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METHODOLOGY AND DATA COMPANION

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The Dual-Curriculum Premium at National Scale: Concentrated in Philanthropy Rather Than Price

Methodology and data companion to the working paper

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A full white paper, with the complete introduction, related literature, data and design, results, discussion, limitations, conclusion, and references, is available on request.

At a glance	
Research question	Do Jewish day schools carry a measurable premium for running two curricula, where in their finances does it appear, and how is it paid for, once geography and school size are held constant?
Data	NAIS DASL All PK-8 benchmark group, 887 independent schools observed over four school years (2022-23 through 2025-26), of which 101 are identified as Jewish day schools.
Unit of analysis	The school, observed across up to three school years, so school-year observations are nested within schools.
Statistical method	A hierarchical linear model (a multilevel, mixed-effects regression) with a school-level random intercept, adjusting for region, enrollment, and year.
Headline finding	Advancement per pupil is about 161% higher in Jewish day schools, roughly three times the staffing effect, while net tuition shows no overall gap; the premium sits on the revenue side.
What it shows	The dual curriculum is financed less by what families are charged than by what communities give, making philanthropy dependence the sector's central sustainability question.

The question behind the paper

Jewish day schools teach two curricula in a single school day, a general-studies program alongside a parallel Judaic-studies program, and the folk hypothesis holds that this dual mandate must cost more to staff and must be passed to families as higher tuition. This paper asks whether that premium exists once geography and school size are accounted for, where in a school's finances it appears, and how it is financed.

Two obstacles make the test harder than it looks. Jewish day schools cluster in high-cost coastal metropolitan areas, so a raw comparison risks measuring real estate rather than curriculum, and the schools tend to be small, which raises per-pupil costs mechanically. The study addresses both by comparing schools within region and size inside one national benchmark pool.

Where the data come from

The NAIS DASL benchmark pool. The financial figures come from the National Association of Independent Schools and its Data and Analysis for School Leadership platform, drawn from the All PK-8 benchmark group for 2022-23 through 2025-26. The assembled pool holds 887 independent schools, of which 101 are identified as Jewish day schools (83 non-Orthodox and 18 Orthodox) and 786 serve as comparison schools.

Prizmah cohort classifications. Jewish schools were identified in two steps. All 76 schools in Prizmah's K-8 benchmarking cohorts appear in the national pool, and Prizmah's own cohort assignments supply their Orthodox and non-Orthodox labels, with a further 25 Jewish schools identified by name review and classified by the author. A robustness specification that keeps only the Prizmah-classified schools confirms that no result depends on the author's classifications.

Six outcomes trace the premium through a school's income statement: staffing intensity (full-time-equivalent staff per 100 students), operating expenses per pupil, net tuition revenue per pupil, advancement (philanthropy) per pupil, the tuition discount rate, and full-day kindergarten sticker price. Roughly a hundred school-year rows with non-positive or physically impossible values were removed by exclusion, with nothing imputed or replaced.

The statistical method, named and explained

The analysis uses a hierarchical linear model, also called a multilevel or mixed-effects regression. Because the same school appears in up to three years, each school receives its own random intercept, a baseline level drawn from a common distribution that absorbs everything durable about the school (its market, facilities, culture, and leadership) that the model does not measure directly. This device prevents three observations of one school from being counted as three independent schools, which would make standard errors too small. The Jewish-versus-comparison contrast is then estimated between school baselines, while the model also adjusts for census region, the natural log of enrollment, and school year, with dollar outcomes modeled in logs and read as percentage differences. Estimation is by restricted maximum likelihood, the standard approach for models of this kind.

Several checks support the estimates. Because Jewish and comparison schools sit in every region, the geography adjustment rests on within-region contrasts rather than extrapolation, and every headline effect is carried alongside a US-only and a Prizmah-only specification. For the discount rate and the sticker-price outcomes, randomization inference (permutation testing) provides the appropriate standard given the small Orthodox cell.

Key results from the paper

Table 1. Main estimates: Jewish day school effect (Model A), by outcome.

Outcome	Effect vs. comparison	p
Advancement per pupil	+160.8%	<0.001
FTEs per 100 students	+16.7%	<0.001
Operating expenses per pupil	+19.8%	0.009
Net tuition revenue per pupil	-4.4%	0.575
Tuition discount rate	+9.8 pp	<0.001
Sticker tuition (kindergarten)	-0.1%	0.980

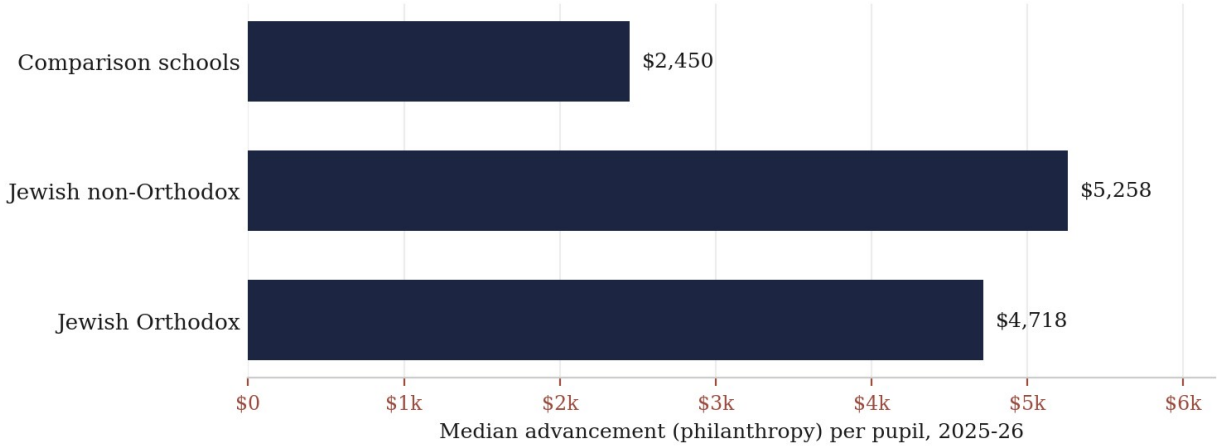
Note. Percentage effects from log-scale coefficients; the discount rate is in percentage points (pp). Effects hold region, enrollment, and year constant.

Table 2. Three-group estimates (Model B), by stratum, versus comparison schools.

Outcome	Non-Orthodox	Orthodox
Advancement per pupil	+166.8%	+127.4%
FTEs per 100 students	+19.1%	+3.8%
Operating expenses per pupil	+28.2%	-13.9%
Net tuition revenue per pupil	+2.2%	-31.4%
Tuition discount rate	+8.6 pp	+15.5 pp
Sticker tuition (kindergarten)	+4.3%	-25.4%

Note. The Orthodox cohort rests on 11 to 14 reporting schools, so its estimates detect only sizable effects.

Figure 1. Unadjusted median giving per pupil by group.



Note. Descriptive 2025-26 medians; Jewish strata raise at more than double the comparison rate.

How to read the results

Table 1 carries the study's central message. The largest and most stable coefficient sits on philanthropy, about +161% per pupil, roughly three times the staffing effect, while net tuition revenue shows no overall gap. The price side of the premium appears in what schools forgo rather than what they charge, with the tuition discount rate running close to ten percentage points above the comparison pool. Table 2 shows two routes to a low collected price: non-Orthodox schools post ordinary prices and discount them deeply, whereas Orthodox schools post prices about a quarter below the pool, collect roughly a third less net tuition, and cover the gap through communal giving. Figure 1 shows the unadjusted giving levels that sit beneath these adjusted effects.

What the numbers do not claim

These estimates describe structural differences net of measured factors rather than causal effects, and a few limitations bound them. NAIS suppresses school-level salary data in this pool, so the paper cannot test whether Judaic-studies and general-studies faculty are paid differently, although reported average teacher experience rules out faculty seniority as the source of the cost gap. The Orthodox cohort holds only 18 schools, so its significant findings cleared the significance bar at roughly 60 percent power and its null results should be read as absence of evidence rather than evidence of absence. The operating-cost premium is the least stable of the significant findings, attenuating to +13.1% in the US-only sample, because the region adjustment does heavy lifting for a sector that stays geographically concentrated even within a national pool.

Reproducing the analysis

Public and assembled sources. The underlying platform is NAIS DASL, the sector's standard benchmarking database, and the Jewish-school roster leans on Prizmah's published K-8 cohorts. The consolidated exports were assembled by the author into NAIS_Benchmarking_Master.xlsx (All PK-8 benchmark group, 2022-23 through 2025-26). The full fixed-effect estimates and a complete data-screening log appear in the working paper's appendices, so the models can be rebuilt from the master workbook.