K-12 Funding:
Unpacking Per-Pupil Expenditures (PPE) & School District Accounting Basics

School Funding Interim Commission

June 23, 2025

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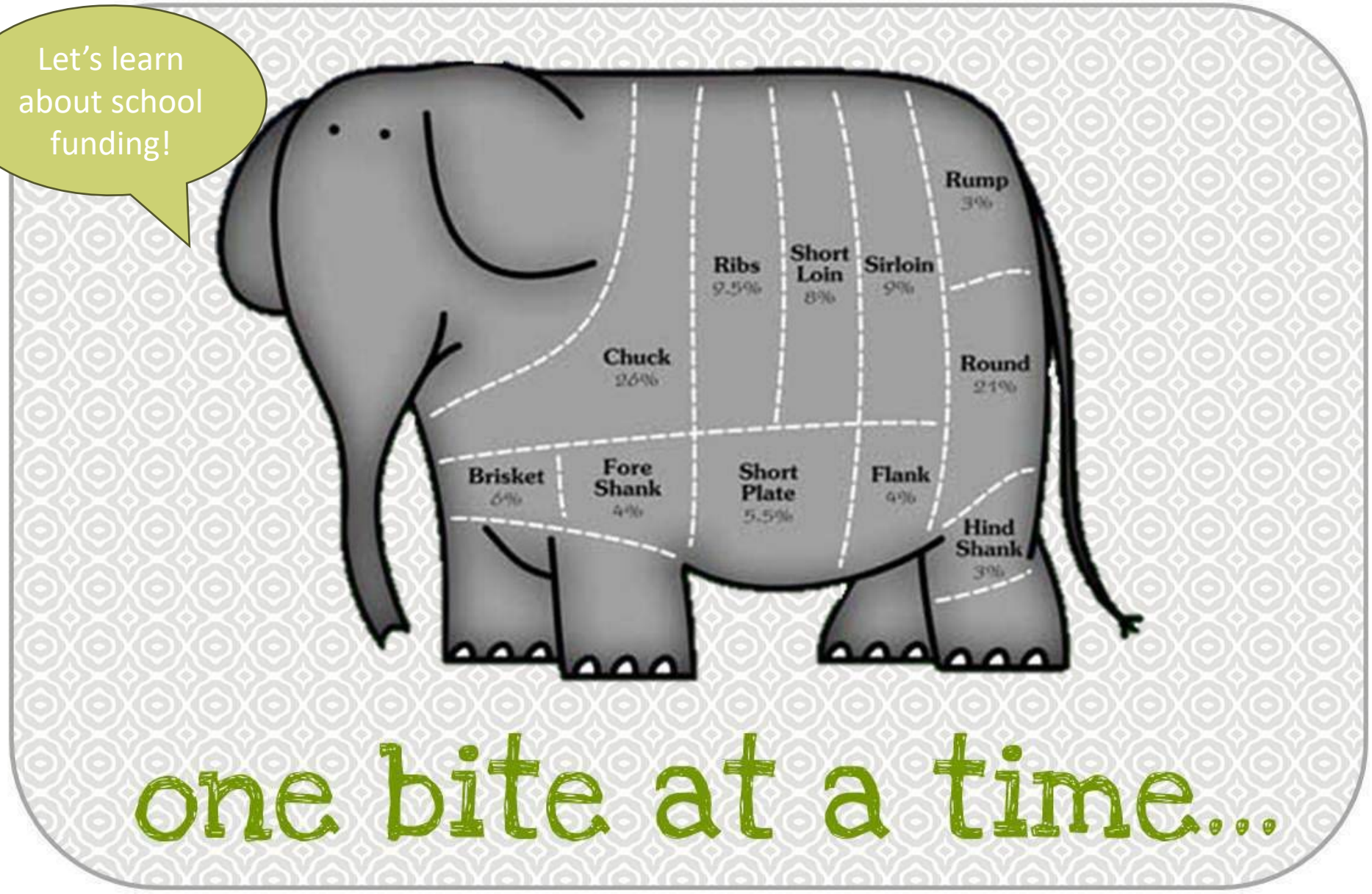
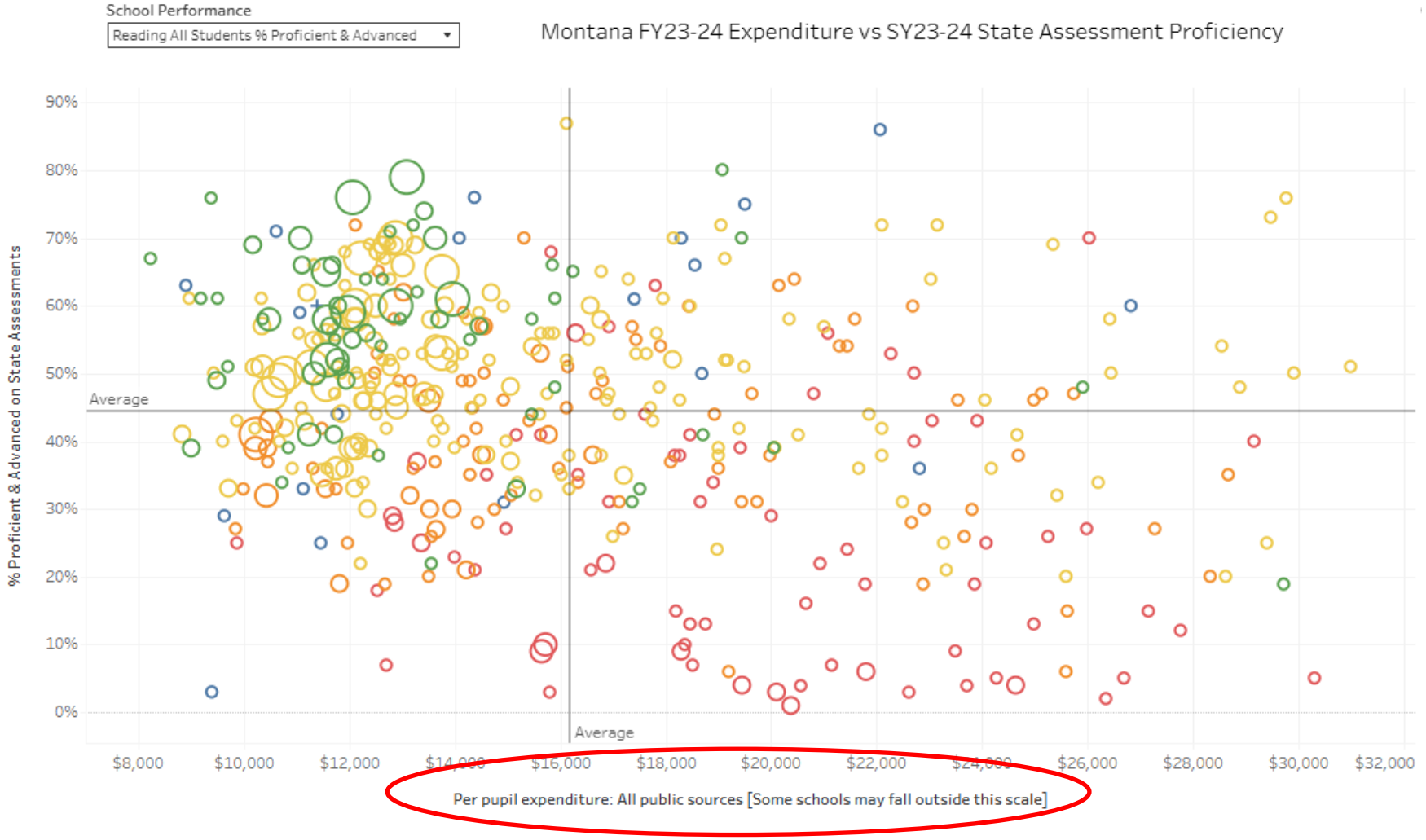


https://medium.com/@zrehan286/approaching-a-problem-f6d6138e70d1

The theme of today's school funding snack is Per-Pupil Expenditures or PPE. This will allow you to get a ***taste*** of:

- The importance of ratios in school funding (and knowing your numerators and denominators)
- The several ways of counting kids
- The drivers of spending differences
- The basics of school district accounting

Why PPE???

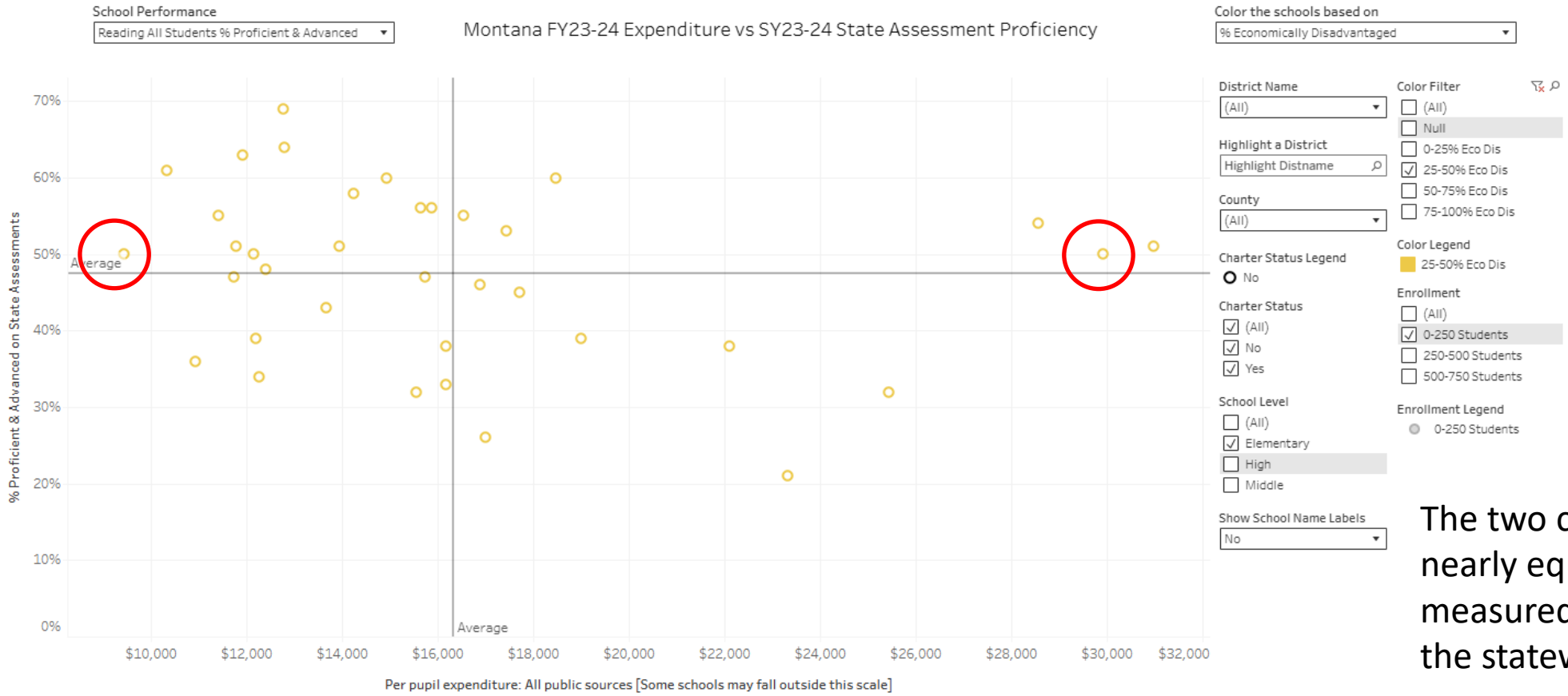


https://edunomicslab.org/mt-scatterplots/Lab

Why PPE?

Because:

1. Scatterplots like this one featured heavily in the June 3-4 Edunomics workshop and PPE is the X axis
2. There are some nuances and caveats to PPE, especially in MT
3. PPE is almost always used in measures of school funding equity
4. PPE provides a lens to think and learn about other aspects of Montana school funding



The two circled schools are nearly equal in achievement (as measured by reading scores on the statewide assessment).

Why might one of these schools be spending 3X what the other is on a per-pupil basis?

Filtered to select:

- Elementary Schools with 0-250 students
- 25-50% Economic Disadvantage

https://edunomicslab.org/mt-scatterplots/Lab

Some possibilities:

- SIZE – one of these schools might have 10 students and the other might have 250
  - Denominators matter!
  - Economies of scale and student : teacher ratios; # of students increases revenue, # of teachers increases costs
  - Think solely about the basic entitlement: $60,000 ÷ 250 = $240/pupil; $60,000 ÷ 10 = $6,000/pupil
  - 50% of Montana schools have less than 100 students

- HIGHER COSTS
  - Students with higher educational costs
  - Employees with higher costs (more experienced and educated teachers, higher costs of living)
  - Greater transportation needs (serving a large geographic area with low # of kids)

- REVENUE – you can't spend money you don't have; how do some districts have more $ than others?
  - Over-BASE (and over-MAX) district general fund budgets
  - Non-levy revenue sources (coal, O&G, Impact Aid, tax credit donations, etc.)

EVERY DISTRICT HAS A STORY! AND REMEMBER, NO "SECRET SAUCE"*, BUT:

- Relationships matter; students as individuals; data to support learning; mutual respect; community as partner
- Local ownership; self-reliance; ingenuity
- Conscious tradeoffs
- Careful stewardship of public funds

* From Edunomics Workshop

Ratios matter in Montana's school funding formula.

The Guaranteed Tax Base (GTB) ratio calculated below and several others like it drive $100s of millions annually to eligible school districts (and counties for school purposes) as a way of equalizing property tax wealth disparities.

The primary GTB formula uses:

$$\frac{Taxable\ Value}{GTB\ Budget\ Area\ (a\ proxy\ for\ educational\ costs)}$$

We will take bigger bites at GTB in future meetings.

* OPI's preliminary budget data sheets are an EXCELLENT resource for learning about school funding!

https://opi.mt.gov/Leadership/Finance-Grants/School-Finance/School-Finance-Budgets#10517411758-preliminary-budget-data-reports

PRELIMINARY BUDGET DATA SHEET
FY 2026

Post-Session

County: 56 Yellowstone
District: 0970 Laurel Elem

12. General Fund Guaranteed Tax Base Aid (GTB) Ratios And Subsidies

I.	STATEWIDE GTB RATIO:	Elementary	High School
a.	Statewide Taxable Valuation (Tax Year 2024)***	4,512,374,412	4,512,374,412
b.	FY 2025 Statewide GTB Subsidized Budget Area: 35.30% of the Basic Entitlement + 35.30% of the Per ANB Entitlement + 40% of Special Education Allowable Cost Payment (Including Cooperative Costs)	283,022,467.85	157,586,587.36
c.	GTB Ratio: [(a) Divided by (b)] x 262%	41.77	75.02

II.	DISTRICT GTB SUBSIDY:	Elementary	High School
a.	Statewide GTB ratio (from c above)	41.77	N/A
b.	FY 2025 District GTB Subsidized Budget Area: 35.30% of the Basic Entitlement + 35.30% of the Per ANB Entitlement	3,078,389.45	N/A
c.	40% of FY 2025 District Special Education Allowable Cost Payment plus District Coop Cost Payment	103,089.64	N/A
d.	District's FY 2026 Guaranteed Tax Base (a) x [b + c]	132,890,381.59	N/A
e.	District Taxable Valuation (Tax Year 2024)***	60,223,910	N/A
f.	If (d) is Greater Than (e), Then: DISTRICT's FY 2026 GTB Subsidy Per BASE Mill [d - e] x 0.001	72,666.00	N/A

Ratios can be displayed as numbers, like the GTB ratios on the previous slide, or as 14:1 if we were talking about the ratio of students to teachers in a school or district. Ratios can also be thought of as fractions, with a numerator on top and a denominator below.

$$\frac{\text{numerator}}{\text{denominator}} = \frac{a}{b}$$

Per-pupil expenditures are fundamentally $\frac{Dollars\ Spent}{\#\ of\ students}$

Seems straightforward enough, but this is where some of the wrinkles come in. Let's start with the denominator. There are some standard choices for counting students, but they yield different numbers which can drastically affect PPE:

Membership (or enrollment or headcount) is simply a count of every name on the roll. It ignores part-time enrollment.

FTE (full-time equivalent) enrollment incorporates part-time enrollment.

So, two students enrolled half-time will count as 2 in a membership count, but as 1 in an FTE enrollment count.

Attendance (often ADA for "average daily attendance") will yield a significantly smaller number because students sometimes miss school.

Bottom line: the way students are counted for PPE matters.

Quick detour for a learning opportunity.

What is ANB???

ANB stands for **Average Number Belonging**. It is the main driver in Montana's school funding formula.

ANB starts out as an FTE enrollment count, with the FTE enrollment counts (number belonging) taken on the first Monday in October and first Monday in February added together and divided by 2 (to get the average), but then…

This number is then multiplied by (wait for it…) the ratio of $\frac{180+ \textit{the number of PIR days used by the district}}{180}$

A **PIR day** is a **pupil-instruction-related day**, basically days used for teacher in-service and professional development. The law allows for up to 7 PIR days, so most districts build those into the calendar and contracts.

This is how Montana's funding formula provides funding for teacher professional development, by increasing enrollment counts by $\frac{187}{180}$ or about 3.9%. So, a district with 1,000 FTE enrollment in both October and February will have an ANB of 1,040.

Bottom line, using ANB for PPE calculations would not yield an accurate measure of spending per student.

* This detour is ending but be aware that the above yields what is known as "Current Year ANB". A school district's general fund budget is built on what is known as "Budget Limit ANB" which is either Current Year ANB or 3-Year Average ANB, whichever yields the highest budget for the district. 3-Year Average ANB provides a "soft landing" for districts with declining enrollment.

OK. We've discussed the denominator, now let's turn to the numerator.

$$\frac{\text{numerator}}{\text{denominator}} = \frac{a}{b}$$

When considering PPE, most metrics define a term **"Current Expenditures"** so that long-term expenditures like major construction and the debt service to repay bonds for major construction can be excluded, as well as excluding certain other expenditures, like community services, adult education, private school expenditures, and out-of-district tuition.

Here are the descriptions of the terms from NCES data files (National Center for Education Statistics).

Total Current Expenditures for Public El-Sec (TE5) [State Finance]

Total current expenditures for public elementary and secondary education, grades prekindergarten through grade 12, including ungraded students. Expenditures for equipment, non-public education, school construction, debt financing and community services are excluded from this data item. Expenditures by state governments for and on behalf of LEAs are included in these expenditures, and all other expenditures here. This is the sum of expenditures for Instruction, Support Services, and Non-instructional Services (excluding Community Services) and Direct Program Support (excluding Support for Private school Students), and excludes Property expenditures. These data are taken from the CCD National Public Education Financial Survey.

Total Current Expenditures for Public El-Sec (TE5) per Pupil (MEMBR) [State Finance]

This is the total current expenditures for public elementary and secondary education (te5) divided by the fall membership as reported in the state finance file. The Expenditures for equipment, non-public education, school construction, debt financing and community services are excluded from this data item. These data are from the CCD National Public Education Financial Survey.

https://nces.ed.gov/ccd/elsi/glossary.aspx?app=tableGenerator&term=11018,46383,46384,46373,46385,46388,46372,46378,46436,46437,46438,46439,46440&level=State&groupby=0

The federal Every Student Succeeds Act (ESSA, not to be confused with ESSER!) created the requirement that PPE be reported at the school level. It is this school-level PPE as reported on our state, district, and school ESSA report cards that the Edunomics Lab uses. OPI has a great explainer of the **ESSA Report Card PPE** calculation.

$$\frac{\text{Current Expenditures disaggregated by State, Local, and Federal Funds}}{\text{Number of Students Enrolled in K-12}} = \text{Per Pupil Expenditures}$$

What's Included:

- School salaries and benefits for staff
- Instruction and support operational costs
- Administration costs
- Federally funded education programs such at Title I
- Interlocal Agreement Fund (82)
- Transportation Fund (10) and School Food Services Fund (12)

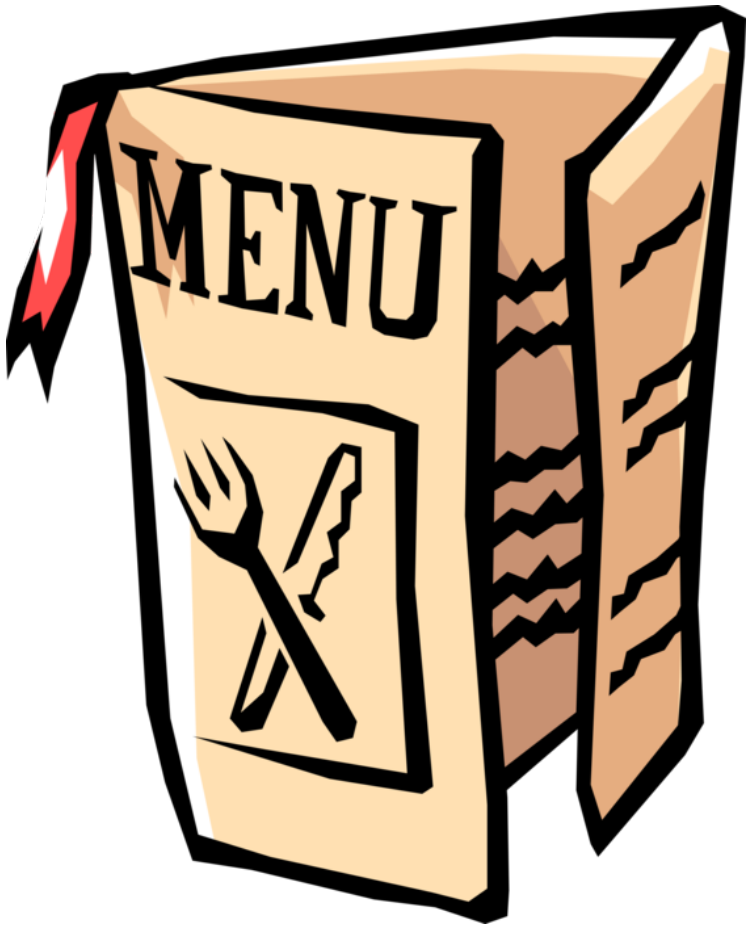
What's NOT Included:

- All proprietary funds
- Adult education and community service programs
- Traffic education
- Capital outlay for land, school construction and equipment
- Debt service
- Out of district tuition payments

https://opi.mt.gov/Leadership/Academic-Success/Every-Student-Succeeds-Act-ESSA/Report-Card/Per-Pupil-Expenditures

What allows district and school expenditures to be "sliced-and-diced" and disaggregated in so many ways?

School Accounting 101

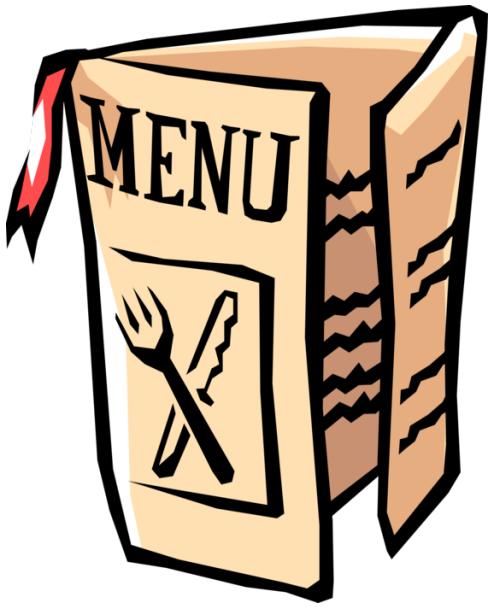


When you order a meal at a restaurant, you choose from Menu categories such as the below:

- **Appetizers**
- **Salads**
- **Sandwiches / Burgers**
- **Entrees**
- **Desserts**
- **Drinks**

BIG IDEA: There is "granularity" within school fund accounting, which gives districts the ability to separate out and track expenditures for accounting and reporting purposes.

School Accounting 101



School Accounting Manual (SAM): 456 pages

Chart of Accounts (SAM Ch. 3): 79 pages

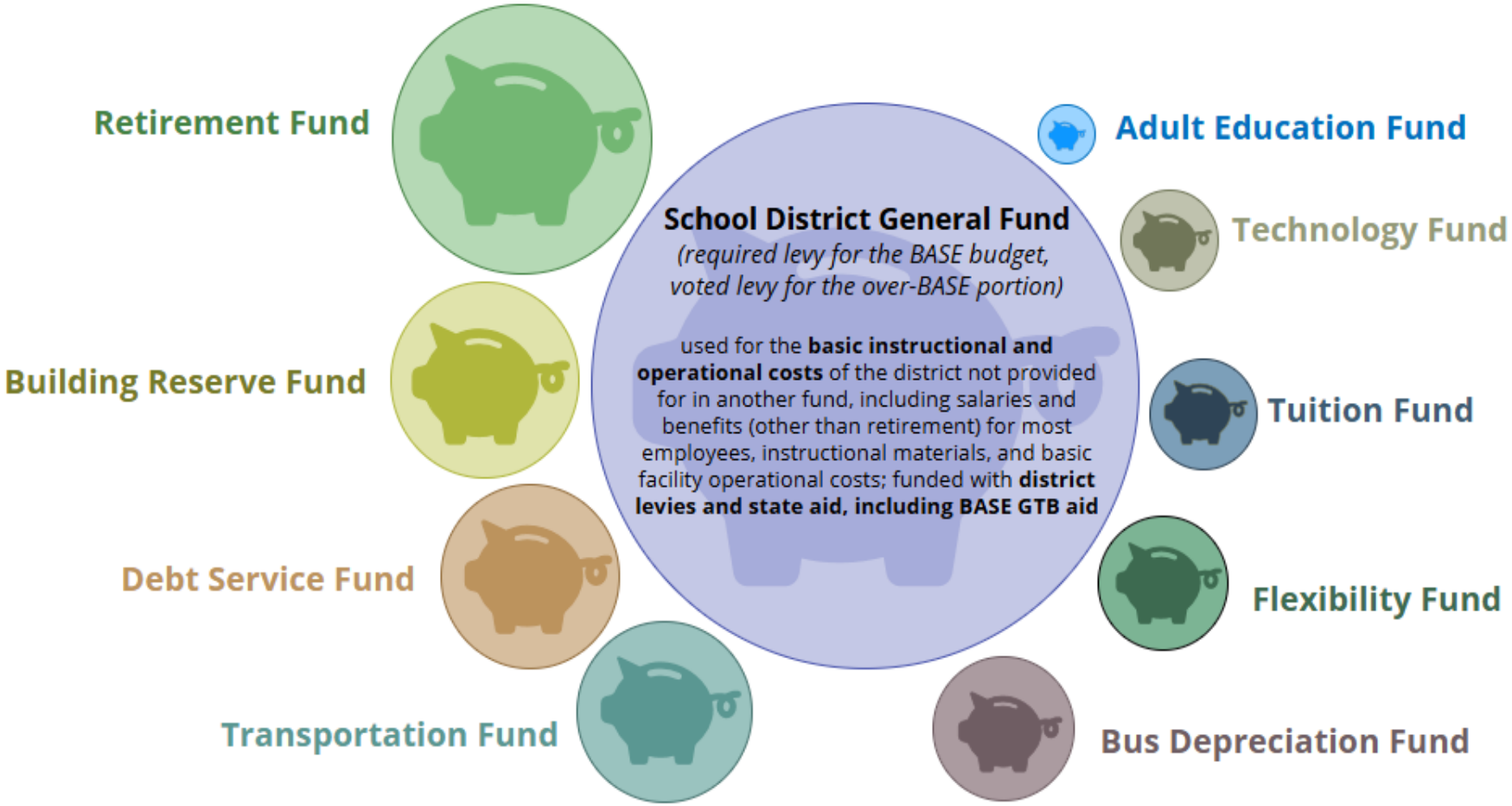
School Accounting practice classifies revenues and expenditures in a similar way, except instead of delicious food categories, you have fund categories:

- **Fund –** a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances, and changes therein, which are segregated for carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations (GASB Statement No. 54)
- **Program –** Plan of activities/procedures designed to accomplish a predetermined set of objectives
- **Function –** The purpose of a program/activity
- **Object –** Further defines the good/service
- **Project Reporter Code –** Allows separate tracking of expenditures from specific revenue sources, to meet specialized reporting requirements

BIG IDEA: There is "granularity" within school fund accounting, which gives districts the ability to separate out and track expenditures for accounting and reporting purposes.

Another quick detour for learning.

This graphic should look familiar. Remember these are only the BUDGETED funds; there are MANY more nonbudgeted funds, including some big hitters with IDEA money, Impact Aid, Title I, etc.



Also remember that 20-9-309, MCA, defining the basic system of quality schools and establishing requirements for the school funding formula, requires the Legislature to:

… consolidate the budgetary fund structure to create the number and types of funds necessary to provide school districts with the greatest budgetary flexibility while ensuring accountability and efficiency.

In 2005, the Quality Schools Interim Committee put significant effort into this fund consolidation, but nothing came of the work.

School Accounting 101

School Accounting Manual (SAM): 456 pages

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Fund – 46 named Funds in SAM

Program – 9 named Program categories in SAM

Function – 6 broad Function categories in SAM

Object – 10 named Object codes categories in SAM

Project Reporter Code – must be used to account for local, state, & federal grants

BIG IDEA: There is "granularity" within school fund accounting, which gives districts the ability to separate out different fund types within categories.

Program Dimension - A program is a plan of activities and procedures desig
objective or set of objectives. This dimension provides the school district th
by program for cost determination purposes. Programs are classified in the

100 Regular Programs
200 Special Programs
300 State Grants
400 Federal Grants
500 Non-Public School Programs
600 Adult Education Programs
700 Extracurricular Programs
730 Emergency Federal Programs
800 Community Services Programs
900 Enterprise Programs

Function Dimension - The function dimension describes the type of activity within a fund an
It includes the area sub functions, activities, and sub activities performed to accomplish gene
objectives. Expenditures are classified by function to provide comparability between commu
states and to assist in decision making.

3.16B Expenditure Function Definitions

The function dimension describes the type of activity within fund and program using a four-digit code
two digits of the function code designate one of the following six broad areas: Instruction, Support Se
Operation of Non-Educational Services, Facilities Acquisition and Construction Services, Debt Service,
Financing Uses. The next two digits provide two additional levels of detail descriptions for a specific fu
Following are definitions of the functions and sub functions.

1000 Instruction. Instruction includes the activities dealing directly with the interaction bet
teachers and students. Teaching may be provided for students in a school classroom,
location such as a home or hospital, and in other learning situations such as those inv
cocurricular activities. It may also be provided through some other approved medium
television, radio, computer, internet, multimedia, telephone, and correspondence, an
delivered inside or outside the classroom or in other teacher/student settings. Include
the activities of aides or classroom assistants of any type who assist in the instructiona
If proration of expenditures is not possible for department chairpersons who also tea
department chairpersons who also teach in instruction. Expenditures for full-time dep
chairpersons should be reported in 2490 Other Support Services – School Administrat

1110 **Agriculture**
1140 **Arts**
1170 **Business**

Object Code Dimension - The object code refers to the good or service obtained. Objects are classified in the following broad categories:

1. Current Expenditures:

100 Personal Services—Salaries
200 Personal Services—Employee Benefits
300 Purchased Professional and Technical
400 Purchased Property Services
500 Other Purchased Services
600 Supplies and Materials
700 Property and Equipment Acquisition
800 Other Expenditures

2. Adjustments to Beginning Fund Balance:

892 Material Prior Period Expenditure Adj

3. Other Uses of Funds:

900 Other Uses of Funds

140 **Sabbatical Leave.** Amounts paid by the school district to employee
141 **Official/Administrative**
142 **Professional/Educational**
143 **Professional/Other**
144 **Technical**
145 **Office/Clerical**
146 **Service Work**

150 **Stipends.** An additional salary paid for additional duties such as cu
coaching athletics, or directing activities such as the school yearbo
clubs, etc. Stipends are usually limited to teaching personnel. Addi
teaching personnel more than 40 hours in a workweek should be
overtime.

151 **Official/Administrative**
152 **Professional/Educational**
153 **Professional/Other**
154 **Technical**
155 **Office/Clerical**
156 **Service Work**

160 **Sick Leave Termination Pay.** Amounts paid an employee for termi
provided by §2-18-618 and §20-9-512, MCA. Includes annual sick l
backs" provided in collective bargaining agreements with certified

170 **Vacation Leave.** Amounts paid an employee for termination vacat
611, MCA.

Project Reporter Code – numbering and uses

1-99	Should not be utilized as a PRC, not a three digit number.
100- 899	To be assigned by districts as needed. For federal grants, the OPI recommends using the OPI "money type" as the first two digits to designate the funding source, authority, or expenditure purpose. Refer to the OPI's Grants Handbook for a list of these money type codes. The third digit may be used to designate a special project or fiscal year.
9XX	Reserved by the OPI – the assigned codes in the 900 series are listed next.
910 - 949	Assigned by the OPI for budget amendments under §20-9-161, MCA.
950 - 959	Assigned by the OPI for budget transfers under §20-9-208, MCA.

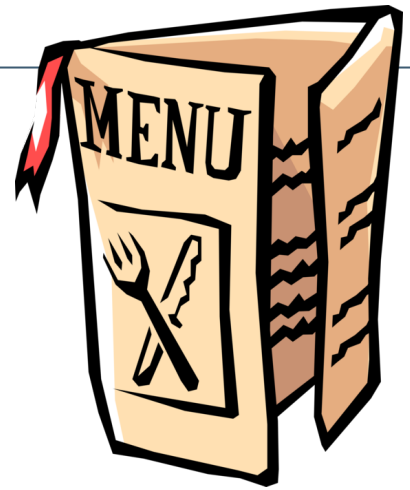
Project Reporter Code - Local, State and Federal Grants

A unique PRC must be assigned to the revenue and expenditure accounts used to account for each local, state, or federal grant. The first two digits may be used to designate a specific funding source, authority, the OPI money type, or expenditure purpose and the third digit may be used to designate a specific project or fiscal year. This code permits the user to relate expenditures to a specific revenue source when the same PRC is assigned to the expenditure and revenue accounts used to account for a state or federal grant.

For example, the first two digits could be used as follows:

- ✓ 77 = Federal IDEA, Part B, Children with Disabilities
- ✓ The third digit could be used to designate the fiscal period.
  - 8= 2018
  - 9= 2019

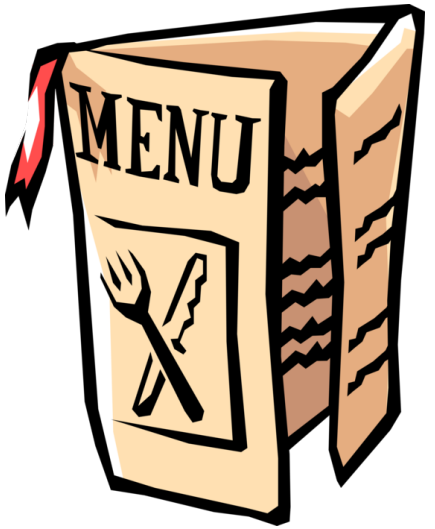
1. 778 = 2018 Federal IDEA, Part B, Children with Disabilities
   Revenue: X15-4560-778
   Expenditure: X15-456-1000-112-778



LEGISLATIVE FISCAL DIVISION

LEGISLATIVE SERVICES DIVISION

School Accounting 101



Example Expenditure Account ID:

X X X	X X X	X X X X	X X X	X X X X	X X X	X X X
District/Fund	Sub fund	School Code	Program	Function	Object	PRC

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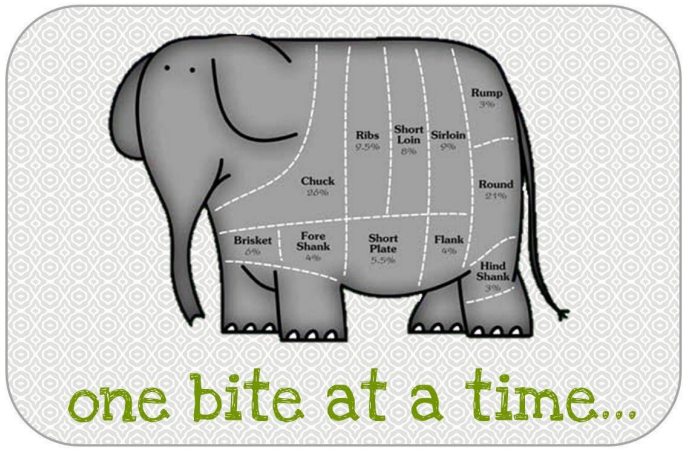

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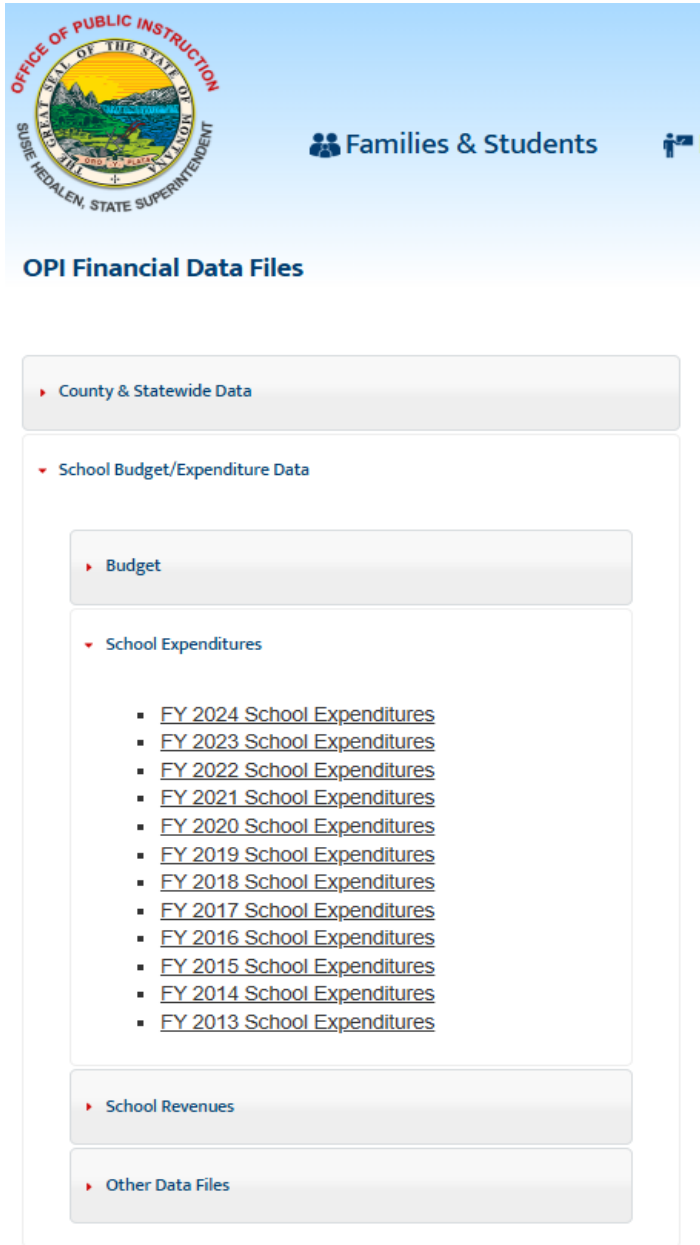
Hopefully, this was a digestible chunk of the elephant and increased your understanding of:

- **PPE**, how it is calculated, its value as one metric for school funding as well as some of its limitations
- The importance of **ratios** in Montana school funding and the need to question what goes into the numerators and denominators
- How and why **ANB** differs from other enrollment counts
- The basics of school accounting and the hard work done by school district clerks, administrators, and trustees, and OPI school finance staff

That hard work is also fully transparent. Massive files displaying budgets, revenues, and expenditures for multiple school fiscal years are posted on OPI's website: https://opi.mt.gov/Leadership/Finance-Grants/School-Finance/OPI-Financial-Data-Files#10879812616-school-budgetexpenditure-data



Questions?