

# Policy Brief (POC): K-12 Staffing + Achievement Indicators

This is a synthetic demonstration of an analytics workflow used in state education agencies: validating educator reporting data, constructing analysis-ready tables, and producing policy-facing indicators for staffing and student outcomes. Results below are illustrative only.

## Data quality snapshot

Checks run: 9. Passed: 6. Failed: 3. Failed checks should be triaged with targeted follow-ups (e.g., certification records, staffing FTE anomalies).

### Top flags:

- student\_school\_valid\_school\_id
- student\_school\_valid\_student\_id
- teacher\_certification\_none\_rate\_leq\_0\_02

## Proficiency gaps (spring)

Subject	Group	Group=1 Proficiency	Group=0 Proficiency	Gap (pp)
ela	FRPL	36.9%	49.7%	12.8
ela	ELL	31.9%	45.9%	14.0
ela	IEP	28.7%	46.8%	18.1
math	FRPL	37.1%	49.6%	12.5
math	ELL	31.6%	46.0%	14.4
math	IEP	28.8%	46.8%	18.0

## Staffing ratios and outcomes (illustrative)

We computed a school-level students-per-teacher (FTE) indicator and compared it with average proficiency. This is an association, not causal; it highlights schools for deeper diagnostic review and potential program evaluation.

Correlation (students/teacher FTE vs proficiency): 0.355

Top schools by students per teacher FTE (for follow-up)

school\_id | students | teacher\_fte | students\_per\_teacher\_fte | avg\_proficiency

1040	836	35.5	23.6	0.149
1075	904	41.5	21.8	0.639
1014	870	40.1	21.7	0.735
1033	892	41.2	21.6	0.464
1031	888	42.0	21.1	0.631
1072	862	42.2	20.4	0.861
1090	833	41.2	20.2	0.469
1037	871	44.1	19.7	0.456
1012	844	42.9	19.7	0.793
1067	820	42.3	19.4	0.521

### Recommended next steps

1) Operationalize QA checks as a scheduled job with owner-based triage. 2) Define a small set of stable, documented metrics (staffing ratios, assessment coverage, subgroup gaps). 3) For prioritized initiatives, design an evaluation plan (comparison groups, pre/post windows, robustness checks).