



# Interactive Policy Models

APA has extensive experience creating interactive models to help policy-makers and practitioners make informed, evidence-based policy decisions. APA often develops these models in collaboration with education practitioners, using existing data and collecting new data from schools, districts, and non-profit organizations. The resulting online and Excel-based models synthesize complex educational data along with user input to allow users to better understand the impacts of their choices.

## Early Childhood Education Models

APA has designed and developed interactive early childhood cost models for the National Association of Child Care Resource and Referral Agencies, Colorado, Massachusetts, Minnesota, New York, Ohio, and Palm Beach County, Florida. APA also developed a cost of quality model for the U.S. Office of Child Care. This model, which helps states estimate the provider cost at different levels of quality, is available at [ecequalitycalculator.com](http://ecequalitycalculator.com). APA's models map current funding and services and estimate the costs of system improvements, such as increased quality or participation rates. Users can modify program elements or adjust the designs of current and proposed programs to evaluate impacts on costs, funding, and coverage.

### Children's Service Council of Palm Beach County, Florida

APA worked with the Children's Services Council of Palm Beach County (CSCPBC) to develop an interactive, web-based tool to map programs currently funded by CSCPBC. The tool estimates the costs and future economic benefits of investments in the system. The calculator is designed to help policy-makers as they make decisions about how best to allocate CSCPBC funding.

## Local Policy Models

The interactive models APA creates can also be used to inform decisions for local districts, schools, and teachers. APA designed a model for Jefferson County Public Schools in Colorado that examined a proposed compensation change at the district and teacher levels. The model allowed the district to examine the difference in costs over five years between their current system and the proposed system (which included a limited salary schedule and additions to pay based on professional development accomplishments and new roles). Other examples of models in this area are the Classroom Time Analysis Tool and the School Time Analysis Tool APA developed for the National Center on Time and Learning. These two interactive, web-based tools can be manipulated to model how changing elements of the school calendar, such as length of day or transition time, impact the amount of instruction time students receive. The models can also be used on mobile devices by schools and teachers.

**NATIONAL CENTER ON TIME & LEARNING SCHOOL TIME ANALYSIS TOOL**  
Calculating Time Spent Weekly and Annually  
Godman Elementary 1-12-13

**STEP 1: CALCULATING TOTAL ALLOCATED SCHOOL TIME**

Standard School Days: Start time: 07:55 AM, End time: 02:45 PM  
Number of standard days/week: 5  
Number of standard days/school year: 171  
Total minutes/day: 410

ER / Late Start Days: Start time: 08:00 AM, End time: 03:00 PM  
Number of ER / Late Start days/week: 0  
Number of ER / Late Start days/school year: 0  
Total minutes per ER/Late Start day: 420  
Total Required Minutes/Week: 2052  
Required annual hours: 1189

**STEP 2: CALCULATING WEEKLY ALLOCATED SCHOOL TIME**

ACADEMICS/ACADEMIC SUPPORT		SPECIALS/SELECTIVES		OTHER	
	Minutes/Week	Allocated Time %		Minutes/Week	Allocated Time %
<b>Core Academics</b>	1399	68.2%	<b>Scheduled Physical Activity</b>	201	9.8%
English Language Arts	800	39.0%	Physical Education	67	3.3%
Mathematics	375	18.3%	Art	67	3.3%
Science (incl. lab)	112	5.5%	Music	67	3.3%
Social Studies	112	5.5%	Computers/Technology	0	0.0%
Foreign Language	0	0.0%	Other	0	0.0%
Other	0	0.0%	Other	0	0.0%
<b>Academic Support</b>	130	6.3%	<b>Social/Emotional Support</b>	36	1.7%
Tutoring	0	0.0%	Community Building Activity	36	1.7%
Remedial classes	0	0.0%	Advisory	0	0.0%
Targeted support	130	6.3%	Other	0	0.0%
Other	0	0.0%			
<b>Total Weekly Allocated</b>	1919	74.1%	<b>Total Weekly Allocated</b>	231	11.3%
Hours/Week	28.32		Hours/Week	3.85	
Hours/Day (Avg.)	5.66		Hours/Day (Avg.)	0.77	
			<b>Total Weekly Allocated</b>	205	10.0%
			Hours/Week	3.00	
			Hours/Day (Avg.)	1.00	

## Systemic Policy Models

In addition to models that inform local policy change, APA has designed a number of models informing policy-making at the state and national levels. These models focus on the impacts of large-scale cost and policy decisions. APA is currently completing a model that will allow states to understand the cost impacts of changing resource allocations. Building on expertise in adequacy work, APA designed this model to allow users to change specific resource allocations at the school and district levels to understand the system-wide impacts of changes. Policy-makers can use the model to understand the overall cost of the ideal system or to understand the best way to allocate limited resources. The model is extremely flexible; in addition to adjusting for school and district level resources, a user can also adjust for salaries, for the costs of educational resources like technology, for inflation rates (for future years), and for other parameters of the system. The model is a great long-term tool for state policy-makers hoping to understand the costs of educational programs. Another recent model for the National Center on Education and the Economy analyzed the costs of moving from a traditional teacher salary schedule to a teacher career ladder system, similar to systems advocated by the Teacher Advancement Program.

## Educational Program Cost Models

Educational programs are sometimes implemented before there is a complete understanding of what the programs will cost to plan and implement. APA has experience collecting data from practitioners to provide information on total costs and cost variations by school, district, and student enrollments for different educational programs. Such tools allow users to view overall statewide costs, to select and view costs for particular districts, or to input school and district enrollment numbers to better understand what it costs to implement particular programs based on the scope of a program. In recent years, APA developed a model for the Colorado Health Foundation that estimated costs of implementing exemplary Healthy School Initiatives including physical education, activity, health education, and nutrition programs.

### Cost of Educational Programs

*Working with the James Irvine Foundation and ConnectEd in California, APA has determined the range of costs for a high school career pathways program called Linked Learning, a program being scaled up across the state. The resulting model can be used to estimate what it would cost to implement Linked Learning at an optimal level and what actual Linked Learning districts spend to plan and implement the program. Additionally, the model predicts startup and ongoing annual costs for potential Linked Learning districts, using data collected during the study.*

## About APA

Denver-based Augenblick, Palaich and Associates (APA) has more than 30 years of experience analyzing education systems and policies. APA has worked with hundreds of clients—including legislatures, education agencies, boards of education, state and county leaders, business leaders, and foundations—to provide in-depth, policy-oriented analyses to help improve our country's education systems.