SCHOOL + STATE FINANCE PROJECT

Distributing Non-Education State Aid to Municipalities through a Needs-Capacity Formula

Policy Briefing - Updated February 26, 2021

Executive Summary

The State of Connecticut contains 169 towns with a wide range of wealth and resident need. Currently, the State of Connecticut provides financial aid to towns through a variety of statutory and non-statutory grant programs. The current structure for non-education town aid does not sufficiently address the underlying municipal fiscal disparities that are caused by the unequal costs of delivering services and the low revenue raising capacity of towns in Connecticut.

Using a needs-capacity formula to distribute funds to Connecticut's towns is one method of addressing fiscal disparities and creating a more equitable distribution of non-education state aid. A needs-capacity formula allocates funding to municipalities based on their projected costs of providing a common level of government service, and their capacity to raise revenue through local property taxes. The purpose of this policy briefing is to introduce and examine how Connecticut can address municipal fiscal disparities by using a needs-capacity formula to distribute non-education town aid.

Introduction

Connecticut municipalities currently receive funding from the State of Connecticut through a variety of non-education municipal aid grants.[A] In fiscal year 2019, total expenditures on statutory non-education grants equaled approximately $485 million.[1] These non-education municipal aid grants do not effectively take into account the revenue raising capacity of the municipalities or the differing costs they face.[2] Under the current municipal aid system, towns with differing levels of need often receive similar amounts of funding from the State, which does not effectively address the underlying fiscal disparities faced by some municipalities.[3] The inequitable distribution of municipal aid in Connecticut could be rectified with the implementation of a needs-capacity formula that considers a municipality's capacity to raise revenue through property taxes and its costs of delivering services.

In 2015, the Federal Reserve Bank of Boston's New England Public Policy Center produced a report titled, *Measuring Municipal Fiscal Disparities in Connecticut*, at the request of the Connecticut General Assembly's Municipal Opportunities and Regional Efficiencies (MORE) Commission. The Federal Reserve Bank of Boston's report specifically analyzed non-education aid because Connecticut's Education Cost Sharing (ECS) formula for distributing education aid has been examined far more frequently than other forms of municipal aid.[4] In addition to public education, Connecticut municipalities provide a variety of services that include public safety,

[A] The non-education aid grants include: Grants for Municipal Projects, Local Capital Improvement, Mashantucket Pequot and Mohegan Fund Grant, Municipal Revenue Sharing, Municipal Stabilization Grant, Municipal Transition Grant, PILOT: Colleges and Hospitals, PILOT: State Owned Real Property, Adult Education, and Town Aid Road Fund Grant.

public works, human services, and general government. The report noted the costs of these services, and a municipality's capacity to fund them, are not frequently examined.[5]

The sample modeled needs-capacity formula in this policy briefing utilizes the research and underlying model from the Federal Reserve Bank of Boston's report to measure the needs of a municipality and the capacity of the municipality to fund those needs.

Connecticut's Current Town Aid Structure

Connecticut's current town aid structure distributes grants to municipalities through several programs. In FY 2021, the State of Connecticut spent approximately $504 million on a variety of non-education grants.[6] The payment-in-lieu-of-taxes (PILOT), Mashantucket Pequot and Mohegan Fund Grant, and Municipal Revenue Sharing Account were specifically targeted at property tax relief and represented approximately $253 million of non-education grants in FY 2021.[7] The non-education grants distributed to municipalities by the State of Connecticut acknowledge that many municipalities cannot raise as much revenue through property taxes as other municipalities. For example, the PILOT grants for state-owned property and private colleges and hospitals attempt to reimburse municipalities for the lost property tax revenue from these tax-exempt properties.[8] However, the formulas for these grants do not explicitly take a municipality's need into account when calculating the amount of funding they are eligible to receive.[9]

According to the Federal Reserve Bank of Boston, existing municipal aid programs do not substantially reduce fiscal disparities in Connecticut because they do not explicitly have an equalization goal.[10] Most of the present fiscal disparities experienced by Connecticut municipalities are due to stark differences between the revenue raising capacity of municipalities in Connecticut.[11] Table 1 below provides descriptions for the current statutory formula grants provided by the State to municipalities.

Table 1: Current Statutory Formula Grants Provided by the State to Municipalities[12]

Name of Statutory Formula Grant	Summary of Non-Education Statutory Formula Grant	FY 21 Grant Amount	Grant Source
PILOT: State Owned Real Property	The State Owned Real Property PILOT grant provides payments to municipalities for lost property tax revenue due to the presence of state-owned real property, certain real property that is involved in a state lease or long-term financing contract, municipally-owned airports, and certain lands held in trust by the federal government.	$54,932,763	General Fund

Name of Statutory Formula Grant	Summary of Non-Education Statutory Formula Grant	FY 21 Grant Amount	Grant Source
PILOT: Colleges and Hospitals	The Colleges and Hospitals PILOT grant provides payments to municipalities for lost property tax revenue due to exemptions for eligible private colleges as well as general and free-standing chronic disease hospitals.	$109,889,434	General Fund
Mashantucket Pequot and Mohegan Fund Grant	This grant program distributes funds from the Mashantucket Pequot and Mohegan Fund to municipalities through a formula that considers the amount of money municipalities received through the PILOT programs and various other property tax relief efforts.	$51,472,789	General Fund
Town Aid Road Fund Grant	The Town Aid Road Fund distributes funding to municipalities and boroughs for various projects, including the construction and maintenance of public highways, roads, and bridges.	$59,776,376	Bond Funding
Local Capital Improvement Program	Municipalities and boroughs can request reimbursement for local capital improvement projects through this grant program.	$29,975,578	Bond Funding
Grants for Municipal Projects	This program provides grants to municipalities for the construction and maintenance of public highways, roads, and bridges.	$75,151,139	Bond Funding
Adult Education	This grant program reimburses municipalities for expenditures related to adult education, and the formula provides a higher reimbursement rate to school districts with the highest percentages of poor and remedial students.	$18,990,622	General Fund
Municipal Revenue Sharing	This fund distributes grants to municipalities to supplement the grants they receive under other municipal aid programs.	$36,819,135	General Fund
Municipal Stabilization Grant	This program insulates distressed municipalities and Alliance Districts from reductions made to other municipal aid programs.	$38,253,333	General Fund
Motor Vehicle Tax Reimbursement	This program provides property tax relief by allocating grants to municipalities with motor vehicle mill rates above 39 in FY 18 and 45 in FY 19.	$28,915,808	General Fund
Total	**Total Non-Education Aid**	**$504,176,977**	**N/A**

What is a Needs-Capacity Formula and How Can One be Used in Connecticut?

The goal of a needs-capacity formula is to address fiscal disparities between municipalities. A needs-capacity formula achieves this goal by considering a municipality's costs of delivering services and its capacity to raise revenue to pay for those services. High levels of fiscal disparity between municipalities raise two primary concerns. First, it is not equitable for two otherwise-identical households to pay different amounts in taxes to receive the same level of service, simply because the households are located in different municipalities.[13] Second, fiscal disparities place some municipalities at a disadvantage in terms of economic competition because high taxes and a low quantity of public services makes the municipality less appealing to potential residents and businesses.[14]

A needs-capacity formula addresses this goal by distributing aid based on need, calculated as municipal cost in the formula. Reducing fiscal disparities between municipalities will allow fiscally distressed municipalities to provide higher-quality services to the citizens and businesses that rely on them or reduce their mill rates, in recognition of their limited capacity to raise own-source revenue.

The definitions listed in Table 2 below describe the key components of a needs-capacity formula:

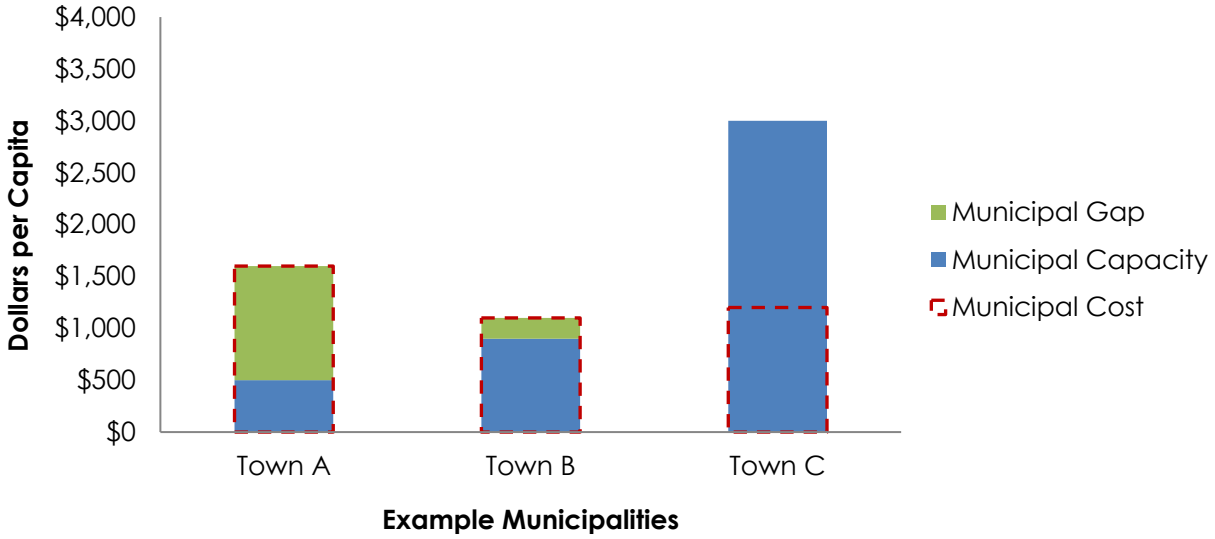
Table 2: Key Components of a Needs-Capacity Formula[15]

Formula Component	Definition
Municipal Cost	Municipal cost refers to the amount each municipality must spend in order to provide a common quantity and quality of government services given the underlying socioeconomic and physical characteristics of the municipality. It does not reflect actual spending, which is a combination of both the prior factors and the decisions of local governments.
Municipal Capacity	Municipal capacity refers to a municipality's revenue raising ability through its own resources. This measure reflects resources that governments are authorized to tax and not actual revenues raised as municipalities can choose to tax at different rates.
Municipal Gap	The municipal gap is the difference between the municipal capacity and municipal cost. A positive gap indicates a municipality lacks the revenue raising capacity to provide a common level of government service. A larger positive gap indicates a worse fiscal condition. A negative gap indicates a municipality has more than enough revenue raising capacity to fund a common level of government service.

Figure 1 below illustrates the interaction between municipal cost, capacity, and gap through three different hypothetical municipalities. Town A has a higher municipal cost than it has municipal capacity, which means it has a municipal gap (shaded in green). Town B has a smaller municipal gap than Town A because it has a lower municipal cost (outlined in red) coupled with a higher municipal capacity. Town C at the right side of the graph does not have a municipal gap because its municipal capacity exceeds its municipal cost.

Figure 1[16]

Illustration of Hypothetical Municipal Cost, Capacity, and Gap



A needs-capacity formula provides resources to municipalities based on their costs to deliver services and their capacity to raise revenue locally. This means the formula distributes more aid to municipalities that face high costs for delivering services and have low capacity to raise local revenue. The sample needs-capacity formula modeled in this policy briefing measures the need of municipalities by calculating the municipal gaps, and allocates funding by multiplying the municipal gap per capita by the population of the municipality.[17] Only municipalities with positive gaps receive funding. As municipalities with negative municipal gaps have sufficient revenue raising capacity and low enough costs to afford the provision of a common level of government services, they would not receive any funding through the needs-capacity formula.

Factors Noted in the Literature that Impact Municipal Cost and Capacity

The Federal Reserve Bank of Boston's 2015 report examined the factors that influence municipal fiscal disparities, which need to be, and have been, accounted for in the sample needs-capacity model outlined in this policy briefing. Prior research on municipal fiscal disparities suggests there are several factors that influence municipal

cost and capacity. The factors noted in the literature, examples of their impacts on municipalities, and the variables that are included in the sample needs-capacity model are detailed in Tables 3 and 4 below. For more information on the data used for these variables and the implementation of the formula, please see Appendix B.

Table 3: Municipal Cost[18,B,C]

Factor	Example	Variables in Needs-Capacity Model
Unemployment	Municipalities experiencing higher unemployment rates also tend to experience higher crime rates, which increases the cost of police protection.	Unemployment Rate
Population Density	High population density means housing is in tighter proximity, which increases the fire hazard and the costs of fire protection.	Population Density (000's per Square Mile)
Private-Sector Wages	Municipalities with high private sector wages tend to have to pay more to attract and retain municipal employees.	Private-Sector Wage Index
Miles of Public Roads	Holding all else equal, a town with more miles of roads would have to spend more to maintain its roads than other towns.	Town Maintenance Road Mileage
Employment	This factor represents cost pressures generated by commuters and employers who do not reside in the municipality in which they work, but consume public services (such as police and fire protection) while they are there.	Total Jobs per Capita

[B] For additional detail on Connecticut towns' municipal cost, capacity, and gaps, please see the Federal Reserve Bank of Boston's 2015 report.
Zhao, B., & Weiner, J. (2015). *Measuring Municipal Fiscal Disparities in Connecticut* (Research Report 15-1). Boston, MA: Federal Reserve Bank of Boston, New England Public Policy Center. Available from https://www.bostonfed.org/publications/new-england-public-policy-center-research-report/2015/measuring-municipal-fiscal-disparities-in-connecticut.aspx.
[C] For additional detail on the methodology and research of the needs-capacity model, please see Zhao's working paper.
Zhao, B. (2015). *From urban core to wealthy towns: Nonschool fiscal disparities across Connecticut municipalities* (Working papers 15-14). Boston, MA: Federal Reserve Bank of Boston. Retrieved from https://www.econstor.eu/bitstream/10419/130692/1/843872918.pdf.

Table 4: Municipal Capacity[19]

Factor	Example	Variable in Needs-Capacity Model
Value of Taxable Property	Municipalities with a greater quantity of taxable property and higher-valued property will have higher revenue raising capacity.	Equalized Net Grand List (ENGL). The ENGL is a full-value estimate of all taxable property within all cities and towns within Connecticut, equalized across assessment cycles.[20]

Sample Implementation of a Needs-Capacity Formula

Table 5 below demonstrates the state aid some example municipalities receive currently from the State, and the aid they would be eligible to receive through one possible implementation of a needs-capacity formula as detailed by the New England Public Policy Center. In this analysis, a positive municipal gap indicates the town does not have sufficient revenue raising capacity to pay for a common level of government service.[21] A negative gap indicates a town has more than enough revenue raising capacity to fund a common level of service.[22] A full listing of these figures for all towns can be found in Appendix A of this policy briefing.

Table 5: State Aid for Example Municipalities[23]

Municipal Gap = Municipal Cost – Municipal Capacity

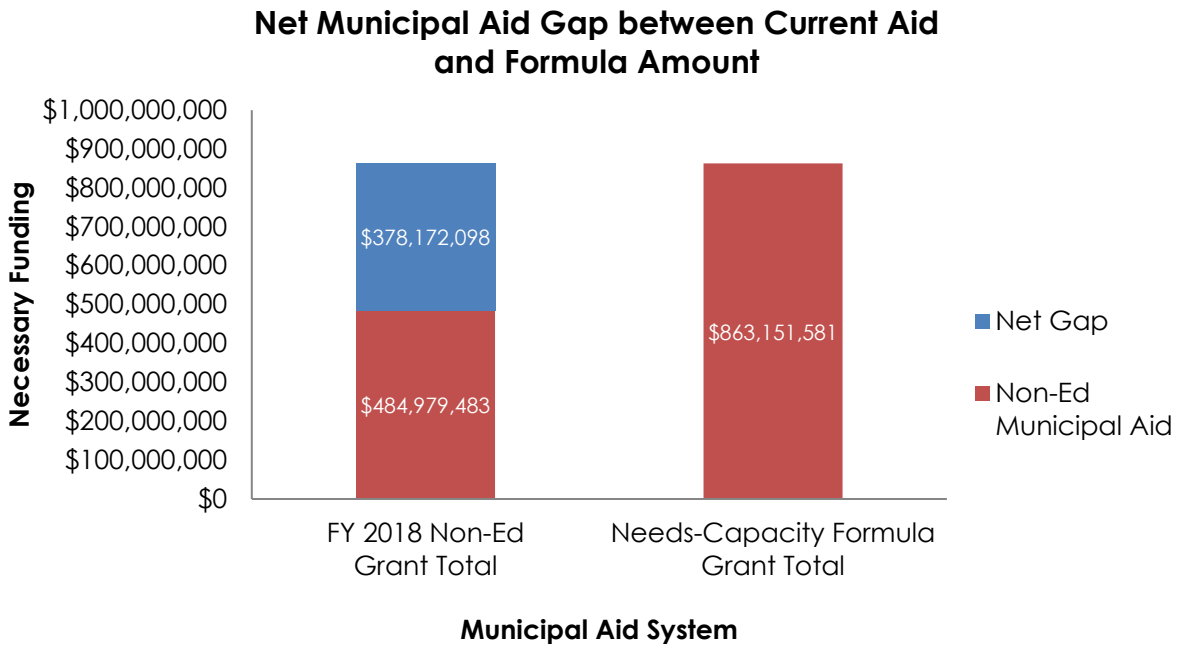
Grant from Needs Capacity Model = Municipal Gap * Population

Town Name	Municipal Cost per Capita	Municipal Capacity per Capita	Municipal Gap per Capita	Current Non-Ed Aid Total	Needs-Capacity Model Aid Total	Projected Change in Grant Amount
Hartford	$1,535	$428	$1,107	$69,673,309	$135,652,087	$65,978,778
Glastonbury	$1,141	$1,615	-$474	$1,332,251	-	-$1,322,251
New Britain	$1,319	$474	$844	$14,941,160	$61,171,459	$46,230,299
Westport	$1,266	$5,167	-$3,901	$1,033,929	-	-$1,033,929

If a needs-capacity formula were enacted in Connecticut, one possible method for funding this formula could be to aggregate existing non-education aid funding into the formula. Fully funding the needs-capacity formula under this sample implementation would require approximately $863 million, which is a net increase of approximately $359 million over the State's current non-education municipal aid expenditure. If the needs-capacity formula was funded at the same level as previous non-education aid, then the amount of money each town would receive under the needs-capacity formula would decrease by about 40 percent, assuming each municipality's aid was reduced by an equal percentage. Figure 2 below shows the difference by illustrating the net

gap between the current grant levels and the need-based funding levels through the needs-capacity formula.

Figure 2[24]



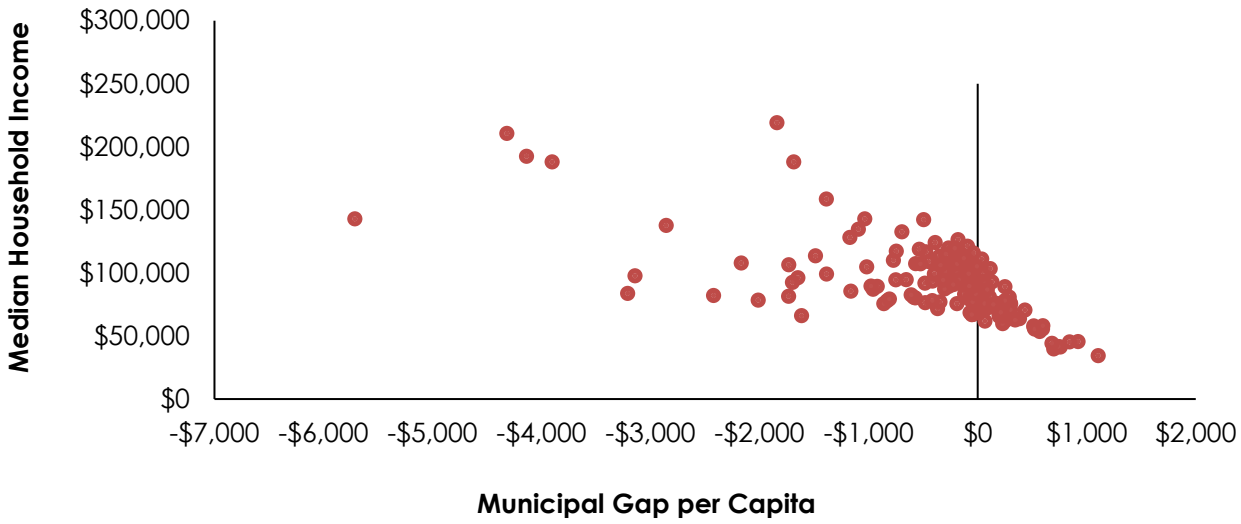
Under the full sample implementation of the needs-capacity formula, 57 municipalities would receive municipal aid grants. Of the municipalities receiving grants, 13 would receive an increased grant amount over prior aid levels and 44 would receive less funding than current grant levels. In total, 112 towns would not receive any aid.

This shift in aid reflects the equity considerations in the needs-capacity formula as the towns with the greatest levels of fiscal disparity receive a greater increase in funding, while towns with the capacity to pay receive less funding. For town-by-town estimated grant amounts, please see Appendix A.

Figure 3 below demonstrates the equity considerations of the needs-capacity formula. Each red point on this graph represents a town. Generally, towns with the lowest median household incomes have the largest municipal gaps per capita.

Figure 3[25]

Town Municipal Gap per Capita by Town Median Household Income



Additional Considerations

There are several additional items to comprehend when considering the implementation of a needs-capacity municipal aid formula. First, fully implementing this sample formula is projected to require approximately $863 million, approximately a 71 percent increase over what the State of Connecticut is currently spending on non-education municipal aid.[26] Additionally, the needs-capacity formula would aggregate all town aid, which eliminates the specificity of the other grant programs that provide aid for their specific criteria. For example, targeted property tax relief from the PILOT programs offered by the current set of PILOT grants. However, the needs-capacity formula heavily considers the value of taxable property, so the municipalities experiencing the worst fiscal disparities include those with a meaningful amount of non-taxable property, who will benefit from the needs-capacity formula.[27]

Connecticut's current system of town aid does not fully consider equity because many of the municipalities that currently receive aid have the revenue capacity to provide a common level of government service, and the aid formulas currently used do not explicitly account for municipal wealth or resident need. A needs-capacity formula would go beyond the current municipal aid system in terms of distributing funding equitably.

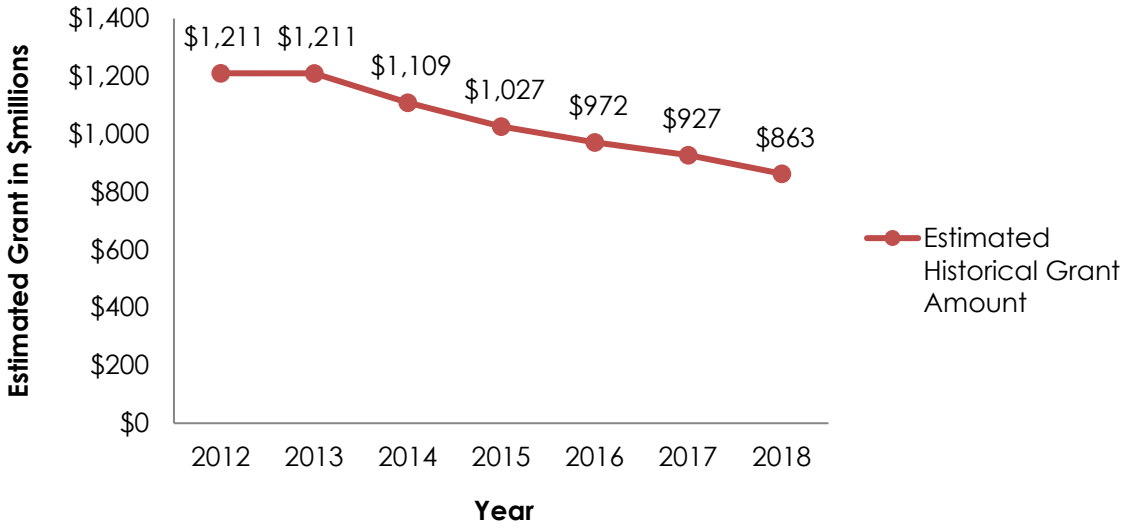
Finally, a further consideration of the formula is its use of unemployment rate and a private-sector wage index for calculating municipal cost.[28] If Connecticut experienced a recession, municipal costs would likely increase across many municipalities, resulting in a higher calculated grant amount due to the increase in need. This higher projected grant amount would be the responsibility of the State, even as an economic downturn would simultaneously affect the finances of the State.

A historical sensitivity test of the needs-capacity model was also conducted to examine the impacts of the model's factors over time. In this analysis, the needs-capacity formula was run with each year's data. The analysis showed the fully-funded grant totals for the needs-capacity formula decreased over time. These findings support the consideration of the needs-capacity model's link to the economy because the variables in the model are responsive to the economy's recovery from the recession and growth over time.[29]

According to Connecticut's Office of Policy and Management (OPM), despite Connecticut's slow recovery from the Great Recession, the state's economy generally experienced growth and improvement in Gross State Product and Employment figures from 2012-2017.[30,D] Higher employment reduces the costs of unemployment in the needs-capacity model, and increases in Gross State Product can be linked to increased state revenue through increases in the purchase of taxable property.[31] Figure 4 below shows the grant totals for the fully funded needs-capacity formula over time using historical data.

Figure 4[32]

7-Year Historical Estimates of Needs-Capacity Formula



[D] The analysis of Connecticut's economic health conducted by OPM examined a multitude of measures. For additional details please see the report.
State of Connecticut, Office of Policy and Management. (2018). *FY 2019 Midterm Economic Report of the Governor*. Hartford, CT: Author. Retrieved from http://www.ct.gov/opm/lib/opm/budget/2019midterm/EconomicReportoftheGovernorFY2019Midterm.pdf.

Appendix A: Town Runs

Table 6 below contains the town-by-town grant amounts under different funding mechanisms. Included in this table is the non-education aid each municipality received in FY 2018, the estimated grant amount for each municipality through the needs-capacity formula, and the estimated grant for each municipality under the needs-capacity formula if the formula were funded at the current spending level. The municipal gap as calculated in the needs-capacity model is included in this table as it's an indicator for fiscal disparities and provides context for the grant amounts shown.[33] A positive municipal gap indicates a town does not have sufficient revenue raising capacity to fund a common level of government service. A negative municipal gap indicates a town has more than enough revenue raising capacity to fund a common level of government service.

Table 6: Town-by-Town Grant Amounts Under Different Funding Mechanisms[34]

Column Number	*1*	*2*	*3*	*4*	*5*	*6*
Municipality	**FY 2021 Non-Education Aid**	**Municipal Gap per Capita**	**Needs-Capacity Model Funded at Current Level**	**Needs-Capacity Modeled Total Grant**	**Col. 3 – Col. 1**	**Col. 4 – Col. 1**
Andover	$277,896	$49	$88,485	$157,483	($189,411)	($120,413)
Ansonia	$873,970	$569	$5,989,878	$10,660,602	$5,115,908	$9,786,632
Ashford	$407,203	$223	$533,488	$949,485	$126,285	$542,282
Avon	$856,126	($694)	-	-	($856,126)	($856,126)
Barkhamsted	$289,596	($188)	-	-	($289,596)	($289,596)
Beacon Falls	$312,389	$61	$213,583	$380,129	($98,806)	$67,740
Berlin	$1,936,744	($280)	-	-	($1,936,744)	($1,936,744)
Bethany	$387,954	($266)	-	-	($387,954)	($387,954)
Bethel	$766,742	($213)	-	-	($766,742)	($766,742)
Bethlehem	$296,300	($267)	-	-	($296,300)	($296,300)
Bloomfield	$3,480,758	$15	$177,007	$315,032	($3,303,751)	($3,165,726)
Bolton	$305,338	($70)	-	-	($305,338)	($305,338)
Bozrah	$364,837	($54)	-	-	($364,837)	($364,837)
Branford	$1,070,289	($571)	-	-	($1,070,289)	($1,070,289)
Bridgeport	$33,630,308	$922	$75,082,837	$133,630,126	$41,452,529	$99,999,818
Bridgewater	$207,134	($1,731)	-	-	($207,134)	($207,134)
Bristol	$6,266,560	$284	$9,585,268	$17,059,565	$3,318,708	$10,793,005
Brookfield	$808,665	($567)	-	-	($808,665)	($808,665)
Brooklyn	$628,167	$90	$416,675	$741,585	($211,492)	$113,418
Burlington	$410,332	($179)	-	-	($410,332)	($410,332)
Canaan	$298,520	($829)	-	-	($298,520)	($298,520)
Canterbury	$410,905	$133	$379,706	$675,789	($31,199)	$264,884

Column Number	1	2	3	4	5	6
Municipality	FY 2021 Non-Education Aid	Municipal Gap per Capita	Needs-Capacity Model Funded at Current Level	Needs-Capacity Modeled Total Grant	Col. 3 – Col. 1	Col. 4 – Col. 1
Canton	$343,747	($264)	-	-	($343,747)	($343,747)
Chaplin	$356,909	($23)	-	-	($356,909)	($356,909)
Cheshire	$4,973,340	($125)	-	-	($4,973,340)	($4,973,340)
Chester	$320,165	($280)	-	-	($320,165)	($320,165)
Clinton	$878,769	($480)	-	-	($878,769)	($878,769)
Colchester	$759,836	$115	$1,033,018	$1,838,533	$273,182	$1,078,697
Colebrook	$236,427	($483)	-	-	($236,427)	($236,427)
Columbia	$311,292	($84)	-	-	($311,292)	($311,292)
Cornwall	$269,121	($2,420)	-	-	($269,121)	($269,121)
Coventry	$567,322	$11	$75,253	$133,933	($492,069)	($433,389)
Cromwell	$450,184	($166)	-	-	($450,184)	($450,184)
Danbury	$8,988,416	$5	$248,862	$442,917	($8,739,554)	($8,545,499)
Darien	$465,981	($4,317)	-	-	($465,981)	($465,981)
Deep River	$344,583	($367)	-	-	($344,583)	($344,583)
Derby	$1,644,791	$529	$3,723,135	$6,626,322	$2,078,344	$4,981,531
Durham	$679,005	($206)	-	-	($679,005)	($679,005)
East Granby	$1,069,175	($301)	-	-	($1,069,175)	($1,069,175)
East Haddam	$443,471	($139)	-	-	($443,471)	($443,471)
East Hampton	$595,958	($69)	-	-	($595,958)	($595,958)
East Hartford	$9,939,522	$596	$16,734,231	$29,783,070	$6,794,709	$19,843,548
East Haven	$1,714,543	$250	$4,030,010	$7,172,487	$2,315,467	$5,457,944
East Lyme	$1,487,829	($414)	-	-	($1,487,829)	($1,487,829)
East Windsor	$1,218,265	$82	$525,959	$936,085	($692,306)	($282,180)
Eastford	$294,746	$13	$13,173	$23,444	($281,573)	($271,302)
Easton	$347,783	($1,035)	-	-	($347,783)	($347,783)
Ellington	$703,878	($6)	-	-	($703,878)	($703,878)
Enfield	$3,121,363	$298	$7,454,785	$13,267,797	$4,333,422	$10,146,434
Essex	$341,440	($958)	-	-	($341,440)	($341,440)
Fairfield	$3,353,328	($1,093)	-	-	($3,353,328)	($3,353,328)
Farmington	$3,957,239	($654)	-	-	($3,957,239)	($3,957,239)
Franklin	$216,294	($327)	-	-	($216,294)	($216,294)
Glastonbury	$1,300,915	($474)	-	-	($1,300,915)	($1,300,915)
Goshen	$334,745	($1,386)	-	-	($334,745)	($334,745)
Granby	$379,785	($92)	-	-	($379,785)	($379,785)

Column Number	1	2	3	4	5	6
Municipality	FY 2021 Non-Education Aid	Municipal Gap per Capita	Needs-Capacity Model Funded at Current Level	Needs-Capacity Modeled Total Grant	Col. 3 – Col. 1	Col. 4 – Col. 1
Greenwich	$1,837,350	($5,710)	-	-	($1,837,350)	($1,837,350)
Griswold	$428,681	$261	$1,701,915	$3,029,016	$1,273,234	$2,600,335
Groton	$5,109,180	($41)	-	-	($5,109,180)	($5,109,180)
Guilford	$1,069,432	($772)	-	-	($1,069,432)	($1,069,432)
Haddam	$355,357	($318)	-	-	($355,357)	($355,357)
Hamden	$8,042,431	$304	$10,396,661	$18,503,658	$2,354,230	$10,461,227
Hampton	$268,486	$55	$57,051	$101,537	($211,435)	($166,949)
Hartford	$69,688,342	$1,107	$76,218,917	$135,652,087	$6,530,575	$65,963,745
Hartland	$303,742	($187)	-	-	($303,742)	($303,742)
Harwinton	$347,627	($218)	-	-	($347,627)	($347,627)
Hebron	$449,935	$38	$203,077	$361,430	($246,858)	($88,505)
Kent	$363,382	($1,615)	-	-	($363,382)	($363,382)
Killingly	$2,087,246	$68	$657,133	$1,169,545	($1,430,113)	($917,701)
Killingworth	$515,660	($349)	-	-	($515,660)	($515,660)
Lebanon	$619,284	($17)	-	-	($619,284)	($619,284)
Ledyard	$2,614,280	$69	$569,977	$1,014,428	($2,044,303)	($1,599,852)
Lisbon	$378,173	($72)	-	-	($378,173)	($378,173)
Litchfield	$561,827	($586)	-	-	($561,827)	($561,827)
Lyme	$217,335	($1,648)	-	-	($217,335)	($217,335)
Madison	$906,478	($1,016)	-	-	($906,478)	($906,478)
Manchester	$5,524,751	$303	$9,807,658	$17,455,369	$4,282,907	$11,930,618
Mansfield	$9,655,127	$518	$7,517,784	$13,379,922	($2,137,343)	$3,724,795
Marlborough	$335,808	($127)	-	-	($335,808)	($335,808)
Meriden	$5,383,278	$516	$17,259,480	$30,717,892	$11,876,202	$25,334,614
Middlebury	$406,080	($449)	-	-	($406,080)	($406,080)
Middlefield	$503,059	($62)	-	-	($503,059)	($503,059)
Middletown	$17,532,284	$198	$5,140,596	$9,149,075	($12,391,688)	($8,383,209)
Milford	$4,764,791	($276)	-	-	($4,764,791)	($4,764,791)
Monroe	$1,124,437	($292)	-	-	($1,124,437)	($1,124,437)
Montville	$3,578,344	$221	$2,327,491	$4,142,397	($1,250,853)	$564,053
Morris	$219,925	($750)	-	-	($219,925)	($219,925)
Naugatuck	$2,388,115	$434	$7,634,863	$13,588,295	$5,246,748	$11,200,180
New Britain	$15,470,007	$844	$34,370,443	$61,171,459	$18,900,436	$45,701,452
New Canaan	$549,061	($4,137)	-	-	($549,061)	($549,061)

Column Number	1	2	3	4	5	6
Municipality	FY 2021 Non-Education Aid	Municipal Gap per Capita	Needs-Capacity Model Funded at Current Level	Needs-Capacity Modeled Total Grant	Col. 3 – Col. 1	Col. 4 – Col. 1
New Fairfield	$628,021	($523)	-	-	($628,021)	($628,021)
New Hartford	$485,331	($184)	-	-	($485,331)	($485,331)
New Haven	$71,598,484	$759	$55,606,616	$98,966,946	($15,991,868)	$27,368,462
New London	$9,878,930	$698	$10,571,851	$18,815,455	$692,921	$8,936,525
New Milford	$2,258,854	($302)	-	-	($2,258,854)	($2,258,854)
Newington	$4,150,762	$22	$374,241	$666,063	($3,776,521)	($3,484,699)
Newtown	$2,470,596	($388)	-	-	($2,470,596)	($2,470,596)
Norfolk	$366,365	($860)	-	-	($366,365)	($366,365)
North Branford	$879,818	($72)	-	-	($879,818)	($879,818)
North Canaan	$614,229	($69)	-	-	($614,229)	($614,229)
North Haven	$3,131,122	($396)	-	-	($3,131,122)	($3,131,122)
North Stonington	$1,189,158	($344)	-	-	($1,189,158)	($1,189,158)
Norwalk	$6,565,004	($609)	-	-	($6,565,004)	($6,565,004)
Norwich	$5,350,962	$524	$11,518,710	$20,500,645	$6,167,748	$15,149,683
Old Lyme	$323,027	($1,698)	-	-	($323,027)	($323,027)
Old Saybrook	$399,376	($1,733)	-	-	($399,376)	($399,376)
Orange	$908,514	($745)	-	-	($908,514)	($908,514)
Oxford	$838,811	($340)	-	-	($838,811)	($838,811)
Plainfield	$811,490	$200	$1,705,630	$3,035,629	$894,140	$2,224,139
Plainville	$1,144,853	$198	$1,964,565	$3,496,473	$819,712	$2,351,620
Plymouth	$555,172	$291	$1,904,636	$3,389,812	$1,349,464	$2,834,640
Pomfret	$384,729	($41)	-	-	($384,729)	($384,729)
Portland	$419,069	($30)	-	-	($419,069)	($419,069)
Preston	$1,436,133	($189)	-	-	($1,436,133)	($1,436,133)
Prospect	$454,146	($104)	-	-	($454,146)	($454,146)
Putnam	$823,917	$231	$1,219,147	$2,169,801	$395,230	$1,345,884
Redding	$472,227	($1,171)	-	-	($472,227)	($472,227)
Ridgefield	$1,235,311	($1,386)	-	-	($1,235,311)	($1,235,311)
Rocky Hill	$1,483,830	($119)	-	-	($1,483,830)	($1,483,830)
Roxbury	$363,585	($2,855)	-	-	($363,585)	($363,585)
Salem	$411,071	($103)	-	-	($411,071)	($411,071)
Salisbury	$341,032	($3,210)	-	-	($341,032)	($341,032)
Scotland	$226,005	$251	$237,640	$422,945	$11,635	$196,940

Column Number	1	2	3	4	5	6
Municipality	FY 2021 Non-Education Aid	Municipal Gap per Capita	Needs-Capacity Model Funded at Current Level	Needs-Capacity Modeled Total Grant	Col. 3 – Col. 1	Col. 4 – Col. 1
Seymour	$810,398	$221	$2,045,958	$3,641,334	$1,235,560	$2,830,936
Sharon	$424,121	($2,012)	-	-	($424,121)	($424,121)
Shelton	$1,397,653	($172)	-	-	($1,397,653)	($1,397,653)
Sherman	$231,474	($1,486)	-	-	($231,474)	($231,474)
Simsbury	$664,717	($210)	-	-	($664,717)	($664,717)
Somers	$2,962,951	($6)	-	-	($2,962,951)	($2,962,951)
South Windsor	$2,538,784	($186)	-	-	($2,538,784)	($2,538,784)
Southbury	$595,849	($316)	-	-	($595,849)	($595,849)
Southington	$2,065,714	($60)	-	-	($2,065,714)	($2,065,714)
Sprague	$605,421	$235	$381,272	$678,576	($224,149)	$73,155
Stafford	$1,198,193	$228	$1,520,650	$2,706,406	$322,457	$1,508,213
Stamford	$8,197,571	($920)	-	-	($8,197,571)	($8,197,571)
Sterling	$297,459	$251	$533,230	$949,027	$235,771	$651,568
Stonington	$765,777	($808)	-	-	($765,777)	($765,777)
Stratford	$6,029,182	$173	$5,064,948	$9,014,439	($964,234)	$2,985,257
Suffield	$5,340,244	($126)	-	-	($5,340,244)	($5,340,244)
Thomaston	$716,892	$200	$848,107	$1,509,435	$131,215	$792,543
Thompson	$715,621	$109	$577,172	$1,027,233	($138,449)	$311,612
Tolland	$894,103	($39)	-	-	($894,103)	($894,103)
Torrington	$2,402,623	$384	$7,382,645	$13,139,405	$4,980,022	$10,736,782
Trumbull	$1,513,775	($534)	-	-	($1,513,775)	($1,513,775)
Union	$174,629	($223)	-	-	($174,629)	($174,629)
Vernon	$1,695,085	$345	$5,688,321	$10,123,898	$3,993,236	$8,428,813
Voluntown	$464,297	$65	$92,890	$165,323	($371,407)	($298,974)
Wallingford	$4,121,707	($80)	-	-	($4,121,707)	($4,121,707)
Warren	$210,060	($2,168)	-	-	($210,060)	($210,060)
Washington	$397,184	($3,141)	-	-	($397,184)	($397,184)
Waterbury	$30,578,114	$741	$45,015,147	$80,116,575	$14,437,033	$49,538,461
Waterford	$734,300	($1,163)	-	-	($734,300)	($734,300)
Watertown	$1,173,968	($46)	-	-	($1,173,968)	($1,173,968)
West Hartford	$2,912,501	($80)	-	-	($2,912,501)	($2,912,501)
West Haven	$8,110,032	$599	$18,484,451	$32,898,057	$10,374,419	$24,788,025
Westbrook	$652,436	($977)	-	-	($652,436)	($652,436)
Weston	$387,855	($1,841)	-	-	($387,855)	($387,855)

Column Number	1	2	3	4	5	6
Municipality	FY 2021 Non-Education Aid	Municipal Gap per Capita	Needs-Capacity Model Funded at Current Level	Needs-Capacity Modeled Total Grant	Col. 3 – Col. 1	Col. 4 – Col. 1
Westport	$1,013,524	($3,901)	-	-	($1,013,524)	($1,013,524)
Wethersfield	$935,848	($17)	-	-	($935,848)	($935,848)
Willington	$379,230	$144	$477,741	$850,268	$98,511	$471,038
Wilton	$1,114,179	($1,685)	-	-	($1,114,179)	($1,114,179)
Winchester	$949,366	$215	$1,286,192	$2,289,124	$336,826	$1,339,758
Windham	$6,590,036	$683	$9,475,873	$16,864,868	$2,885,837	$10,274,832
Windsor	$2,746,756	($52)	-	-	($2,746,756)	($2,746,756)
Windsor Locks	$3,313,509	($53)	-	-	($3,313,509)	($3,313,509)
Wolcott	$814,858	$89	$833,451	$1,483,351	$18,593	$668,493
Woodbridge	$456,513	($494)	-	-	($456,513)	($456,513)
Woodbury	$429,356	($415)	-	-	($429,356)	($429,356)
Woodstock	$556,983	($77)	-	-	($556,983)	($556,983)
Total	**$504,176,977**	**N/A**	**$484,979,483**	**$863,151,581**	**($19,197,494)**	**$358,974,605**

Appendix B: Description of Needs-Capacity Model and Changes Made by the School and State Finance Project[E]

The needs-capacity town aid model used in this policy briefing is based on the 2015 report produced by the Federal Reserve Bank of Boston's New England Public Policy Center. The model uses the independent variables found in the report and their coefficients, and updates the data to find a more current municipal gap figure.

To find municipal capacity, the same mill rate was used as in the Federal Reserve Bank of Boston's report but with updated Equalized Net Grand List per Capita figures for FY 2018. Population figures, along with unemployment rate and population density, were updated using 2018 data from the Municipal Fiscal Indicators published by the OPM. Originally, the unemployment and population density were from the American Community Survey (ACS) five-year estimates produced by the U.S. Census Bureau. The town road mileage was updated using the same source as in the report (Connecticut Department of Transportation Public Road Mileage) but with 2018 data. The private sector wage index was updated using 2018 Connecticut Department of Labor data, and with the most recent Labor Market Area definitions. Total jobs per capita for each municipality were updated with 2018 data.

[E] For additional detail on the methodology and research of the needs-capacity model, please see Zhao's working paper.
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