



Special Teachers Are Rewarded (STAR)

FASPA Conference

November 2, 2006

Florida Department of Education



★ STAR Overview

- What is STAR?
 - \$147.5 million is provided for the Special Teachers Are Rewarded performance pay plan (STAR Plan)
 - STAR implements performance pay in accordance with s. 1012.22, FS

- Who is to be rewarded?
 - Includes instructional personnel assigned to K-12 schools in each district

- How much will each district be allocated?
 - District allocation = its portion of the state total K-12 base funding



★ STAR Overview

- When will STAR begin?
 - Implementation in 2006-07 school year, if plan is approved

- Do we have to implement STAR?
 - District choice whether or not to participate in STAR Program – not a choice whether to implement performance pay required in s. 1012.22, FS



★ STAR Overview

- Does a district have to develop a new evaluation form?
 - District plans may include information from the district's instructional personnel assessment system
 - A district may select an instructional personnel evaluation instrument for purposes of STAR from existing instruments or develop a new instrument
 - At least fifty percent of the evaluation must be based on student performance on the Sunshine State Standards



★ STAR Overview

- How much is the bonus
 - Rewards of at least 5 percent of the individual's base pay to a minimum of 25 percent of teachers
- How do we reward teachers?
 - For excellence defined by improved student achievement



Reading and Mathematics Personnel

- Includes all instructional personnel linked by course numbers to instruction in reading and math
- Improved student achievement must be measured by a standardized test (i.e. FCAT, NRT)



Secondary Science and Social Science Personnel

- Includes all secondary instructional personnel linked by course numbers to instruction in science or social science
- Improved student achievement may be measured by one of the following:
 - A standardized test (in the content area)
 - Their students' achievement on a reading or mathematics standardized test
 - Instruments that measure the SSS for the area that include challenging grade-level content and critical thinking skills



All “Other” Instructional Personnel

- What will districts use to measure improved student achievement for those individual whose course is not linked to standardized tests?
 - Media specialists, guidance counselors, etc may use the improved student achievement of all students



All “Other” Instructional Personnel

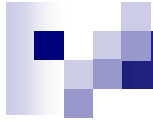
- Teachers who teach all students in the school (or a large majority) may base 25% on their students improvement on standardized test and 25% on SSS assessment
- Teachers of other subject areas will use a posttest for 2006-07 and measure improved student achievement



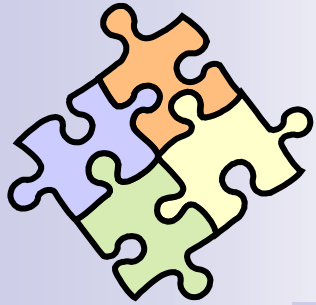
State Board of Education/DOE Responsibilities

■ State Board of Education

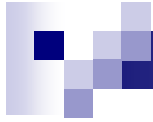
- Review each district's STAR Plan (or charter school's plan if submitted independently) for approval
- Within 45 days of receipt of each plan, provide each district or charter school with an approval notice or a notice of specific areas of the plan that need to be revised
- For any revised plan subsequently received, provide a notice of approval or denial



- Department of Education
 - Provide technical assistance upon request
 - Develop model methodologies that ensure fairness and equity for all instructional personnel
 - What is a valid and reliable way to measure improved student achievement and fairly give credit to teachers?
 - Value Table

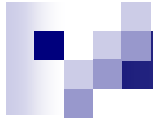


Using Value Tables to Determine Teacher Effectiveness in Florida



Value Tables

- Fair and Equitable
- Easy to calculate
- Transparent
- Flexible with regard to subject and grade levels
- Ensures a focus on specific educational goals and values



What is a Value Table?

- A value table assigns a score or “value” to each possible student achievement outcome.
- For Florida, the possible outcomes are defined by capturing each student’s achievement level from one year to the next on the Florida Comprehensive Assessment Test (FCAT).

Example of a Value Table

Elementary Reading – Value Table						
Year 1 Achievement Level	Year 2 Achievement Level					
	1a	1b	2	3	4	5
1a						
1b						
2						
3						
4						
5						



Value Table

- “Value-neutral” means that the table is designed to be “neutral” when it comes to acknowledging the improvements that students achieve.
- A “value” is placed on each student and the likelihood for that student to make improvement.
- No matter where a student starts – whether they start at the lowest achievement level (level 1) or the highest (level 5)—a teacher will earn points based on how much her students improve.



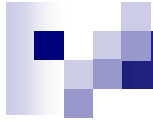
How does a value table work?

- Based on actual Florida student data, more points are assigned to outcomes that are more highly valued and less likely to be achieved.
- For example, if a student enters a teacher's class as a level 1 student and is a level 5 student at the end of the school year, the teacher earns more points than if the student remained a level 1 or improved just one achievement level to level 2.



How does a value table work?

- The teacher's value score in reading will be compared to all other reading teachers. Math teachers will be compared to all other math teachers. A reading teacher's value score will be calculated based on all the students in all of her reading classes. If she teaches another course that is not reading, those students will not be included in the calculation. The same will hold true for math teachers.



Value Tables

- There are six state level value tables based on Florida Comprehensive Assessment Test data:
 1. Elementary Reading
 2. Middle Reading
 3. High Reading
 4. Elementary Mathematics
 5. Middle Mathematics
 6. High Mathematics

Student Achievement on FCAT Elementary Reading 2004-05 and 2005-06

2005-06	Elementary Reading- Current Year Level						
Prior Year Level	1a	1b	2	3	4	5	Total
1a	3,482	4,615	630	256	16	0	8,999
1b	3,776	19,842	10,367	5,938	449	10	40,382
2	680	14,083	16,940	15,397	1,422	25	48,547
3	396	10,784	25,763	67,621	21,225	746	126,535
4	31	850	3,211	32,955	56,915	11,794	105,756
5	0	14	45	1,353	13,175	11,945	26,532
Total	8,365	50,188	56,956	123,520	93,202	24,520	356,751

Student Achievement on FCAT Elementary Reading 2004-05 and 2005-06

2005-06	Elementary Reading- Current Year Level						
Prior Year Level	1a	1b	2	3	4	5	Total
1a	38.7%	51.3%	7.0%	2.8%	0.2%	0.0%	100%
1b	9.4%	49.1%	25.7%	14.7%	1.1%	0.0%	100%
2	1.4%	29.0%	34.9%	31.7%	2.9%	0.1%	100%
3	0.3%	8.5%	20.4%	53.4%	16.8%	0.6%	100%
4	0.0%	0.8%	3.0%	31.2%	53.8%	11.2%	100%
5	0.0%	0.1%	0.2%	5.1%	49.7%	45.0%	100%
Total	2.3%	14.1%	16.0%	34.6%	26.1%	6.9%	100%

Elementary Reading Value Table


Elementary Reading							
Year 1 Level 2005	Year 2 Level - 2006						
	1a	1b	2	3	4	5	Average Score
1a	0	100	455	550	675	725	100.0
1b	-50	50	145	265	340	500	100.0
2	-100	-50	125	205	245	350	100.1
3	-175	-100	-90	170	210	250	100.2
4	-200	-150	-140	-75	195	215	100.0
5	-250	-200	-160	-125	25	210	100.2
All Levels							100.1

Student Outcomes for “Example” Teacher with Twenty Students

Elementary Reading – Value Table						
Year 1 Achievement Level	Year 2 Achievement Level					
	1a	1b	2	3	4	5
1a	4	1	2	0	0	0
1b	0	2	0	1	0	0
2	0	1	3	2	0	0
3	0	0	1	2	1	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0

Student Outcomes for “Example” Teacher with Twenty Students

Elementary Reading – Points Earned and Final Score							
Year 1 Level 2005	Year 2 Level - 2006						
	1a	1b	2	3	4	5	Total
1a	0×4 = 0	100×1 = 100	455×2 = 910	0	0	0	1010
1b	0	$50 \times 2 =$ 100	0	265×1 = 265	0	0	365
2	0	$-50 \times 1 =$ -50	125×3 = 375	205×2 = 410	0	0	735
3	0	0	-90×1 = -90	170×2 = 340	210×1 = 210	0	460
4	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0
Total							2570
Value Score							128.5



Elementary Reading Top 25% Value Scores for 2006

Elementary Reading	Value Scores
Top 10%	151.2
Top 15%	141.9
Top 20%	134.7
Top 25%	127.6



Data Included in the Value Table

- Reading Teachers - teaching a reading/language arts course as identified by Florida's course code directory.
- Math Teachers - teaching a mathematics course as identified by Florida's course code directory.
- Students – All students in grades 4-10 with two years of reading and/or two years of math FCAT data who are taking a reading/language arts and/or math course.
- Teacher must be teaching at least 10 students to be included in the analysis.



What are the advantages of using a value table?

- ***Easy to calculate.*** With just a calculator or a simple spreadsheet any teacher can determine the number of points they have earned in a year. Teachers can also apply the table at the start of the year to determine what progress their students must make in order to receive a high score.
- ***Transparent.*** Many attempts have been made to capture value, but most methods are very complex and difficult to explain or understand.



What are the advantages of using a value table?

- ***Flexible with regard to subject and grade levels.***
Different value tables can be developed for elementary, middle, and high school grade spans and for each subject. The value table can be used for any teacher with students in an FCAT grade range and subject. The value table can also be used at the school level and the district level to capture administrators' performance. The value table can be used for locally administered assessments using student letter grades, test scores, percentiles, etc.



What are the advantages of using a value table?

- ***Ensures a focus on specific educational goals and values.*** Florida's value table is designed to be neutral with regard to a student's initial achievement level.



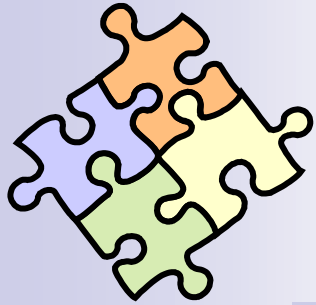
Are Value Tables a Valid and Reliable Way to Determine Teacher Effectiveness?

- Compared to other methods of assessing value, the value table has a high correlation with Analysis of Covariance (ANCOVA) and Hierarchical Linear Models (HLM), more complex statistical models.



Where did the idea of a value table come from?

- **Center for Assessment -**
<http://www.nciea.org/>



Developing a Value Table

Value Table Formula

- Average Value Score = $\{(X_{e1a,1a} * P_{e1a,1a}) + (X_{e1a,1b} * P_{e1a,1b}) + (X_{e1a,2} * P_{e1a,2}) + (X_{e1a,3} * P_{e1a,3}) + (X_{e1a,4} * P_{e1a,4}) + (X_{e1a,5} * P_{e1a,5})\} / (X_{e1a,1a} + X_{e1a,1b} + X_{e1a,2} + X_{e1a,3} + X_{e1a,4} + X_{e1a,5})$
- Average Value Score = $\{(X_{e1b,1a} * P_{e1b,1a}) + (X_{e1b,1b} * P_{e1b,1b}) + (X_{e1b,2} * P_{e1b,2}) + (X_{e1b,3} * P_{e1b,3}) + (X_{e1b,4} * P_{e1b,4}) + (X_{e1b,5} * P_{e1b,5})\} / (X_{e1b,1a} + X_{e1b,1b} + X_{e1b,2} + X_{e1b,3} + X_{e1b,4} + X_{e1b,5})$
- Average Value Score = $\{(X_{e2,1a} * P_{e2,1a}) + (X_{e2,1b} * P_{e2,1b}) + (X_{e2,2} * P_{e2,2}) + (X_{e2,3} * P_{e2,3}) + (X_{e2,4} * P_{e2,4}) + (X_{e2,5} * P_{e2,5})\} / (X_{e2,1a} + X_{e2,1b} + X_{e2,2} + X_{e2,3} + X_{e2,4} + X_{e2,5})$
- Average Value Score = $\{(X_{e3,1a} * P_{e3,1a}) + (X_{e3,1b} * P_{e3,1b}) + (X_{e3,2} * P_{e3,2}) + (X_{e3,3} * P_{e3,3}) + (X_{e3,4} * P_{e3,4}) + (X_{e3,5} * P_{e3,5})\} / (X_{e3,1a} + X_{e3,1b} + X_{e3,2} + X_{e3,3} + X_{e3,4} + X_{e3,5})$
- Average Value Score = $\{(X_{e4,1a} * P_{e4,1a}) + (X_{e4,1b} * P_{e4,1b}) + (X_{e4,2} * P_{e4,2}) + (X_{e4,3} * P_{e4,3}) + (X_{e4,4} * P_{e4,4}) + (X_{e4,5} * P_{e4,5})\} / (X_{e4,1a} + X_{e4,1b} + X_{e4,2} + X_{e4,3} + X_{e4,4} + X_{e4,5})$
- Average Value Score = $\{(X_{e5,1a} * P_{e5,1a}) + (X_{e5,1b} * P_{e5,1b}) + (X_{e5,2} * P_{e5,2}) + (X_{e5,3} * P_{e5,3}) + (X_{e5,4} * P_{e5,4}) + (X_{e5,5} * P_{e5,5})\} / (X_{e5,1a} + X_{e5,1b} + X_{e5,2} + X_{e5,3} + X_{e5,4} + X_{e5,5})$

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Total	8,365	50,188	56,956	123,520	93,202	24,520	356,751

Developing the Values for Elementary Reading

Average Value Score =

$$\frac{\{(X_{e1a,1a} * P_{e1a,1a}) + (X_{e1a,1b} * P_{e1a,1b}) + (X_{e1a,2} * P_{e1a,2}) + (X_{e1a,3} * P_{e1a,3}) + (X_{e1a,4} * P_{e1a,4}) + (X_{e1a,5} * P_{e1a,5})\}}{(X_{e1a,1a} + X_{e1a,1b} + X_{e1a,2} + X_{e1a,3} + X_{e1a,4} + X_{e1a,5})}$$

Average Value Score **100.0** =

$$\frac{\{(3,482_{e1a,1a} * P_{e1a,1a}) + (4,615_{e1a,1b} * P_{e1a,1b}) + (630_{e1a,2} * P_{e1a,2}) + (256_{e1a,3} * P_{e1a,3}) + (16_{e1a,4} * P_{e1a,4}) + (0_{e1a,5} * P_{e1a,5})\}}{(3,482_{e1a,1a} + 4,615_{e1a,1b} + 630_{e1a,2} + 256_{e1a,3} + 16_{e1a,4} + 0_{e1a,5})}$$

Elementary Reading Value Table

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1b	-50	50	145	265	340	500	100.0
2	-100	-50	125	205	245	350	100.1
3	-175	-100	-90	170	210	250	100.2
4	-200	-150	-140	-75	195	215	100.0
5	-250	-200	-160	-125	25	210	100.2
All Levels							100.1

Developing the Values for Elementary Reading

Average Value Score **100.0** =

$$\left\{ (3,482_{e1a,1a} * P_{e1a,1a}) + (4,615_{e1a,1b} * P_{e1a,1b}) + (630_{e1a,2} * P_{e1a,2}) + (256_{e1a,3} * P_{e1a,3}) + (16_{e1a,4} * P_{e1a,4}) + (0_{e1a,5} * P_{e1a,5}) \right\} / (3,482_{e1a,1a} + 4,615_{e1a,1b} + 630_{e1a,2} + 256_{e1a,3} + 16_{e1a,4} + 0_{e1a,5})$$

Average Value Score **100.0** =

$$\left\{ (3,482_{e1a,1a} * 0_{e1a,1a}) + (4,615_{e1a,1b} * 100_{e1a,1b}) + (630_{e1a,2} * 455_{e1a,2}) + (256_{e1a,3} * 550_{e1a,3}) + (16_{e1a,4} * 675_{e1a,4}) + (0_{e1a,5} * 725_{e1a,5}) \right\} / (3,482_{e1a,1a} + 4,615_{e1a,1b} + 630_{e1a,2} + 256_{e1a,3} + 16_{e1a,4} + 0_{e1a,5})$$

Developing the Values for Elementary Reading

Average Value Score 100.0 =

$$\{(3,776_{e1b,1a} * -50_{e1b,1a}) + (19,842_{e1b,1b} * 50_{e1b,1b}) + (10,367_{e1b,2} * 145_{e1b,2}) + (5,938_{e1b,3} * 265_{e1b,3}) + (449_{e1b,4} * 340_{e1b,4}) + (10_{e1b,5} * 500_{e1b,5})\} / (3,776_{e1b,1a} + 19,842_{e1b,1b} + 10,367_{e1b,2} + 5,938_{e1b,3} + 449_{e1b,4} + 10_{e1b,5})$$

Average Value Score 100.1 =

$$\{(680_{e2,1a} * -100_{e2,1a}) + (14,083_{e2,1b} * -50_{e2,1b}) + (16,940_{e2,2} * 125_{e2,2}) + (15,397_{e2,3} * 205_{e2,3}) + (1,422_{e2,4} * 245_{e2,4}) + (25_{e2,5} * 350_{e2,5})\} / (680_{e2,1a} + 14,083_{e2,1b} + 16,940_{e2,2} + 15,397_{e2,3} + 1,422_{e2,4} + 25_{e2,5})$$

Average Value Score 100.2 =

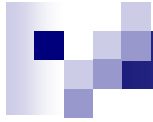
$$\{(396_{e3,1a} * -175_{e3,1a}) + (10,784_{e3,1b} * -100_{e3,1b}) + (25,763_{e3,2} * -90_{e3,2}) + (67,621_{e3,3} * 170_{e3,3}) + (21,225_{e3,4} * 210_{e3,4}) + (746_{e3,5} * 250_{e3,5})\} / (396_{e3,1a} + 10,784_{e3,1b} + 25,763_{e3,2} + 67,621_{e3,3} + 21,225_{e3,4} + 746_{e3,5})$$

Average Value Score 100.0 =

$$\{(31_{e4,1a} * -200_{e4,1a}) + (850_{e4,1b} * -150_{e4,1b}) + (3,211_{e4,2} * -140_{e4,2}) + (32,955_{e4,3} * -75_{e4,3}) + (56,915_{e4,4} * 195_{e4,4}) + (11,794_{e4,5} * 215_{e4,5})\} / (31_{e4,1a} + 850_{e4,1b} + 3,211_{e4,2} + 32,955_{e4,3} + 56,915_{e4,4} + 11,794_{e4,5})$$

Average Value Score 100.2 =

$$\{(0_{e5,1a} * -250_{e5,1a}) + (14_{e5,1b} * -200_{e5,1b}) + (45_{e5,2} * -150_{e5,2}) + (1,353_{e5,3} * -75_{e5,3}) + (13,175_{e5,4} * 45_{e5,4}) + (11,945_{e5,5} * 230_{e5,5})\} / (14_{e5,1a} + 14_{e5,1b} + 45_{e5,2} + 1,353_{e5,3} + 13,175_{e5,4} + 11,945_{e5,5})$$



Future

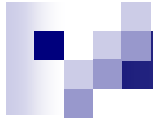
- Requesting continued and increased funding
- Administer pretest during first week(s) of school



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