# Montana School Funding 101 and 201: A Workshop for the Education Interim Committee

prepared and presented by Pad McCracken, LSD Research Analyst, and Nick VanBrown, LFD Analyst, March 2018

Whether you view Montana's K-12 funding formula as an overly complicated, nonsensical, Rube Goldberg-esque contraption or as a sophisticated, adaptable, highperformance machine...

# It's YOURS!

### And from 20-9-309, MCA:

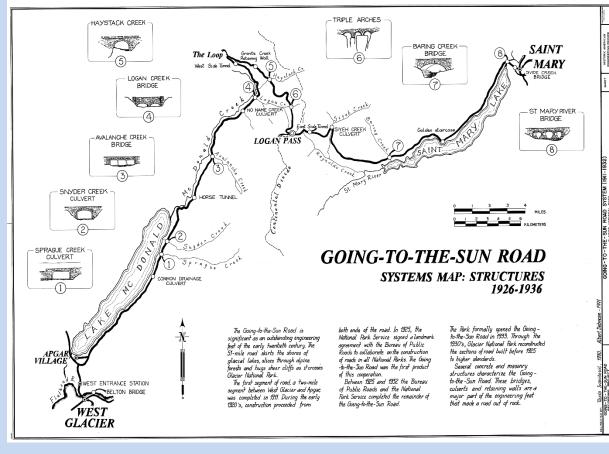
(4) The legislature shall... establish a funding formula that... <u>allows the</u> <u>legislature to adjust</u> the funding formula...

Your sophisticated machine is meant to be fine tuned from time to time!



# **Objectives:**

- **Refresh** your memory of school funding in Montana
- Deepen your understanding of school funding in Montana
- Cultivate your appreciation for the sophistication of Montana's school funding formula(s)
- Nurture legislative ownership of the school funding formula



# **Itinerary:**

- 1. School funding 101—the basics
  - a) 50,000' overview
  - b) Review District General Fund formula
  - c) Why did school property taxes go up this year?
- 2. School funding 201—switches, levers, and dials
  - a) Equality, Equity, and the Montana Constitution
  - b) Guaranteed Tax Base (GTB) generally, county retirement GTB example
  - c) Direct State Aid (DSA), GTB, and Special Education
  - d) Oil and Natural Gas Production Tax Distribution 2011-2017

# Montana K-12 Funding from 50,000'

NORTH

ICA

#### AUSTRALIA

Prepared for the School Funding Interim Commission by Pad McCracken, LSD Research Analyst, Sept 2015 Updated for Joint House and Senate Education, Jan 2017 And updated again for the Education Interim Committee, March 2018

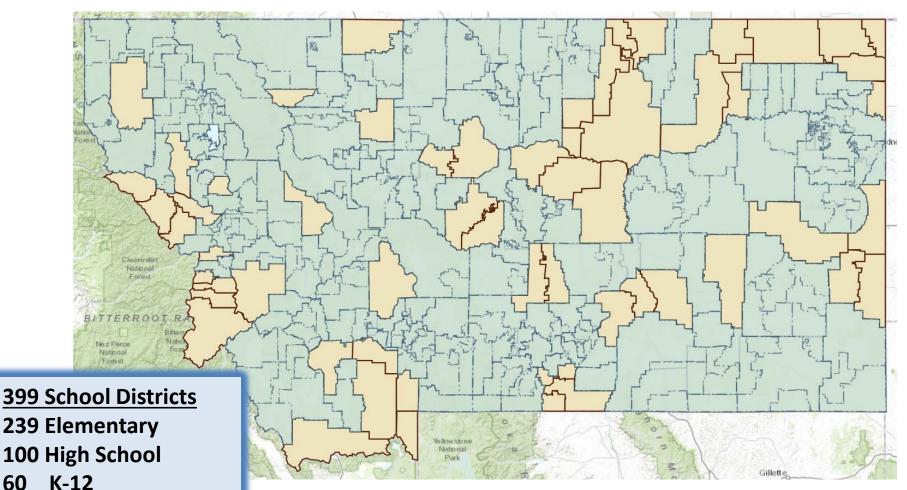
> http://www.arcgis.com/home/webmap/viewer.html?webmap=e7f4bb1ca51948f6819 2cffc35287a9b

SOUTH AMERICA EUROPE

AFRICA

Technically we fund school districts, not schools.

"[The Montana Legislature] shall fund and distribute in an equitable manner to the school districts the state's share of the cost of the basic elementary and secondary school system." Montana Constitution, Article X, section 1(3)



60

https://gems.opi.mt.gov/StudentCharacteristics/D

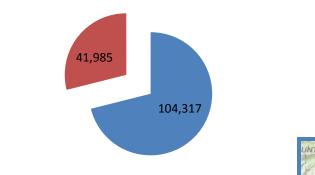
ashboards/Student%20Characteristics%20Dashboa

rd/Student%20Characteristics%20Dashboard.aspx

http://www.arcgis.com/home/webmap/viewer.html?webmap=e7f4bb1ca 51948f68192cffc35287a9b 4

# Montana school districts serve about 146,000 students in 818 schools and graduated 9,316 students in 2016.

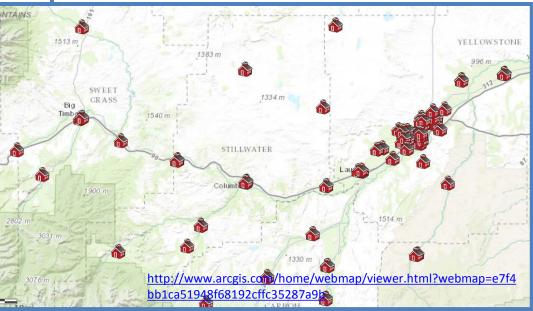
## Total Enrollment of 146,302 for the 2016-2017 school year



EL HS

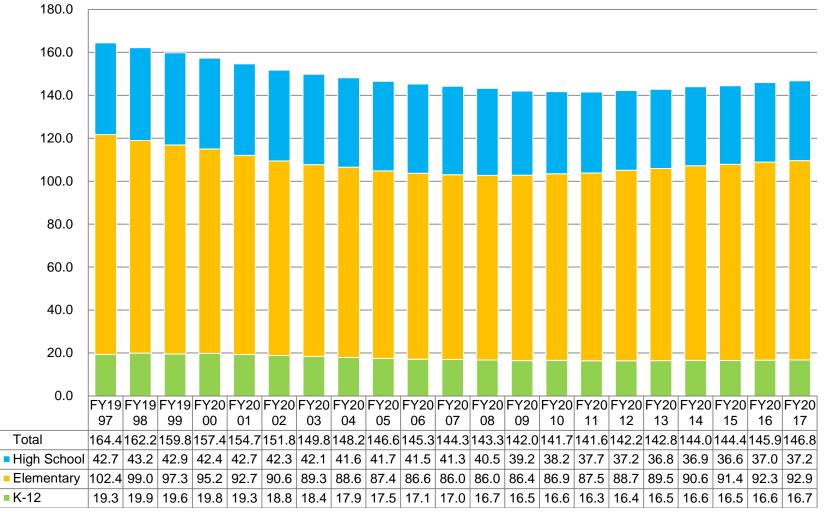
13

Licensed K-12 Staff and Paraprofessionals	2016 -17
Teachers- Classroom, Title I, Special Ed.	10,646
Superintendents and Assistant Superintendents	157
Principals and Assistant Principals	516
Other Administrative Staff	118
Education Specialists (Library, Guidance Counselors)	964
Licensed Professional (Noneducator)	369
Paraprofessionals	2,662
Total Licensed and Paraprofessional Staff	15,432



Info from Facts About Montana Education 2017

# Enrollment peaked in the mid-1990s, but is growing again as of 2012.

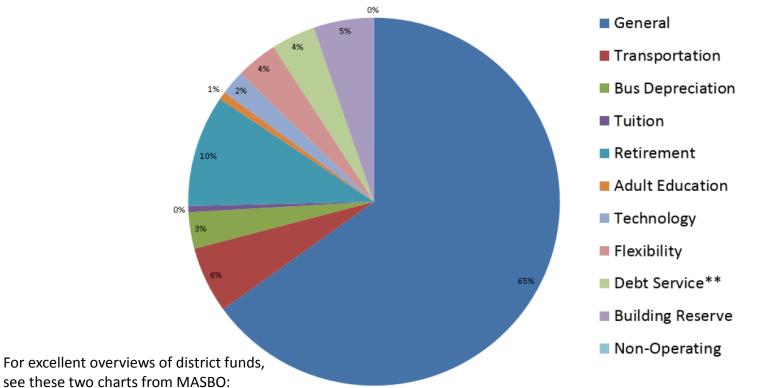


Montana Student Enrollments K-12 (in thousands) A district's finances are accounted for in numerous district-level funds which are funded by varying blends of local, state, federal, and private dollars.



These district funds are either budgeted or non-budgeted. Budgeted funds are funded in whole or in part by local property tax levies which can be either **voted**, **permissive (nonvoted)**, or <u>required</u>. This pie chart shows the relative size of each of the <u>budgeted funds</u>.

# Special Revenue Funds: Budgeted FY15



Adopted Budget by Fund

- see these two charts from MASBO:Budgeted funds
- Nonbudgeted funds

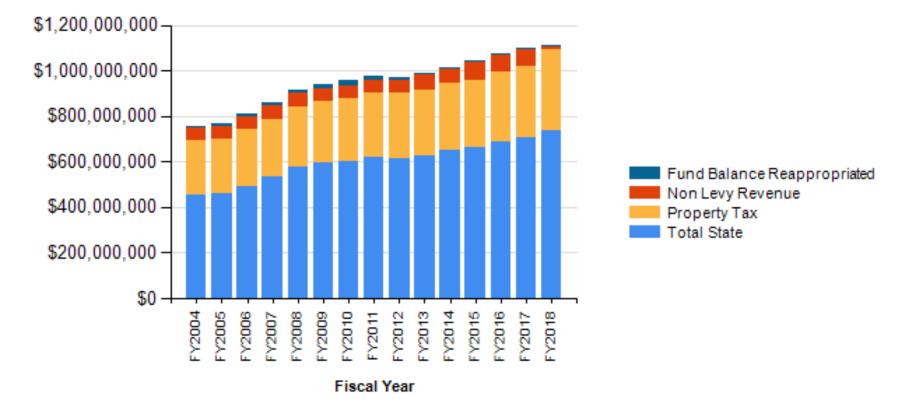


# **Budgeted District Funds in Perspective**

(dollar amounts are statewide adopted budgets <u>in millions</u> from OPIBUD18; dollar amounts in red are state support amounts reported in GEMS for 2018 <u>in budgeted funds with a mechanism for state support</u>)

Transpo \$97 (\$14) District General Fund \$1,113 (\$740) Debt Service \$98 (\$0) Building Reserve \$81 (\$0) Flexibility \$51 Technology \$34 (\$0) Retirement \$171 (\$40) **Bus Depreciation \$56** Tuition \$18

A school district's largest fund, for general operations, is called the general fund and is made up only of local and state dollars.



General Fund Recap

Nonlevy revenue is mostly oil and natural gas production tax and coal gross proceeds. Prior to 2018, school general fund block grants and the NRD payment were a large source of nonlevy revenue.

# Statewide, the funding blend in <u>ALL school funds</u> has looked like this over the last 20 years

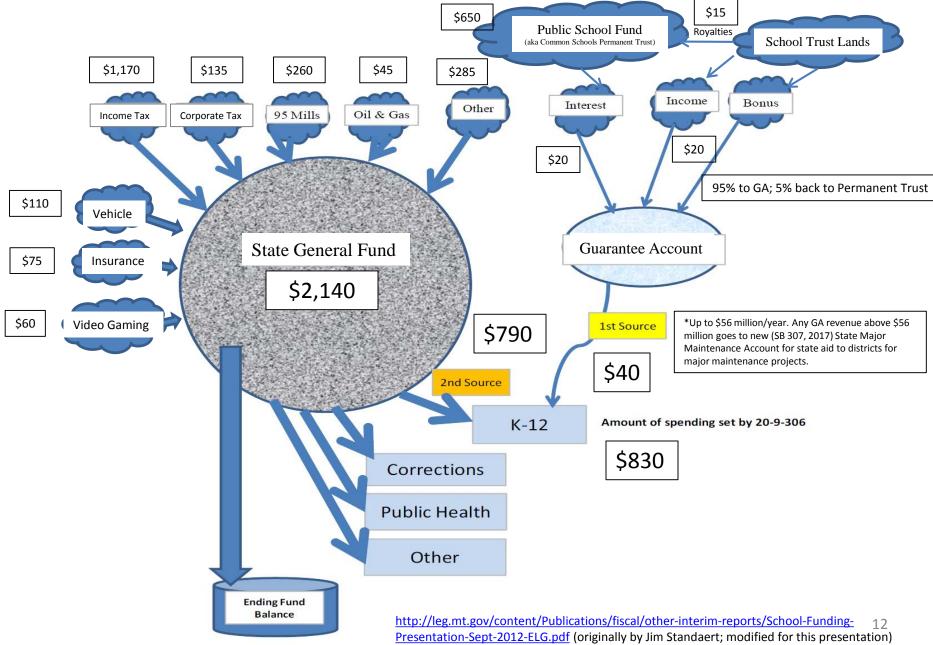
## LOCAL, STATE, AND FEDERAL SHARES

■ Total Local ■ State\* ■ Federal

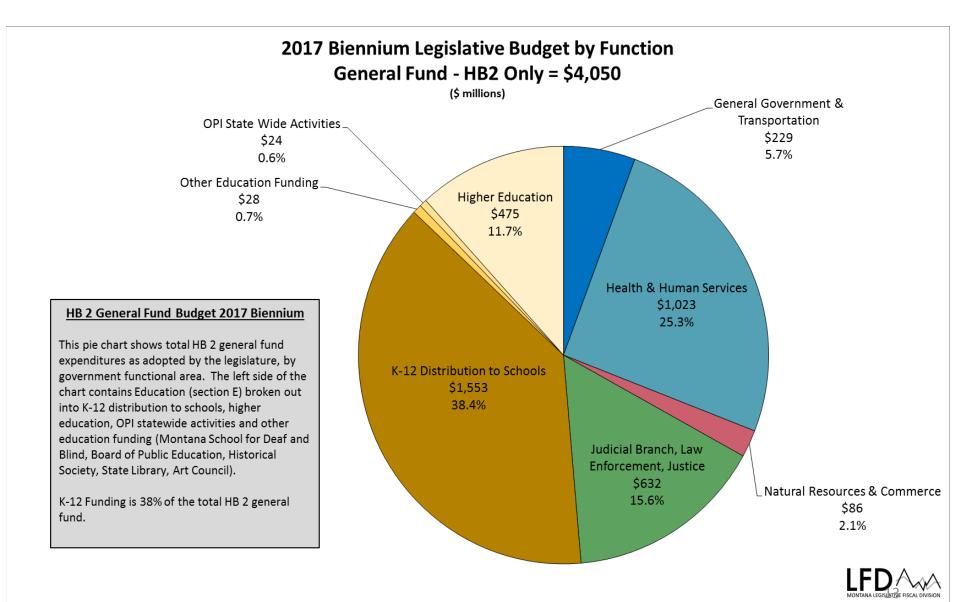


Data from: https://gems.opi.mt.gov/SchoolFinance/Pages/RevenueTrendsRecap.aspx

# The state money for K-12 comes from a variety of sources (Amounts listed are in millions, from FY 17, and <u>heavily rounded</u> to reflect 50,000' view!)



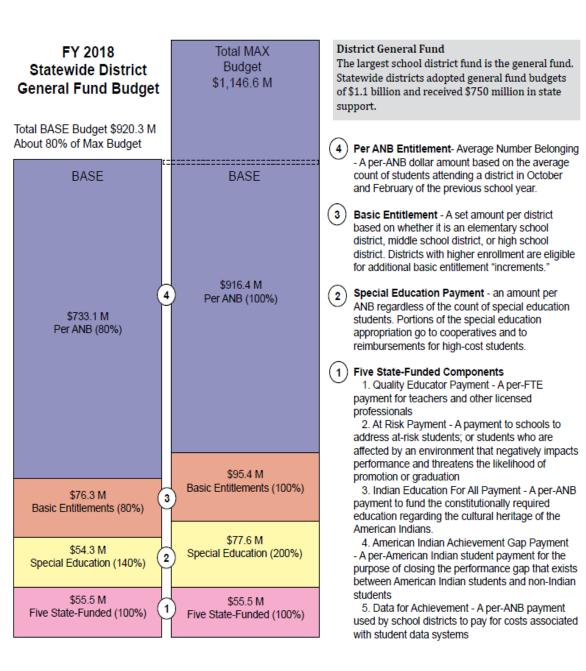
# K-12 funding is a large part of the state's general fund budget.



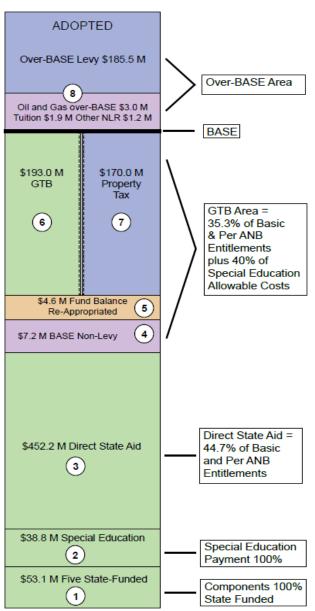
# Let's build and fund a district general fund budget!

Building block style and based on **ROUNDED** 2017 entitlement amounts

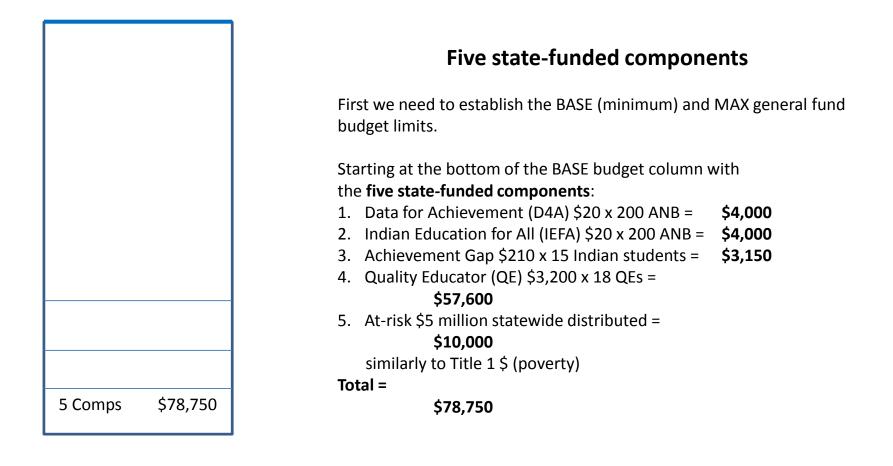
prepared by Pad McCracken for the House and Senate Education Committees, January 2017



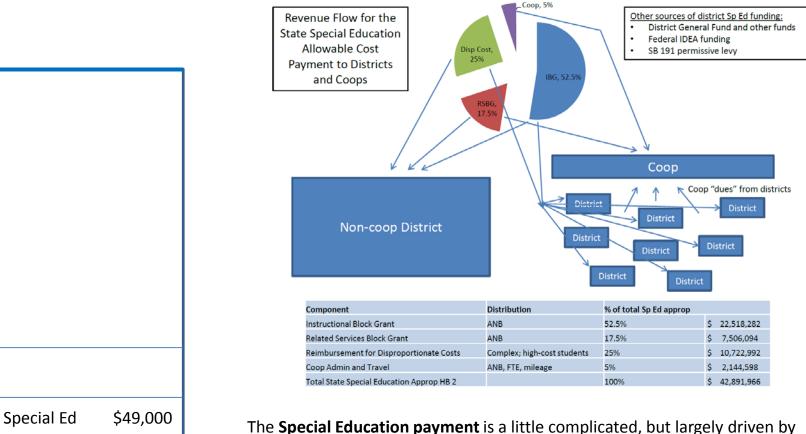
#### FY 2018 Adopted budget \$1,112.9 M About 97% of Max Budget



Let's pick a hypothetical EL district of 200 ANB in grades K-8; a district similar in size to say: Centerville, Charlo, Blue Creek, or Culbertson.



## **Special Education Payment**



\$78,750

5 Comps

The **Special Education payment** is a little complicated, but largely driven by ANB; our hypothetical district belongs to a co-op and receives for its general fund:

- Instructional Block Grant \$150 x 200 ANB = \$30,000
- Reimbursement for Disproportionate Costs = \$5,000

In establishing a BASE budget this \$35,000 x 140% = \$49,000

Basic Ent	titlement
Basic Entitlement \$120,000	
Special Ed	\$49,000
5 Comps	\$78,750

## **Basic Entitlement**

As a K-8 EL district with an accredited middle school program, the district's **Basic Entitlement** (BE) is:

- \$50,000 for its EL
- \$100,000 for its MS

The BASE budget is established on 80% of the BE so:  $80\% \times $150,000 = $120,000$ 

Bonus information: The high school basic entitlement is \$300,000.

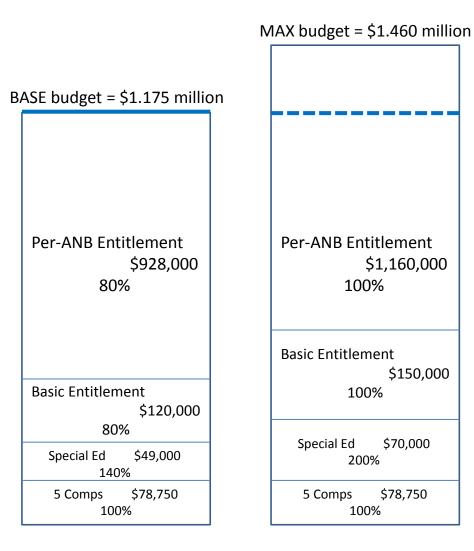
Double bonus information: Basic entitlements are for the <u>district</u>, not per school.

Triple bonus information:

Senate Bill No. 175 (Jones, 2013) created basic entitlement "increments" that increase the basic entitlement when ANB thresholds are reached, providing more budget authority and state and local funding through the basic entitlement component as districts grow in size. Our fairly small hypothetical EL district does not receive a BE increment.

## **Per-ANB Entitlement**

		BASE budget = \$1.175 million	
		The final block in establishing a district's BASE budget is the <b>per-</b> ANB entitlement.	
Per-ANB Ent	titlement \$928,000	\$5,500 x 160 ANB in grades K-6 = <b>\$880,000</b> \$7,000 x 40 ANB in grades 7-8 = + <u>\$280,000</u> \$1,160,00	
		Note—these round number calculations ignore the "decrement" which is a \$0.20 decrease per ANB in the entitlement amount up to	
Basic Entitle	ement \$120,000	a stop loss point of 1,000 ANB. In high schools the decrement is \$0.50 up to 800 ANB.	
Special Ed	\$49,000	The BASE budget is established on 80% of the per-ANB so: 80% x \$1,160,000 = <b>\$928,000</b>	
5 Comps	\$78,750	So, adding up these building blocks results in this district's BASE or minimum general fund budget totaling <b>\$1.175 million</b>	



# The MAX general fund budget limit

The district's maximum (MAX) budget is built on the same components or building blocks, but at different percentages.

This creates <u>about</u> a 25% range between a district's BASE and MAX budget limits.

That said, the MAX cap is not a "hard cap" there are exceptions that allow districts to adopt overMAX general fund budgets. OK, we've established the BASE and MAX budget limits, now let's walk through <u>how</u> the district's adopted GF budget is funded.

BASE budget = \$1.175 million	<ul> <li>6. The remaining \$425,000 in the BASE budget needs to be funded by local property taxes, and if the district qualifies, a GTB per mill subsidy from the state. This district qualifies and the state provides \$175,000 in GTB Aid while the district levies for the remaining \$250,000.</li> <li>5. The GTB* Area is first filled with a district's fund balance reappropriated (FBR) and then available nonlevy revenues such as oil and gas and coal. This hypothetical district has "average" access to these types of revenues—say \$50,000</li> </ul>	Adopted budget = \$1.3 million OverBASE budget area Local Property taxes \$115,000 Tuition payments \$10,000		/	bud rece stud levy
		Local property taxes \$250,000	GTB Aid \$175,000	3 Area	4. T c a k
		FBR and other Nonlevy \$50,000		GTB	3 e s
\$928,000 80%		Direct State Aid (DSA) for 44.7% of the Basic and per-ANB entitlements 44.7% x \$150,000 = \$67,050		3	3. The s distr entit
Basic Entitlement \$120,000 80%		44.7% x \$1,160,000 = \$518,520 Total DSA = \$585,570		2	Aid ( 2. The s
Special Ed \$49,000 140%		Special Ed \$	35,000		ed al the E ensu
5 Comps \$78,750 100%		5 Comps \$ 100%	78,750	1	Thes fund

- 7. This district has adopted an overBASE budget that is under the MAX cap. The district funds this portion of the budget with a bit of tuition money it receives for educating out-of-district students, but mostly through a voted levy approved by voters.
  - The total of the 5 state-funded components, sp ed, and DSA leave a portion of the district's BASE budget unfilled. The unfilled area is called the GTB\* Area and it equals 35.3% of the BE and per-ANB entitlements plus 40% of the special ed allowable payment.

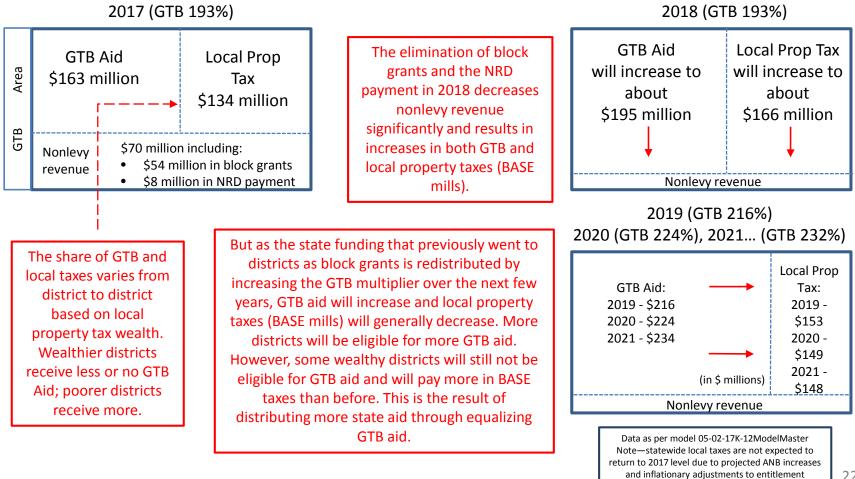
- The state provides 44.7% of the district's total per-ANB and basic entitlements. This is called Direct State Aid (DSA).
- 2. The state provides 100% of the special ed allowable cost payment; because the BASE budget is built on 140%, this ensures a local match.
- 1. These 5 components are 100% state funded—easy!

\* GTB stands for Guaranteed Tax Base. It's a mechanism that subsidizes districts with lower property value compared to their funding need. MT's GTB formula ensures a revenue-generating capacity in the BASE budget of almost twice the statewide average (193%) which means that about 320 out of 400 districts are eligible for GTB. This "multiplier" of 193% is ratcheting up over the next few years to 232% in FY 2021.

Why did my school property taxes go up this year?

Changes in property taxes depend on MANY factors, including changes in individual property valuation relative to total property valuation within a taxing jurisdiction.

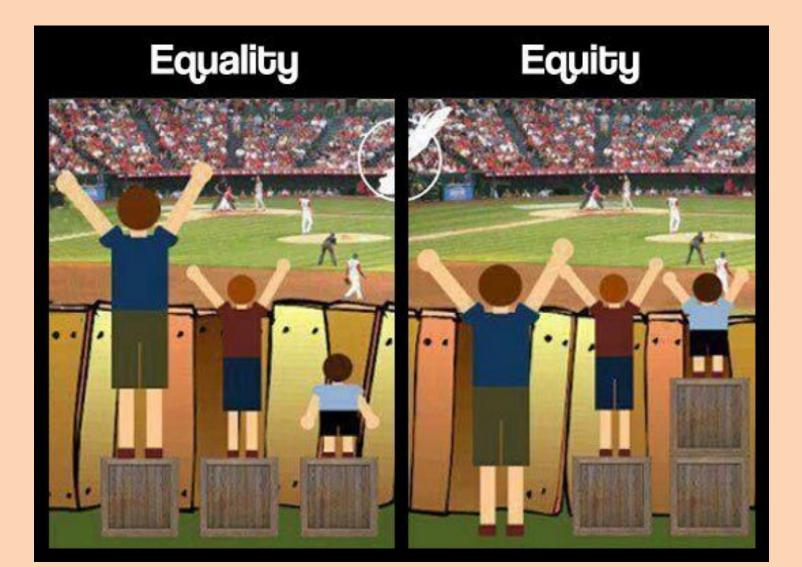
One factor that impacted taxes in every school district was the elimination of the general fund block grants and the Natural Resource Development (NRD) payment by the 2017 Legislature.



22

amounts

Equity means the quality of being fair and impartial; justness. The picture below is often used to help illustrate the differences between "equity and equality." It gets at the distinction between an <u>equal</u> allocation of resources and an <u>equitable</u> allocation of resources. It also reinforces that allocating resources equitably is about allocations based on NEED.



# THE CONSTITUTION OF THE STATE OF MONTANA ARTICLE X. EDUCATION AND PUBLIC LANDS

Section 1. Educational goals and duties. (1) It is the goal of the people to establish a system of education which will develop the full educational potential of each person. Equality of educational opportunity is guaranteed to each person of the state.

(2) The state recognizes the distinct and unique cultural heritage of the American Indians and is committed in its educational goals to the preservation of their cultural integrity.

(3) The legislature shall provide a basic system of free quality public elementary and secondary schools. The legislature may provide such other educational institutions, public libraries, and educational programs as it deems desirable. It shall fund and distribute in an <u>equitable</u> manner to the school districts the state's share of the cost of the basic elementary and secondary school system.

Section 8. School district trustees. The supervision and control of schools in each school district shall be vested in a board of trustees to be elected as provided by law.

Is this an accurate paraphrase of the bolded language?

The legislature needs to allocate a reasonable amount of the total cost of the K-12 system <u>fairly</u> to each district so that locally elected boards of trustees have the ability to offer educational programs so that every student across the state has the <u>same</u> chance to maximize the student's individual potential.



#### LEARNING POLICY INSTITUTE RESEARCH BRIEF FEB. 2018

Money and Freedom: The Impact of California's School Finance Reform

#### Rucker C. Johnson and Sean Tanner

#### Abstract

This study of California's recent major school finance reform, the Local Control Funding Formula, is among the first to provide evidence of LCFF's impacts on student outcomes. The study looked at per-pupil revenue, high school graduation rates, and student achievement for each grade and subject (mathematics and reading) for all public schools in California. The results show that LCFF-induced increases in district revenue led to a significant reduction in the average school-level student-to-teacher ratio and significant increases in average teacher salaries and instructional expenditures. LCFFinduced increases in school spending led to significant increases in high school graduation rates and academic achievement, particularly among children from low-income families. These improvements in high school academic achievement closely track the timing of LCFF implementation, schoolage years of exposure, and the amount of district-specific LCFF-induced spending increase. In sum, the evidence suggests that money targeted to students' needs can make a significant difference in student outcomes and can narrow achievement gaps.

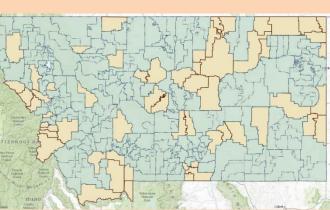
This brief can be found online at https:// learningpolicyinstitute.org/product/caschool-finance-reform.

#### Introduction

One in eight students in the U.S. is educated in California's public school system, the largest state system in the country. Until recently, the state used an outdated school funding formula that had grown cumbersome—featuring dozens of categorical programs—and highly inequitable. Recognizing the urgency for a funding overhaul, Governor Jerry Brown proposed in 2012 what will likely be his flagship legislative achievement, the Local Control Funding Formula (LCFF), which allocates funds based on pupil needs and eliminates many limitations on the use of funds, allowing "local control" over spending decisions.

Historically, California has been a progressive forerunner in school finance. In 1971, the state had the nation's first successful courtordered ruling on school finance in the landmark case Serrano v. Priest. Some 40 years later, in 2013, LCFF was enacted. It was the first major school finance reform in California since Serrano and one of the most progressive formulas in the nation. It attempts to address resource inequity by (1) reallocating school finances on the basis of student disadvantage (rather than district property wealth) and (2) removing many of the restrictions on how the revenue can be spent. The new funding formula reallocates district revenues based almost entirely on the proportion of unduplicated disadvantaged students in each districtthose who qualify for free or reduced-price lunch, have limited English proficiency, or are in foster care. LCFF also aims to integrate and embed the accountability and student performance processes by requiring local communities to examine progress on a wide range of accountability indicators and to allocate funds to improve these outcomes.

- The preferred model is the 3LS-IV approach. We estimate the following system of equations by 2SLS where s indexes school, d indexes district, b indexes birth year, and g indexes group (all children, children from low-income families, or racial/ethnic group):
  - $Y_{gsdb} = \beta_1 \cdot \widehat{revst_{db}^{15-17}} + \beta_2 \cdot \widehat{unrs}_{db}^{15-17} + \gamma \cdot C_{db} + \theta_s + \tau_b + \varepsilon_{gsdb}$
  - $\widehat{revst}_{db}^{15-17} = \pi_1 \left( SFRExp_{db} \times \widehat{dose_d} \right) + \pi_2 \left( SFRExp_{db} \times \widehat{unrs12_d} \right) + \gamma_1 \cdot C_{db} + \theta_{d1} + \tau_{b,1}$
  - $\widehat{unrs}_{db}^{15-17} = \pi_3 \left( SFRExp_{db} \times \widehat{unrs12}_d \right) + \pi_4 \left( SFRExp_{db} \times \widehat{dose_d} \right) + \gamma_2 \cdot C_{db} + \theta_{d2} + \tau_{b,2} \cdot C_{db} + \tau_{b,2}$
  - reverse 15-17 reverse 15 between the state of the stat
  - \$\$\mathcal{MTS}\_{30}^{15-17}\$ is the average proportion of revenue from the state that is unrestricted during expected school-age years (ages 15 through 17) in an individual's childhood school district
- SFRExp<sub>db</sub> is the number of school-age years that occurred after LCFF was first implemented (0 = 17 years old, 4 = 15 years old, etc.); each year entered as dummy indicator (fully non-parametric specification).
- dose<sub>d</sub> is the decile of the LCFF concentration/supplement grant\*spline (based on funding formula).
- $\widehat{unrs12}_{d}$  is the 2012 (pre-LCFF) proportion of revenue from the state that was unrestricted.
- C<sub>db</sub> is the district-specific predicted k-12 spending at age 15-17 based on pre-LCFF relationship between district spending and statewide spending (excluding k-12 spending)—estimated counterfactual spending in absence of SFR.
- θ<sub>s</sub> is the vector of school fixed effects; τ<sub>b</sub> is the vector of birth year fixed effects



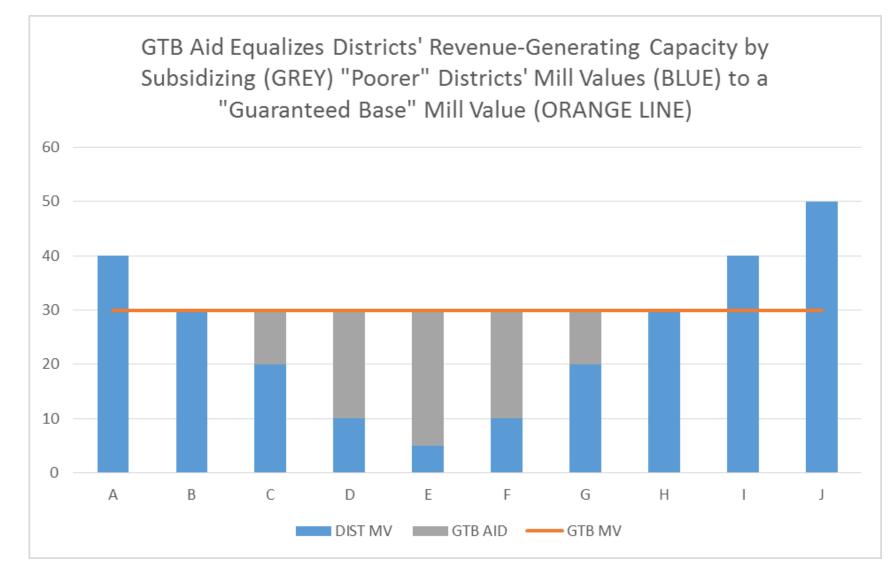
Each of Montana's 400 school districts is <u>unique</u>. Some require more state resources than others based on size. Some of equal size require more state resources based on student needs and/or the availability of local resources.

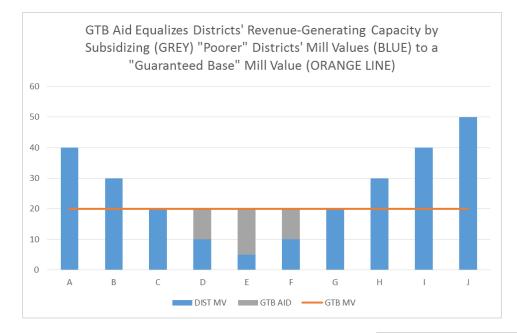


In relation to school funding, it might be nice to think about two types of need that go into equitably distributing resources:

- The first is based on costs of providing education. Districts that have more kids have higher costs. Districts with more kids with special needs have higher costs. Districts might have higher costs due to geography and demographics. These are all examples of "educationally relevant factors" (20-9-309, MCA).
- 2. The second is based on **resources**. Because we raise local revenue for schools largely through property taxes, and because some districts have greater taxable valuations (property wealth) relative to their educational costs than others, some districts have greater access to resources than others.

In striving for an equitable distribution of the state's share of the costs of Montana's K-12 system, we need to consider both of these types of need. And we do to some degree. In our formula, districts with higher costs have larger BASE (and MAX) general fund budgets, and districts with fewer resources receive a larger proportion of state aid for their BASE budgets through **GTB or guaranteed tax base aid**...

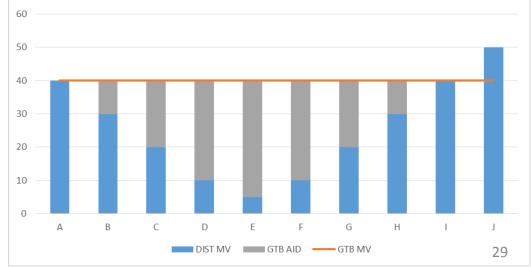




GTB is often set higher than the average revenue-generating capacity by using a <u>multiplier</u>. In Montana, BASE GTB is 193% of the statewide average (but increasing over the next few years to 232%), county retirement GTB is 121%, and debt service GTB is 140%. These multipliers are one of many fine-tuning dials within our formula(s).

These two charts display the effects of adjusting the GTB multiplier. When the GTB is lowered as shown above, fewer districts are eligible for less aid. The number of advantaged districts is increased along with their degree of advantage. Equity is diminished.

When the GTB is raised as shown to the right, more districts receive more GTB aid. State costs are higher, but the field is more level and equity is increased. GTB Aid Equalizes Districts' Revenue-Generating Capacity by Subsidizing (GREY) "Poorer" Districts' Mill Values (BLUE) to a "Guaranteed Base" Mill Value (ORANGE LINE)



# A Short Field Trip into the GTB Weeds (or, Why Denominators Matter)

How do we measure a district's revenue generating capacity?

It's not simply the district's mill value. If it was, Billings HS would be Montana's "wealthiest" school district.

We need to evaluate the district's revenue capacity (MV) **compared to** its funding need. Typically GTB formulas use enrollment (what we call ANB) as a measure of funding need to establish a ratio of:

revenue-generating capacity	or	MV
funding need		ANB

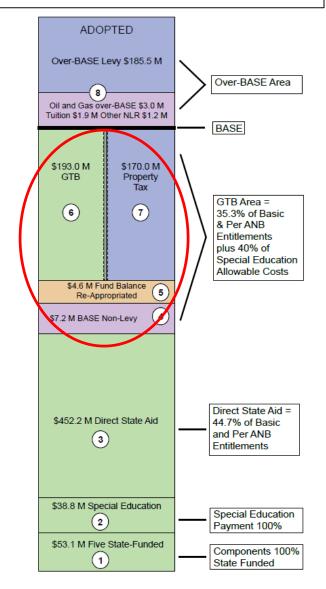
When a district's numerator (MV) shrinks or the denominator (ANB) grows, the ratio and the district's revenue generating capacity decreases. We might refer to this as a "poorer" district.

But sometimes a different proxy for funding need is used in the denominator.

For example in Montana, BASE GTB is calculated based on: <u>MV</u> GTB Area

Where the GTB Area is that part of a district's BASE budget that is NOT funded by the five components, the special education payment, and direct state aid. In this sense, the GTB Area is not a proxy for funding need, it **is** the district's funding need.

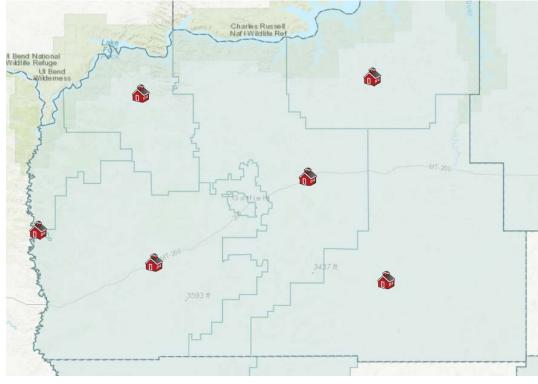
Remember—the mill value in any taxing jurisdiction is simply the district's taxable valuation divided by 1000

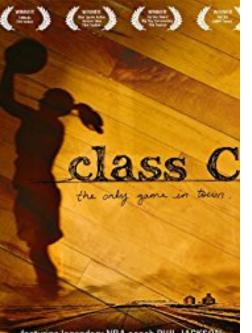


## **County Retirement GTB**

Because school retirement costs are pooled and paid for at the county level, the state provides GTB support for counties with lower revenue capacity (mill value) compared to funding need.

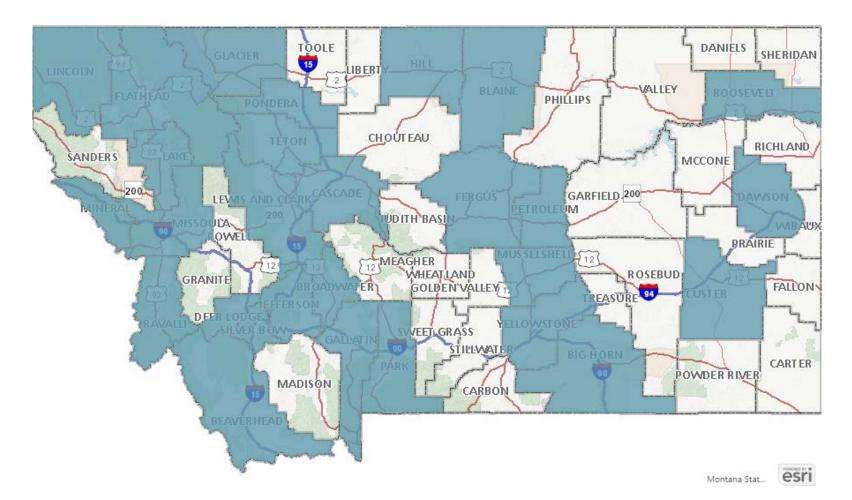
For county retirement GTB, we measure a county's funding need by ANB, which is an imperfect proxy for retirement costs.



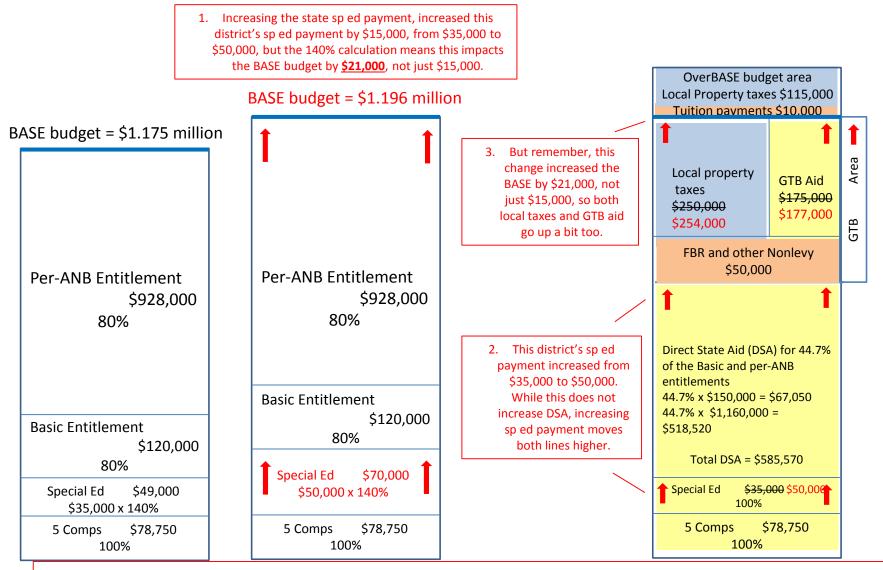


Smaller districts generally have lower student (ANB) to teacher (QE) ratios, maybe 5:1 to 10:1. Larger districts can often maintain ratios closer to 15:1. This means that smaller districts generally have more QE (and likely higher retirement costs) relative to ANB.

Considering concerns about recruitment and retention and teacher salaries, especially in isolated rural districts, the committee may want to examine the impacts of "flipping the switch" in this mechanism from ANB to QE or to actual retirement costs, if possible. Half of Montana counties do not receive state GTB aid for school retirement. (Blue-shaded counties receive retirement GTB; unshaded counties do not.)



Over the past two interims, funding for special education has been a priority topic. A number of proposals have been made to increase the state special education payment, currently about \$43 million/year. Let's take a look at the impacts of increasing the payment, using familiar slides from earlier. Remember, this is a <u>hypothetical EL district of about 200 ANB</u>.



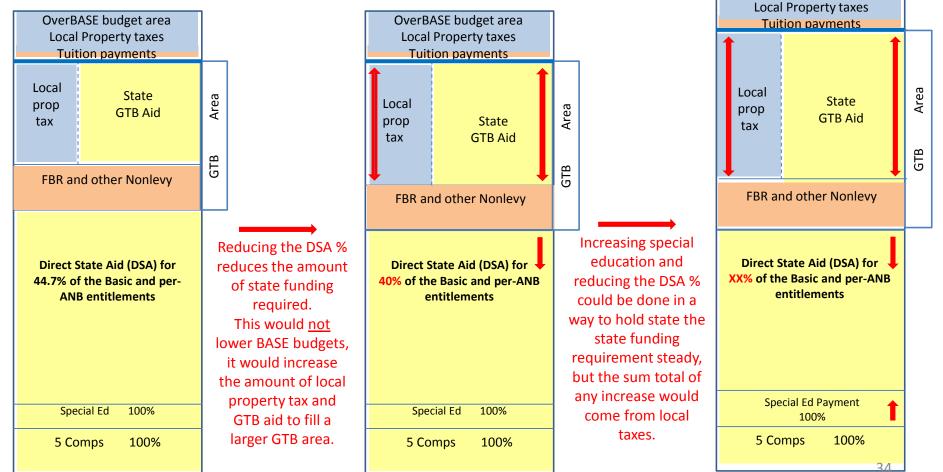
Takeaway—increasing the special education payment increases funding for special education without forcing greaters competition between regular and special education expenditures; it increases local taxes and GTB as well

Is there a way to increase special education funding (or create a component for ELs, or fund the teacher loan forgiveness program, etc.) without decreasing school budgets AND without increasing state education funding?

Yes, there are likely a number of ways, but remember:

The Law of Conservation of School Dollars: Any School Dollar Created comes from Somewhere.

Let's look briefly at the "DSA Dial" within your formula

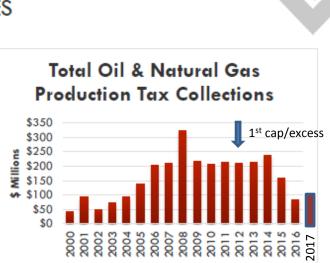


LOCAL, STATE, AND FEDERAL SHARES

OverBASE budget area

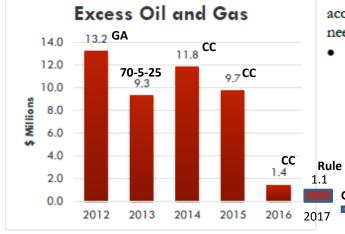
# OIL AND NATURAL GAS PRODUCTION TAXES AND SCHOOL FUNDING 2011 - 2017

The refinement of hydraulic fracturing technology and high oil and natural gas prices contributed to Montana's most recent oil and natural gas boom from roughly 2005 through 2015. The amount of oil and natural gas production tax revenues retained by some school districts, the lack of revenues in neighboring districts feeling the impacts of the boom, and state general fund revenue pressure following the 2008 recession led the Montana Legislature to examine and revise the distribution of oil and natural gas production taxes (O&G) to school districts in each of the last four sessions.



#### 2011—SB 329 (Zinke)

- Established 20-9-310 -- Oil and natural gas production taxes for school districts -- allocation and limits. This
  section and its changes were to terminate after FY 2016.
- Created a cap of 130% of the district's maximum general fund budget (with some exceptions) on the amount of O&G that a school district can retain. Anything over this cap is termed "excess O&G".
- Required districts to allocate increasing percentages of O&G retained in the prior year to the district's general fund budget in the ensuing year.



- For 2012 any excess O&G is transferred to the guarantee account, reducing the amount of state general fund money needed to fund schools.
- For 2013 and beyond, any excess O&G is distributed:
  - 70% to the guarantee account;
  - 25% to a new County O&G Impact Fund (20-9-518), which is basically a "bust" fund that accumulates money during "boom" then distributes as O&G revenues decline; and
- Rule 5% to a new State O&G Impact Account (20-9-517), which funds grants to school districts that feel the impacts of O&G development (increased enrollment, greater hiring difficulty, etc.) but do not receive much O&G money due to location of wells.

# How to learn more:

- Ask your Legislative staff: Laura, Pad, Nick Van Brown in LFD
- Talk to your school district business officer or superintendent
- Talk to OPI school finance folks and education stakeholders
- Lots on the <u>School Funding Interim</u> <u>Commission webpages</u>
- <u>GEMS</u>