When considering potential models for extending the reach of excellent teachers to all students, consider these statistics:

**TEACHER PERFORMANCE**

✱ The amount of student learning progress that teachers produce:
  • Teachers in the top 20 to 25 percent produce about 1.5 years of progress on average.
  • Teachers in the middle produce about one year of progress on average.
  • Teachers in the bottom 20 to 25 percent produce about a half-year of progress on average.

✱ In any given year, three out of every four classes do not have a top-25 percent teacher.

✱ On average, out of every four years (or every four classes in secondary school), students have: a high-progress teacher one year, a low-progress teacher one year, and teachers in the middle for two years. Some schools have more or fewer high/low teachers.

✱ Results: Without intervention, students’ learning trajectories, on average, do not change.
  • Children who start behind each year will not catch up to grade level in K–12.
  • Children at grade level who could advance beyond grade level will not.

✱ But parents, communities, and schools can change learning trajectories.
  • Students who learn more outside of school can achieve/exceed standards.
  • Schools providing excellent teachers consistently can change outcomes.

✱ Students starting behind must have excellent teachers for multiple years just to catch up. A child one year behind needs approximately two consecutive excellent teachers in a subject to catch up. A child two years behind needs four consecutive excellent teachers in a subject—just to catch up to standards.

✱ Estimating formula: # Catch-up years = (# years behind)/.5.

Teacher aide pay (wages + benefits) is approximately 45 percent of average teacher pay. This difference varies widely among locations.

✱ On average, students spend about 33 hours per week in school.

✱ Homework facts: Percent of students who spend time on daily homework:

<table>
<thead>
<tr>
<th>Level</th>
<th>Did not have</th>
<th>Did not do</th>
<th>0 to 1 hours</th>
<th>1 to 2 hours</th>
<th>2+ hours</th>
<th>Weighted Average (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>21%</td>
<td>3%</td>
<td>59%</td>
<td>13%</td>
<td>5%</td>
<td>0.62</td>
</tr>
<tr>
<td>Middle</td>
<td>20%</td>
<td>6%</td>
<td>40%</td>
<td>26%</td>
<td>8%</td>
<td>0.79</td>
</tr>
<tr>
<td>High</td>
<td>26%</td>
<td>13%</td>
<td>28%</td>
<td>22%</td>
<td>11%</td>
<td>0.75</td>
</tr>
</tbody>
</table>

class size facts

✱ The National Center for Education Statistics reports that in 2007–08, average U.S. class sizes were:
• Elementary: 20 students
• Secondary: 23 students
• The OECD puts the 2009 numbers slightly higher; Opportunity Culture models conservatively assume starting class sizes of 24 students.

✱ The most frequently cited study on the effect of class size is a randomized study of class size in Tennessee. Children in grades k–3 in classes with 13 to 17 students learned more than students in typically sized classes of 22 to 25 students. States and districts attempting to implement policies to reduce class sizes have not found similar effects. We can only hypothesize about why: Having smaller classes at large scale requires keeping a much larger teacher workforce, which may lead to hiring and keeping some teachers who otherwise would not be hired or who might be dismissed in their early years. In addition, forcing smaller classes removes students from excellent teachers’ classrooms, possibly reducing overall effects of class reductions.

✱ Statistically speaking, the positive learning effects of having a top-quartile teacher are larger than the effects of having even a very small class size.

✱ Among the seven OECD nations with reported graduation rates of 90 percent and higher, the average class size is 27. The lowest is 19 (Slovenia, closely followed by Finland) and the highest is 35 (Korea, closely followed by Japan and Israel at 33). Some high-performing nations’ data were not reported (such as Singapore’s).

✱ As always, averages may be misleading. Student characteristics, teacher characteristics, and the amount of other support teachers have may affect feasible class sizes.

resources

For teacher performance: See Public Impact’s reports Opportunity at the Top and Seizing Opportunity at the Top, which offer more information and underlying sources in the endnotes, at opportunityculture.org/category/publications.


only 25% of classes have excellent teachers.

Learn more at OpportunityCulture.org

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