

CONNECTICUT
SCHOOL FINANCE
PROJECT

SPECIAL EDUCATION PREDICTABLE COST COOPERATIVE

PRESENTATION TO THE
ACTUARIAL CLUB OF
HARFORD AND SPRINGFIELD

UPDATED: MAY 14, 2018

Our Partners in Developing this Policy Solution

UConn

GOLDENSON CENTER FOR
ACTUARIAL RESEARCH

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- UConn professor
- Director of Goldenson Center for Actuarial Research
- Over 25 years of experience in life insurance industry
- Senior appointments at leading insurance and consulting groups
- Chartered financial analyst

UConn

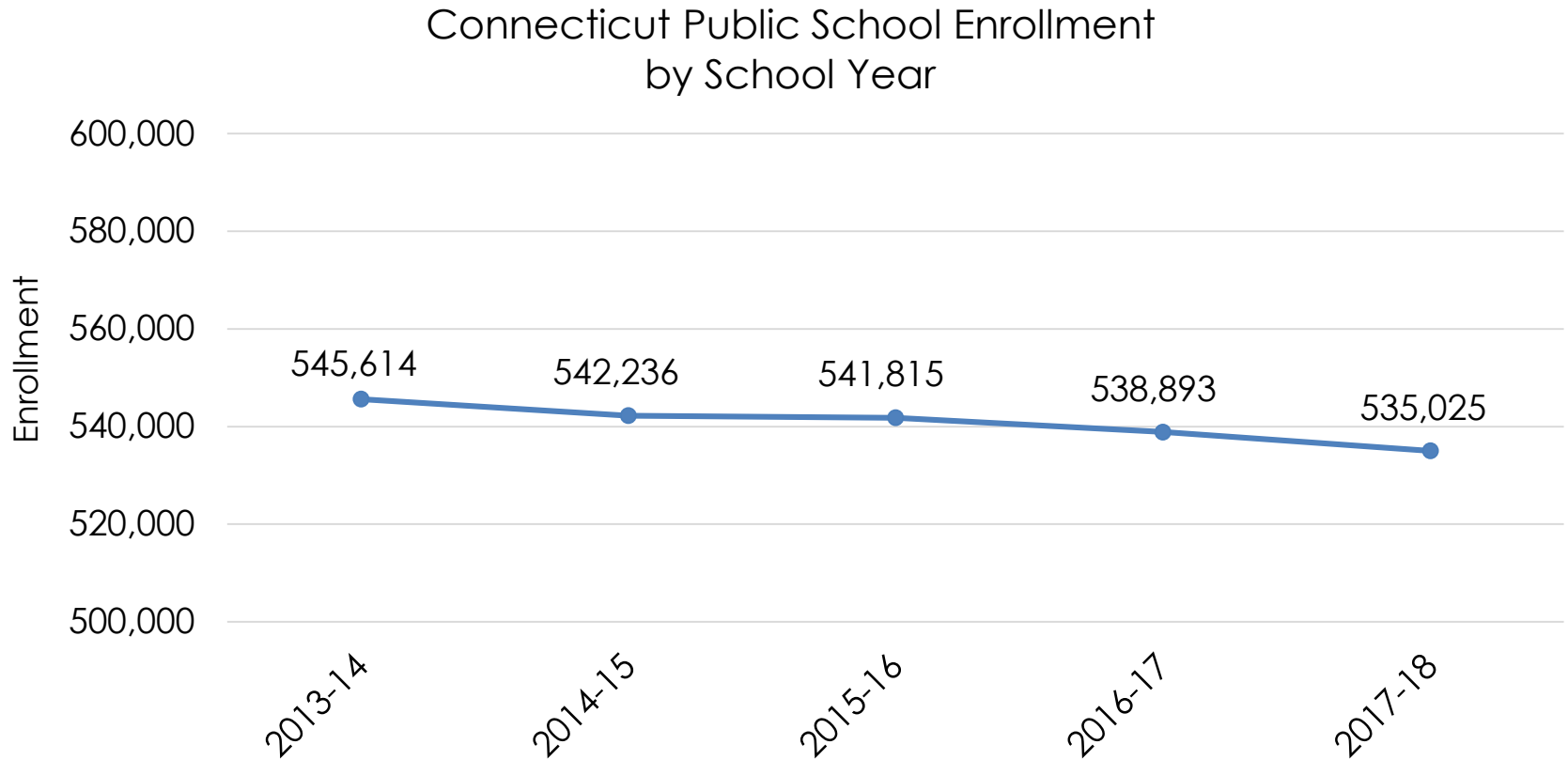
NEAG SCHOOL OF EDUCATION

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- Assistant Professor of Special Education, University of Hartford
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- Former special education teacher in Connecticut

OVERVIEW OF SPECIAL EDUCATION SPENDING IN CONNECTICUT

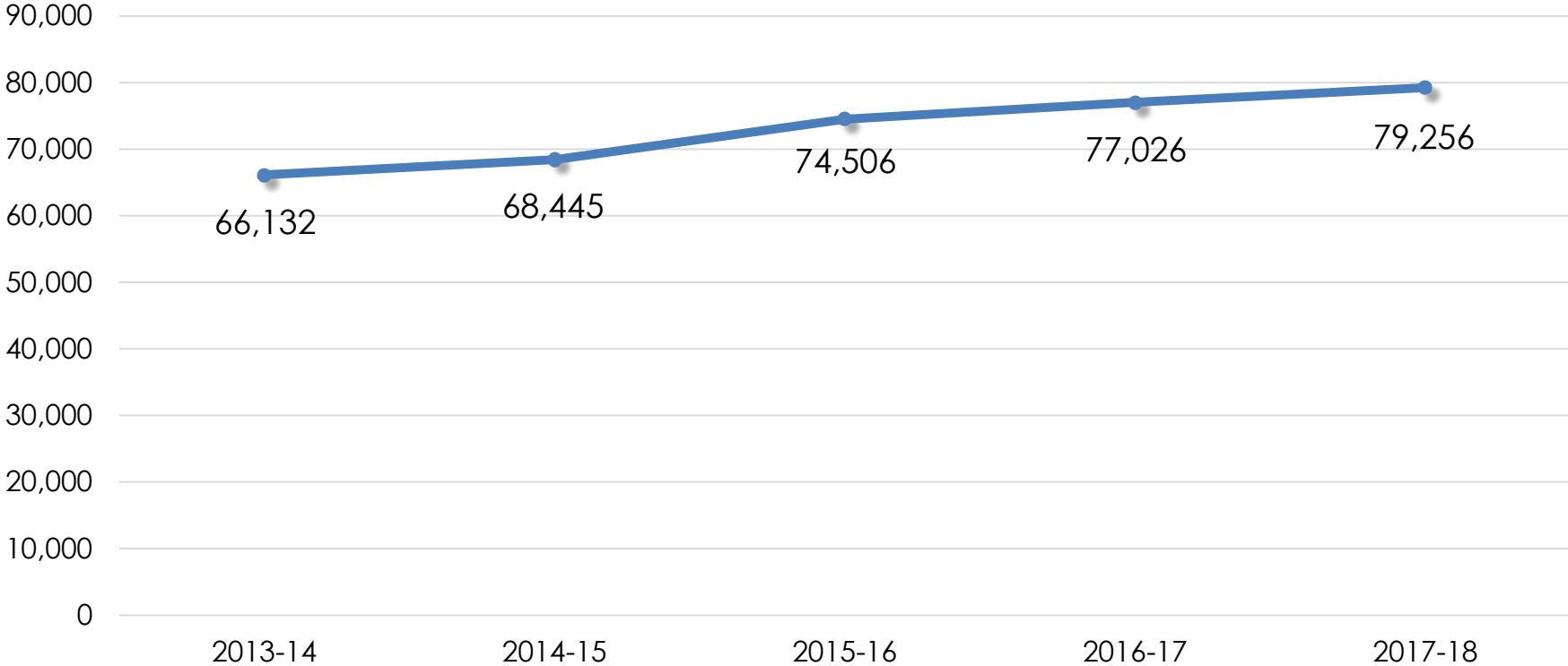
Over the last 5 years, the total number of students in Connecticut public schools has declined



Source: Connecticut State Department of Education. (2018). *Public School Enrollment, 2017-18*. Available from <http://ctschooffinance.org/data/connecticut-school-enrollment>.

Over the last 5 years, the total number of special education students in Connecticut public schools has increased more than 19.8%

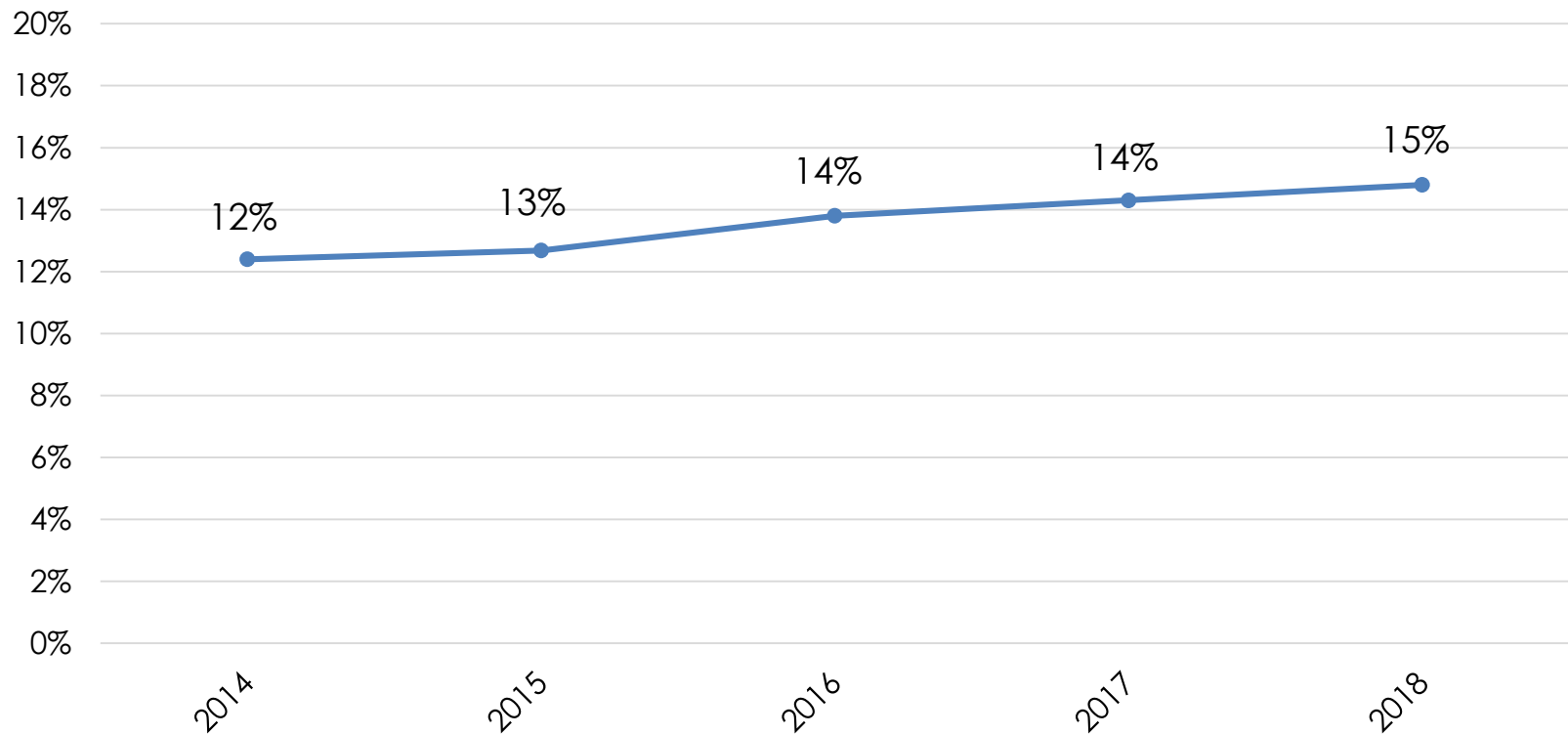
Connecticut Special Education Enrollment by School Year



Source: Connecticut State Department of Education. (2018). *Public School Enrollment, 2017-18*. Available from <http://ctschoolfinance.org/data/connecticut-school-enrollment>.

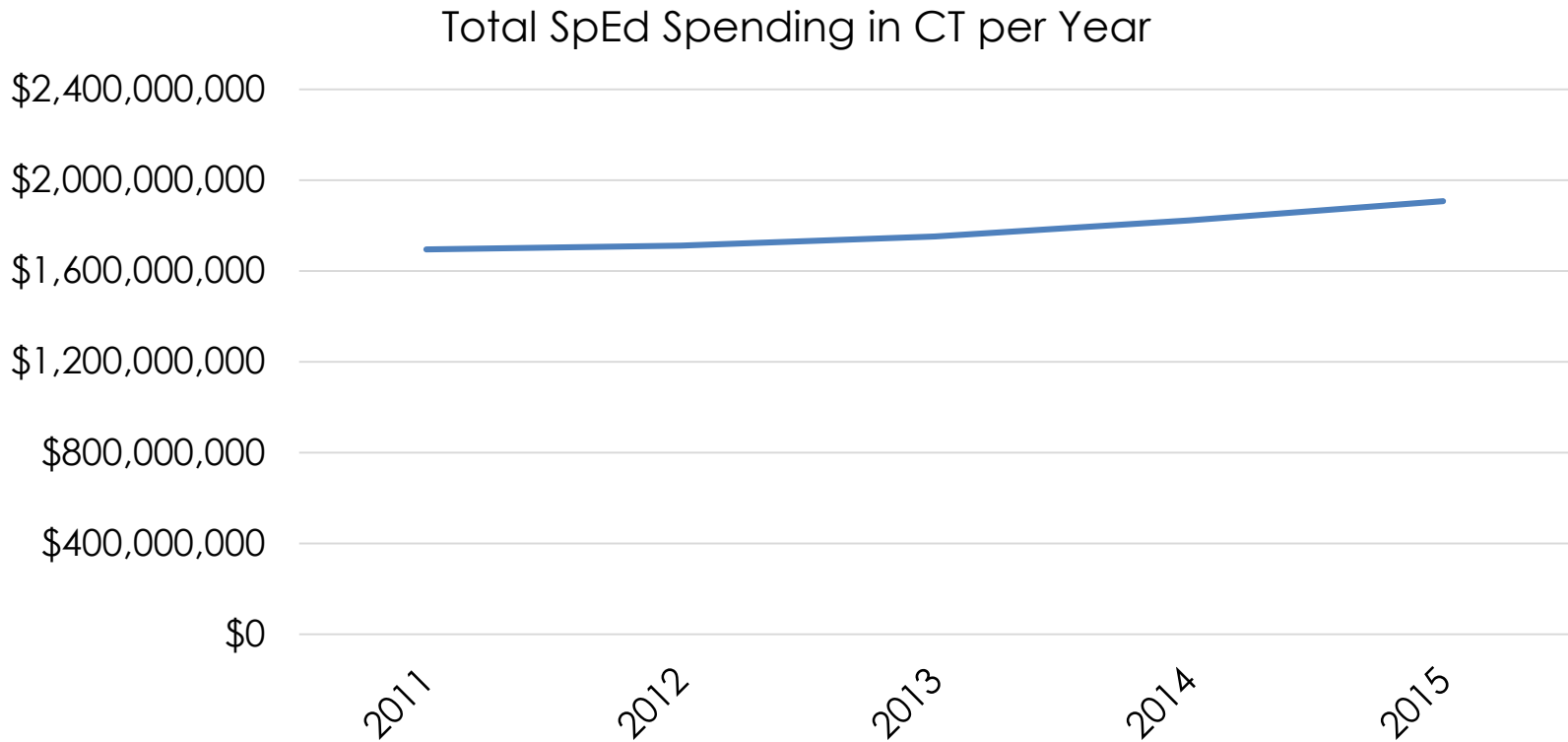
Which translates to a three percentage point increase in the special education identification rate over the past 5 years

Special Education Percentage of CT Public Enrollment



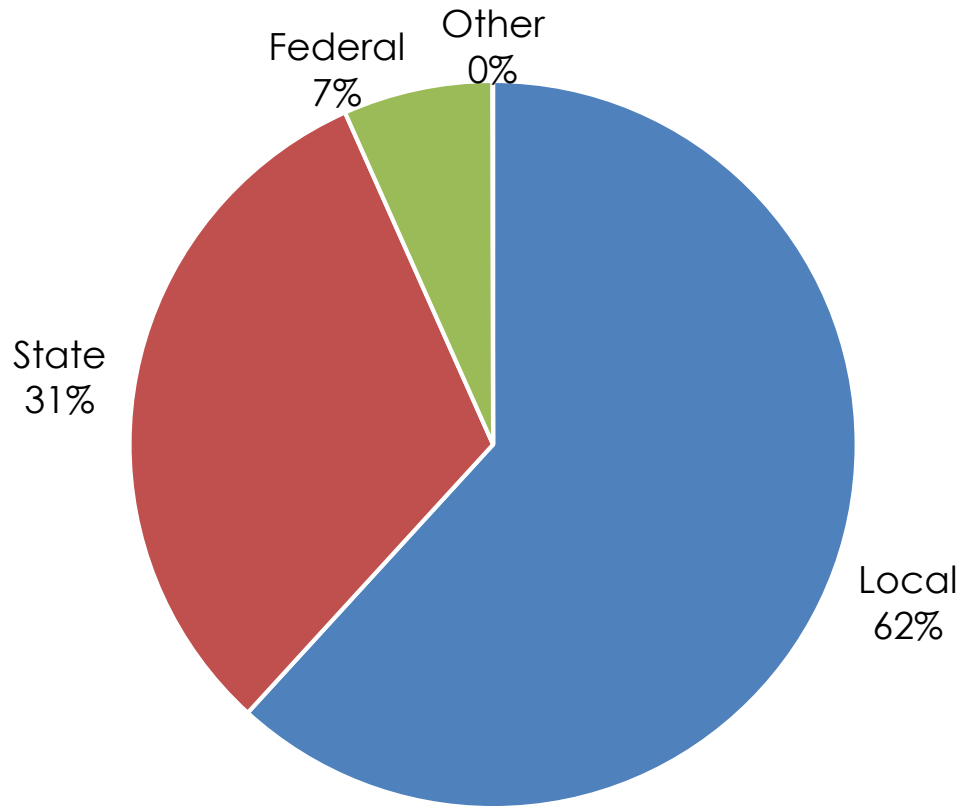
Source: Connecticut State Department of Education. (2018). *Public School Enrollment, 2017-18*. Available from <http://ctschooffinance.org/data/connecticut-school-enrollment>.

At the state level, special education spending has been predictable over the past 5 years



Source: Connecticut State Department of Education. (2016). *LEA Special Education Expenditures*. Available from <http://ctschoolfinance.org/data/lea-special-education-expenditures>.

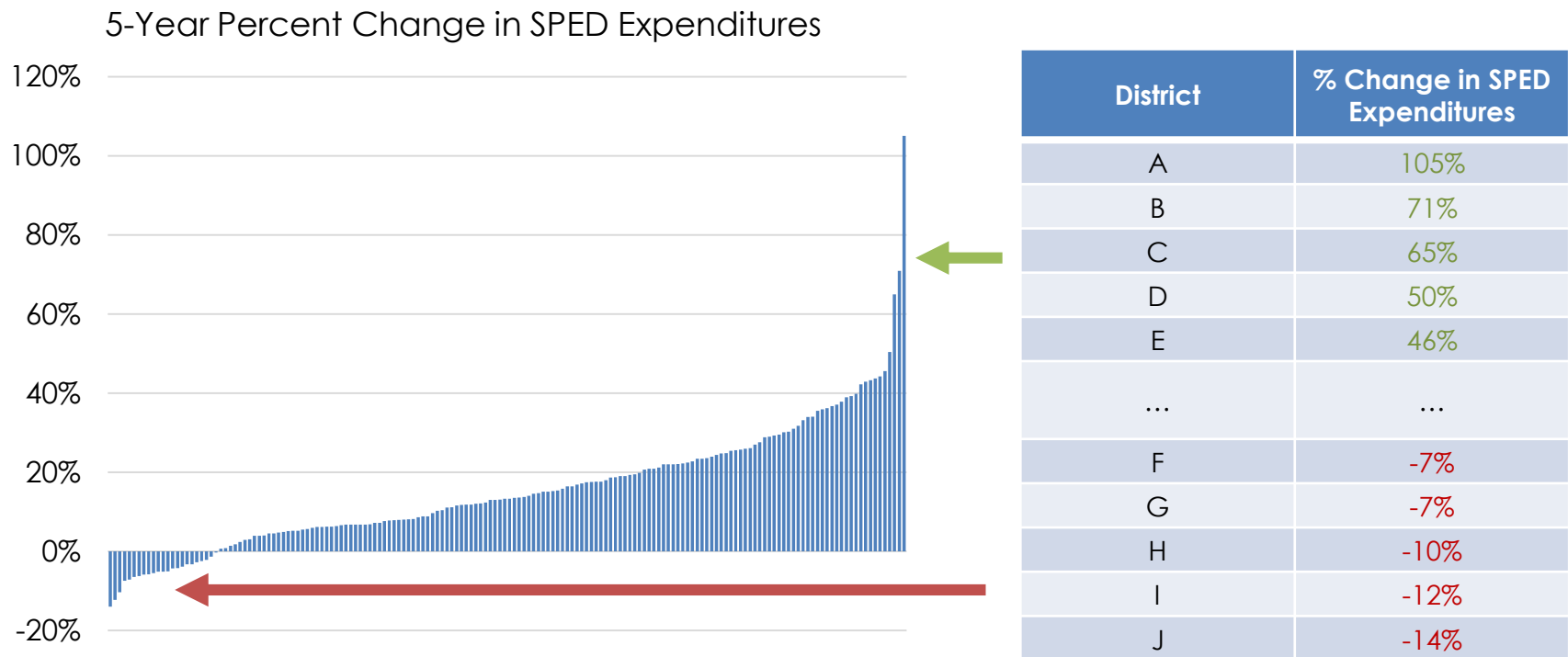
Connecticut special education spending by source



Source: Connecticut State Department of Education. (2016). *LEA Special Education Expenditures*. Available from <http://ctschoolfinance.org/data/lea-special-education-expenditures>.

Spending Across Districts

CT public school districts have experienced wide changes in special education spending over the past 5 years

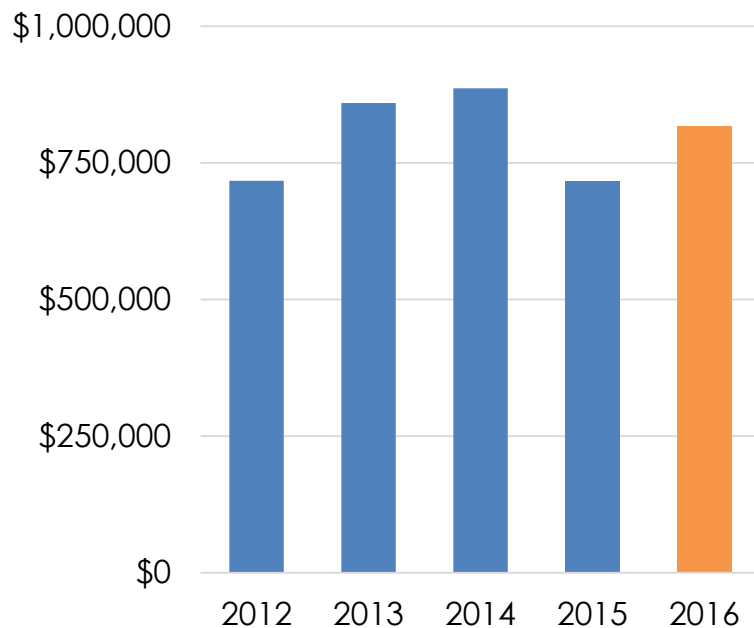


Those districts with the largest variances are among the smallest in the state.

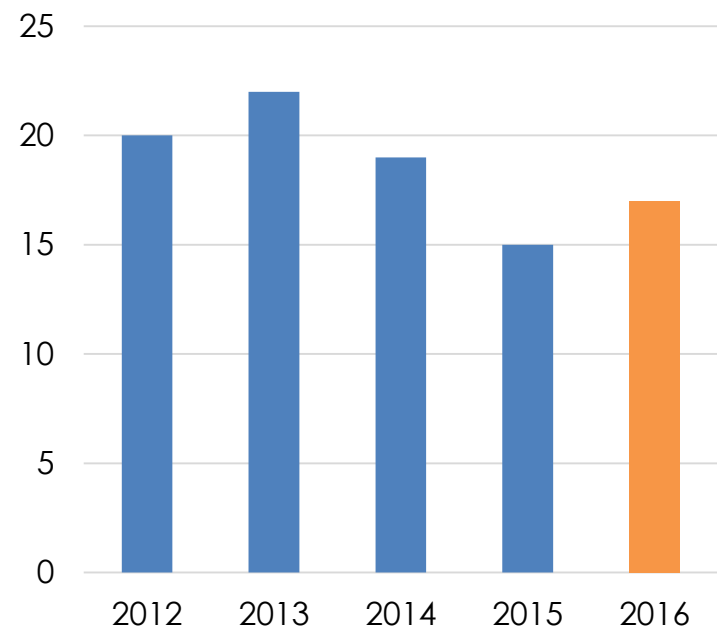
Source: Connecticut State Department of Education. (2017). *Connecticut End of Year School Reports (ED001s) for Local Public School Districts, 2009-16*. Available from <http://ctschoolfinance.org/data/ed001s-local-districts>.

CT public school districts have experienced wide changes in special education spending over the past 5 years

District B Special Education Spending per Year



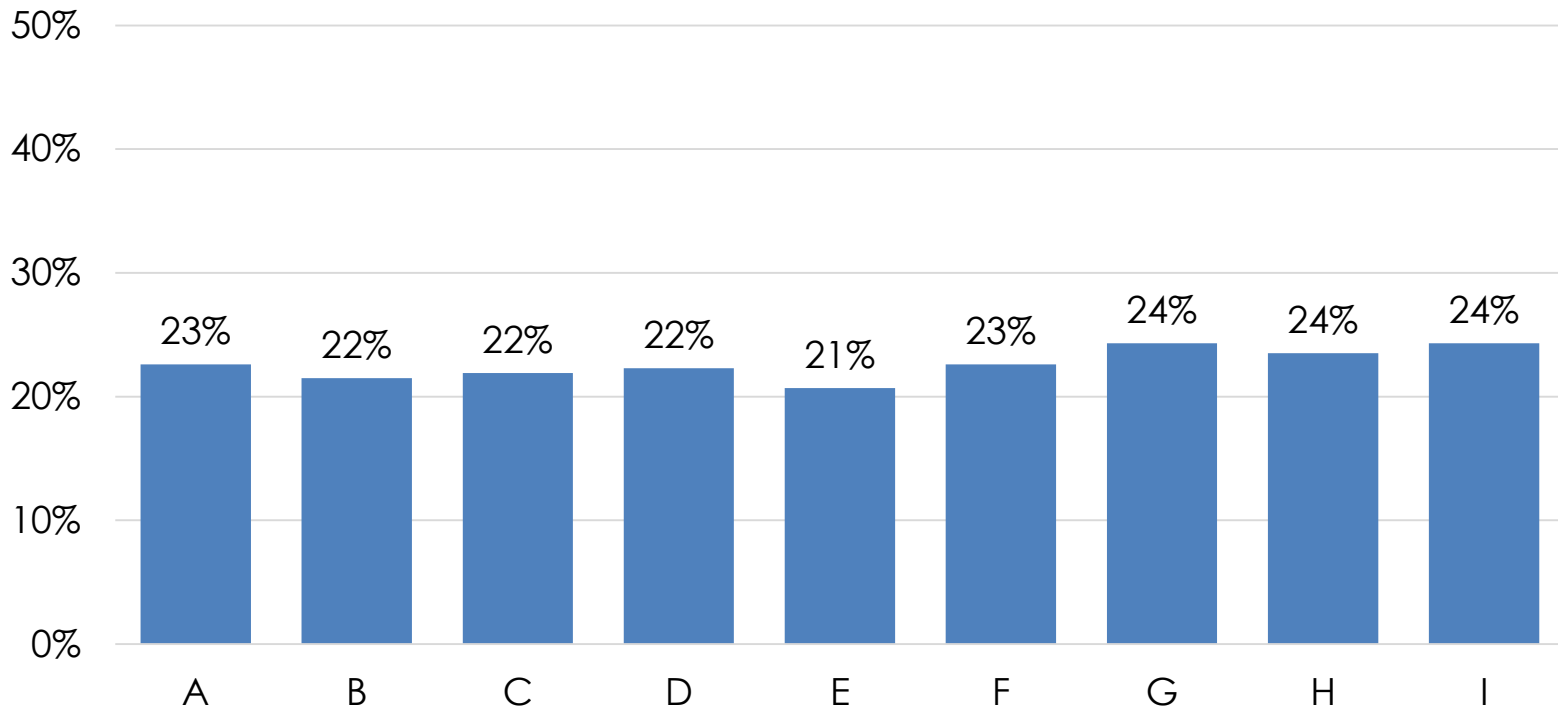
District B Special Education Enrollment per Year



Sources: Connecticut State Department of Education. (2017). *Connecticut End of Year School Reports (ED001s) for Local Public School Districts, 2009-16*. Available from <http://ctschoolfinance.org/data/ed001s-local-districts>.
Connecticut State Department of Education. (2016). *CT Public School Enrollment_2000.mdb*. Available from <http://ctschoolfinance.org/data/connecticut-school-enrollment-15-16>.

Regardless of wealth, districts spend about the same percentage of their total expenditures on special education

Average SPED % of Total Expenditure by DRG in 2016

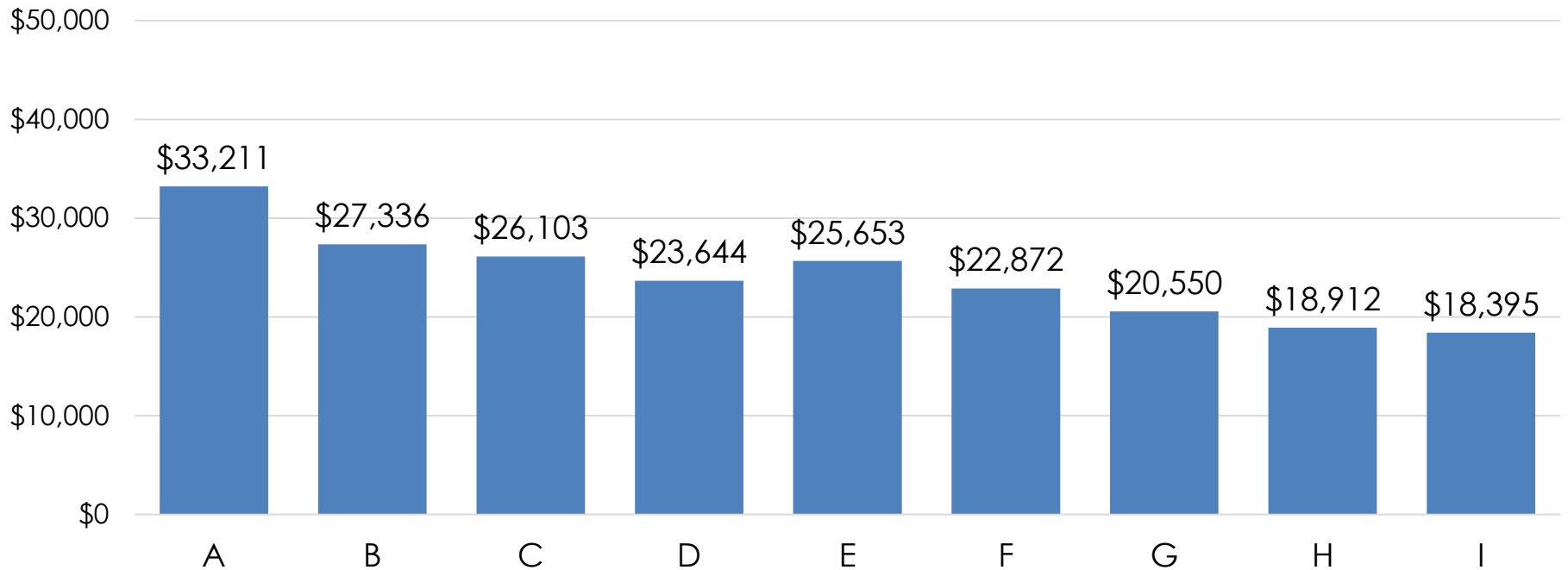


Sources: Connecticut State Department of Education. (2017). *Connecticut End of Year School Reports (ED001s) for Local Public School Districts, 2009-16*. Available from <http://ctschoolfinance.org/data/ed001s-local-districts>.

Connecticut State Department of Education. (2006). *Research Bulletin: District Reference Groups, 2006*. Retrieved from http://www.sde.ct.gov/sde/lib/sde/PDF/EvalResearch/DRG_2006.pdf.

However, on average, wealthier districts spend significantly more per pupil on special education

Average SpEd Spending Per Pupil by DRG in 2016



Note: As pupil count is measured by district enrollment, special education expenditures exclude special education tuition.

Sources: Connecticut State Department of Education. (2017). *Connecticut End of Year School Reports (ED001s) for Local Public School Districts, 2009-16*. Available from <http://ctschoolfinance.org/data/ed001s-local-districts>.
Connecticut State Department of Education. (2016). *CT Public School Enrollment_2000.mdb*. Available from <http://ctschoolfinance.org/data/connecticut-school-enrollment-15-16>.
Connecticut State Department of Education. (2006). *Research Bulletin: District Reference Groups, 2006*. Retrieved from http://www.sde.ct.gov/sde/lib/sde/PDF/EvalResearch/DRG_2006.pdf.

SPECIAL EDUCATION
PREDICTABLE COST
COOPERATIVE
(THE CO-OP)

What are the key challenges?

- **CT's current special education funding system isn't working for districts:** At the district level, special education costs are unpredictable, wreaking havoc on local budgets.
- **CT is out of step with other states:** CT is 1 of only 4 states with NO system for funding all special education students.
- **CT may not meet IDEA's state MOS requirement:** As a result of state budget cuts, it appears CT may not meet its MOS requirement, which could result in a reduction in IDEA funding if a waiver from U.S. DOE is not obtained.
- **No additional state funding is available:** The state does not have additional financial resources available to solve these problems.

What key goals does this policy achieve?

- **Protects Students** by ensuring adequate special education resources remain available during financially uncertain times, while keeping decisions about, and delivery of, special education services local.
- **Improves Predictability** for districts and towns by allowing districts to know what their special education expenses will be in the prior year, allowing for better budget planning.
- **Increases Equity** by ensuring towns with more need receive more state support for special education costs.
- **Increases Transparency and Helps Ensure State IDEA Compliance** by making state support for special education more transparent and helps to ensure the state can meet its maintenance of support requirement under IDEA.

Important things to know about Community Contributions

- All communities will receive some state support for special education services.
- All communities' contributions will be lower than their actual per pupil special education costs.
- To ensure fairness, Community Contributions will reflect each LEA's actual special education costs, so that each LEA's Community Contribution is reflective of its own decision-making.

The Actuary's Perspective: A Theoretical Framework of the Actuarial Model

Theoretical Framework

- Uses a mutual insurance company model that is self-supporting and sustainable based on state and community contributions
- Community contributions are collected at the beginning of the fiscal year
- 100 percent of districts' special education costs are covered by state and community contributions
- Contributions are experience adjusted based on actual special education expenditures relative to an average or benchmark of statewide special education expenditures in the prior year

Theoretical Framework cont.

- Differentiates funding based on students' learning needs
- Distributes state funding for special education equitably
- Provide school districts with state funding that is consistent, and makes local expenses predictable
- Does not incentivize overidentification of special education students, or overspending on special education services without putting limits on spending or identification
- Provides school districts with flexibility and encourages innovation
- Limits the financial responsibility of districts for student with extraordinary learning needs

How is the Community Contribution calculated?

Community Contribution Calculation

1. Community Contribution Calculation Steps

1. Margin Adjusted Community Contribution
2. Experience Adjustment
3. LEA / Municipality Conversion
4. Equity Adjustment
5. Contribution Refund

2. Additional System Components

1. Smoothing Factor
2. Reserve System

Modeled Calculation

$$\text{Billed Community Contribution} = \left[(\text{MACC} + \text{Exp. Adjustment}) - \left(\frac{\text{State Refund}}{\text{Equity Adjustment}} \right) \right] * \text{Equity Adjustment}$$

Community Contribution Calculation Steps

1.	Margin Adjusted Community Contribution	The starting point for all LEAs is the average cost per special education student from the prior year, adjusted to account for volatility.
2.	Experience Adjustment	The Contribution is increased or decreased to reflect each LEA's spending decisions. This keeps the system fair, by making each LEA responsible for its own choices and preventing a "tragedy of the commons" situation.
3.	Conversion from LEA to Municipality	The final community contribution is assessed at the municipal level. The total community contribution is the sum of the community contributions for all resident students per town, no matter the LEA those students attend.
4.	Equity Adjustment	The Community Contribution is adjusted for each municipality based on the need and wealth of the community. Higher need communities receive a larger discount.

Community Contribution Calculation Steps

5.	Contribution Refund	If more funding is collected than is needed to operate the system, it is refunded to LEAs. Contribution LEAs spending less than the state average will be eligible to receive a refund, which will be distributed proportionally. Refunds are credited directly to the next year's Community Contribution
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Additional System Components

1.	Smoothing Factor	In order to ensure districts with decreasing per-pupil special education costs do not experience an increase in their Community Contribution when the statewide costs increase, a percentage factor of the difference in change is applied to the per-pupil contribution. This decreases the variability from year to year.
2.	Reserve System	A reserve system ensures appropriate funds are available in years where actual special education costs exceed projected special education costs. The reserve system is capped at a certain percent of total special education expenditures, and funds that exceed this cap are added to the contribution refund.

IMPLEMENTATION: AN ITERATIVE PROCESS

Socializing the Policy: Considerations

- High-quality service delivery to special education students
- State and federal education statutes and regulations
- The needs of multiple stakeholder groups
- The political landscape of state and local governments

Current Status of Implementation

- Statutory language was passed in P.A. 17-2 (June Special Session) which authorized a task force to perform a feasibility study on the Co-op model, and possible formation of a captive insurance company
- Task force has been formed and is currently meeting
- Considerations of the task force:
 - Other special education funding models
 - State contracting process
 - Stakeholder engagement

Benefits of Using Captive Insurance Company for Co-op Governance

- Shared governance between the state, towns, and districts
- Increased local control
- Ability to change policies and actuarial calculations without the need of amending statutes
- Removes special education funding from state government, preventing “sweeps” in uncertain financial times
- Ability to purchase stop-loss insurance on the reinsurance market

Potential Benefits of Using Captive Insurance Company for Co-op Governance

- Increased access to data to support regional special education programs
- Increased transparency related to special education costs
- Potential to earn revenue through investment, thereby reducing special education costs for districts
- Ability to insure for related services, like those required under 504 plans
- Ability to offer related insurance products, such as legal liability insurance

Questions?

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Appendix

Community Contribution Calculation: Additional Detail

$$\text{Billed Community Contribution} = \left[(\text{MACC} + \text{Exp. Adjustment}) - \left(\frac{\text{State Refund}}{\text{Equity Adjustment}} \right) \right] * \text{Equity Adjustment}$$

$$\text{MACC} = \text{IBCC} + \text{Contribution Margin}$$

$$\text{Exp. Adjustment} = \max(-4000, \text{Basic Actual Cost} - \text{Adjusted Basic Benchmark} + \text{Excess Actual Cost} - \text{Excess Benchmark})$$

$$\text{Basic Benchmark} = \frac{\text{Total Basic Expenditure}}{\text{Total Students}}$$

$$\text{Excess Benchmark} = \frac{\text{Total Excess Expenditure}}{\text{Total Students}}$$

$$\text{State Refund} = \frac{\frac{\text{District Experience Gain}}{\text{Total Students}} * \text{Total Refund Available}}{\text{District Students}}$$

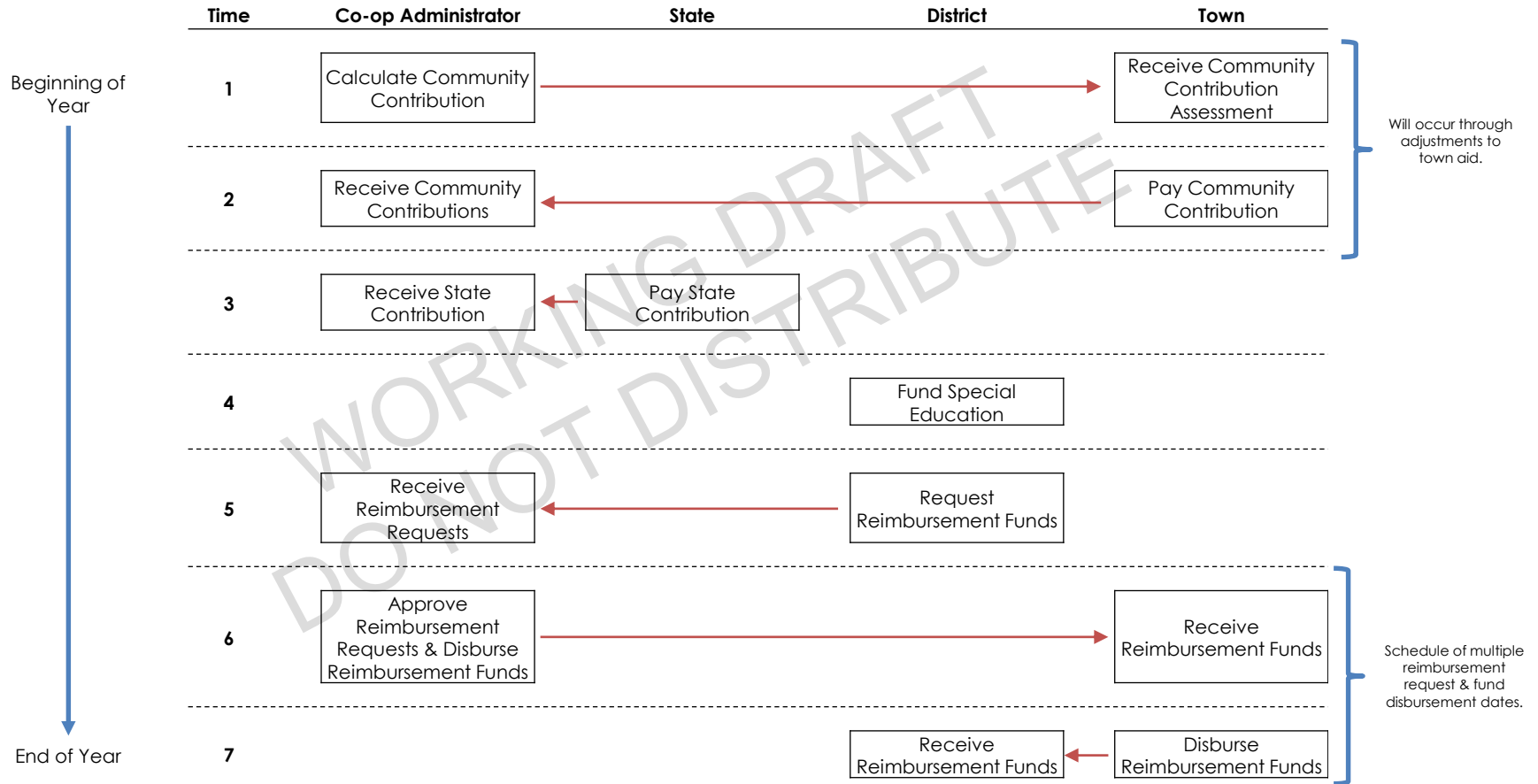
$$\text{Equity Adjustment} = 1 - (\text{PIC Index} * e^{-7.4})$$

Longitudinal Implementation: District A

Connecticut Special Education Predictable Cost Cooperative Funding Model ESTIMATE ONLY							
District A	2013			2014		2015	
	Actual Federal Contribution ¹	\$	2,305,774	\$	1,948,047	\$	2,045,840
State Contribution (<i>Model Estimate</i>) ²	\$	12,393,835	\$	10,164,871	\$	9,293,465	
Total Community Contribution (<i>Model Estimate</i>)	\$	6,032,653	\$	8,801,459	\$	10,875,866	
Total Actual Special Education Expenditure ³	\$	20,732,262	\$	20,914,377	\$	22,215,171	
Actual Statewide Special Education Spending per Pupil ⁴	\$	25,968	\$	26,742	\$	27,082	
Actual District Special Education Spending per Pupil ⁵	\$	16,462	\$	16,921	\$	16,965	
Current Year Community Contribution per Pupil (<i>Model Estimate</i>)	\$	5,524	\$	8,082	\$	9,728	
Town Equity Adjustment (<i>Model Calculation</i>) ⁶		55%		55%		55%	
Contribution Less Than Spending?		Good		Good		Good	
Next Year's Calculated Community Contribution per Pupil (<i>Model Estimate</i>)	\$	8,082	\$	9,728	\$	9,923	
Actual Special Education Student Count ⁷		1,089		1,118		1,107	
Next Year's Total Calculated Community Contribution (<i>Model Estimate</i>)	\$	8,801,459	\$	10,875,866	\$	10,984,632	

- The state reimburses District A for the entire cost of educating special education students.
- The state subsidy per district is the total cost of special education less the billed community contribution.
- The billed community contribution is a function of previous year spending.

Sample Implementation: Points of contact between participating entities



For more information on the calculation of the community contribution, see Appendix.

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