Communications/Community Outreach Subcommittee Meeting

Monday, October 4, 2021 7:00 PM
Special Meeting Access: Communications/Community Outreach Subcommittee (10/4 at 7 p.m.) Web: https://zoom.us/j/94260822308 Dial In: (929) 205-6099 Meeting ID: 942 6082 2308, 3 Brush Hill Road, New Fairfield, CT 06812

I. **CALL TO ORDER**

II. **APPROVAL OF MINUTES**

A.   September 3, 2020 – Regular

III. **ACTION ITEMS**

IV. **INFORMATION ITEMS**

A.   Open Choice Program

B.   Parking at New Fairfield High School

C.   Quarantine School

D.   COVID Testing

V. **OTHER**

VI. **ADJOURNMENT**

BOARD OF EDUCATION, NEW FAIRFIELD, CT
Communications/Community Outreach Subcommittee Meeting

Name of Subcommittee: Communications/Community Outreach Subcommittee
Meeting type: Regular   Date of Meeting: 9/3/20
Minutes submitted by: Kimberly LaTourette
Members present: Kathy Baker, Kimberly LaTourette, Ed Sbordone
Members absent:
Other attendees: Pat Cosentino, Rich Sanzo, Dominic Cipollone, Rick Regan
Place of Meeting: Meeting House Hill School Cafetorium, 24 Gillotti Road, New Fairfield, CT.
Due to in-person meeting restrictions of 25 persons, Board Members and Administrators will be physically present while the public may join us for participation via the provided Zoom link:
Meeting Access: Communications/Community Outreach (9/3 at 6 p.m.)
Web: https://zoom.us/j/92926000800   Dial In: (929) 205-6099 Meeting ID: 929 2600 0800

Meeting called to order: at 6:11 p.m. by Kathy Baker.

II.   Election of Chair
Kimberly LaTourette nominated Kathy Baker for chair, seconded by Ed Sbordone. All in favor.

Approval of Minutes
        A.   September 5, 2019 – Regular
Motion: To approve the minutes of September 5, 2019
Made by: Kathy Baker   Seconded by: Kim LaTourette
Recording of Vote: All in favor

III. Action Items - none

IV. Information Items
A. Reopening of Schools
Dr. Cosentino shared that it has been a very busy couple of days. Our staff and administrators are working very hard, and she would like to thank everyone for their patience.
There are two major issues:
Technology - We purchased 900 Chromebooks at the end of May/June, and they have not arrived yet. That has been challenging for teachers, but they are making do. Tuesday night, the help desk was flooded because student Chromebooks were not working. We have tech staff working this weekend to fix them. This is above and beyond, but they are committed.
Transportation - When we started, the guidance from the state was telling kids to be on the bus, socially distanced. We asked parents to drive their kids. We had 50% of parents say they would drive. We probably have about 15-20% on buses and everyone else is driving. Arrivals are much better. CONS and MHHS dismissals are having issues. It takes an hour and a half for pickups. All of the administrators and staff are helping, and it is very difficult. We also have a new dismissal program that has had some kinks that we are trying to work out. Parents have been awesome! Our buses are empty, so we are asking parents to put their kids on the bus if they feel comfortable. We are going to dismiss every school one hour earlier next week. Right now, on the half days we have staff and with full days we will not have staff. We need the days to see if with more kids on the bus, streamlining of the program, and changing a couple of other things, we will see how quickly we can get this done. Staff will stay, and students will early dismiss. We are encouraging CONS and MHHS to put signs in their windows with students' information - that will be helpful.

We are having some problems filling some positions that are hard to fill. We do not have candidates. We are looking for paras. Bus company is still looking for monitors, and we need cafeteria aides also. We may have to offer some full year positions to keep them.

Dr. Cosentino would like to remind everyone that we are still low risk, but COVID is starting to increase. We have to keep an eye out for everyone's health and safety this weekend or we may have to go on hybrid or remote learning.

Our Athletic Director will be at the regular meeting to discuss sports. CIAC and the state make decisions. We are following their very specific guidelines.

We decided at the end of the year to not have some of the after-school programs until we get our school days under control. Then we will work on adding in programs. Major/Minors will be starting at MHHS. What about the music program at the MS?

This has been very challenging for everyone. This is not easy, it is unprecedented.

V. Other - A HS parent spoke about the music programs. What other programs may have been cut? Culinary? Marching band is outside and is a small group of kids. The Superintendent made the decision to have smaller classes, and she had to shift some teachers around. Concerning dismissal at Consolidated and MHHS, Dr. Sanzo spoke about procedural and software issues that have to be worked out. More time is needed to evaluate the effectiveness of the program being used. We really need to focus on dismissal more than arrival.

Motion to adjourn: Made by: Kathy Baker   Seconded by: Kimberly LaTourette
Recording of vote: Aye – Unanimous   Meeting adjourned at: 6:50 p.m.

Introduction

Connecticut operates a number of school choice programs, including magnet schools, technical high schools, vocational agricultural centers, charter schools, endowed private schools[A], designated high schools[B], and the Open Choice program.[1,2] This policy brief focuses solely on the Open Choice program, and discusses its objectives, history, administration, and funding.

Open Choice is a program in which Connecticut students can attend schools in local public school districts outside the community in which they reside. Connecticut's statutes currently allow for districts in the Hartford, Bridgeport, New Haven, and New London areas to send and receive students from participating districts in their respective region.[3,C]

Overseen by the Connecticut State Department of Education (CSDE), the primary purpose of the Open Choice program is to reduce racial, ethnic, and economic isolation for students in Connecticut's local public schools.[4] Additionally, the Open Choice program's objectives include improving academic achievement and providing a choice of educational programs.[5]

Through the Open Choice program, receiving districts elect to offer seats to students from statutorily designated sending districts. The Regional Education Service Center (RESC) that represents the district with available Open Choice seats determines the eligibility and the feasibility for that district to receive Open Choice students.[6] The State provides a financial incentive to local and regional boards of education that elect to receive students through the Open Choice program.[7]

In fiscal year 2018, 49 local school districts and more than 3,000 students participated in the Open Choice program.[8]

[A] Connecticut has three endowed academies currently in operation (Gilbert School, Norwich Free Academy, and Woodstock Academy). With state approval, an endowed academy may serve as a town's public high school with the sending town's board of education paying the tuition costs for its students to attend the academy.
Conn. Gen. Statutes ch. 164, § 10-34.
Sullivan, M. (2016). *Models of Public High School Education in Connecticut* (2016-R-0155). Hartford, CT: Connecticut General Assembly, Office of Legislative Research. Retrieved from https://www.cga.ct.gov/2016/rpt/pdf/2016-R-0155.pdf.
[B] "Designated high schools" are high schools that a Connecticut local public school district allows its high school age students to attend if the district does not maintain a high school. The sending district's board of education pays the tuition costs for their resident students attending the designated high schools.
Conn. Gen. Statutes ch. 164, § 10-33.
[C] For the Open Choice program, a district's "region" refers to its respective Regional Educational Service Center (RESC). Connecticut is divided into six RESCs that are outlined at http://www.crec.org/docs/7056/Map_with_logos_2017.pdf.

Program History

The origin of the Open Choice program can be traced back to 1966 when Connecticut implemented an interdistrict choice program called Project Concern.[9] Project Concern developed out of growing awareness of racial imbalances and concentrated poverty between Connecticut's suburban towns and its cities.[10] Under Project Concern, a group of randomly selected students from Hartford Public Schools were sent to suburban school districts that volunteered to participate in the program. These school districts were: Bolton, Farmington, Glastonbury, Plainville, and Simsbury.[11]

Initially, this effort was met with strong opposition from local officials in most surrounding suburban towns who were concerned the program would infringe on local autonomy and questioned the effects Hartford students would have in on their schools.[12] Eventually, these districts volunteered to receive students from Hartford.[13] The progress of the students participating in the program was extensively tracked. Robert Crain, sociologist and lead researcher of Project Concern, reported that Hartford students who attended suburban schools were less likely to drop out of school, and were more likely to socialize with people of other races.[14] These initial successes led to 10 additional suburban districts[D] participating in the program.[15]

Between 1966-1969, approximately eight percent of Hartford students participated in the experimental phase of Project Concern. However, in 1993 the plaintiffs in the Connecticut Supreme Court Case *Sheff v. O'Neill,* which concerned racial segregation in public schools in the Hartford area, argued the program did not do enough to reduce racial segregation.[16] In 1996, the Court ruled in favor of the plaintiffs finding Hartford's public schools racially segregated and in violation of the Connecticut Constitution's anti-segregation provision.[17] The Court ordered the State of Connecticut to take remedial measures but deferred to the Connecticut General Assembly to develop a constitutional remedy.[18]

In response to the Court's 1996 ruling in *Sheff v. O'Neill*, the General Assembly passed Conn. Acts 97-290, which formally established the current Open Choice program and included provisions for the creation of magnet schools and the construction of additional public charter schools.[19]

Program Eligibility and Student Participation

The Open Choice program is available to students living in the Hartford, New Haven, Bridgeport, and New London[E] regions. Students living in these areas may attend school in a participating suburban town in their respective region, and suburban students can elect to attend a school in one of the four identified cities.[20]

[D] The 10 additional districts were Granby, Canton, Windsor, South Windsor, Avon, West Hartford, East Hartford, Manchester, Wethersfield, and Newington.
[E] Although allowed by state statute, no New London area students currently participate in the Open Choice program.
Conn. Gen. Statutes ch. 172, § 10-266aa.

However, for the purposes of reducing segregation, the proportion of non-racial minority[F] students from Hartford, New Haven, Bridgeport, and New London attending school in another district may not exceed the proportion of non-racial minority students attending school in the sending districts.[21,G] If the proportion of non-racial minority students in a sending district decreases, the commissioner of the CSDE has the authority to withhold state grants.[22]

Once admitted into the Open Choice program, students must be allowed to continue their education in the receiving district until they graduate high school. In addition, students participating in the Open Choice program are considered residents of the towns in which they attend school for the purposes of statewide mastery testing.[23]

Receiving districts are empowered to determine whether they will participate in Open Choice and how many seats they will make available to for the program.[24] If student demand for participation in the program exceeds available seats, the RESCs operate regional lotteries to determine participation.[25,H] Lotteries are weighted to preserve or increase racial, ethic, and economic diversity among the participating districts.[26] Additionally, in all lotteries, priority is given to students who have siblings in the program, and to students who would otherwise attend a school that has lost its accreditation by the New England Association of Schools and Colleges or a school that has been identified under the definitions of the federal No Child Left Behind Act as in need of improvement.[27,I] Furthermore, a student in the same region as a Priority School District may attend a school in the Priority School District, provided the student's attendance does not increase the racial, ethnic, and economic segregation of the Priority School District.[28]

Program Administration

The CSDE administers the Open Choice grant program, and provides administrative support to RESCs to facilitate their oversight of the Open Choice program.[29] State statute allows RESCs to determine the feasibility of participation for a given district in its region, and to consider available transportation options, funding, and available seats

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[F] For the Open Choice program, "racial minorities" are statutorily defined as "those whose race is defined as other than white, or whose ethnicity is defined as Hispanic or Latino by the federal Office of Management and Budget for use by the Bureau of Census of the United States Department of Commerce."
Conn. Gen. Statutes ch. 172, § 10-266aa.
Conn. Gen. Statutes ch. 172, § 10-226a.
[G] "Receiving district" refers to any school district that accepts students participating in the Open Choice program. "Sending district" refers to any district that sends students it would legally be responsible for educating to another district.
Conn. Gen. Statutes ch. 172, § 10-266aa.
[H] In the Hartford region, Open Choice selection is included in the Regional School Choice Office lottery, operated by the CSDE, which also includes all magnet schools operating to further the goal of the *Sheff v. O'Neill* stipulated agreements.
Conn. Gen. Statutes ch. 172, § 10-266aa.
[I] The federal No Child Left Behind Act was replaced in 2015 by the Every Student Succeeds Act, however, the relevant Connecticut General Statute (Conn. Gen. Statutes ch. 172, § 10-266aa) has not been updated and currently references the No Child Left Behind Act.
Every Student Succeeds Act, Pub. L. No. 114-95, 129 Stat. 1802 (2015).

when making this determination. RESCs also place Open Choice students in receiving districts and oversee the placement lotteries when there are more student applications to the program than there are available seats.[30]

Process of District Participation

Connecticut statutes only allow for districts in the Hartford, New Haven, Bridgeport, and New London regions to participate in the Open Choice program and there are no further provisions that allow for additional regions to participate.[31]
Currently, there are 49 school districts participating in the Open Choice program.[32] If a district elects to receive students through the Open Choice program, the district must determine the number of available seats it has available for participating students. Connecticut's statutes do not specify who in a district is responsible for deciding whether or not to receive students through the Open Choice program, nor do the state statutes explicitly require approval from the receiving district's local or regional board of education.[33]

Available seats are reported to the RESC to which the receiving district belongs. The RESC determines which districts are close enough to the sending district to receive students through the Open Choice program, and whether or not there are sufficient transportation funds in place to transport students from the sending district.[34] RESCs have the authority to approve new districts to receive students through the Open Choice program, with consideration to available transportation, which is largely funded through per-pupil state grants.[35]

Funding

The CSDE distributes grants on a tiered, per-pupil basis to the local or regional boards of education that receive students through the Open Choice program. The grant amount is determined based on the percentage of Open Choice students in the receiving district's total enrollment. The per-pupil grant amount increases as the percentage of Open Choice students in the receiving district increases.[36] These grants are intended to incentivize greater Open Choice participation by increasing the per-pupil grant as districts increase available seats as a percent of total enrollment.[37]

For the purpose of calculating the Education Cost Sharing (ECS) grant, the sending and receiving school districts split the ECS allocation for each student participating in the Open Choice program. This is achieved by decreasing the aggregate resident student count by one half of a student for the sending district, and increasing the aggregate resident student count by one half of a student for the receiving district, for each Open Choice student.[38] Figure 1 below details the funding tiers for the per-pupil grants based off of Open Choice enrollment percentages.

Figure 1[39]

Open Choice Enrollment Percentage and Corresponding Grant Amounts Per Pupil	
Percent of Receiving District's Total Enrollment Who are Open Choice Participants	*Per-pupil Grant Amount to District Receiving Open Choice Students*
Less than 2%	$3,000
2% to less than 3%	$4,000
3% to less than 4%	$6,000
Greater than 4%	$8,000

Additionally, beyond the base grant amounts, a district with a total enrollment of more than 4,000 students can receive a $6,000 per-pupil allocation for a given year if the district has increased its Open Choice enrollment by more than 50 percent over the previous fiscal year.[40] This $6,000 per-pupil grant is a one-time incentive and districts do not receive the additional funding in the following year unless they again increase their seat allocation.[41]

Within available appropriations, the total amount of money received by a district receiving students through the Open Choice program is the per-pupil grant amount based on enrollment, multiplied by the district's number of Open Choice students, plus an additional per-pupil entitlement if the district has at least 10 Open Choice students in a given school.[42] The additional entitlement is derived from the total appropriation for the Open Choice program, which is then distributed proportionally on a per-pupil basis. In FY 2018, this appropriation was $500,000, and it is codified at $500,000 within available appropriations.[43] Additionally, Hartford is eligible to receive additional grants from the CSDE for the purposes of allowing Hartford students to participate in Open Choice preschool and all-day kindergarten programs.[44]

Furthermore, sending districts are responsible for additional costs associated with Open Choice students' special education services. Specifically, the sending district is responsible for the difference between the reasonable cost of special education and the Open Choice grant amount.[45]

Please see Figure 4 in the Appendix for Open Choice grant calculations for each receiving district in Connecticut.

The State of Connecticut also provides grants on a per-pupil basis for the purposes of funding transportation costs for Open Choice. Per statute, all RESCs except for the Capitol Region Education Council (CREC) receive $1,300 per pupil for transporting Open Choice students. CREC receives $2,000 per pupil for student transportation in support of the *Sheff v. O'Neill* stipulated agreement.[46] Under the *Sheff v. O'Neill* agreement, CREC is also eligible to receive supplemental grants within available appropriations.[47]

Figure 2 below shows the total Open Choice enrollment in each region, and the total state grant allocation to each RESC to support Open Choice in FY 2017.

Figure 2[48]

FY 2017 Open Choice Grant Payments to Individual RESCs
(not including ECS Funds or per-pupil Open Choice enrollment grants)

RESC	Open Choice Region	Open Choice Enrollment	Open Choice Transportation	Administering Open Choice	Open Choice Support Programs	Open Choice Summer School	Open Choice Kindergarten	Total
Grant ID			11000-17053-82059-2017	11000-17053-82045-2017	11000-17053-82159-2017	11000-17053-82065-2017	11000-17053-82162-2017	
Capitol Region Education Services (CREC)	Hartford	2,340	$12,223,214	$539,762	$345,771	$300,000	$2,276,702	$15,685,449
Cooperative Educational Services (C.E.S.)	Bridgeport	260	$1,178,475	$129,234	$0	$0	$0	$1,307,709
Area Cooperative Education Services (ACES)	New Haven	455	$2,293,563	$181,005	$0	$0	$0	$2,474,568
LEARN	New London	0	$0	$0	$0	$0	$0	$0
Total		**3,055**	**$15,695,252**	**$850,001**	**$345,771**	**$300,000**	**$2,276,702**	**$19,467,726**

Appendix

The graph below details the total appropriation to the Open Choice program by fiscal year. The appropriation is the sum of the per-pupil incentive grants allocated to the participating districts and the allocations to the RESCs. There are no ECS funds included in this grant.

Figure 3[49]

Total Open Choice Grant Appropriation and
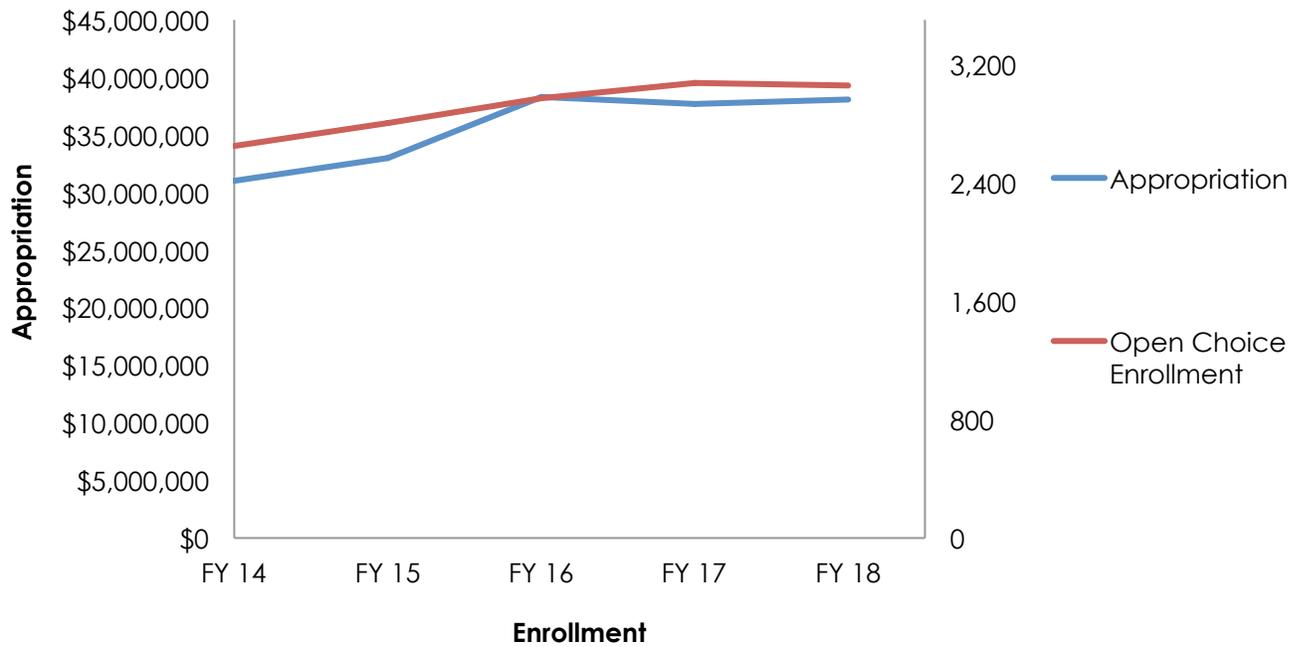Statewide Open Choice Enrollment by Fiscal Year

Figure 4[50,J]

Total District Open Choice Grant to each Receiving District, FY 2018

Town	Total Open Choice Students	Receiving District Enrollment	Open Choice Enrollment %	Grant Per Student	Students Eligible for Additional Entitlement	Additional Entitlement	Total Open Choice Allocation
Ansonia	11	2,283	0.48%	$3,000	10	$1,948	$34,948
Avon	131	3,208	4.08%	$8,000	131	$25,516	$1,073,516
Berlin	92	2,783	3.31%	$6,000	85	$16,556	$568,556
Bethany	5	364	1.37%	$3,000	0	$0	$15,000
Bolton	53	808	6.56%	$8,000	53	$10,323	$434,323
Branford	55	2,901	1.90%	$3,000	50	$9,739	$174,739
Bridgeport	26	20,729	0.13%	$3,000	26	$5,064	$83,064
Canton	111	1,601	6.93%	$8,000	111	$21,621	$909,621
Cheshire	37	4,284	0.86%	$3,000	12	$2,337	$113,337
Cromwell	73	1,963	3.72%	$6,000	73	$14,219	$452,219
East Granby	49	840	5.83%	$8,000	41	$7,986	$399,986
East Haven	16	2,853	0.56%	$3,000	0	$0	$48,000
Easton	21	904	2.32%	$4,000	13	$2,532	$86,532
East Windsor	48	1,071	4.48%	$8,000	48	$9,349	$393,349
Ellington	83	2,685	3.09%	$6,000	76	$14,803	$512,803
Enfield	115	5,188	2.22%	$4,000	103	$20,062	$480,062
Fairfield	65	9,928	0.65%	$3,000	34	$6,623	$201,623
Farmington	134	4,098	3.27%	$6,000	134	$26,101	$830,101
Glastonbury	62	5,905	1.05%	$3,000	51	$9,934	$195,934
Granby	79	1,866	4.23%	$8,000	79	$15,388	$647,388
Hamden	2	5,362	0.04%	$3,000	0	$0	$6,000
Hartford	132	19,563	0.67%	$3,000	107	$20,841	$416,841
Milford	40	5,751	0.70%	$3,000	14	$2,727	$122,727
New Haven	179	21,433	0.84%	$3,000	162	$31,554	$568,554
Newington	93	4,055	2.29%	$4,000	77	$14,998	$386,998
North Branford	26	1,777	1.46%	$3,000	17	$3,311	$81,311
North Haven	40	3,136	1.28%	$3,000	27	$5,259	$125,259
Orange	7	1,173	0.60%	$3,000	0	$0	$21,000
Plainville	122	2,364	5.16%	$8,000	122	$23,763	$999,763
Portland	58	1,312	4.42%	$8,000	40	$7,791	$471,791
Rocky Hill	33	2,700	1.22%	$3,000	24	$4,675	$103,675
Simsbury	165	4,082	4.04%	$8,000	165	$32,139	$1,352,139
Somers	20	1,432	1.40%	$3,000	0	$0	$60,000
Southington	92	6,463	1.42%	$3,000	67	$13,050	$289,050

J These amounts exclude the ECS grant allocation associated with increasing the receiving district's resident student count by half of a student.

Town	Total Open Choice Students	Receiving District Enrollment	Open Choice Enrollment %	Grant Per Student	Students Eligible for Additional Entitlement	Additional Entitlement	Total Open Choice Allocation
South Windsor	132	4,236	3.12%	$6,000	123	$23,958	$815,958
Suffield	72	2,207	3.26%	$6,000	72	$14,024	$446,024
Tolland	4	2,443	0.16%	$3,000	0	$0	$12,000
Trumbull	55	6,717	0.82%	$3,000	10	$1,948	$166,948
Vernon	2	3,086	0.06%	$3,000	0	$0	$6,000
Wallingford	6	5,824	0.10%	$3,000	0	$0	$18,000
West Hartford	196	9,679	2.03%	$4,000	192	$37,398	$821,398
Weston	27	2,329	1.16%	$3,000	11	$2,143	$83,143
Westport	62	5,572	1.11%	$3,000	16	$3,117	$189,117
Wethersfield	92	3,577	2.57%	$4,000	81	$15,777	$383,777
Windsor Locks	96	1,549	6.20%	$8,000	96	$18,699	$786,699
Woodbridge	14	830	1.69%	$3,000	14	$2,727	$44,727
District No. 5	17	2,197	0.77%	$3,000	0	$0	$51,000
District No. 9	4	893	0.45%	$3,000	0	$0	$12,000
District No. 10	1	2,335	0.04%	$3,000	0	$0	$3,000
Total	3,055	210,399	N/A	N/A	2,567	$500,000	$16,500,000

Endnotes

[1] Connecticut State Department of Education. (n.d.). Public School Choice In Connecticut. Retrieved from http://portal.ct.gov/SDE/School-Choice/CT-School-Choice/Public-School-Choice-in-Connecticut.

[2] Sullivan, M. (2016). *Models of Public High School Education in Connecticut* (2016-R-0155). Hartford, CT: Connecticut General Assembly, Office of Legislative Research. Retrieved from https://www.cga.ct.gov/2016/rpt/pdf/2016-R-0155.pdf.

[3] Conn. Gen. Statutes ch. 172, § 10-266aa.

[4] Ibid.

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] Connecticut State Department of Education, Bureau of Fiscal Services. (2018). *2017-18 Open Choice Attendance Grant*. Hartford, CT: Author. Retrieved from http://portal.ct.gov/-/media/SDE/Grants-Management/Report1/opench_PDF.pdf?la=en.

[9] Gurren, A. (2013, April 10). Connecticut Takes the Wheel on Education Reform: Project Concern. *ConnecticutHistory.org*. Retrieved from https://connecticuthistory.org/connecticut-takes-the-wheel-on-education-reform-project-concern/.

[10] Ibid.

[11] Ibid.

[12] Judson, G. (1993, February 1). When Good Will Is Not Enough; Desegregation Project at Heart of Hartford Schools Suit. *The New York Times.* Retrieved from https://www.nytimes.com/1993/02/01/nyregion/when-good-will-not-enough-desegregation-project-heart-hartford-school-suit.html?pagewanted=all&src=pm.

[13] Gurren, A. (2013, April 10). Connecticut Takes the Wheel on Education Reform: Project Concern. *ConnecticutHistory.org*. Retrieved from https://connecticuthistory.org/connecticut-takes-the-wheel-on-education-reform-project-concern/.

[14] Ibid.

[15] Dougherty, J., & contributors. (2017). *On the Line: How Schooling, Housing, and Civil Rights Shaped Hartford and Its Suburbs*. Trinity College, book-in-progress. Retrieved from http://ontheline.trincoll.edu.

[16] Gurren, A. (2013, April 10). Connecticut Takes the Wheel on Education Reform: Project Concern. *ConnecticutHistory.org*. Retrieved from https://connecticuthistory.org/connecticut-takes-the-wheel-on-education-reform-project-concern/.

[17] *Sheff v. O'Neill,* 238 Conn. 1, 678 A.2d 1267 (1996).

[18] Ibid.

[19] Conn. Acts 97-290.

[20] Conn. Gen. Statutes ch. 172, § 10-266aa.

[21] Ibid.

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] Ibid.

[26] Ibid.

[27] Ibid.

[28] Ibid.

[29] Ibid.

[30] Ibid.

[31] Ibid.

[32] Connecticut State Department of Education, Bureau of Fiscal Services. (2018). *2017-18 Open Choice Attendance Grant*. Hartford, CT: Author. Retrieved from http://portal.ct.gov/-/media/SDE/Grants-Management/Report1/opench_PDF.pdf?la=en.

[33] Conn. Gen. Statutes ch. 172, § 10-266aa.

[34] Ibid.

[35] Ibid.

[36] Ibid.

[37] Ibid.

[38] Ibid.

[39] Ibid.

[40] Ibid.

[41] Ibid.

[42] Ibid.

[43] Connecticut State Department of Education. (2018). *2017-18 Open Choice Grant Payment.* Available from https://www.csde.state.ct.us/public/dgm/grantreports1/HPayMain.aspx.

[44] Conn. Gen. Statutes ch. 172, § 10-266aa.

[45] Ibid.

[46] Conn. Gen. Statutes ch. 172, § 10-264i.

[47] Ibid.

[48] Connecticut State Department of Education, Bureau of Fiscal Services. (2018). *2017-18 Open Choice Attendance Grant*. Hartford, CT: Author. Retrieved from http://portal.ct.gov/-/media/SDE/Grants-Management/Report1/opench_PDF.pdf?la=en.

[49] State of Connecticut, Office of the State Comptroller. (2018). Line-Item: Open Choice Program. Available from http://openbudget.ct.gov/#!/year/2018/operating/0/program/Open+Choice+Program/0/department?vis=barChart.

[50] Connecticut State Department of Education, Bureau of Fiscal Services. (2018). *2017-18 Open Choice Attendance Grant*. Hartford, CT: Author. Retrieved from http://portal.ct.gov/-/media/SDE/Grants-Management/Report1/opench_PDF.pdf?la=en.

18415   Sec. 401. Section 10-266aa of the general statutes is repealed and the
18416   following is substituted in lieu thereof (*Effective July 1, 2021*):

18417   (a) As used in this section:

18418   (1) "Receiving district" means any school district that accepts students
18419   under the program established pursuant to this section;

18420   (2) "Sending district" means any school district that sends students it
18421   would otherwise be legally responsible for educating to another school
18422   district under the program; and

18423   (3) "Minority students" means students who are "pupils of racial
18424   minorities", as defined in section 10-226a.

18425   (b) There is established, within available appropriations, an
18426   interdistrict public school attendance program. The purpose of the
18427   program shall be to: (1) Improve academic achievement; (2) reduce
18428   racial, ethnic and economic isolation or preserve racial and ethnic
18429   balance; and (3) provide a choice of educational programs. The
18430   Department of Education shall provide oversight for the program,
18431   including the setting of reasonable limits for the transportation of
18432   students participating in the program, and may provide for the
18433   incremental expansion of the program for the school year commencing
18434   in 2000 for each town required to participate in the program pursuant
18435   to subsection (c) of this section.

18436   (c) The program shall be phased in as provided in this subsection. (1)
18437   For the school year commencing in 1998, and for each school year
18438   thereafter, the program shall be in operation in the Hartford, New
18439   Haven and Bridgeport regions. The Hartford program shall operate as
18440   a continuation of the program described in section 10-266j. Students
18441   who reside in Hartford, New Haven or Bridgeport may attend school in
18442   another school district in the region and students who reside in such
18443   other school districts may attend school in Hartford, New Haven or
18444   Bridgeport, provided, beginning with the 2001-2002 school year, the

18445   proportion of students who are not minority students to the total
18446   number of students leaving Hartford, Bridgeport or New Haven to
18447   participate in the program shall not be greater than the proportion of
18448   students who were not minority students in the prior school year to the
18449   total number of students enrolled in Hartford, Bridgeport or New
18450   Haven in the prior school year. The regional educational service center
18451   operating the program shall make program participation decisions in
18452   accordance with the requirements of this subdivision. (2) For the school
18453   year commencing in 2000, and for each school year thereafter, the
18454   program shall be in operation in New London, provided beginning with
18455   the 2001-2002 school year, the proportion of students who are not
18456   minority students to the total number of students leaving New London
18457   to participate in the program shall not be greater than the proportion of
18458   students who were not minority students in the prior year to the total
18459   number of students enrolled in New London in the prior school year.
18460   The regional educational service center operating the program shall
18461   make program participation decisions in accordance with this
18462   subdivision. (3) The Department of Education may provide, within
18463   available appropriations, grants for the fiscal year ending June 30, 2003,
18464   to the remaining regional educational service centers to assist school
18465   districts in planning for a voluntary program of student enrollment in
18466   every priority school district, pursuant to section 10-266p, which is
18467   interested in participating in accordance with this subdivision. For the
18468   school year commencing in 2003, and for each school year thereafter, the
18469   voluntary enrollment program may be in operation in every priority
18470   school district in the state. Students from other school districts in the
18471   area of a priority school district, as determined by the regional
18472   educational service center pursuant to subsection (d) of this section, may
18473   attend school in the priority school district, provided such students
18474   bring racial, ethnic and economic diversity to the priority school district
18475   and do not increase the racial, ethnic and economic isolation in the
18476   priority school district. (4) For the school year commencing July 1, 2022,
18477   there shall be a pilot program in operation in Danbury and Norwalk.
18478   The pilot program shall serve (A) up to fifty students who reside in

18479 Danbury, and such students may attend school in the school districts for
18480 the towns of New Fairfield, Brookfield, Bethel, Ridgefield and Redding,
18481 and (B) up to fifty students who reside in Norwalk, and such students
18482 may attend school in the school districts for the towns of Darien, New
18483 Canaan, Wilton, Weston and Westport. School districts which receive
18484 students from Danbury and Norwalk under the pilot program during
18485 the school year commencing July 1, 2022, shall allow such students to
18486 attend school in the district until they graduate from high school.

18487   (d) School districts which received students from New London under
18488 the program during the [2000-2001] school year commencing July 1,
18489 2000, shall allow such students to attend school in the district until they
18490 graduate from high school. The attendance of such students in such
18491 program shall not be supported by grants pursuant to subsections (f)
18492 and (g) of this section but shall be supported, in the same amounts as
18493 provided for in said subsections, by interdistrict cooperative grants
18494 pursuant to section 10-74d to the regional educational service centers
18495 operating such programs.

18496   (e) Once the program is in operation in the region served by a
18497 regional educational service center pursuant to subsection (c) of this
18498 section, the Department of Education shall provide an annual grant to
18499 such regional educational service center to assist school districts in its
18500 area in administering the program and to provide staff to assist students
18501 participating in the program to make the transition to a new school and
18502 to act as a liaison between the parents of such students and the new
18503 school district. Each regional educational service center shall determine
18504 which school districts in its area are located close enough to a priority
18505 school district to make participation in the program feasible in terms of
18506 student transportation pursuant to subsection (f) of this section,
18507 provided any student participating in the program prior to July 1, 1999,
18508 shall be allowed to continue to attend the same school such student
18509 attended prior to said date in the receiving district until the student
18510 completes the highest grade in such school. If there are more students
18511 who seek to attend school in a receiving district than there are spaces

18512   available, the regional educational service center shall assist the school
18513   district in determining attendance by the use of a lottery or lotteries
18514   designed to preserve or increase racial, ethnic and economic diversity,
18515   except that the regional educational service center shall give preference
18516   to siblings and to students who would otherwise attend a school that
18517   has lost its accreditation by the New England Association of Schools and
18518   Colleges or has been identified as in need of improvement pursuant to
18519   the No Child Left Behind Act, P.L. 107-110. The admission policies shall
18520   be consistent with section 10-15c and this section. No receiving district
18521   shall recruit students under the program for athletic or extracurricular
18522   purposes. Each receiving district shall allow out-of-district students it
18523   accepts to attend school in the district until they graduate from high
18524   school.

18525   (f) The Department of Education shall provide grants to regional
18526   educational service centers or local or regional boards of education for
18527   the reasonable cost of transportation for students participating in the
18528   program. For the fiscal [years ending June 30, 2015, to June 30, 2017,
18529   inclusive] year ending June 30, 2022, and each fiscal year thereafter, the
18530   department shall provide such grants within available appropriations,
18531   provided the state-wide average of such grants does not exceed an
18532   amount equal to three thousand two hundred fifty dollars for each
18533   student transported, except that the Commissioner of Education may
18534   grant to regional educational service centers or local or regional boards
18535   of education additional sums from funds remaining in the
18536   appropriation for such transportation services if needed to offset
18537   transportation costs that exceed such maximum amount. The regional
18538   educational service centers shall provide reasonable transportation
18539   services to high school students who wish to participate in supervised
18540   extracurricular activities. For purposes of this section, the number of
18541   students transported shall be determined on October first of each fiscal
18542   year.

18543   (g) (1) Except as provided in [subdivision] subdivisions (2) and (3) of
18544   this subsection, the Department of Education shall provide, within

18545 available appropriations, an annual grant to the local or regional board
18546 of education for each receiving district in an amount not to exceed two
18547 thousand five hundred dollars for each out-of-district student who
18548 attends school in the receiving district under the program.

18549 (2) For the fiscal year ending June 30, 2013, and each fiscal year
18550 thereafter, the department shall provide, within available
18551 appropriations, an annual grant to the local or regional board of
18552 education for each receiving district if one of the following conditions
18553 are met as follows: (A) Three thousand dollars for each out-of-district
18554 student who attends school in the receiving district under the program
18555 if the number of such out-of-district students is less than two per cent of
18556 the total student population of such receiving district, (B) four thousand
18557 dollars for each out-of-district student who attends school in the
18558 receiving district under the program if the number of such out-of-
18559 district students is greater than or equal to two per cent but less than
18560 three per cent of the total student population of such receiving district,
18561 (C) six thousand dollars for each out-of-district student who attends
18562 school in the receiving district under the program if the number of such
18563 out-of-district students is greater than or equal to three per cent but less
18564 than four per cent of the total student population of such receiving
18565 district, (D) six thousand dollars for each out-of-district student who
18566 attends school in the receiving district under the program if the
18567 Commissioner of Education determines that the receiving district has an
18568 enrollment of greater than four thousand students and has increased the
18569 number of students in the program by at least fifty per cent from the
18570 previous fiscal year, or (E) eight thousand dollars for each out-of-district
18571 student who attends school in the receiving district under the program
18572 if the number of such out-of-district students is greater than or equal to
18573 four per cent of the total student population of such receiving district.

18574 (3) (A) For the fiscal year ending June 30, 2023, the department shall
18575 provide a grant to the local or regional board of education for each
18576 receiving district described in subdivision (4) of subsection (c) of this
18577 section in an amount of four thousand dollars for each out-of-district

18578   student who resides in Danbury or Norwalk and attends school in the
18579   receiving district under the pilot program.

18580   (B) For the fiscal year ending June 30, 2024, and each fiscal year
18581   thereafter, the department shall provide an annual grant to the local or
18582   regional board of education for each receiving district described in
18583   subdivision (4) of subsection (c) of this section for each out-of-district
18584   student who resides in Danbury or Norwalk and attends school in the
18585   receiving district under the pilot program in accordance with the
18586   provisions of subdivisions (1) and (2) of this subsection.

18587   (C) Not later than January 1, 2025, the department shall submit a
18588   report on the pilot program in operation in Danbury and Norwalk,
18589   pursuant to subdivision (4) of subsection (c) of this section, to the joint
18590   standing committees of the General Assembly having cognizance of
18591   matters relating to education and appropriations, in accordance with the
18592   provisions of section 11-4a. Such report shall include, but need not be
18593   limited to, the total number of students participating in the pilot
18594   program, the number of students from each town participating in the
18595   pilot program, the total amount of the grant paid under the pilot
18596   program and the amount of the grant paid to each town participating in
18597   the pilot program.

18598   [(3)] (4) Each town which receives funds pursuant to this subsection
18599   shall make such funds available to its local or regional board of
18600   education in supplement to any other local appropriation, other state or
18601   federal grant or other revenue to which the local or regional board of
18602   education is entitled.

18603   (h) Notwithstanding any provision of this chapter, each sending
18604   district and each receiving district shall divide the number of children
18605   participating in the program who reside in such district or attend school
18606   in such district by two for purposes of the counts for subdivision (22) of
18607   section 10-262f and subdivision (2) of subsection (a) of section 10-261.

18608   (i) In the case of an out-of-district student who requires special

18609 education and related services, the sending district shall pay the
18610 receiving district an amount equal to the difference between the
18611 reasonable cost of providing such special education and related services
18612 to such student and the amount received by the receiving district
18613 pursuant to subsection (g) of this section and in the case of students
18614 participating pursuant to subsection (d) of this section, the per pupil
18615 amount received pursuant to section 10-74d. The sending district shall
18616 be eligible for reimbursement pursuant to section 10-76g.

18617 (j) Nothing in this section shall prohibit school districts from charging
18618 tuition to other school districts that do not have a high school pursuant
18619 to section 10-33.

18620 (k) On or before March first of each year, the Commissioner of
18621 Education shall determine if the enrollment in the program pursuant to
18622 subsection (c) of this section for the fiscal year is below the number of
18623 students for which funds were appropriated. If the commissioner
18624 determines that the enrollment is below such number, the additional
18625 funds shall not lapse but shall be used by the commissioner in
18626 accordance with this subsection.

18627 (1) Any amount up to five hundred thousand dollars of such
18628 nonlapsing funds shall be used for supplemental grants to receiving
18629 districts on a pro rata basis for each out-of-district student in the
18630 program pursuant to subsection (c) of this section who attends the same
18631 school in the receiving district as at least nine other such out-of-district
18632 students, not to exceed one thousand dollars per student.

18633 (2) Any amount of such nonlapsing funds equal to or greater than
18634 five hundred thousand dollars, but less than one million dollars, shall
18635 be used for supplemental grants, in an amount determined by the
18636 commissioner, on a pro rata basis to receiving districts that report to the
18637 commissioner on or before March first of the current school year that the
18638 number of out-of-district students enrolled in such receiving district is
18639 greater than the number of out-of-district students enrolled in such

18640   receiving district from the previous school year.

18641   (3) Any remaining nonlapsing funds shall be used by the
18642   commissioner to increase enrollment in the interdistrict public school
18643   attendance program described in this section.

18644   (l) For purposes of the state-wide mastery examinations under
18645   section 10-14n, students participating in the program established
18646   pursuant to this section shall be considered residents of the school
18647   district in which they attend school.

18648   (m) Within available appropriations, the commissioner may make
18649   grants to regional education service centers which provide summer
18650   school educational programs approved by the commissioner to students
18651   participating in the program.

18652   (n) The Commissioner of Education may provide grants for children
18653   in the Hartford program described in this section to participate in
18654   preschool and all day kindergarten programs. In addition to the subsidy
18655   provided to the receiving district for educational services, such grants
18656   may be used for the provision of before and after-school care and
18657   remedial services for the preschool and kindergarten students
18658   participating in the program.

18659   (o) Within available appropriations, the commissioner may make
18660   grants for academic student support for programs pursuant to this
18661   section that assist the state in meeting [the goals of the 2008 stipulation
18662   and order for Milo Sheff, et al. v. William A. O'Neill, et al., as extended,
18663   or the goals of the 2013 stipulation and order for Milo Sheff, et al. v.
18664   William A. O'Neill, et al., as extended, as determined by the
18665   commissioner] its obligations pursuant to the decision in Sheff v.
18666   O'Neill, 238 Conn. 1 (1996), or any related stipulation or order in effect,
18667   as determined by the Commissioner of Education.

18668   Sec. 402. Section 10-17g of the general statutes is repealed and the
18669   following is substituted in lieu thereof (*Effective July 1, 2021*):

EVALUATING THE ACADEMIC PERFORMANCE OF CHOICE PROGRAMS IN CONNECTICUT:

A Pretest-Posttest Evaluation Using Matched Multiple Quasi-Control Comparison Groups

CSDE

CONNECTICUT STATE
DEPARTMENT OF EDUCATION

Connecticut State Department of Education

March 2015

EVALUATING THE ACADEMIC PERFORMANCE OF CHOICE PROGRAMS IN CONNECTICUT:

A Pretest-Posttest Evaluation Using Matched Multiple Quasi-Control Comparison Groups

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PREFACE

The Connecticut State Department of Education commissioned this evaluation to study if Choice programs were effective in raising academic achievement. Conducting an analysis of educational program outcomes is an inherently complex endeavor. This study also serves to illustrate the limitations of commonly drawn inferences made using annual assessment results. The CSDE appreciates the passion, commitment, and dedication of its former employee, Dr. Richard Mooney, for his continued partnership in designing and conducting this study.

ACKNOWLEDGMENTS

EXECUTIVE SUMMARY

Public charter schools, interdistrict magnet schools, and the Open Choice program are collectively called Choice programs. One of their key missions is to improve educational outcomes of historically underperforming students from Connecticut's urban public schools. This analysis examines the academic growth and outcome performance based on the Connecticut Mastery Tests (CMT) for Choice program attendees from Connecticut's four largest cities—Bridgeport, Hartford, New Haven, and Waterbury—over a two-year period (2010 to 2012).

To conduct the most effective examination of ex post facto or pre-existing data where random assignment is either impossible or unethical (Murnane, R.J. and Willett, J.B., 2011), 30 stratified random samples of quasi-controls were generated from the co-present population of CMT test-takers. Then, the academic results for urban Choice program attendees were compared with results from the 30 samples. To counter known biasing influences such as higher baseline test performance, these quasi-control samples were matched with their respective Choice program "treatment group" on baseline test performance as well as on student background characteristics known to be related to test performance (Behuniak, P., Mooney, R. F., Cloud, R., 1990).

Results for each Choice program group and its respective quasi-control groups were tracked and compared longitudinally for the same students in two grade cohorts:

1. Grade 3 in 2010 to Grade 5 in 2012
2. Grade 6 in 2010 to Grade 8 in 2012

The use of longitudinal data allows us to ascribe academic performance gains over time to the educational interventions that have taken place; additionally, comparing gains achieved by the Choice program groups to their respective quasi-control groups enables us to control for gains that might have occurred naturally due to student maturation.

In the Grades 3 to 5 cohort, the analysis reveals statistically meaningful gains at or above the CMT Proficient level in interdistrict magnet schools operated by regional educational service centers (RESCs) and for the Open Choice program, and nearly statistically meaningful gains at or above the CMT Goal level for the RESC-operated interdistrict magnet schools.

In the Grades 6 to 8 cohort, public charter schools alone showed statistically meaningful gains at or above Proficient **and** Goal levels on the CMT.

This study remains an ex post facto, or "after the fact" analysis, thus not allowing causal attribution of the program outcomes. Hence, in practice it cannot be said with certainty that clones of these Choice programs, or an exportation of specific pedagogical techniques and strategies used, will necessarily ensure similar performance successes for urban students in general.

INTRODUCTION

Public charter schools, interdistrict magnet schools, and the Open Choice program are collectively called Choice programs. One of their key missions is to improve educational outcomes of historically underperforming students from Connecticut's urban public schools. The purpose of this evaluation is to answer a specific question: Are Connecticut's Choice programs succeeding in helping urban students (i.e., students from Connecticut's major cities of Bridgeport, Hartford, New Haven, and Waterbury) to close the academic achievement gap by enabling them to make greater academic gains as compared with peers who did not participate in these programs?

Four distinct Choice programs will be evaluated separately: public charter schools, interdistrict magnet schools operated by regional educational service centers (RESCs), interdistrict magnet schools operated by local school districts, and the Open Choice program. The academic outcomes used for this evaluation were based on results from the Connecticut Mastery Test (CMT).

Statement of the Problem: The central challenge in this study is that the performance of students attending these Choice programs tends not to be representative of the general urban population. As compared with neighborhood peers, urban students who choose to attend Choice program schools tend to reflect higher performance at baseline on standardized academic assessments. They also may differ in terms of background characteristics that are known to predict better test performance; for instance, Choice program attendees tend to have fewer special education students (SPED) or English language learner students (ELL). In order to conduct a fair, balanced, and meaningful evaluation, the key concern is to find an appropriate comparison group. So, who are the comparable peers?

DESIGN AND METHODOLOGY

Overview: To evaluate Choice programs in a fair, unbiased way, a carefully considered methodology is critical. The attribution of cause remains a major obstacle in the evaluation of any study where the treatment has occurred in the past (Campbell, D.T. and Stanley, J.C., 1963). A study that takes place after the fact is technically known as an ex post facto study. A traditional experimental research design using random assignment of subjects to an experimental and a control group prior to the treatment intervention is the only legitimate way to claim causal inference. Nevertheless, it is important to recognize the need for more effective examinations of ex post facto studies—as in the case of this Choice program evaluation— where random assignment is either impossible or unethical (Murnane, R.J. and Willett, J.B., 2011). Hence, we seek to conduct the best possible investigations, and draw the best possible conclusions despite the inherent limitations of ex post facto research. In other words, we should strive to do post hoc investigations in the spirit of sound scientific inquiry in spite of the fact that true causal conclusions are not possible.

Back in 1972, Harvard statisticians Frederick Mosteller and Senator Daniel Patrick Moynihan expressed frustration with the conclusions of the famous Coleman Report. They called for "better research designs" and "representative prospective longitudinal data in order to understand more comprehensively the impacts on children of investments in schooling" (Murnane, R.J. and Willett, J. B, 2011, p.6). Therefore, a good first step is to use pretest-posttest longitudinal academic assessment data. Measuring growth over time allows us to ascribe any performance gains to the educational interventions that have taken place from time 1 to time 2. A pretest-posttest only design is shown in figure 1:

Figure 1: Pretest-Posttest Only Design

O1   X   O2, where

O1 = pretest group performance
X = treatment, i.e., Choice program
O2 = posttest group performance

Such a pretest-posttest design has important benefits over single-point-in-time studies because academic test-score gains can be directly attributed to educational teaching and learning that occurred during the period of study. While this design is preferable to a static or single-point-in-time analysis, one important limitation is that it does not control for student maturation (Campbell, D.T. and Stanley, J.C., 1963). Maturation refers to the relative educational test performance gains of students who attended a regular neighborhood school and did not attend a Choice program. Thus, it becomes impossible to tell what academic test performance gains might have occurred for Choice program attendees had they not received any treatment intervention. Therefore, to better understand what normal gains might have occurred without any intervention, an untreated and unbiased control group is needed.

Matching: Although a true random control group cannot be obtained after the fact, the next best option is to define a matched group of students who possess comparable academic achievement and background characteristics at baseline. We can do this by identifying student test-takers who are very similar to choice program attendees at baseline based on standardized test performance and performance related background characteristics. We can then use this information to track their performance and compare those results to Choice program attendees at outcome. Such a sample is intended to reflect a meaningful "quasi-control" comparison group.

Thus, in order to counter known biasing influences such as higher educational skills and abilities at baseline, the quasi-control group must be matched with the Choice treatment group on both baseline test performance and background characteristics known to be related to test performance.

To improve on the pretest-posttest only design (shown in figure 1), a matched quasi-control group can be added to help control for these known biasing influences and the maturational effects. Because it is not a true experimental design with random assignment to experimental and control groups prior to the introduction of the experimental intervention, it is known as a "quasi experimental" design (Campbell, D.T. and Stanley, J.C., 1963). Figure 2 (below) displays the structure of the pretest-posttest design with the addition of a matched quasi-control group:

Figure 2: Pretest-Posttest Quasi-Control Group Design

O1   X   O2

C1   C2   Match, where

O1 = pretest group performance
O2 = posttest group performance
X = treatment, i.e., Choice program
C1 = mean of one matched control group at pretest
C2 = mean of one matched control group at posttest
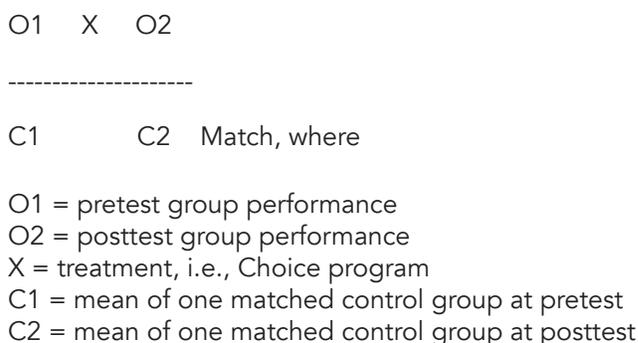
The dotted line in figure 2 represents the fact that the treatment and control groups, although matched across critical attributes, are nonetheless not randomly assigned to treatment and control groups *prior* to the treatment intervention. This design is more powerful than the pretest-posttest only design shown in figure 1, but still cannot explain other possible underlying causal differences between students who opt to enlist in the Choice programs and those who do not—for example, student motivational factors.

While this design does not support causal interpretations concerning program outcomes, the addition of a matched quasi-control group nevertheless strengthens the pretest-posttest only design significantly because it allows for comparisons between the treatment group and untreated students with similar performance and background characteristics. It provides a meaningful lower-bound expectation of the outcome performance of very similar matched students who did not enter a choice program, *provided* the control group is a sufficiently valid representation of the treatment group at baseline.

Finally, we need a way to identify meaningful performance differences at outcome between the Choice program attendees and the quasi-control group. While many true experimental studies are faulted for basing conclusions on tiny samples that are insufficient to achieve statistical significance, an equally important practical problem in ex post facto studies is that comparisons can be identified as significant, regardless of their practical or substantive meaning, due to large samples. Technically, this somewhat obscure statistical problem is known as "inflation of the type 1 error rate." This very real technical problem occurs when researchers apply standard statistical tests intended for true experimental studies based on random samples to studies of large extant groups (Henkel, R.E., 1976).

What this means in practice is that the application of standard statistical tests can increase the potential for finding "statistical significance" even when such differences are trivial or not meaningful. Thus, ex post facto evaluations such as this Choice study, which has relatively large groups, can yield false-positive findings if standard statistical tests are applied. While these problems may seem exotic to the nontechnical reader, they are nevertheless legitimate and have been cited in critiques of recent national investigations of charter school performance (see Maul, A. and McClelland, A., 2013).

To resolve these problems, a novel strategy employed in this study is to use "matched *multiple* quasi-control groups" rather than just one matched quasi-control group. Thirty stratified random samples of students were selected from the regular test-taking population of CMT archives that match both the overall test performance **and** performance related background characteristics of each individual Choice program group. Figure 3 (below) shows the diagram of the design used in this study. It differs from figure 2 only because it uses *multiple* matched quasi-control samples. These are identified by the number "30" in parentheses after each representation of the matched quasi-control groups (see figure 3).

Figure 3: Pretest Posttest Design with Multiple Quasi-Control Groups Design

O1   X   O2

C1(30)   C2(30) Match, where

O1 = pretest group performance
O2 = posttest group performance
X = intervention, i.e., a Choice program
C1(30) = means of 30 matched control groups at pretest
C2(30) = means of 30 matched control groups at posttest

This approach has two critical benefits. First, it stabilizes the performance estimates for students in the general population who share the same performance and performance-related background characteristics for each of the Choice group comparisons; these estimates in total—the grand mean obtained from the assembled distribution of 30 means—best reflects the true population mean **and** provides a greater degree of stability for the performance estimates. Second, having 30 sample means rather than just one describes the empirical sampling error and, therefore, provides a practical and meaningful empirical benchmark of expected performance for students of similar background and ability against which to compare specific treatment group outcomes. The range of those sample means will be normally distributed, regardless of the shape of the parent distributions from which the samples were derived (Kerlinger, F.N., 1973). By establishing a predetermined cutoff value on the sample distribution at outcome and without resorting to standard statistical procedures, the two groups—those who attend the Choice programs and those who do not—can be compared with statistical rigor, while avoiding the type 1 error rate problem.

Stated differently, the matched quasi-control groups can thus be considered "virtual peers" and their performance at outcome will help level the playing field so that comparisons between treatment and controls can be both fair **and** meaningful. The virtual peers established at baseline are tracked co-presently over the same grade levels and time as the Choice program attendees and used to compare the relative test performance results at outcome or posttest. The specific detailed steps for obtaining the virtual peer samples are presented in appendix A.

Operational Definitions:

Cohorts: This study is based on a longitudinal matched pretest-posttest quasi-experimental design using two matched cohorts of students. Cohort 1 includes students in the Choice programs from pretest at Grade 3 in 2010 to posttest at Grade 5 in 2012. Cohort 2 includes students in the Choice programs from pretest at Grade 6 in 2010 to posttest at Grade 8 in 2012.

Dependent Measures: All student results reported in this study will be based strictly on matched student test records from 2010 to 2012 with valid pretest and posttest CMT results. Given that mobility tends to occur more frequently among urban students, this study moderately under-represents this group. Because the achievement gap affects both mathematics and reading performance, the dependent measure for this study is based on combining the results from both of these CMT tests. Thus, to achieve proficiency (which is achievement level 3 of 5), a student must be at or above the Proficient level in *both* mathematics *and* reading, abbreviated as MARD. Similarly, to achieve Goal level performance (which is achievement level 4 of 5), a student must be at or above the Goal level of performance in *both* mathematics *and* reading. Each program assessment will therefore be based on change in the percentage of students who have achieved these performance levels (henceforth referred to as Proficient and Goal) in both reading and math.

Performance over Time: To measure academic gains, it is first necessary to assess performance over time (Behuniak, P., Mooney, R.F. and Cloud, R, 1990). That is, to ascribe program gains or losses to academic treatments that have taken place, first baseline performance must be established and then, after a period of treatment—for example, membership in a specific Choice program—performance must be evaluated again at outcome. Only then is it possible to ascribe the educational activities from the treatment to the performance of the treatment group at outcome. For this analysis, student performance on the CMT is tracked from 2010 to 2012.

Achievement Gap: For this study, the achievement gap is defined as the academic test performance differential between urban and nonurban students. This achievement gap has been a critical issue for educators in Connecticut and throughout the country (Behuniak et al., 1990). For this study, the achievement gap is operationalized as a specific score range obtained from the test results stored in the CMT archives. The lower-bound estimate of the achievement gap is based on the longitudinal matched urban achievement results from the CMT for students who attended the same local school in the target districts at pretest in 2010 and posttest in 2012. The corresponding upper-bound estimate of the achievement gap is based on the summary test performance outcomes for all nonurban students (i.e., excluding students from all seven of Connecticut's largest cities) with valid CMT test results who attended the same school for the pretest/posttest period.

Hypotheses: A hypothesis is a formal assertion written in the form of a question that is central to the evaluation of a specifically defined research outcome. In this case, the hypothesis focuses on the determination of whether the Choice programs help students demonstrate better academic gains at outcome and achieve higher academic performance on MARD at posttest, over and above the benefits of attending a traditional urban neighborhood school.

A statistical test is fundamentally rooted in sampling theory and incorporates a concept known as the standard error. The standard error is a measure of variability that takes into account normal sample fluctuations.

Thus, if a particular experimental outcome exceeds the results of the control groups at posttest this in itself may not be meaningful, but if the difference also exceeds the extreme range of the empirical sampling error then the finding is considered statistically robust or "significant." In this evaluation, the interpretation that a particular finding is "statistically meaningful" describes cases where a particular Choice program exceeds the benchmark expectations or distribution of mean outcomes for the quasi-control groups.

There are two statistical tests of central importance in this study:

Hypothesis 1: Gains Test

Do the treatment gains at outcome exceed control gains in a statistically meaningful way? These gains[1] are diagrammed in the hypotheses depicted below. This hypothesis asks whether the treatment gains from baseline to outcome (T2 – T1) exceed quasi-control gains at outcome (C2 – C1).

Ho 1: T2 – T1 ≤ C2 – C1   (Treatment gains are less than or equal to Control gains)

Ha 1: T2 – T1 > C2 – C1   (Treatment gains exceed Control gains)

Hypothesis 2: Outcome Test

Does the MARD performance of the treatment group exceed the control group at outcome? This answers the question: how did Choice program students perform at posttest compared with virtual peers who remained in their local neighborhood schools? This hypothesis and the alternative hypothesis are shown below.

Ho 2: T2 ≤ C2   (Treatment outcome is less than or equal to Control outcome)

Ha 2: T2 > C2   (Treatment outcome exceeds Control outcome)

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1. It should be noted that the pretest and the posttest measures based on CMT results (MARD) are derived from tests of different levels of difficulty (grade levels), and in this case the test performance levels have not been vertically equated on the measures of interest (i.e., mathematics and reading). The content of the tests reflects increasing pedagogical expectations from the lower to the higher grades. That said, this gains test is a good, practical way to measure student gains from grade to grade based on the Proficient and Goal levels. For example, if the percentage of students who are at or above the Proficient level at pretest are greater at posttest, and they exceed quasi-control peer samples by a meaningful extent, then this argues that academic growth has occurred for the treatment group over and above the expected growth for the quasi-control peers.

Statistical Analysis: Due to limitations related to ex post facto research designs, classical statistical tests are generally not appropriate for comparing group performance (Henkel, R.D., 1976). Instead, a novel strategy developed in this analysis is to use empirical tests using the empirical overall sample average and the empirical standard error of 30 quasi-control matched samples to determine statistical meaningful-ness. An overriding principle of this study is to conduct all the statistical tests using the most conservative procedures. Hence, all tests will be conducted as if the comparisons at pretest and posttest are indepen-dent, and the p value[2] will be set at two standard deviations, which reflects the 95th percentile point of the normal null distribution of deviates. Thus, without resorting to the usual statistical procedures, the groups who attended the Choice programs and those who did not can be compared with statistical rigor. A de-tailed explanation of the empirical statistical testing approach is included in appendix B.

Reattribution: To counter the argument that Choice programs may be driving away lower performing students in order to bolster their test scores, the outcome scores of students who leave the Choice programs and go on to attend other Connecticut schools and take valid CMT tests in mathematics and reading are reattributed to the Choice programs at outcome. Unless the leavers are very high or very low performing at posttest (i.e., biased), this should have a neutral influence on outcome performance. Students who cannot be traced to Connecticut public schools will be regarded as cases of normal attrition. This approach is intended to be consistent with the overarching policy of conservative performance assessment decisions in this study. See appendix C for the attrition rates and the students reattributed.

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2. *P* value is the probability or level of significance for rejecting a null hypothesis. In this instance, if a choice program evidences gains that are two standard deviations greater than the gains evidenced by the 30 quasi-control matched samples, then one can conclude with high confidence that the gains of the choice program were not by chance.

FINDINGS AND INTERPRETATIONS

The purpose of this report was to compare each of the Choice programs in order to determine their relative effectiveness at closing the achievement gap for students in Bridgeport, Hartford, New Haven, and Waterbury. Importantly, both the direct observation of the performance scores and gap indicators, as well as the development of statistical cut scores based on virtual peer samples converged and were in agreement in this analysis. A more detailed and technical discussion of the results is contained in appendix D.

Cohort 1 Findings: For cohort 1 (Grade 3 2010 to Grade 5 2012) the RESC magnet group performed best at closing the gap at both the Proficient level and the Goal level compared with the other Choice programs. The RESC magnet group made statistically meaningful gains over time of 25.4% at the Proficient level from pretest to posttest that exceeded the standard set by the virtual peer samples. In absolute terms, the RESC magnet group score at outcome was 83.6% at Proficient, coming to within -1.6% of closing the posttest achievement gap at the Proficient level on MARD.

Table 1. Cohort 1 CMT Growth (Grades 3 to 5) at Proficient level

	N	% Proficient on 2010 CMT	2010 gap %	% Proficient on 2012 CMT	2012 gap %	Change in % Proficient
Nonurban schools	18,318	78.9	--	85.2	--	6.3
Urban students						
Urban schools (non-Choice)	2,496	43.9	-35.0	48.3	-36.9	4.4
Public charter schools	184	63.6	-15.3	58.2	-27.0	-5.4
Magnet schools operated by local districts	353	48.4	-30.5	58.1	-27.1	9.7
Magnet schools operated by RESCs	55	58.2	-20.7	83.6†	-1.6	25.4†
Open Choice program	89	47.2	-31.7	66.3‡	-18.9	19.1†

† Exceeds empirical cut value   ‡ Near empirical cut value

Furthermore, performance for the RESC magnet group at the higher Goal level of achievement was also very nearly statistically meaningful, attaining an absolute score of 56.4% at Goal and an absolute gap closure to within -14.9% of the majority for closing the gap at Goal (see Table 2). This reflects a substantial gain in goal performance of 21.9% for the RESC magnets. Goal level achievement is particularly important, because it demonstrates a higher level of learning and understanding.

The Open Choice group exceeded the statistical cut off compared with their virtual peer samples in terms of performance gains over time, which were 19.1% in absolute terms from pretest to posttest at the Proficient level (see Table 1). Open Choice also performed well for cohort 1 in terms of closing the gap at the Proficient level—although not doing as well as the RESC magnets. The Open Choice students very nearly exceeded the statistical cutoff value for the virtual peer samples in terms of overall MARD performance at posttest by achieving 66.3% of the students at the Proficient level. None of the other Choice programs met or exceeded these performance results for cohort 1. These findings are interpreted to mean that urban students in cohort 1 benefited more from the RESC magnet and Open Choice programs than from the other Choice programs based on MARD performance at outcome. The Open Choice program did not achieve a statistically meaningful level of performance at the Goal level for cohort 1.

Table 2. Cohort 1 CMT Growth (Grades 3 to 5) at Goal level

	N	% Goal on 2010 CMT	2010 gap %	% Goal on 2012 CMT	2012 gap %	Change in % Goal
Nonurban schools	18,318	59.1	--	71.3	--	12.2
Urban students						
Urban schools (non-Choice)	2,496	21.6	-37.5	29.8	-41.5	8.2
Public charter schools	184	39.7	-19.4	41.3	-30.0	1.6
Magnet schools operated by local districts	353	26.6	-32.5	38.0	-33.3	11.4
Magnet schools operated by RESCs	55	34.5	-24.6	56.4†	-14.9	21.9†
Open Choice program	89	24.7	-34.4	36.0	-35.3	11.3

† Near empirical cut value

An overall caution in interpreting the findings in cohort 1 is to bear in mind that the statistically meaningful findings for RESC magnet and Open Choice programs were based on rather small groups of urban attendees. The sample size of the programs was taken into account by the quasi-control statistical sampling procedure that was used, so this in no way reflects on the meaningfulness or robustness of the findings themselves. Nevertheless, as a practical consideration it has to be taken into account that smaller sized groups of urban students could potentially have received specialized educational support or interventions that might not be possible were these programs replicated to include larger numbers of urban students.

A second consideration in interpreting these cohort 1 results is to point out that the Open Choice program does not reflect a single unified educational program, but is actually a kind of omnibus "treatment" that allows urban students to volunteer to attend nonurban schools. Another confounding factor is that the number of urban students attending each individual school varies from school to school. Each school, therefore, may have somewhat different approaches to teaching and learning as well as variable levels of educational support and interventions. Again as a practical consideration, it is therefore difficult to say whether the Open Choice option can be precisely replicated or if the program would have the same successes if these schools had larger numbers of urban students in Grades 3 through 5.

Cohort 2 Findings: For cohort 2 (Grade 6 2010 to Grade 8 2012), the results demonstrate that public charter schools did best at closing the gap both at the Proficient level and at the Goal level on MARD by a statistically meaningful margin. Gains at Proficient for the charters in cohort 2 were 8.0%, widely outperforming the other Choice programs (see Table 3). The charter schools in cohort 2 posted an absolute performance score of 81.3% at the Proficient level at posttest and also demonstrated an absolute Proficient level gap closure of within -9.5% at posttest compared with the nonurban majority. These findings exceeded the empirical cut value for the virtual peer samples at posttest and also in terms of performance gains over time.

Table 3. Cohort 2 CMT Growth (Grades 6 to 8) at Proficient level

	N	% Proficient on 2010 CMT	2010 gap %	% Proficient on 2012 CMT	2012 gap %	Change in % Proficient
Nonurban schools	19,246	89.0	--	90.8	--	1.8
Urban students						
Urban schools (non-Choice)	2,352	61.3	-27.7	59.6	-31.2	-1.7
Public charter schools	326	73.3	-15.7	81.3†	-9.5	8.0†
Magnet schools operated by local districts	512	69.9	-19.1	69.3	-21.5	-0.6
Magnet schools operated by RESCs	96	75.0	-14.0	75.0	-15.8	0.0
Open Choice program	76	72.4	-16.6	75.0	-15.8	2.6

† Exceeds empirical cut value

Even more importantly, the performance at the higher Goal level showed that the public charter schools demonstrated a higher level of learning and understanding compared with the other Choice programs in cohort 2 (see Table 4). Gains at Goal for the charters in cohort 2 (10.7%) were even higher than that at Proficient (8.0%), again widely outperforming the other Choice programs. The absolute Goal performance on MARD was 60.1% at Goal, demonstrating a performance gap closure at the Goal level at posttest of -15.1% compared with the nonurban majority. This is nearly two or more times better than any of the other Choice programs at Goal for cohort 2. Furthermore, none of the other Choice programs approached a statistically meaningful outcome for cohort 2 at either the Proficient or Goal levels on MARD. This is interpreted to mean that the urban students in public charter schools benefitted more than urban students in the other Choice programs and therefore may be assumed to be better prepared for the academic demands of high school.

Table 4. Cohort 2 CMT Growth (Grades 6 to 8) at Goal level

	N	% Goal on 2010 CMT	2010 gap %	% Goal on 2012 CMT	2012 gap %	Change in % Goal
Nonurban schools	19,246	73.6	--	75.2	--	1.6
Urban students						
Urban schools (non-Choice)	2,352	37.8	-35.8	32.9	-42.3	-4.9
Public charter schools	326	49.4	-24.2	60.1†	-15.1	10.7†
Magnet schools operated by local districts	512	39.5	-34.1	34.2	-41.0	-5.3
Magnet schools operated by RESCs	96	42.7	-30.9	45.8	-29.4	3.1
Open Choice program	76	40.8	-32.8	31.6	-43.6	-9.2

† Exceeds empirical cut value

Interaction Effects for Cohorts 1 and 2: The inconsistent findings between cohort 1 and cohort 2 are puzzling. In research, this is known as an interaction effect. Once again, it is important to note that these findings showed a convergence of results for the descriptive test performance scores—such as in absolute performance terms at Proficient or Goal or on the gap closure index—as well as in terms of the findings for the empirical cut-value technique based on comparisons with random samples of matched quasi-control peers. Therefore, it seems that these overall findings support an interpretation of meaningful program performance differences. More investigations are required to draw conclusions about this interaction effect confidently. One possible explanation for the disparity is that strategies that work best for the younger students in cohort 1 may not be as effective for the slightly more mature students in cohort 2, and vice versa. Nevertheless, this is conjecture. Closer examination of these circumstances and a more complete understanding of the teaching methods and support environment would be helpful in interpreting these phenomena.

How can this study be used? This analysis provides an important benchmark for evaluating Connecticut's Choice programs. The methodology provided several ways to view performance comparisons, as well as including an innovative method of comparing program performance results at outcome to the results of matched multiple samples of quasi-control peers. These quasi-controls, or virtual peer samples, were derived from selecting matched random samples at pretest, tracking them over the same time as the treatment group, and comparing those findings at posttest with the Choice program attendees. The purpose of the quasi-controls is thus to adjust or control for baseline performance disparities or bias among the Choice programs and to provide a way to estimate the benefits of natural maturation for nonprogram attendees during the period of study (i.e., from 2010 to 2012).

This study demonstrates that pretest-posttest comparisons are clearly a superior method over traditional single-point-in-time or cross-sectional analyses for evaluating program effectiveness. Second, using matched multiple quasi-controls appears to be a useful enhancement to the traditional pretest-posttest quasi-experimental design.

Empirically determined performance benchmarks provide a useful way to compare the relative performance of the matched cohorts to help interpret the influence of normal student maturation effects and also to help determine robust and statistically meaningful program differences at outcome while controlling for type 1 errors. Short of employing true experimental designs with random assignment of subjects to treatment and control groups, replications of the analysis across different times would be a useful way of confirming the findings in this report.

Note that this study does not attend to other intangible gains that may be derived from attendance at these programs, including benefits to students that are not measured by the CMT. More needs to be known about the potential benefits of these programs beyond the limits of academic test performance alone.

A more detailed follow-up, school-level analysis of the best-performing programs is needed to determine the relative stability of these findings from school to school because higher overall program performance generally does not ensure that all schools are applying the model equally well. A school-level study can determine in more detail precisely what specific pedagogical or programmatic methods yield the observed performance gains in the better performing programs.

CONCLUDING OBSERVATIONS

This study examined the achievement of urban students from Bridgeport, Hartford, New Haven, and Waterbury attending Connecticut's Choice programs from 2010 to 2012 from several different perspectives. The primary finding is that urban students in cohort 1 (Grade 3 2010 to Grade 5 2012) benefitted more in terms of MARD test gains and performance at outcome from the RESC magnet schools at the Proficient level. These results in terms of absolute gap closure were consistent with comparisons with mean performance results for matched groups of virtual peer samples.

The Open Choice program also benefitted cohort 1 students on MARD at the Proficient level only in terms of performance gains. The RESC magnet program achieved near statistically meaningful performance at the Goal level as well. While demonstrating good performance gains and gap closure at the Proficient level is important, Goal level achievement is interpreted as reflecting a higher level of learning and understanding. It was noted that both of these programs are relatively small compared with some of the other Choice programs and, furthermore, that the Open Choice program actually reflects a broad diversity of treatments because each receiving school may be quite different. These issues raise questions about the broader applicability of these models.

In addition, the urban students in cohort 2 (Grade 6 2010 to Grade 8 2012) benefitted more from public charter schools both in terms of performance gains and absolute gap closure at Proficient as well as at Goal on MARD, and also exceeded the cut value established by the combined performance of matched groups of randomly selected peers. The charter performance effects at outcome demonstrated statistically meaningful performance outcomes at the Goal level of achievement, reflecting a substantially higher level of learning and understanding than achievement at the Proficient level. This is notably important for urban students because the middle school years are a gateway to high school, and this is the critical period urban students tend to decline in academic performance as compared with their nonurban peers.

An important caveat is that this study remains an ex post facto or "after the fact" analysis, thus prohibiting causal attribution for these program outcomes. This may in turn affect program transferability. Therefore, it cannot be said with certainty, for example, that clones of these choice programs, or a piecemeal exportation of the pedagogical techniques and strategies used, will necessarily ensure similar performance successes for urban students generally. Validation of these findings by identifying key elements of the programs and randomly assigning some or all of these programmatic or pedagogical methods of these programs to other urban schools would be a very helpful way to crosscheck these results further.

Also note that the Choice programs vary widely in terms of students' test performance at baseline compared with the neighborhood urban target districts examined in this study. Nevertheless, regardless of the causal reasons behind these baseline performance disparities, higher overall group performance at baseline was not always shown to result in better performance at outcome. Therefore, selecting students for admission to Choice programs based solely on better baseline achievement should not be considered a substitute for effective teaching and learning strategies.

This study is an example of a longitudinal pretest posttest study of student performance that compares the same students from time 1 to time 2. This study built on and extended the work of a prior report (Behuniak et al., 1990) by not only examining student performance over time, but also using several novel and innovative strategies for examining, reporting, and interpreting student performance. These include the development of absolute gap indicators as well as the development of a newly developed statistical test strategy based on empirical student performance of matched cohorts of students with similar baseline performance

and performance-related characteristics. This study therefore represents a new standard for innovation and thoroughness regarding the evaluation of programs designed to improve student performance.

Although this work provides a very important perspective on urban student performance in the various Choice programs, it is equally important to consider a number of issues not included in this study as these findings are reviewed and considered. For instance, while all the Choice programs showed improved performance over the students who remained in their urban local schools, these differences were not always statistically meaningful after taking into account baseline test performance and normal maturational effects using quasi-control groups, but may still have important long term benefits for urban student attendees above and beyond test performance alone.

In addition, apart from test performance outcomes alone, it is also important to take into account other practical considerations that could not be included in this study but which may also affect student achievement in the longer term. For example, the Choice programs may have many important long-term benefits for student participants, including social integration factors and elements other than academic test performance as measured on the CMT. Finally, in interpreting these results, keep in mind that prior program experience in the Choice programs occurring before the measured periods of cohort 1 and cohort 2 may help to explain cases of higher test performance at baseline.

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APPENDIX A — QUASI-CONTROL SELECTION AND MATCHED TEST PERFORMANCE COMPARISONS ON PRETEST IN MATH AND READING (MARD)

Cohort 1 Grades 3 to 5

Title	sampcnt	mard_n	prespedpct	preellpct	prelunchpc	minorpct	preedfac	presocfac	premardp
1.0 CITIES OUT	--	18318	5.8	4.0	19.6	20.2	9.5	17.8	78.9
2.0 LOCAL DIST	--	2496	3.6	14.3	93.0	86.3	17.4	85.0	43.9
3.0 CHARTER DIST	--	184	1.6	1.1	68.5	98.4	2.7	97.3	63.6
3.1 RANDOM	373	185	1.6	1.1	71.5	97.9	2.7	97.9	60.4
4.0 MAG NOT RESC	--	353	2.5	7.9	81.3	82.7	10.5	80.7	48.4
4.1 RAND	132	349	2.6	8.0	68.5	88.2	10.6	88.0	51.6
5.0 MAG RESC	--	55	3.6	0.0	45.5	92.7	3.6	92.7	58.2
5.1 RAND	704	55	3.6	0.0	56.6	93.6	3.6	93.5	57.8
6.0 OPEN CHOICE	--	89	6.7	2.2	68.5	94.4	7.9	94.4	47.2
6.1 RAND	63	93	6.5	2.2	70.5	93.2	8.6	93.1	48.4

Cohort 2 Grades 6 to 8

Title	sampcnt	mard_n	prespedpct	preellpct	prelunchpc	minorpct	preedfac	presocfac	premardp
1.0 CITIES OUT	--	19246	7.1	1.8	17.3	16.4	8.8	14.4	89.0
2.0 LOCAL DIST	--	2352	4.3	11.4	90.6	85.8	15.2	84.3	61.3
3.0 CHARTER DIST	--	326	3.1	5.2	73.9	99.4	8.0	99.4	73.3
3.1 RANDOM	86	351	2.8	4.8	72.2	96.8	7.7	96.7	69.6
4.0 MAG NOT RESC	--	512	2.3	7.0	84.8	93.0	9.4	91.8	69.9
4.1 RAND	57	532	2.3	6.8	71.9	94.6	9.0	94.4	67.9
5.0 MAG RESC	--	96	2.1	5.2	62.5	88.5	5.2	88.5	75.0
5.1 RAND	59	95	2.1	5.3	68.3	93.9	7.4	93.8	73.3
6.0 OPEN CHOICE	--	76	14.5	3.9	57.9	93.4	17.1	93.4	72.4
6.1 RAND	46	88	12.5	3.4	63.0	85.8	15.9	85.6	71.2

Specific Steps for Determining the Stratified Virtual Peer Samples — The test-performance-related background characteristics for population and random sample groups for the Grades 3 to 5 cohorts and the Grades 6 to 8 cohorts are displayed above. The key to this strategy lies in the ability to obtain fair representation of the quasi-control group performance and background characteristics at baseline in order to properly assess the performance outcome of quasi-control peers who did not attend the Choice programs. The challenge is to tailor the quasi-control groups to each of the experimental or Choice program groups that received the educational treatments because each program had somewhat different combinations of baseline performance and background characteristics that could influence performance at outcome. The problem is that the total census distribution of test scores also reflects the students' background social disadvantage factors. Specifically, this means that the urban students as a subpopulation tend to have lower than average test scores as well as higher socio-economic factors. Therefore, selecting on social disadvantage factors tends to limit the range of test scores and selecting on test scores limits the range of social disadvantage factors.

This range restriction or sampling problem was resolved using a stratified sampling technique that blended both univariate and multivariate sampling techniques. Univariate sampling means simply that examinees were selected for a single trait, whereas multivariate sampling means that examinees were selected on multiple traits simultaneously. By combining these two strategies, it is possible to select quasi-control groups based on key background traits effectively. First, because the Choice program samples had relatively few students with disabilities as compared with the urban subsample generally, these two groups were randomly sampled from the general population as if they were independent, univariate samples. For example, if 1% of a given Choice program group were special education students, then an equivalent 1% of special education students who were not Choice program attendees were randomly sampled from the general population and retained. A similar univariate subsample of English language learners were also randomly obtained from the general population.

After obtaining the two small samples of students with disabilities and English language learners, and retaining those, a much larger multivariate sample of students who were either jointly or independently either eligible for free/reduced-priced school lunch and/or from minority racial/ethnic backgrounds was randomly sampled from the general population. This was the largest sample because it reflected the majority of the subset of urban Choice program attendees. The reason for doing this sample jointly is to more accurately reflect the reality that most urban students attending the Choice programs are either minority, school-lunch eligible, or both. Next, another relatively small group of nonminority, non-school lunch students was also sampled from the general population. In the last step, all four of these random subsamples were combined together to create one complete, random quasi-control group "candidate" sample. This candidate sample was then tested and compared with the true Choice program group. If the baseline test performance for the candidate quasi-control group was within 5% of the true Choice program group test performance and the background characteristics were within 15% of the true program group background characteristics, then the summarized candidate results are retained. If the criteria are not met, the results are discarded and another random sample sequence begins. The process continues until 30 summarized samples are obtained.

APPENDIX B – STATISTICAL TESTING APPROACH

Empirical Statistical Testing: The multiple quasi-control matched group samples used in this study are intended to establish a concrete and meaningful statistical performance benchmark in order to fairly assess the relative test performance of the Choice program participants at outcome or posttest. That is, each of the random sample quasi-control groups that are matched or tailored to each of the four individual Choice program groups at pretest become, in effect, a test-performance benchmark of virtual urban peers. Then by tracking these same quasi-control sample groups from pretest to posttest, the summarized results of the test performance for the quasi-control groups therefore provide a valid and meaningful point of comparison for each of the appropriate Choice program test results at outcome.

A related issue has to do with determining a proper statistical test for deciding whether a Choice group has meaningful performance increases on the CMT over and above the matched quasi-control groups at outcome. Using normal statistical tests for ex post facto analyses of census data such as this is improper because these tests are based on the assumption of random assignment at baseline (Henkel, 1976). This leads to two problems: First, the distributional assumptions required in classical statistical analysis may not be appropriate and, second, larger groups tend to be found "statistically significant" due purely to the precision of the statistic. "…[F]inding or failing to find a significant result is often more a function of sample size than the intrinsic truth or falsity of the null hypothesis" (Henkel, p. 82, 1976). These are problems with statistical tests per se, but they are concerns relevant to the proper interpretation of the findings of an ex post facto analysis when employing classical statistical tests.

To resolve these issues, a novel strategy is employed in this analysis. Instead of sampling just one group of quasi-control "peers" 30 valid or viable samples of peer groups were sampled from the CMT archives for each group comparison of interest. Each one of these was subsequently summarized and compiled for each Choice program comparison. That is, the results for each viable sample were first individually summarized at the group level and then those summarized results were compiled together and summarized again. This process has two purposes: First, this compilation of summarized results serves to stabilize the outcome performance for the benchmark comparison groups. Second, it also provides a "null" performance distribution, which can be used to establish a robust empirical estimate of sampling error, while avoiding well-known problems associated with using traditional inferential statistics for census data.

Choosing an Appropriate Cut-Score Value: In order to decide whether a Choice program performance difference exceeds the matched null distribution, a cut value needs to be determined. Although the random samples may or may not be normally distributed, sampling theory dictates that the averaged and compiled performance levels derived from the 30 random samples of quasi-control test takers should be. Accordingly, a cutoff value of two standard deviations from the mean of the Proficient or Goal scores was selected. This choice is based on the expectation that the properties of the normal distribution can be evoked when the n-count for the number of samples is 30. Thus, although the Proficient or Goal performance of the individual sample groups may not be normally distributed, the means of the performance distributions should be. Therefore, 2 standard deviations reflect a very stringent benchmark standard that corresponds to exceeding approximately the 95th percentile of the one-tailed normal z-score distribution (Ferguson F.N. 1973). Thus, without resorting to the usual statistical testing procedures using theoretical distributions, the matched treatment and control groups can be compared with statistical rigor.

Interpretation of Statistical Cut Values: What this cut-score value means in practice is that if a Choice group performance is in the lower or middle range of the "null" distribution, then the findings imply that the program performance is not meaningfully different from the peers, but if the Choice group performance is at the extreme outer limit of this "null" distribution, then the findings imply that those results are so extreme that we say that they are probably from a completely different population. Thus, we can think of each Choice program assessment as a comparison of that single outcome to a distribution of outcomes for 30 same-sized groups of comparable controls, so the notion of a sampling distribution of these 30 samples is relevant.

Exceeding this cut value compared with a normal z-score distribution reflects a conservative, robust, and meaningful way to detect performance differences at outcome for the Choice programs over and above equivalent samples of students who did not attend the Choice programs. The advantages of this model are two: First, it attempts to take into account the critical issue of differential baseline test performance for the Choice program groups due to selection bias. Second, it provides a benchmark performance level at outcome that helps to control for or explain the effects of student maturation over time.

In summary, the proper understanding and interpretation of the benefits of the random peer group results in this study is that the statistical cut value measure establishes what might be called a lower-bound performance expectation at outcome for assessing Choice program effects, although this model does not control for the hidden effects of confounding factors such as student motivation. Also, because this study is not a true experimental design with random assignment of subjects to treatment and controls at baseline, it is not possible to attribute cause to the observed program effects. Hence, if one or more of the Choice programs are observed to be effective at closing the gap in this study, this alone will not be sufficient proof that transferring these strategies to other schools and educational programs is necessarily going to lead to similar positive findings in the future.

Statistical Analyses: To assess the above hypotheses for the four Choice program options, student performance outcomes based on the combined MARD performance metric will be investigated in multiple ways. These include examining baseline percentage at Proficient and Goal, outcome percentage at Proficient and Goal, and percentage of gains over time (the difference between pretest and posttest performance) for each of the programs.

Descriptive Comparisons: The first and most fundamental descriptive index in this analysis is the degree to which these programs help students from Bridgeport, Hartford, New Haven, and Waterbury close the achievement gap in an absolute sense. This statistic will be presented directly by subtracting the performance group outcome to the upper-bound estimate of the gap. This will express in absolute terms the percentage that remains between the program performance result and the gap target index. The index reflects an upper-bound performance expectation that will always be in the negative unless a Choice program result exceeds the overall nonurban (see equation 1, below).

Equation 1: Descriptive Gap Index

Gap index = PostMARD i − UpperBoundGap (Cities Out), i = 1,2,3,4 .

Next the gain index for each of the four Choice programs will be examined. Normally, a dependent pretest-posttest analysis will compare each individual student's score at pretest and posttest, which is the most sensitive way to detect change. However, this test is more conservative because it will compare

independent pretest-posttest gains. The pretest and the posttest measures based on CMT results (MARD) are derived from tests of different levels of difficulty (grade levels) and in this case the test performance levels have not been vertically equated on the measures of interest (i.e., mathematics and reading). The content of the tests reflect increasing pedagogical expectations from the lower to the higher grades. That said, this gains test is a good, practical way to measure student gains from grade to grade based on the Proficiency and Goal levels in a relative way. For example, if the percentage of students who are at or above the Proficient level at pretest is greater at posttest, and they exceed quasi-control peer samples by a meaningful extent, then this argues that academic growth has occurred for the treatment group over and above the expected growth for the quasi-control peers. Accordingly, the raw gains are calculated for each program as follows (see equation 2, below):

Equation 2: Descriptive Gain Index

$$\text{Gain index} = \text{PstMARD}_i - \text{PreMARD}_i, \quad i = 1,2,3,4.$$

Cut-value Comparisons: Equation 3 (below) describes the cut value for the outcome test comparing actual performance of the Choice groups to the virtual peer results. These tests mirror the descriptive tests above, except that they compare the actual posttest results for the Choice programs to the matched results for the 30 samples of virtual peers. Accordingly, this comparison to the null distribution reflects the combined results for the matched and combined virtual program groups. This allows the cut value to be more representative of the population for these particular test-takers and also makes it possible to assess a meaningful standard error derived from the 30 samples. Therefore, the cut values represent a meaningful and robust statistical comparison at outcome.

Equation 3: Empirical Benchmark Outcome Test

$$\text{Cut value} = \text{Avg}(\text{PostMARDRand}) + 2.0 \times (\text{SD}(\text{PostRand}_i), \quad i = 1,2,3,4.$$

Besides the direct outcome comparison at posttest, we are also interested in the relative gains of the Choice groups over time. To do this, we compare the pretest results for each group with the average group difference from the posttest outcome scores on MARD, and compare those quasi-control group independent gain findings to the Choice group's independent gains for the same period (see equation 4, below):

Equation 4: Empirical Benchmark Gain Test

$$\text{Cut value} = \text{Avg}(\text{PostMARDRand}) - \text{Avg}(\text{PreMARDRand}) + 2.0 \times$$
$$\{\text{SD}(\text{PreMARDRand}_i) + \text{SD}(\text{PostMARDRand}_i)/2\}, \quad i = 1,2,3,4.$$

Note that this test for independent groups is less sensitive (more conservative) than the two sample gains test, where the error term is 2 standard deviations of the gains rather than the pooled total group standard deviation.

APPENDIX C — ATTRITION COUNTS BY CHOICE PROGRAM

Grades 3 to 5 Cohort

Program	Attrition n	MARD_n	% Attrition
3.0 CHARTER	18	184	9.8%
4.0 MAG NOT RESC	12	353	3.4%
5.0 MAG RESC	*	55	*
6.0 OPEN CHOICE	*	89	*

Grades 6 to 8 Cohort

Program	Attrition n	MARD_n	% Attrition
3.0 CHARTER	25	326	7.7%
4.0 MAG NOTRESC	21	512	4.1%
5.0 MAG RESC	*	96	*
6.0 OPEN CHOICE	*	76	*

*Attrition n is less than 6; therefore, n and % attrition suppressed to protect student confidentiality.

APPENDIX D — DETAILED DISCUSSION OF RESULTS

Descriptive Comparisons: Each of the following four results tables will present the descriptive analysis for each population parameter and the cut-value comparisons as appropriate. The tables include the performance of the state as a whole (excluding the seven major Connecticut cities) to provide an upper-bound estimate of the performance gap based on MARD. The lower-bound estimate will be based on MARD performance for the four targeted districts of Bridgeport, Hartford, New Haven, and Waterbury. These indices will be calculated both at pretest and posttest. Next the summary population performance for the local schools in the four urban districts is presented, which will provide a lower-bound estimate of the performance gap.

The individual programs that were analyzed were the public charter schools, the non-RESC magnet schools, the RESC magnet schools, and finally the Open Choice program results. To reduce the size of the tables, the percentage of special education and English language learner program attendees will be combined into one index called Education Factors. A second index called Social Factors will combine the percentage of students who are minorities and/or those eligible for free or reduced priced meals.

Quasi-Control Comparisons: The total sample count in each table representing the four Choice program assessment findings reflects the total number of samples needed to obtain 30 viable quasi-control group comparison samples (see table 5). Samples of the virtual peers met the following criteria: First, they must have been within 15% of the school-lunch eligibility percentage for each specific Choice program at baseline, and second their baseline Proficient level scores had to be within 5% of the baseline test performance results on the combined mathematics and reading results (i.e., MARD).

The results for the virtual peers are reported immediately following each listing of the Choice program group results. Samples that do not meet these criteria for inclusion in the comparison groups will be counted but not included in any outcome comparisons. The reason for counting the total number of samples taken is to provide a way to gauge the relative degree of difficulty in obtaining viable random samples. The larger the total number of samples, the more difficult it was to obtain 30 viable samples. This can occur, for example, when the baseline program selects a high percentage of students with higher baseline performance on MARD.

Student performance outcomes based on the combined MARD performance metric will be investigated in multiple ways: Baseline percentage at Proficient and Goal, Outcome percentage at Proficient and Goal, Percentage of Gains over time (the difference between pretest and posttest), and relative Percentage Closing the Achievement Gap. A key descriptive index in this analysis is the degree to which these programs help students from Bridgeport, Hartford, New Haven, and Waterbury close the achievement gap in an absolute sense. This statistic will be presented directly, subtracting the performance group outcome to the upper-bound estimate of the gap. This will express in absolute terms the percentage that remains between the program performance result and the gap target index. This index will always be in the negative, unless Choice program results exceed the results for the nonurban majority.

Cohort 1 Results: Table 5 (below) displays the pretest/posttest results for cohort 1 for Grade 3 2010 to Grade 5 2012 at the Proficient level or higher. The chief benefit of a pretest-posttest analysis is that it better enables us to ascribe observed change to academic program effects, without confounding the findings with the test results from outgoing or incoming students. Hence, all students reported in table 5 had valid test results on the CMT mathematics and reading subtests (MARD) in Grade 3 and also in Grade 5. In addition, two different kinds of results are displayed in each table: census results and empirical random sample results.

The whole number rows in each table display the pretest-posttest census results for all valid MARD test-takers for the appropriate performance level. Thus, row 1.0 shows the findings for all Connecticut's students excluding the seven major cities while row 2.0 shows the combined results for the four target urban districts (Bridgeport, Hartford, New Haven, and Waterbury). The decimalized rows list the findings for the combined, randomly selected quasi-control groups, which are matched to each individual Choice program group. Thus, row 3.0 describes the census charter results and row 3.1 describes the results for the combined 30 quasi-control samples that are matched to the census charter group.

Besides the performance scores listed in table 5, descriptive performance-related background characteristics are also listed for each group. For this analysis, the critical performance related background factors have been combined for compactness. (More detailed descriptions for each of the key data elements are described in appendix A.) Hence, in table 5 the column labeled SocFac, or social factors, describes the percentage of students in each row listing with both minority status and/or eligible for the School Lunch Program.

The column labeled EdFac, or educational factors, shows corresponding percentage of students who are special education and/or English language learners. The baseline test results on table 5 are labeled Prof1 and display the combined percentage of students meeting or exceeding proficiency on both the mathematics and reading CMT subtests in Grade 3 of 2010. The field labeled Prof2 corresponds to MARD test results for the same students at Proficient or higher at outcome in Grade 5 of 2012. The column labeled ProfGain describes the difference between Prof1 and Prof2 group scores, which is an indicator of relative gain.

The absolute gap closure index on table 5 is labeled Gap1 at pretest and Gap2 at posttest. This is the percentage difference between each Choice program performance on MARD at each test-reporting level compared with the overall statewide performance for nonurban students in Connecticut. These indicators are calculated for both the Proficient level or higher in table 5 and for Goal level or higher in table 6 for cohort 1. The "Valid N" is the record count for those students with valid results in both subtests who remained in the same school from the pretest to the posttest. Line 1 reflects the overall statewide results for the nonurban students and reflects the upper-bound limit or target goal for the gap indicator.

The results for each Choice program group will be followed by the results for a matched sample results found in the decimalized rows.

Recall that the matched sample is the summary of 30 subsamples, matched on relative baseline MARD performance and on the four background characteristics of interest (i.e., school lunch eligibility, minority status, special education status plus English language learner status). The relative comparability of these groups is reflected on both the education factors and the social factors indices as well as on pretest MARD performance.

The Samp_n field denotes the total number of samples required to obtain 30 viable samples where the background parameters were held to within 15% of the true population parameter of the Choice program and the baseline test performance at pretest were held to within 5% of the true population parameter of the Choice program. The higher the Samp_n, therefore, the more difficult it was to obtain 30 viable samples. What this means in practical terms is that higher Samp_n counts reflect a higher degree of difficulty in finding sample matches that are closely matched to the census choice program groups. This occurs most typically when the program groups enroll students of higher baseline performance compared with expected performance level of the four target districts.

Row 1.0 of table 5 labeled Cities Out displays the overall results for nonurban Connecticut test-takers at the Proficient level (or higher) on MARD. Row 1.0 provides the background and performance information for the group (*n* = 18,318) who had valid test results from pretest of Grade 3 of 2010 to posttest in Grade 5 in 2012. The education factors for this group is 9.5% and the social factors is 17.8%. Pretest proficiency is at 78.9% and posttest proficiency is 85.2%, a proficiency gain of 6.3% (see ProfGain). The results for the target districts of Bridgeport, Hartford, New Haven, and Waterbury (*n* = 2,496), excluding Choice program participants, shows 17.4% of these students have education factors and 85.0% have social factors.

More importantly, table 5 also reveals the widely disproportionate academic performance disparities between the urban target districts and non-urban students in Connecticut. Row 1.0 reflects the nonurban students and thus corresponds to the upper boundary of the academic performance gap on MARD, while row 2.0 reflects the target urban districts described in the lower boundary. The column labeled Prof1 shows the Proficient level or higher performance for the Grades 3 to 5 cohort at Grade 3 in 2010. Row 1.0 shows the nonurban results at Proficient level or higher performance on MARD and for Grade 3 students in 2010, which is nearly 80% (78.9%) for most Connecticut students. Meanwhile for the target districts in row 2.0, the Prof1 result shows that only a little less than half (43.9%) of the urban target district students achieve proficiency at pretest. This reflects a performance gap of -35.0% at pretest (see Gap1 on table 5).

Prof2 in table 5 corresponds to Prof1 and shows the posttest or outcome performance on MARD two years later for the same students tracked over time at Grade 5 of 2012. Here the overall statewide performance on MARD for nonurban students has gone up from 78.9% at pretest in Grade 3 of 2010 to 85.2% at Grade 5 in 2010, a performance gain of 6.3% from Grade 3 to Grade 5 (see ProfGain in table 5). For Connecticut's urban target group, the posttest performance is up from 43.9% in Grade 3 of 2010 to 48.3% proficiency or higher by Grade 5 of 2012 (see Prof2 of table 5), and the performance gap has actually increased to -36.9% (see Gap2 of table 5).

This disparity on the achievement gap has grown worse at posttest because the gains for the targeted urban students have only grown by 4.4% for the urban target group in row 2.0, compared with 6.3% for the nonurban students displayed in row 1.0. Taken as a whole, these performance disparities reflect a troubling situation, which is that not only are the target urban students behind academically as early as Grade 3, but that that gap has increased after two years.

Rows 3.0, 4.0, 5.0, and 6.0 describe the census population results for students from the targeted four urban districts attending the Choice programs. For example, row 3.0 is the results for the 184 urban students from the target districts who had valid pretest and posttest results on MARD who attended the same charter school from Grade 3 of 2010 to Grade 5 of 2012; it also includes the exited students who were reattributed (appendix C). These students reported 2.7% of the group had education factors while 97.3% had social factors. Therefore, the urban charter attendees from Bridgeport, Hartford, New Haven, and Waterbury had fewer education factors than the student peers attending local schools but about the same level of social factors (97.9% versus 97.3%). Notably, these urban charter students were much better performers on MARD at pretest, performing at 63.6% Proficient at pretest compared with urban peers who only scored at 43.9% at pretest. Hence the performance gap at pretest (i.e., see Gap1 on table 5) is only -15.3% versus -35.0% for the local urban school attendees (see Local).

The posttest gap of -36.9% (see Gap2 of row 1.0, LOCAL DIST, table 5) for the LOCAL DIST group performance is lower than any of the Choice programs, suggesting that all the programs are beneficial to some degree. However, at outcome the posttest charter performance drops to 58.2% for a proficiency gain of

-5.4% on MARD, hence showing an increase in the proficiency gap as compared with the rest of the state of -27.0% at posttest (from -15.3 at pretest). Table 5 also displays the results for the matched random charter samples in row 3.1. Note that it took 373 samples to obtain 30 valid comparison samples for the charter group (see table 5, row 3.1 RANDOM). This reflects the relative difficulty of finding students with background characteristics at pretest sufficiently similar to the urban charter students who also had similar pretest scores on MARD at Proficient. In addition, the relative performance at proficiency for the quasi-control peer was only 60.4% for the random samples compared with 63.6% Proficient for charter students.

This finding is interpreted to reflect the fact that it was difficult to obtain 30 valid random samples of students with about 2.7% EdFac and 97.3% SocFac and comparable test performance characteristics. Nevertheless, although the random samples had lower performance at baseline compared with the charter students, at outcome the random quasi-control group did better than the charter students, achieving 64.6% Proficient on MARD at posttest versus 58.2% for the charter group.

This means that while the charter student group did better than the local urban students at posttest, this outcome performance was not statistically meaningful after taking into account the high relative baseline performance and the particular background composition of the charter group at baseline compared with the results for the charter matched random samples (see table 5, row 3.1). In more detail, the charter random samples had an outcome score of 64.6% Proficient (see table 5, row 3.0 column Prof2) with a standard deviation of 2.5% (see StdPst in table 5). Therefore, by looking at the Proficient population parameter of 64.6% for the charters, the expected outcome performance comparison cutoff score derived from the results of the quasi-random yields a comparison benchmark of 69.6% (see table 5, row 3.1, PostCut), which is over 10% above the charter Prof2 Proficient level of 58.2%.

Empirical Cut-Value Assessment for Table 5: Thus the charter population group for the Grades 3 to 5 cohort would have to have achieved a population outcome score over 69.6% at Proficient or higher on MARD to have met or exceeded the statistical cutoff level. Unfortunately, the charter schools performance on MARD at posttest was below this cut value (58.2%), and hence these results are not meaningfully different from the quasi-control outcome after taking into account the random fluctuations of the sample groups. Furthermore, the gains cutoff for meaningful departure from the empirical random samples for the charters is 8.5% (see GainCut in table 5) but the actual population gains were only -5.4% (see ProfGain in table 5). We can therefore conclude that the urban charter attendees would not exceed the expected cutoff scores on performance gains on MARD.

The results for the non-RESC magnets displayed in row 4.0 of table 5 show that these students performed only slightly higher at baseline compared with the LOCAL DIST students (see row 2.0 of table 5). The baseline results on the MARD at Proficient show 48.4% Proficient for the non-RESC magnets compared with 43.9% Proficient for the LOCAL DIST results. Therefore, the non-RESC magnet group at baseline was far more consistent with local student performance than the charter group. This is also reflected in the background characteristics for this group.

Table 5: Cohort 1 Proficient Level or Higher (Grade 3 2010 to Grade 5 2012)

Title	Samp_n	MARD_n	EdFac	SocFac	Prof1	StdPre	Gap1	Prof2	Gap2	StdPst	PstCut	ProfGain	GainCut
1.0 CITIES OUT	--	18318	9.5	17.8	78.9	--	--	85.2	--	--	--	6.3	--
2.0 LOCAL DIST	--	2496	17.4	85.0	43.9	--	-35.0	48.3	-36.9	--	--	4.4	--
3.0 CHARTER DIST	--	184	2.7	97.3	63.6	--	-15.3	58.2	-27.0	--	--	-5.4	--
3.1 RANDOM	373	185	2.7	97.9	60.4	1.7	-18.5	64.6	-20.6	2.5	69.6	4.2*	8.5
4.0 MAG NOT RESC	--	353	10.5	80.7	48.4	--	-30.5	58.1	-27.1	--	--	9.7	--
4.1 RANDOM	132	349	10.6	88.0	51.6	1.4	-27.3	59.6	-25.6	1.7	63.0	8.0	11.1
5.0 MAG RESC	--	55	3.6	92.7	58.2	--	-20.7	83.6†	-1.6	--	--	25.4†	--
5.1 RANDOM	704	55	3.6	93.5	57.8	2.2	-21.1	65.0	-20.2	4.7	74.4	7.2	14.1
6.0 OPEN CHOICE	--	89	7.9	94.4	47.2	--	-31.7	66.3‡	-18.9	--	--	19.1†	--
6.1 RANDOM	63	93	8.6	93.1	48.4	2.0	-30.5	57.7	-27.5	4.5	66.7	9.3	15.8

† Exceeds empirical cut value

‡ Near empirical cut value

* Figures not exact due to rounding

The EdFac index is 10.5% for the MAG NOT RESC program compared with 17.4% for the LOCAL DIST students. However, SocFac is somewhat

lower at 80.7% for MAG NOT RESC compared with 85.0% for the LOCAL DIST students. Nevertheless, this better balance of baseline conditions more closely reflects the overall profile of the target urban districts as a group. This is also reflected in the smaller number of random samples needed to achieve a viable group of 30 samples, which is 132 for the MAG NOT RESC random group (see row 4.1 in table 5) versus nearly triple that (Samp_n = 373) needed for the charter random group (see row 3.1 of table 5).

Despite a baseline profile for MAG NOT RESC group that is more consistent with urban students generally (see row 4.0 of table 5), the PstCut estimated cutoff score for the random groups is 63.0%, while the performance for the MAG NOT RESC group was below this cut point at 58.1%. Hence, these results are also not statistically meaningful after taking into consideration the statistical cut point. As for the gain score cut-point comparison, the pretest to posttest Proficient gains for MAG NOT RESC were 9.7% (see table 5, row 4.0, ProfGain), which did not exceed the estimated cutoff value of 11.1% for the random quasi-control samples (see row 4.1 of table 5, GainCut), and again, this was not a statistically meaningful gain on proficiency. As was the case with the charters analysis for cohort 1, the MAG NOT RESC group also did not demonstrate sufficient performance increases at posttest on proficiency to overcome the GainCut level.

However, the picture is sharply different for the MAG RESC group displayed on row 5.0 of table 5. The MAG RESC group performance shows a meaningful departure from the cut value at posttest as well as on performance gains. The posttest cutoff score (PstCut) was 74.4% for the random samples (see table 5, row 5.1) and this was exceeded by the MAG RESC group performance of 83.6%. Notably, a substantial 704 samples were required to obtain 30 valid random samples matching the MAG RESC group's baseline performance of 58.2%.

Once again, this difficulty of obtaining 30 viable samples of students with MARD performance above the expected for students with a level of social and educational factors for the program group is explained by the fact that most urban students in the target districts are achieving at only 43.9% proficiency on average (see row 2.0, LOCAL DIST Prof1). Therefore, finding 30 random samples of students from the general population who match the profiles reflected by the MAG RESC students required many samples to be discarded.

The gains for the MAG RESC are substantial at 25.4% at proficiency (compare table 5, row 5.1, GainCut versus row 5.0, MAG RESC, ProfGain), and exceed the gains of all the Choice programs compared in table 5. In addition, these gains exceed the expected random quasi-control group gains cutoff at 14.1% and therefore can be considered statistically meaningful. This impressive level of performance gains can also be observed in the Gap2 column of table 5 for this program, which shows that MAG RESC came to within -1.6% of closing the gap completely (see table 5, row 5.0, Gap2), a result that exceeds all the cohort 1 Choice programs displayed on table 5. One drawback of this impressive performance for the MAG RESC group was that it had only 55 urban students (see table 5, MARD_n). That is, with such a small subgroup of urban students in the group, it is also possible that special resources could be brought to bear that might not be available for larger numbers of students.

The Open Choice program also performed favorably at the Proficient level from Grade 3 of 2010 to Grade 5 of 2012 (see table 5, rows 6.0 and 6.1). Baseline profiles compared favorably to the LOCAL DIST profiles, particularly for the baseline proficiency results on MARD (47.2% proficiency at baseline compared with 43.9% for the LOCAL DIST group). Posttest results were nearly statistically meaningful for the Open Choice group, where the random group cutoff of 66.7% at posttest was nearly exceeded by a score of 66.3% Proficient (See table 5, row 6.0, OPEN CHOICE, Prof2 and row 6.1, RANDOM PstCut).

Furthermore, the gains results for the Open Choice program group were 19.1%, which was beyond the cutoff of 15.8% for the quasi-control groups (see table 5, row 6.0, OPEN CHOICE ProfGain versus row 6.1, GainCut). It is noteworthy that only 63 samples were required to obtain 30 viable samples for the Open Choice random group. This is interpreted to reflect that the lower baseline or pretest Proficient level of 47.2% for the Open Choice students is more consistent with students reflecting the background profiles exhibited by the LOCAL DIST's MARD proficiency of 43.9% (see table 5, row 6.0 versus row 2.0). This suggests that the pretest performance and background characteristics are a better match for the Open Choice students for the urban population compared with those of some of the other programs.

Table 6 reflects the same students' performance but at the Goal level rather than at the Proficient level. Note however that the performance matching for the groups only occurred at baseline proficiency. Table 6 shows that the LOCAL DIST Goal performance at pretest in Grade 3 is only 21.6% on the MARD composite index. This means that only 21.6% of the local urban students in Bridgeport, Hartford, New Haven, and Waterbury with matching valid test results from Grade 3 of 2010 to Grade 5 of 2012 met or exceeded the Goal level in both mathematics and reading on the CMT in 2010.

The pretest gap for LOCALDIST students as a group is -37.5%, which is the highest pretest gap although Open Choice approaches this at -34.4% and MAG NOT RESC at -32.5%. In other words, these programs appear to be reflections of the true LOCAL DIST population than the other Choice programs. Meanwhile, the posttest gap for the LOCAL DIST group is -41.5% with a goal of 29.8%, which is lower than all the Choice programs. Hence, the implication is that all of the Choice programs are beneficial to urban students.

Continuing to look at the column describing the pretest Gap in table 6, it is evident that the charter group in line 4.0 have the lowest baseline gap at -19.4%, but this gap has increased at posttest to -30.0%, indicating that performance ground is being lost. MAG RESC has the second smallest pretest gap at -24.6% but has the lowest gap performance at posttest, which is -14.9%.

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Table 6: Cohort 1 Goal Level or Higher (Grade 3 2010 to Grade 5 2012)

Title	Samp	MARD	EdFac	SocFac	Goal1	StdPre	Gap1	Goal2	Gap2	StdPst	Cut2	Goalgain	gaincut
1.0 CITIES OUT	--	18318	9.5	17.8	59.1	--	--	71.3	--	--	--	12.2	--
2.0 LOCAL DIST	--	2496	17.4	85.0	21.6	--	-37.5	29.8	-41.5	--	--	8.2	--
3.0 CHARTER	--	184	2.7	97.3	39.7	--	-19.4	41.3	-30.0	--	--	1.6	--
3.1 RANDOM	373	185	2.7	97.9	32.5	2.8	-26.6	43.7	-27.6	2.5	48.7	11.3	16.6
4.0 MAG NOT RESC	--	353	10.5	80.7	26.6	--	-32.5	38.0	-33.3	--	--	11.4	--
4.1 RAND	132	349	10.6	88.0	28.9	1.7	-30.3	39.9	-31.4	2.0	43.9	11.1	14.8
5.0 MAG RESC	--	55	3.6	92.7	34.5	--	-24.6	56.4†	-14.9	--	--	21.9†	--
5.1 RAND	704	55	3.6	93.5	34.3	5.4	-24.8	45.8	-25.5	5.4	56.6	11.5	22.3
6.0 OPEN CHOICE	--	89	7.9	94.4	24.7	--	-34.4	36.0	-35.3	--	--	11.3	--
6.1 RAND	63	93	8.6	93.1	26.5	3.3	-32.6	37.6	-33.7	3.9	45.4	11.1	18.3

† Near empirical cut value

Empirical Cut-Value Assessment for Table 6: Table 6 shows no statistically meaningful posttest findings at Goal, implying that performance at Goal was not enhanced by any of the Choice programs over the matched quasi-random groups. However, the MAG RESC program performed at 56.4%, which is nearly exceeding the posttest cutoff value of 56.6% (see table 6, row 5.0, Goal2" and row 5.0, RAND, Cut2). This can also be observed by looking at the gap closure index, which is substantially the lowest of all the Choice programs at -14.9%, meaning that the Goal performance for MAG RESC is within 15% of closing the gap at goal. In addition, the performance gains from Grade 3 to Grade 5 for MAG RESC are also nearly exceeding the cut value (see table 6). The performance result is 21.9% gains for the MAG RESC group, while the cutoff point is 22.3%. Therefore, the MAG RESC program has been found to yield statistically meaningful posttest outcome and gains at Proficient (see table 5) and nearly statistically meaningful outcome and gains at the Goal level (see table 6).

Cohort 2 Results: Table 7 compares Proficient level performance for the Grade 6 2010 to Grade 8 2012 cohort. This cohort is of particular importance because it leads up to the critical high school years. Students who perform better during this period can potentially be better prepared for the more challenging curricular demands of high school. The pretest performance gap between 1.0 CITIES OUT (n = 19,246) and LOCAL DIST (n = 2,352) is -27.7% meaning that, all other things held equal, the LOCAL DIST schools are nearly 30% below the majority of Connecticut nonurban schools on the combined reading and mathematics performance (MARD).

Furthermore, comparing these same students at posttest in Grade 8, observe that the MARD gap increases to -31.2%, meaning that the performance gap actually increases slightly during the critical pre-high school Grades of 6 to 8. In addition, the education factors are much higher in the four target districts of Bridgeport, Hartford, New Haven, and Waterbury at 15.2% compared with 8.8% for the nonurban districts (see table 7, rows 1.0 and 2.0). Similarly, the social factors that reflect a combination of minority status and school lunch program eligibility are 84.3% of the four target district students compared with only 14.4% for the nonurban students. Again, this reflects a wide disparity between urban student populations and the nonurban student majority in Connecticut.

Table 7: Cohort 2 Proficient Level or Higher (Grade 6 2010 to Grade 8 2012)

Title	Sampn	MARD	EdFac	SocFac	Prof1	StdPre	Gap1	Prof2	Gap2	StdPst	Cut2	Profgain	gaincut
1.0 CITIES OUT	--	19246	8.8	14.4	89.0	--	--	90.8	--	--	--	1.8	--
2.0 LOCAL DIST	--	2352	15.2	84.3	61.3	--	-27.7	59.6	-31.2	--	--	-1.7	--
3.0 CHARTER	--	326	8.0	99.4	73.3	--	-15.7	81.3†	-9.5	--	--	8.0†	--
3.1 RANDOM	86	351	7.7	96.7	69.6	1.0	-19.4	69.3	-21.5	2.1	73.5	-0.3	2.8
4.0 MAG NOT RESC	--	512	9.4	91.8	69.9	--	-19.1	69.3	-21.5	--	--	-0.6	--
4.1 RANDOM	57	532	9.0	94.4	67.9	1.4	-21.1	68.6	-22.2	1.6	71.8	0.7	3.7
5.0 MAG RESC	--	96	5.2	88.5	75.0	--	-14.0	75.0	-15.8	--	--	0.0	--
5.1 RANDOM	59	95	7.4	93.8	73.3	1.9	-15.7	73.3	-17.5	4.4	82.1	0.0	6.3
6.0 OPEN CHOICE	--	76	17.1	93.4	72.4	--	-16.6	75.0	-15.8	--	--	2.6	--
6.1 RANDOM	46	88	15.9	85.6	71.2	2.5	-17.8	71.3	-19.6*	3.4	78.1	0.1	6.0

† Exceeds empirical cut value

* Figures not exact due to rounding

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Note that these background circumstances shown in table 7 are quite similar to the results for cohort1 displayed in tables 5 and 6. Most of the Choice programs continue to exhibit lower than expected educational factors. The exceptions are the Open Choice program at 17.1% EdFac compared with 15.2% for the LOCAL DIST group and, to a lesser extent, the MAG NOT RESC program at 9.4% (see table 7).

The gap index in table 7 is once again a good descriptive indicator of relative differential performance status at pretest as well as posttest for cohort 2, just as it was for cohort 1. However it is apparent from examining the pretest gap (Gap1) that there is considerable variability in baseline performance among the Grades 6 to 8 Choice programs, just as was the case for cohort 1, and once again, none of these programs is performing on MARD as poorly as the LOCAL DIST target neighborhood urban schools, which indicate a baseline gap of nearly 30% (-27.7% see table 7, row 2.0, Gap1).

It is evident from this discussion that the baseline performance for students attending choice programs is typically higher than their peers who attend schools in their home districts, although this could once again be related to prior program exposure. As we found in the Grades 3 to 5 performance comparisons for cohort 1, the charter and MAG RESC programs have the best pretest performance on MARD at Proficient. The charter schools had a baseline gap score of -15.7% and the MAG RESC group posts the lowest gap pretest score at -14.0% Proficient.

The posttest gap indicator in table 7 tells a different story. First, the difference in scores for the Choice programs are much better than those of the LOCAL DIST posttest gap performance at -31.2%, implying that all the Choice programs are making gains or maintaining performance for their students (see table 7, row 2.0, Gap2). Compared with that standard, the posttest gap is lowest for the charter group at -9.5%, which is a substantial departure from any of the other Choice programs (see table 7, row 3.0, Gap2). Both MAG RESC and Open Choice are tied for the next best posttest gap performance at -15.8% (see table 7). By comparison, MAG NOT RESC program is lagging behind the other Choice programs, showing a posttest gap of -21.5% below the nonurban majority group.

Empirical Cut Value Assessment for Table 7: The dramatic findings for table 7 show the charter schools to be statistically meaningful on the Proficient level, both at posttest and also in terms of performance gains for the Grade 6 2010 to Grade 8 2012 Cohort. The charter random group predicts an outcome or posttest score of 73.5% Proficient taking into account the standard error for the 30 matched random sample comparison groups. Meanwhile, the charter school results stand at 81.3% Proficient at posttest (see table 7), and thus the findings are statistically meaningful. None of the other programs demonstrated a meaningful departure from the empirical cut value at posttest for cohort 2. In addition, the charter group also posted statistically meaningful pretest-posttest gains of 8.0%, where the random comparison group predicted 2.8% gains after taking into account the standard error.

Table 8 (below) presents the findings for the Grades 6 to 8 cohort results at Goal. Note that the pretest gap at the Goal level for charters is lowest among all Choice programs at -24.2%, but that the posttest gap is a relatively dramatic -15.1%. The other posttest gap results for the remaining Choice programs are approximately twice as low on the gap indicator, with the next best score posted by MAG RESC at -29.4%. This presents an important piece of information. It says that the charter schools are not only achieving well at the Proficient level, but in addition program attendees are also doing much better than the other Choice programs at closing the gap at the Goal level.

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Table 8: Cohort 2 Goal Level or Higher (Grade 6 2010 to Grade 8 2012)

Title	SAmpn	MARD	EdFac	SocFac	Goal1	StdPre	Gap1	Goal2	Gap2	StdPst	Cut2	Goalgain	gaincut
1.0 CITIES OUT	--	19246	8.8	14.4	73.6	--	--	75.2	--	--	--	1.6	--
2.0 LOCAL DIST	--	2352	15.2	84.3	37.8	--	-35.8	32.9	-42.3	--	--	-4.9	--
3.0 CHARTER	--	326	8.0	99.4	49.4	--	-24.2	60.1†	-15.1	--	--	10.7†	--
3.1 RANDOM	86	351	7.7	96.7	42.6	2.3	-31.0	40.9	-34.3	2.4	45.7	-1.7	3.0
4.0 MAG NOT RESC	--	512	9.4	91.8	39.5	--	-34.1	34.2	-41.0	--	--	-5.3	--
4.1 RAND	57	532	9.0	94.4	42.1	1.8	-31.5	41.0	-34.2	1.5	44.0	-1.1	2.2
5.0 MAG RESC	--	96	5.2	88.5	42.7	--	-30.9	45.8	-29.4	--	--	3.1	--
5.1 RAND	59	95	7.4	93.8	47.3	3.8	-26.3	45.0	-30.2	4.9	54.8	-2.3	6.4
6.0 OPEN CHOICE	--	76	17.1	93.4	40.8	--	-32.8	31.6	-43.6	--	--	-9.2	--
6.1 RAND	46	88	15.9	85.6	43.5	4.6	-30.1	43.8	-31.5*	4.7	53.2	0.3	9.6

† Exceeds empirical cut value

* Figures not exact due to rounding

Empirical Cut Value Assessment for Table 8: Again, the posttest Goal results exceed the empirical cut value for the charter schools only (see table 8, rows 3.0 and 3.1). The expected performance based on the 30 random samples matched to the charter group at baseline and including the standard error is 45.7% at Goal, compared with 60.1% at Goal for the charter schools' performance at posttest. This is approximately double the expected outcome for the LOCAL DIST urban Cohort as a whole at 32.9% (see row 2.0 at Goal 2) and 20 to 30 percentage points above all the other Choice programs. Most notable is the fact that at Goal, the gains at posttest for the charter group are 10.7% (see table 8, row 3.0, GoalGain), which also exceeds in a statistically meaningful way the expected outcome for the random samples at 3.0% (see table 8, row 3.1, GoalGain). Hence, the charter group has obtained a meaningful departure from the empirical cut values at posttest and for both the Proficient and Goal levels.

What is Open Choice?

The Open Choice program was established by legislation in 1997 and is intended to reduce racial, ethnic, and economic isolation among students. Through Open Choice, students in the C.E.S. region who are Bridgeport residents have the opportunity to attend school in participating school districts when space is available, and students in surrounding towns have the opportunity to attend school in Bridgeport (Hartford and New Haven have similar programs). Open Choice is funded by the State Department of Education.

What are the purposes of the program?

To improve academic performance; to reduce racial, ethnic and economic isolation; and to provide a choice of educational programs.

What role does the Regional Educational Service Center (RESC) play in this program?

The RESC manages the acceptance and placement process, provides transportation services, and provides as needed support to schools and families. [CGS § 10-266aa (c)]

How do students enroll in the Open Choice Program?

Applications for students entering grades PK-12 are available from mid-January through mid-March for the upcoming school year.

Preschool and Kindergarten participation depends heavily on the models of instructional delivery employed by districts. Transportation is complicated by varied models (e.g., full-day every day, partial day every day, full-day some days, …)

How are spaces for students determined?

Participating districts are determined by the feasibility of transportation between the sending district and the receiving district. The RESC coordinates with the superintendents in participating districts each spring to confirm what openings they will offer for the upcoming year. Open Choice is a voluntary program, so a district can offer as few or as many openings as they choose.

How are students chosen for the openings that are offered?

Once the RESC determines openings for a grade level, a random number generator is used to rank order the applicants for that grade level, and offer the opening to the parents based on the ordering.

How long do students remain in the Open Choice Program?

Once enrolled in Open Choice, a student has the same rights and responsibilities as any other student enrolled in the school, and they are treated in the same manner as any other student. They remain with the district until they graduate, unless they move from the urban community. In that case they enroll in the schools in their new town.

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How are students transported to school?

The RESC receives transportation funding from the state, and the coordinator for Open Choice works with the contracted bus company and the families to provide bus service. Since students are not generally from one neighborhood, students usually receive bus service to and from their home address. [CGS § 10-266aa (f)]

Can Open Choice students participate in athletic and/or extra-curricular activities?

Open Choice students may participate in athletic and/or extra-curricular activities with the same conditions and responsibilities that a resident student would have. Transportation for athletics and extra-curricular activities is not provided by the RESC.

What if a student requires special education services?

If the costs are below the student grant, the receiving district pays the cost. If the costs are over the grant, the sending district is billed for and pays the cost. [CGS § 10-266aa (i)]

How is student discipline addressed?

Open Choice students are students of the receiving district and are subject to the same behavioral expectations as resident students.

Can an Open Choice student be "returned" to the sending district?

No. Open Choice students are students of the receiving district, and they remain with the district until they graduate, unless they move from the urban community.

What are the costs to the district?

There is no direct cost to the district. The receiving district receives a grant of $3,000 per Open Choice student per year which may be used to cover unusual costs. The per student grant rises as the number of Open Choice students as a percentage of the district student population increases [CGS §10-266aa (g)(2)]

Enrollment	Lower %	Upper %	% INCR	$/Student
N/A	0.0	1.99	N/A	$3000
N/A	2.0	2.99	N/A	$4000
N/A	3.0	3.99	N/A	$6000
4000	N/A	N/A	50	$6000
N/A	4.0	N/A	N/A	$8000

What does current participation look like in Connecticut districts?

According to 2018-2019 data released by the Connecticut State Department of Education, **47** districts participate in the Open Choice Program.

Of the 47 participating districts, the average percentage of Open Choice students compared to October 1 district enrollment is **2.34%** (maximum = 7.76% [East Windsor]; minimum = 0.03% [Vernon]). **Twenty-six (26)** districts are reimbursed at the $3000/student rate; **Seven (7)** at the $4000/student rate; **Four (4)** at the $6000/student rate; and, **Ten (10)** at the $8000/student rate.

What is the Supplemental Reimbursement?

Supplemental funding is built into the annual Open Choice appropriation in accordance with CGS §10-266aa (k)(1). In 2018-2019, this amount was approximately $192 per student for districts with at least ten (10) Open Choice students in the same school.

What happens to the district ECS funding?

For each Open Choice participant, the sending district receives 50% of its regular per-student ECS grant, while the receiving district receives 50% of its regular per-student ECS grant.

How are Open Choice students considered with regards to State Testing?
Open Choice students are considered to be residents of the receiving district in all respects, including reporting as it applies to state-wide mastery examinations [CGS §10-266aa (l)].

Does the sending district pay tuition to the receiving district?

No.

What if a student moves from the sending district (and not into the receiving district)?

Student residency issues would be addressed for an Open Choice student just as they would for any other student in the receiving district.

Sec. 10-266aa. State-wide interdistrict public school attendance program. (a) As used in this section:

(1) "Receiving district" means any school district that accepts students under the program established pursuant to this section;

(2) "Sending district" means any school district that sends students it would otherwise be legally responsible for educating to another school district under the program; and

(3) "Minority students" means students who are "pupils of racial minorities", as defined in section 10-226a.

(b) There is established, within available appropriations, an interdistrict public school attendance program. The purpose of the program shall be to: (1) Improve academic achievement; (2) reduce racial, ethnic and economic isolation or preserve racial and ethnic balance; and (3) provide a choice of educational programs. The Department of Education shall provide oversight for the program, including the setting of reasonable limits for the transportation of students participating in the program, and may provide for the incremental expansion of the program for the school year commencing in 2000 for each town required to participate in the program pursuant to subsection (c) of this section.

(c) The program shall be phased in as provided in this subsection. (1) For the school year commencing in 1998, and for each school year thereafter, the program shall be in operation in the Hartford, New Haven and Bridgeport regions. The Hartford program shall operate as a continuation of the program described in section 10-266j. Students who reside in Hartford, New Haven or Bridgeport may attend school in another school district in the region and students who reside in such other school districts may attend school in Hartford, New Haven or Bridgeport, provided, beginning with the 2001-2002 school year, the proportion of students who are not minority students to the total number of students leaving Hartford, Bridgeport or New Haven to participate in the program shall not be greater than the proportion of students who were not minority students in the prior school year to the total number of students enrolled in Hartford, Bridgeport or New Haven in the prior school year. The regional educational service center operating the program shall make program participation decisions in accordance with the requirements of this subdivision. (2) For the school year commencing in 2000, and for each school year thereafter, the program shall be in operation in New London, provided beginning with the 2001-2002 school year, the proportion of students who are not minority students to the total number of students leaving New London to participate in the program shall not be greater than the proportion of students who were not minority students in the prior year to the total number of students enrolled in New London in the prior school year. The regional educational service center operating the program shall

make program participation decisions in accordance with this subdivision. (3) The Department of Education may provide, within available appropriations, grants for the fiscal year ending June 30, 2003, to the remaining regional educational service centers to assist school districts in planning for a voluntary program of student enrollment in every priority school district, pursuant to section 10-266p, which is interested in participating in accordance with this subdivision. For the school year commencing in 2003, and for each school year thereafter, the voluntary enrollment program may be in operation in every priority school district in the state. Students from other school districts in the area of a priority school district, as determined by the regional educational service center pursuant to subsection (d) of this section, may attend school in the priority school district, provided such students bring racial, ethnic and economic diversity to the priority school district and do not increase the racial, ethnic and economic isolation in the priority school district.

(d) School districts which received students from New London under the program during the 2000-2001 school year shall allow such students to attend school in the district until they graduate from high school. The attendance of such students in such program shall not be supported by grants pursuant to subsections (f) and (g) of this section but shall be supported, in the same amounts as provided for in said subsections, by interdistrict cooperative grants pursuant to section 10-74d to the regional educational service centers operating such programs.

(e) Once the program is in operation in the region served by a regional educational service center pursuant to subsection (c) of this section, the Department of Education shall provide an annual grant to such regional educational service center to assist school districts in its area in administering the program and to provide staff to assist students participating in the program to make the transition to a new school and to act as a liaison between the parents of such students and the new school district. Each regional educational service center shall determine which school districts in its area are located close enough to a priority school district to make participation in the program feasible in terms of student transportation pursuant to subsection (f) of this section, provided any student participating in the program prior to July 1, 1999, shall be allowed to continue to attend the same school such student attended prior to said date in the receiving district until the student completes the highest grade in such school. If there are more students who seek to attend school in a receiving district than there are spaces available, the regional educational service center shall assist the school district in determining attendance by the use of a lottery or lotteries designed to preserve or increase racial, ethnic and economic diversity, except that the regional educational service center shall give preference to siblings and to students who would otherwise attend a school that has lost its accreditation by the New England Association of Schools and Colleges or has been identified as in need of improvement pursuant to the No Child Left Behind Act, P.L. 107-110. The admission policies shall be consistent

with section 10-15c and this section. No receiving district shall recruit students under the program for athletic or extracurricular purposes. Each receiving district shall allow out-of-district students it accepts to attend school in the district until they graduate from high school.

(f) The Department of Education shall provide grants to regional educational service centers or local or regional boards of education for the reasonable cost of transportation for students participating in the program. For the fiscal years ending June 30, 2015, to June 30, 2017, inclusive, the department shall provide such grants within available appropriations, provided the state-wide average of such grants does not exceed an amount equal to three thousand two hundred fifty dollars for each student transported, except that the Commissioner of Education may grant to regional educational service centers or local or regional boards of education additional sums from funds remaining in the appropriation for such transportation services if needed to offset transportation costs that exceed such maximum amount. The regional educational service centers shall provide reasonable transportation services to high school students who wish to participate in supervised extracurricular activities. For purposes of this section, the number of students transported shall be determined on October first of each fiscal year.

(g) (1) Except as provided in subdivision (2) of this subsection, the Department of Education shall provide, within available appropriations, an annual grant to the local or regional board of education for each receiving district in an amount not to exceed two thousand five hundred dollars for each out-of-district student who attends school in the receiving district under the program.

(2) For the fiscal year ending June 30, 2013, and each fiscal year thereafter, the department shall provide, within available appropriations, an annual grant to the local or regional board of education for each receiving district if one of the following conditions are met as follows: (A) Three thousand dollars for each out-of-district student who attends school in the receiving district under the program if the number of such out-of-district students is less than two per cent of the total student population of such receiving district, (B) four thousand dollars for each out-of-district student who attends school in the receiving district under the program if the number of such out-of-district students is greater than or equal to two per cent but less than three per cent of the total student population of such receiving district, (C) six thousand dollars for each out-of-district student who attends school in the receiving district under the program if the number of such out-of-district students is greater than or equal to three per cent but less than four per cent of the total student population of such receiving district, (D) six thousand dollars for each out-of-district student who attends school in the receiving district under the program if the Commissioner of Education determines that the receiving district has an enrollment of greater than four thousand students and has increased the number of students in the program by at least fifty per cent from the

previous fiscal year, or (E) eight thousand dollars for each out-of-district student who attends school in the receiving district under the program if the number of such out-of-district students is greater than or equal to four per cent of the total student population of such receiving district.

(3) Each town which receives funds pursuant to this subsection shall make such funds available to its local or regional board of education in supplement to any other local appropriation, other state or federal grant or other revenue to which the local or regional board of education is entitled.

(h) Notwithstanding any provision of this chapter, each sending district and each receiving district shall divide the number of children participating in the program who reside in such district or attend school in such district by two for purposes of the counts for subdivision (22) of section 10-262f and subdivision (2) of subsection (a) of section 10-261.

(i) In the case of an out-of-district student who requires special education and related services, the sending district shall pay the receiving district an amount equal to the difference between the reasonable cost of providing such special education and related services to such student and the amount received by the receiving district pursuant to subsection (g) of this section and in the case of students participating pursuant to subsection (d) of this section, the per pupil amount received pursuant to section 10-74d. The sending district shall be eligible for reimbursement pursuant to section 10-76g.

(j) Nothing in this section shall prohibit school districts from charging tuition to other school districts that do not have a high school pursuant to section 10-33.

(k) On or before March first of each year, the Commissioner of Education shall determine if the enrollment in the program pursuant to subsection (c) of this section for the fiscal year is below the number of students for which funds were appropriated. If the commissioner determines that the enrollment is below such number, the additional funds shall not lapse but shall be used by the commissioner in accordance with this subsection.

(1) Any amount up to five hundred thousand dollars of such nonlapsing funds shall be used for supplemental grants to receiving districts on a pro rata basis for each out-of-district student in the program pursuant to subsection (c) of this section who attends the same school in the receiving district as at least nine other such out-of-district students, not to exceed one thousand dollars per student.

(2) Any amount of such nonlapsing funds equal to or greater than five hundred thousand dollars, but less than one million dollars, shall be used for supplemental grants, in an amount determined by the commissioner, on a pro rata basis to receiving

districts that report to the commissioner on or before March first of the current school year that the number of out-of-district students enrolled in such receiving district is greater than the number of out-of-district students enrolled in such receiving district from the previous school year.

(3) Any remaining nonlapsing funds shall be used by the commissioner to increase enrollment in the interdistrict public school attendance program described in this section.

(l) For purposes of the state-wide mastery examinations under section 10-14n, students participating in the program established pursuant to this section shall be considered residents of the school district in which they attend school.

(m) Within available appropriations, the commissioner may make grants to regional education service centers which provide summer school educational programs approved by the commissioner to students participating in the program.

(n) The Commissioner of Education may provide grants for children in the Hartford program described in this section to participate in preschool and all day kindergarten programs. In addition to the subsidy provided to the receiving district for educational services, such grants may be used for the provision of before and after-school care and remedial services for the preschool and kindergarten students participating in the program.

(o) Within available appropriations, the commissioner may make grants for academic student support for programs pursuant to this section that assist the state in meeting the goals of the 2008 stipulation and order for Milo Sheff, et al. v. William A. O'Neill, et al., as extended, or the goals of the 2013 stipulation and order for Milo Sheff, et al. v. William A. O'Neill, et al., as extended, as determined by the commissioner.

07/15/21

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