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BRICK TOWNSHIP BOARD OF EDUCATION (Ocean County), et al.,	SUPERIOR COURT OF NEW JERSEY LAW DIVISION - MERCER COUNTY DOCKET NO. MER-L-001567-20
Plaintiffs,	
v.	**Civil Action**
STATE OF NEW JERSEY DEPARTMENT OF EDUCATION AND JEANNETTE LARKINS, in her capacity as Records Custodian for the New Jersey Department of Education	CERTIFICATION OF ALLEN T. DUPREE
Defendants.	

I, Allen T. Dupree, of full age, hereby certify:

1.   I am employed by the New Jersey Department of Education ("DOE"). I have held the position of Director of the Office of School Finance since August, 2019.

2.   I make this certification in support of Defendants' opposition to Plaintiffs' order to show cause.

3.   I have personal knowledge of the facts stated herein.

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4.   In my capacity as Director of the Office of School Finance ("OSF"), I oversee the various responsibilities of the OSF including those related to the administration of the state aid system for schools in accordance with applicable statutes. This involves various data collections from school districts, the calculations used to determine State school aid pursuant to the School Funding Reform Act of 2008 (SFRA), the Governor's budget recommendations, and the annual Appropriations Act.

5.   Prior to becoming the Director of the OSF I worked for 12 years in the New Jersey Legislature's Office of Legislative Services as a fiscal analyst in the Education Section. As part of my responsibilities in that role, I assisted in drafting the legislation that became the SFRA and routinely briefed legislators on the mechanics of the school funding law.

6.   Over the course of my career, I have developed a detailed understanding of school finance policy in the State and the mechanisms employed by the Department to implement these policies.

7.   I have run and, in the course of evaluating proposed policy alternatives, have tested modifications to, the various programs that calculate State aid for individual school districts pursuant to the SFRA, based on each districts' individual characteristics, such as the demographics of the student population and measures of community wealth such as income and property valuations.

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8.   Equalization Aid, one category of State aid provided under the SFRA, is wealth-equalized, meaning that the aid calculation considers a community's relative wealth when determining the amount of aid that it will receive. Thus while the SFRA allocates aid to school districts, it also contemplates certain levels of funding at the local level. The school district budgeting process then requires each district to contribute to its annual budget an amount that is based on its ability to raise local revenue, see N.J.S.A. 18A:7F-5.b.

9.   The Equalization Aid calculation begins with a determination of each district's adequacy budget – an estimate of what it costs each district to provide the core curriculum content standards to each student according to the district's enrollment and student characteristics.

10.   A district's adequacy budget is calculated by applying a base per pupil amount for the entire student population, and then making weighted adjustments for additional costs associated with educating students with various profiles, such as enrollment in middle- and high school- level programming, vocational programming, at-risk status, English language learners, and special education needs.

11.   The Equalization Aid formula then requires the calculation of each district's local share (LS).

12.   LS is based on two factors: the total equalized valuation

in a community, as certified by the Director of the Division of Taxation in the Department of the Treasury, and total (or "aggregate") income, as measured by the Division of Taxation using data provided on New Jersey gross income tax returns.

13.   As required under N.J.S.A. 18A:7F-52, the LS is determined by multiplying the equalized valuation by a Statewide property value rate (PVR) and multiplying the aggregate income by a Statewide income rate (INR). These two products are summed, with that result divided by two in order to yield the district's LS for the school year.

14.   Equalization Aid equals the difference between a district's adequacy budget and its LS, except that Equalization Aid may not be less than zero.

15.   The Department maintains a system of programs that are used to calculate State Aid.

16.   One component of the system of programs employed by the Department to calculate State aid determines PVR and INR in a manner consistent with subsection c. of N.J.S.A. 18A:7F-52. The statute provides for the use of an iterative procedure to determine these rates.

17.   Sometimes referred to as "the algorithm," this component uses a series of district-specific inputs (the adequacy budget, equalized valuation, and aggregate income) to determine the Statewide PVR and INR.

18.   The algorithm implements an iterative process that culminates in a PVR and INR that, when applied to the relevant data, yields a total allocation to Equalization Aid to school districts that approximately equals the Statewide total equalization aid as calculated pursuant to N.J.S.A. 18A:7F-48.

19.   In the first cycle of the iterative process, a value of PVR is identified such that, when applied to each school districts' equalized valuation, allocates Equalization Aid in an amount that approximately equals the Statewide total Equalization Aid. This is accomplished by initially applying the PVR that was used in the prior school year to calculate equalization aid. If the resulting amount of equalization aid does not approximately equal the Statewide total equalization aid, then the PVR is adjusted, based on the magnitude of the difference between the amount of equalization aid that was initially determined and the Statewide total equalization aid, and a second iteration is performed. This iterative process continues until a value of PVR is identified that yields equalization aid approximately equal to the Statewide total equalization aid.

20.   The second cycle is essentially identical, except that it determines a value of INR such that the total equalization aid approximately equals the Statewide total equalization aid.

21.   The third cycle determines the final values for both PVR and INR. In the first iteration in this cycle, the values of PVR

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and INR that resulted from cycles one and two are used to calculate equalization aid, with both values given equal weight. Similar to the previous cycles, if the resulting amount of equalization aid does not approximately equal the Statewide total equalization aid, then PVR and INR are adjusted based on the magnitude of the difference between equalization aid calculated in this iteration and the Statewide total equalization aid. To preserve the balance between the PVR and INR, both are adjusted by an equal amount, in percentage terms, in each subsequent iteration. The iterations continue until equalization aid approximately equals Statewide total equalization aid.

22.   This algorithm is one component of the system that is used to calculate State aid.

23.   The algorithm is an expression of the calculations described in plain language above as well as in paragraph c. of N.J.S.A. 18A:7F-52.

24.   Operationally, the algorithm relies upon the Department's specific software programming syntax and the Department's system for naming its related programs and data sources.

25.   To function, the algorithm relies on connection to databases housed at the Department, data derived from other State agencies' tax analysis repositories, and the remaining components of the State aid calculation system for inputs to complete its

work as described above.

26.   A printout of the component on its own would be non-functioning and, to most observers, incomprehensible separated from the Department's internal computer system.

27.   Although the Department cannot meaningfully provide a record of the algorithm, in response to repeated requests for a copy of the "algorithm," the Department determined that the best course of action was to refer requestors to N.J.S.A. 18A:7F-52.

28.   The Department also drafted and provides a plain-language description of how the program performs, attached hereto as Exhibit A.

29.   Exhibit A accurately describes the functionality of the algorithm.

30.   The algorithm comports with the requirements set forth in N.J.S.A. 18A:7F-52.

31.   The Department also provided a second document, showing in table format the values of PVR and INR, as calculated for the 2020-2021 school year, as the program proceeded through each iteration, attached hereto as Exhibit B.

32.   The iterative process illustrated in Exhibit B comports with the requirements of section c of N.J.S.A. 18A:7F-52, which requires the Department to annually determine the PVR and the INR such that equalization aid equals the Statewide available equalization aid for all Districts, in accordance with the act.

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33.   Exhibit A and Exhibit B were created by the Department specifically to assist with responding to a multitude of inquiries regarding the algorithm.

I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

Allen Dupree

Allen T. Dupree
Director of the Office of School
Finance, New Jersey Department of
Education

DATED: December 18, 2020

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EXHIBIT A

For the purpose of determining each school district's equalization aid, N.J.S.A. 18A:7F-52.c requires that the Commissioner of Education determine an income rate and property value rate (frequently referred to as multipliers) that, when considered in the context of relevant factors (including , the Statewide equalization aid amount and each district's adequacy budget, equalized property valuation, and income) will yield districts' local share amounts that provide an amount of equalization aid to districts that total the Statewide equalization aid determined pursuant to N.J.S.A.18A:7F-48 when applied uniformly to all districts.

N.J.A.C. 18A:7F-52.c provides for the use of an iterative procedure to determine these rates. Specifically, the rates are determined through three cycles. In the first cycle, the initial property rate multiplier is determined *in the absence of the income rate multiplier*. In the first iteration of this cycle, the prior year's property rate is used to calculate school districts' local shares and equalization aid based on the current data. If the resulting equalization aid for all districts equals[1] the Statewide equalization aid, then the first cycle is complete. Otherwise, the property rate is adjusted through additional iterations until that condition is satisfied.

The second cycle is identical to the first, except that it determines the initial income rate in the absence of the property rate.

The third cycle determines the two rates simultaneously. The first iteration of this cycle uses the rates determined in the prior two cycles to calculate local shares and equalization aid, with the two factors receiving equal weight. If additional iterations are required, the two rates are adjusted by an identical percentage until the districts' equalization aid equals the Statewide equalization aid.

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[1] For practical purposes, the process is complete when equalization is within $10,000, or 0.001%, of the Statewide equalization aid.

EXHIBIT B

The following table details the iterative process that determined the property value and income rates for the 2020-2021 school year.

Pursuant to N.J.S.A.18A:7F-48, the Statewide Equalization Aid Amount Equals $7,911,180,140								
	Iteration	Property Value Rate		Income Rate		Total Resultant Equalization Aid		Difference from Statewide Equalization Aid
Cycle 1	1	0.014523812				8,005,317,321		94,136,481
	2	0.014696633				7,905,040,316		-6,140,524
	3	0.014686051				7,911,146,846		-33,994
	4	0.014685992				7,911,179,546		-1,294
Cycle 2	1			0.049819447		8,562,606,126		651,425,286
	2			0.053921698		7,845,754,602		-65,426,238
	3			0.053547290		7,905,264,119		-5,916,721
	4			0.053510065		7,911,277,751		96,911
	5			0.053510664		7,911,183,413		2,573
Cycle 3	1	0.014685992		0.053510664		7,786,266,449		-124,914,391
	2	0.014454106		0.052665752		7,929,629,211		18,448,371
	3	0.014483946		0.052774478		7,911,079,893		-100,947
	4	0.014483784		0.052773887		7,911,177,009		-3,831