015 2014 pre-2014	
5	At what NSW government school was your permanent appointment in Term 1 2015? (i.e. in the second year of your permanent appointment)	Please type school name only	<free field – predictive text>	Limit characters Update for each tranche
6	Is [Q5] your current school?	Select one	No Yes	(Yes) Skip to Q8
7	At what NSW government school is your current appointment?	Please type school name only	<free field – predictive text>	Limit characters

Q no.	Question	Response instruction	Response categories	Programming logic
8	How long have you been teaching/did you teach at [Q5]?	Please enter a number rounded to the nearest year or half year e.g. '4' or '3.5'. If less than half a year, enter 0.	<free field - numerical>	
9	During the second year of your permanent appointment, what were you teaching in a NSW government school?	Select one	Primary (K-6) Secondary Both Primary and Secondary Early Childhood/Preschool	
Release Time				
For the purposes of this survey, 'release time' includes all release from face-to-face (RFF) time in primary schools or non-face-to-face teaching periods in secondary schools. The following questions ask you about release time during the <u>second</u> year of your permanent appointment only.				
10	During the <u>second</u> year of your permanent appointment, how many hours of release time from classes did your school provide you with per term? <i>(Do not include School Development days).</i>	Please enter a number for each term e.g. 5 hours is '5'	Term 1, 2015 <free field - numerical> Term 2, 2015 <free field - numerical> Term 3, 2015 <free field - numerical> Term 4, 2015 <free field - numerical>	Update for each tranche
11	During the <u>second</u> year of your permanent appointment, how many hours of release time from classes did your school provide you with per term? <i>(Do not include School Development days).</i>	Select one	Regularly - each week Regularly - each fortnight Regularly - about once per month Regularly - less than once per month Irregularly - ad hoc Irregularly - pooled blocks of time (i.e. less regularly but longer in duration) (NA) I did not receive any release time during my second year	(NA) Skip to open ended then to Q17
	Please tell us why you did not receive any release time during the <u>second</u> year of your permanent appointment.		<free field>	Skip to Q17
12	How much of this release time did you spend undertaking the following activities?		Single response, matrix: [none; a little; a moderate amount; a great deal] Self-guided professional learning Self-guided classroom preparation (e.g. curriculum and assessment planning) Support from mentor(s) or other colleagues in classroom preparation (e.g. curriculum and assessment planning) Support from mentor(s) or other colleagues with classroom and behaviour management strategies Observing classes being taught by a mentor(s) or other colleagues General support from mentor(s) or other colleagues Attending conferences or seminars Undertaking training courses (including online training) Participating in online forums School administration tasks Other activities (in total) (Other) Please list the "other activities" you participated in during your release time <free field>	Mandatory if select 'other activities'

Q no.	Question	Response instruction	Response categories	Programming logic
Support for teachers commencing a permanent appointment (page heading)				
Schools receive Beginning Teachers Support Funding to provide <u>additional</u> support to teachers beginning a permanent appointment in a NSW government school. In the <u>second</u> year It is equivalent to 1 hour release time per week. Schools have some flexibility in how this funding is allocated. This release time is a subset of the total release time described in the previous section.				
13	Prior to completing this survey, were you aware of a policy to provide schools with funding called <i>Beginning Teachers Support Funding</i> ?	Select one	Yes No Unsure	(No, Unsure) Skip to Q17
14	During the <u>second</u> year of your permanent appointment, how many hours of this specific release time did you receive?	Please enter a number or select NA	Term 1, 2015 <free field - numerical> Term 2, 2015 <free field - numerical> Term 3, 2015<free field - numerical> Term 4, 2015 <free field - numerical>	Update for each tranche
15	During the <u>second</u> year of your permanent appointment, on average how regularly did you receive this release time?	Select one	Regularly - each week Regularly - each fortnight Regularly - about once per month Regularly - less than once per month Irregularly - ad hoc Irregularly - pooled blocks of time (e.g. less regularly but longer in duration) (NA) I never received any of this specific release time during my second year	(NA) Skip to next Q then to Q17
	Please tell us why you did not receive any of this specific release time during your <u>second</u> year		<free field>	Skip to Q17
16	How helpful has this release time been in supporting your professional learning?	Select one	Not at all helpful Somewhat helpful Quite helpful Very helpful	
Overall support				
17	During the second year of your permanent appointment at [Q5], how much support did you receive in each of the following areas?	Select one response for each activity	Single response, matrix: [none (I needed support but did not receive it); minimal support; moderate level of support; considerable support; N/A – I did not need support] Differentiating teaching to meet a range of student learning needs My knowledge of the curriculum and how to teach it Planning and implementing a range of effective teaching strategies Creating and maintaining a safe, positive and supportive learning environment for my students Assessing, providing feedback and reporting on student learning Identifying, planning and engaging in professional learning to improve my teaching practice Collaborating with colleagues to improve my professional knowledge and practice Effectively engaging parents/carers Preparing for accreditation	Note: Those who select N/A will not be asked corresponding impact questions in Q18

Q no.	Question	Response instruction	Response categories	Programming logic
18	How much impact has this support had on the following aspects of your teaching practice?		1-10 scale: [1 = no impact and 10 = very large impact] Differentiating teaching to meet a range of student learning needs My knowledge of the curriculum and how to teach it Planning and implementing a range of effective teaching strategies Creating and maintaining a safe, positive and supportive learning environment for my students Assessing, providing feedback and reporting on student learning Identifying, planning and engaging in professional learning to improve my teaching practice Collaborating with colleagues to improve my professional knowledge and practice Effectively engaging parents/carers Preparing for accreditation	Only show those response items selected in Q17
Confidence in teaching				
19	At the following three time points, how confident were you in your teaching knowledge and skills to be an effective classroom teacher?		1-10 scale: [1 = not at all confident and 10 = very confident] When you began your permanent appointment in Term 1 2014 One year after you began your permanent appointment Currently at this point in time	Update for each tranche
Further comments				
20	What might have further improved your experience of the release time that you received in the second year of your permanent appointment?		<free field - numerical>	

Respondent profiles

The characteristics of the survey sample and population for teachers who commenced a permanent appointment in 2013 or in 2014, including school type and location, and years of teaching experience are outlined below.

Table 17:

Sample and population characteristics: School type and school location

Characteristics		2013 teachers		2014 teachers	
		Population (%) N=1604	Sample (%) n=504	Population (%) N=1616	Sample (%) n=480
School Type	Secondary	45.70	43.06	45.73	48.02
	Primary	49.63	51.59	47.40	44.28
	Central/Community	3.30	4.37	4.02	4.78
	SSPs	1.25	0.99	2.66	2.91
	Infants	0.12	0.00	0.19	0.00
Location	Metropolitan	72.88	72.02	71.1	72.0
	Provincial	25.56	25.00	26.7	26.2
	Remote	.94	1.79	1.9	1.2
	Very Remote	.006	1.19	.4	.5

Note: due to rounding, some % may not sum 100%.

Table 18 shows that in 2013 and 2014 the population and sample share similar characteristics in terms of school type and remoteness. This is confirmed by the non-significance of chi-squared tests comparing the observed and expected distribution of respondents by either school type ($\chi^2(4) = 2.94$, $p=.568$, and $\chi^2(4) = 2.681$, $p=.613$ for 2013 and 2014 respectively) or remoteness ($\chi^2(3) = 4.148$, $p=.246$, and $\chi^2(3) = 1.262$, $p=.738$ for 2013 and 2014 respectively).

Table 18 also shows that the two samples (2013 and 2014) share similar characteristics in terms of remoteness. This is confirmed by the non-significance of chi-squared tests comparing the observed and expected distribution of respondents by remoteness ($\chi^2(3) = 1.697$, $p=.638$). However, the samples in 2013 and 2014 do not share the same characteristics in terms of school type, being overrepresented in 2014 by secondary school teachers and underrepresented by primary teachers which is confirmed by a significant chi-squared test comparing the observed and expected distribution of respondents by school type ($\chi^2(3) = 8.861$, $p=.031$).

Table 18:

Employment characteristics of sample

Characteristics		2013 (%)	2014-2015 (%)
Respondents Current School	Number included in analysis	n=506	n=480
	Same as first permanent appointment (%)	90.51	97.28
Prior teaching experience	2 years or less	36.83	40.54
	2 ≤ 5 years	27.92	26.61
	>5 years	35.25	32.85
Employment status	Full-time	88.71	92.10
	Part-time	11.29	7.9

Appendix E: Temporary beginning teacher survey

A survey of TBTs was conducted in 2014 and 2015. The survey investigated the experiences of induction and mentoring in schools by TBTs who commenced in 2013 and in 2014-2015, with a focus on the experiences of TBTs in schools supported by eight 1.0 FTE Teacher Mentor positions under the GTIL reforms (see action 7.1 outlined in report above).

Questionnaire

This survey of teachers who commenced a temporary appointment in 2013 and 2014 is being conducted annually. Below is the questionnaire used in 2014 and 2015.

1. What school(s) do you currently teach at?

- <Free field>

2. What is your employment status?

- Full-time
- Part-time
- Casual
- Other (please specify)

3. How long have you been teaching at [Q1]?

- <1 term
- 1-2 terms
- 3-4 terms
- >1 year

4. What are you approved to teach in NSW government schools?

- Primary
- Secondary
- Both

5. Are you approved to teach the following in NSW government primary schools? (Select all that apply)

- English as a Second Language
- Special Education
- Neither

6. What secondary subjects are you approved to teach in NSW government schools? (Select all that apply)

- English
- Mathematics
- Science
- Human Society and its Environment (HSIE)
- Language Other Than English (LOTE)
- Technological and Applied Studies (TAS)
- Creative Arts
- Personal Development, Health and Physical Education (PDHPE)
- English as a Second Language
- Special Education
- Other (please specify)

7. Are you approved to teach the following in NSW government primary schools? (Select all that apply)

- English as a Second Language
- Special Education
- Neither

8. What year did you first become a temporary teacher at a NSW government school?

- 2014
- 2013
- Pre-2013

9. Was your first temporary appointment in a NSW government school at [Q1]?

- Yes
- No

10. Prior to taking a temporary appointment at [Q1], how much teaching experience did you have? (Do not count professional experience placements as part of your teaching degree)

- No previous teaching experience
- <1 year
- 1-2 years
- 3-5 years
- >5 years

11. Have you ever taught at the following? Temporary or Casual, Permanent, NA (Select all that apply)

- NSW Catholic School
- NSW Independent School
- Interstate School
- Overseas School

12. Who was involved in your induction at [Q1]? (Select all that apply)

- School Principal
- Deputy Principal(s)
- Head teacher(s) (e.g. head teacher of the subject area you taught in)
- Other teacher(s)
- Other (please specify)

13. As part of your induction at [Q1], were you provided with the following? (yes/no)

- A 'buddy' to help 'settle' into the school
- General school information including policies, procedures, worksite information, and administration procedures
- Information about school personnel and their roles
- Information about the student cohort, including ethnicity and socioeconomic background
- Information about the community, including ethnicity and socioeconomic background

14. When you began your temporary appointment at [Q1], to what extent did you feel you needed support in each of the following areas? (1=did not need support; 2=needed minimal support; 3=needed a moderate level of support; 4=needed considerable support)

- Your knowledge of the curriculum and how to teach it
- Planning and implementing a range of effective teaching strategies
- Collaborating with colleagues to improve professional knowledge and practice
- Interpreting student data to evaluate learning and guide teaching practice
- Assessing, providing feedback and reporting on student learning
- Differentiating your teaching approach to meet the individual needs of students, including those from diverse linguistic, cultural, religious and socioeconomic backgrounds
- Creating and maintaining a safe, positive and supportive learning environment for students
- Effectively engaging parents and carers regarding their children's wellbeing
- Preparing for accreditation
- Accessing professional learning opportunities
- Classroom management
- Understanding the cultural, social and environmental context of the school

15. Who mentored you during your temporary position at [Q1]? (Select all that apply)

- One or more experienced teachers from outside of the school
- One or more experienced teachers from within the school
- Both of the above
- I did not receive mentoring during this position

16. Approximately how much of the mentoring you received during your temporary appointment at [Q1] was delivered by an experienced teacher from outside of the school?

- Less than half
- Approximately half
- More than half

17. During your temporary appointment at [Q1], how often did you meet with your main mentor?

- At least once a week
- At least once a fortnight
- At least twice every term
- At least once every term
- Less than once every term

18. To what extent did the frequency of mentoring suit your needs?

- Did not suit my needs - was not frequent enough
- Somewhat suited my needs but could have been more frequent
- Suited my needs - the frequency was about right
- Somewhat suited my needs but could have been less frequent
- Did not suit my needs - was too frequent

19. What activities did you engage in or discuss with your mentor during your temporary appointment at [Q1]? (Select all that apply)

- Team or co-teaching
- Lesson observation
- Assistance with classroom management
- Assistance with planning and implementing the curriculum
- Assistance with planning and preparing lessons or units of work
- Assistance with planning and developing student assessments
- Assistance with assessing student work
- Assistance with interpreting student data to evaluate learning and guide teaching practice
- Provision of structured feedback to students
- Assistance with accreditation activities
- Demonstration lessons
- Other (please specify)

20. To what extent did these mentoring activities meet your needs?

- Did not meet my needs
- Met some of my needs
- Met most of my needs
- Met all of my needs

21. To what extent were you able to discuss and tailor your professional learning needs with your mentor(s)?

- Not at all
- Somewhat
- Mostly
- Completely

**22. What impact has the mentoring you received while at [Q1] had on the following areas?
(0-5 scale; 0 = no impact and 5 = very positive impact)**

- Your knowledge of the curriculum and how to teach it
- Planning and implementing a range of effective teaching strategies
- Collaborating with colleagues to improve professional knowledge and practice
- Interpreting student data to evaluate learning and guide teaching practice
- Assessing, providing feedback and reporting on student learning
- Differentiating your teaching approach to meet the individual needs of students, including those from diverse linguistic, cultural, religious and socioeconomic backgrounds
- Creating and maintaining a safe, positive and supportive learning environment for students
- Effectively engaging parents and carers regarding their children's wellbeing
- Preparing for accreditation activities
- Accessing professional learning opportunities
- Classroom management
- Understanding the cultural, social and environmental context of the school

23. Please include any other comments about your experience of being mentored during your temporary appointment at [Q1]?

- <Free field>

Respondent Profiles

Survey data was collected from three groups of TBTs:

- TBTs in 2014 or 2015 at schools supported by a Teacher Mentor
- TBTs from 2013 at schools supported by Teacher Mentors in 2014
- TBTs from 2014 or 2015 at schools not supported by a Teacher Mentor

Table 19 shows that in the schools that were allocated a Teacher Mentor in 2014-2015, the population and sample do not share similar characteristics in terms of school type and location. This is confirmed by the significance of chi-squared tests comparing the observed and expected distribution of respondents by either school type or location ($\chi^2(3) = 10.107$, $p=.018$, and $\chi^2(1) = 6.394$, $p=.011$) for school type and location respectively). In relation to school type, primary schools are underrepresented and secondary schools are overrepresented, whilst teachers at provincial schools are overrepresented and teachers at metropolitan schools are underrepresented. Table 19 also shows that the population and sample of the non-Teacher Mentor schools in 2014-2015 and the Teacher Mentor schools in 2013 (prior to receiving Teacher mentors in 2014), share similar characteristics in terms of school type and location. This is confirmed by the non-significance of chi-squared tests comparing the observed and expected distribution of respondents by school type and remoteness ($\chi^2(3) = 6.85$, $p=.077$, and $\chi^2(3) = 2.55$, $p=.466$, and $\chi^2(2) = 3.351$, $p=.187$, and $\chi^2(1) = 0.46$, $p=.498$) for non Teacher Mentor schools in 2014-2015 and Teacher Mentor schools in 2013 respectively).

Table 19:
Sample and population characteristics by school type and location

		Teacher Mentor Schools 2014-2015		Non-Teacher Mentor Schools 2014-2015		Teacher Mentor schools 2013 (prior to receiving Teaching Mentors in 2014)	
		Population (%) N=308	Sample (%) n=124	Population (%) N=3545	Sample (%) n=1510	Population (%) N=213	Sample (%) N=37
School	Secondary	49.03	55.65	28.50	30.65	61.50	45.95
	Primary	47.08	38.71	66.64	63.70	37.09	51.35
	Central/Community	2.27	5.65	2.63	3.32	1.41	2.70
	SSPs	1.62	-	2.23	2.33	-	-
Location	Metropolitan	61.36	50.81	76.14	75.56	61.50	56.76
	Provincial	37.99	49.19	22.00	22.91	38.50	43.24
	Remote	0.32	-	1.50	1.32	-	-
	Very Remote	0.32	-	0.37	0.20	-	-

Appendix F: Focus on Learning Teacher Survey

The Focus on Learning survey is a self-evaluation tool for teachers conducted annually in Term 3. The survey was piloted in 2014 with a total number of 15,577 teachers across 519 NSW government schools participating. In 2015, the survey was administered to 586 schools (420 metropolitan, 151 provincial, and 15 remote or very remote schools) with 13,523 teachers participating. Data from the 2016 survey was not available at the time of drafting this report.

The survey groups questions to assess eight key 'drivers of student learning', which research has shown to be strong correlates of student achievement (Hattie, 2009). Each of the drivers of student learning consisted of eight statements scored on a five-point agreement scale¹⁷. This evaluation draws from seven of the eight drivers: parent involvement; collaboration; learning culture; using data to inform practice; teaching strategies; school inclusiveness; and using technology as a teaching tool. The leadership measure was not analysed for this report as school leaders are unlikely to be beginning teachers and hence not the targets of beginning teacher support under GTIL.

The distribution of schools in the 2014 and 2015 sample are not representative of the populations in those years by location or school. In both years primary schools and provincial schools are overrepresented relative to secondary and metropolitan schools respectively. Accordingly, survey results from secondary and provincial schools should be interpreted with caution regarding their generalisation to all NSW government secondary and provincial schools. Furthermore, teacher participation within schools is voluntary and at the discretion of principals. As the process that any school uses to select teachers to complete the survey is determined within the school, the representativeness of the sample of teachers that complete the survey is unknown.

¹⁷ Responses range from strongly disagree (0) to strongly agree (4). Mean scores are determined by taking the average of the eight responses associated with each driver of student learning. Higher mean scores indicate more agreement with the statements pertaining to each driver.

Appendix G: Statistical analyses

Focus on Learning teacher survey

Multilevel regression was performed on the 2014 and 2015 FoL teacher surveys to understand the relationship between teachers' attitudes towards the drivers of student learning and teaching experience. Differences in the drivers of student learning were examined separately for permanent and temporary beginning teachers.

As it is expected that each teacher's opinion on the drivers of student learning will be influenced by their own experiences at their respective schools, the responses of individual teachers within a school will be not be independent. To ensure that our model accounts for school level clustering, we implemented a multilevel model that allows the intercept — b_{0j} (see below) to vary across schools.

STATA software version 14 was used to perform a multilevel regression analysis. To ensure against heteroscedasticity, Vce (robust) estimation for standard errors was chosen and all results are based on normally distributed residuals. Variance Inflation Factor tests were undertaken to check for multicollinearity.

Specifically, the model was as follows:

Multilevel regression:

$$\text{Level 1 (teacher)} \quad Y_{ij} = b_{0j} + b_1X_{ij} + \varepsilon_{ij}$$

$$\text{Level 2 (school)} \quad b_{0j} = \gamma_{00} + U_j$$

$$\text{In reduced form:} \quad Y_{ij} = (\gamma_{00} + \gamma_{10}X_{ij}) + (\varepsilon_{ij} + u_{0j})$$

Where:

- Y_{ij} = score for each driver of student learning for the teacher i at school j (e.g., Collaboration, teaching strategies, parental involvement etc.)
- X_{ij} = Years' experience coded 1 when teacher i in school j has 2 years or less experience and 0 otherwise;
- $\gamma_{00}, \dots, \gamma_{10}$ = are the regression coefficients to be estimated
- γ_{00} = average mean intercept value (i.e., when $X_{ij} = 0$)
- u_j = deviation of school j from the overall mean intercept
- ε_{ij} = teacher-level residual error and is assumed to be normally distributed with zero mean and constant within-school variance σ_e^2

The impact of beginning teacher support funding on areas of teaching practice

Scores on the impacts of the support received by teachers in different areas of teaching practice were treated as ordinal variables. The impacts were originally measured on a 10-point scale ranging from 'no impact at all' (1) to 'very large impact' (10). The data was subsequently condensed into five response categories with each consecutive pair (e.g., 1 & 2, 3 & 4, ... 9 & 10) forming a single ordinal category. The categories for the analysis were 'no impact at all' (1), 'minimal impact' (2), 'moderate impact' (3), 'large impact' (4) and 'very large impact' (5). The areas of teaching practice that were analysed by ordered logistic regression in this report are: 'differentiating teaching across the full range of needs and abilities'; 'knowledge of the curriculum and how to teach it'; 'planning and implementing a range of effective teaching strategies'; 'creating a safe, positive and supportive learning environment'; 'assessing, providing feedback and reporting on student learning'; 'identifying, planning and engaging in professional learning'; 'collaborating with colleagues to improve professional knowledge and practice'; and 'effectively engaging with parents & carers.

In ordered logistic regression models, an underlying level (γ_i) is estimated as a linear function of the independent variable(s) (see equation (1)).

$$(1) \gamma_i = \beta_0 + \beta X_i + u_i$$

The probability of observing score k corresponds to the probability that the estimated linear function, plus residual errors, is within the range of threshold points estimated for the area of teaching practice (see equation (2)).

$$(2) P(\gamma_i = k) = P(\alpha_{k-1} < \gamma_i < \alpha_k)$$

where i represents teacher i ; k represents the category for the reported impact for the area of teaching practice ($k=0,1,\dots, M$); M is the last category; α_k represents the cut off points between the k -1th and the k th category ($k=1,\dots,M-1$); and βX is a linear function of teacher independent predictors of teaching practice as specified below:

- $X_i = 1$ if commencement year was 2014-2015, and 0 if commencement year = 2013;
- $X_i = 1$ if prior teaching experience is two years or less, and 0 if prior teaching experience is more than two years
- $X_i = 1$ if accreditation status at commencement is 'Conditional' or 'Provisional' and 0 if accreditation status at commencement is 'Proficient'

In the model specified in equation (1), the residual error (μ_i) is assumed to follow a logistic distribution with zero mean and variance $\pi^2/3$.

To predict the impact of support in the area of teaching practice, an underlying score (γ_i) was calculated based on equation (1). Then the level was determined based on where the underlying score fell between the threshold points. The ordered logistic regression model is sometimes written in the following form (see equation (3)) to represent the odds of getting a level greater than k .

$$(3) \text{Odds}(k) = P(\gamma_i > k) / P(\gamma_i \leq k) = \beta X + \mu_i$$

where $k = 0, 1, \dots, M$.

Note that Odds(0) = Odds(1) = ... = Odds(M).

That is, the model assumes that the effect of each independent variable is the same for all categories of the dependent variable. It assumes that the coefficients that describe the relationship between the lowest category and all higher categories is the same as the relationship between the next lowest category and all higher categories (for example, the relationship between 'no impact at all' and all of the four other higher categories is the same as the relationship between 'no impact at all' and 'minimal impact' with the remaining three higher categories). Therefore the ordered logistic regression model is also known as the 'proportional odds model'. The Omodel¹⁸ test was used to test for the proportional odds assumption for the ordered logistic models used in this report.

¹⁸ The Omodel function is a bespoke statistical test that is available as an additional function through STATA.

The tables below present the outputs from the ordered logistic regression analysis of the impacts of beginning teacher support.

Table 20:

Proportional odds ratios of 2014-2015 PBTs reporting a higher impact of support received in the first year of their permanent appointment than 2013 PBTs

Source: Year 1 permanent beginning teacher surveys

Area of teaching practice	Proportional odds ratio	p-value	95% confidence interval
Differentiating teaching across the full range of needs and abilities (n=1,923)	1.465	<.001	1.239 – 1.733
Knowledge of the curriculum and how to teach it (n=1,917)	1.516	<.001	1.287 – 1.786
Planning and implementing a range of effective teaching strategies (n=1,954)	1.608	<.001	1.363 – 1.897
Creating a safe, positive and supportive learning environment (n=1,796)	1.348	.001	1.139 – 1.596
Assessing, providing feedback and reporting on student learning (n=2,000)	1.621	<.001	1.377 – 1.907
Identifying, planning and engaging in professional learning (n=2,080)	1.514	<.001	1.294 – 1.772
Collaborating with colleagues to improve professional knowledge and practice (n=2,142)	1.535	<.001	1.314 – 1.794
Effectively engaging with parents & carers (n=1,835)	1.477	<.001	1.248 – 1.749

Note: Where the proportional odds ratio is above 1, PBTs from 2014-2015 had a higher impact of support than PBTs from 2013.

Table 21:

Proportional odds ratios of 2014-2015 PBTs with two years or less prior teaching experience reporting a higher impact of support received in the first year of their permanent appointment than those with more than 2 years prior teaching experience

Source: Year 1 permanent beginning teacher surveys

Area of teaching practice	Proportional odds ratio	p-value	95% confidence interval
Differentiating teaching across the full range of needs and abilities (n=1,093)	1.388	<.01	1.120 – 1.720
Knowledge of the curriculum and how to teach it (n=1,082)	1.313	.013	1.058 – 1.629
Planning and implementing a range of effective teaching strategies (n=1,110)	1.357	.005	1.097 – 1.680
Creating a safe, positive and supportive learning environment (n=1,011)	1.419	.002	1.135 – 1.772
Assessing, providing feedback and reporting on student learning (n=1,141)	1.663	<.001	1.347 – 2.054
Identifying, planning and engaging in professional learning (n=1,188)	1.262	0.026	1.028 – 1.550
Collaborating with colleagues to improve professional knowledge and practice (n=1,222)	1.310	.009	1.070 – 1.603
Effectively engaging with parents & carers (n=1,030)	1.412	.002	1.133 – 1.760

Note: Where the proportional odds ratio is above 1, PBTs with two years or less prior teaching experience had a higher impact of support than more experienced PBTs.

Table 22:

Proportional odds ratios of 2014-2015 PBTs accredited at Conditional or Provisional reporting a higher impact of support received in the first year of their permanent appointment than those accredited at Proficient upon commencement

Source: Year 1 permanent beginning teacher surveys

Area of teaching practice	Proportional Odds Ratio	p-value	95% CI
Differentiating teaching across the full range of needs and abilities (n=1,084)	1.215	.103	0.961-1.537
Knowledge of the curriculum and how to teach it (n=1,066)	0.980	.886	0.777-1.237
Planning and implementing a range of effective teaching strategies (n=1,097)	1.042	.727	0.826-1.316
Creating a safe, positive and supportive learning environment (n=1,004)	1.281	.051	0.999-1.643
Assessing, providing feedback and reporting on student learning (n=1,106)	1.270	.038	1.013-1.592
Identifying, planning and engaging in professional learning (n=1,049)	1.058	.621	0.847-1.320
Collaborating with colleagues to improve professional knowledge and practice (n=1,175)	1.126	.293	0.902-1.405
Effectively engaging with parents & carers (n=1,014)	1.322	.027	1.033-1.692

Note: Where the proportional odds ratio is above 1, PBTs that were accredited at Conditional or Provisional upon commencement of their permanent appointment had a higher impact of support than those who commenced accredited at Proficient or above.

Table 23:

Proportional odds of 2014 PBTs with two years or less teaching experience prior to their appointment reporting a higher impact of support than PBTs with more than two years teaching experience prior to their appointment

Source: Year 2 permanent beginning teacher surveys

Area of teaching practice	Proportional odds ratio	p-value	95% confidence interval
Differentiating teaching across the full range of needs and abilities (n=342)	1.216	.30	0.839 – 1.763
Knowledge of the curriculum and how to teach it (n=335)	1.258	.235	0.862 – 1.836
Planning and implementing a range of effective teaching strategies (n=346)	1.436	.058	0.988 – 2.086
Creating a safe, positive and supportive learning environment (n=317)	1.402	.092	0.947 – 2.077
Assessing, providing feedback and reporting on student learning (n=361)	1.320	.133	0.919 – 1.897
Identifying, planning and engaging in professional learning (n=375)	1.097	.615	0.765 – 1.574
Collaborating with colleagues to improve professional knowledge and practice (n=397)	1.345	.096	0.949 – 1.906
Effectively engaging with parents & carers (n=316)	1.546	.030	1.043 – 2.291

Note: Where the proportional odds ratio is above 1, PBTs with two years or less prior teaching experience at the commencement of their permanent appointment had a higher impact of support than those that commenced with more prior teaching experience.

Table 24:

Proportional odds ratios of TBTs at schools with a Teacher Mentor compared with 2014-2015 TBTs at schools with no dedicated Teacher Mentors on the impact of support received on aspects of teaching

Source: Temporary beginning teacher surveys

Area of teaching practice	Proportional odds ratio	p-value	95% confidence interval
Differentiating teaching across the full range of needs and abilities (n=1,035)	0.793	.242	0.538-1.169
Knowledge of the curriculum and how to teach it (n=1,035)	0.958	.816	0.670-1.371
Planning and implementing a range of effective teaching strategies (n=1,035)	1.033	.871	0.701-1.523
Classroom management (n=1,035)	1.129	.554	0.756-1.686
Using student data to guide practice (n=1,035)	0.772	.191	0.523-1.138
Assessing, providing feedback and reporting on student learning (n=1,035)	0.892	.560	0.608-1.309
Identifying, planning and engaging in professional learning (n=1,035)	1.252	.279	0.834-1.879
Collaborating with colleagues to improve professional knowledge and practice (n=340)	1.034	.902	0.607-1.761
Effectively engaging with parents & carers (n=282)	0.912	.610	0.639-1.300
Preparing for accreditation (n=1,035)	2.396	<.001	1.590-3.611

Note: Where the proportional odds ratio is above 1, TBTs at schools supported by a Teacher Mentor had a higher impact of support than TBTs from other schools.

The impact of beginning teacher support funding on teacher confidence

The teacher's self-report confidence ratings were analysed using a series of multinomial logistic and fifth logistic regression models. The first multinomial model was used to investigate between-group differences (commencement year: 2013 vs. 2014 or 2015) in confidence ratings. The model is formally expressed as:

$$\begin{aligned} \Pr(y = 1) &= \frac{1}{1 + e^{X\beta^{(2)}} + \dots + e^{X\beta^{(10)}}} \\ \Pr(y = 2) &= \frac{e^{X\beta^{(2)}}}{1 + e^{X\beta^{(2)}} + \dots + e^{X\beta^{(10)}}} \\ &\dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \\ \Pr(y = 10) &= \frac{e^{X\beta^{(10)}}}{1 + e^{X\beta^{(2)}} + \dots + e^{X\beta^{(10)}}} \end{aligned}$$

where the covariate vector X included a dummy indicator representing commencement year. The second multinomial model had an identical parametrisation, except the outcome was the time two confidence ratings. These first two models were used to investigate whether the overall relationships between commencement year and confidence changed over the two time periods.

To more precisely investigate whether the PBTs who commenced in 2014 or 2015 had different confidence ratings at time two than those who commenced in 2013, while controlling for potential between-group differences in time one confidence ratings, a series of fifth logistic regression models were fit to the data. This approach was adopted because some of the time one confidence ratings were quasi-separated by the time two confidence ratings, leading to convergence failures for the traditional multinomial and binary logistic regression models. Fifth regression models converge to finite estimates under conditions of quasi-separation by maximising a penalized log likelihood function. In brief, to estimate the differences in the adjusted response distributions, each of the ten response categories for the time two confidence ratings were dummy coded such that:

$$y_{(k)i} = \begin{cases} 1 & \text{if the } i^{\text{th}} \text{ teacher responded in the } k^{\text{th}} \text{ category} \\ 0 & \text{if the } i^{\text{th}} \text{ teacher did not respond in the } k^{\text{th}} \text{ category} \end{cases}$$

To fit a model to each binary outcome, we first move from the probability that a teacher was in the category of interest ($\pi_{(k)i}$) to the odds:

$$\text{odds}_{(k)i} = \frac{\pi_{(k)i}}{1 - \pi_{(k)i}}$$

By assuming that the logit of the probability follows a linear model, the regression model was defined as:

$$\text{logit}(\pi_{(k)i}) = \beta_0 + \beta_1x_{1i} + \beta_2x_{2_1i} + \dots + \beta_{11}x_{2_10i}$$

where x_1 was a dummy indicator representing commencement year and x_{2_1} through x_{2_10} was a series of dummy indicators representing the different levels of the time one confidence ratings. Once the models had been fit to the data, average marginal effects were calculated by adjusting each teacher's commencement year to the level of interest and using the fitted models to make individual level predictions (on the logit scale) for each teacher. As each teacher's time one confidence rating was used to obtain their specific prediction, the resulting predictive margins were covariate adjusted with regard to time one confidence.

The average difference between each set of predictions was then taken to estimate the differences between the adjusted response distributions. The formal expression is given below, with the results of the analysis for support in the first year of permanency is presented in Table 25.

Where:

$$\delta_{(k)} = \frac{1}{N} \sum_{i=1}^N (\text{logit}(\widehat{\pi}_{(k)l})_{2014/2015} - \text{logit}(\widehat{\pi}_{(k)l})_{2013})$$

and:

$$\text{logit}(\widehat{\pi}_{(k)l})_{2014/2015} = \beta_0 + \beta_1 + \beta_2 x_{2_1i} + \dots + \beta_{11} x_{2_10i}$$

$$\text{logit}(\widehat{\pi}_{(k)l})_{2013} = \beta_0 + \beta_2 x_{2_1i} + \dots + \beta_{11} x_{2_10i}$$

Table 25:

Coefficients of the predicted average marginal effects of confidence ratings at completion of one year of teaching, accounting for commencement confidence ratings by analysis type

Source: Temporary beginning teacher surveys

Confidence rating	Comparison				
	2013 vs. 2014-2015 (n=2,411)	2014-2015 2 years or less vs. more than 2 years prior teaching experience (n=1,384)	2013 vs. 2014-2015 with 2 years or less prior teaching experience (n=1,007)	2013 vs. 2014-2015 with more than 2 years prior teaching experience (n=1,242)	2014-2015 Conditionally or Provisionally vs. Proficiently accredited (n=1,291)
1	-1.3	-0.6	-0.4	-0.5	-1.0
2	0.6	-2.1	-0.7	1.5	-0.8
3	-1.8*	-0.2	-1.4*	-2.5*	-0.8
4	-0.9*	0.7	-0.4	-2.0*	0.4
5	-0.7*	0.4	-0.5	-1.5*	0.1
6	-0.8*	-0.2	-0.9*	-0.6*	-0.3
7	-0.4*	-0.4*	-0.5*	-0.3	-0.1
8	0.5*	-0.1	0.7*	0.4*	-0.2
9	0.5*	0.2	0.6*	0.4*	0.4*
10	-0.1	0.5*	0.4	-0.2	-0.1

*p<.05

The impact of Teacher Mentors on TBT retention

Departmental appointment records were used to identify two cohorts of teachers. The first cohort included 4,161 teachers who began their first temporary appointment with the Department in 2011 (i.e. before the introduction of the Teacher Mentor program under GTIL). The second cohort included 4,079 teachers who began their first temporary appointment with the Department in 2014 (i.e. after the introduction of the Teacher Mentor program under GTIL). Of the 4,161 teachers who began their first temporary appointment in 2011, 4.7 per cent (n=195) had an appointment at one of the 39 schools supported by a Teacher Mentor in 2014. Similarly, 4.5 per cent (n=183) of the 4,079 teachers who began their first temporary appointment in 2014 had an appointment at one of those 39 schools in the same year.

Two stratified Cox proportional hazard models were fit to teacher appointment data to investigate whether the Teacher Mentor program influenced the hazard rate for transitioning from employment to non-employment (denoted the $i \rightarrow j$ transition rate) or from non-employment to employment (denoted the $j \rightarrow i$ transition rate). Two transition states are necessary to account for the fact that a teacher concluding a temporary appointment at a school may take a subsequent appointment with the Department, marking a transition from non-employment to employment. They may also leave this subsequent appointment, marking a second transition from employment to non-employment. In the first model, the hazard of transition from employment to non-employment for a teacher with covariates x_1 and x_2 is given by:

$$\lambda_{ij}(t) = \lambda_{ij,0}(t) \exp(\beta_1 x_1 + \beta_2 x_2 + \beta_3 x_1 x_2)$$

where $\lambda_{ij,0}(t)$ represents the unspecified baseline hazard for the transition from employment to non-employment; x_1 represents the year of first appointment (coded 1 when the teacher had their first appointment with the Department in 2014 and 0 otherwise); x_2 represents the teacher having their first temporary appointment with the Department at a school supported by a Teacher Mentor (coded 1 when the teacher had an appointment at one of the 39 schools that participated in the teacher mentoring program and 0 otherwise); and $x_1 x_2$ represents the interaction between the year of first appointment and the Teacher Mentor program. The second model had a similar expression for the hazard of transition from non-employment to employment. The primary interest lies in the interaction between the year of first appointment (2011 vs. 2014) and whether the school participated in the mentoring program in 2014 (yes vs. no) (i.e. $x_1 x_2$).

An important issue to consider was the ordering of transitions. For instance, teachers should not be considered at-risk for a second transition from employment to non-employment until they have left their first appointment, spent at least 60 days in the unemployed state (to allow for end of year school holidays between successive temporary appointments) and then started another appointment with the Department. To clearly define the ordering of the transitions, Conditional risk sets were defined by assigning each transition from employment to non-employment to a separate stratum. This means that the Conditional risk set at time t for the k^{th} $i \rightarrow j$ transition was made up of all the teachers under observation at time t that had experienced the preceding $j \rightarrow i$ transition. Similarly, the Conditional risk set at time t for the k^{th} $j \rightarrow i$ transition was made up of all the teachers under observation at time t that had experienced the preceding $j \rightarrow i$ transition.

Standard Cox regression models also assume that observations are independent; an assumption which is typically violated when analysing event history data. To account for the intra-teacher residual correlation and obtain corrected standard errors, the standard variance estimate was replaced by a modified sandwich estimate of variance.

A teacher's survival time in the initial employed state was calculated as the difference between the start of their first temporary appointment with the Department and the end of their first appointment. Initial state transitions were unobserved (i.e. right-censored) when a teacher survived in the initial employed state until the end of the study's observational window (i.e. the census date). In the current study, the teachers who began their first temporary appointment with the Department in 2011 were followed until 1 November 2012, whereas the teachers who began their first temporary appointment with the Department in 2014 were followed until 1 November 2015. This means that both of the teacher cohorts were followed for identical windows of between one and two years.


This ensured that both groups had an equal opportunity to transition between employment and non-employment and vice versa. Initial state transitions were recorded when a teacher terminated their first appointment with the Department before the relevant census date. These teachers then entered the Conditional risk set for a second state transition (i.e. from non-employment to employment). A teacher's survival time in the first period of non-employment was calculated as the difference between the end date of their first temporary appointment with the Department and the start date for their second appointment. Second state transitions were unobserved when a teacher survived in the first period of non-employment until the relevant census date. This process continued until the end of the study's observational window, with odd numbered state transitions marking transitions from employment to non-employment, and even numbered state transitions marking transitions from non-employment to employment.

Survival time calculations were complicated by the fact that some teachers had multiple consecutive appointments. For example, consider a teacher who had an appointment that began on 1 January 2014 and finished on 31 January 2014. This teacher also had another appointment that began on 3 February 2014 and finished on 28 February 2014, after which they did not have another appointment up until the relevant census date (i.e. 1 November 2015). For this teacher, survival time in the employed state would usually be calculated as 31 days for their first appointment and 26 days for their second appointment whereas survival time in the unemployed state would usually be calculated as 2 days for the first period of non-employment and 611 days for the second. In reality, however, the first break in this teacher's appointment records does not really mark a transition from employment to non-employment; rather it reflects the renewal of a temporary appointment. This means that survival time in the employed state is more accurately calculated as the difference between the end date of the second appointment and the start date of the first (i.e. 59 days). Likewise, this teacher should not be allowed to enter the Conditional risk set for a second state transition until the end of their second appointment (i.e. when the teacher actually transitions to non-employment). To allow for short periods of non-employment, consecutive appointments that were less than 60 days apart were treated as a single appointment. This modification effectively changes the definition of a transition event such that breaks in the appointment records caused by school holidays and brief periods of non-employment are ignored. This is important because it minimises any bias caused by differences in the length of temporary contracts between the two time periods of interest.

After the short breaks in the appointment records had been rectified, the 8,240 TBTs had a total of 9,592 appointment records. Sixty per cent ($n=4,957$) of the TBTs were employed from the time they entered the study up until their respective census date; 37 per cent ($n=3,036$) had a single transition to non-employment; and three per cent ($n=247$) had between two and four transitions to non-employment. Of the 3,283 TBTs who had at least one period of non-employment, 61 per cent ($n=1,993$) did not transition back to employment before their respective census date; 37 per cent ($n=1,230$) had a single transition back to employment; and 2 per cent ($n=60$) had between two and four transitions back to employment.

The Cox regression model assumes that the underlying hazards are proportional over time. That is, the hazard functions are assumed to be multiplicatively related such that their ratio is constant over the study's observational window. To assess this assumption, the hazard function for each group of teachers was separately estimated and plotted on the same graph to check for proportionality. Initial investigations showed that the hazards were not proportional, especially when survival time in the initial employed state approached the 220 day mark. An examination of the data revealed that the teachers who had their first appointment with the Department in 2011 had a large number of termination events on 26 January 2012 whereas the teachers who had their first appointment with the Department in 2014 had a large number of termination events on 1 January 2015. These dates were during the respective school holiday periods; thus the discrepancy between the two clusters of termination dates appears to reflect a systemic change in hiring practices over the observed time periods rather than true differences in survival times. To account for this systemic change, the teachers who had their first appointment with the Department in 2014 and who had a termination event on 1 January 2015 had their termination date changed to 26 January 2015. Survival times were then recalculated and the proportional hazards assumption reassessed. After this modification, the proportional hazards assumption appeared to be acceptable.

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