

DATE: November 15, 2012

SUBJECT: Report on Effectiveness of Teacher Training Programs

ACTION RECOMMENDED: Information

BACKGROUND INFORMATION: Staff will present information on the 2012 Report Card on the Effectiveness Training Programs related on November 1, 2012. This is the fifth year that the state has made data available to the public regarding the effectiveness of graduates from teacher training programs in the state. As part of the state's First to the Top initiatives, the report card has been improved for the 2012 publication to include institutional highlights.

THEC staff continues to work in collaboration with the teacher training programs, the State Board of Education, the State Department of Education, and other key stakeholders to improve the report card. The report provides information on teacher education completers' placement and retention rates, Praxis II exams, and the Tennessee Value-Added System teacher effect scores. Key findings of the report include information related to the academic preparation of Tennessee's teachers and how well program completers perform in the classroom. The full report including individual program reports is available on the THEC website.

EXECUTIVE SUMMARY

Introduction

The Tennessee General Assembly passed legislation in 2007 requiring that the State Board of Education produce an assessment on the effectiveness of teacher training programs. The law requires that the report include data on the performance of each program's graduates in the following areas: placement and retention rates, Praxis II results, and teacher effect data based on the Tennessee Value-Added Assessment System (TVAAS) scores. The 2012 report card includes additional indicators for each program; more information on the changes and additions can be found in the following section.

The *2012 Report Card on the Effectiveness of Teacher Training Programs* contains information designed to inform the public of the effectiveness of teacher training programs and to provide preparation programs with the opportunity to improve the quality of programs through the use of data as set forth in the Tennessee Code Annotated 48-5-108.

Tennessee is working to improve teacher preparation with several First to the Top initiatives. As part of this work, the *Report Card on the Effectiveness of Teacher Training Programs* has been redesigned to be a more effective tool for evaluating the state's teacher preparation programs. The Tennessee Higher Education Commission (THEC) was given primary responsibility for the redesign process as well as future publication of the report card because of the agency's relationships with higher education programs as well as data collection capacity.

Redesign Process

Over the past few years, the Tennessee Higher Education Commission has worked in collaboration with the teacher training programs, the State Board of Education, the State Department of Education, and other key stakeholders to continuously improve the quality of the report card.

A new feature of the 2012 report card includes an overview page which highlights some of the key data that is contained within that program's individual report.

The following changes are in progress:

- The report will include data collected through individual teacher performance assessments as collected through the Tennessee Educator Acceleration Model (TEAM) as well as the alternative teacher evaluation models.
- Teacher training programs will have the ability to develop additional individual reports tailored to the intricacies of their program in order to facilitate continuous improvement.

Explanation of Data

Teacher Effect Data

The SAS Institute, Inc. performed the analysis of teacher effect data for beginning teachers (defined as those with 1 to 3 years of experience) from all forty-four teacher preparation programs in the state. The goals of the study were: (1) to identify teacher training programs that tend to produce highly effective new teachers and programs that tend to produce very ineffective new teachers, and (2) to determine program quality in comparison to reference distribution levels of effectiveness with a fair and reliable statistical test. The report differentiates between the performance of traditionally licensed and alternatively licensed teachers in comparison to two reference populations: veteran teachers and beginning teachers. A more detailed explanation of these reference populations can be found in *How to Read the Program Reports*.

Placement and Retention Results

The report contains placement and retention analysis for the 2007-08 through the 2010-11 cohorts of completers teaching in public K-12 schools in Tennessee. The Center for Business and Economic Research at the University of Tennessee, Knoxville compared data on the 2010-11 completers as reported to THEC by the teacher training programs against the Tennessee Personnel Information Reporting System (PIRS) database to determine the placement and retention of teachers from each program. The report includes the percent of completers teaching in their first year after program completion as well as those teaching in their second year, which captures those who waited a year before entering the classroom. The report also includes the percentage of completers teaching for three consecutive years. Finally, retention for three out of four years is included which captures those who took a year sabbatical from teaching in Tennessee public K-12 schools.

Praxis Results

Teacher candidates are required to take the Praxis II exams in order to be eligible to teach in Tennessee. Praxis II exams are offered in multiple content areas. Tennessee requires that teacher candidates take Praxis examinations to be recommended for licensure and receive endorsements in specific fields. More detailed information on Praxis results can be found on the state's annual Title II report to the federal government.

Limitations of the Data

Several limitations to the data exist. These include:

- The value-added analysis is only available for teachers in the tested subjects and grades, which represents about 40% of the 2010-11 completers from teacher training programs.

- The state has implemented a new individual teacher evaluation system, Tennessee Educator Acceleration Model (TEAM), which is beginning to generate data to give a more robust view of teacher effectiveness in Tennessee. TEAM data will be included in the report card as soon as comprehensive and accurate data for the state are available. In addition, some districts are choosing to use alternative evaluation models. These models will also be included once the data are available.
- The placement and retention rates reflect only those graduates working in Tennessee K-12 public schools. Any completers teaching outside of the state or in a private school are not captured in placement and retention rates. In addition, some Tennessee charter schools are not reflected in the placement and retention data, but the State Department of Education is working to gather this additional data.

Findings

Profile Information

- The majority of 2010-2011 graduates from teacher training programs in the state were white females from Tennessee. Of the 5,109 completers, 86% are white, 78% are female, and 86% are from Tennessee.
- The most common endorsement area for program completers continues to be Elementary K-6 education with 1,991 endorsements, followed by Middle Grades 4-8 with 510 endorsements.
- Programs provided about 30% of ACT composite scores to THEC. The scores ranged from 12 to 35 with the combined average score of 22.7 for traditionally and alternatively licensed teachers. Alternatively licensed teachers had an average composite score of 24.7 while traditionally licensed teachers had a 22.6 average composite score.
- Nearly 97% of final grade point averages were reported. The average final GPA was a 3.57 for 2010-2011 program completers. Alternatively licensed teachers averaged a 3.62, and traditionally licensed completers had a 3.56 average.
- As part of First to the Top, Tennessee made a commitment to increasing STEM (Science, Technology, Engineering and Mathematics) teachers. Program completers in 2010-2011 earned 517 STEM endorsements; these account for almost 9% of all endorsements received that year.

Placement and Retention

- Teacher retention within the first four years after completing the teacher training program is comparable to the national trends. Nearly 53% of program completers teach in a public school in the state in their first eligible year, and about 57% continue teaching for three out of the following four years. Almost 48% teach for three consecutive years.

Teacher Effect Data

- Traditionally and alternatively licensed program completers from 2010-2011 show lower student achievement gains than *veteran teachers* in the following areas:
 - 4th-8th grade: Reading/Language Arts and TCAP composite scores
 - High school: Algebra I, Algebra II and End of Course exam composite scores.
- The 2010-2011 program completers, including traditionally and alternatively certified teachers, perform as well as *veteran teachers* in the following areas:
 - 4th-8th grade: Math, Science and Social Studies
 - High school: Biology I, English I, English II and U.S. History
- Traditionally licensed 2010-2011 program completers have higher value added scores than *veteran teachers* in high school Biology I. Alternatively licensed teachers show higher teacher effect scores than *veteran teachers* in 4th-8th grade Math and high school Algebra I.
- Significantly more programs have a tendency to produce teachers with lower student achievement gains as compared to *veteran teachers*.
- Two programs had completers with higher student achievement gains than *veteran teachers* in the subject areas in which adequate value added data are available for that program. These programs are Freed-Hardeman University and Memphis Teacher Residency.
- When comparing 2010-2011 program completers to other *beginning teachers*, there are five programs that have a tendency to produce teachers with higher gains in student achievement data in the endorsement areas in which adequate value added data are available for that program. These programs are: Freed-Hardeman University, Memphis Teacher Residency, Teach for America Memphis, Teach for America Nashville and the University of Tennessee, Knoxville.
- Several programs are producing teachers that are not performing as well other beginning teachers in the state. Programs whose completers are less effective than other *beginning teachers* in two or more subject areas in which adequate value added data are available for that program are: East Tennessee State University, Lincoln Memorial University, Middle Tennessee State University, South College, Tennessee Tech University, Tennessee Wesleyan College, TNTP Memphis Teaching Fellows, Tusculum College, University of Memphis, University of Tennessee-Chattanooga, University of Tennessee-Martin and Victory University.

Tennessee State Profile

Teacher Training Programs Statewide Distribution

	State	East TN	Middle TN	West TN
Total Number of Teacher Preparation Programs	44	14	17	13
Tennessee Board of Regents	6	1	4	1
University of Tennessee	3	2	0	1
TICUA	27	10	10	7
Alternative Providers	6	0	3	3
Private for Profit	2	1	0	1

Tennessee Teacher Training Program Completers

Institution Type	Total Completers	Licensure Status	Total Completers
TBR	1989	Traditional License	4177
UT	714	Alternative License	932
TICUA	1869		
Alternative Provider	450		
Private for Profit	87		

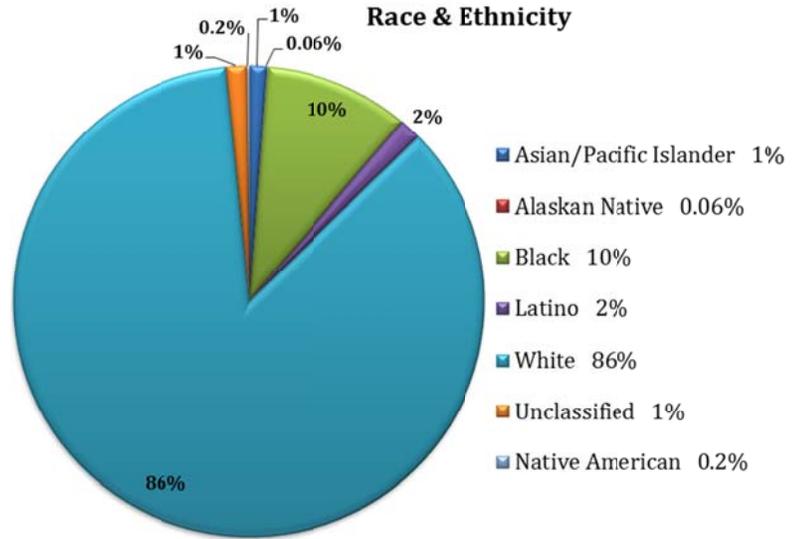
Placement and Retention

Data reflect the placement and retention rates of graduates for each cohort year listed. These data are based on the program completers in the Personnel Information Reporting System (PIRS). The years refer to the number of years since the completers have graduated and been eligible to teach. Therefore, these data help to inform the rate at which an institution's graduates enter and remain in the teaching field in Tennessee public schools. The number teaching 3 out of 4 years is included to account for the teachers who may leave the profession for a year but do return (e.g. for maternity leave or FMLA).

Cohort Year	Number of Completers	Teaching in Year 1	Teaching in Year 2	Teaching 3 Consecutive Years	Teaching 3 out of 4 years
2007 - 08	3664	56.1%	60.6%	48.5%	57.0%
2008 - 09	4277	54.8%	62.5%	47.5%	
2009 - 10	5082	60.3%	63.4%		
2010 - 11	5109	52.9%			

Demographic Information

Total Number	5109
Male	22%
Female	78%
In-state	86%
Out-of-state	14%



Academic Background Information

	Average Traditional	Average Alternative	Average All Completers	Completers Reported
Final GPA	3.56	3.62	3.57	4925
Major GPA	3.56	3.56	3.56	1303
High School GPA	3.34	3.31	3.34	1414
ACT Composite	22.6	24.7	22.7	1600
ACT Reading	23.3	23.4	23.3	1325
ACT Science	21.8	22.4	21.8	1324
ACT English	23.3	23.7	23.4	1339
ACT Math	20.9	22.1	20.9	1336
SAT Cumulative	1130	1080	1129	187
SAT Math	527	576	529	124
SAT Verbal	563	504	561	124

Praxis Results (2010-2011)	Number Tested	Number Passed	Pass Rate
Summary Pass Rates - Traditional	3801	3688	97%
Summary Pass Rates - Alternative	774	749	97%

Endorsement Areas Earned by 2010-11 Teacher Training Program Completers

Teacher training programs reported the initial endorsement areas that they approved for each completer. Programs could report up to nine endorsement areas per completer. The numbers below do not represent any add-on endorsement that teachers may have received after program completion.

Top Endorsement Areas

Elementary K-6	1991 completers
Middle Grades 4-8	510 completers
Early Childhood Education PK-3	413 completers
Special Education Modified K-12	380 completers
English 7-12	347 completers
History 7-12	282 completers
Mathematics 7-12	264 completers

Endorsements in STEM Fields

517 Total Completers with one or more endorsements in STEM fields

Mathematics 7-12	264 completers
Biology 7-12	165 completers
Chemistry 7-12	64 completers
Physics 7-12	16 completers
Earth Science 7-12	6 completers
Tech/Engineering Education 5-12	2 completers

Teacher T-Value Effects (includes all grades)*One year estimates of T-value of teacher effects (2010 – 2011)***KEY**

- No color: No statistically significant difference
- - Fewer than 5 teachers
- **Green:** Statistically significant positive difference
- **Yellow:** Statistically significant negative difference

Veteran Teacher Comparison: The average effectiveness of beginning teachers (1-3 years of experience) from teacher training programs in Tennessee as compared to the average effectiveness of veteran teachers in terms of contribution to student achievement growth.

Traditionally Licensed Teachers

Subject	Mean T-Value	Teachers in Program	Total Programs Statewide
TCAP Composite (grades 4-8)	-0.7599	1772	32
- Math	-0.1591	959	29
- Reading/Language	-0.1454	1067	31
- Science	-0.0781	839	25
- Social Studies	-0.1979	835	29
EOC Composite (High school)	-0.5863	528	28
- Algebra I	-0.8495	76	9
- Algebra II	-2.1250	56	9
- Biology I	0.7144	36	5
- English I	-0.2219	84	8
- English II	-0.6576	59	7
- English III	0.2535	41	5
- US History	0.1830	23	3

Alternatively Licensed Teachers

Subject	Mean T-Value	Teachers in Program	Total Programs Statewide
TCAP Composite (grades 4-8)	0.1155	293	14
- Math	1.2506	101	6
- Reading/Language	-0.1200	96	6
- Science	0.5745	101	7
- Social Studies	0.8663	67	3
EOC Composite (High school)	-0.8432	203	13
- Algebra I	-0.3614	49	5
- Algebra II	-3.3731	44	4
- Biology I	-0.7045	15	5
- English I	1.3512	16	2
- English II	0.7309	5	1

Veteran Teacher Comparison: The average effectiveness of beginning teachers (1-3 years of experience) from teacher training programs in Tennessee as compared to the average effectiveness of veteran teachers in terms of contribution to student achievement growth.

Traditionally & Alternatively Licensed Teachers

Subject	Mean T-Value	Teachers in Program	Total Programs Statewide
TCAP Composite (grades 4-8)	-0.5697	2091	37
- Math	0.0065	1086	33
- Reading/Language	-0.1244	1195	35
- Science	0.0458	972	31
- Social Studies	-0.0741	924	32
EOC Composite (High school)	-0.6050	764	33
- Algebra I	-0.6675	154	14
- Algebra II	-2.3249	92	12
- Biology I	0.4216	80	11
- English I	-0.0488	115	12
- English II	-0.4230	69	8
- English III	-0.5692	56	7
- U.S. History	0.2143	34	4

Statewide Summary of Statistically Significant Positive Results

The following table lists the programs that had statistically significant positive differences in the effectiveness of traditionally and alternatively licensed teachers with one to three years of experience.

Subject	Veteran Teacher Comparison	Beginning Teacher Comparison	Statewide Distribution
TCAP Composite (grades 4-8)	Memphis TCH RES TFA Memphis TFA Nashville	Lipscomb University Memphis TCH RES TFA Memphis TFA Nashville	TFA Memphis TFA Nashville
- Math	Memphis TCH RES TFA Memphis TFA Nashville	Memphis TCH RES TFA Memphis TFA Nashville	Belmont Memphis TCH RES
- Reading/ Language	Milligan College Union University	Lipscomb University Milligan College Union University	Belmont University Lipscomb University Union University
- Science	TFA Nashville	TFA Nashville	Freed-Hardeman TFA Nashville
- Social Studies	Belmont University Freed-Hardeman Memphis TCH RES TFA Memphis TFA Nashville	Belmont University Freed-Hardeman Memphis TCH RES TFA Memphis TFA Nashville	Memphis TCH RES TFA Memphis TFA Nashville
EOC Composite (High school)		Lipscomb UT Knoxville	Milligan College
- Algebra I	TFA Nashville	Lipscomb TFA Nashville	
- Biology I	UT Knoxville		UT Knoxville
- English I	MTSU TFA Memphis University of Memphis	MTSU TFA Memphis University of Memphis	University of Memphis
- U.S. History	UT Knoxville	UT Knoxville	

Statewide Summary of Statistically Significant Negative Results

The following table lists the programs that had **statistically significant negative differences** in the effectiveness of traditionally and alternatively licensed teachers with one to three years of experience.

Subject	Veteran Teacher Comparison	Beginning Teacher Comparison	Statewide Distribution
TCAP Composite (grades 4-8)	APSU Christian Brothers ETSU Lincoln Memorial MTSU South College TNTP Memphis TSU TTU TN Wesleyan College Trevecca Tusculum College University of Memphis UT Chattanooga UT Knoxville UT Martin Victory University	Lincoln Memorial MTSU South College TTU TN Wesleyan Victory University	APSU Bethel University ETSU Lincoln Memorial MTSU South College TNTP Memphis Teach TN TSU TTU TN Wesleyan College Trevecca Tusculum University of Memphis UT Knoxville UT Martin Victory University
- Math	MTSU South College TNTP Memphis TN Wesleyan College Tusculum Victory University	MTSU South College TNTP Memphis TN Wesleyan College Tusculum Victory University	MTSU South College Victory University
- Reading/ Language	Lee University Lincoln Memorial South College TNTP Memphis University of Memphis UT Martin Victory University	Lee University TNTP Memphis University of Memphis UT Martin Victory University	TNTP Memphis Trevecca University of Memphis UT Martin
- Science	MTSU TSU	Lincoln Memorial MTSU TSU	TSU
- Social Studies	Lipscomb University MTSU TTU	Lipscomb University MTSU TTU	Cumberland MTSU TSU TTU

The following table lists continues the list of programs that had statistically significant negative differences in the effectiveness of traditionally and alternatively licensed teachers with one to three years of experience.

Subject	Veteran Teacher Comparison	Beginning Teacher Comparison	Statewide Distribution
EOC Composite (High school)	ASPU ETSU Tusculum Union University University of Memphis UT Martin	ETSU Tusculum UT Martin	ASPU ETSU UT Martin
- Algebra I	APSU Union University	APSU	UT Martin
- Algebra II	ETSU TFA Memphis TFA Nashville		
- Biology I		Union University	
- English I	Belmont University ETSU	Belmont University ETSU	ETSU Lincoln Memorial
- English II	UT Martin	UT Martin	UT Martin
- English III	Trevecca University of Memphis	Trevecca University of Memphis	Trevecca University of Memphis
- U.S. History	UT Martin	UT Martin	

The following programs produced beginning teachers with comparable effectiveness to all three reference groups (i.e. they did not have any statistically significant results):

- Bryan College
- Carson Newman College
- Johnson University
- King College
- Martin Methodist University
- Maryville College
- TNTP: Nashville Teaching Fellows
- Vanderbilt University

The following programs had less than 5 teachers in tested subjects and do not have t-values of teacher effect measures:

- Aquinas College
- Fisk University
- Lane College
- LeMoyne-Owen College
- Memphis College of Art
- Southern Adventist University
- Welch College

Programs at a Glance

Teacher Training Program	Number of Completers 2010-11	Number of Statistically Significant Positive Results	Number of Statistically Significant Negative Results	Praxis II Summary Pass Rates 2010-11	% of Completers Teaching 3 out of 4 Years
Aquinas College	10	-	-	100%	0.0%
Austin Peay State University	150	-	12	100%	61.1%
Belmont University	172	6	2	89%	50.9%
Bethel University	41	-	4	100%	80.0%
Bryan College	19	-	-	81%	20.0%
Carson-Newman College	137	-	-	100%	58.7%
Christian Brothers University	56	-	2	95%	50.0%
Cumberland University	103	2	2	95%	74.2%
East Tennessee State University	306	-	19	100%	48.6%
Fisk University	1	-	-	n/a	83.3%
Freed-Hardeman University	65	8	-	100%	64.2%
Johnson University	41	-	-	100%	23.1%
King College	32	-	-	100%	58.8%
Lane College	1	-	-	n/a	50.0%
Lee University	189	1	3	99%	40.0%
LeMoyne-Owen College	17	-	-	n/a	66.7%
Lincoln Memorial University	150	-	14	100%	50.0%
Lipscomb University	148	6	4	99%	57.9%
Martin Methodist College	19	-	-	100%	53.3%
Maryville College	38	-	-	97%	51.1%
Memphis College of Art	18	-	-	87%	n/a
Memphis Teacher Residency	25	16	-	n/a	n/a
Middle Tennessee State University	540	4	27	94%	71.3%
Milligan College	62	6	2	100%	52.3%
South College	42	-	14	100%	39.0%
Southern Adventist University	40	-	-	100%	0.0%
Teach for America- Memphis	147	17	2	n/a	n/a
Teach for America- Nashville	97	24	2	n/a	n/a
Teach Tennessee	54	-	2	n/a	n/a
Tennessee State University	93	-	14	100%	68.1%
Tennessee Tech. University	434	-	13	98%	62.0%
Tennessee Wesleyan College	42	-	10	100%	74.3%
TNTP: Memphis Teaching Fellows	63	-	13	n/a	n/a
TNTP: Nashville Teaching Fellows	64	-	-	n/a	n/a
Trevecca Nazarene University	109	2	7	100%	56.9%
Tusculum College	120	-	11	95%	63.9%
Union University	116	6	4	99%	46.5%
University of Memphis	466	7	22	98%	64.8%
University of TN, Chattanooga	199	-	8	100%	53.5%
University of TN, Knoxville	256	11	6	97%	61.6%
University of TN, Martin	259	1	29	90%	67.7%
Vanderbilt University	117	-	-	98%	18.0%
Victory University	45	-	14	n/a	82.6%
Welch College	6	-	-	n/a	20.0%