Special Education Financing in California

A Decade After Reform

Technical Appendix

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Description

These appendices provide technical information on the data, methods, and analysis used in the report, and serves as the basis for several of its tables and figures. Appendix A describes the demographic, fiscal, and disability data, and provides summary statistics. It also presents regression results for the report's sections on financing and disability rates. Appendix B begins by describing the methodology for calculating additional spending on children with disabilities—spending above the average for all children. It next presents special education expenditure and revenue information at the Special Education Local Plan Area (SELPA) level and spending regression results. Appendix C describes the simulated allocation model.

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Appendix A. Analysis for the Sections on Financing and Disability Rates

Data Sources

SELPA Demographic Characteristics

Race/ethnicity, English learner, and total enrollment data comes from CDE's California Basic Educational Data System (CBEDS) for 2006–2007. Free and reduced-price lunch data comes from the CalWORKS data files that CDE maintains for 2006–2007. Race/ethnicity, English learner, and free and reduced-price lunch are aggregated to the SELPA level and calculated as a percentage of total SELPA enrollment. Total enrollment is aggregated to the SELPA level.

The general density description of each district comes from the NCES for 2005–2006. Eight locale codes define the general density of the location of the district. In our analysis, we use an indicator for a SELPA located in a "large town," "small town," "rural, outside Core Based Statistical Areas (CBSA)," or "rural, inside CBSA." The SELPA's administrative unit is used as the location for the general density description.

The comparable wage index comes from version 2.3 of the simulation model developed by Rose, Sengupta, Sonstelie, and Reinhard (2008) for 2004–2005. The index captures the wage of non-educators with similar qualifications as educators in each local labor market at the Metropolitan Statistical Areas (MSA) level. The location of the administrative unit of each SELPA is used as the location for the index.

The single district SELPA indicator for SELPAs comes from CDE's AB 602 funding exhibits.

Fiscal Information

Revenue limit per pupil is a weighted average at the SELPA level. The data come from CDE, which lists the revenue limit per ADA at the district level. The variable is multiplied by the ADA of each district and aggregated to the SELPA level. Finally, it is divided by total enrollment at the SELPA level.

The special education revenue comes from funding exhibits maintained by CDE. AB 602 base rates come from the AB 602 funding exhibit. Spending on children with disabilities and spending on children without disabilities comes from the Standardized Account Code Structure (SACS). All data is aggregated to SELPA level and then divided by total SELPA enrollment. Appendix B provides data sources and variable definitions.

Special Education Enrollment

Special education enrollment data comes from a district-level version of the California Special Education Management Information System (CASEMIS) for 2006–07. The CASEMIS data are tabulated by the district of residence. Special education enrollment includes all children with disabilities who are 0–22 years old. The disabilities are categorized as severe and non-severe based on SACS definitions. The severe category includes autism, deaf-blindness, emotional disturbance, hearing impairments, mental retardation, multiple disabilities, orthopedic impairments, traumatic brain injury and visual impairments. The non-severe category includes learning disabilities, speech or language impairments, and other health impairments. Variables are aggregated at SELPA level and calculated as the percent of total SELPA enrollment.

California Health Interview Survey (CHIS)

CHIS is largest state health survey in the United States. The data come from 5 to 11 year old children in the 2005 child survey. See Table A.3 for summary statistics on the variables.

Tables of Results

Table A.1
Summary Statistics for California SELPAs, 2006–07

	Average Value	Standard Deviation
A. Demographic Characteristics		
Free or Reduced-price Meals (%)	46.26	17.94
Comparable Wage Index [0.74,1.15]	0.94	0.09
English Learner (%)	20.37	11.76
Town or Rural Area {0,1}	0.18	0.38
Hispanic (%)	39.41	21.63
African American (%)	6.09	6.82
Asian / Pacific Islander (%)	10.98	10.68
Other Race (non-white) (%)	4.65	3.45
Total SELPA Enrollment	52.79	72.44
AB 602 Base Funding Rate per ADA ($)	609.29	72.11
Average SELPA Revenue Limit per Pupil ($)	5,440.50	551.89
Single District SELPA {0,1}	0.30	0.46
Small SELPA (Under 15,000) {0,1}	0.19	0.40
Receives Special Disabilities Adjustment {0,1}	0.29	0.45
B. Disability Rates (% of Total SELPA Enrollment)		
All "Severe" Categories (Age 0–22)	2.37	0.43
All "Non-Severe" Categories (Age 0–22)	8.61	1.44
Autism	0.59	0.27
Deaf-Blindness	0.004	0.01
Emotional Disturbance	0.43	0.23
Hearing Impairments (Including Deafness)	0.20	0.07
Learning Disabilities	4.70	1.13
Mental Retardation	0.69	0.24
Multiple Disabilities	0.11	0.10
Orthopedic Impairments	0.24	0.09
Other Health Impairments	0.71	0.36
Speech or Language Impairments	3.20	0.94
Traumatic Brain Injury	0.03	0.02
Visual Impairments	0.08	0.04
C. Fiscal Information		
Spending on Children with Disabilities per Pupil ($)	1,867.47	299.29
Spending on Children without Disabilities per Pupil ($)	6,737.52	1,030.72
Additional Spending on Children with Disabilities per Pupil ($)	1,130.29	228.32
Local Support for Additional Spending per Pupil ($)	363.56	217.90
Total AB 602 Revenue per Pupil ($)	683.01	104.82
Total Special Education Revenue per Pupil ($)	766.74	125.52

NOTE: The sample contains 119 California SELPAs. It excludes Los Angeles COE Courts SELPA because that SELPA reports no enrollment in CBEDS. The averages are mean values across SELPAs, not statewide average values.

Table A.2
Factors Associated with Special Education Funding per Student, 2006–07

	Total Special Education Funds per Student
Base Rate ($ per ADA)	**1.43**
	(0.08)
Small SELPA {0,1}	**48.16**
	(18.72)
Receives Special Disabilities Adjustment {0,1}	**62.36**
	(12.94)
Constant	**-128.73**
	(44.84)
R-Squared	0.78

NOTE: Bold indicates statistical significance at the 5 percent level. Robust standard errors are in parentheses. The sample includes 119 California SELPAs.

Table A.3
Summary Statistics for California Health Interview Survey Data, 2005

	Average Value	Standard Deviation
All "Severe" Conditions (%)	5.06	21.92
All "Non-Severe" Conditions (%)	3.95	19.49
Behavioral Conditions (%)	3.27	17.78
Physical Conditions (%)	4.01	19.62
Income ($ in Relation to Federal Poverty Line)	3.43	3.40
Female {0,1}	0.49	0.50
Non-English Language Spoken at Home {0,1}	0.51	0.50
Rural {0,1}	0.12	0.32
Hispanic (%)	0.47	0.50
African American (%)	0.06	0.24
Asian / Pacific Islander (%)	0.10	0.30
Other Race (non-white) (%)	0.05	0.21
Birth Weight (lbs)	7.09	1.78

NOTE: The sample contains 6,515 California children ages 5–11. The statistics are weighted to be representative of the statewide population of 5 to 11 year olds.

Table A.4
Associations between Disability Conditions and Child Characteristics, CHIS, 2005

	Severe Conditions	Non Severe Conditions	Behavioral Conditions	Physical Conditions
Income ($ in Relation to Federal Poverty Line)	**-0.003**	-0.0022	**-0.003**	-0.0002
	(0.001)	(0.0013)	(0.001)	(0.001)
Female {0,1}	**-0.021**	**-0.021**	**-0.013**	**-0.015**
	(0.008)	(0.007)	(0.006)	(0.007)
Non-English Language Spoken at Home {0,1}	*-0.018*	-0.012	-0.007	-0.013
	(0.010)	(0.009)	(0.007)	(0.009)
Rural {0,1}	0.005	0.002	-0.009	**0.027**
	(0.012)	(0.012)	(0.006)	(0.015)
Hispanic (%)	-0.001	0.012	-0.008	**0.021**
	(0.011)	(0.010)	(0.007)	(0.010)
African American (%)	-0.009	0.005	*-0.016*	0.020
	(0.017)	(0.017)	(0.007)	(0.023)
Asian / Pacific Islander (%)	**-0.033**	-0.016	**-0.022**	-0.008
	(0.009)	(0.011)	(0.006)	(0.013)
Other Race (non-white) (%)	0.005	0.011	0.008	0.009
	(0.016)	(0.015)	(0.013)	(0.015)
Birth Weight (Lbs)	**-0.005**	0.002	-0.002	0.0002
	(0.002)	(0.002)	(0.002)	(0.002)
Age 6	0.007	0.013	0.003	0.014
	(0.015)	(0.017)	(0.013)	(0.015)
Age 7	0.009	0.005	0.016	-0.012
	(0.017)	(0.015)	(0.016)	(0.012)
Age 8	0.026	0.005	0.007	0.013
	(0.021)	(0.014)	(0.013)	(0.017)
Age 9	*0.026*	0.003	**0.030**	-0.015
	(0.018)	(0.014)	(0.017)	(0.010)
Age 10	0.018	0.004	0.001	-0.005
	(0.017)	(0.015)	(0.010)	(0.012)
Age 11	*0.025*	0.004	0.018	-0.003
	(0.017)	(0.015)	(0.015)	(0.011)
R-squared	0.03	0.02	0.04	0.03

NOTE: Bold indicates statistical significance at the 5 percent level. Italics indicate statistical significance at the 10 percent level. Estimates are marginal effects from a probit model. Robust standard errors are in parentheses. The sample includes 6,515 children. Estimates are weighted to be representative of California children ages 5 to 11.

1. Severe conditions include autism, hearing problem, orthopedic problem, vision problem, injury, other physical condition, other behavioral/mental condition, and multiple conditions.
2. Non-severe conditions include asthma, ADD/ADHD, learning disability, developmental disorder, speech and language, allergy, and other.
3. Behavioral conditions include ADD/ADHD, autism, learning disability, developmental disorder, speech and language, and other behavioral/mental conditions.
4. Physical conditions include asthma, hearing problem, orthopedic problem, vision problem, allergy, injury, and other physical condition.

Table A.5.1
Associations between Disability Rates and SELPA Characteristics, 2006–07

	Severe Disabilities	Non Severe Disabilities	Learning Disabilities	Speech or Language
Free or Reduced-price Meals (%)	*0.009*	0.008	*0.028*	-0.010
	(0.005)	(0.024)	(0.015)	(0.011)
Regional Wage Index [0.74,1.15]	0.790	*4.003*	3.736	1.496
	(0.745)	(2.304)	(2.240)	(1.737)
English Learner (%)	-0.0005	0.040	-0.023	**0.055**
	(0.007)	(0.029)	(0.025)	(0.019)
Town or Rural Area {0,1}	**-0.336**	0.685	0.433	0.249
	(0.095)	(0.535)	(0.395)	(0.206)
Hispanic (%)	**-0.016**	-0.024	0.008	*-0.027*
	(0.005)	(0.019)	(0.012)	(0.014)
African American (%)	*0.014*	-0.007	0.004	-0.010
	(0.008)	(0.025)	(0.021)	(0.012)
Asian / Pacific Islander (%)	*-0.004*	**-0.055**	**-0.024**	**-0.028**
	(0.002)	(0.017)	(0.010)	(0.013)
Other Race (non-white) (%)	-0.012	**0.125**	**0.073**	**0.062**
	(0.013)	(0.045)	(0.031)	(0.033)
Total SELPA Enrollment (1,000s)	*0.00035*	-0.0006	0.001	**-0.003**
	(0.00018)	(0.001)	(0.001)	(0.001)
AB 602 Base Rate per ADA ($)	0.001	-0.002	-0.0001	-0.0019
	(0.001)	(0.003)	(0.0018)	(0.0011)
Avg. Revenue Limit per Pupil ($1,000s)	-0.070	-0.221	-0.124	-0.149
	(0.077)	(0.218)	(0.241)	(0.132)
Single District SELPA {0,1}	**0.111**	-0.048	0.120	-0.127
	(0.054)	(0.372)	(0.293)	(0.151)
Constant	**1.664**	**7.297**	0.479	**4.382**
	(0.618)	(2.446)	(2.278)	(1.813)
R-Squared	0.47	0.22	0.26	0.31

NOTE: Bold indicates statistical significance at the 5 percent level. Italics indicate statistical significance at the 10 percent level. Robust standard errors are clustered by metropolitan statistical area or rural region code in parentheses. The sample includes 119 California SELPAs.

Table A.5.2
Associations between Disability Rates and SELPA Characteristics, 2006–07

	Other Health Impairments	Mental Retardation	Autism	Emotional Disturbance
Free or Reduced-price Meals (%)	**-0.011**	**0.012**	**-0.006**	0.002
	(0.005)	(0.002)	(0.002)	(0.002)
Regional Wage Index [0.74,1.15]	*-1.229*	-0.420	0.521	0.380
	(0.679)	(0.319)	(0.404)	(0.372)
English Learner (%)	**0.008**	**-0.009**	0.006	-0.001
	(0.004)	(0.003)	(0.005)	(0.003)
Town or Rural Area {0,1}	0.003	-0.109	-0.011	**-0.121**
	(0.142)	(0.070)	(0.056)	(0.057)
Hispanic (%)	-0.004	-0.002	-0.004	**-0.007**
	(0.004)	(0.002)	(0.004)	(0.002)
African American (%)	-0.001	0.005	-0.004	**0.013**
	(0.007)	(0.004)	(0.005)	(0.005)
Asian / Pacific Islander (%)	-0.003	*0.0020*	0.003	**-0.005**
	(0.004)	(0.0011)	(0.002)	(0.001)
Other Race (non-white) (%)	-0.010	-0.007	-0.008	-0.007
	(0.013)	(0.005)	(0.009)	(0.007)
Total SELPA Enrollment (1,000s)	*0.0005*	-0.0001	**0.0006**	0.0001
	(0.0003)	(0.0001)	(0.0001)	(0.0001)
AB 602 Base Rate per ADA ($)	-0.0005	*0.0004*	-0.0002	0.0005
	(0.0004)	(0.0003)	(0.0002)	(0.0006)
Avg. Revenue Limit per Pupil ($1,000s)	0.053	0.007	0.010	-0.039
	(0.051)	(0.043)	(0.040)	(0.040)
Single District SELPA {0,1}	-0.042	0.025	*0.102*	-0.051
	(0.067)	(0.038)	(0.057)	(0.035)
Constant	2.436	0.518	0.466	0.221
	(0.584)	(0.356)	(0.454)	(0.561)
R-Squared	0.26	0.52	0.51	0.46

NOTE: Bold indicates statistical significance at the 5 percent level. Italics indicate statistical significance at the 10 percent level. Robust standard errors are clustered by metropolitan statistical area or rural region code in parentheses. The sample includes 119 California SELPAs.

Appendix B. Analysis for the Section on Spending

This section summarizes the federal excess cost calculation, implementation challenges in California, an alternative method for estimating additional spending on children with disabilities based on the federal calculation, and results from the spending analysis.

The Federal Excess Cost Calculation: An Example

The following example illustrates how U.S. school districts should calculate the excess costs of special education according to Appendix A to Part 300 of the 2004 IDEA Regulations. The first step is to calculate the average annual per student expenditure in the district, net of several specific factors. The second step is to multiply the average expenditure by total special education enrollment. This is the minimum amount that a local education agency (LEA) must expend before accruing excess costs. The third step is to calculate total spending on children with disabilities. Excess costs are the difference between total and minimum spending. Districts must perform this three-step process separately for elementary and secondary school students.

Step 1: Calculate the Average Annual per Student Expenditure

The IDEA regulations consider an LEA with an elementary school enrollment of 800, of whom 100 are children with disabilities. First, the LEA calculates its total expenditures for elementary school students from all sources net of only capital outlay and debt.

Total Expenditures for Elementary School Students from All Sources	$7,100,000
Less Capital Outlay and Debt	-$60,000
Total Expenditures for Elementary School Students Less Capital Outlay and Debt	$7,040,000

Then the LEA subtracts amounts spent on elementary school students out of funding from specific programs like special education that are meant to supplement, rather than supplant, other funds. The average annual per student expenditure is the net spending total divided by the LEA's elementary school enrollment.

From Funds under IDEA, Part B Allocation	$200,000
From Funds under ESEA, Title I, Part A Allocation[1]	$250,000
From Funds under ESEA, Title III, Parts A and B Allocation	$50,000
From State Funds and Local Funds for Children with Disabilities	$500,000
From State and Local Funds for Programs under ESEA, Title I, A & Title III, A and B	$150,000
Total	$1,150,000
Net Expenditures	$5,890,000
Elementary School Enrollment	800
Average Annual per Student Expenditure	$7,363

[1] ESEA stands for the Elementary and Secondary Education Act (1965), which is now known as the No Child Left Behind Act of 2001. Title I funds target economically disadvantaged students. Title III funds target students who are Limited English Proficient.

Step 2: Determine Minimum Spending for Educating Children with Disabilities

Before accruing excess costs, an LEA must make a minimum level of spending on the education of children with disabilities. This threshold is the average annual per student expenditure multiplied by the number of children with disabilities.

Children with Disabilities	100
Average Annual per Student Expenditure	$7,363
Minimum Spending Threshold	$736,250

Step 3: Excess Costs of Providing Special Education and Related Services*

Total Spending to Educate Children with Disabilities	$1,760,000
Less Minimum Spending Threshold	-$736,250
Excess Costs of Providing Special Education and Related Services	$1,023,750

* Author's own example

Special education aid, like IDEA Part B funding, helps offset excess costs.

Implementation Problems for California

California faces key challenges in performing the federal excess cost calculation:

1. The state's financial data system does not allow unified districts to track funding and spending separately for elementary and secondary school students.

2. The financial data system does not track non-special education spending on children with disabilities separately from spending on other children.

3. California's County Offices of Education provide a variety of regional special education services on behalf of LEAs.

4. The excess cost calculation happens at the LEA level but California distributes special education funds at the SELPA level.

California's Standardized Account Code Structure (SACS) is a rich data system that allows education researchers and policymakers to track a wide range of fiscal information about school districts. Strict adherence to the excess cost calculation described above, however, would require an even greater data collection effort. The first point raised above essentially prevents unified districts from calculating excess costs. The second point complicates any LEA's ability to measure its total expenditure of educating children with disabilities.

The third issue underscores the importance of treating some County Office of Education (COE) programs as shared expenditures. Not accounting for regional programs may under-represent excess costs in most LEAs. It may also overstate excess costs at the COE. The same is true for Transportation Joint Powers Agreements (JPAs), agencies that coordinate shared transportation services across several districts in a SELPA.

The fourth point highlights the difficulty that the state would face in interpreting the results from the excess cost calculation, were it feasible. SELPAs differ in how they allocate both responsibilities for service delivery and special education funds among their member districts. There is bound to be variation in reported excess costs less funding received at the district level, differences that result from SELPA decisions about who operates regional programs on behalf of others. Arguably, the across-SELPA differences are more important in California's policy context.

Estimating Additional Spending and Local Support in California

In light of these considerations, this report estimates additional spending through a method based on the federal regulations, but not strictly tied to it. For instance, we aggregate the data to the SELPA level, to include all member districts, the COE, and transportation JPA if one exists.[2] Second, the calculation combines elementary and secondary school enrollments. Third, we assume that an LEA's non-special education spending on children with disabilities is proportional to the fraction of the school day that these children spend inside the regular classroom. Under these conditions, we estimate additional spending and local support for each SELPA. The steps below describe the method.[3]

Step 1: Determine the Minimum Spending Threshold for Educating Children with Disabilities

Consider a SELPA with 30,000 students, of whom 3,000 are children with disabilities. First, the SELPA totals its expenditures net of only capital outlay and debt service.

Total Expenditures	$245,000,000
Less Capital Outlay and Debt Service	-$5,000,000
Total Expenditures Less Capital Outlay and Debt Service	$240,000,000

Then it subtracts funding apportionments received from the sources specified by the federal calculation. These sources are:

Total AB 602 Apportionment from Local, State, and Federal Sources	$22,000,000
Categorical Funds for State Special Education Programs Outside AB 602 Model	$2,000,000
ESEA, Title I, Part A, and Title III, Parts A and B Allocation	$3,000,000
Economic Impact Aid Apportionment	$3,000,000
Total	$30,000,000

The AB 602 apportionment includes a SELPA's IDEA Part B Local Assistance Grant along with state and local categorical aid for special education. Several state categorical programs for special education described in Table B.1 and in Lipscomb (2009b) are outside the AB 602 model. The federal regulations seem to intend that these funds be deducted from total expenditures as well. Economic Impact Aid is a state categorical program that provides additional funds for economically disadvantaged and limited English proficient students.

[2] The Los Angeles, San Bernardino, San Diego, and Santa Clara COEs belong to several SELPAs. We pro-rate their expenditures and pupils to each affiliated SELPA based on respective enrollment levels.
[3] The approach we take is based on a method designed by Sarge Kennedy and Jack Lucas.

Again, this program appears to qualify for deduction from total expenditures as a state program with a similar purpose to the Title I Part A and Title III Parts A and B programs.

Obtaining the minimum spending threshold then proceeds similarly:

Net Expenditures	$210,000,000
Total SELPA Enrollment	30,000
Average Annual per Student Expenditure	$7,000
Children with Disabilities in SELPA[4]	3,000
Minimum Spending Threshold on the Education of Children with Disabilities	$21,000,000

Step 2: Estimate Non-Special Education Spending on Children with Disabilities

The key assumption is that we can estimate non-special education spending for children with disabilities based on the part of the school day that they are inside the regular classroom. Educational environment data is publicly available from the U.S. Department of Education at the state level. It lists the number of students 6 to 21 years old by disability category in each of the following environments:

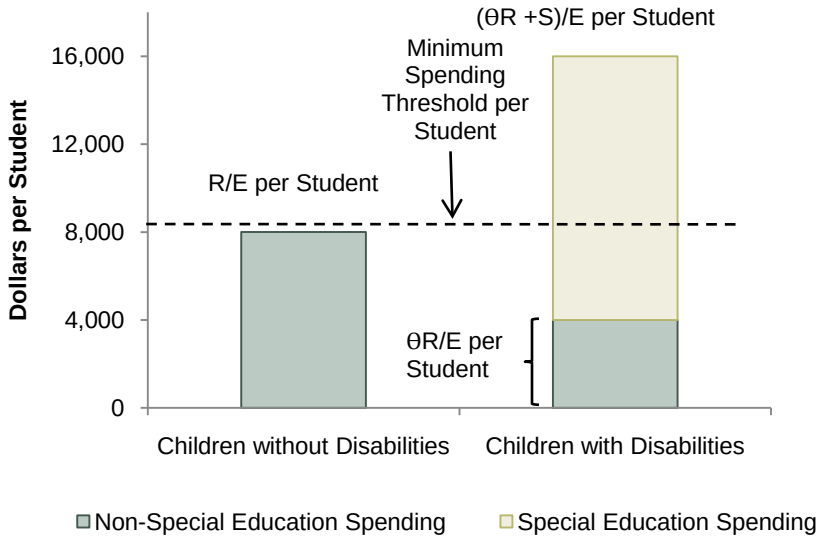
- Inside the Regular Classroom <40% of School Day
- Inside the Regular Classroom 40% to 79% of School Day
- Inside the Regular Classroom 80% to 100% of School Day
- Placement Outside School (several categories)

We use the midpoint of each range of values to estimate the statewide average percentage of the school day that children with each type of disability are in the regular class.

The California Department of Education maintains publicly available disability count data by category of disability, age, and district of residence. We use this data, along with the statewide average percentage inside the regular classroom for each disability, to calculate a SELPA-wide average among its children with disabilities 6 to 21 years old. The SELPA-wide average helps estimate the amount of non-special education spending on children with disabilities. The following stylized figure describes the procedure in each SELPA.

[4] These children are 6-21 years old. Appendix A to Part 300 of IDEA says that excess costs are "those costs for the education of an elementary school or secondary school student with a disability." Schools, however, incur special education costs for some children starting from birth. Infants and pre-school children with disabilities do not factor into determining the threshold level. Spending on their behalf effectively becomes all additional spending above the threshold.

Figure B.1
Estimating Non-Special Education Spending on Children with Disabilities



Suppose that school districts in the SELPA spend $\frac{R}{E}$ dollars educating each elementary and secondary student without disabilities. *R* is non-special education spending less capital outlay and debt service. *E* is total SELPA enrollment. LEAs have $\Theta\frac{R}{E}$ dollars of non-special education spending on each child with a disability, where θ is the fraction of the school day spent in the regular classroom. Finally, they have $\frac{S}{E}$ dollars in special education spending on each disabled student. With an estimate of θ, we can estimate non-special education spending on children with disabilities by using the following formula:

$$(E - D)\frac{R}{E} + D\frac{\theta R}{E} = T - S.$$

- *D* is the count of 6–21 year old children with disabilities in the SELPA.
- *T* is total SELPA spending less capital outlay and debt service.
- *S* is SELPA special education spending less capital outlay and debt service.

The formula says that total spending on children without disabilities plus non-special education spending on children with disabilities equals total non-special education spending. It implies that $D\frac{\theta R}{E} = \frac{D\theta(T-S)}{E-D(1-\theta)}$. This is a SELPA's estimated non-special education spending on disabled children.

Estimated Average Percentage of School Day Inside Regular Classroom	0.62
Total Expenditures Less Capital Outlay and Debt Service	$240,000,000
Special Education Spending Less Capital Outlay and Debt Service	$40,000,000
Non-Special Education Spending Less Capital Outlay and Debt Service	$200,000,000
Estimated Non-Special Education Spending on Children with Disabilities	$12,899,813

Step 3: Determine Additional Spending and the Local Support Component

Figure B.1 shows that additional spending accrues once spending on children with disabilities surpasses the threshold level.

Minimum Spending Threshold on the Education of Children with Disabilities	$21,000,000
Less Non-Special Education Spending on Children with Disabilities	-$12,889,813
Estimated Special Education Spending Needed to Reach Threshold	$8,110,187
Special Education Spending Less Capital Outlay and Debt Service	$40,000,000
Less Estimated Special Education Spending Needed to Reach Threshold	-$8,110,187
Additional Spending on Children with Disabilities	$31,889,813
Additional Spending per Pupil	$1,063

Local fiscal support meets the difference between additional spending and special education funds received from all sources. This includes AB 602 funds and other state and federal categorical special education programs. Table B.1 lists each of these programs. The final steps of the calculation are performed below.

Additional Spending on Children with Disabilities	$31,889,813
Less Total AB 602 Apportionment from Local, State, and Federal Sources	-$22,000,000
Less Categorical Funds for State Special Education Programs Outside AB 602	-$2,000,000
Less Categorical Funds for Federal Special Education Programs Outside AB 602	-$500,000
Local Support	$7,389,813
Local Support per Pupil	$246

Table B.1
Data Sources and Variable Definitions, 2006–07

Variable	Data Source	Resource	Goal	Object
Total District Enrollment	CA Basic Education Data System			
Special Ed Enrollment by LEA of Residence	CA Special Ed Management Information System			
Statewide Educational Environments	U.S. Dept. of Education			
Total Expenditures	SACS	All	All	1000-6999, 7130, 7310-7439, PCRA
Total Capital Outlay and Debt Service	SACS	All	All	6000-6999, 7430-7439
Special Ed Spending Less Capital Outlay and Debt	SACS	All	5000-5999	1000-5999, 7130, 7310-7380, PCRA
Elementary and Secondary Education Act Funds				
Title I, Part A	SACS	3010-3013, 3175-3178	All	8290
Title III, Part A and B	SACS	4201-4204	All	8290
Economic Impact Aid Appropriation	SACS	7090-7091	All	8311
AB 602 Special Education Apportionment	AB 602 Funding Exhibit			
State Non-AB 602 Special Ed Categorical Programs				
Infant Entitlement	Prog. Funding Exhibit			
ROC/P Handicapped	Prog. Funding Exhibit			
Mandate Settlement	Prog. Funding Exhibit			
Mental Health Services	Prog. Funding Exhibit			
Transportation: Special Education	Prog. Funding Exhibit			
Fed. Non-AB 602 Special Ed Categorical Programs				
IDEA: Preschool Grants	SACS	3315, 3316, 3320	All	8182
IDEA: Mental Health Allocation Plan	SACS	3327	All	8182
IDEA: Infant Discretionary	SACS	3330	All	8590
IDEA: Staff Development Grants	SACS	3340, 3345, 3370	All	8182
IDEA: Interpreter Certification	SACS	3341	All	8182
IDEA: LCI Growth	SACS	3355	All	8590
IDEA: Low Incidence Entitlement	SACS	3360	All	8590
Improving Special Ed Systems	SACS	3372	All	8182
IDEA: Early Intervention Grants	SACS	3385	All	8182, 8590
IDEA: Quality Assurance & Focused Monitoring	SACS	3386	All	8182
Alternative Dispute Resolution	SACS	3395	All	8182
Workability I	SACS	3405	All	8590

NOTE: All SACS variables use Funds 1, 9, and 62. See Lipscomb (2009b) for details.

Table B.2
Additional Spending, Special Education Revenue, and Local Support by SELPA, 2006–07

SELPA Name	County ID	SELPA ID	Additional Spending Per Pupil	Total Special Education Revenue per Pupil	Local Support per Pupil
California Statewide Average			1,201	746	455
Mt. Diablo USD	07	BA	1,830	826	1,004
Los Angeles USD	19	CJ	1,794	851	943
San Diego CUSD	37	BW	1,831	900	932
Newport-Mesa USD	30	BL	1,636	728	908
Santa Clara I	43	NN	1,557	672	885
North Orange (Orange COE)	30	MM	1,594	764	830
Tri-City (Culver City USD)	19	BX	1,489	780	709
Santa Clara II	43	QQ	1,417	710	707
North Region (Albany City Unified)	01	CR	1,419	729	691
San Mateo COE	41	CA	1,464	779	685
Sacramento CUSD	34	BS	1,425	771	654
West Contra Costa USD	07	AZ	1,538	886	652
West Orange (Huntington Beach UHSD)	30	BK	1,357	774	583
Yolo COE	57	BH	1,319	736	582
Santa Clara IV	43	NC	1,261	682	578
Capistrano USD	30	CO	1,251	677	574
North Santa Cruz (Santa Cruz COE	44	SC	1,394	824	570
Irvine USD	30	BP	1,305	743	563
Santa Clara VII	43	NF	1,276	717	559
Antelope Valley (Palmdale USD)	19	DA	1,205	651	554
Southwest (Los Angeles COE)	19	DG	1,278	744	534
Santa Clarita (Saugus Union ESD)	19	DF	1,204	672	532
Monterey COE	27	AS	1,202	671	532
Whittier Area (Whittier UHSD)	19	BY	1,272	750	523
Orange USD	30	BM	1,300	790	509
Solano COE	48	BT	1,208	704	504
Kern High SD	15	AF	1,120	617	503
Long Beach USD	19	DL	1,177	676	501
San Francisco COE/USD	38	WW	1,476	978	499
Foothill (Glendale USD)	19	DJ	1,193	697	496
Sacramento COE	34	BJ	1,209	717	492
Pasadena USD	19	DN	1,612	1,124	489
North Coastal (San Diego COE)	37	PP	1,182	697	485
Santa Ana USD	30	BN	1,171	695	476
East County (San Diego COE)	37	PC	1,291	822	470
Puente Hills (Rowland Unified)	19	DZ	1,204	744	460
Stanislaus COE	50	XX	1,131	674	457
Marin COE	21	AT	1,586	1,128	457
Anaheim CESD	30	MC	1,138	684	454
Ventura COE	56	AG	1,140	689	450
Poway CUSD	37	PW	1,103	660	443
West End (San Bernardino COE)	36	SS	1,098	668	429

SELPA Name	County ID	SELPA ID	Additional Spending Per Pupil	Total Special Education Revenue per Pupil	Local Support per Pupil
Corona-Norco USD	33	EN	1,060	640	419
Downey-Montebello (Los Angeles COE)	19	DM	1,078	673	405
Tustin USD	30	YY	1,081	683	398
Santa Barbara (Goleta ESD)	42	AR	1,126	730	396
Northeast Orange (Placentia-Yorba Linda USD)	30	BI	1,076	691	385
Mission Valley (Fremont USD)	01	CT	1,082	697	385
Greater Anaheim	30	MA	1,051	678	373
East San Gabriel (Los Angeles COE)	19	DX	1,091	723	368
Mono COE	26	CB	1,290	925	365
Contra Costa (Acalanes UHSD)	07	AY	1,114	750	364
San Bernardino CUSD	36	TA	1,061	705	355
Pajaro Valley USD	44	PV	1,185	835	351
Napa COE	28	CF	1,283	933	350
West San Gabriel (Los Angeles COE)	19	DY	1,062	715	347
Stockton CUSD	39	BR	1,076	733	343
San Juan USD	34	CN	1,190	858	332
Tri-Valley (Pleasanton USD)	01	CU	1,026	700	326
Mid-County (Castro Valley USD)	01	CS	1,022	696	325
Desert/Mountain (San Bernardino COE)	36	RR	988	664	324
Norwalk-La Mirada/ABC	19	DU	1,015	694	322
Riverside USD	33	CH	1,063	742	321
San Benito COE	35	SB	1,062	742	320
Garden Grove USD	30	BO	1,143	824	319
Sonoma COE	49	AV	1,169	851	317
Moreno Valley USD	33	MV	1,010	693	317
Plumas USD	32	AA	1,107	792	316
Mendocino COE	23	AQ	1,504	1,192	312
Butte COE	04	CE	1,059	751	308
Elk Grove USD	34	EG	1,002	703	300
South County (San Diego COE)	37	PA	1,059	760	299
San Luis Obispo COE	40	AJ	978	681	297
Amador COE	03	MD	1,116	820	297
Kern COE	15	AM	970	678	292
South Orange (Saddleback Valley USD)	30	MB	988	700	288
South East Consortium (Mt. Pleasant ESD)	43	ND	1,004	717	287
Placer COE	31	PL	963	681	281
Riverside COE	33	AN	951	676	275
Glenn COE	11	CI	1,163	891	273
Sierra Sands USD	15	SI	945	676	269
Lodi USD	39	DQ	980	715	265
Mid-Cities (Los Angeles COE)	19	DC	962	698	264
Bakersfield CESD	15	BB	969	707	262
Fresno USD	10	BQ	984	722	262
Fontana USD	36	FA	913	653	261
Sutter COE	51	BV	916	658	259
Modesto City Schools	50	ZZ	890	632	258
San Joaquin COE	39	BD	911	662	249

SELPA Name	County ID	SELPA ID	Additional Spending Per Pupil	Total Special Education Revenue per Pupil	Local Support per Pupil
Vallejo CUSD	48	CD	1,058	810	248
Calaveras COE	05	CV	1,108	862	246
Oakland USD	01	CL	1,076	841	235
Morongo USD	36	RA	1,009	778	231
Lake COE	17	CC	922	701	221
East Valley (San Bernardino COE)	36	TT	965	755	210
Yuba COE	58	BC	909	705	204
North Inland (San Diego COE)	37	PB	959	763	196
Shasta COE	45	AO	1,012	822	190
Lake Tahoe USD/Alpine	09	CP	1,056	870	187
Madera/Mariposa (Madera COE)	20	AB	864	685	180
Tuolumne COE	55	TU	935	774	161
El Dorado COE	09	BU	898	760	138
Inyo COE	14	BF	969	832	137
Fresno COE	10	BE	792	656	136
Nevada COE	29	NV	946	815	132
Merced COE	24	VV	888	767	121
Clovis USD	10	FB	805	685	120
Kings COE	16	AC	745	655	90
Tulare COE	54	CG	807	718	89
Modoc COE	25	CM	1,403	1,320	83
Humboldt/Del Norte (Humboldt COE)	12	UU	804	725	79
Imperial COE	13	BZ	728	649	79
Tehama COE	52	AE	812	740	71
Siskiyou COE	47	AU	955	902	53
Santa Clara III	43	NB	1,020	983	37
Colusa COE	06	AD	747	773	-27
Lassen COE	18	AL	972	1,040	-68
Trinity COE	53	AH	1,016	1,132	-116
Sierra COE	46	AW	930	1,188	-258

NOTE: Table excludes LA COE Courts SELPA because enrollment is zero in CBEDS.

Table B.3
Patterns of Spending Across California SELPAs, 2006–07

	Additional Spending per Pupil	Local Support for Additional Spending per Pupil	Additional Spending per Pupil	Spending on Disabled Children per Pupil	Spending on Nondisabled Children per Pupil
Free or Reduced-price Meals (%)	**-3.5**	**-3.5**	**-4.9**	*-3.2*	**25.7**
	(1.6)	(1.6)	(1.8)	(1.63)	(8.3)
Comparable Wage Index [0.74,1.15]	**684.0**	**684.0**	*518.4*	**740.1**	1535.6
	(328.1)	(328.1)	(290.8)	(242.8)	(1352.1)
English Learner (%)	*4.5*	*4.5*	**4.5**	*4.2*	5.3
	(2.5)	(2.5)	(2.2)	(2.5)	(12.4)
Town or Rural Area {0,1}	-33.0	-33.0	25.0	23.9	-7.8
	(50.3)	(50.3)	(47.0)	(42.8)	(249.2)
Hispanic (%)	-1.2	-1.2	1.5	-0.2	**-18.0**
	(2.0)	(2.0)	(1.8)	(1.9)	(7.2)
African American (%)	2.4	2.4	0.2	-1.7	-16.3
	(3.1)	(3.1)	(2.8)	(2.7)	(11.9)
Asian / Pacific Islander (%)	-0.4	-0.4	0.7	-0.4	**-10.9**
	(1.2)	(1.2)	(1.5)	(1.6)	(5.2)
Other Race (non-white) (%)	-2.4	-2.4	-2.0	1.7	*54.4*
	(5.6)	(5.6)	(6.1)	(6.3)	(28.3)
Total SELPA Enrollment (1,000s)	**0.7**	**0.7**	**0.7**	**0.7**	0.2
	(0.1)	(0.1)	(0.1)	(0.1)	(0.8)
Special Ed Revenue per Pupil ($)	**0.9**	-0.1	**0.8**	**1.1**	**3.3**
	(0.2)	(0.2)	(0.1)	(0.2)	(0.5)
Avg. Revenue Limit per Pupil ($1,000s)	22.9	22.9	38.9	101.9	**526.6**
	(36.5)	(36.5)	(44.2)	(61.6)	(238.0)
Single District SELPA {0,1}	**84.2**	**84.2**	**65.6**	25.8	**-335.5**
	(33.4)	(33.4)	(32.3)	(35.7)	(99.0)
Severe Disability Rate (%)			**173.3**	**187.2**	**-765.5**
			(52.5)	(55.8)	(141.1)
Non-Severe Disability Rate (%)			10.5	**78.5**	*-70.0*
			(14.6)	(14.4)	(40.2)
Constant	-276.1	-276.1	**-636.6**	**-1294.7**	**1801.9**
	(277.0)	(277.0)	(264.2)	(239.3)	(1436.5)
R-Squared	0.48	0.43	0.54	0.65	0.64

NOTE: Bold indicates statistical significance at the 5 percent level. Italics indicate statistical significance at the 10 percent level. Robust standard errors are clustered by metropolitan statistical area or rural region code in parentheses. The denominator of each outcome variable includes both disabled and nondisabled students. The sample includes 119 California SELPAs.

Appendix C. Technical Description of the Simulated Allocation Model

This section provides a technical description of the allocation method simulated in the final section of the report. The model involves an equal base rate and funding adjustments for enrollment in free or reduced-price meals and regional non-teacher wage levels. Like IDEA allocations, a 0.85 weight is given to the population portion of the apportionment while a 0.15 weight is given to the adjustment for low-income students. The state legislature could use different weights based on its preferences. Applying the regional wage adjustment is the final step. Suppose that F_i represents funding for SELPA i. F_i equals:

$$F_i = [(85\% * Funds\ from\ All\ Pupils_i) + (15\% * Adj.for\ Low\ Inc.Pupils_i)\ ] * [Reg.Wage\ Adj._i\ ]$$

This formula takes the specific form

$$F_i = [(0.85 * BR * Enroll_i) + (0.15 * BR * FRPM_i * Enroll_i)\ ] * [0.2 + 0.8 * CWI_i],$$

where *BR* is an equal base rate for all students, *Enroll* is total SELPA enrollment, *FRPM* is the fraction of enrollment in free or reduced-price meals, and *CWI* is the comparable wage index. The regional wage adjustment differs slightly from the CWI because employee compensation only accounts for about 80 percent of spending. Prices for the other 20 percent (e.g. books, supplies, etc) are assumed not to vary across the state. The statewide average value of the CWI is 1, with values ranging from 0.74 to 1.14.

The value of the base rate will depend on how much special education funding policymakers consolidate into the simulated allocation formula from existing sources.[5] In principle, California could include most special education funds. The report considers the following examples:

- **AB 602 Base Entitlement Funds.** The base entitlement included $3.8 billion in federal, state, and local funding in 2006–07. It represented 81 percent of total special education funding. Base entitlement funds are on the vertical axis of Figure 2's second chart.

- **All AB 602 Revenue.** AB 602 grants included $4.2 billion in federal, state, and local funding in 2006–07. It represented 89 percent of total special education funding. AB 602 funds are on the vertical axis of Figure 2's first chart.

The following equation describes *F*, total funding available for distribution across California's 120 SELPAs.

$$F = \sum_{i=1}^{120} F_i = \sum_{i=1}^{120} \{[(0.85 * BR * Enroll_i) + (0.15 * BR * FRPM_i * Enroll_i)] * [0.2 + 0.8 * CWI_i]\}$$

[5] See Lipscomb (2009b) for a description of each funding source.

The equation for F solves for the base rate, BR:

$$BR = \frac{F}{\sum_{i=1}^{120}\{Enroll_i * [0.85 + 0.15 * FRPM_i] * [0.2 + 0.8 * CWI_i]\}}$$

Using enrollment, free and reduced-price meals usage, and regional non-teacher wages in 2006–07, the base rate is either $673 or $740 depending on which definition of F is used.

Table 4 divides SELPAs into equally sized groups based on their enrollment rate in free or reduced-price lunch and their CWI to show how revenue per student varies under the simulated allocation model and the current model. The example includes base entitlement funds only. Table C.1 performs the same analysis using all AB 602 funds.

Table C.1
AB 602 Funding per Student under Simulated and Current Models, 2006–07

A. Statewide Average, Low, and High Values

	Average	Std. Dev.	Lowest	Highest
Simulated Allocation	666	38	541	761
Current AB 602 Allocation	666	69	587	1,188

B. Model Comparison

			Comparable Wage Index					
			Simulated Allocation			Current Allocation		
			Low	Medium	High	Low	Medium	High
			.74–.92	.93–.98	.99–1.15	.74–.92	.93–.98	.99–1.15
Percent Free or Reduced Price Meals	Low	0–38	587	639	682	730	649	678
	Medium	39–56	597	656	711	681	646	669
	High	57–100	616	680	726	721	674	724

NOTE: Summary statistics are weighted by total SELPA enrollment. The low, medium, and high categories in the model comparison each include about one-third of SELPAs.

Funding per student under the simulated model is higher for SELPAs with large proportions of low-income students and high regional wage regions. Funding per student is smaller for SELPAs with opposite characteristics. The current allocation shares somewhat similar patterns although they are less clear, especially the relatively high average funding level for SELPAs in the low/low cell. The simulation keeps the overall level of funding unchanged from the actual level in 2006–07. The standard deviation of per student funding in panel A indicates that there is less variation in funding under the simulation.

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