

H.P. 1335 - L.D. 1850

Resolve, To Establish the Commission To Strengthen the Adequacy and Equity of Certain Cost Components of the School Funding Formula

Sec. 5. Duties. Resolved: That the commission shall examine the reports and related work products presented to the Joint Standing Committee on Education and Cultural Affairs during the 126th Legislature as part of the independent review of the Essential Programs and Services Funding Act conducted pursuant to Resolve 2011, chapter 166 and shall develop a plan to strengthen the adequacy and equity of the following cost components included in the Essential Programs and Services Funding Act and other related education statutes.

2. Support for economically disadvantaged students; Title I funds. As part of the review and analysis of the cost components related to strengthening support for economically disadvantaged students, including the provision of funding under Title I of the federal Elementary and Secondary Education Act of 1965, 20 United States Code, Section 6301 et seq., referred to in this resolve as "Title I," and resources to provide extra help for struggling students, such as extended school days and summer school programs, the commission shall:

A. Collect school administrative unit spending data on the number of Title I teachers and education technicians in order to update the staffing ratios in the essential programs and services funding formula;

B. Conduct an analysis of the updated data collected on student-teacher and student-education technician staffing ratios in the essential programs and services funding formula in order to separate the groups of teachers into the following categories: classroom teachers, Title I teachers and teacher leaders or instructional coaches;

C. Develop a plan for adjusting the costs of the essential programs and services funding formula to account for the separate costs of classroom teachers, Title I teachers, education technicians and teacher leaders or instructional coaches;

D. Conduct research and analysis of the structures, programs, costs and achievement impacts of evidence-based practices in other states related to extended school day and summer school programs and also analyze examples of extended school day and summer school programs provided by school administrative units in the State;

E. Develop 2 or more models for funding and evaluating extended school day and summer school programs for inclusion in the essential programs and services funding formula; and

F. Project the financial impact of the adjustments under this subsection to the essential programs and services funding formula.

Summer School Programming Support for Struggling Students

In their final report, Picus and Associates identified a number of areas for expanded investment in “a powerful sequence of additional and effective strategies for struggling students” (p. 84). For the purpose of the report, “struggling students” were identified as both students who qualified for free and reduced priced lunch and those who failed to achieve proficiency on state tests. In the sections that follow, Picus and Associates highlighted four different supports for disadvantaged students that fall under this umbrella of effective strategies. These were:

- Tutoring
- Extended Day Learning Programs
- Summer School
- Additional Pupil Support

At the present time, the funding formula does not allow for any state allotments specifically for extended day resources. However, the authors note that districts can use funds allocated by the economically disadvantaged student weight.

At the request of the Education Committee of the Maine State Legislature, MEPRI conducted an extensive review of both extended day learning opportunities and summer school. Our efforts included a thorough scan of the scholarly literature surrounding both expanded learning options and interviews with a range of relevant stakeholders in 8 districts across the state of Maine. Although there are competing findings regarding the effectiveness of extended day and summer programs, as noted by Picus and his colleagues, the research suggests that participation in extended learning opportunities has the highest potential impact for students from traditionally disadvantaged populations, including geographically isolated, low income, and minority youth. Variations in findings can be attributed to a range of flaws in the current research. For example, “extended day” encapsulates a range of strategies, including extensions of the school day through breakfast programs and out of school activities, provided by both schools and external partners. Additionally, there have been few studies that examine the longitudinal effect of expanded learning opportunities on students’ outcomes.

Research Literature Findings for Summer Programs

- The learning loss experienced during the summer months accounts for a substantial proportion of the academic achievement gap between low-income students and their more privileged peers. In a meta-analysis of nearly 100 studies, Cooper and his colleagues (1996) estimate a summer learning loss equivalent to approximately one month. Additional studies show seasonal learning loss spans both math (Alexander, Entwisle, & Olson, 2001) and reading (Heyns, 1978).
- Alexander and his colleagues (2007) conclude that early childhood and summer learning loss accounts for 65% of the variance in the ninth grade achievement gap.
- Students' academic progress may be curtailed by the lack of access to engaging, enriching activities during the summer months (Heyns, 1978; Alexander, Entwisle, & Olson, 2001).
- There is evidence of significant differences by socioeconomic status in time use, indicating that low-income students watch disproportionately more television in summer, equating nearly a month of instructional time, and spend less time speaking with adults (Gershenson, 2013). Such findings may stem from low-income students' limited access to summer programs, especially when compared to their higher income peers.
- Borman and Dowling (2006) found a cumulative positive effect on literacy among students who attended a summer program over the course of multiple summers. This finding highlights the need for sustainable funding sources for programs, such that students may have continual access to them throughout their school years.
- In a random assignment study, Chaplin and Capizzano (2006) found that students who attended Building Educated Leaders for Life (BELL) gained approximately one month's worth of reading skills throughout the course of the 5 week, full time program as compared to no gain for the comparison group, who did not attend the program.
- McCombs and colleagues (2012) found that the positive effects yielded from participation in summer programs endured for the following two years.
- In a survey of 500 teachers in 15 cities, nearly two thirds indicated that they lose a substantial amount of teaching time each year (at least 3 – 4 weeks) reviewing previous year's material. Similarly, teachers who staffed summer programs overwhelmingly (72%) felt that the experience provided them with professional development opportunities that enhanced their teaching during the traditional school year. Also, 93% indicated that summer programs were an important opportunity through which to develop personal relationships with students.

Characteristics of Effective Summer Programs

In 2011, the RAND report, *Making Summer Count*, the authors summarized extensive empirical work to identify a curated set of program components that were affiliated with positive student outcomes, and thus to the creation of a high quality program. The following list summarizes the findings from the RAND review of the literature:

- **Small student to teacher ratios:** Students who are enrolled in summer experiences in which there are lower student to teacher ratios are more likely to demonstrate positive learning outcomes. For example, Cooper and his colleagues (2000) demonstrated that a 20:1 ratio was the tipping point for positive student performance.
- **Differentiated instruction:** Summer programs provide the opportunity for program staff to work more closely with students, accommodating evident differences with more personalized instruction (Tomlinson, 1999). Summer learning environments provide increased opportunities for students to work either one-on-one with individual program staff or to work in small groups, whose needs match his or her own.
- **High quality instruction:** Repeated studies illustrate the importance of high quality instruction, provided by well-trained teachers, on student outcomes. Therefore, individuals who can provide students with engaging activities to best foster their learning and development staff the most effective summer programs. Additionally, program staff may benefit from the provision of professional development targeting the unique environment of the summer program.
- **Aligned school-year and summer curricula:** Summer curriculum may be aligned in two different, but equally important, directions. First, the curriculum may support struggling students, and serve as a time to “catch up” during the summer months on material that they were expected to have mastered prior to the end of the previous school year. Second, for more advanced students, the summer curriculum may align with learning expectations for the following school year, providing them with a “leg up” on material as they advance to the next grade.
- **Engaging and rigorous programs:** Summer programs have the benefit of not being constricted by the stringent expectations of standardized assessments. As a result, summer programs have the opportunity to provide students with alternative approaches to learning that may engage students, regardless of their school year performance.
- **Maximized participation and attendance:** In order to ensure that students benefit from the program, it is critical to maintain high attendance rates. The cumulative exposure to an engaging curriculum during the summer months may help the students at the highest risk for school failure to achieve at higher rates. Suggested means for maximized participation is targeting recruitment to students who would most benefit from the program and the provision of incentives for participation.

- **Sufficient duration:** A number of studies have examined the critical number of hours for program delivery should be. Identified rates fall between 80 and 360. Locally, one Maine-based foundation that invests heavily in summer programs has set the minimum threshold at 100 hours.
- **Involved parents:** The provision of opportunities for parents to be involved with summer programs has been tied to increased student performance and overall program effect. Some possible reasons for this include: that when parents connect with the program, they are more likely to buy into its quality and potential for their child. As a result, they may encourage attendance at higher rates than their peers who did not otherwise connect with the program. Second, when parents are actively involved there is increased opportunity to provide them with information about ways to encourage learning and positive development in their own homes. Similarly, in creating a relationship with the parents, program staff may have access to information regarding students that they may not otherwise know and may be essential to their progress.
- **Evaluation of effectiveness:** Establishing measures for evaluation helps staff in myriad ways. For example, with an evaluation plan in place, staff are able to assess students' progress over the summer months. Additionally, an active evaluation may help identify elements of the program that are beneficial to students and those that are in need of change to best meet the needs of youth.

Table 1: Sample of Maine School Districts Summer School Programming: Status of Effective Characteristics

	Smaller Class Sizes	Differentiated Instruction	High Quality Instruction	Aligned school year and summer curricula	Engaging and rigorous programming	Maximized participation and attendance	Sufficient duration (minimum of 80 hours)	Involved Parents	Evaluations of Effectiveness
District 1	✓		✓	✓	✓	✓	✓		
District 2	✓		✓		✓	✓	Programs are offered for over 80 hours, but week-by-week		
District 3	✓	✓	✓	✓	✓	✓			
District 4	✓		✓		✓	✓	Programs are offered for over 80 hours, but week-by-week ✓		
District 5	✓	✓	✓	✓	✓	✓	✓	✓	
District 6	✓	✓	✓			✓			✓
District 7	✓		✓		✓	✓	✓	✓	✓
District 8	✓		✓	✓	✓	✓			
District 9	✓		✓		✓	✓			
District 10	✓	✓	✓	✓	✓	✓			✓

Cost of Summer School Programming: National Estimates

As can be seen from the brief overview of existing literature, the concept of summer programs is diverse in both how it is conceived and how it is executed. As a result, few studies have focused on the specifics of the costs affiliated with summer programming for youth. In order to ensure accuracy, program costs must consider the administrative, instructional, and curricular costs of each program's offerings, as well as the additional services provided, such as meals, non-academic activities, and transportation. Due to the multiple components, many estimates of summer programming have fallen short, often underestimating the real costs affiliated with providing high quality summer programs. In the present section, we summarize the findings of two studies that examine the costs affiliated with extended learning opportunities.

The Cost of Quality Out of School Time Programs-The Wallace Foundation (2009)

In 2009, The Wallace Foundation commissioned the report, *The Cost of Quality Out of School Time Programs*, which is the most comprehensive singular report of its type. The authors examined the costs of 111 programs in six cities, and caution that the costs of quality programs depend on a wide range of variables. Such variables include, the mission of the program, the duration of the program, and the ages of youth served (e.g., elementary and middle school as compared to high school). In addition to estimates of direct costs affiliated with the program, the authors also considered non-monetary contributions that facilitated the program functioning and increased overall quality, including space and volunteers. In total, the costs affiliated with these non-monetary contributions were estimated as approximately 15% of the total program cost. Separate estimates are calculated for school year and summer programs, which reflect the different demands encountered in each brand of program delivery. Total costs reflect estimates include of a range of expense categories, including staff salaries, transportation, benefits, administrative support, and space in which to operate the program. Other costs included such elements as snacks for participants, instructional materials, and staff training, and were aggregated into a singular "other" category.

The authors note that the average attendance on a given day was substantially lower than the number of students enrolled. Thus, the cost estimates across both age groups decreased when calculating for the total number of students. Increased enrollment numbers were affiliated with lower per pupil expenditures. However, the relationship between enrollment and cost was not purely linear, and the authors caution that there was a tipping point at which increased enrollment fails to reflect a cost-benefit.

Table 2: Summer Program Cost Estimates per Student (Wallace Foundation, 2009)

	Summer
Elementary School	<ul style="list-style-type: none"> • Average cost of summer programs was \$32 per student per day (range: \$21-36) or \$4 per student per hour (range: \$2-5). <ul style="list-style-type: none"> ○ Among the programs analyzed, the average program enrolled 128 students, with approximately 93 attending each day. The programs ran for an average of 44 days, and had a daily duration of approximately 8.7 hours ○ Programs that had a multiple focus (e.g., academic and nonacademic), as opposed to a singular non-academic focus or an academic focus, were found to have the highest per slot average cost (\$34/slot, as compared to \$26 and \$30 for non-academic and academic programs, respectively) ○ School-run, school-based programs were found to be the least cost intensive when compared with programs community-run, school-based programs or those run by community based organizations.
High School	<ul style="list-style-type: none"> • The average cost of summer programs was \$44 per student per day (range: \$15-49) or \$8 per student per hour (range: \$3-12). <ul style="list-style-type: none"> ○ Among the programs analyzed, the average program enrolled 282 students, with approximately 55 attending each day. The programs ran for an average of 35 days, and had a daily duration of approximately 6.4 hours. The total affiliated cost per child was \$790 ○ The cost variations for summer programming were less substantial than those observed for elementary and middle school students

Making Summer Count-RAND (2011)

In the 2011 report, *Making Summer Count*, RAND conducted an extensive review of existing studies that estimate the cost of effective summer programming. Additionally, the authors collected empirical data in seven sites in an effort to draw their own conclusions.

For the purpose of the review, they focus specifically on programs that operate “to scale,” which they define as the provision of academically driven programming to 1,000 students or more. Therefore, the authors begin by acknowledging the efforts of The Wallace Foundation report; however, they caution that the estimates are limited, in that they include *all* types of summer programs, including academic and non-academic. Therefore, the authors recalculate a per hour estimate for academic-focused programming to be \$7-19 per slot (child attending) per hour based on the seven programs. Cost estimates included both the cost of classroom-based programming for six hours a day, as well as a constant variable which imputed the assumed value for meals, transportation, and facilities (e.g., overhead and utilities). Additionally, the authors broke out the summer program costs per student by provider type. Analyses revealed that the cost for externally operated programs (e.g., a community based organization) ranged between \$2,058-2,081 per child, whereas district funded programs ranged from \$1,109-2,621 per child. The analyses also included a books-only program, which cost \$245 per child. This final category of programming is rooted in research, which suggests that students benefit from access and exposure to reading materials during the summer months (Allington et al., 2010; Grossman, Goldsmith, Sheldon, & Arbeton, 2009; Kim, 2006).

When considering the disparities in the affiliated costs per child, the authors cite a number of potential categories of differential spending across the programs that may influence the overall estimate. For example, such variables may include size, administrative costs, and the sources of support services, such as transportation and meals. Of the six place-based programs, five were less expensive to operate in the summer months than the school-year equivalent program. The outlier was identified as a first-year program, and the inflated price tag was most likely associated with start-up costs.

Table 3: Summer Program Operating Cost Estimates (RAND, 2009)

<i>Wallace Foundation estimates included ALL programs, this focused only on academic</i>	
Academic Programs	\$7-19/slot per hour
<i>Program Operator</i>	
Externally Operated Programs	\$2,058-2,081 per student
District Funded Programs	\$1,109-2,621 per student

Table 4: Sample of Maine School District Summer Programming: School District Estimates

	Total Cost	Total Enrollment	Estimated Cost per Pupil	Funding Source	Notes
District 1	\$500,000	1,110	\$450/student	<ul style="list-style-type: none"> • Private Foundation Grant • 2 Schools with SIG • Local funds • 21st Century Learning Grants • Title I funds 	<ul style="list-style-type: none"> • Janitorial overtime included in the budget • Transportation director overtime • Administrative staff in the schools burdened with fielding calls, etc. during the school year • Classroom staff
Districts 2 & 4 *Outside program provider partners with schools in both districts to provide program for youth	\$36,000	600	\$600/student	<ul style="list-style-type: none"> • Private Foundation Grant • Title I funds • Nominal district 	<ul style="list-style-type: none"> • Students pay \$20/week
District 3	\$24,000	20	\$1,200/student	<ul style="list-style-type: none"> • Title I funding, where available • Maine Community Foundation • Davis Family Foundation • Steven King • Community business support • Healthy Acadia 	<ul style="list-style-type: none"> • Number of programs offered, this is only 1 estimate
District 5	\$34,000	35 students	\$980/student	<ul style="list-style-type: none"> • Local funds • Private foundation • Americorps • 21st CCLC • Small grants 	

Table 4: Sample of Maine School District Summer Programming: School District Estimates

District 6	\$8,000 (Freshman Academy)	25 (FA)	\$320/student (FA)	• Title I	Least intensive programs of the sample. K-8, drop in tutoring targeting students at risk of scoring low on tests
District 7	\$13,000	50	\$260/student	• 21 st CCLC	
District 8	\$ 13,503	62	\$218/student		
District 9	\$9,000	25	\$360/student	• 21 st CCLC	
District 10	\$70,000	200	\$350/student		