Introduction

Districts arrange student grade level configurations in a variety of ways, with models ranging from traditional K-5/6-8/9-12 configurations to wide-scale schools that serve up to seven grade levels, or single- or two-grade buildings. As such, this research brief evaluates alternative grade configuration models and their impact on student outcomes. Key findings from this review include:

- Research indicates that students do not benefit from isolated grade configurations.
  - Students in standalone pre-primary schools (i.e., PreK and/or Kindergarten) do not gain skills as fast over the course of the school year as their peers in elementary schools. Rather, research suggests students benefit from aligned PreK-3 pathways.
  - Intermediate schools (Grades 5 and 6 only) are not supported by the literature. Students in Grades 5 and 6 perform better in schools with more grade levels (i.e. traditional elementary schools) than in isolation.
  - Ninth grade academies are often difficult for schools to fully implement, and research on their impact is inconclusive.
- Schools with few or single grades create more school transitions, which can negatively impact student academic and social-emotional outcomes. Research associates transitions with decreased academic achievement, an increase in negative student behaviors, and fewer positive student-teacher relationships.
- The decision to reconfigure grades is typically driven by practical needs such as budget, space, and school accreditation. Additionally, when implementing a grade level reconfiguration, districts face both logistical and cultural challenges, while success factors include planning, communication, and collaboration.

Grade configuration has been examined by education practitioners and policymakers for decades as school and district administrators search for ways to leverage organizational and structural elements to improve outcomes. Constraints surrounding school and district boundaries, student populations, financial resources, and community preferences—among other factors—can often dictate how a school system configures grade levels. This multiplicity of considerations explains the wide range of grade configurations across the United States. However, in the United States, there is no universally agreed-upon best practice for grade span configuration.

Although there are numerous possible grade span configuration options, the National Center for Education Statistics (NCES) finds that the most common elementary school configuration is PreK/Kindergarten through Grade 5, while the most common secondary school configuration is Grades 9 through 12. During the 2014-2015 school year (the most recent year of data from the NCES), there were over 25,000 schools in the United States that ended elementary school in Grade 5 and nearly 16,000 schools that spanned the traditional high school years. Comparatively, in Ohio, 24.5 percent of all elementary schools follow the PreK/K/1-5 model and 68.2 percent of all regular secondary schools follow the Grades 9-12 model.

---

1 “Enrollment/Number of Schools by Grade Span and Type.” California Department of Education. https://www.cde.ca.gov/ds/sd/cb/cefenrollgradetype.asp
3 Ibid.
4 Excluding special education, alternative, and vocational schools.

© 2017 Hanover Research
The Impact of Alternative Grade Configurations

Overall, there is limited empirical research on less common grade configuration models and single-grade schools. The following subsection examines the impact of three alternative grade configuration models: stand-alone pre-primary schools, intermediate schools, and ninth grade academies.

Pre-Primary and Primary Grade Configuration Models

According to the research on standalone pre-primary school configurations, which include PreKindergarten (PreK) and/or Kindergarten, students do not benefit from isolated early childhood grade confirmation models. The evidence does not support standalone pre-primary grade configurations as viable models of early childhood learning for all student groups. Researchers note that these models are often used in the private sector and thus are subject to selection bias regarding family affluence and child preparedness; indeed, “these mostly nonpublic schools tend to have smaller kindergarten enrollments, and they attract a more affluent and more academically prepared clientele than do the public primary and elementary schools.”

Given the general level of higher preparedness among most students who self-select into standalone pre-primary programs, students in pre-primary schools do not grow or learn as fast as their peers in more traditional early childhood settings. For example, a 2007 study in The Elementary School Journal found that Kindergarten students in primary, elementary, and combined schools who underperformed at the start of the year made more significant gains in math and literacy than higher-achieving students in pre-primary schools. The researchers posit that “although the disadvantages are not large in conventional terms, they translate to a learning deficit of between one and two months in the two subjects.” Ultimately, the researchers hypothesized that the learning differentials could be attributed to generally lower levels of teacher preparation in pre-primary schools, as well as less instructional time (i.e., “fewer minutes of weekly instruction in both reading and mathematics”).

The Benefits of PreK-3 Alignment

Experts consistently recommend that districts create aligned pathways for students in Grades PreK-3 to reduce the fade-out of PreK benefits and promote successful school transitions. In aligned PreK-3 frameworks, teachers and administrators work together to align curricula, pedagogy, and learning assessments in order to transfer high-impact methods from early childhood education into elementary school. As such, aligned pathways “are designed to encourage more stable and predictable learning environments, both of which are key elements in optimal scholastic and social functioning.” Overall, PreK-3 alignment aims to ensure children’s access to quality and long-term early educational experiences.

Although the literature does not specify that these grade spans must cohabit one learning environment (e.g., a full PreK through Grade 3 school), it is important for administrators to provide a PreK-3 configuration that is well-aligned – this points to the benefits of including early grade levels (starting in either PreK or Kindergarten) in broader elementary school settings. Key principles of aligned PreK-3 programs include:

- **Continuity**: Consistency and time in learning environments.
- **Organization**: Structural features to increase intensity, length, and quality.
- **Instruction**: Coordination and integration of curriculum and teaching practices.
- **Family Support Services**: Comprehensive services to promote smooth transitions.

Despite the benefits associated with PreK-3 alignment, implementing the framework requires high levels of administrative oversight and strong leadership. Ensuring both horizontal and vertical alignment throughout a district can also be both...
time-consuming and cost-intensive. District leaders must actively promote realignment efforts and schedule time for dedicated training, encourage teacher collaboration across grade levels and schools, and allocate funds to support the initiative.16

Intermediate Schools
Intermediate schools typically serve students in Grades 5 and 6 at a separate campus. These campuses aim to isolate late elementary and early middle school students, who experts argue typically require additional supports.17 Intermediate schools, in theory, can allow teachers to become subject-area experts and provide resources dedicated to the unique social and emotional needs of students in these grades.18

However, recent empirical studies find that intermediate school (Grades 5 and 6 only) do not benefit students, and that students in the early middle grades demonstrate higher achievement in elementary schools with more grade spans than students in intermediate or single-grade schools.19 Notably, the research that addresses intermediate schools typically compares student achievement in 5-6 schools with their peers in K-5 or K-6 schools, suggesting that intermediate models are more often associated with elementary school settings than with middle school settings.

Students in the early middle grades demonstrate higher achievement in elementary schools with more grade spans than students in intermediate or single-grade schools.

Ninth Grade Academies
Dedicated academies for Grade 9 students emerged in the early 2000’s to ease students’ transition to high school and improve academic achievement.20 These academies are defined as self-contained learning communities designed to meet the specific needs of those students. A ninth grade academy can be housed as a separate space (e.g., hallway or wing) within a school or can be housed in its own building.21

Ninth grade academies are characterized by:
- A school administrator or administrative team dedicated to the ninth grade academy;
- Faculty dedicated to the academy; and
- Interdisciplinary teams of Grade 9 teachers.

Few large research studies have compared ninth grade academies to traditional high schools, and the academies in these studies often operate as schools-within-schools and provide additional programs or supports for students. Therefore, most of the research on these academies has sought to investigate whether the combination of smaller learning communities and additional student supports can increase outcomes for Grade 9 students, rather than examining the effects of grade span configuration itself. Overall, some studies have found positive outcomes such as decreased dropout rates22 and improved academic achievement for participants,23 while other studies have found no difference in academic or behavioral outcomes for academy students compared to those in traditional high schools.24

Ninth grade academies are intended to address a number of challenges associated with entering high school by fostering a positive, supportive environment and close community.25 Plus, proponents of ninth grade academies note that ninth grade academies may provide additional academic and social supports, such as tutoring, mentoring, counseling, and social services.26

However, successful implementation of the ninth grade academy model is often challenging for schools. For instance, three implementation studies of ninth grade academies found that half or fewer schools achieved “full implementation” of the model. In addition, the ninth grade academy model often requires a significant resource investment. Beyond a financial investment, schools must also invest time and resources in providing additional training and professional development for teachers and staff and providing adequate common planning time for Grade 9 teachers.

School Transitions
More schools with fewer grade span configurations create more school transitions, which research shows can harm student academic and social-emotional outcomes. Researchers generally find that a higher number of school transitions may result in decreased student achievement and “affect instructional continuity and communication across grades.” Specifically, multiple studies associate school transitions with:

- Decreased academic achievement.
- An increase in negative student behavior, including an increase in bullying, disciplinary infractions, and suspension and expulsion rates.
- Fewer positive student-teacher relationships.

Case Profiles
The following two case profiles describe the experiences of two anonymous school districts in New England who recently underwent grade reconfigurations for the early grades. The profiles are based on interviews with the superintendents of each district.

Anonymous School District 1
The Superintendent of Schools at Anonymous School District 1 describes the district’s most recent configuration of moving from a K-5 school to a K-1/2-5 configuration, as well as an earlier reconfiguration in which the district moved from a K-3/4-6/7-9/10-12 configuration to a K-2/3-5-6/8-9/12 configuration.

Drivers to Reconfiguration
The Superintendent lists two primary triggers to the district-wide reconfiguration. First, the New England Association of Schools and Colleges (NEASC) had notified his district that upon the next accreditation cycle, they would not accredit a three-year high school. In building a new four-year high school to meet accreditation requirements and moving to a 9-12 configuration, all other grade levels had to shift as well. Once reconfiguration was necessary due to the building of the new high school, the district chose to organize schools in a way that aligned with the state’s updated, grade-aligned testing system.

Impact of Reconfiguration
Separating out the primary grades from the rest of elementary, the Superintendent suggests, has its advantages as well as its disadvantages. He explained that “Sometimes...it’s a good thing because they focus on primary skills,” and that the school can focus on “making [students] love school, so they become lifetime learners.”

The Superintendent observes, however, that when students transition to another school, student achievement will “take a hit.” He attributes this to young students lacking the exposure of older learners, as well as a lack of teacher collaboration between the two levels to discuss students and set appropriate expectations. The Superintendent explains that oftentimes, “An academic expectation is not ever stated and they stay in this primary world of play...everything is so wonderful and the expectation level really is ‘I have no idea what a third grader learns or what a fourth grader learns, because I do [not] associate myself with those people.’”

As a result, young children remain in a play mindset for too long and are ill-equipped to transition into academics. The Superintendent observed that when early grades teachers did not know what was expected of students in older elementary grades, it was hard to prepare students appropriately, leading to “shock” and a dip in student achievement. While measures can be taken to preempt the issues caused by school transitions, the Superintendent avows that...
“the less transition, the better,” and advocates for a K-5 school when possible.

Anonymous School District 2
The Superintendent of Schools at Anonymous School District 2 describes a recent reconfiguration involving moving all PreK programs into the same building.

Drivers to Reconfiguration
The Superintendent highlights the practical needs of budget and space as the drivers of his district’s decision to reconfigure the elementary schools. In addition to an overall district “[focus] on saving money,” he describes the geography of the town leading to an imbalance in school density. The district needed to create space in one elementary school, and there was space in the other elementary school.

Impact of Reconfiguration
The district deems their reconfiguration a great success. While unable to attribute a recent trend of improving reading scores directly to the new school configuration, the Superintendent notes that it may have been a contributing factor. One reason for this, he explains, is the collaboration between PreK teachers and the Kindergarten teachers. He notes:

“The collaboration between the Pre-K teachers and the Kindergarten teachers has been really good. They are pretty much right next door to each other, so the Kindergarten teachers can talk to the Pre-K teachers in terms what they are seeing [that is] missing in the Kindergarteners in terms of standards that may not be getting hit.”

Additionally, the Superintendent highlights the benefits of concentrating all PreK into one school for professional development and assessment. He explains that “Just having all of [the teachers] in one spot, we can do more for concentrated professional development, so I do not need to bring a trainer over to the other elementary school.” When administrators come to observe classroom instruction, he notes, “they can go into one hallway of one building... [and] see how coherent the program is being offered, and what level of fidelity is being accomplished.”

Lastly, the Superintendent reports that teacher satisfaction at the elementary school is high, and the district has not received any complaints from parents affected by the reconfiguration.

Challenges to Reconfiguration
The superintendents of both anonymous districts noted that their districts faced both logistical and cultural challenges when reconfiguring grade levels. In their interviews, they identified the following challenges:

<table>
<thead>
<tr>
<th>Logistical Challenges</th>
<th>Cultural Challenges</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transportation and Access</td>
<td>• Breaking Up School ‘Families’</td>
</tr>
<tr>
<td>• Building and Moving</td>
<td>• Parent Pushback</td>
</tr>
<tr>
<td>• Staff Redistribution</td>
<td>• Loss of Parent Support</td>
</tr>
<tr>
<td>• Parent Traffic</td>
<td>• Competition Between Programs</td>
</tr>
</tbody>
</table>

However, the superintendents also identified the following critical success factors for reconfiguring grade levels:

- Planning
- Communication
- Collaboration