The School-Based Feeding Program and Learner Attendance: A Difference-in-Differences Study

A basic research proposal · Basic Education Research Fund 2026

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A sample with invented data, for teaching: nash.com.ph/blog

Introduction and rationale: does feeding bring learners to school?

3.4 million

learners funded for meals in FY 2025: all Kindergarten, plus the wasted learners of Grades 1 to 6

OUOPS (2025), item 1

120 days

of feeding at PhP 25.00 a day, starting by July 14, 2025, or when a school's funds arrived

OUOPS (2024, 2025)

8.4%

of Filipino children 5 to 10 years old were wasted in 2023, up from 6.9% in 2021

Eva (2025)

The feeding order in force names enrollment, not attendance, and the PIDS evaluation of the SBFP found attendance already high, without estimating an effect. Our schools started feeding on three dates, and School Form 2 counts every learner's days present.

Literature review: school feeding and attendance

Wang et al. (2021)

Three studies pooled: 2.6% more school days attended, 95% CI [1.2, 3.9], about 4.5 days a year.

Kristjansson et al. (2025)

Cochrane review, three cluster trials pooled: may have little to no effect on attendance, 0.17%, 95% CI [−2.64, 2.97], low certainty.

Tabunda et al. (2016)

The PIDS evaluation of the SBFP: fed learners' median attendance 97.5%, non-beneficiaries comparable; no effect estimated.

So: expect a small gain, if any, where attendance is already high.

Literature review: when schools start at different times

Bertrand et al. (2004)

Conventional standard errors found an 'effect' in up to 45% of placebo interventions: cluster by the unit that was treated.

Goodman-Bacon (2021); Sun & Abraham (2021)

With staggered starts, the usual estimate mixes comparisons of early and late starters; estimate each start group against a clean comparison.

Roth (2022)

A test of parallel trends before treatment often lacks power: report how large a trend it could miss.

So: a two-way fixed effects estimate, an event study, and a robust estimator beside it.

Four questions, four null hypotheses

1. How did the monthly attendance of SBFP beneficiaries and their classmates compare before, during and after feeding?
2. By how much did beneficiaries' attendance change in feeding months, relative to their classmates'?
3. Did the two groups' attendance follow parallel trends before feeding began?
4. Did any change last after feeding ended, and did it differ by start date, grade and severity of wasting?

Null hypotheses (α = .05)

- $H_0 1$: In feeding months, the two groups' attendance changes alike.
- $H_0 2$: Before feeding, the two groups' trends are parallel.
- $H_0 3$: After feeding, the two groups' attendance changes alike.
- $H_0 4$: The change does not differ by grade or by severity of wasting.

What the study covers, and what it cannot show

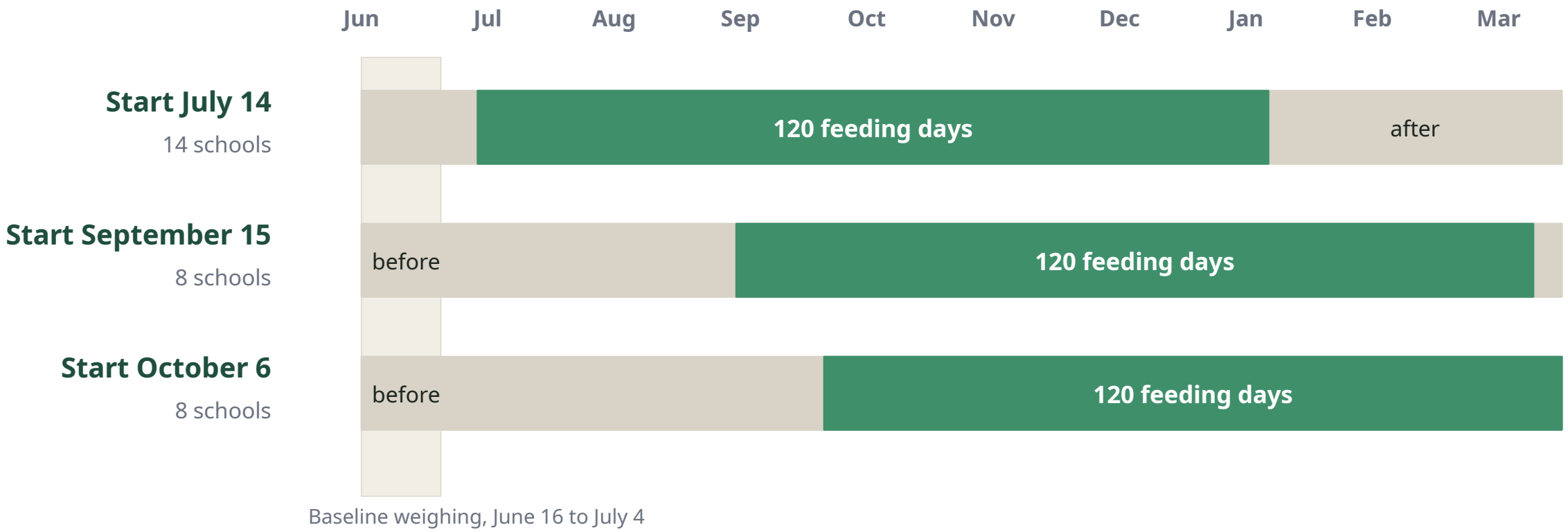
Scope

- All Grade 1 to 6 learners of the division's 30 public elementary schools, SY 2025–2026
- About 9,000 learners' records, June 2025 to March 2026: no sampling
- School Form 2, SBFP Forms 1 to 3, and the schools' suspension records
- Records read after the school year ends, May to June 2026

Limitations

- Beneficiaries are chosen for wasting, not at random
- Start dates follow the funds; assumed unrelated to attendance trends
- Learners who move or leave mid-year are not followed
- Classmates may share leftover meals; take-home packs cannot be separated

Research design: three start dates, two groups



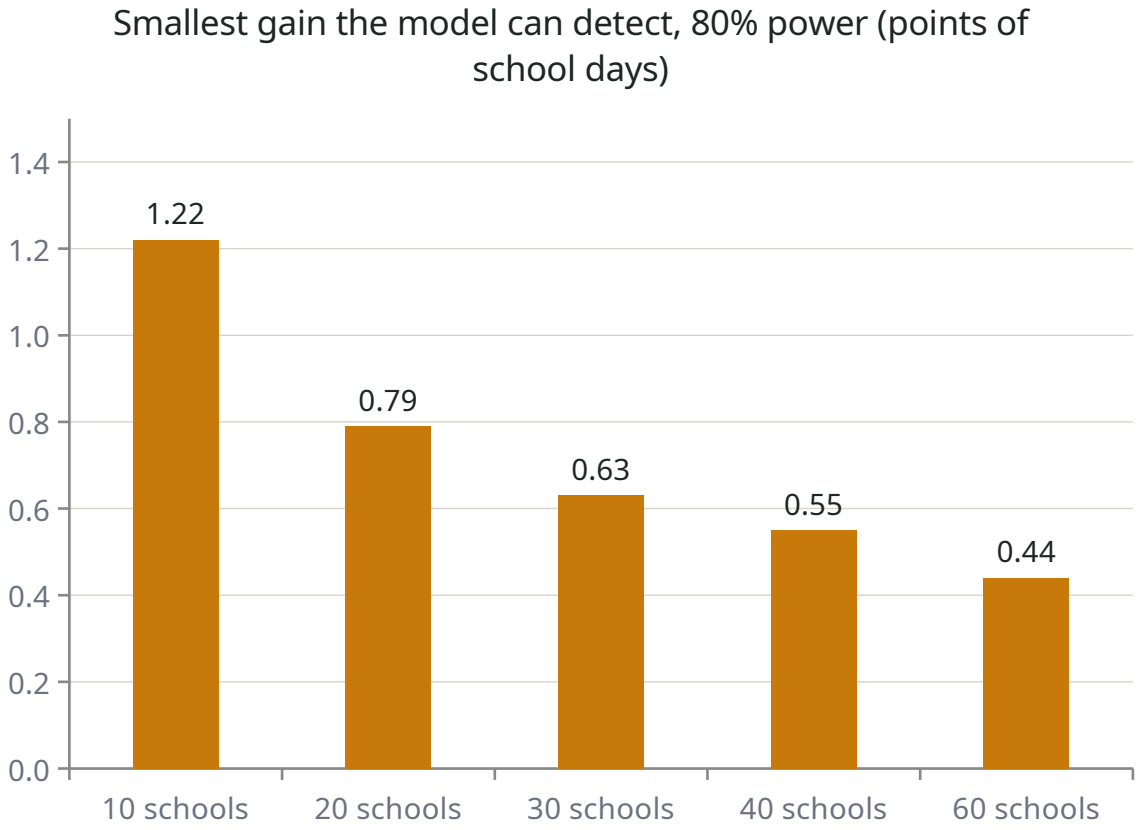
Difference-in-differences with staggered starts: each school's months before feeding against its feeding months, fed learners against their classmates.

Sampling: every record; the schools decide precision

30 public elementary schools in the division, all of them

≈ 9,000 Grade 1 to 6 learners enrolled the whole year: all of them

≈ 8% of them fed: severely wasted or wasted at the baseline weighing



500 simulated divisions for each number of schools, from the planning values; learner and month effects, clustered by school, α = .05.

Data collection: records the schools already keep

School Form 2 abstraction sheet

Each learner's days absent and the class's school days, month by month, June 2025 to March 2026. Suspended days are not school days. Codes in place of names.

The SBFP records

Form 1: each beneficiary's nutritional status at the baseline weighing. Form 2: the start and end of feeding. Form 3: the days meals were served in school, month by month.

Derived variables

The monthly attendance rate; before, during or after feeding for the learner's school; months from the first feeding month; the share of a month's school days fed.

Data collection: validity, reliability, schedule

A record check

A second researcher re-enters the days present of 400 learner-months drawn at random, without seeing the first entry: exact agreement and the ICC.

Feeding dates checked

The start and end dates on SBFP Form 2 are checked against the daily records of Form 3, school by school.

Definitions fixed in advance

Before: months wholly before the first feeding month. During: first to last feeding month. After: months wholly after the last feeding day.

Checks of the model

School-by-month effects; the share of days fed; the model without June, the month of the weighing; a wild cluster bootstrap.

Approval and data request April 2026 · Ethics review April to May · Coding of names May 11 to 15 · Abstraction in the 30 schools May 18 to June 19 · Record check June 22 to 26 · Analysis June 29 to August 28.

Ethical issues: consent, privacy, and review

Consent

Results are anonymized and report only general groups, so consent is not required (NPC Circular 2023-04, Sec. 16); an ethics committee reviews the protocol.

Privacy

Nutritional status and attendance are sensitive personal information (RA 10173): codes only, and the key stays in each school.

No decisions

The study's file is never used to decide anything about a learner; results name no learner or school.

Approval

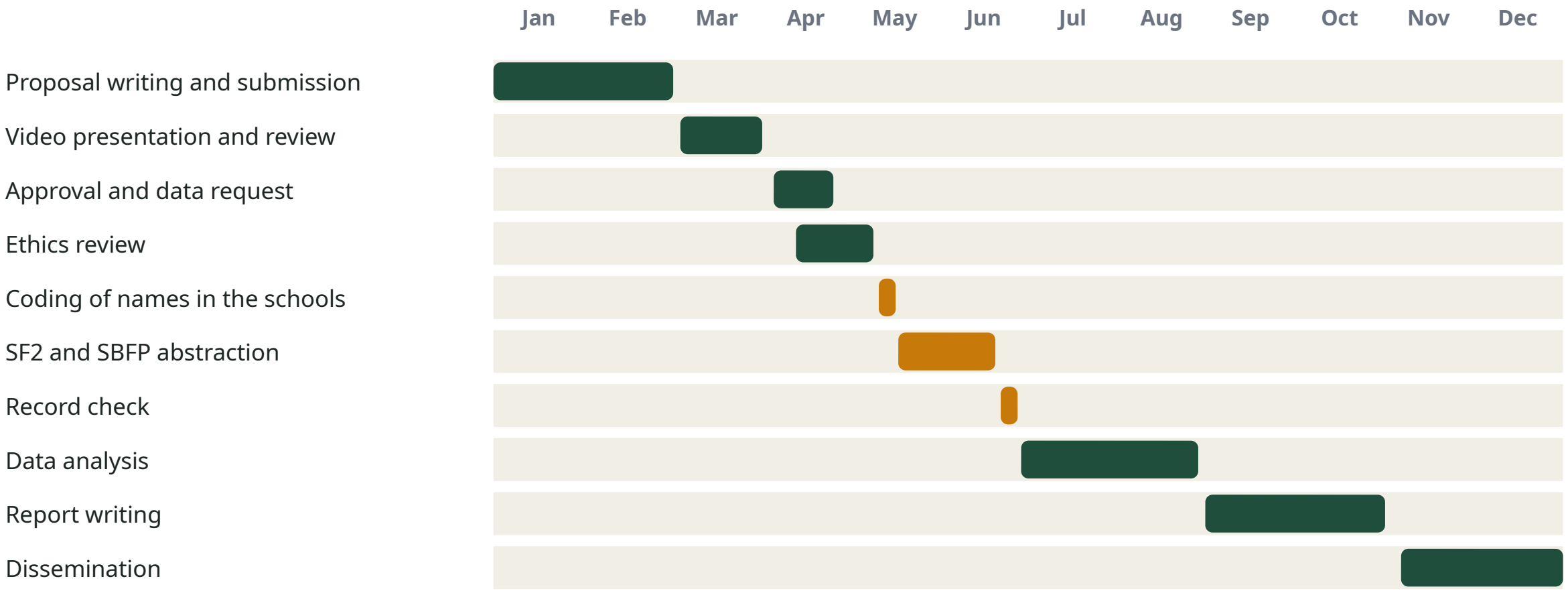
The Schools Division Superintendent's approval and the Division Research Committee's review.

Plan for data analysis: difference-in-differences

Question 1	Monthly means of fed learners and classmates for each start date; the 2 × 2 difference-in-differences by hand.
Question 2	Two-way fixed effects: learner and month effects, clustered by school, t with 29 df; a wild cluster bootstrap; three checks.
Question 3	An event study: months from the first feeding month; a Wald test of the months before, and the trend it could miss.
Question 4	Sun–Abraham estimates for each start date and the months after; interactions with Grades 1 to 3 and severe wasting.

Python 3.13 with linearmodels and pyfixest; Excel recomputes the means, the 2 × 2 by hand and every statistic it can.

Timetable: January to December 2026



Gold: work with the records in the schools. Months are of 2026.

Cost estimates: PhP 15,000 in eligible items

Item	Particulars	Amount (PhP)
Food	Snacks for the abstraction days	2,400.00
Reproduction	Abstraction sheets (about 700 pages)	1,400.00
Transportation	40 trips to the 30 schools	4,000.00
Communication	Mobile data, three researchers, five months	4,500.00
Supplies	Folders, envelopes, an encrypted flash drive	1,300.00
Dissemination	Policy brief	1,400.00
Total		**15,000.00**

Not charged to the grant

- Statistical software: Python and its libraries are free
- Honoraria for the record check: the researchers do it
- Equipment, utilities and office rent

Dissemination and advocacy: who needs the findings

School heads and SBFP coordinators

Division school heads' conference and a two-page policy brief: report beneficiaries' attendance month by month.

November 2026

School health and nutrition staff

Division management committee: track start dates; separate take-home days in the records.

December 2026

Class advisers

Learning action cell sessions: what School Form 2 can show about the program.

January to February 2027

Researchers

Regional research congress and the division's research journal.

March to June 2027

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Thank you

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