

Rethinking Class Size to Expand Access to Best Teachers and Raise Pay

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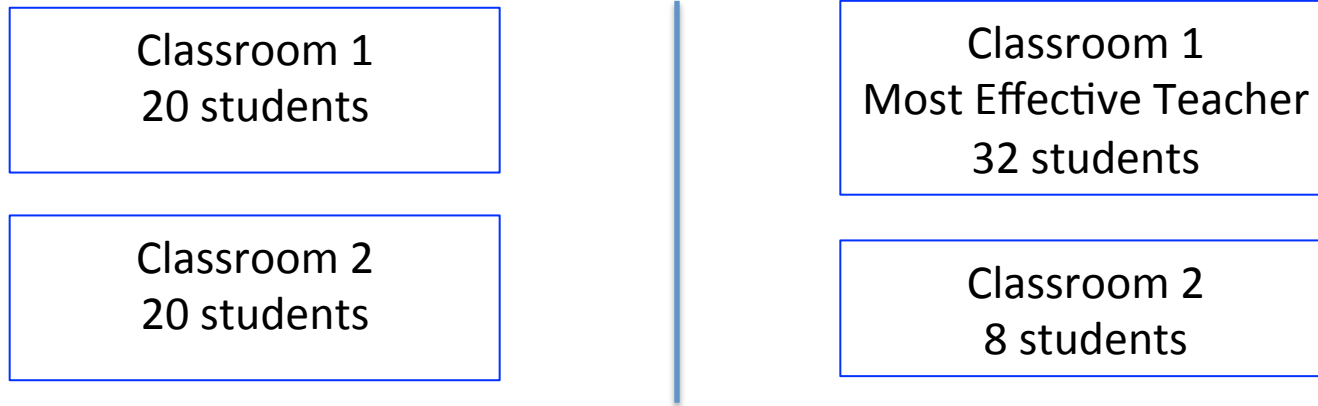
- ✓ Teacher effectiveness trumps class size.
- ✓ If the best teachers are assigned more students, students have better outcomes.

The research:

- The effects of moving one standard deviation up in teacher quality is greater than reducing class size by 10. (Rivkin, Hanushek, and Kain, 2005)
- Reallocating students to the best teachers can produce learning gains equivalent to 2-2.5 extra weeks of school for moving 6-12 students into classrooms of the top teachers. (Hansen, 2014)



What was modeled (Hansen study)



- Pulling kids out of one room and adding them to another (up to 12 students).
- Most of the gains realized in the larger class with the better teacher. Much smaller gains from the reduced class.



Evidence suggests parents would tolerate it (Farkas and Duffett, 2012)

73% of parents would prefer:

27 students “taught by one of the district’s best performing teachers”
as compared to 22 students “taught by a randomly chosen teacher”



How to pay for it?

Research:

- Recognition that teachers unlikely to accept heavier workloads without extra compensation
- 83% of teachers would accept \$5K more to teach 2 more students (Goldhaber and DeArmond, 2007)
- Value for the student but no savings for the district (Hansen)



Cost neutrality is possible, if...

Instead of adding to some classes by reducing others, we add to some classes and *eliminate* others

Consider: a growing district. Instead of adding teachers, the district would add students to some classes (with their more effective teachers).

Savings = reduced teacher hiring.


Question: How much could be paid in bonuses using just the savings?



Cypress-Fairbanks ISD, TX

- The district expects growth of 2% each year through 2017-18
- We modeled adding 3 extra students to the top 25% highest performing teachers, reducing the need for as many teacher hires.
- District could repurpose only the savings in teacher salary and benefits (and not savings in other staff, facilities, etc.)
- **District could have hired 151 fewer teachers in 2012-13.**

(Data from: Cypress-Fairbanks ISD, National Center on Education Statistics, National Education Association, Texas Education Agency)



Teachers could earn sizable bonuses for taking on 3 more students, by reallocating the savings.

Cypress Fairbanks ISD

	Elementary	Middle	High
Class size	21.6	22.3	22.3
Average Teacher Salary	\$50,620	\$50,620	\$50,620
Bonus for taking 1 additional student	\$2,926	\$2,077	\$1,442
Dollar bonus for additional 3 students	\$8,778	\$6,231	\$4,327
Percent bonus for additional 3 students	17%	12%	9%





What about districts without enrollment growth?


Longer term strategy could work to vary class size such that best teachers received 3 students larger than the norm:

- Could have implications for student assignment, teacher assignment, and zoning.
- Over time, workforce must decrease in order realize savings.
- Some districts might need fewer schools.



Size of bonus depends on current conditions, but averages 19%

- State by state averages show different starting points (class size, average salary, etc.)
- Size of potential bonus varies from 15% in Utah to 26% in West Virginia.
- Viability highly dependent on local context.



Viability might be considered on a state by state basis

State	Average state class size	Average salary	Potential bonus in dollars	Potential bonus as a percent
Alabama	19.4	\$55,489	\$11,970	22%
Alaska	21.1	\$47,803	\$10,868	23%
Arizona	24.5	\$62,918	\$9,675	15%
Arkansas	20.4	\$47,553	\$8,901	19%
California	25.4	\$45,998	\$7,226	16%
Colorado	23.3	\$67,871	\$10,807	16%
Connecticut	20.1	\$49,228	\$10,190	21%
Delaware	21.1	\$69,165	\$14,132	20%
Georgia	21.2	\$45,732	\$8,587	19%
Idaho	25.1	\$55,063	\$8,749	16%
Illinois	23.5	\$47,416	\$8,524	18%
Indiana	21.7	\$64,509	\$12,968	20%
Iowa	20.9	\$50,801	\$9,522	19%
Kansas	20.7	\$49,844	\$9,113	18%
Kentucky	23.7	\$46,598	\$7,849	17%
Louisiana	19.4	\$48,908	\$10,183	21%
Maine	17.8	\$49,006	\$11,659	24%
Massachusetts	20.1	\$63,960	\$14,282	22%
Michigan	25.7	\$70,340	\$12,091	17%
Minnesota	23.7	\$61,560	\$10,447	17%
Mississippi	22.1	\$53,680	\$9,487	18%
Missouri	20.7	\$41,075	\$7,744	19%





Promising but not perfect

Real implementation challenges.

But worth considering:

- Boosts outcomes for students
- Provides a cost neutral way to pay the best teachers more
- Enables a more selective workforce

THANK YOU

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