How is the payout allocated for high school teachers who teach multiple subjects in a year?

In the example given below the teacher has 6 sections over the year. There are 3 different courses taught: 3 alg 1, 2 Geom, and 1 tech math. The portions of the payout earned by the individual goals being met, team goals being met, and school goal being met are given as .5, .25, and .25 respectively (.5/.25/.25). The 1's in the columns indicate that the goal was met for that class. The numbers across the bottom row are the sum of the 1's in the column multiplied by the portion for that column (e.g. (1 + 1 + 1) * .5 = 1.5). The multiplier at the bottom of the table is the sum of the bottom row (3.5) divided by the number of sections taught by a full time teacher (6).

Section	course	Individual 0.5	team 0.25	school 0.25
1	Alg 1	1		1
2	Alg 1	1		1
3	Alg 1	1		1
4	Geom		1	1
5	Geom		1	1
6	Tech 1			1
		1.5	0.5	1.5

  0.583333   Multiplier for part of 1 whole payout.

In this example, if a whole payout was $5,000, then this teacher would receive 0.583333 times $5,000, or a total of $2,916.67.

It should be noted that it is assumed for high school that the teams are across subject areas. However, teams could be constructed at the department level. If a teacher is the only one teaching a subject and the other teams are constructed at the subject level, then they could be a team of 1. In this case making the individual goal also means making the team goal.

The Hans Case: In the strange, but not uncommon case of a teacher who teaches across departments, the teams may look especially complex, but in fact remain simple. For the foreign language class, the team may be a subject team. For the math class, the team may be a department. And for the other subject the team may be individual. It still works.

What doesn't work is for a teacher to be on teams at 2 different levels. For instance, a teacher cannot be on an Algebra 1 team and be on the Math department team. If we want to do this, we have to add another column.

This scheme would work the same way if a principal had the option of customizing the portions to emphasize teamwork (e.g. .2/.5/.3) or individual effectiveness (e.g. .8/.1/.1).

Could we use a similar model for k-5 teachers who are responsible for 4 subject areas?

You betchem, Red Rider. Take a look at the table below. This teacher has 4 different subjects. The principal has decided to reward payouts on using .4/.4/.2 for the individual/team/school portions. The 1's represent the goals being met. The numbers across the bottom row represent the sum of the 1's times the portion at the top (e.g. (1 + 1) * .4 = .8). The multiplier at the bottom of the table is the sum of the bottom row (2) divided by the number of subjects taught by the teacher (4).

Section	course	Individual 0.4	team 0.4	school 0.2
1	Reading	1	1	
2	Math		1	
3	Soc Std	1	1	
4	Science		1	
		0.8	1.6	0

0.6   Multiplier for part of 1 whole payout.

In this example, if a whole payout was $5,000, then this teacher would receive 0.6 times $5,000, or a total of $3,000.

It should be noted that unlike high school the team is not likely to be a subject team, but more likely a grade level team. In this case the column should be filled with 1's to indicate the full team payout was earned.

Can we add a premium based on large class sizes? Should we?

A class size multiplier could be created by taking the total number of students taught by a teacher and dividing by the target class size for NC/CMS (k – 5 is 25(?) 6 -12 is 27).

For example, a 3rd grade teacher who has 30 students in a class would have a multiplier of 30/25 which is equal to 1.2. When the payout is calculated it would be multiplied by 1.2.

Another example is a high school teacher who has 150 students. The target class size is 27. Six classes of 27 students each would be 162 students. This teachers multiplier would be 150/162 which is equal to 0.9259259259 (repeating decimal). When the payout is calculated it would be multiplied by 0.9259259259.

Before deciding to use of this multiplier, the following facts should be considered.

- CMS has a multiplier it uses to allocate more teachers to high poverty schools. However, exactly how those teachers are used is left up to the principal at each school. A high poverty school

could still have a number of large classes. Similarly, a low poverty school could have some very small classes.
- The Value Added Measure already takes into consideration class size when predicting student scores. A larger class size causes a student's predicted score to be lower. Conversely, a smaller class size causes a student's predicted score to be higher.
- A teacher might have 40 students in one class and only 14 in another class. That's an average of 27.

Things that seem to fall outside the scope of Value Added Measure Design team, but should be considered at some level.

Multiple number of preps - Unless Andy can identify the data and can correlate it to success or failure in a student's score, I don't think the VAM design team should address it. However, it should be addressed. The teacher who has 5 preps should be highly valued.

By tying a teacher's payout to student performance for a semester or for a year, a principal has a new consideration when making staffing changes in the middle of the year. A teacher who is having a very good year would not be happy about abandoning their successful classes to fill a vacancy in some other area.

Andy's big 4 questions

1. We need to brainstorm all of the possible ways students get their instruction from a teacher (inclusion teachers, resource teachers, flexible grouping), and generate a list so that we can figure out whether a value-added measure could apply to that situation.
2. We need to generate a list of the pro's and con's of using team/dept and/or school level value-added as a measure of effectiveness for individuals. So, for example, suppose an elementary school does flexible grouping; how would it be to assign to each individual teacher in a grade the value-added of that grade in a given subject?
3. We need to establish some rules around how long a student must be with a teacher for that student to be attributed to the teacher. We need a list of the most common types of reasons that a student may not have a teacher for the full-term (student changes classes/schools, teacher goes on maternity leave, etc.). Then we are going to need to think of how we will handle. If you do some thinking on this, my team can get you any information you may need re: how often some of this occurs, etc.
4. We also need to tackle how to handle teachers with different numbers of students and or different numbers of classes. An elementary teacher may have 25 kids for one year but is responsible for 4 subject areas. A high school teacher may have x classes, in one or two subjects, for a total of 180 students a year. What role should number of preps, number of students, play in how we think about value-added?