

NSW Department of Education

Teacher Supply Strategy briefing

a/COO, 20 August 2020



In the next decade, our demand for teachers will increase as our teaching graduates decrease

We need to be proactive stewards of our teacher supply to deliver a sustainable pipeline of highly skilled and committed teachers who are supported to deliver quality teaching across NSW

Data

- Our current and predicted enrolments and workforce data show we have an ageing workforce and reduced teaching graduates, as enrolments are predicted to increase
- We have now developed a workforce model using timetable data to get a clear picture of teacher supply gaps and out of field teaching across the state
- With more data available to us than ever before, we are in a position to quantify our supply challenges and target our efforts more effectively

Current impacts

Recruitment statistics show impacts of tightening supply in schools, including:

- Collapsed classes
- Fewer applicants per teacher role
- Teacher roles having to be advertised repeatedly
- More local teacher recruitment as supply not available through central placement

Scope of work

- We have prioritised work on teacher supply through the Exec Priority Project 'Boost supply of high quality teachers', noting that this focuses on supply within the current teacher quality standards, where other priorities will address specific quality improvement initiatives
- We have identified some quick wins to start developing and piloting now
- We have engaged Deloitte to support development of a Teacher Supply Strategy, prioritising initiatives that will have the greatest impact where we need it most
- We will be presenting the Teacher Supply Strategy to DAPCO in December

For discussion

- Progress and key insights from the Teacher Supply Strategy development project
- Navigating our authorising environment – funding, internal governance and DAPCO

| NSW Department of Education

Teacher Supply Strategy

Progress and key insights

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Projections over the next decade predict growth in demand for teachers, but a decline in the number of teaching graduates

Demand drivers

- Enrolments growing at ~1% p.a.
- Ageing workforce: 42% of the workforce are between 45 and 64 and likely to retire in the next 10 years

Supply drivers

- From 2014 to 2019 in NSW:
 - ITE commencements down by 29%
 - ITE completions down by 27%
- High proportion of temp/casual teachers in workforce. At 30 June 2019, 64% permanent, 29% temp, 8% casual

Current impacts on supply in schools

Recruitment statistics show impacts of tightening supply in schools, including:

- Collapsed classes
- Fewer applicants per teacher role
- Teacher roles having to be advertised repeatedly
- More local teacher recruitment as supply not available through central placement

NSW workforce modelling shows shortage of qualified teachers in certain subjects and geographies, which impacts student outcomes

Out-of-field teachers (not accredited in competency)

Out-of-field teachers account for 15% of total teachers in NSW, and:

- 14% of secondary school teachers
- 18% of maths teachers
- 12% of science teachers
- 35% of special education teachers

Impact on Maths and Science is more significant

- **Demand** for maths 7-10 and 11/12 and Science 7-10 exceeds the number of qualified available teachers.
- We are reliant on **out-of-field teachers** to meet the current demand
 - **12% of mathematics 7-10** is taught by an out-of-field teacher (with a further 10% unidentified)
 - **12% of mathematics 11-12** is taught by an out-of-field teacher
 - **16% of science 7-10** is taught by an out-of-field teacher (13% of physics, 5% chemistry, 7% biology is taught by an out-of-field teacher)

Out-of-field teaching is significantly higher in rural and remote areas

- In **Rural SW and North**, the proportion of out-of-field teachers in 7-10 maths is 27%, which is **42% higher than metro schools**
- In **Rural SW**, the proportion of out-of-field teachers in 7-10 English is 25%, which is **57% higher than metro schools**

Student outcomes

Workforce analysis considered the impact on out-of-field teaching at a HSC level on the HSC scaled mark attained. HSC scaled mark converts the raw mark for the subject to a mark out of 50 for each unit of study

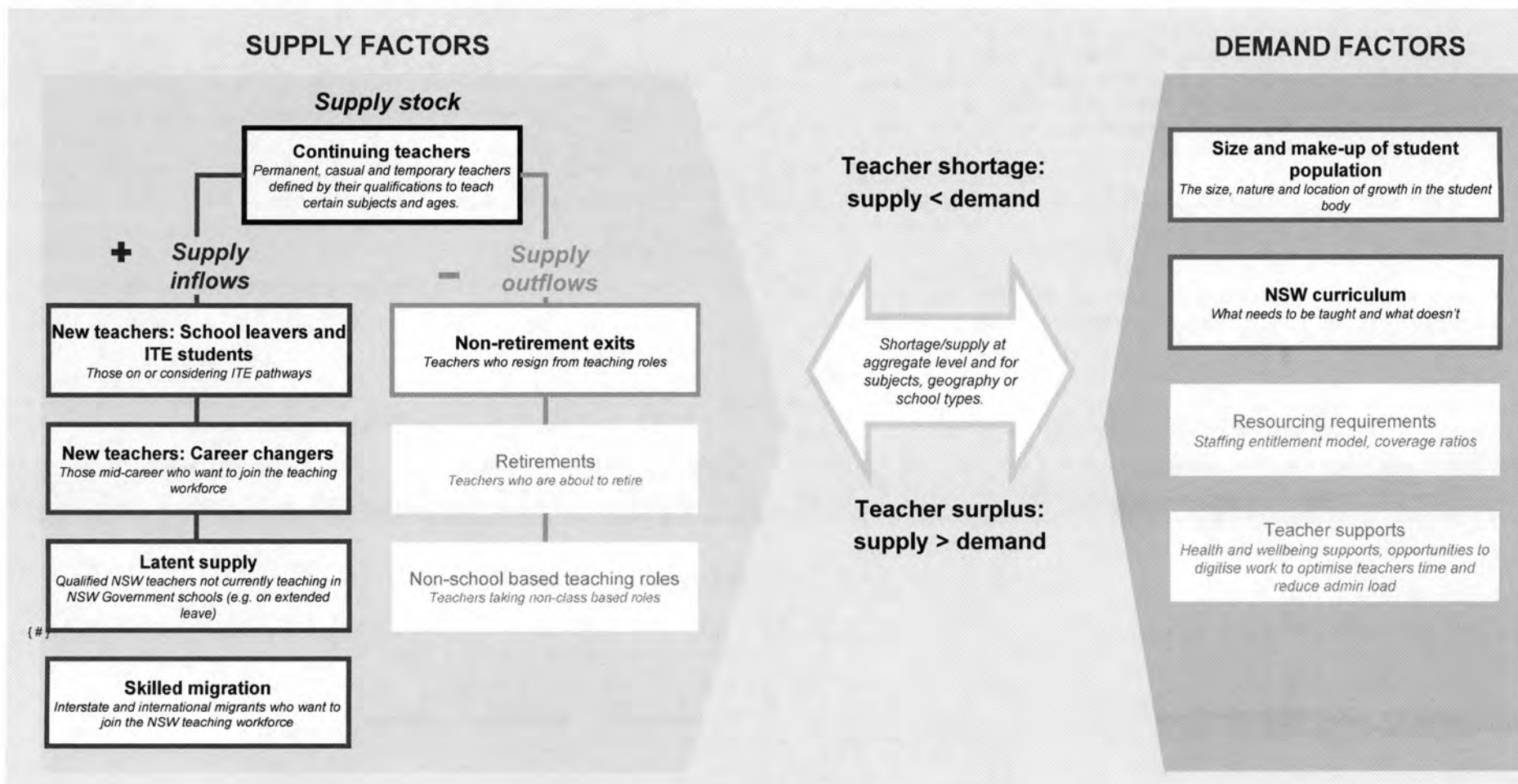
On average, HSC scores (all courses) are increased by 0.131 - 0.812 when all teachers who taught subjects for those courses were accredited in a competency in that KLA.

Within specific KLAs:

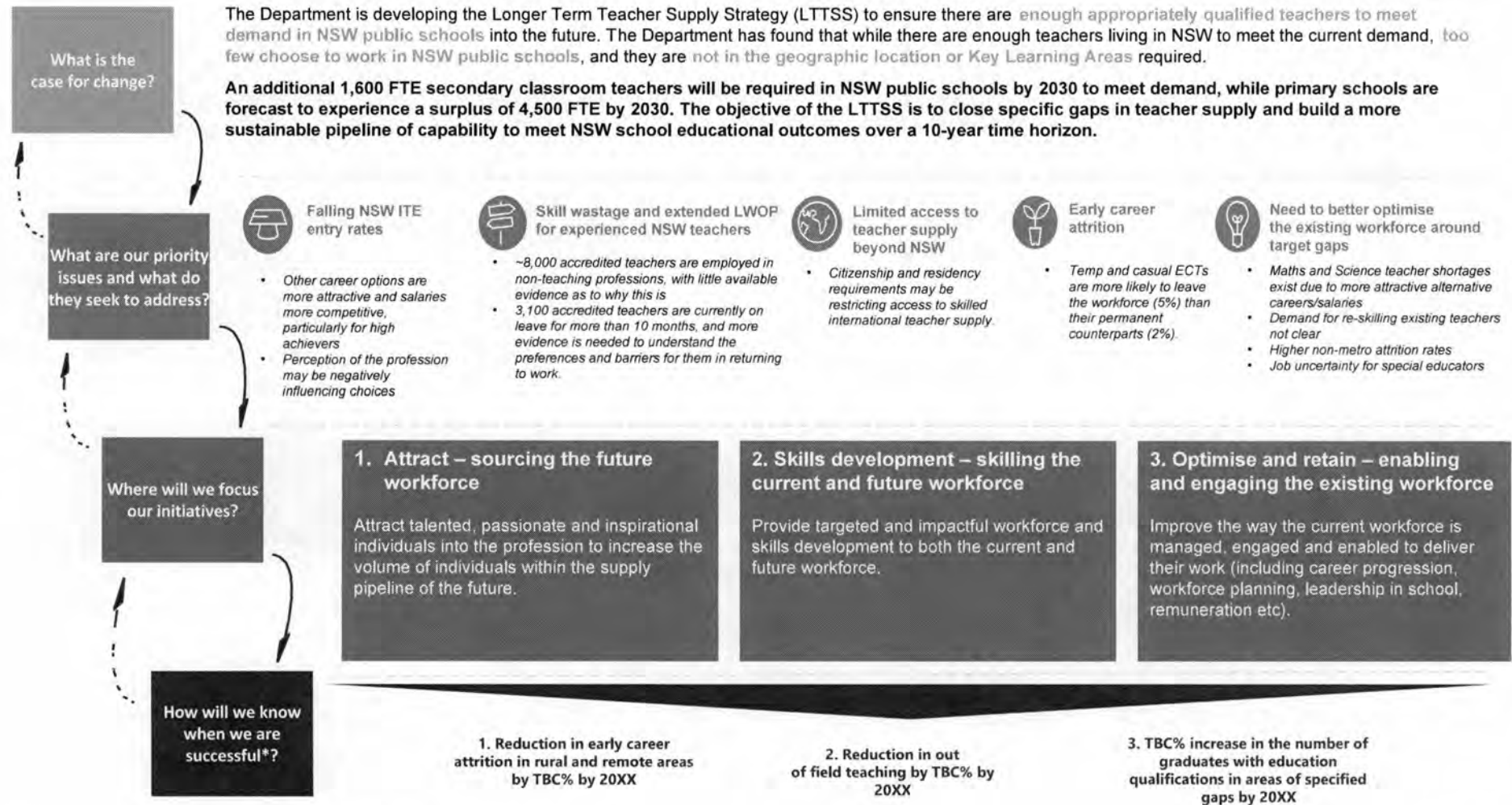
- In-field teaching is associated with higher average HSC scores in Science, with the exception of biology
- On average, HSC scores (Technology courses) are increased by 1.575 - 3.732 when all teachers who taught subjects in the Technology KLA were accredited in a competency in that KLA. This effect is significant.
- In-field teaching is only associated with higher HSC scores for Mathematics Standard 2 and is not statistically significant
- In-field teaching in English is not a statistically significant factor in HSC attainment

Understanding our challenge: Supply and demand framework

The factors influencing the supply of and demand for teachers provided the basis for examining what will have the greatest relative impact over the next 10 years on teacher supply



Initiatives identified address quantified, significant supply issues for the NSW teacher workforce



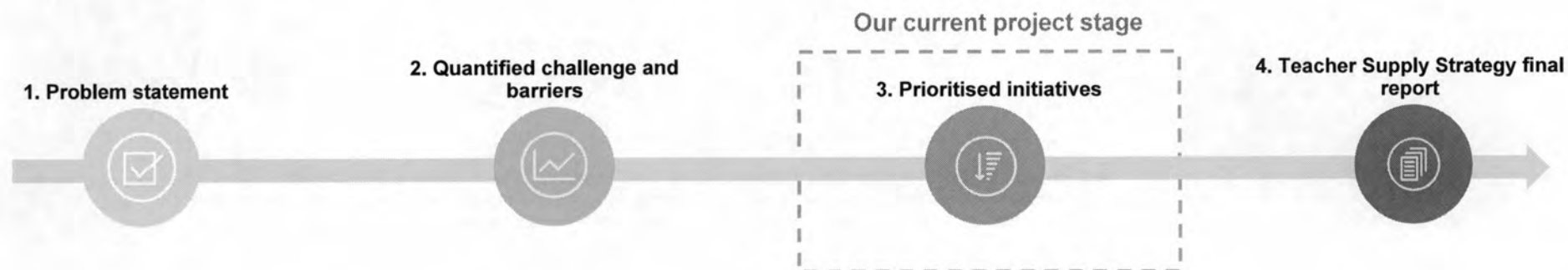
*KPI's will be refined and expanded upon as initiatives are developed.

Next steps

We will follow a process of iteration, review and further engagement to complete the Teacher Supply Strategy

Our next steps will require us to:

1. Refine a short list of key initiatives to close the teacher supply gap
2. Complete an internal business case for the short listed initiatives
3. Complete an evaluation plan, implementation plan, and risk framework for the short listed initiatives
4. Phase each short listed initiative, and complete an implementation roadmap
5. Engage with DAPCO, national work, ministerial updates, Min Sec Meeting



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Authorising environment

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The authorising environment for the Strategy is potentially complex

The impact of internal changes in leadership and governance structures, as well as the need to engage with NSW Government to support decisions and influence national policy, creates a need for strong engagement with the range of decision makers

Regular engagement

- **MO** - to seek feedback on drafts and support the MO to engage with the **Premier's Office (PO)** and **Treasurer's Office (TO)** (yet to commence)
- **Treasury Education Director** (Mark Cannon) to seek feedback and build support (x3 meetings to date)
- **DPC** (Amy Brown, Dep Sec) to test if Strategic Coordination Branch is interested in the DapCo sub and want to be involved
- Test content/approach with **David Withey**, based on his experience advising the TO and ERC
- Engage with **Delivery Unit** to strengthen the teacher supply hook (outcome/KPIs) in the next version of the DoE Business Plan, which is going to ERC in October
- Regular engagement with **DoE Finance** as the internal business case develops

Key dates

- August – MinSec - start conversation ahead of DapCo, & understand Minister's initial views & expectations
- September – School Improvement Exec – seek feedback on matrix of initiatives
- September – DoE Exec - seek approval to the strategy before submitting to Minister
- September – MO - seek approval to the strategy before submitting to Minister
- October – DoE Exec - seek approval to DapCo sub before submitting to Minister
- 3 Nov – MO - DapCo sub due
- 17 Dec – DAPCO

Key Questions

- How best to position the strategy to gain central agency and MO/TO/PO support?
- Are there other NSW government stakeholders we should engage with ?

The Teacher Supply Strategy is currently unfunded

Within our constrained fiscal context, obtaining internal funding will be potentially complex and may require the development of a range of implementation options

Internal funding

- There are currently no funds available to support any initiatives emerging from the Teacher Supply Strategy within the HR budget
- The application of significant efficiency targets across all budget areas will create additional constraint on redeploying internal resources/budget to support implementation of the Strategy
- We need to develop an internal plan to seek funding, noting the teacher supply strategy will not just benefit HR; it's for the whole Department

Key Questions

- Advice on navigating the internal budget bid?

Appendix

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1. Initiatives summary: Attract – sourcing the future workforce (1/2)

Attract talented, passionate and inspirational individuals into the profession to increase the volume of individuals within the future teacher supply pipeline.

WHAT DO WE KNOW?

ITE degree commencements have fallen by 29% over the past five years in NSW.

- NSW commencements are falling in disproportionate numbers compared to the rest of Australia where ITE commencements rose 11% from 2014-2017.
- The rate of high achievers studying teaching in the last 30 years has declined more than in any other field of study. In 2017, 9% of domestic undergraduate students admitted on the basis of submitted ATAR in ITE had an ATAR above 90, compared to 27% across all higher education programs.

The teaching workforce has traditionally consisted mainly of white Anglo-Saxon females.

- 77% of the current teaching workforce are female, this reduces to 64% in high schools.
- 1.9% of teachers in NSW public schools are Aboriginal and/or Torres Strait Islander, compared with 8.3% of students.

WHAT IS LESS CLEAR?

While the decline in ITE commencements in NSW is clearly problematic, the drivers of this trend are not immediately clear.

- **Increased standards of entry to ITE programs** may have contributed to the decline, but this has been deemed a necessary action to support improving the quality of ITE undergraduates.
- There is inconclusive anecdotal evidence that, relative to other professions, **teaching may be less favourable on grounds such as working conditions** (remuneration, career progression opportunities, professional support).
- **Teaching regional or rural schools may be a less attractive option for new teachers**, though teachers who have grown up in these areas are more likely to teach there.

HOW CAN THE LTSS RESPOND?

- ✓ Improve evidence to better understand the **factors that influence decisions** about post-secondary pathways:
 - **drivers of decision making** for those choosing teaching and those not choosing teaching
 - **relative attributes/qualities of these students** to support framing of communications, and improved understanding of existing workforce segments
 - **Inter-jurisdictional variation** and the need to tailor responses for NSW-centric issues
- ✓ Better **communicating the value, experiences and opportunities** of a teaching career.
- ✓ **Targeting recruitment activity more systematically** to attract people with specific characteristics and preferences.
- ✓ Designing pathways and incentives to attract potential teachers to study and work in **areas of greatest need**.

Initiative	Horizon	Primary intended impact				
		7-12	KLA	Special Ed	(Non) Metro	Diversity
* 1.1 Research into perceptions of teaching and student preferences	Immediate	✓	✓	✓	✓	✓
* 1.2 Teacher marketing campaign	Commence design in year 1 and rollout in short-term	✓	✓	✓	✓	✓
* 1.3 'Grow your own' program	Commence design in year 1 and rollout in short-term	✓	✓		✓	✓
* 1.4 Rapid Supply Strategy – Employee Value Proposition	Commence design in year 0 and rollout in short-term	✓	✓	✓	✓	✓
* 1.5 Bonded scholarships to specific regions or schools	Commence design in year 0 and rollout in short-term	✓	✓	✓	✓	✓

1. Initiatives summary: Attract – sourcing the future workforce (1/2)

Attract talented, passionate and inspirational individuals into the profession to increase the volume of individuals within the future teacher supply pipeline.

WHAT DO WE KNOW?

There are barriers to recruiting high-achieving students and career changers in NSW:

- On average, **teacher pay has been falling** relative to pay in other professions since the late 1980s and this makes it a less attractive profession for high achieving students.
- There are **barriers to career changers** entering ITE programs, including messaging and personal and financial barriers that make studying while working difficult.

Additionally, there are **barriers to employment** in NSW public school sector for foreign teachers, as DoE does not offer to sponsor visa and others on non-permanent visa classes cannot obtain employment.

WHAT IS LESS CLEAR?

The reasons behind projected falling ITE commencements and career changer supply are not immediately clear.

- As noted, **increased standards of entry to ITE programs** may have contributed to the decline in ITE commencements but this has been deemed necessary to improve the quality of undergraduates.
- Further, nearly all post-graduate NSW ITE programs were already 2-year courses prior to the national change in 2011 from 1- to 2-year programs.
- For career changers or returning teachers, several barriers are identified however it is **unclear which ones are most significant**.
- The extent to which international teachers would be convinced to migrate by the opportunity to get a sponsorship visa would need to be tested via international research.
- **It is not clear** whether there is demand from teaching assistants or School Learning Support Officers (SLSOs) to up-skill and become fully qualified teachers.

HOW CAN THE LTSS RESPOND?

- ✓ Better understanding the **factors that influence decisions for potential career changers** and what barriers are most keeping mid-career professionals from changing to teaching.
- ✓ Consider offering or supporting **more flexible training and employment options** for those considering teaching.
- ✓ Understanding the **appetite and enablers for upskilling** teacher aides and SLSOs.
- ✓ Removing unnecessary barriers and developing **international teacher recruitment** incentives.
- ✓ Ensure that the pursuit of high achieving students as teacher candidates **does not disincentivise other students** from considering teaching as a career.

Initiative	Horizon	Primary intended impact				
		7-12	KLA	Special Ed	(Non) Metro	Diversity
• 1.6 Revision of visa requirements and accreditation rules	Commence design in year 2 to inform medium-term rollout	✓	✓	✓	✓	✓
• 1.7 Teach while you learn ITE	Commence design in year 1 and rollout in short-term	✓	✓		✓	
• 1.8 Research into preferences of non-teaching staff to upskill	Commence research in year 0	✓		✓		
• 1.9 Leverage non-teaching staff to become qualified teachers	Commence design in year 0 and rollout in short-term	✓		✓		
• 1.10 Career progression and remuneration reforms	Commence research in medium term	✓	✓	✓	✓	✓
• 1.11 Rapid Supply Strategy – Mid-career pilot	Commence design in year 0 and rollout in short-term	✓	✓			

2. Initiatives summary: Skills development – skilling the current and future workforce

Provide targeted and impactful workforce and skills development to both the current and future workforce.

WHAT DO WE KNOW?

Based on the latest workforce modelling:

- There is expected to be a **shortage of 1,600 classroom teachers in secondary schools** by 2030. At the same time, there is expected to be a supply surplus for primary schools.
- There will be a **shortage of 700 in-field Maths (Year 7-10) teachers and 500 in-field Science teachers** across the state by 2030.
- An additional **200 FTE teachers will be required to meet demand in SSPs** by 2030. Additional teachers are required still to meet demand for teachers with special education competencies in mainstream schools.

WHAT IS LESS CLEAR?

While the shortages highlighted above clearly problematic, the drivers of these trends are not immediately clear.

- Teaching regional or rural schools, or going on to specialise in special education, may be a **less attractive option** for ITE students.
- There may be some out-of-field teachers who would be **interested in upskilling**, but more needs to be understood to focus the prioritisation.
- The extent to which existing ITE programs **consistently equip ITE students for the diversity of challenges** they may face in their profession with respect to rural and remote teaching, challenging student behaviours and students with complex needs.

HOW CAN THE LTSS RESPOND?

- ✓ Increasing opportunities for current teachers to re-train to meet supply shortage demands
- ✓ Developing programs to further support the development of a workforce that is likely to be interested in teaching in rural and remote settings.
- ✓ Build a deeper understanding of the appetite for teachers to retrain.

Initiative	Horizon	Primary intended impact				
		7-12	KLA	Special Ed	(Non) Metro	Diversity
• 2.1 Enhance ITE program focus on rural education and special education	Commence design in year 0 and rollout in short-term			✓	✓	
• 2.2 Re-skilling to support specialised skill gaps	Commence design in year 0 and rollout in short-term	✓	✓	✓		✓
• 2.3 Research into appetite to retrain (in key KLAs, school types and in special education needs)	Commence research in year 0 to inform development and rollout in short term	✓	✓	✓		✓

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3. Initiatives summary: Optimise and retain – enabling and engaging the existing workforce

Improve the way the current workforce is managed, engaged and enabled to deliver their work.

WHAT DO WE KNOW?

A significant share of the workforce is on maternity or parental leave at any point in time. Approximately 1,500 teachers per annum take maternity or parental leave for more than five months. Barriers to returning to work in the broader labour market include childcare costs, which particularly impacts women.

There are a high proportion of roles where the incumbent has been on **extended Leave of Absence**, creating barriers for new starters to gain permanent roles.

- Currently, there are 3,100 teachers on LWOP for six or more months. Of these, 2,100 are teachers with permanent positions.
- This **limits the number of permanent contracts** that can be offered.

In 2018, **5% of teachers under the age of 30 who were employed in temporary and casual roles left the teaching workforce**, compared to just 1% of teachers under 30 in permanent positions.

In regional and rural areas there is a higher rate of out-of-field teaching, low numbers of applications for vacancies and early career teachers have a higher attrition rate.

WHAT IS LESS CLEAR?

It is not yet clear which specific **(dis)incentives, barriers or preferences** may be delaying or preventing a sub-cohort of qualified teachers in NSW who have taken a period of parental leave from returning to work.

There is less clarity around the factors that influence decisions to leave NSW government schools.

- Early career teachers may be leaving NSW government schools due to a **lack of permanent roles, a lack of wellbeing and/or a lack of professional support**.
- Some teachers may be placed in a school with specific characteristics that **does not align** well with teacher expectations, capabilities or expertise.

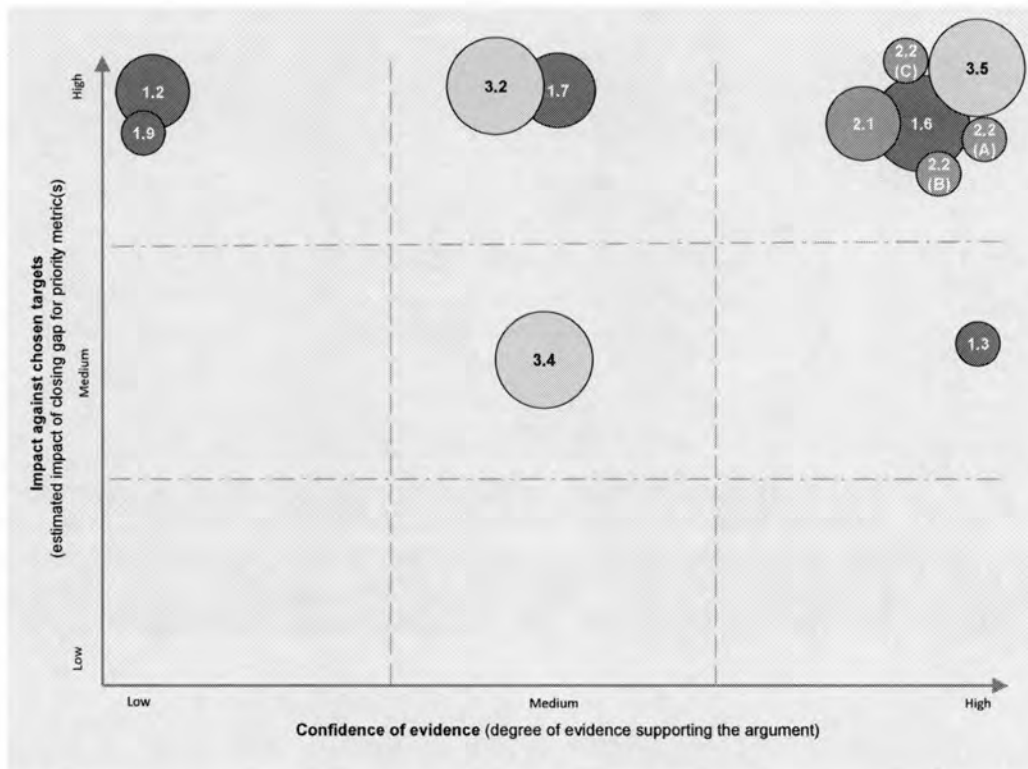
HOW CAN THE LTSS RESPOND?

- ✓ Better understanding the factors that influence decisions for parents and carers who are qualified teachers in NSW to return to work or remain on leave.
- ✓ Consider options to remove or reduce the most significant barriers to returning to work for those who are interested.
- ✓ Developing programs to further support those interested in teaching in rural and remote settings, improving the experiences of early career teachers in these settings in particular.
- ✓ Incentivising teachers to move to hard to staff locations
- ✓ Ongoing collection and monitoring of key metrics to enable proactive support for schools to manage their workforces

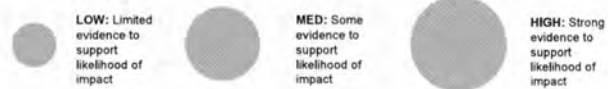
Initiative	Horizon	Primary intended impact				
		7-12	KLA	Special Ed	(Non) Metro	Diversity
• 3.1 Research to inform design of a suite of 'return to work' initiatives	Commence research in year 0 to inform development and rollout in medium term=	✓	✓			✓
• 3.2 Early Career Teacher support in rural and remote regions	Commence design in year 0 and rollout in short-term				✓	✓
• 3.3 Research into relative share of permanent teaching positions	Commence research in year 0 to inform development and rollout in short to medium term	✓	✓	✓	✓	✓
• 3.4 Incentive payments and other benefits to attract teachers to hard-to-staff schools	Commence design in year 0 and rollout in short to medium term				✓	
• 3.5 Matching and monitoring capability	Commence scoping study in year 1 to inform development and rollout in medium to long term	✓	✓	✓	✓	✓

Initial assessment

The suite of proposed initiatives has been prioritised against the assessment criteria according to indicative impact against chosen targets and confidence of evidence



Confidence of impact SIZE KEY:



Short list initiatives

ATTRACT	• 1.1 <i>Research into perceptions of teaching and student preferences*</i>
	• 1.2 Teacher marketing campaign
	• 1.3 'Grow your own' program
	• 1.4 <i>Rapid Supply Strategy – Employee Value Proposition*</i>
	• 1.5 <i>Bonded scholarships to specific regions or schools*</i>
	• 1.6 Revision of visa requirements and accreditation rules
	• 1.7 Teach while you learn ITE
	• 1.8 <i>Research into preferences of non-teaching staff to upskill*</i>
	• 1.9 Leverage non-teaching staff to become qualified teachers
	• 1.10 <i>Career progression and remuneration reforms*</i>
	• 1.11 <i>Rapid Supply Strategy – Mid-career pilot*</i>
SKILLS DEVELOPMENT	• 2.1 Enhance ITE program focus on rural education and special education
	• 2.2 Re-skilling to support specialised skill gaps <ul style="list-style-type: none"> a) Re-training 'out-of-field' teachers b) Primary → secondary school shift c) Re-training teachers to support students with additional needs
	• 2.3 <i>Research into appetite to retrain (in key KLAS, school types and in special education needs)*</i>
OPTIMISE AND RETAIN	• 3.1 <i>Research to inform design of a suite of 'return to work' initiatives*</i>
	• 3.2 Early Career Teacher support in rural and remote regions
	• 3.3 <i>Research into relative share of permanent teaching positions*</i>
	• 3.4 Incentive payments and other benefits to attract teachers to hard-to-staff schools
	• 3.5 Matching and monitoring capability

**Research initiatives and Rapid Supply initiatives relevant to the prioritised issues are shown in italics. Some are to inform design and some are to determine if there is an issue.*



Current and future consultation informed understanding of teacher supply and demand issues

Stakeholder groups from inside and outside the Department of Education have been engaged as part of the project



31 stakeholders
engaged to date



Over 16
interviews



With over 13 more
engagement touchpoints

Stakeholder group	Stakeholder area	Stakeholder name and title
Department of Education	HR	<ul style="list-style-type: none"> Leah Anderson: Director, Recruitment and Employment, HR Veronica Willmott: Project Manager, Strategic Projects Ross Hawkey: Director, People Operations and Services, HR
	Industrial Relations	<ul style="list-style-type: none"> Clare Archibald: Director, Industrial Relations, Corporate Services Ruth Rutledge: Principal Industrial Officer, Corporate Services
	Technology	<ul style="list-style-type: none"> Mark Greentree: R/ED, Customer Experience and Service Delivery
	Rural and remote	<ul style="list-style-type: none"> Laurie Campbell: Director, Rural and Pathways, Educational Services
	Higher education and university partnerships	<ul style="list-style-type: none"> Sandra Robinson: Director, Professional Learning and Teacher Pathways, Educational Services Cynthia Wearne: Leader, Teacher Education Partnerships, Educational Services Sarah Hayes: Role TBC
	Diversity and STEM	<ul style="list-style-type: none"> Daniel French: Director, Office of the Dep Sec, Educational Services Tanya Neal: Director, Aboriginal Education and Communities Lauren Judge: Manager, Disability Strategy Implementation Dr Sham Nair: Science Advisor 7-12 Daniel Proctor: Mathematics Advisor 7-12 Adrian Bell: Principal in Residence, Aboriginal Education Directorate, Educational Services
	Intergovernmental and future of education	<ul style="list-style-type: none"> Mary-Lou O'Brien: Director, Strategic Schools Resourcing, Leadership and High Performance, School Operations and Performance Sally Blackadder: Executive Director, Strategic Resource Management, Education Futures and Governance Suzy Joachim: Role TBC Della Browne: Role TBC Natalie Scott: Role TBC
	Strategy and delivery	<ul style="list-style-type: none"> James Centenera: Director, Delivery Unit, Strategy and Delivery
	School operations	<ul style="list-style-type: none"> Chris Charles: Director, School Operations and Performance (SOAP) Melinda Haskett: HALT, Office of the Dep Sec, SOAP Peter MacBeth: DEL, Far West Network Mark Anderson: DEL, Hornsby Network, Met North Paul Owens: DEL, Bondi Network, Met South
	Quality teaching	<ul style="list-style-type: none"> Stacey Quince: Executive Director Quality Teaching
NESA	Teacher quality and initial teacher education	<ul style="list-style-type: none"> Lyn Kirkby: A/Executive Director, Teacher Quality David Cranmer: Director, Teacher Quality Policy John Healey: Director, Initial Teacher Education and Accreditation

Key themes from engagement to date:

- 1 Early engagement is key**
 - More can be done to capture high achievers in their school years, by improving the promotion of a teaching career and job certainty.
 - Social media, film and TV (which are powerful influencers) are not being used effectively to excite and encourage young professionals to enter the teaching profession.
 - A better understanding of what drivers are influencing decisions about career choices on an ongoing basis is needed.
- 2 Greater support structures are needed**
 - Newly qualified teachers working in more challenging schools and communities where there is limited support
 - Greater support could be offered to teachers in their early years to reflect the fact that teachers often require mentoring and learning opportunities
 - Technology has a role to play to support delivery in more remote areas
- 3 Challenges exist relating to incentives**
 - The salary ceiling and perceptions regarding career trajectory may be impeding choices to become a teacher
 - The demands and expectations on teachers are increasing, while the current rewards, pathways, and learning opportunities are not providing enough incentive
 - More can be done to align teacher interests and attributes with school and community characteristics.

Stakeholders we are planning to engage with:

- CESE
- Principals and teachers and University Deans of Education
- Experts from the UK, US, New Zealand and Australia (DoE)
- Re-engagement with key stakeholders
- Owners of Executive Priority Programs