

North West Province

11 Sep 2023

Educator Demand Projections 2021-2030



Introduction (1)



- The proportion of educators that are 50 years or older has steadily risen between 2012 to 2021 in South Africa.
 - ⇒ Nationally a **wave of educator retirements is expected** as older educators reach the standard retirement age of between 60 and 65.

Implications:

- **Many more appointments:** The retirement wave will open up both teaching & school management & leadership positions & other office-based education specialists.
- **Total compensation of educators:** Since older teachers earn more, when retiring they are replaced with younger (less costly) teachers.

Introduction (2)

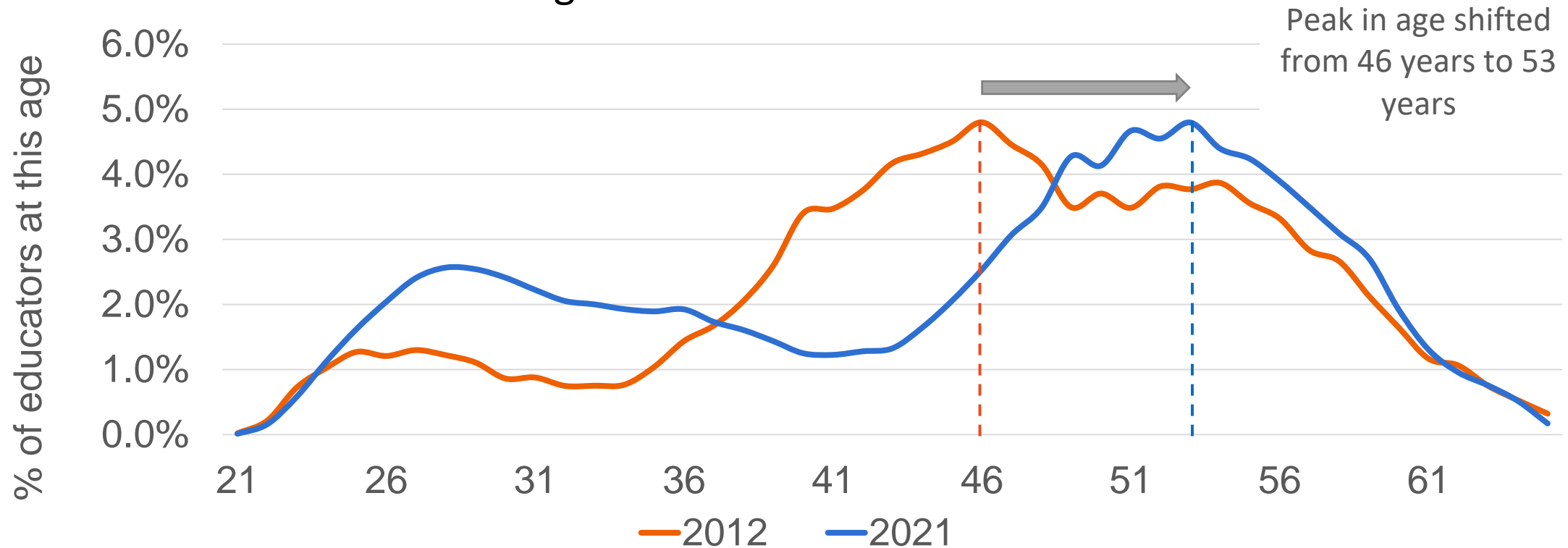


- As retirements increase, the required number of **new appointments will need to increase** to ensure that total educator numbers (at a minimum) stay at current levels and/or are sufficient to **meet learner enrolment growth** to **prevent deterioration in learner-educator ratios**.
- Planning will be required to ensure that provinces are ready for the sustained increase in appointments.
- If these positions are not filled, this could result in a further deterioration in the learner-educator ratio and lead to further increases in already large class sizes.

Introduction (3)



Educator age distribution in 2012 & 2021 in SA



Source: Anonymised PERSAL data from 2021, only educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed.

What do changes in the demand and supply of educators mean for universities and schools over the next decade?

Martin Gustafsson

July 2023



Objective



- In each province there are some differences in the age profile of teachers, differences in the expected growth of the school-going population and differences in expected teacher attrition (resignations & retirements).
 - ⇒ The year of the retirement wave peak will differ across provinces.
 - ⇒ Also some provinces need to accommodate much more growth in learners than others.

In this presentation, we highlight the situation in North West to inform province-specific planning

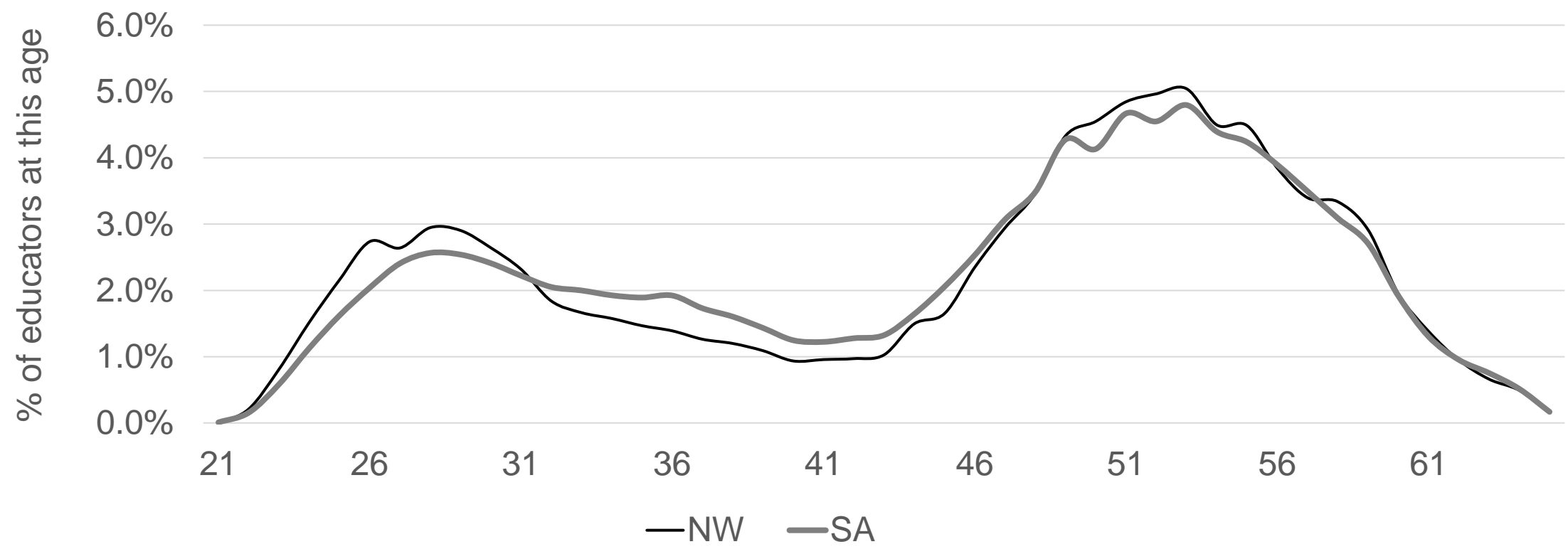
Overview

- 1 Age distributions
- 2 Projected retirements & resignations
- 3 Provincial population and enrolment trends
- 4 Public and independent school growth
- 5 Educator growth: Teachers and senior educators
- 6 The implications for appointments and class sizes
- 7 Expected financial implications to 2030
- 8 Movement of educators: Between and within provinces
- 9 Gender imbalance in school management
- 10 Discussion

North West educator demand summary

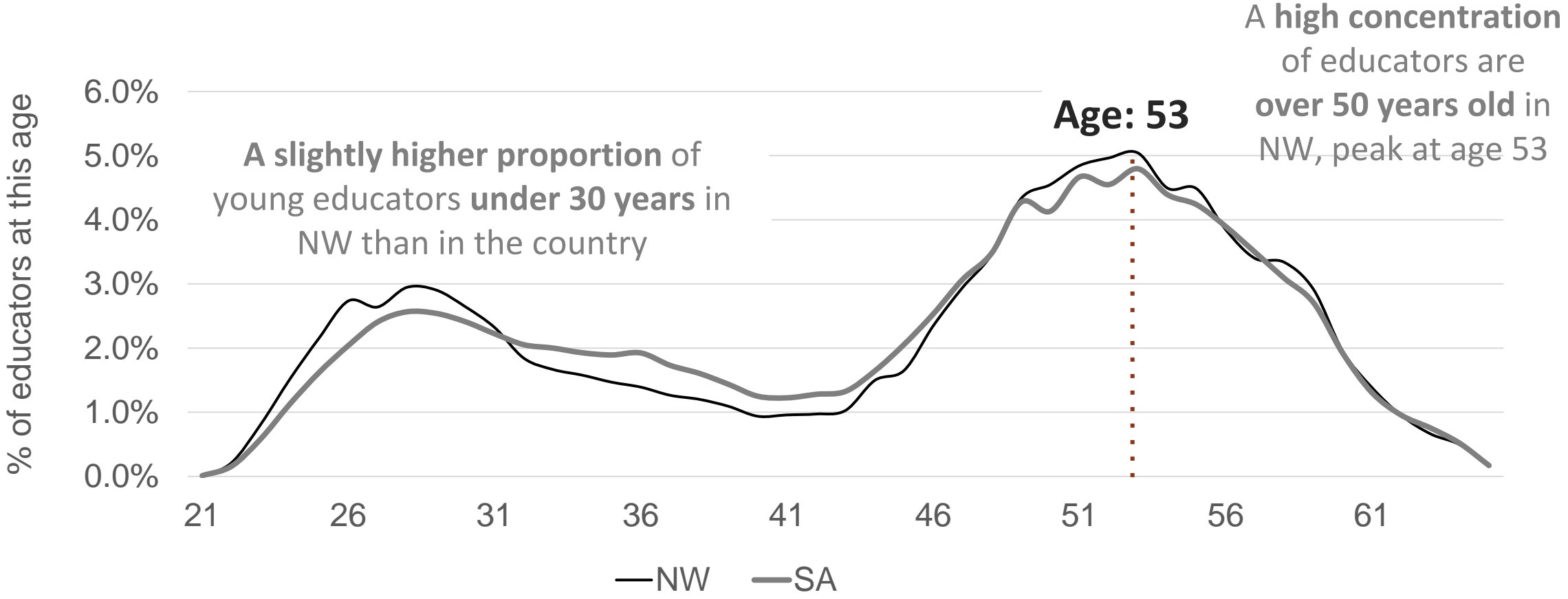
- **Age distribution:** The age distribution in the NW had a peak at around 53 years of age in 2021
- **Projected resignations and retirements:** NW will see high rates of resignations for younger educators (aged 55 and below)-this is mainly driven by younger educators resigning as the proportion of newly hired younger educators increases; the number of senior educators (SMT positions and other specialists) that are retiring is expected to increase (70% were 50+ years old in 2021)
- **Enrolment and population growth:** Enrolment in NW ordinary schools grew by +13% from 2012-2021 (~97K learners), and the school-aged population is forecast to grow by +4% (~37K learners) to 2030
- **School and educator growth:** From 2012 to 2021, the educator number in public schools increased but less than enrolment (+2%); school numbers declined (-9%), driving up the LE ratio and class sizes.
- **SMT position changes:** In the NW, the number of HODs remained almost constant (+1%), while deputy principal numbers increased (+15%), and principal numbers declined significantly (-21%) from 2012 to 2021
- **Appointments and LE Ratio:** Increases in appointments are needed in response to enrolment growth; otherwise, the LE ratio will increase further (inc. from 27.1 to 28.1 from 2012 to 2021)
- **Projected educator cost trends:** NW will experience a slight increase in the real average cost of educators (<1%); the real unit cost of teachers will increase by (+2%), and the real unit cost of senior educator educators will decrease by (-3%)
- **Educator movements:** High levels of educator movement out of NW(~6%) and into the province (~7%) over a 7-year period. Educators are more likely to move to a different school than they are to leave the system.

Educator age distribution (2021)



Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed.

Educator age distribution (2021)



Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed.

Older teacher proportions for senior educator and primary schools educators

Percentage of educators aged 50+ in 2021

Province	All educators	Senior educators (HOD, Dep.- principals, Principals & Other)	Primary school educators
EC	51%	71%	58%
FS	43%	65%	49%
GP	41%	65%	42%
KN	39%	65%	44%
LP	58%	81%	63%
MP	50%	73%	55%
NC	43%	69%	44%
NW	47%	70%	52%
WC	42%	73%	40%
SA	46%	69%	49%

Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021, used to classify educators by rank. Primary school only includes all educators that are in a component that is classified as a Primary school.

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Province	All educators	Senior educators (HOD, Dep.- principals, Principals & Other)	Primary school educators
EC	51%	71%	58%
FS	43%		
GP	41%		
KN	39%		
LP	58%		
MP	50%		
NC	43%	69%	44%
NW	47%	70%	52%
WC	42%	73%	40%
SA	46%	69%	49%

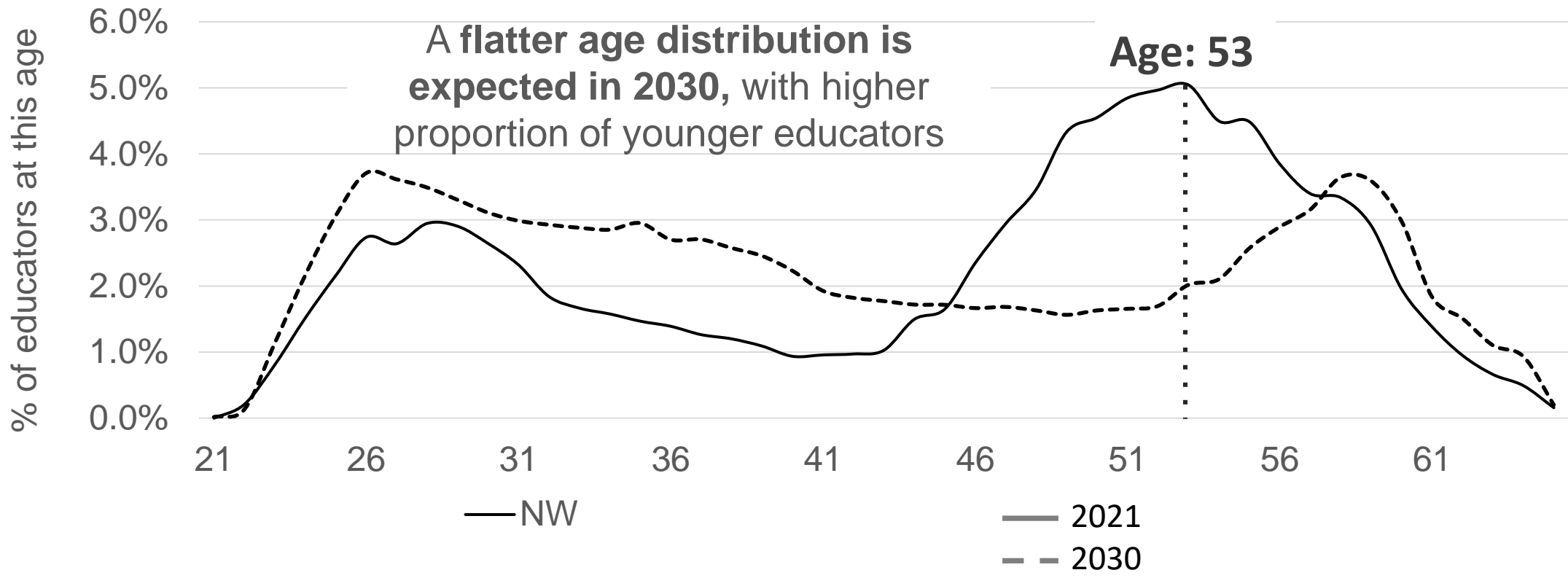
A large number of senior educators (70%) and primary school educators (52%) were aged 50 years and older in 2021 in the NW

Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021, used to classify educators by rank. Primary school only includes all educators that are in a component that is classified as a Primary school.

Educator age distribution in 2021 & 2030



Assume constant 2021 educator numbers

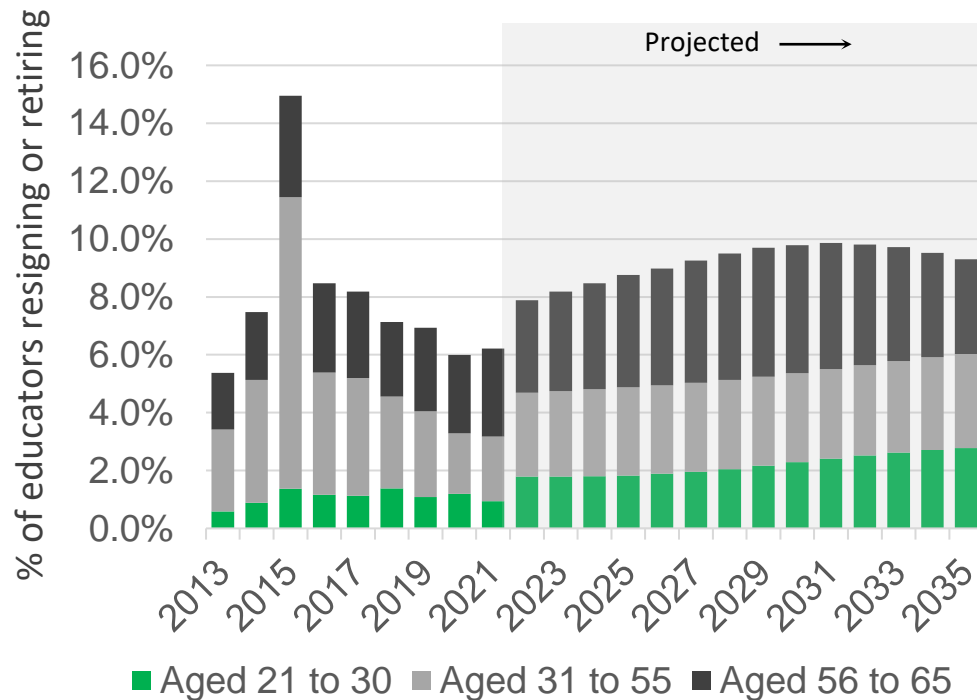


Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. Estimates to 2035 derived from the National and provincial teacher supply and demand models – assumption of no growth in educator numbers.

Projected resignation & retirements (NW)

Assume constant 2021 educator numbers

Proportion of Educators



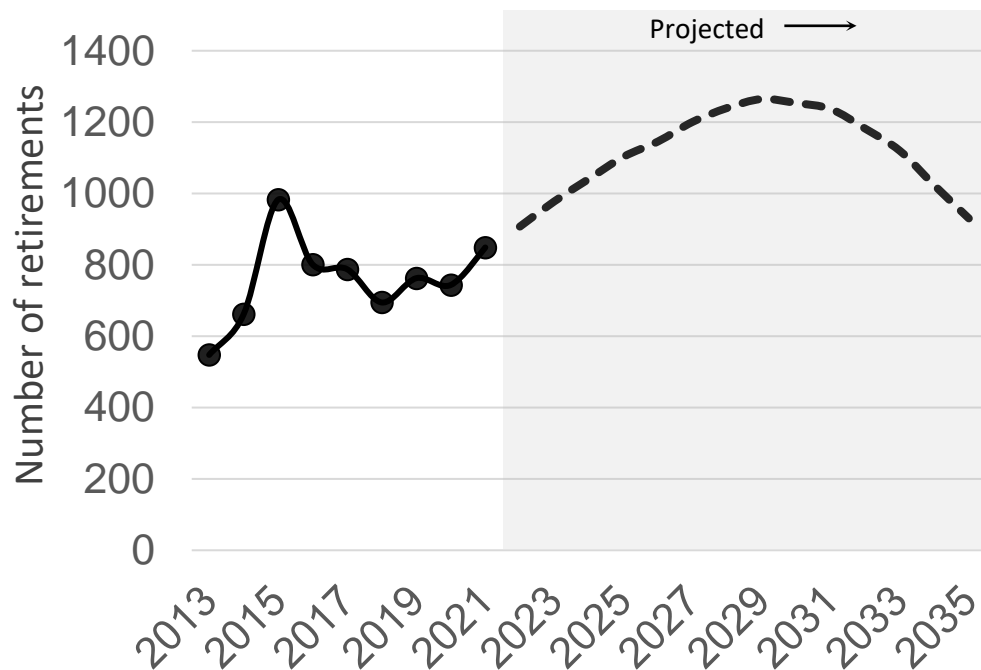
- More than half of the educators that are projected to exit PERSAL in the NW are resignations (ages 21 to 55)
- The resignation rate is relatively high, with a large spike due to the pension reform rumours in 2015
- The number of young teachers (ages 21-30) resigning is projected to increase as the number of newly hired young teachers increases.

Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. Estimates to 2035 derived from the National and provincial teacher supply and demand models – assumption of no growth in educator numbers. Note: Retirements refer to all educators, aged 56 to 65, that leave PERSAL, whilst resignations refer to all educators aged 55 and below that leave PERSAL (as educators) for any reason.

Projected resignation & retirements (NW)

Assume constant 2021 educator numbers

Retirement headcount



- The number of retirements is projected to increase, peaking in ~2029 & 2030 and then declining again
- The number of retirements is projected to increase from about 900 in 2022 to about 1,250 in 2029 & 2030, an increase of about 350 retirements annually

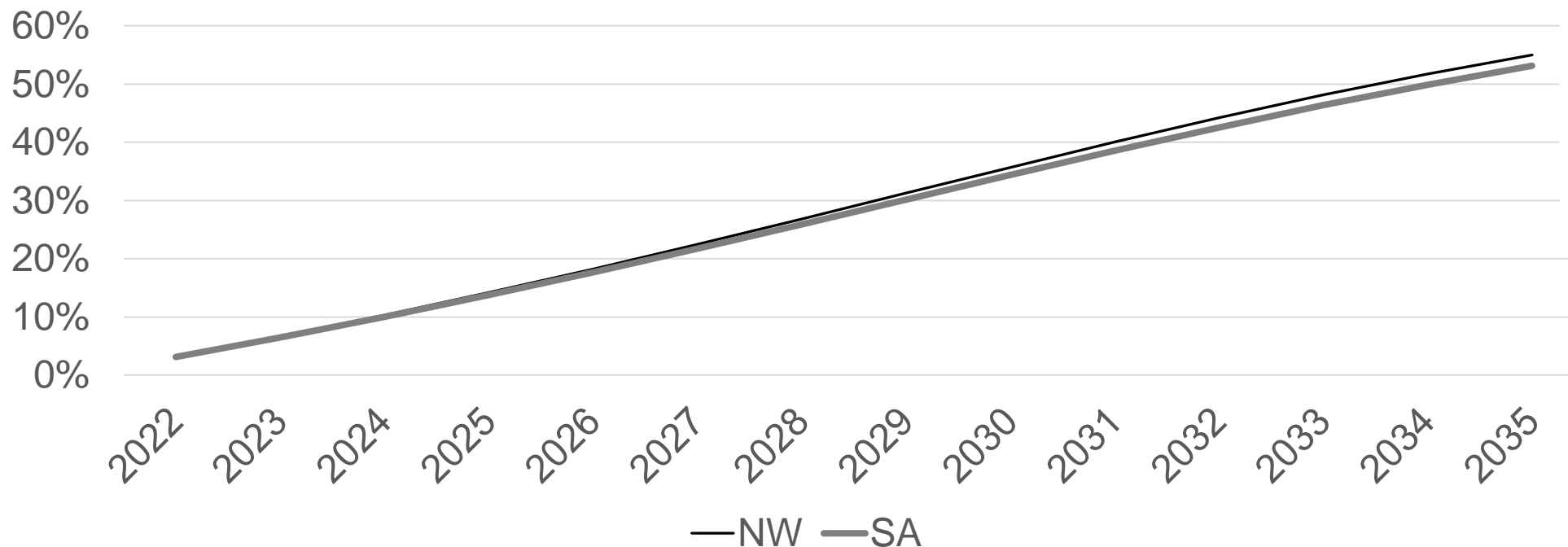
Source: Anonymised PERSAL data from 2021, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. Estimates to 2035 derived from the National and provincial teacher supply and demand models – assumption of no growth in educator numbers. Note: Retirements refer to all educators, aged 56 to 65, that leave PERSAL, whilst resignations refer to all educators aged 55 and below that leave PERSAL (as educators) for any reason.

Older leaver trend estimates to 2035



Assume constant 2021 educator numbers

Cumulative proportion of estimated leavers aged 56-65 as a proportion of total educators in 2022



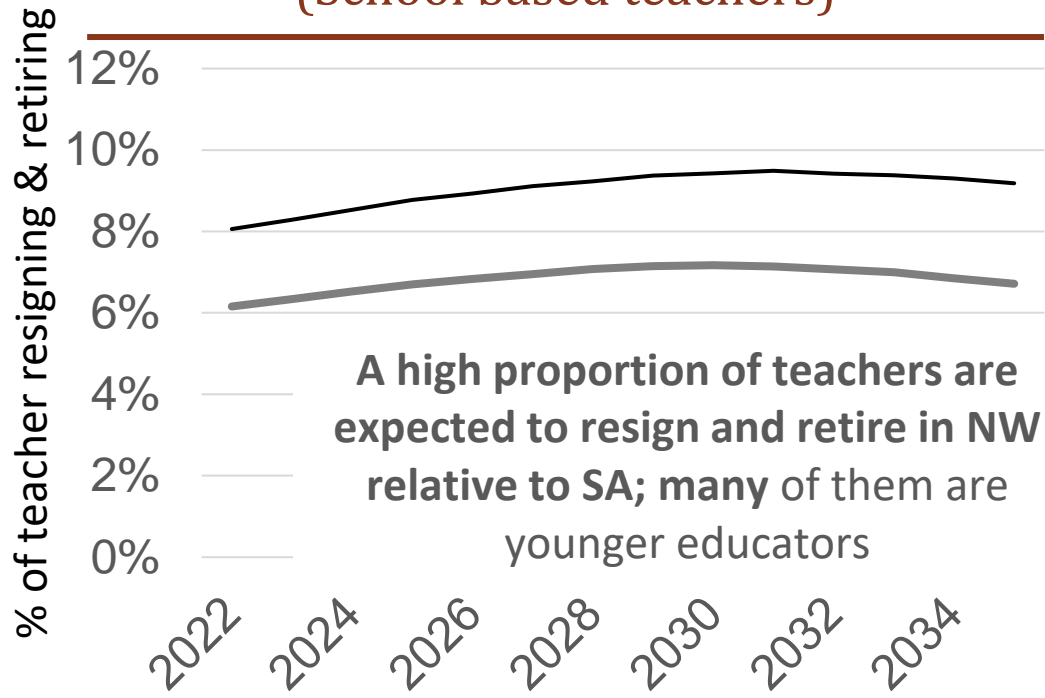
About 15,600 educators estimated to retire by 2035 in the NW (55% of total educators in 2021)

Source: Anonymised 2021 PERSAL data, only 405 413 educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers and ABET teachers were removed. Estimates to 2035 derived from the National and provincial models – assumption of no growth in educator numbers.

Projected educators leaving by ranks

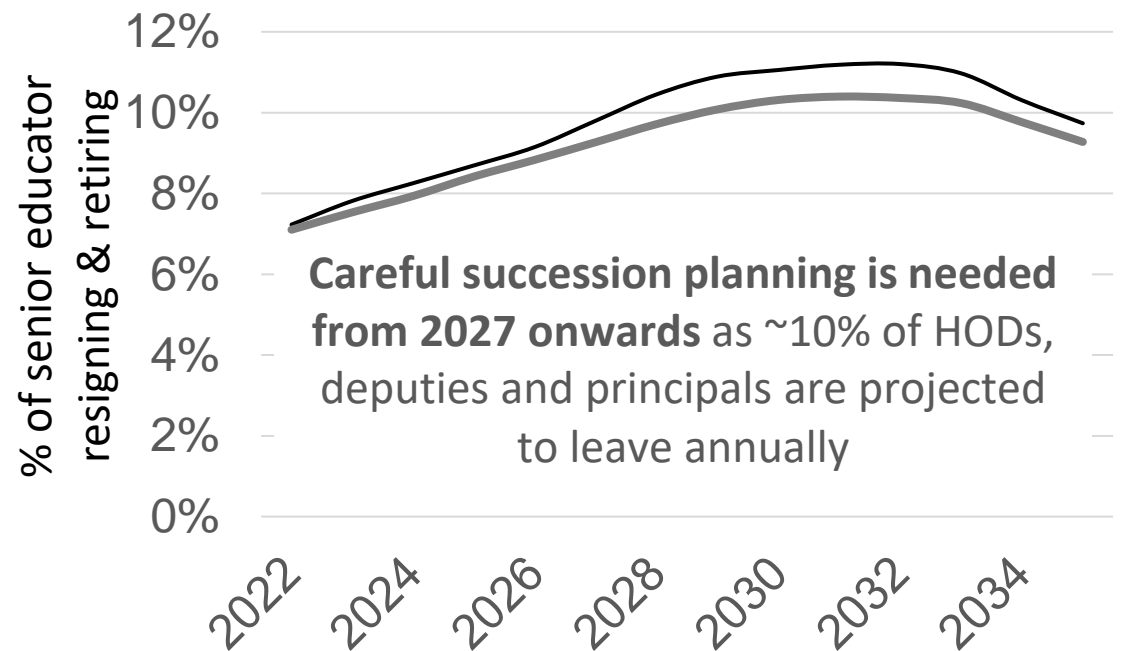
Assume constant 2021 educator numbers

L1 Teachers (School based teachers)



A high proportion of teachers are expected to resign and retire in NW relative to SA; many of them are younger educators

Senior educators (HODs, Deputy's, Principals & Other)



Careful succession planning is needed from 2027 onwards as ~10% of HODs, deputies and principals are projected to leave annually

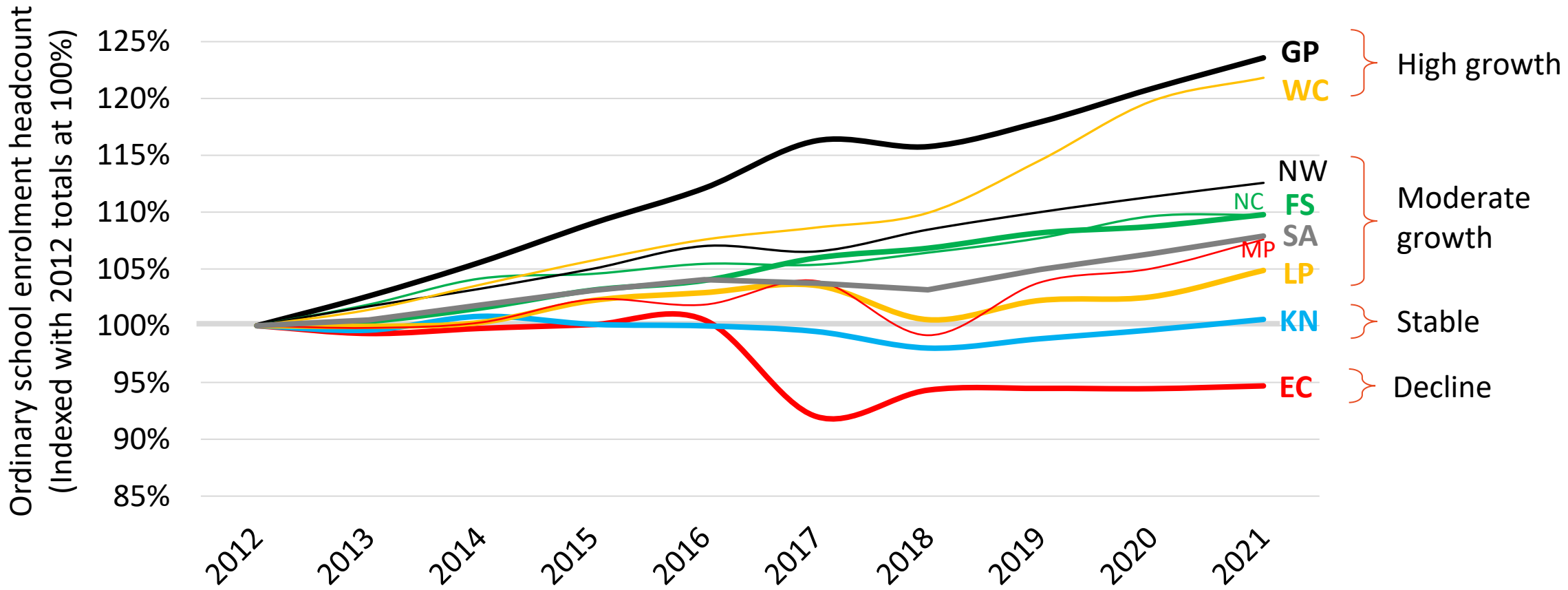
—NW —SA

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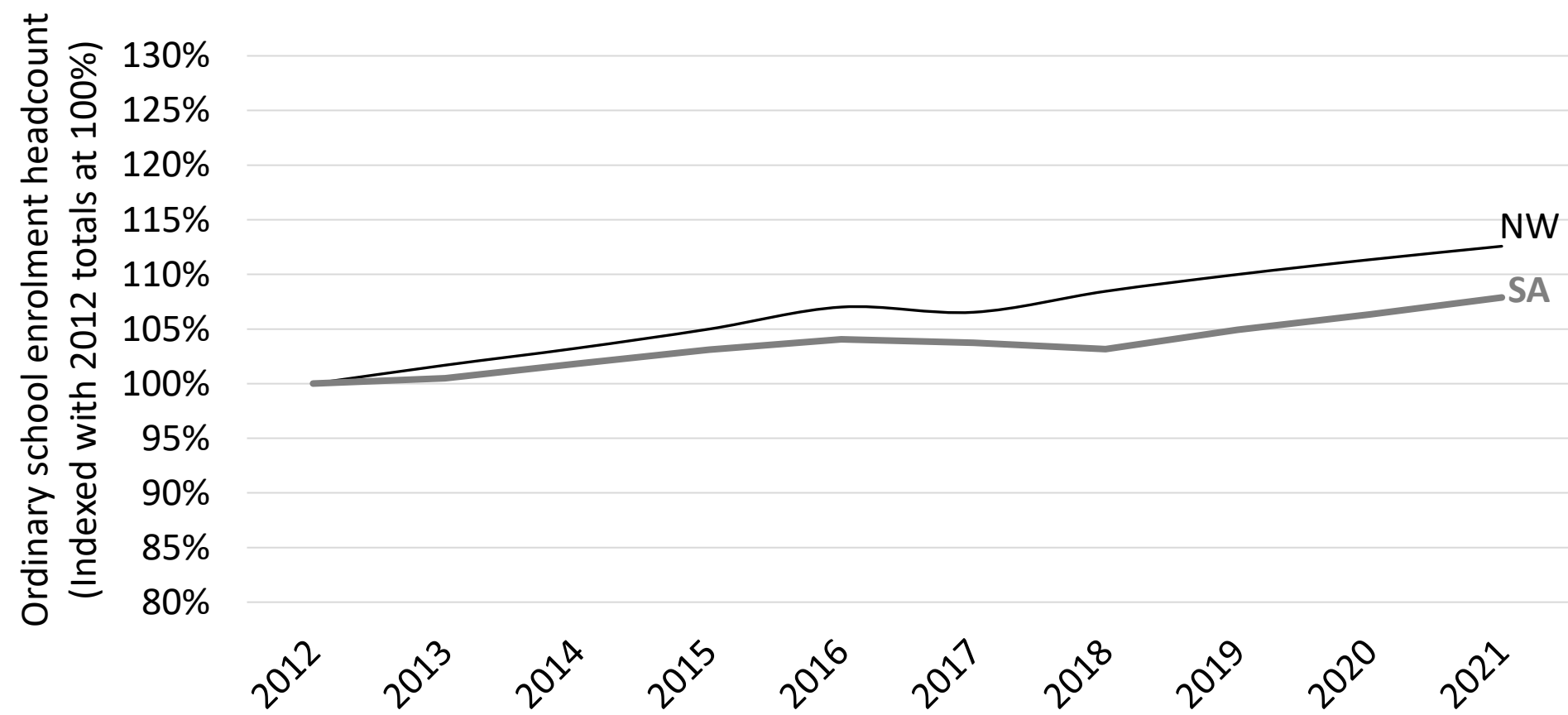
Provincial population and enrolment trends

Provincial enrolment trends (2012-2021)



Source: Enrolment numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, using total numbers for ordinary public and independent schools.

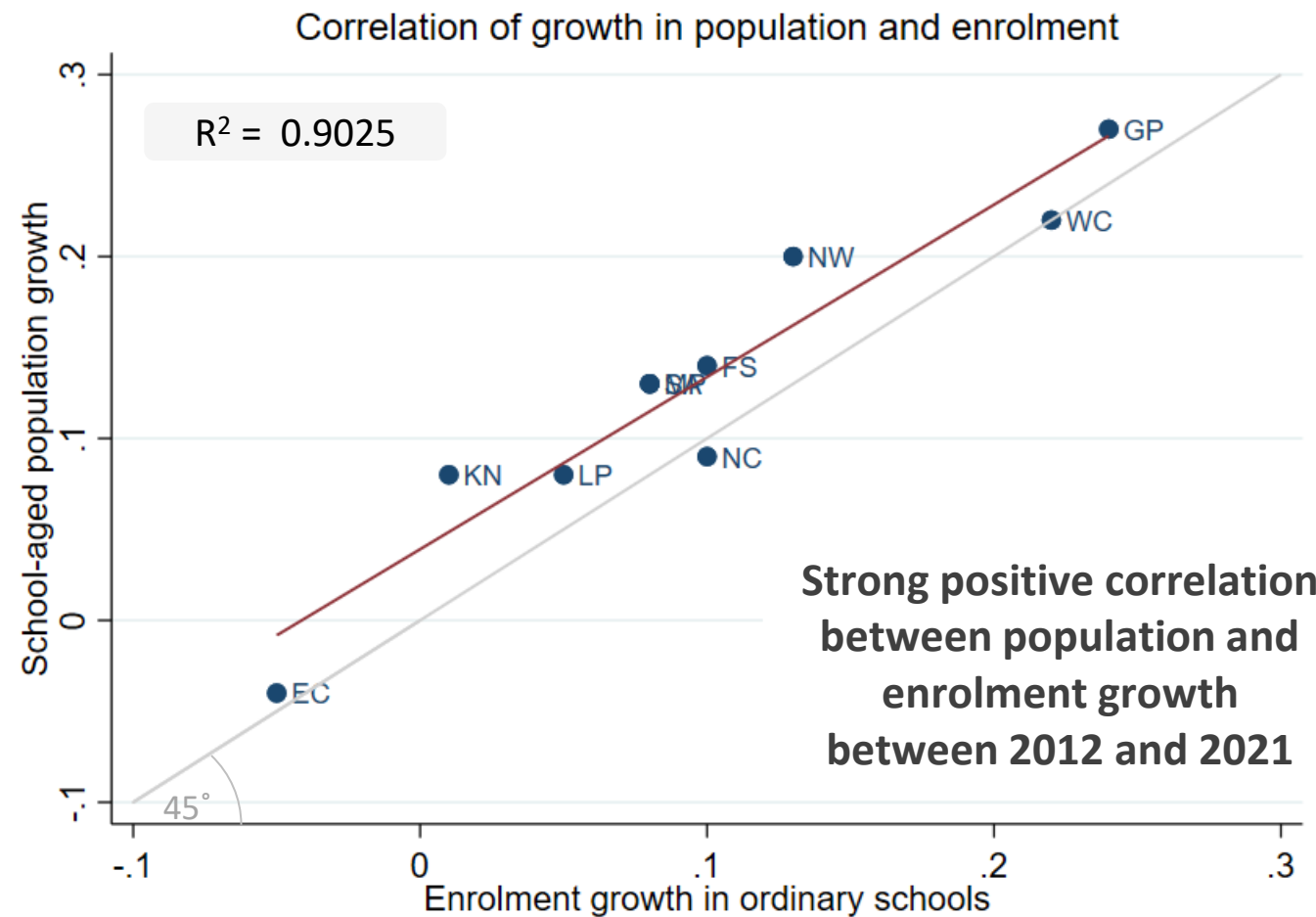
Provincial enrolment trends (2012-2021)



Enrolment in North West ordinary schools grew by **13%** from 2012 to 2021

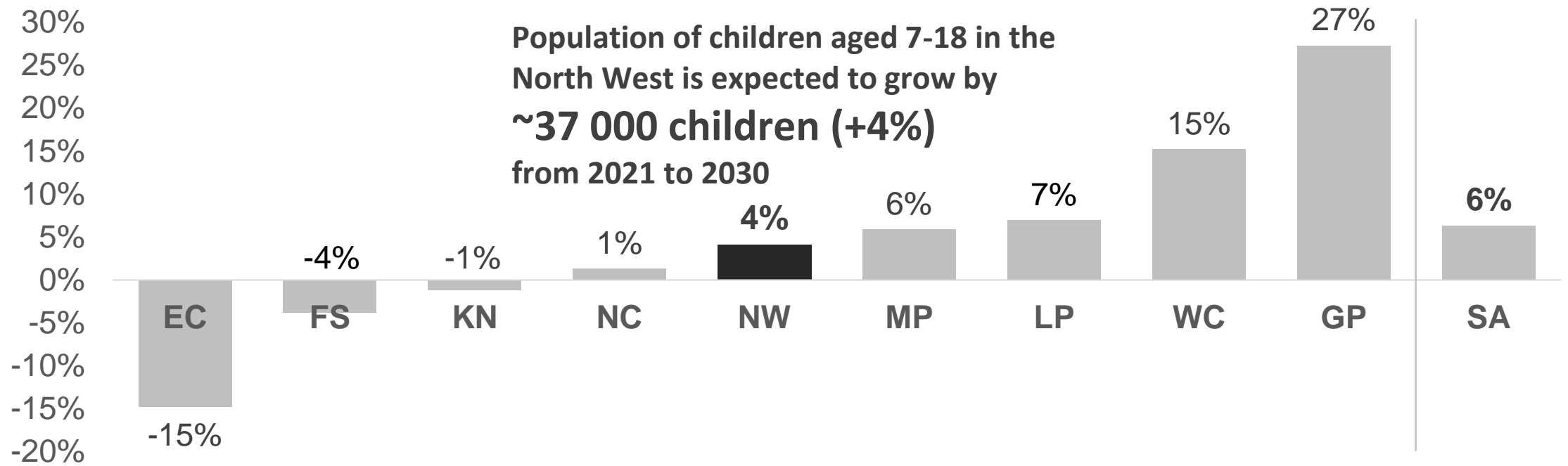
Source: Enrolment numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, using total numbers for ordinary public and independent schools.

Correlation between population and enrolment growth (2012-2021)



Source: Thembisa age specific data V4.5 for school-aged population (Ages 7-18) estimates and enrolment taken from School Realities-EMIS (2012 – 2021) released by the DBE, for numbers on ordinary public and independent schools (Statistical Publications (education.gov.za))

Projected growth in school-aged population

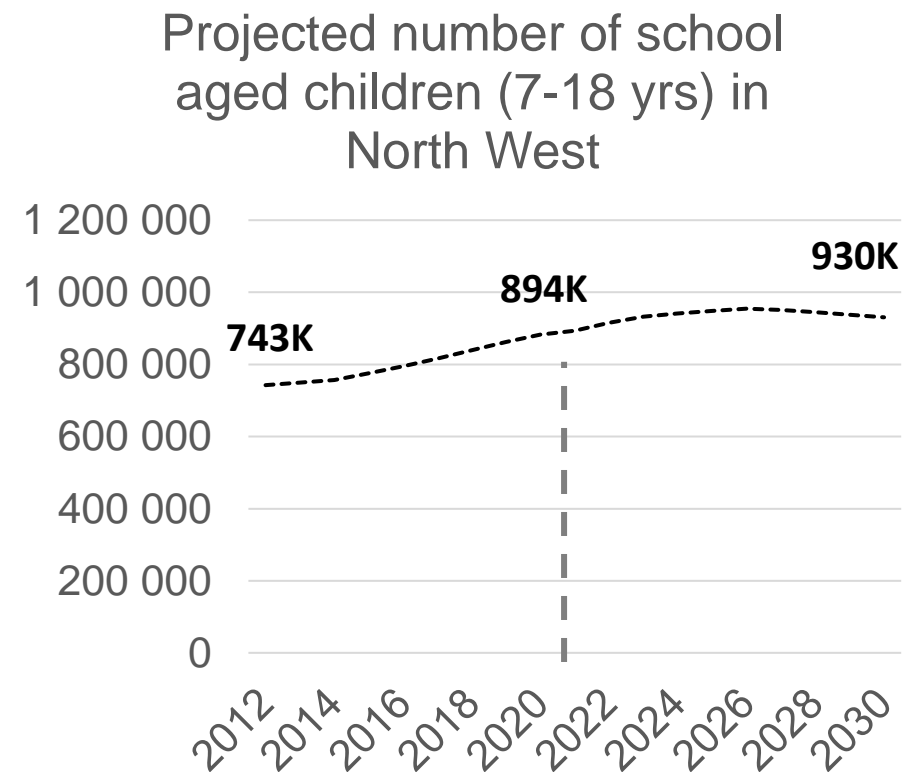


Note: Period 2021 – 2030 is the same timeframe, nine years, as 2012 – 2021.

Source: Thembisa age-specific estimates from the model V4.5 for children aged 7-18 by province

School aged-population estimates to 2030

Province	Number of children Aged 7-18			Growth '12-21	Growth '21-30
	2012	2021	2030E		
EC	1 657 202	1 598 475	1 361 637	-4%	-15%
FS	592 445	676 489	650 820	14%	-4%
GP	1 962 793	2 498 533	3 180 884	27%	27%
KN	2 485 822	2 690 378	2 657 716	8%	-1%
LP	1 395 864	1 507 386	1 612 125	8%	7%
MP	977 749	1 100 594	1 165 728	13%	6%
NC	254 075	277 560	281 208	9%	1%
NW	742 943	893 530	930 323	20%	4%
WC	1 068 009	1 298 801	1 496 731	22%	15%
Total	11 136 902	12 541 746	13 337 172	13%	6%



Note: Period 2021 – 2030 is the same timeframe, nine years, as 2012 – 2021.

Source: Thembisa age-specific estimates from the model V4.5 for children aged 7-18 by province



Public and independent school growth

Educator, school and enrolment growth

% growth from 2012 - 2021

Province	Number of educators	Number of teachers	Number of public ordinary schools	Enrolment in public ordinary schools	Enrolment in ordinary schools	Est. school-aged population
EC	-17%	-20%	-8%	-6%	-5%	-4%
FS	-13%	-13%	-27%	9%	10%	14%
GP	21%	28%	1%	20%	24%	27%
KN	-5%	-3%	-3%	1%	1%	8%
LP	-8%	-2%	-7%	4%	5%	8%
MP	3%	7%	-8%	7%	8%	13%
NC	6%	9%	-3%	9%	10%	9%
NW	2%	4%	-9%	12%	13%	20%
WC	12%	22%	0%	21%	22%	22%
SA	-1%	2%	-6%	7%	8%	13%

Source: Educator numbers from anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 69 999) are considered. Thembisa age specific data V4.5 for school-aged population (Ages 7-18) estimates and enrolment and school numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, for numbers on ordinary public and independent schools ([Statistical Publications \(education.gov.za\)](https://www.education.gov.za))

Educator, school and enrolment growth



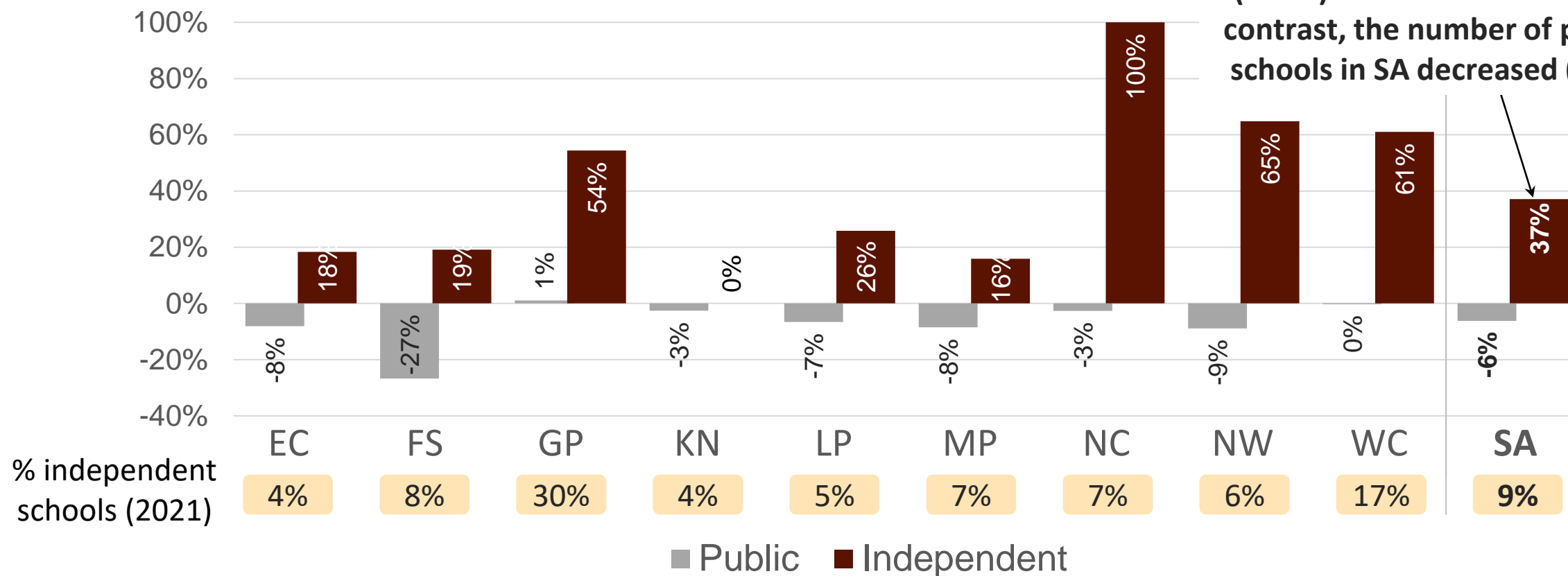
Province	% growth from 2012 - 2021					
	Number of educators	Number of teachers	Number of public ordinary schools	Enrolment in public ordinary schools	Enrolment in ordinary schools	Est. school-aged population
EC	-17%	-20%	-8%	-6%	-5%	-4%
FS	-13%	-13%	-27%	9%	10%	14%
GP	---	---	---	---	---	---
KN	Enrolment and educator numbers grew in the North West, whilst the number of public ordinary schools decreased....					
LP						
MP						
NC	6%	9%	-3%	9%	10%	9%
NW	2%	4%	-9%	12%	13%	20%
WC	12%	22%	0%	21%	22%	22%
SA	-1%	2%	-6%	7%	8%	13%

Source: Educator numbers from anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 69 999) are considered. Thembisa age specific data V4.5 for school-aged population (Ages 7-18) estimates and enrolment and school numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, for numbers on ordinary public and independent schools ([Statistical Publications \(education.gov.za\)](https://www.education.gov.za))

School growth from 2012 to 2021



School growth was driven by independent school growth (+37%) from 2012 to 2021. In contrast, the number of public schools in SA decreased (-6%)

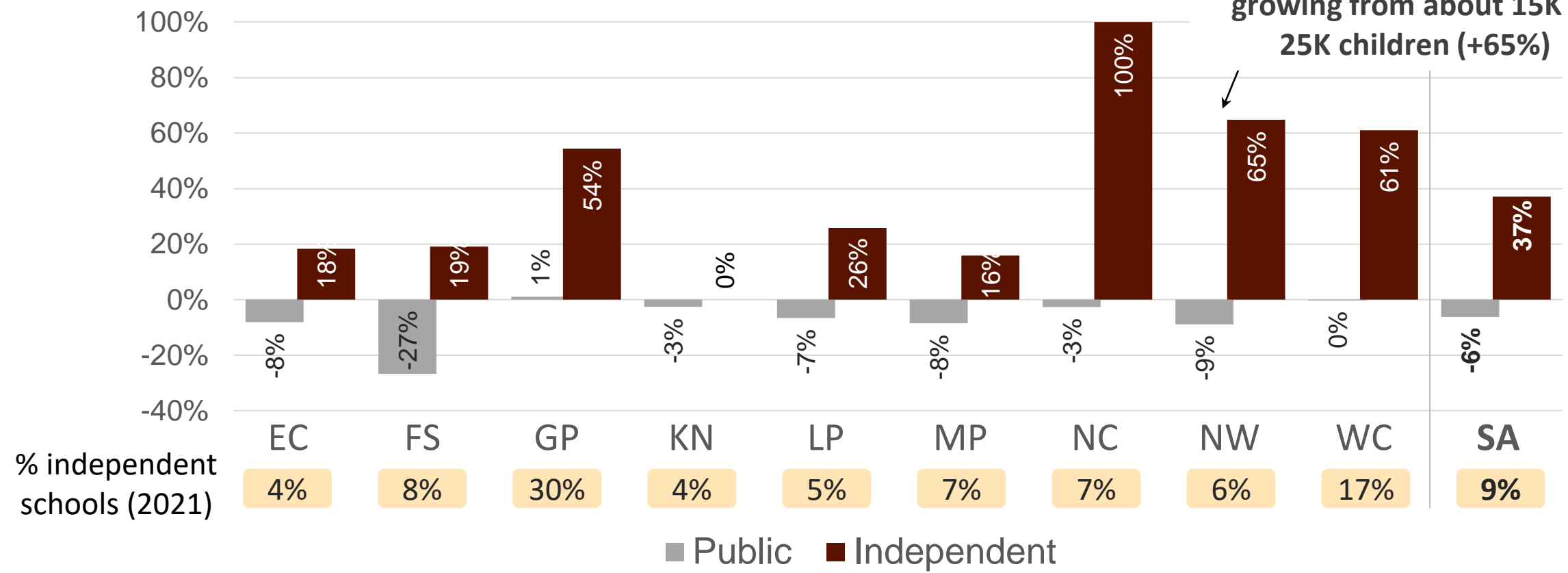


Source: School numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, for numbers on ordinary public and independent schools ([Statistical Publications \(education.gov.za\)](http://www.education.gov.za))

School growth from 2012 to 2021



High growth in the number of independent schools in the NW (+65%), with enrolment growing from about 15K to 25K children (+65%)



Source: School numbers taken from School Realities-EMIS (2012 – 2021) released by the DBE, for numbers on ordinary public and independent schools (Statistical Publications (education.gov.za))



Educator growth by teachers and senior educator positions

Changes in teacher and SMT numbers

Province	Teacher				HOD				Deputy-Principal				Principal			
	2012	2021	Diff	% change	2012	2021	Diff	% change	2012	2021	Diff	% change	2012	2021	Diff	% change
EC	50 295	40 115	-10 180	-20%	5 870	6 196	326	6%	1 342	1 453	111	8%	5 294	4 755	- 539	-10%
FS	20 148	17 561	-2 587	-13%	2 685	2 470	- 215	-8%	852	768	- 84	-10%	1 224	892	- 332	-27%
GP	47 233	60 677	13 444	28%	8 708	9 209	501	6%	2 565	2 850	285	11%	2 162	1 959	- 203	-9%
KN	73 050	71 000	-2 050	-3%	11 289	10 330	- 959	-8%	2 642	2 342	- 300	-11%	5 584	5 055	- 529	-9%
LP	44 998	44 317	- 681	-2%	6 090	3 762	-2 328	-38%	1 562	778	- 784	-50%	3 510	3 316	- 194	-6%
MP	26 127	27 857	1 730	7%	4 047	4 055	8	0%	1 108	1 114	6	1%	1 790	1 450	- 340	-19%
NC	7 257	7 929	672	9%	1 034	1 094	60	6%	294	365	71	24%	587	488	- 99	-17%
NW	21 305	22 261	956	4%	2 994	3 023	29	1%	902	1 041	139	15%	1 698	1 338	- 360	-21%
WC	23 579	28 665	5 086	22%	4 065	3 700	- 365	-9%	1 334	1 297	- 37	-3%	1 531	1 339	- 192	-13%
SA	313 992	320 382	6 390	2%	46 782	43 839	-2 943	-6%	12 601	12 008	- 593	-5%	23 380	20 592	-2 788	-12%

Source: Anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers, and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021.

Changes in teacher and SMT numbers



Province	Teacher				HOD				Deputy-Principal				Principal			
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FS	20 148	17 561	-2 587	-13%	2 685	2 470	-215	-8%	852	768	-84	-10%	1 224	892	-332	-27%
GP	21 911	22 808	897	4%	2 994	3 023	29	1%	2 565	2 901	336	13%	1 102	833	-269	-24%
KN	23 628	21 908	-1 720	-7%	6 090	5 562	-528	-9%	2 642	2 342	-300	-11%	1 102	833	-269	-24%
LP	44 998	44 317	-681	-2%	6 090	3 762	-2 328	-38%	1 562	778	-784	-50%	1 790	1 339	-451	-25%
MP	26 127	27 857	1 730	7%	4 047	4 055	8	0%	1 108	1 114	6	1%	1 790	1 339	-451	-25%
NC	7 257	7 929	672	9%	1 034	1 094	60	6%	294	365	71	24%	587	488	-99	-17%
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Teacher numbers (+4%) lag behind enrolment growth (+12%) in public ordinary schools

Large decline in principal numbers between 2012 and 2021 (principal appointments potentially delayed by COVID)

Source: Anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers, and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021.

Changes in teacher and SMT numbers



Increase in HOD and deputy principal numbers between 2012 and 2021

Province	Teacher				HOD				Deputy-Principal				Principal			
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EC	50 295	40 115	-10 180	-20%	5 870	6 196	326	6%	1 342	1 453	111	8%	5 294	4 755	-539	-10%
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KN	73 050	71 000	-2 050	-3%	11 289	10 330	-959	-8%	2 518	2 343	-175	-7%	3 514	5 055	1 541	44%
LP	44 998	44 317	-681	-2%	6 090	3 762	-2 328	-38%	1 562	778	-784	-50%	3 510	3 316	-194	-6%
MP	26 127	27 857	1 730	7%	4 047	4 055	8	0%	1 108	1 114	6	1%	1 790	1 450	-340	-19%
NC	7 257	7 929	672	9%	1 034	1 094	60	6%	294	365	71	24%	587	488	-99	-17%
NW	21 305	22 261	956	4%	2 994	3 023	29	1%	902	1 041	139	15%	1 698	1 338	-360	-21%
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Source: Anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 69 999) are considered. ECD practitioners, TVET lecturers, and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021.

Proportional split by educator rank

	All Educators		Teacher		HOD		Dep.-Principal		Principal		Other	
	2012	2021	2012	2021	2012	2021	2012	2021	2012	2021	2012	2021
EC	100%	100%	78% ↓	75%	9% ↑	12%	2.1%	2.7%	8.2% ↑	8.8%	2.5%	2.4%
FS	100%	100%	78%	78%	10%	11%	3.3%	3.4%	4.7%	4.0%	3.7%	3.3%
GP	100%	100%	74% ↑	79%	14%	12%	4.0%	3.7%	3.4% ↓	2.6%	4.4%	2.7%
KN	100%	100%	77%	79%	12%	11%	2.8%	2.6%	5.9%	5.6%	2.1%	1.3%
LP	100%	100%	78% ↑	84%	11% ↓	7%	2.7% ↓	1.5%	6.1%	6.3%	2.1%	1.5%
MP	100%	100%	76%	79%	12%	12%	3.2%	3.2%	5.2%	4.1%	3.2%	1.8%
NC	100%	100%	75%	77%	11%	11%	3.0%	3.6%	6.1% ↓	4.8%	5.1%	3.9%
NW	100%	100%	76%	78%	11%	11%	3.2%	3.7%	6.1% ↓	4.7%	3.7%	2.6%
WC	100%	100%	74% ↑	80%	13% ↓	10%	4.2%	3.6%	4.8% ↓	3.7%	4.1%	2.1%
SA	100%	100%	77%	79%	11%	11%	3.1%	3.0%	5.7%	5.1%	3.1%	2.1%

Source: Anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 70 000) are considered. ECD practitioners TVET lecturers and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021. The percentage within each rank is calculated taking the total number of educator in that year for that rank over the total number of educators in that year.

Proportional split by educator rank



	All Educators		Teacher		HOD		Dep.-Principal		Principal		Other	
	2012	2021	2012	2021	2012	2021	2012	2021	2012	2021	2012	2021
EC	100%	100%	78%	75%	9%	12%	2.1%	2.7%	8.2%	8.8%	2.5%	2.4%
FS	100%	100%	78%	78%	10%	11%	3.3%	3.4%	4.7%	4.0%	3.7%	3.3%
GP	100%	100%	71%	70%	11%	12%	1.0%	2.7%	2.1%	2.6%	1.1%	2.7%
KN	100%	100%										
LP	100%	100%										
MP	100%	100%										
NC	100%	100%	75%	77%	11%	11%	3.0%	3.6%	6.1%	4.8%	5.1%	3.9%
NW	100%	100%	76%	78%	11%	11%	3.2%	3.7%	6.1%	4.7%	3.7%	2.6%
WC	100%	100%	74%	80%	13%	10%	4.2%	3.6%	4.8%	3.7%	4.1%	2.1%
SA	100%	100%	77%	79%	11%	11%	3.1%	3.0%	5.7%	5.1%	3.1%	2.1%

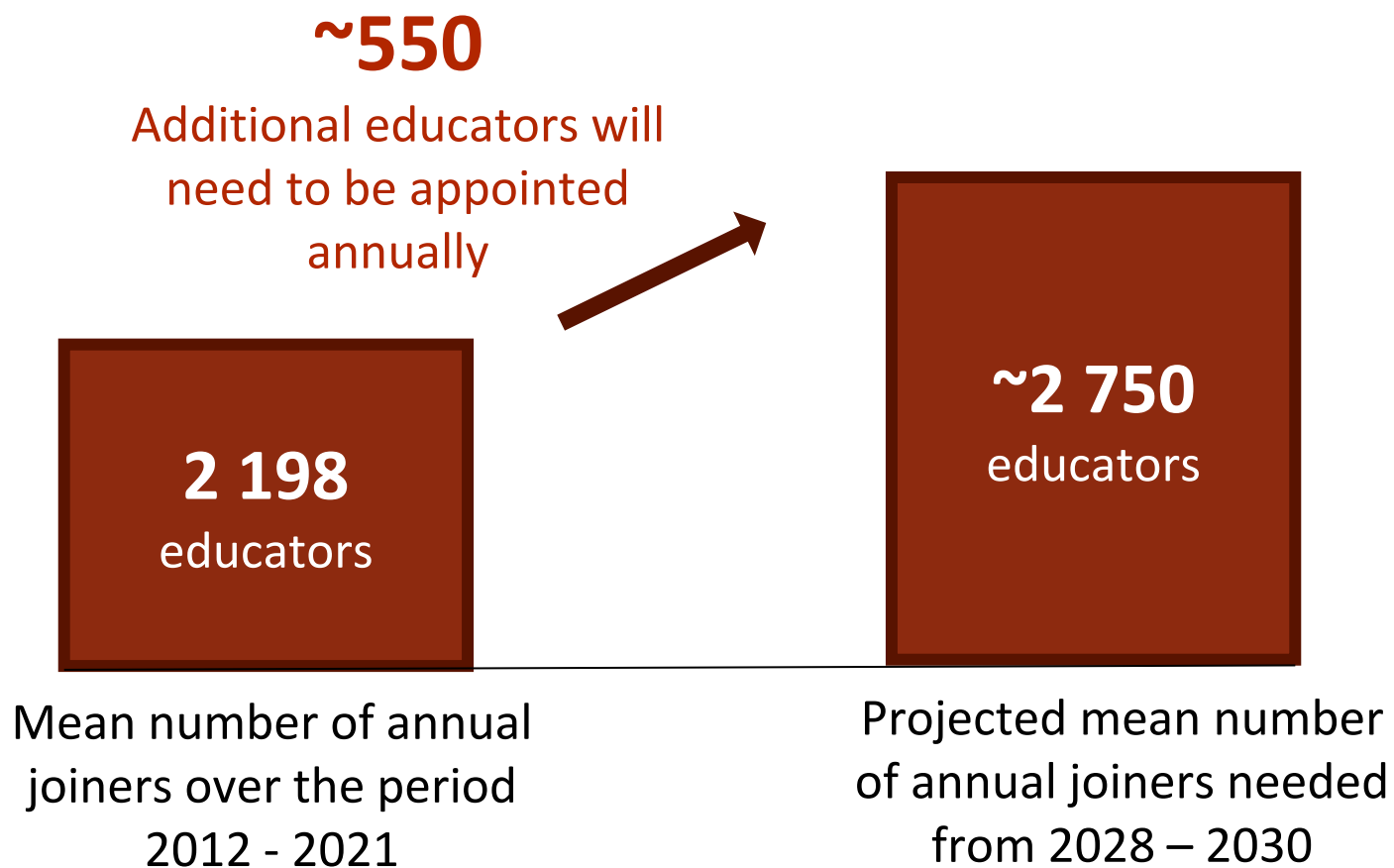
Proportions of the different educator ranks in the North West appear to be roughly in line with the national average in 2021. There was a significant decline in principal proportion between 2012 and 2021

Source: Anonymised PERSAL data from 2012 and 2021, only educators (Rank 60 000 – 70 000) are considered. ECD practitioners TVET lecturers and ABET teachers were removed. The 2021 rankclass file was expanded to include ranks found only in years prior to 2021. The percentage within each rank is calculated taking the total number of educator in that year for that rank over the total number of educators in that year.



Implications for appointments and class sizes

Projected increase in appointments



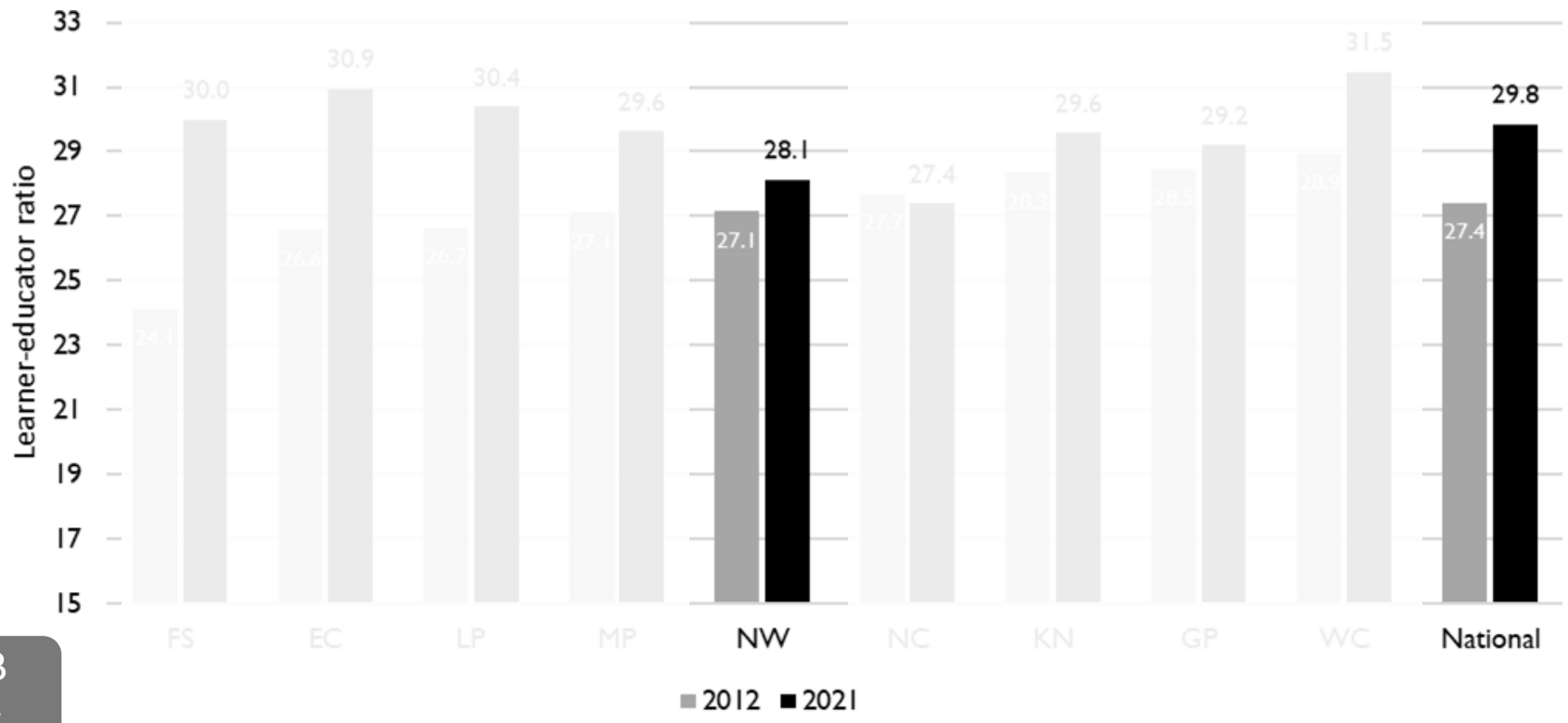
- Increase in expected annual appointments over the period of ~550 in 2028 – 2030, mostly due to an increase in the number of retirement
- Appointment and promotion processes will need to be strengthened, and careful succession planning will be required
- Alternative sources of Careful succession planning will also need to be implemented due to higher numbers of senior educators leaving

*Assumes that total educator numbers stays constant between 2022 - 2030

Learner-public educator ratio in '12 & '21



National and provincial learner-to-public-educator ratios in 2012 and 2021, grades 1 to 12 in public ordinary schools in South Africa

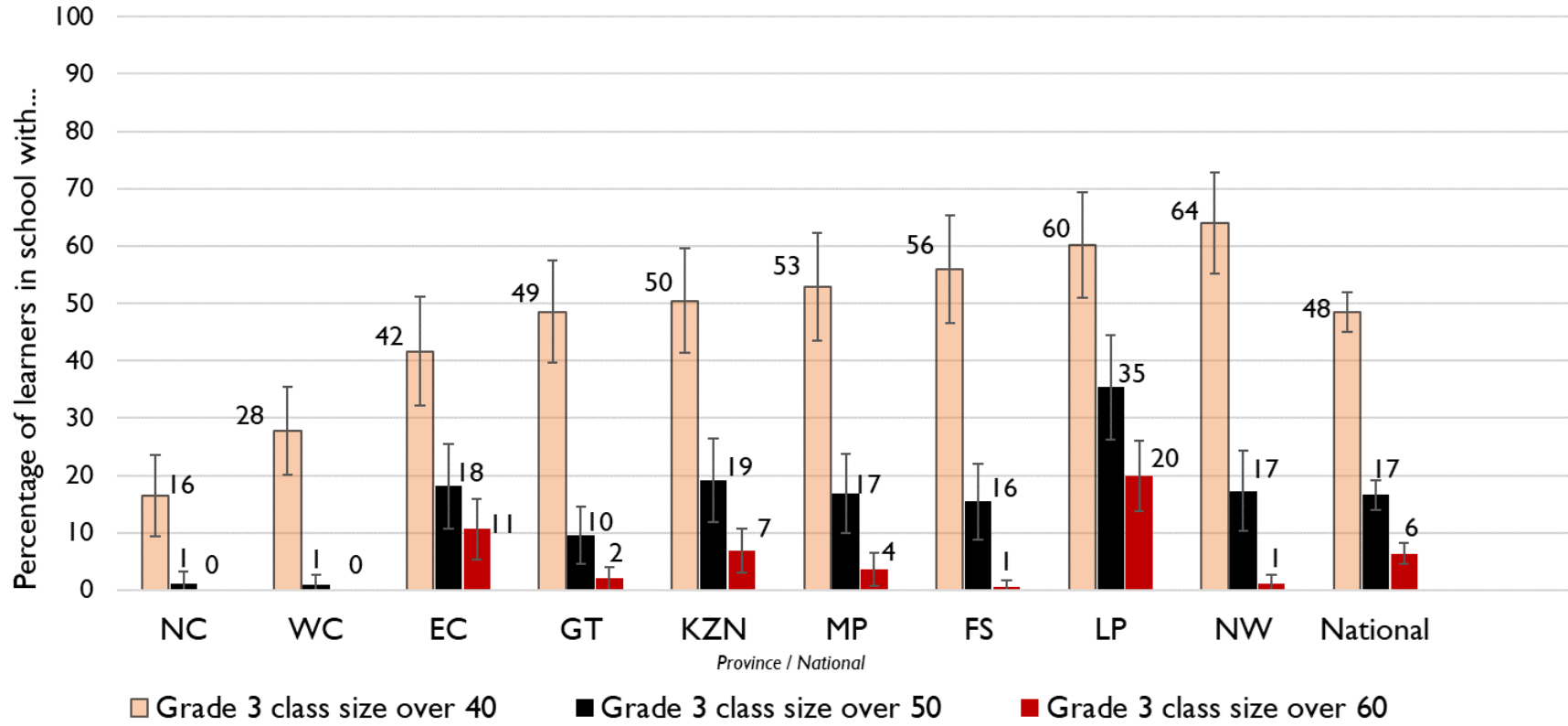


LE ratio rose from 27.1 learners per educator to 28.1 learners per educator in the North West between 2012 and 2021

Excl. SGB teachers

Source: Figure 1 in South African teacher shortages as revealed through class sizes and learner-educator ratios: An exploratory analysis by Gabrielle Wills (2023)

Grade 3 class sizes (2017/18 School Monitoring Survey)



Post-provisioning guidelines - Class sizes should not exceed 35 in Grade 3.

% of learners in grade 3 classes > 40:
48% in SA, 64% in NW

% of learners in grade 3 classes > 50:
17% in SA, ~17% in NW

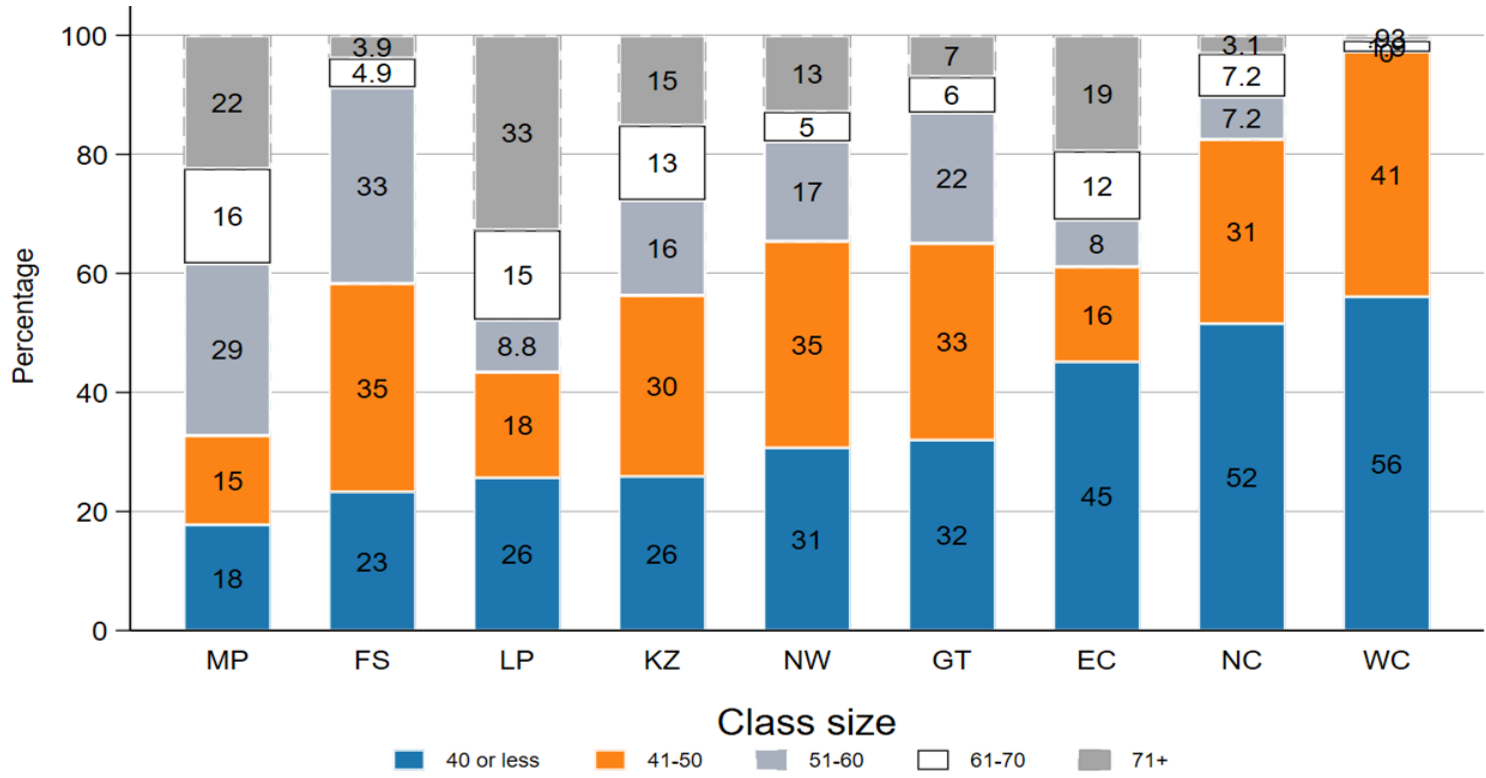
% of learners in grade 3 classes > 60:
6% in SA, ~1% in NW

Data source: SMS 2017/18. Learner weights applied. Educator responses averaged at school level. Technically estimates should be interpreted in relation to grade 6 learners. FS = Free State, EC = Eastern Cape, LP = Limpopo Province, MP = Mpumalanga Province, NC = Northern Cape, KN = KwaZulu-Natal, GP = Gauteng, WC = Western Cape.

Note: Nationally, grade 3 enrolment numbers had been rising from about 2011 and peaked in 2017 before starting to decline slightly, stabilising at about 1,1 million in 2021 (Gustafsson 2022a, p10-11). Holding other things constant, grade 3 class sizes will be similar or slightly smaller in 2022 than what is seen in these 2017/18 SMS estimates.

Largest classes - School Monitoring Survey 2017/18

Percentage of grade 6 learners in schools with an educator reporting that their largest class is in the following class size category, disaggregated by province (SMS 2017/18)



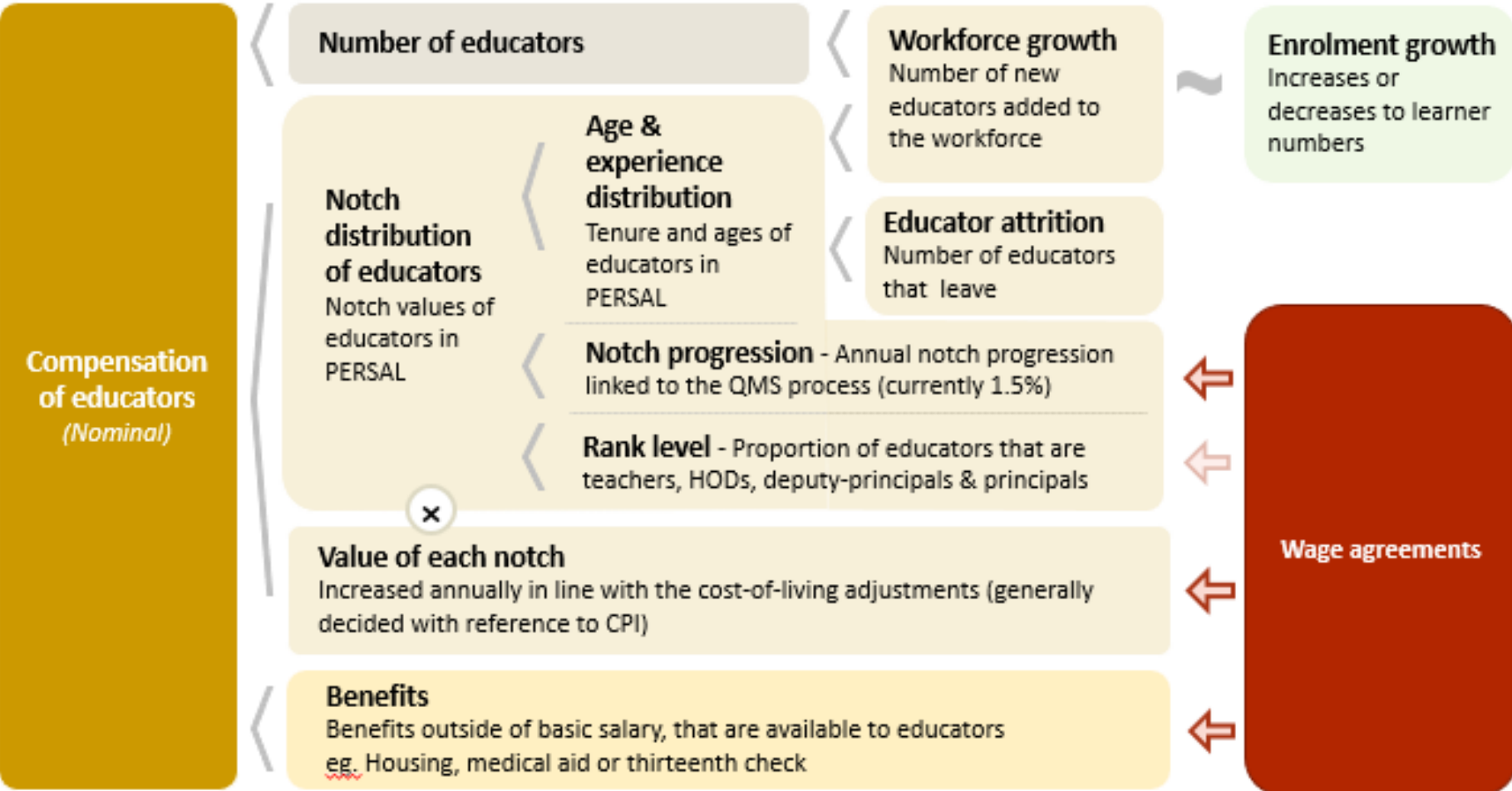
- In 2017/18, the North West had less than 35% of Gr6 learners in schools with large classes (>50 learners)
- A further deterioration of the LE ratio will drive up class size and the number of excessively large classes, negatively impacting quality and teacher motivation

Source: Figure 1 in South African teacher shortages as revealed through class sizes and learner-educator ratios: An exploratory analysis by Gabrielle Wills (2023) using School Monitoring Survey 2017/18 (953 schools, learner weighted).



Expected financial implications to 2030

Unit cost drivers



Real and nominal costs

*A real increase in wages takes place when wages increase **above** the rate of inflation*

*Changes to real wages are an indicator of **purchasing power***

7

Examples:

In 2022 CPI was **7.2%**

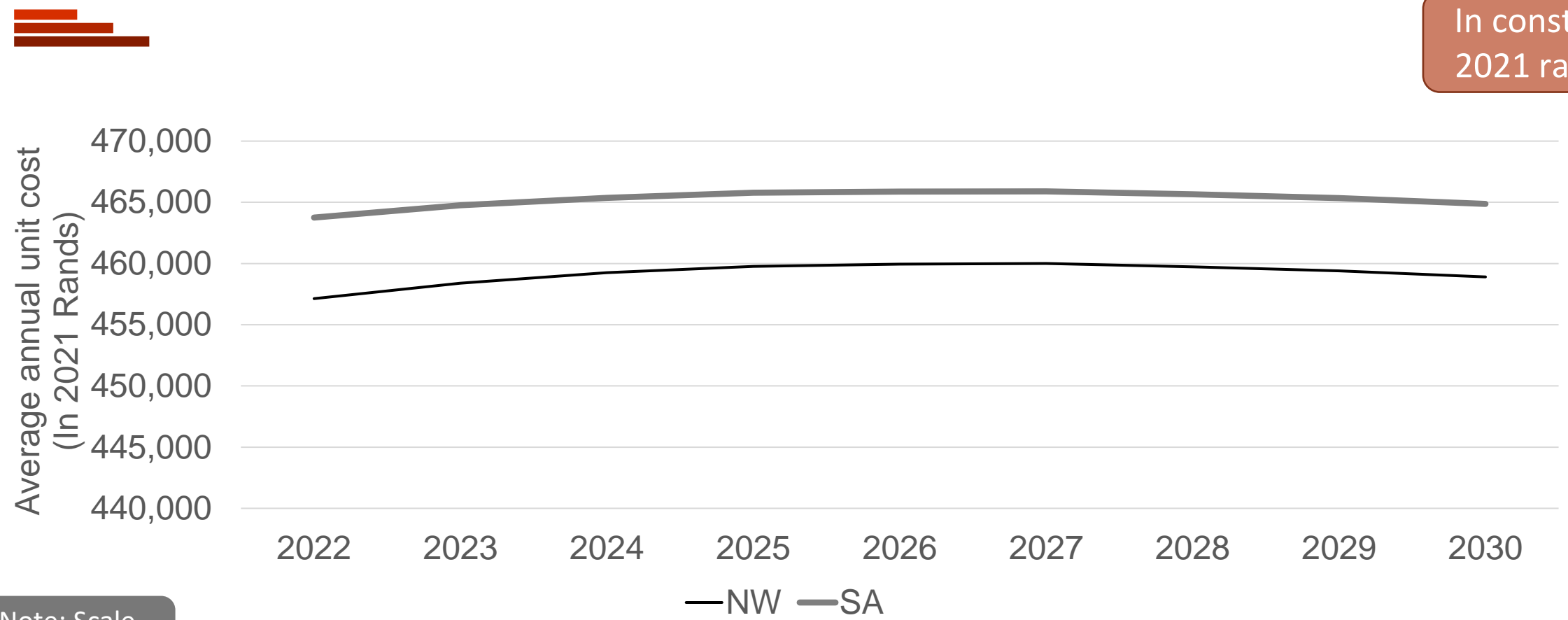
If **nominal wages** increase by **7.2%**, then **real wages** increase by **0%**

If **nominal wages** increase by **9%**, then **real wages** increase by **1.8%**

If **nominal wages** increase by **5%**, then real wages decrease by **2.2%**

Projected unit costs trends| All educators

In constant 2021 rands



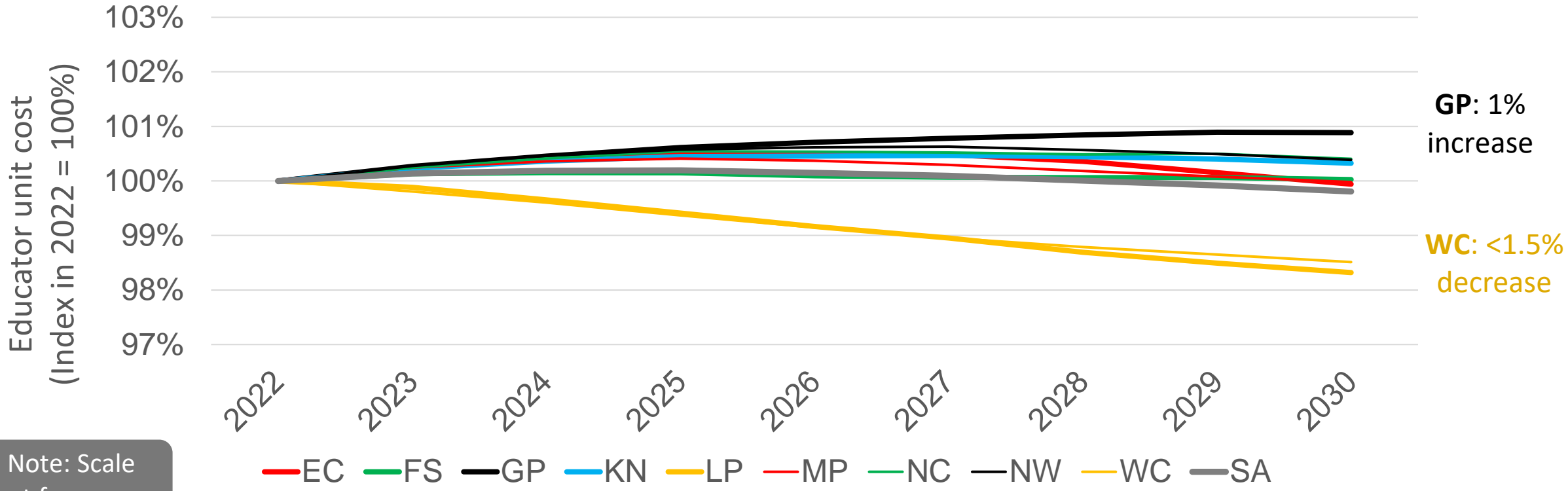
Note: Scale not from zero

Source: Own calculations, using the anonymised PERSAL data from 2021, only 405 413 educators are considered. ECD practitioners and examination reviewers removed. Estimates to 2030 derived from the national and provincial TSD models. Assumption of no growth in educator numbers.

Indexed unit costs trends | All educators



In constant 2021 rands



Note: Scale not from zero

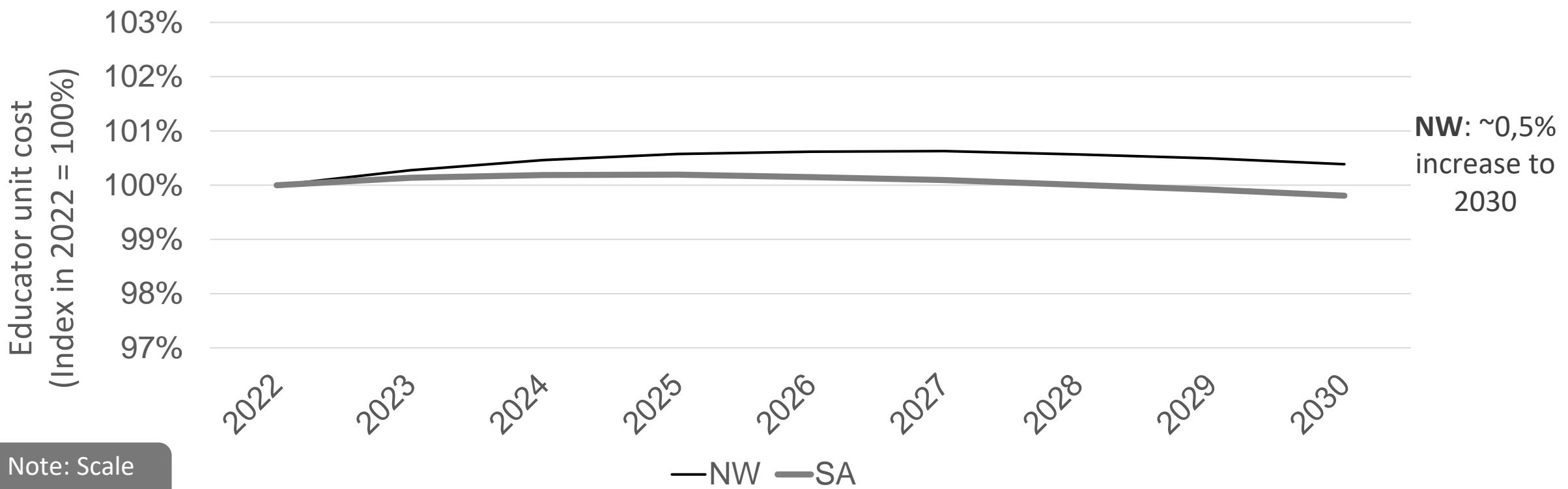
WC growth adjusted

Source: Own calculations, using the anonymised PERSAL data from 2021, only 405 413 educators are considered. ECD practitioners and examination reviewers removed. Estimates to 2030 derived from the national and provincial TSD models. Assumption of no growth in educator numbers for FS, KN, LP, MP, NC, NW and SA. Assume 20% educator growth for GP, 10% for WC and a decline in 10% of educators in the EC. In LP assume that the proportion of senior educators grows from 16% in 2021 to 21% in 2030.

Indexed unit costs trends | All educators



In constant 2021 rands



Note: Scale not from zero

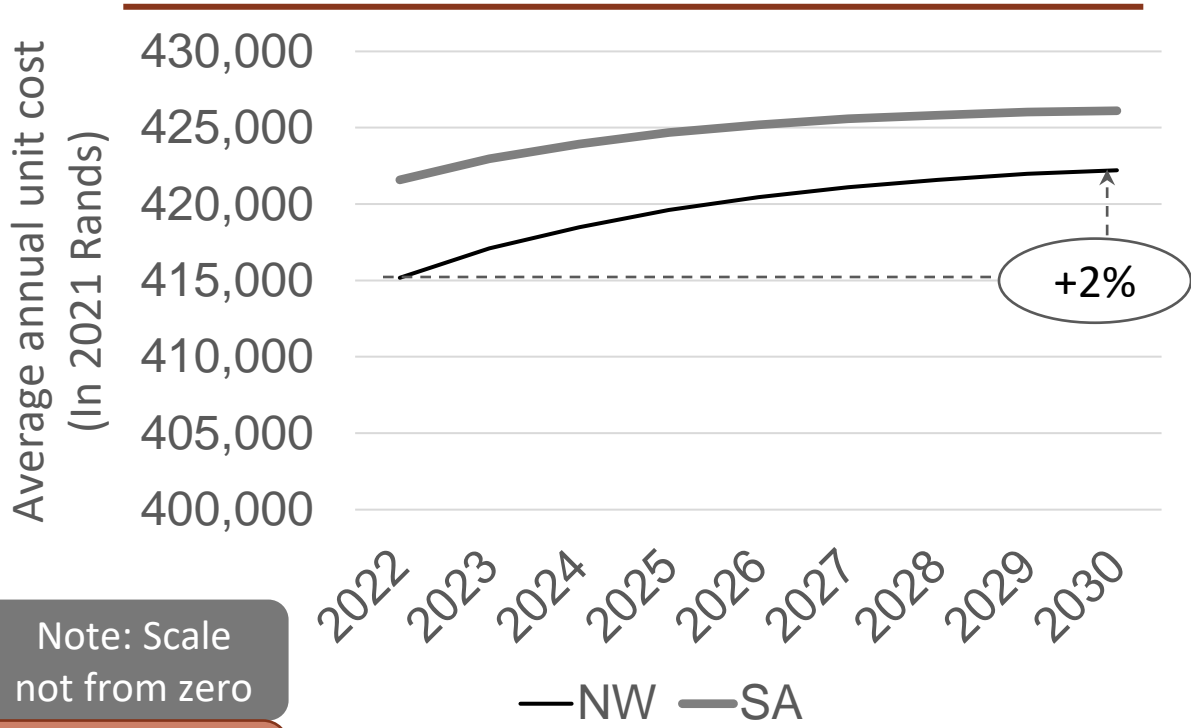
WC growth adjusted

Source: Own calculations, using the anonymised PERSAL data from 2021, only 405 413 educators are considered. ECD practitioners and examination reviewers removed. Estimates to 2030 derived from the national and provincial TSD models. Assumption of no growth in educator numbers for FS, KN, LP, MP, NC, NW and SA. Assume 20% educator growth for GP, 10% for WC and a decline in 10% of educators in the EC. In LP assume that the proportion of senior educators grows from 16% in 2021 to 21% in 2030.

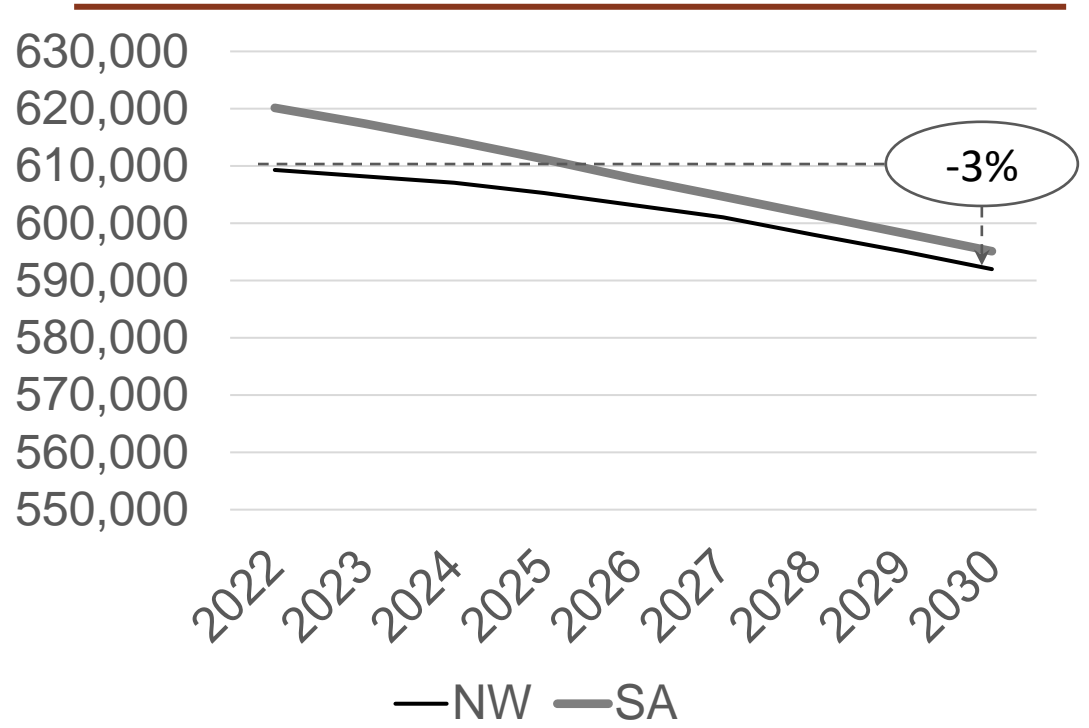
Projected unit costs trends| All educators

In constant 2021 rands

L1 Teachers (School based teachers)



Senior educators (HODs, Deputy's, Principals & Other)



Note: Scale not from zero

GP growth adjusted

Source: Own calculations, using the anonymised PERSAL data from 2021, only 405 413 educators are considered. ECD practitioners and examination reviewers removed. Estimates to 2030 derived from the national and provincial TSD models. Assumption of no growth in educator numbers for FS, KN, LP, MP, NC, NW and SA. Assume 20% educator growth for GP, 10% for WC and a decline in 10% of educators in the EC. In LP assume that the proportion of non-teachers grows from 16% in 2021 to 21% in 2030.



Between and within province movement

Inter-provincial educator movement (7-yr)



	Province in 2019										Movement out of province	
	EC	FS	GP	KN	LP	MP	NC	NW	WC	Total		
Province in 2012	EC	97.79	0.10	0.86	0.22	0.01	0.04	0.11	0.19	0.70	100	2.23%
	FS	0.35	94.25	2.76	0.10	0.07	0.23	0.41	1.56	0.26	100	5.74%
	GP	0.15	0.26	96.86	0.27	0.81	0.42	0.05	0.93	0.24	100	3.13%
	KN	0.22	0.10	1.14	97.95	0.10	0.37	0.01	0.06	0.04	100	2.04%
	LP	0.02	0.02	1.72	0.02	96.80	0.80	0.05	0.56	0.02	100	3.21%
	MP	0.03	0.14	2.48	0.37	1.54	94.86	0.03	0.49	0.07	100	5.15%
	NC	0.47	0.50	0.47	0.06	0.59	0.03	94.35	2.37	1.15	100	5.64%
	NW	0.06	0.59	3.84	0.03	0.65	0.34	0.75	93.60	0.14	100	6.40%
	WC	0.72	0.03	0.17	0.05	0.00	0.02	0.35	0.03	98.61	100	1.37%

Source: PERSAL 10-year anonymised dataset, only educators that were in the dataset for 2012 and 2019 are considered here

Inter-provincial educator movement (7-yr)

	Province in 2019										Movement out of province	
	EC	FS	GP	KN	LP	MP	NC	NW	WC	Total		
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	FS	0.35	94.25	2.76	0.10	0.07	0.23	0.41	1.56	0.26	100	5.74%
	GP	0.15	0.26	96.86	0.27	0.81	0.42	0.05	0.93	0.24	100	3.13%
	KN	0.22	0.10	1.14	97.95	0.10	0.37	0.01	0.06	0.04	100	2.04%
	LP	0.02	0.02	1.72	0.02	96.80	0.80	0.05	0.56	0.02	100	3.21%
	MP	0.03	0.14	2.48	0.37	1.54	94.86	0.03	0.49	0.07	100	5.15%
	NC	0.47	0.50	0.47	0.06	0.59	0.03	94.35	2.37	1.15	100	5.64%
	NW	0.06	0.59	3.84	0.03	0.65	0.34	0.75	93.60	0.14	100	6.40%
	WC	0.72	0.03	0.17	0.05	0.00	0.02	0.35	0.03	98.61	100	1.37%

- NW had the highest level of interprovincial movement– about 6.4% of NW teachers from 2012 are teaching in a different province in 2019
- Educators are most likely to move to Gauteng

Inter-provincial educator movement (7-yr)

		Province in 2019								
		EC	FS	GP	KN	LP	MP	NC	NW	WC
Province in 2012	EC	42 645	42	373	95	5	16	46	82	304
	FS	57	15 267	447	17	11	38	67	252	42
	GP	67	117	42 770	121	356	187	20	409	108
	KN	146	67	755	64 723	64	247	9	37	26
	LP	10	10	709	7	39 899	328	20	230	7
	MP	7	34	618	94	385	23 644	7	121	17
	NC	31	33	31	4	39	2	6 214	156	76
	NW	12	111	726	5	123	65	141	17 690	27
	WC	152	7	37	11	0	5	75	6	20 858
	Total 2019	43 127	15 688	46 466	65 077	40 882	24 532	6 599	18 983	21 465
Movement into province	482	421	3 696	354	983	888	385	1 293	607	
% movement into province	1.1%	2.7%	8.0%	0.5%	2.4%	3.6%	5.8%	6.8%	2.8%	

Source: PERSAL 10-year anonymised dataset, only educators that were in the dataset for 2012 and 2019 are considered here

Inter-provincial educator movement (7-yr)



	Province in 2019									
	EC	FS	GP	KN	LP	MP	NC	NW	WC	
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% movement into province	1.1%	2.7%	8.0%	0.5%	2.4%	3.6%	5.8%	6.8%	2.8%	

- Many educators moved to NW- about 7% of educators in 2019 (that were educators in 2012 already) had come from another province
- Most educators came from GP, FS, LP & NC. The provinces from which there is little movement to NW is the WC and the KN

Educator movement between schools



Province	Pay point in 2019 (Ordinary schools only)			Total (%)
	Same as in 2018 (%)	Different to 2018 (%)	None - left system (%)	
EC	93.25	4.61	2.14	100
FS	90.54	5.54	3.93	100
GP	91.08	3.95	4.97	100
KN	91.99	4.31	3.70	100
LP	91.04	6.95	2.00	100
MP	92.02	4.66	3.32	100
NC	85.44	8.39	6.18	100
NW	89.42	6.30	4.28	100
WC	87.27	6.09	6.64	100
Total	91.11	5.05	3.83	100

- Fair amount of movement between schools; about 6% of North West educators (5% nationally) move to a different pay point but stay within PERSAL from 2018-2019
- Rate at which educators aged 50 and below leave the system is comparable with the national average of ~4%

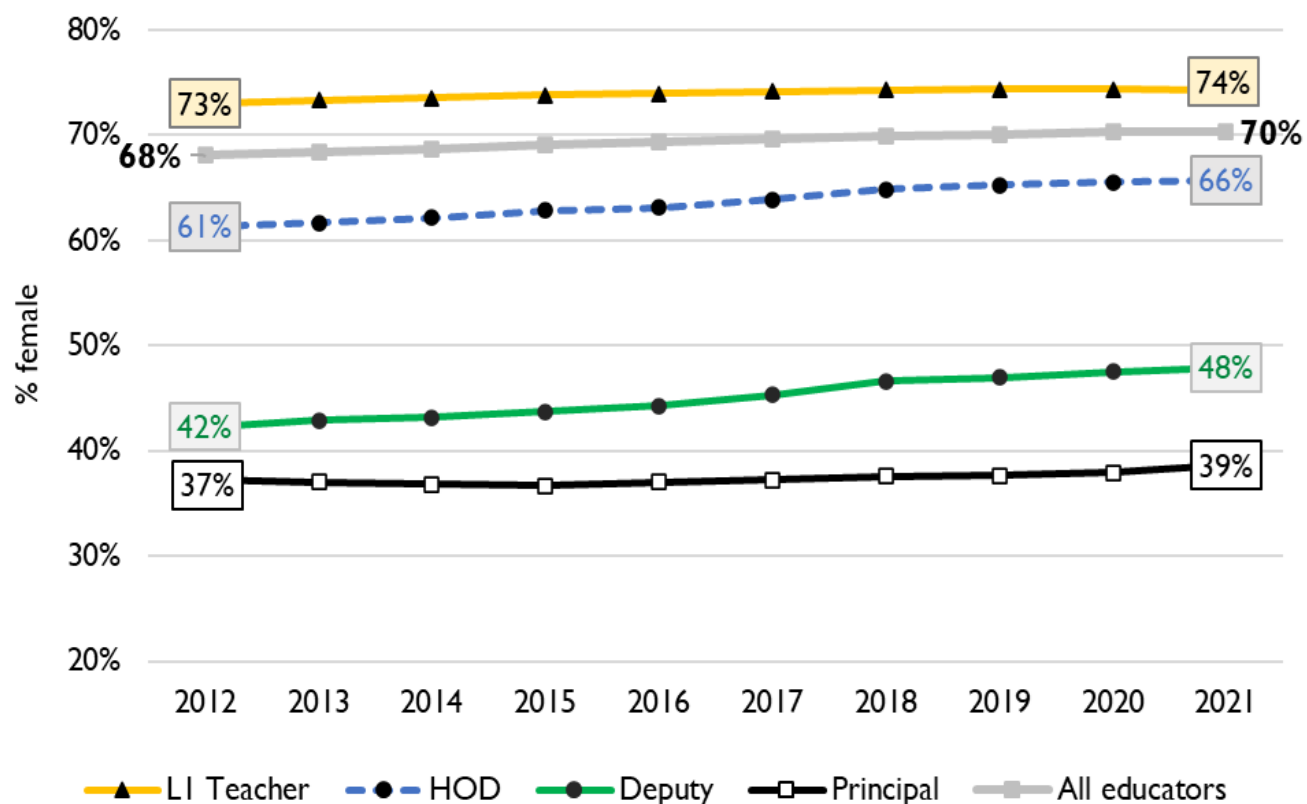
Source: PERSAL 10-year anonymised dataset. Only included educators aged 50 years and below, that were in ordinary schools in 2018 (Primary, Secondary, Combined and Intermediate)—excluded all paypoints that did not appear in both years after identifying 103 paypoints where the paypoint number changed.



Gender imbalances in management

Percentage of educators that are female

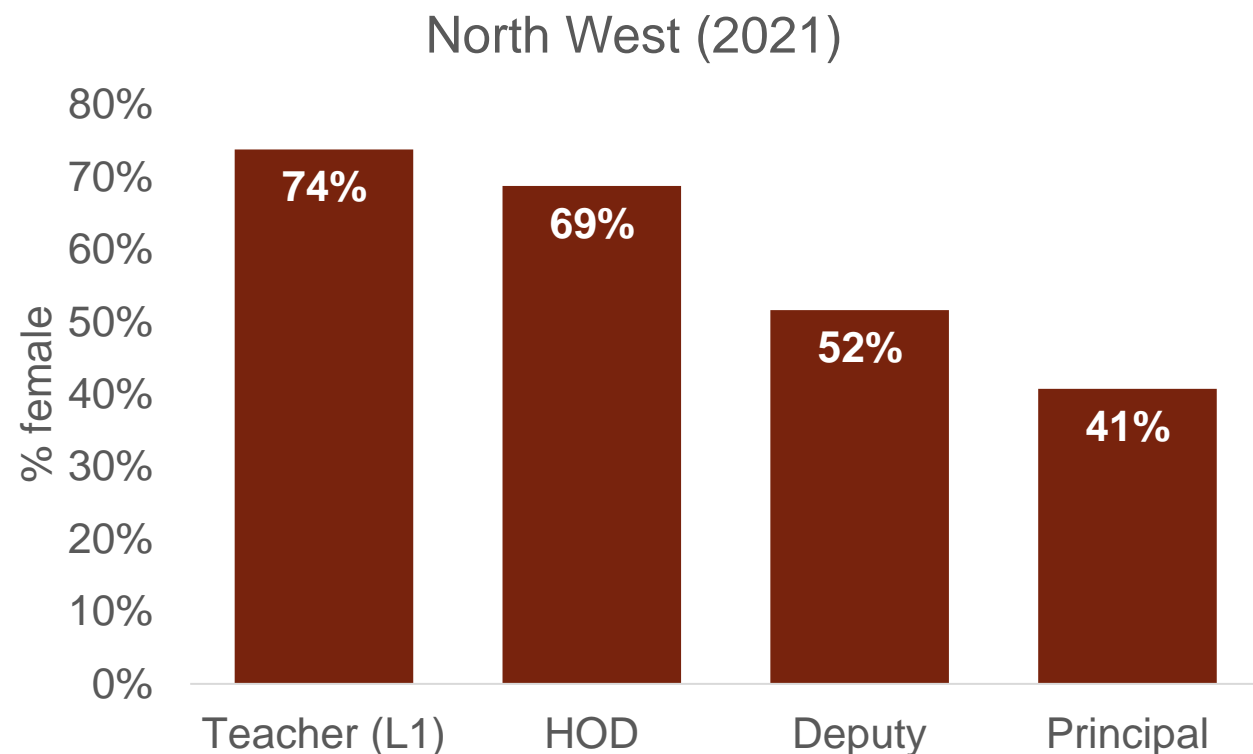
Percentage of public educators in South Africa that are female, PERSAL (2012-2021)



Nationally, there has been very little transformation in senior school leadership in terms of gender since 2012 and even since 2004 (just 34% of principals were female).

There is better representation at middle-management (HOD) level.

Percentage of educators that are female



In North West in 2021, 71% of all educators were women. Women were reasonably well represented at the HOD level at 69% of HODs.

Yet only 52% of deputy principals and 41% of principals were women.

General questions and discussion

- Does NW keep a database of unemployed teachers? If so, who is the contact person?
- Do you track what subjects and phases teachers are needed?
- What is the process for principals and senior educator mentorship, selection and induction
- Is gender equity in management a concern in NW
- Is there any concern about retention in the province
- How did the NW manage the sudden spike in resignations in 2015 due to the rumours of pension reform?

Conclusion

- Alongside the coming age-related teacher retirements, North West will also see a high number of senior educators (Principals, Deputies, HODs and other education specialists) retiring.
 - 70% of senior educators and other education specialists were 50 or older in 2021
 - Careful succession planning, efficient promotion processes, and good onboarding practices will be required to manage this transition as they retire
- School-aged population and enrolment are projected to increase. Educator numbers are also expected to increase, but they lag behind growth in enrolment in public ordinary schools
- To ensure LE ratios and class sizes do not worsen, educator numbers need to rise to respond to the higher enrolment adequately
- North West has high levels of educator movement within and out of the province
- The real unit cost for all educators is expected to increase (<1%) slightly in the North West over the period 2022-2030