



Issues In Arkansas Education Panel

Moving Arkansas Education Forward
February 16, 2023

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Motivation

- GPAs matter; stronger predictor of academic success than ACT/SAT scores
- Grades predict a student's non-cognitive success adapting to life struggles
- Chicago researchers find success in 9th grade year most associated with future academic success
- We find a half-point rise in 9th grade GPA to be associated with a 13 percentage point increase in the likelihood of enrolling in college

9th Grade Failure Rates

- 22% fail at least one course
 - 35% of Black students fail at least one course
 - 29% of students who are economically disadvantaged fail at least one course
- Algebra I is the most failed course, but also Spanish I, Physical Science, and Computer Science are other top failed courses.

Who is most likely to fail?

- After controlling for prior academic achievement and student and district characteristics, **economically disadvantaged students are the 9 percentage points more likely to fail a course at 99% confidence level**
 - We don't see these differences when we run for Algebra I
 - No significant differences by race
 - English Language Learners (ELL) and Special Education (SPED) less likely to fail

District Comparisons

- Summer 2022, Freshman Success Reports [sent](#) to each district to show their likelihood of failing a student compared to other districts and regions
 - Some districts are **27** percentage points more likely to fail an economically disadvantaged student than an economically advantaged student with similar prior academic achievement

Building Configuration Matters

- We find buildings that terminate at 9th grade are 29.1 percentage points less likely to fail a course than other building configurations
- Students attending buildings that terminate at 9th grade are 9.2 percentage points less likely to fail a course compared to traditional 9-12 high schools
- Though we do find statistical differences between likelihood of failure between different schools...
 - We believe this is due to a focus among school leaders and faculty on the importance of student success in 9th grade.

What is being graded?

We asked teachers...

- In November 2022, 25% of teachers surveyed reported their school building didn't have grading policies (n=506)
 - Behavior component in the grade? 13% of sample say yes.
- 25% of teachers surveyed claim to have fair grading practices, but still grade without focus on standards or mastery (by not allowing retakes, taking off points for late work, grading on soft skills –punctuality, classroom behavior, groupwork compliance - and providing opportunities for extra credit)
 - Case study report coming Spring, 2023

Grading Practices

- We are concerned with lack of consistency behind grading practices
- Test-optional college entrance policies make GPAs even more important, so we need more information around grading practices

We are seeking 9th grade core teachers interested in helping to see what type of grading practices are most beneficial to students, teachers, and parents—please contact me!

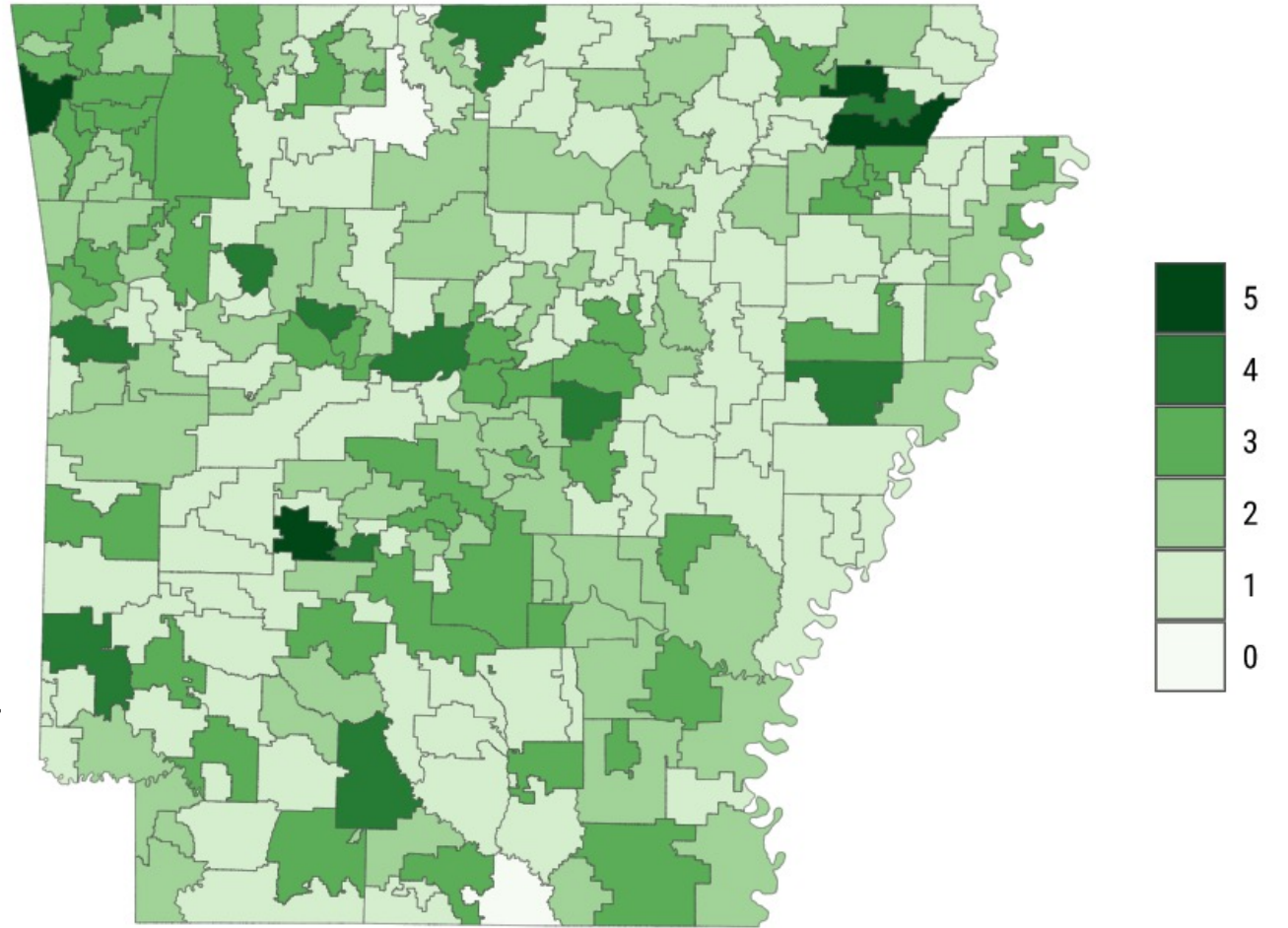
Study starting Summer, 2023

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Are Building Transitions Related to Academic Growth?

- Arkansas school districts set building grade level configurations
 - Most districts in Arkansas only have one building transition
 - K-8
 - 9-12
- We explore the impacts building transitions have on grade-level **value-added growth**



Arkansas Schools by Transition Year

- Do students demonstrate lower academic growth after a transition to a new school building?
 - *Controlling for prior achievement and student demographic characteristics*

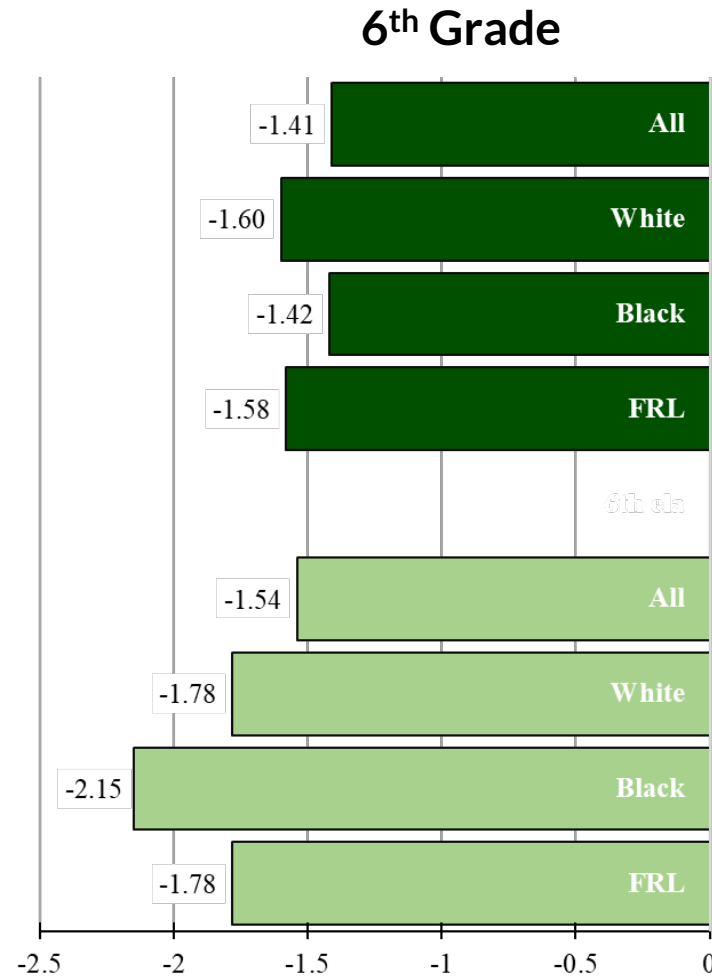
Used school-level value added growth scores for the following years:

| | 2015-16 | 2016-17 | 2017-18 | 2018-19 | 2020-21 | | | | | | | | | | | | |
|----------------|-----------------|---------|---------|-----------------|---------|-----------------|-----|-----------------|--|-----------------|--|-----------------|--|-----------------|--|------------------|--|
| | 3 rd | | | 4 th | | 5 th | | 6 th | | 7 th | | 8 th | | 9 th | | 10 th | |
| Transition | 29 | 19 | 72 | 84 | 167 | 18 | 120 | 33 | | | | | | | | | |
| Non-Transition | 456 | 460 | 375 | 270 | 157 | 302 | 190 | 268 | | | | | | | | | |

- School-level value-added growth scores weighted by school enrollment
- Comparisons based on if a school had a transition year in place or not

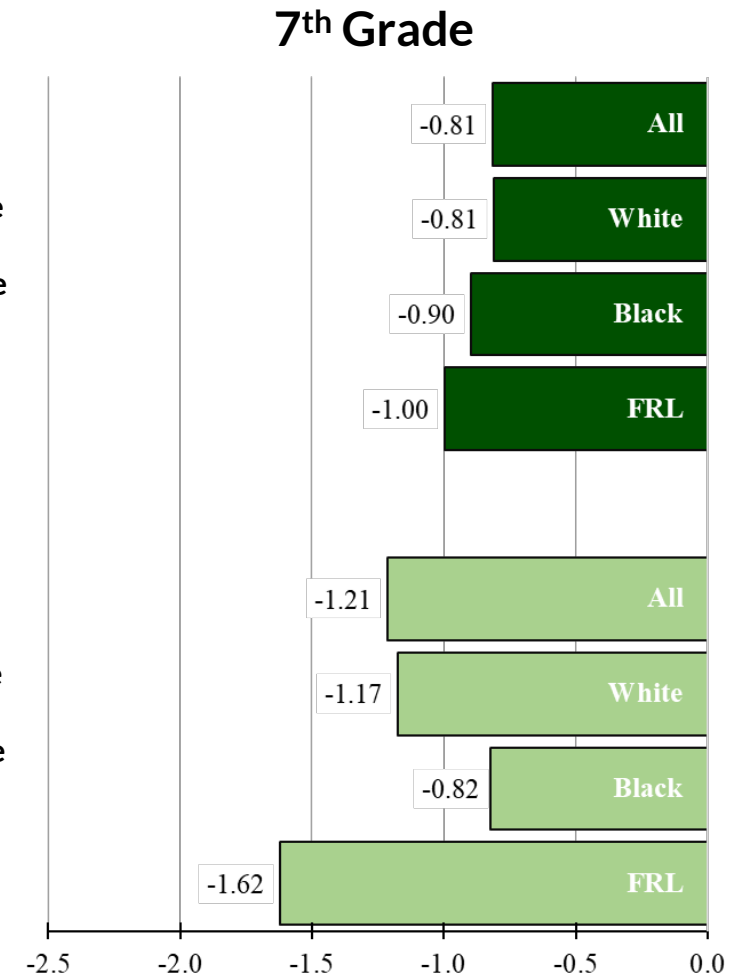
Study Findings

Decreased growth after transition years for students in 6th and 7th grades



Average Math Estimate Effects

Average ELA Estimate Effects



Overall Conclusions

- We see consistent and statistically significant values for 6th and 7th grade in both mathematics and ELA. Most consistent area for concern: **6th grade ELA**
- Negative results can be interpreted as
 - “Students who transitioned to a new school for 6th or 7th grade show less value-added growth, on average, compared to students who did not transition”
- Student groups who are eligible for free and reduced-price lunch are more likely to have lower growth scores when they transition to a new building
- The enrollment of the district does not seem to have a relationship to growth scores during transition years

Arkansas School Calendar Research

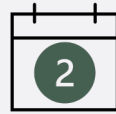
School districts in Arkansas have four different calendar options



Traditional

178 School Days
30 hours a week
6 hours per day

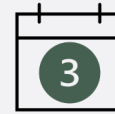
AMI Eligible: ✓



4-Day Week

4 Days a Week
30 hours a week
7.5 hours per day

AMI Eligible: ✓

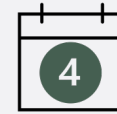


12-Month/Year Round

178 School Days
6 hours per day

Districts create their own calendars that operate from July 1 – June 30th each year in which no break exceeds 7 weeks

AMI Eligible: ✓



Alternate

Based on hours attended instead of days attended.

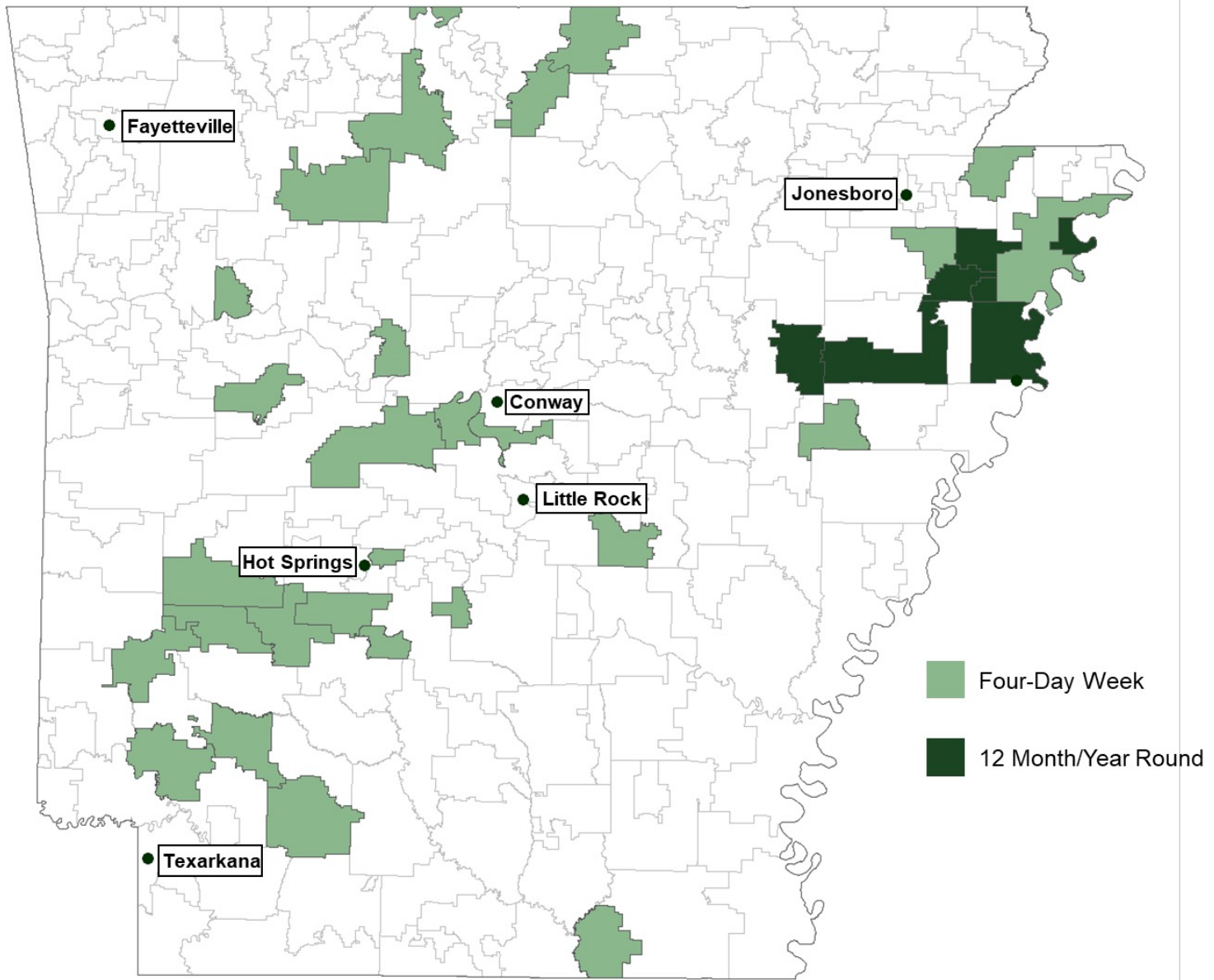
Districts must ensure students have 1,068 hours of instructional time; plus at least 30 make-up hours

AMI Eligible: ✗

AMI stands for Alternative Methods of Instruction. AMI are days in which school is cancelled but students do not have to make-up the day because work is provided.

Arkansas Context

Arkansas school districts using non-traditional calendars



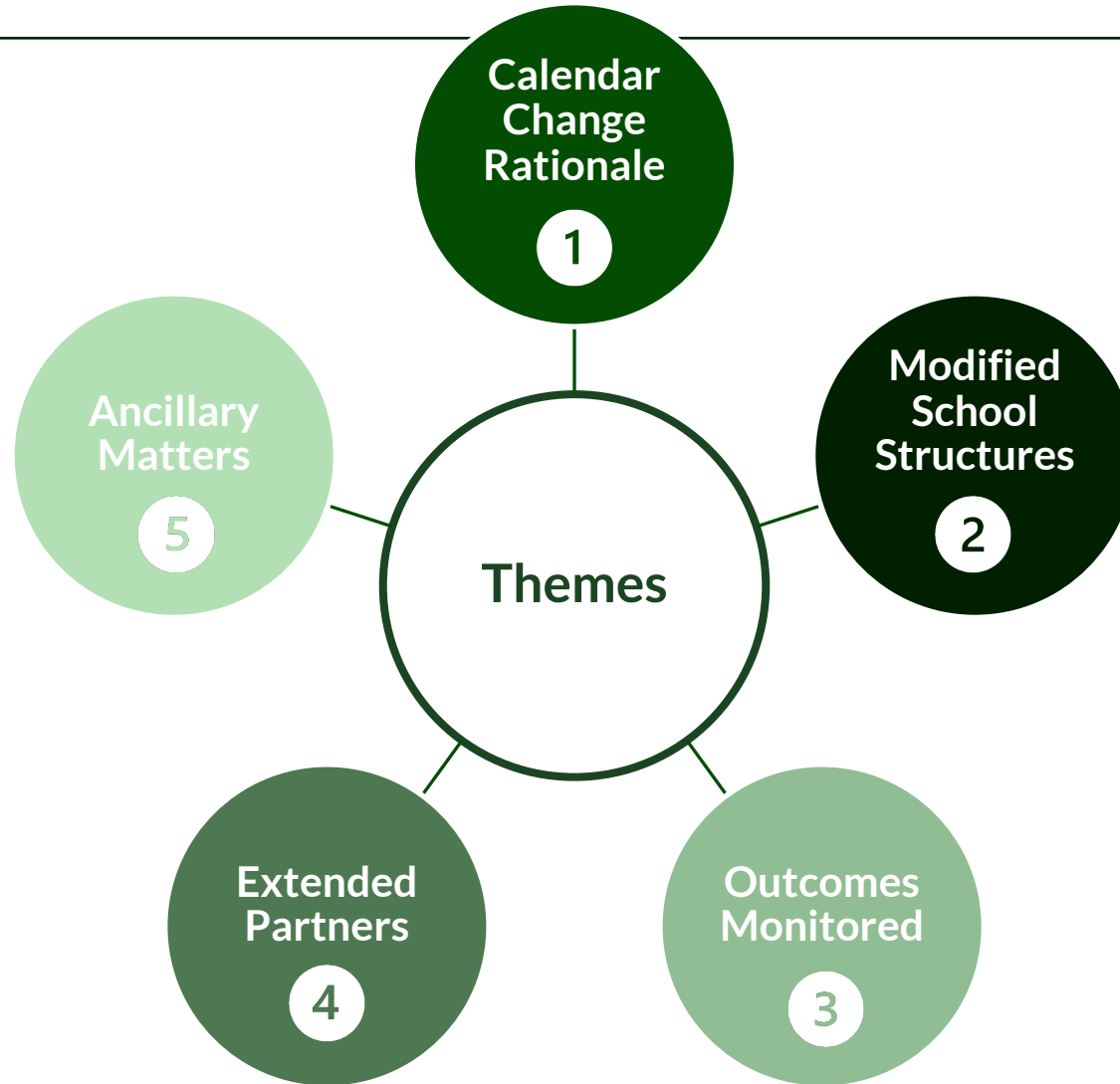
Interview Context

- Interviews used a semi open-ended structure
- Designed to stay under 30 minutes
- Interviewees provided questions in advance to allow for informed talking points
- Questions separated into three categories
 - Pre-Implementation
 - Implementation
 - Miscellaneous
- ADE was most interested in:
 - The rationale behind why districts adopted a four-day or year-round/12-month calendar
 - Successes and challenges with new calendar

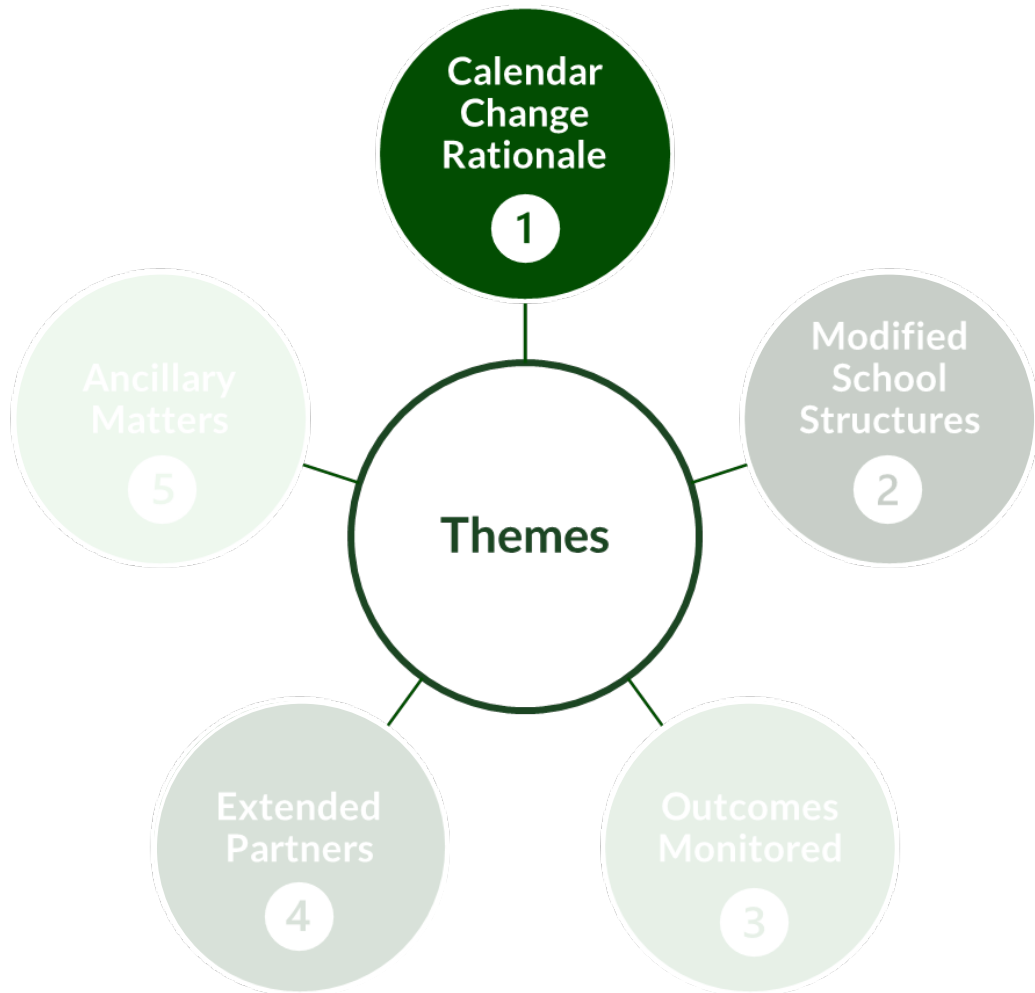
Interview Response Rate by Calendar Option

| | 4DW | YR | Total |
|---------------------------------------|------------|-----------|--------------|
| Total Number of Districts | 27 | 6 | 33 |
| Number of Scheduled Interviews | 21 | 6 | 27 |
| Number of Interviews Conducted | 18 | 5 | 23 |
| Interviews Completed % | 67% | 83% | 70% |

Themes



Themes



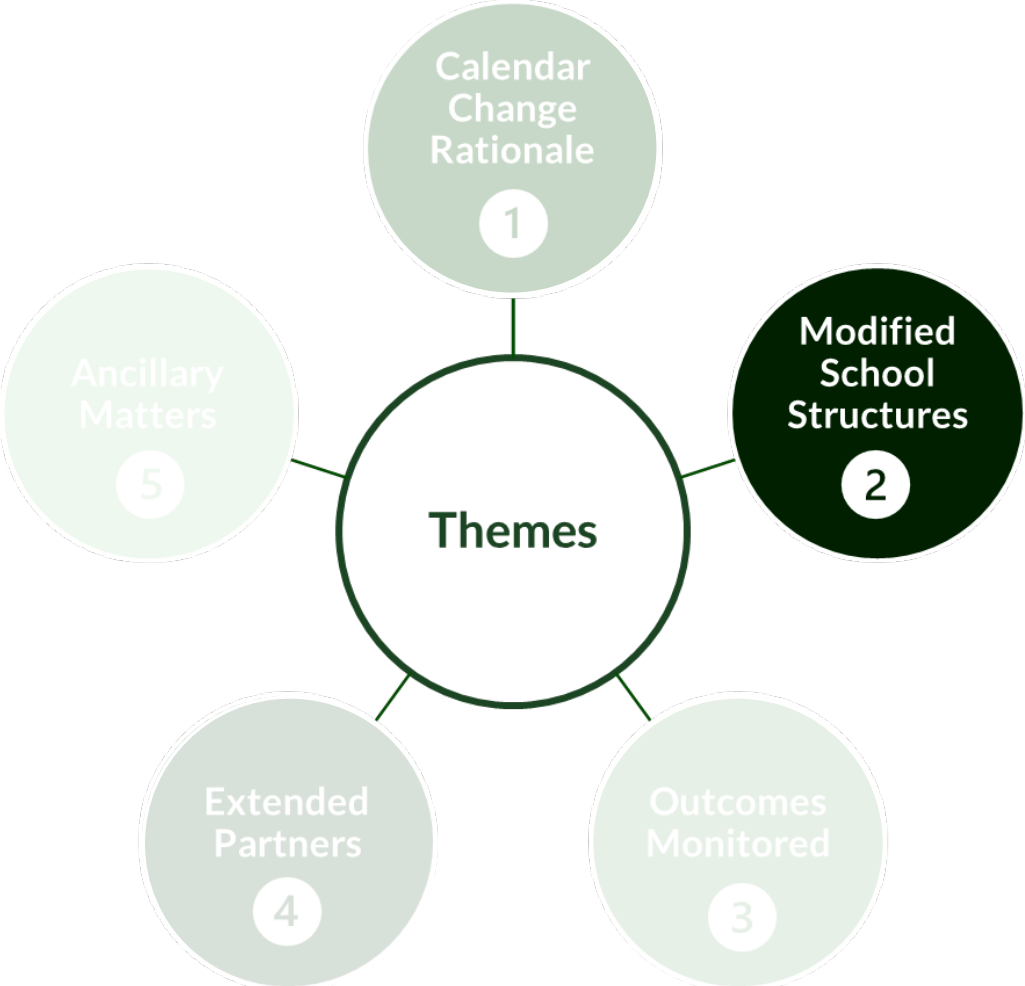
Calendar Change Rationale

Teacher Recruitment and Retention

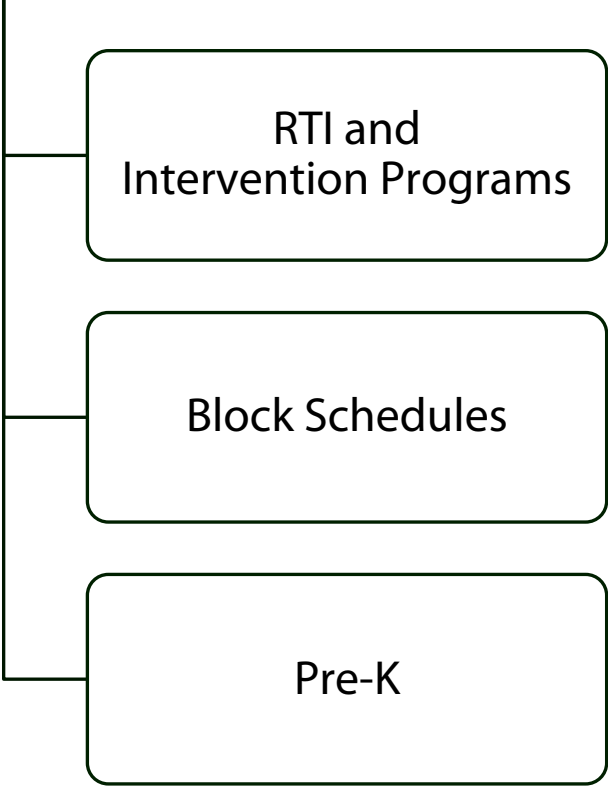
Mental Health of Students and Teachers

Learning Loss

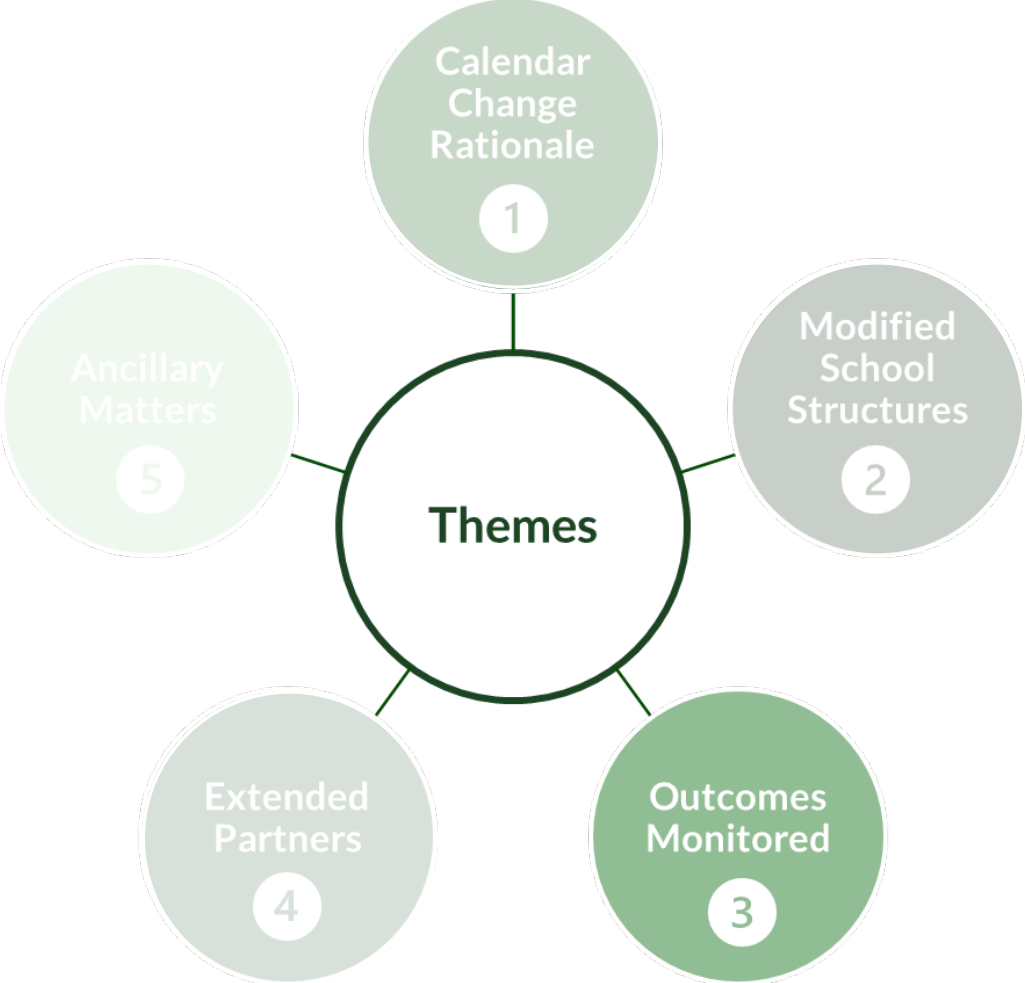
Themes



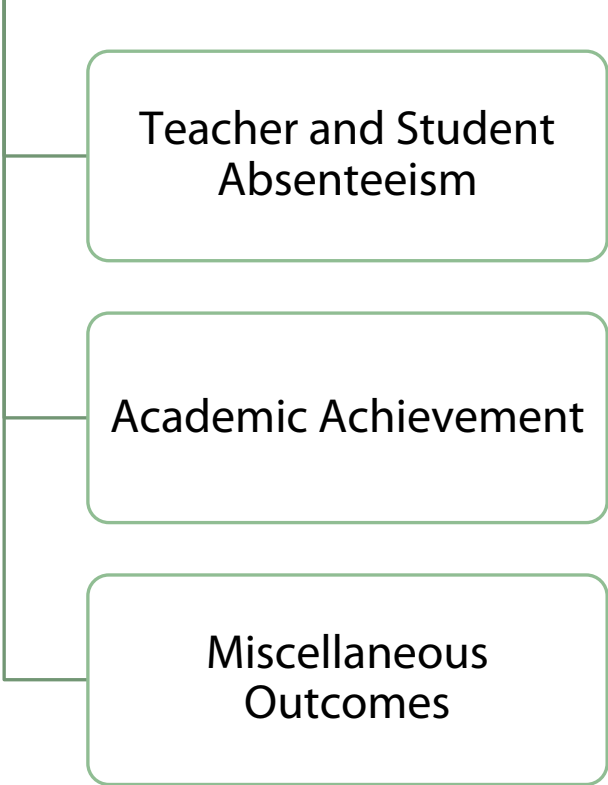
Modified School Structures



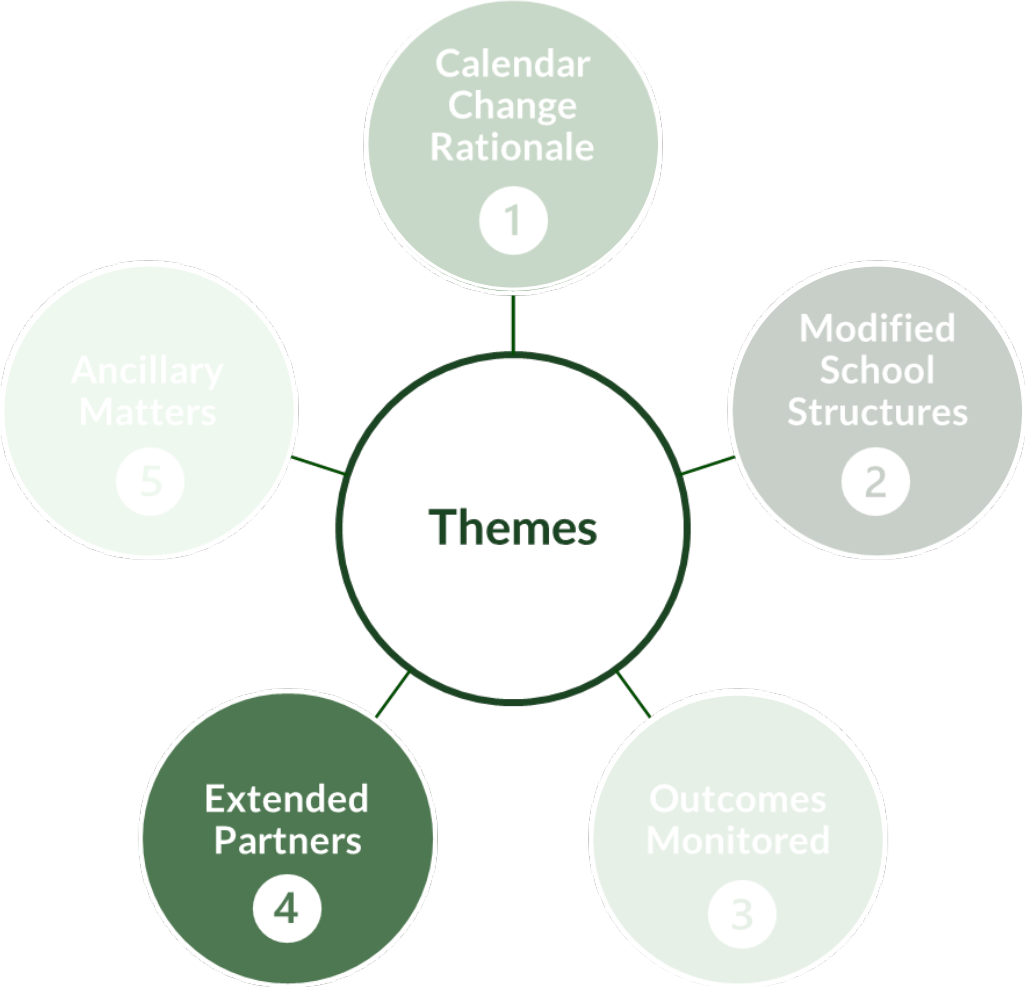
Themes



Outcomes Monitored



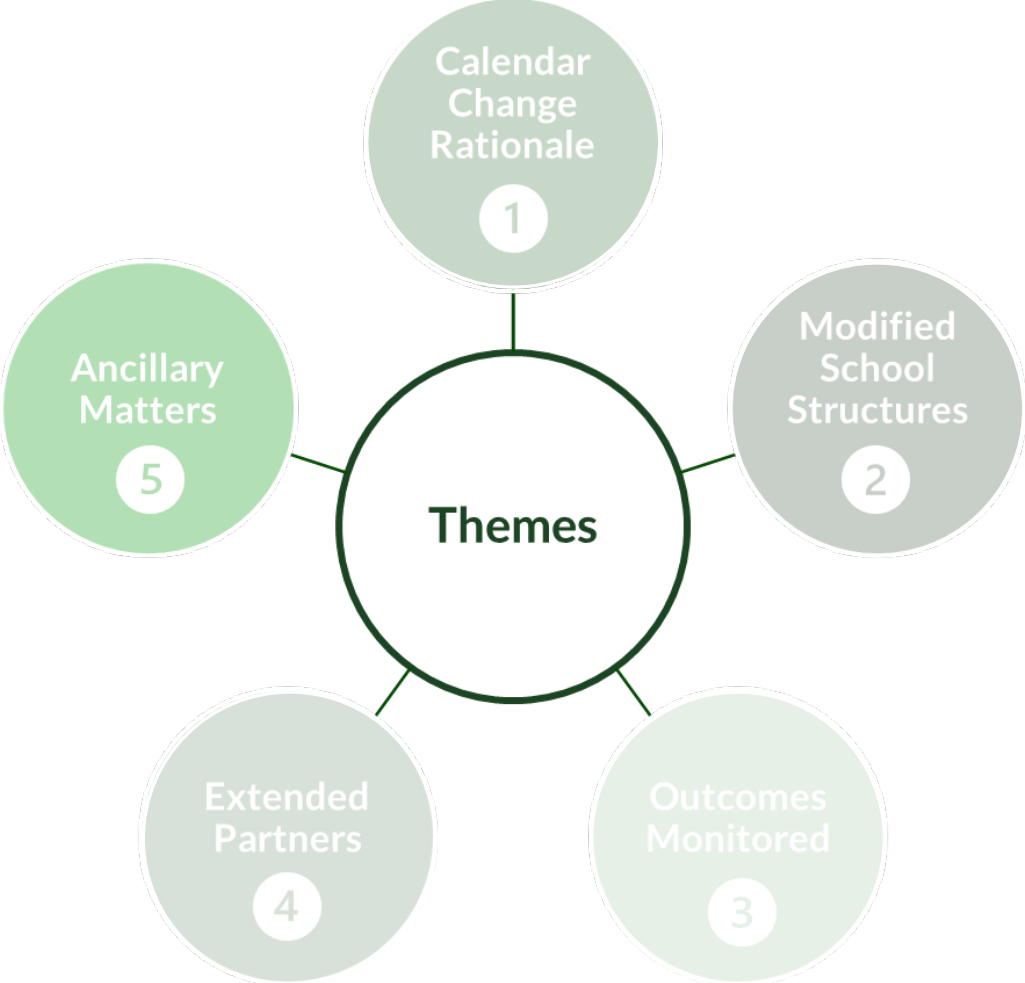
Themes



Extended Partners

- Higher Education Institutions
- Career and Technical Education Centers
- Food and Snack Programs

Themes



Ancillary Matters

- Classified Staff
- Childcare
- Community Meetings
- Medical Professions

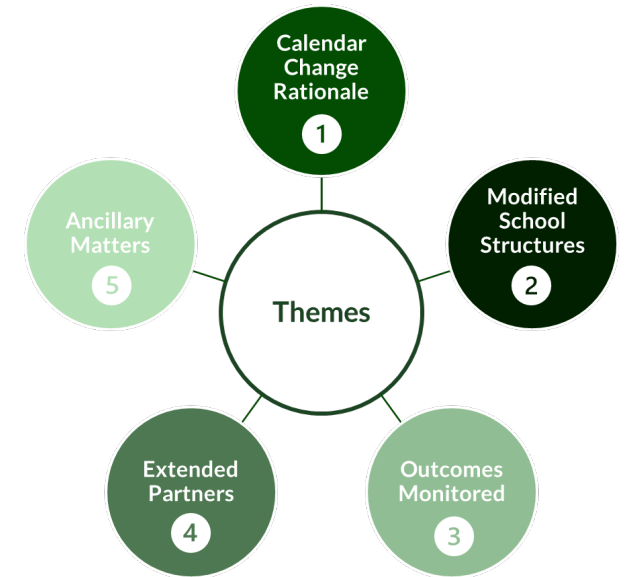
Conclusions and Next Steps

Conclusions:

- Five main themes emerged from the interviews
- Overall, superintendents expressed that most stakeholders in their districts were supportive of the calendar changes
- Main motivators for the change were:
 - Teacher recruitment and retention
 - Student and Teacher Absenteeism
 - Learning Loss

Next Steps:

- Publish Report
- Create and publish calendar considerations for educators and families
- Additional focus groups with various school stakeholders
- Develop plan for quantitative analysis for teacher retention, attendance, achievement, growth, etc.





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Education in Arkansas: A Primer

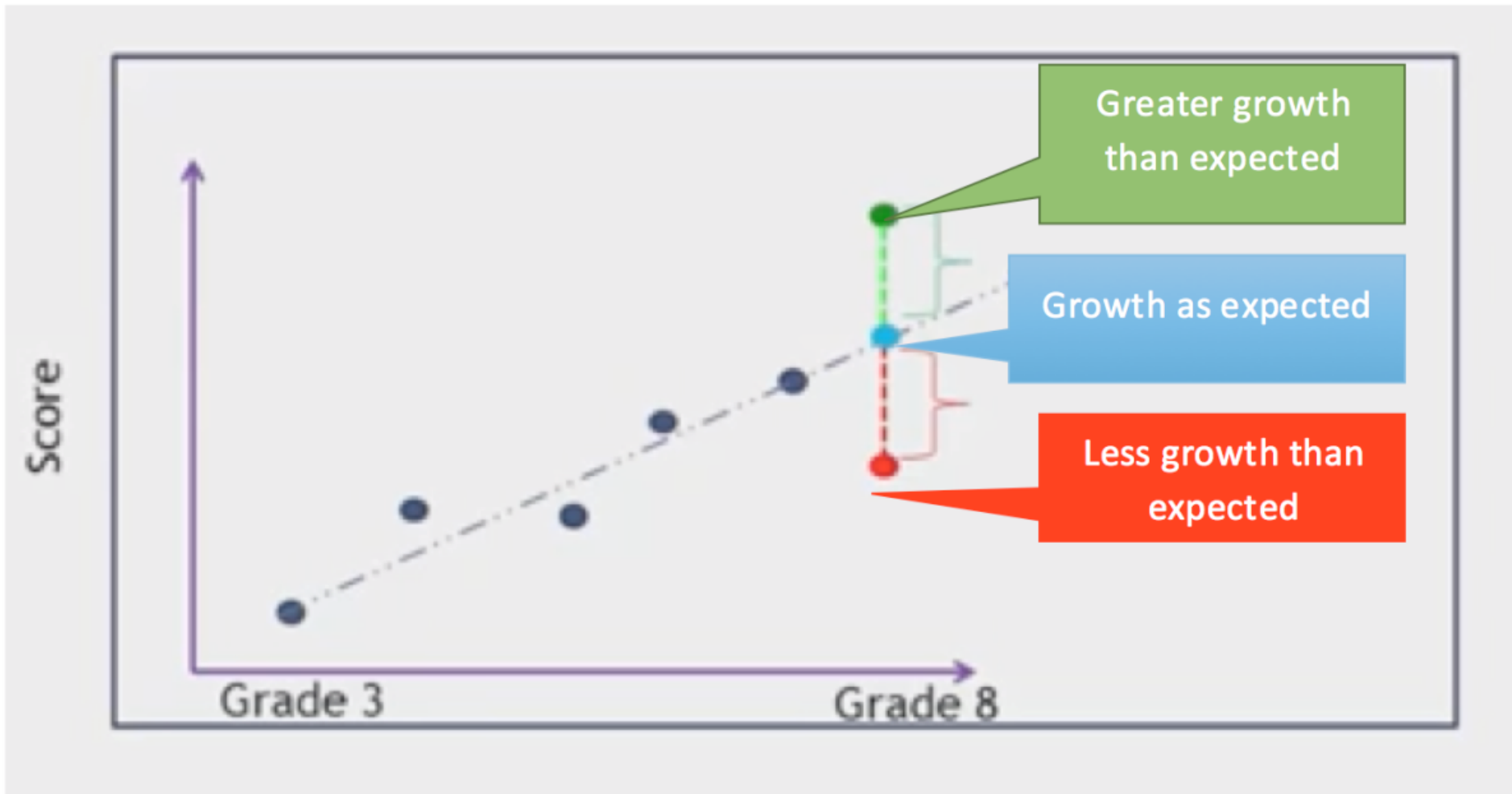
By the Winthrop Rockefeller Institute Education Policy Initiative's
Policy in Practice Working Group

Growth (Value-Added) and Equity

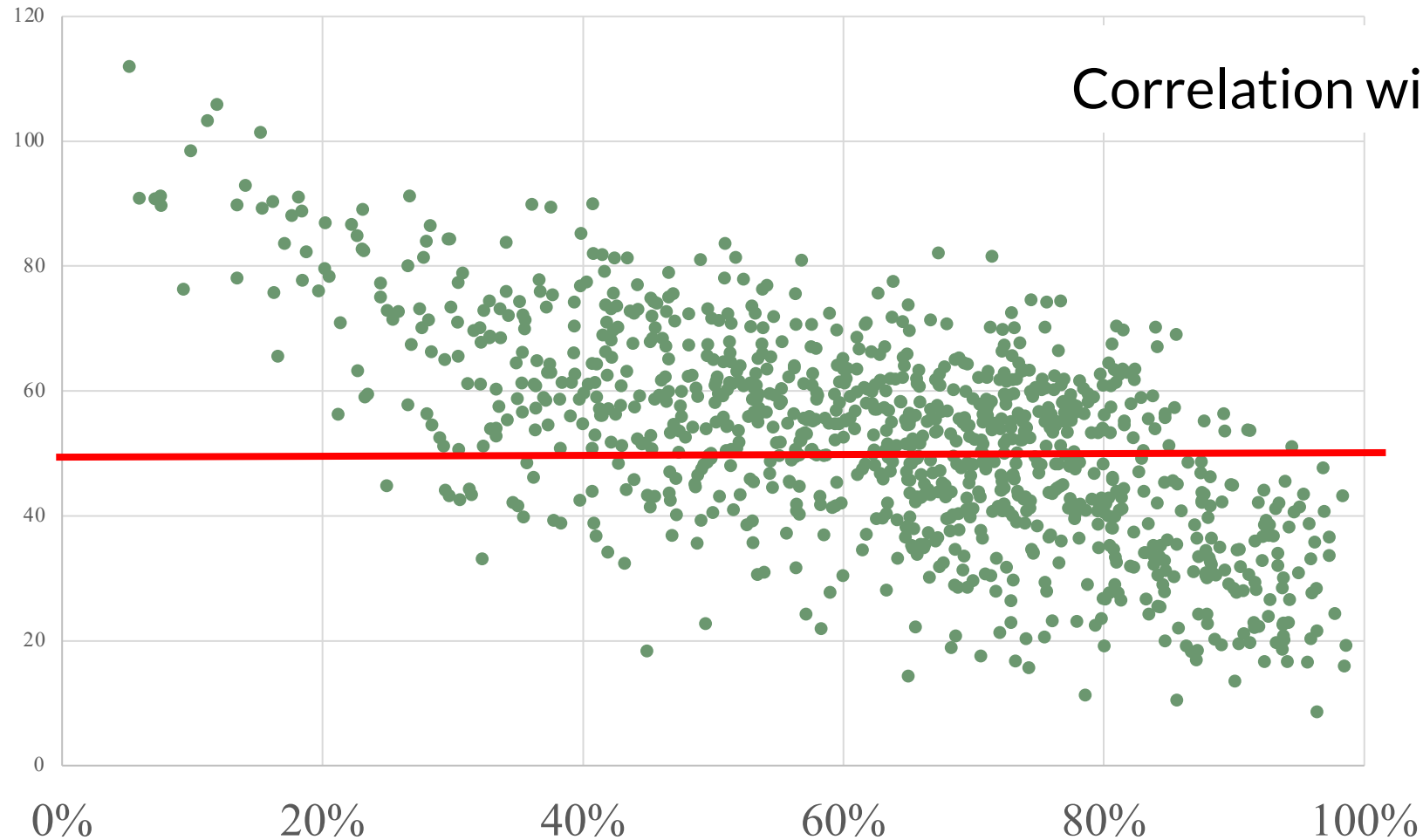


- Using only prior performance accounts for differences in student background.
- Teachers are not advantaged or disadvantaged by having certain types of students in their classroom.
- Rolled-up to the grade, school, and district level.

Growth!



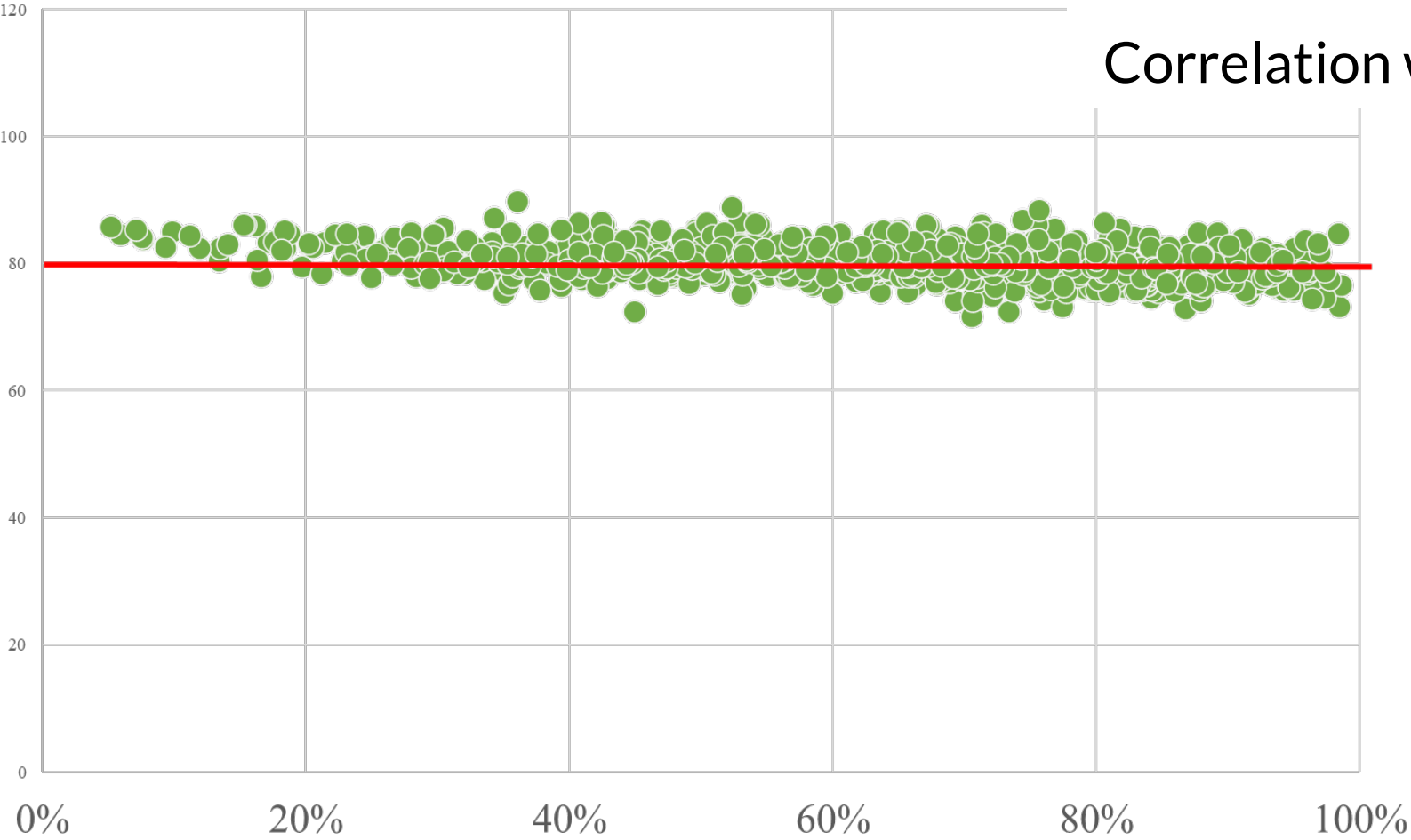
Achievement and School % FRL



Correlation with school poverty rate **-.75**

Range of values: 9 - 112

Growth and School % FRL



Correlation with school poverty rate **-.40**

Range of values: 72 -92

Overall ESSA Score Calculations

| | Elementary/ Middle | High School |
|--------------------------|---------------------------|--------------------|
| Weighted Achievement | 35% | 35% |
| Academic Growth | 50% | 35% |
| School Quality Indicator | 15% | 15% |
| Graduation Rate | | 15% |

Correlation to Overall ESSA Score

| Elementary and Middle Schools | Correlation with ESSA Score |
|-------------------------------|-----------------------------|
| Weighted Achievement | + .99 |
| SQSS | + .82 |
| Growth | + .76 |



Move growth to the front by expanding the range

| Elementary and Middle Schools | Correlation with ESSA Score |
|-------------------------------|-----------------------------|
| Weighted Achievement | + .91 |
| SQSS | + .70 |
| Growth | + .92 |



Calculating Growth at the Teacher Level

- Small sample sizes make value-added estimates less reliable.
- Multiple years of teacher-level data are needed to make the most accurate value-added estimates.
- In Arkansas, growth can only be calculated for teachers who teach state-tested content: mathematics, ELA, and science.

Contact Us



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