

# A MATTER OF GRAVITY



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**Wilseyville, Calaveras County California United States of America**

Cover image: a view of storm clouds above Mt. Whitney, which, at 14,505 feet (4,421 meters) in elevation, is the highest point in California and the highest point in the United States outside of Alaska. Somewhat ironically, Mt. Whitney is 84.6 miles (136.2 kilometers) west-northwest of North America's lowest point – Badwater Basin in Death Valley National Park – 282 ft (86 m) below sea level.

The title takes advantage of two meanings in English for the word 'gravity':

/1/ extreme or alarming importance; seriousness.

/2/ a mathematical force used by Sir Isaac Newton to define how physical objects are attracted toward the center of other objects. Among other effects, gravity causes water and other liquids to flow downhill.

## **INTRODUCTION**

Much of eastern California is dominated by the western foothills of the Sierra Nevada mountains. In a typical year, storms from the Pacific Ocean release most of their water in the form of rain and snow on the western faces of the mountains. There are multiple small rivers that carry snow melt and rain run-offs westward from the mountains down toward the Pacific Ocean, and usually there are east-west highways that more or less parallel the rivers.

Historically, human habitation throughout much of eastern California has required some hardiness due to floods, droughts, blizzards and wildfires. There was a surge in immigration during the middle of the 19<sup>th</sup> century when gold deposits were discovered. Unfortunately, when the amount of gold available to be mined declined dramatically so did the population. Today, there are no major cities, no world-class hospitals and no internationally regarded universities. In fact, there no four year colleges, so a foothills student will be obliged to eventually leave home. There is a fair amount of poverty, and, for as long as there were quantitative measurements being taken, primary (age 5 to 13) and secondary (age 14 to 18) schools typically scored poorly. In California about one student in seven is assigned to special education – as dismal as the educational system is for the other six students out of seven, it can fairly be said that for most special education is neither special nor much of an education.



## THE CRISIS

In December of 2023 the State of California Legislative Analyst published a document that estimated that California's state budget would have a negative imbalance (revenues much less than expenses) of \$68 billion dollars or about 30% of the \$226 billion dollars that had been allocated.

In 2022, California had 5,496,271 primary and secondary students (about 14% of the state's population) enrolled in a total of 9,006 schools in 977 school districts employing 319,004 teachers. In comparison, the United States has 47,755,383 students enrolled in 90,323 schools in 13,194 school districts employing 2,783,705 teachers.

I and hundreds of others were asked to consider what the financial and educational impact of this shortfall would be for local schools. There are likely still under 800,000 students enrolled in special education in California – this tends to cost more per student than ordinary education. Usually, teacher and staff salaries make up between 80 and 85 percent of the expenses of a school district. When a school district has an imminent inability to fund payroll and other obligations the State of California loans money and takes over management of the school district. This takeover involves firing the superintendent, dismissing the elected school board, sometimes closing schools, firing teachers, implementing financial systems, reducing transportation and eliminating programs such as art, music and sports.

The City of Oakland has one unified school district with 91 schools. The district was taken over by the State of California 20 years ago. Recent enrollment statistics

School year	Students
2018-19	50,202
2019-20	49,588
2020-21	48,704
2021-22	46,600
2022-23	45,741

I am not aware of any State takeovers that were anything but outright, prolonged failures.

## CALAVERAS COUNTY SCHOOLS

In neighboring Amador County there is one unified school district with five high schools, two junior high schools and six primary schools with a total of 4,133 students 728 (17.6%) of whom are disabled. Those numbers exclude four pre-school campuses and three adult education schools. It should be noted that the district is planning to consolidate both the two major high schools (probably over 1200 students) as well as the two junior high schools (probably over 750 students). Some reconfiguring of the elementary schools may also occur. In tabular form

District	Schools	Students	Disabled
Amador Unified	13	4,133	728

In contrast, Calaveras County has five school districts

District	Schools	Students	Disabled
Calaveras Unified	9	2,886	601
Calaveras River Academy	1	20	6
Bret Harte Union	2	635	94
Mark Twain	2	721	112
Vallecito Union	3	587	67
<b>Totals</b>	<b>17</b>	<b>4,850</b>	<b>880</b>
Mountain Oaks(1)	3	402	92

/1/ Mountain Oaks is primarily home study for K-12. It has students from six counties. I am unable to determine how many are from Calaveras County

Generally, school districts in California receive one annual payment from the State plus periodic payments for daily attendance. In the wake of California's announced budget crisis the suggestion was made that the annual payment would not be significantly increased to compensate for costs increases due to inflation. Attendance would still be compensated at a rate of \$55 per student per day. Calaveras Unified believed it would be \$4,500,000 short by October 2024 and could be taken over by the



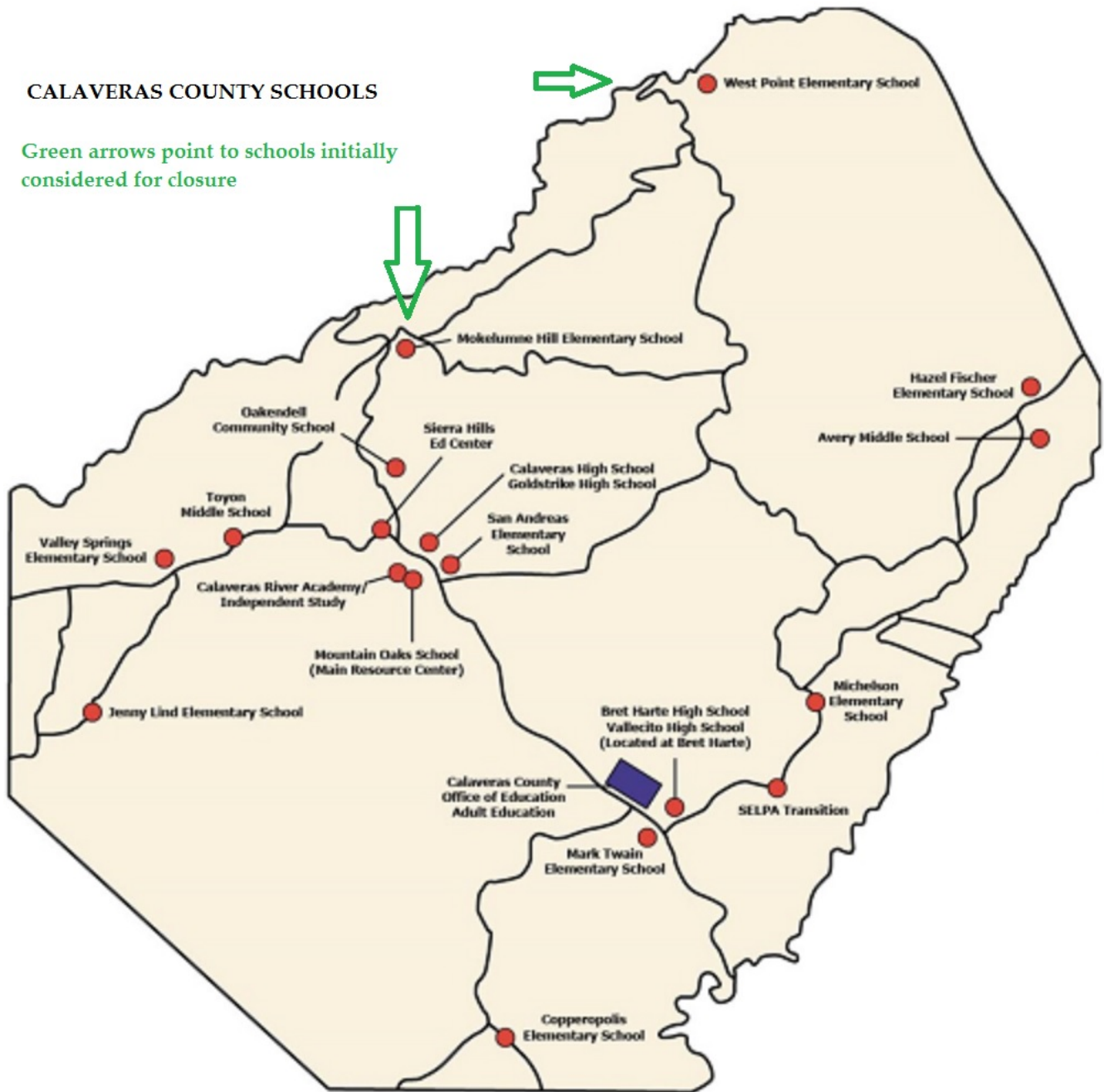
State. Of considerable concern to many locals was the idea that one or two elementary schools (West Point and Mokelumne) might be closed and their students forced to somehow undertake long journeys on a daily basis. Besides firing teachers, it was unclear that closing the schools would avoid radical reductions in bus service.

School	Grades	Students	Disabled
Jenny Lind Elementary	K-5	442	51
Mokelumne Elementary	K-6	158	27
San Andreas Elementary	K-8	320	83
Valley Springs Elementary	K-5	408	83
West Point Elementary	K-6	121	18
Toyon Middle	6-8	531	99
Calaveras High	9-12	746	142
Sierra Hills Alternative	K-12	111	14
Gold Strike High	9-12	49	6
Oakendell	7-12	50	23
River Academy	6-12	20	6
<b>TOTAL</b>		<b>2,951</b>	<b>552</b>
Mountain Oaks	K-12	402	92

In addition to shortfalls in funding from the state, it is anticipated that special education costs for Calaveras Unified School District will increase to \$10,400,000.

CALAVERAS COUNTY SCHOOLS

Green arrows point to schools initially considered for closure



The eight schools along the southeastern edge from Copperopolis to Hazel Fischer are not in the Calaveras Unified School District

## SUMMARY



/1/ *Polemonium eximium*, the **skypilot** or **showy sky pilot**, is a perennial plant in the phlox family (Polemoniaceae). It grows at high altitudes and is commonly found in the Sierra Nevada Mountains. The skypilot often provides weary climbers a psychological boost.

/2/ It is unclear for special needs students if a school district can claim compensation for daily attendance for 360 days per year as opposed to the usual 180 school days. Finding a lawyer with experience in this area has proven challenging.

/3/ I built a financial model in software in order to explore the consequences of decisions. Among the input values

Disabled students	600	Total students	2900	Budget shortfall	\$4,500,000
Tai Chi teachers	1	Tai Chi classes	3	Special education	\$10,400,000
Attendance rebate	\$55.00	Tai Chi cost	\$12.50/day	Tai Chi students	48

This should be understood as 16 special needs students per class; a class is 150 minutes; 3 such classes per day per teacher; 7 days per week and \$5.00 per special needs student per hour.

The \$216,000 earned teaching 48 students would pay for the teacher's salary and benefits, classroom rental, utilities, cleaning, beverages and snacks.



This scenario produced savings as follows

<b>Teachers</b>	<b>Students</b>	<b>Savings</b>	<b>360 days</b>	<b>Total</b>
1	48	\$616,000	\$475,200	\$1,091,200
2	96	\$1,232,000	\$950,400	\$2,182,400
3	144	\$1,848,000	\$1,325,600	\$3,273,600
4	192	\$2,464,000	\$1,800,800	\$4,264,800

Note that 192 is only 32% of the available population of special needs students and includes only those under 22 years old. Persons 22 years old or older with special needs would represent a separate marketing opportunity. It is prudent to consider hiring an extra teacher to be trained, act as a substitute and so on.

Note that these figures apply anywhere and would only be constrained by the number of special needs students willing and able to be taught. Were Calaveras Unified School District to offer such instruction BUT other Calaveras County school districts to the south or even to the north in Amador County NOT do so, parents there can petition for transportation and a transfer. That causes a revenue shift to the receiving district.

/4/ California has a number of laws that restrict weapons such as guns and knives from being on or near a school campus. I have asked the District Attorney of Calaveras County for an opinion as to whether the weapons needed for Chen family style Tai Chi Chuan can be stored and used on campus.