Dear Senate Education Committee,

The Anchorage Branch of the National Association for the Advancement of Colored People supports Senate Bills 8 and 42. Please give them a hearing in their original forms and pass them soon.

We're excited that the Senate is taking on responsibility for turning around Alaska's "bottom-of-the-barrel" academic performance. The bills' provisions for reading intervention, expanded early education, and statewide screening are all necessary steps to finally reverse direction.

Please see the attached report on a related topic. It illustrates an association between too few teachers and bad reading results.

Thank you,

-Mike Bronson
Education Committee member
Anchorage NAACP Branch #1000

Big classes go with poor reading in Anchorage

by Mike Bronson for Anchorage Branch
of the National Association for the Advancement of Colored People

In Anchorage, elementary students with lower reading scores attended schools and homerooms having bigger ratios of students to classroom teachers on average.

Introduction

Some wonder how Alaska schools reached the lowest reading proficiency levels in the U.S. On the national reading test, Alaska primary elementary students recently scored last among all the states.[1] Anchorage schools rank in the middle of other Alaska schools when it comes to proficiency.[2]

The NAACP's Anchorage Branch aimed to find how conditions in local schools might contribute to poor reading. We knew that many things make for slow academic gains. Large class size is among them.[3] We saw that states with larger classes reported lower reading scores on average. Those class sizes explained almost 25 percent of the difference among states' reading test scores in 2015, for example.[4]

Locally, we asked how teacher numbers in particular might associate with students' low reading scores. Between 2017 and 2020, as student numbers in Anchorage fell 5 percent, the schools eliminated 10 percent of their classroom teachers. Levels of other staff were kept flat. By eliminating those teachers, eight million dollars per year were freed up for other things.[5] To consider how the loss of teachers might account for low student proficiency in Anchorage, we compared class size and reading scores among elementary schools, particularly at the watershed third grade level.

Methods

We first looked at scores on the State's reading test given in March 2019. The test showed how closely each Anchorage elementary school's third graders and higher grades met the State reading standards.[2]

Then we examined the school district's primary grades homeroom sizes at 56 of 60 elementary schools. The data represented 429 homerooms with 9,701 students in grades 1, 2 and 3 in February 2020, before COVID-19. Those homerooms are where most kids learn to read and write.

Lastly, we looked at the school district's plans for allocating teachers among schools. From annual budget plans, we estimated the overall ratio of students to teachers in each school.[5]

The results are preliminary. The February 2020 homeroom size count followed the State's March 2019 proficiency test by eleven months and occurred in a different academic year. A more reliable estimate of the association between proficiency and homeroom size would be expected if they were measured at the same time. Further, each school's overall pupil and teacher numbers were taken from the budget plan that the school district prepared in spring 2019 for implementation in fall 2019. A more reliable estimate of the relation between proficiency and pupil : teacher ratio would have come from actual student and teacher numbers preceding the test, but those numbers were not available.

Other than class size indicators, we did not examine the myriad other things associated with academic performance. For example, we considered only classroom teachers and not specialist staff. In addition, we assumed that a correlation between class size and academic performance suggests but does not prove a causal relationship.

Results

Big homerooms. We first found that Anchorage homerooms in primary grades averaged 23 students, ranging in size from 14 to 30 students in 56 schools in February 2020 (Fig. 1). Schools with the smallest average homerooms were Birchwood ABC school having 19 students and Orion school on base with 17 students. Ptarmigan school in northeast Anchorage had the largest homeroom average with 26 kids.

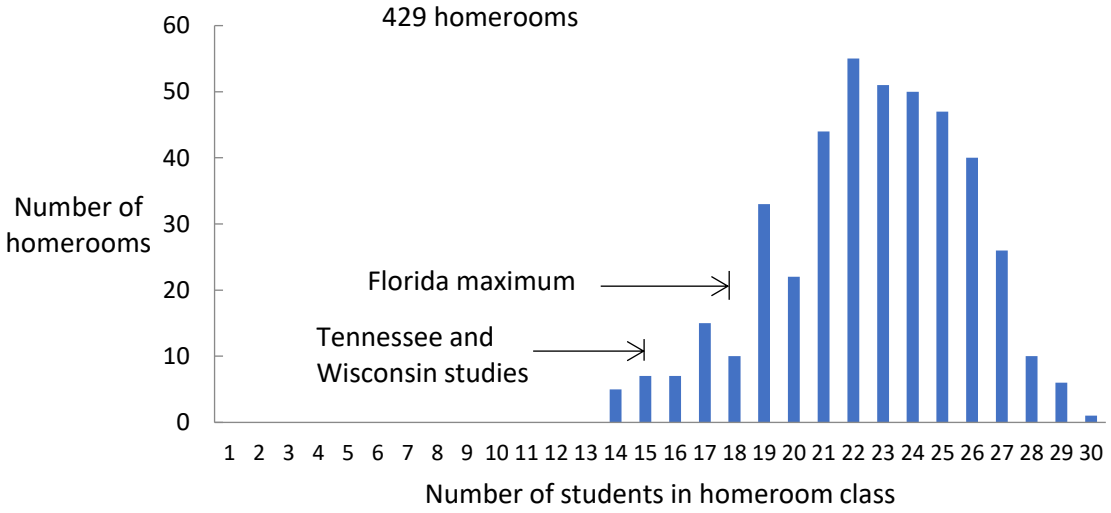

Fig. 1. Frequency of homeroom sizes in grades 1 to 3 at 56 schools in Anchorage in February 2020. Arrow indicates that Florida law limited grades K - 3 to 18 students per class. Wisconsin's SAGE and Tennessee's STAR studies showed that 1 teacher and 15 students in grades K - 3 raises long-term achievement, especially for poor students. Data from ASD February 2020. Graph by NAACP.

Homeroom size v. reading. Secondly, we found that Anchorage schools with larger primary grade homerooms had performed worse in third grade reading a year earlier. For example, Willow Crest, Lake Hood and Creekside Park schools had large primary grade homerooms averaging 25 students. Only about 30 percent of their third graders scored proficient in reading. At Ptarmigan school, with the biggest primary homerooms, only 20 percent of third graders scored proficient. The relation between third grade reading proficiency and homeroom size even a year later showed a negative statistical correlation among 56 schools.

Generally larger classes. Removal of teachers between 2017 and 2020 raised classroom sizes by 5 percent across the school district. The data showed that schools with plans to implement higher overall

pupil : teacher ratios in the fall of 2019 also had lower percentages of students who had scored proficient the previous spring. The relation between schools' expected pupil : teacher ratio and the proportion of their students that had scored proficient in reading showed a negative correlation (Fig. 2). That is, lower scoring schools were assigned fewer classroom teachers per hundred students on average.

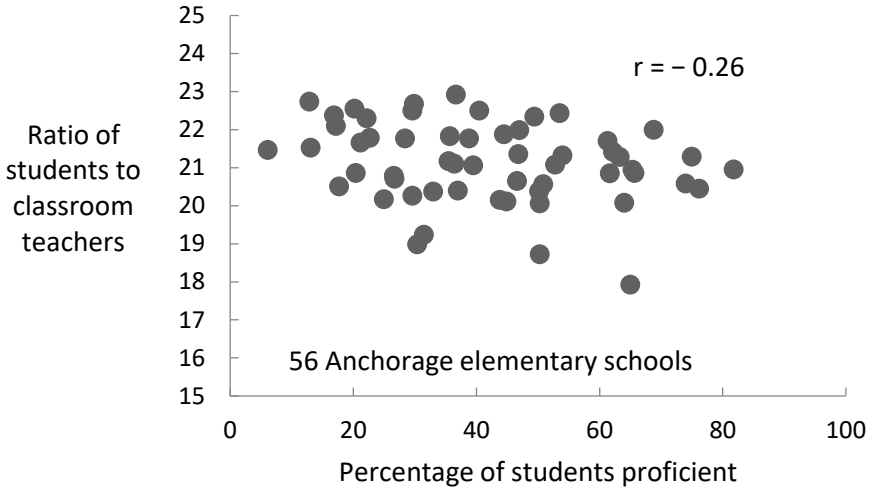

Fig. 2. Percentage students scoring proficient in reading in spring 2019 declined was lower at schools planning large pupil : teacher ratios in fall 2019. Data from ASD and DEED, 2019. Graph by NAACP.

Discussion

To manage the bad effect of class size on academic proficiency, some schools Outside lowered their class size to improve conditions for instruction.[6] For example, Texas, North Carolina and Boston imposed class size caps. Florida lowered class sizes and set its maximum primary grade class size at 18 students. Florida is held as a model for reading improvement by some advocates, including Alaska legislators.

Experts studying Anchorage schools had suggested 15 students per primary class to improve proficiency.[7] The recent Anchorage class size data showed, however, that primary students had homerooms 50 percent larger on average last year than recommended for proficiency. Some students even tried to learn to read in homerooms twice as large as recommended (Fig. 1). Poorer performing students were generally in schools with greater ratios of students to classroom teachers and in more crowded homerooms.

Notes

1. Alaska in last place for NAEP fourth grade reading 2019. https://www.nationsreportcard.gov/profiles/stateprofile?chort=1&sub=RED&sj=AL&sfj=NP&st=MN&year=2019R3

2. Alaska's State PEAKS English language arts scores 2019. https://education.alaska.gov/assessment-results/Schoolwide/SchoolwideSelect?schoolYear=2018-2019&isScience=False

3. Visible Learning by John Hattie. 2009. Routledge, London. 392 pp.

4. Class size statistical effects on proficiency
http://nces.ed.gov/nationsreportcard/reading
https://commons.wikimedia.org/w/index.php?curid=21896155
http://www.superkids.com/aweb/pages/features/reportcard2007/class_size.shtml
https://www.ecs.org/clearinghouse/85/21/8521.pdf

5. Anchorage School District budget
https://www.asdk12.org/site/default.aspx?PageType=3&ModuleInstanceID=21484&ViewID=7b97f7ed-8e5e-4120-848f-a8b4987d588f&RenderLoc=0&FlexDataID=43981&PageID=13588

6. Class size limits in other states.
http://www.fldoe.org/finance/budget/class-size/
https://dpi.wi.gov/sites/default/files/imce/sage/pdf/sage_2015_evaluation.pdf
https://edsource.org/wp-content/uploads/old/STAR.pdf
https://www.ecs.org/clearinghouse/85/21/8521.pdf

7. Larry Picus et al. 2015. Applying the evidence-based method to assess school finance adequacy in Alaska and Anchorage. Appendix G in ASD Memorandum #223, April 4, 2016.
https://go.boarddocs.com/ak/asdk12/board.nsf/files/A8PTHE71FBF4/$file/M223_Evidence%20Based%20Staffing%20Model%20Executive%20Summary%20with%20Attachments.pdf

Youngsters in Anchorage greeting new
NAACP members, 2017