

**M E M O R A N D U M**

**December 8, 2011**

**TO:** The Honorable Chair and Members of The School Board of Miami-Dade County, Florida

**FROM:** Alberto M. Carvalho, Superintendent of Schools *AMC*

**SUBJECT: TRANSMITTAL OF EVALUATION MATTERS: TEACH FOR AMERICA: AN ANALYSIS OF PLACEMENT AND IMPACT**

Attached please find a copy of the Evaluation Matters, *Teach for America: An Analysis of Placement and Impact*. The Teach for America (TFA) program selectively recruits and trains recent college graduates/professionals to teach for two years in selected communities at the standard compensation received by non-participating teachers. The number of TFA teachers in Miami-Dade County Public Schools increased during the 2010-2011 school year by more than two-thirds but was concentrated in fewer District schools; only about half of the TFA teachers are assigned to grades and subject areas tested by the Florida Comprehensive Assessment Tests (FCAT/FCAT 2.0).

Examined in this report is the placement of TFA teachers in reading and mathematics courses and their impact on the learning gains of their students. There were no consistent findings from 2008-2009 through 2010-2011 to indicate that students in classes taught by TFA teachers outperformed their counterparts in similar classes. However, when a larger proportion of senior high TFA teachers' assignments was composed of advanced courses, their students did exhibit somewhat higher learning gains than students in similar courses taught by non-TFA teachers.

If you need further information, please call Dr. Richard H. Hinds, Associate Superintendent and Chief Financial Officer, Financial Services, at 305-995-1225, or Ms. Gisela Feild, Administrative Director, Assessment, Research, and Data Analysis, at 305-995-2943.

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Attachment

cc: School Board Attorney  
Superintendent's Cabinet  
Ms. Deborah Karcher  
Ms. Gisela Feild  
Dr. Sally A. Shay



# Evaluation Matters

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Volume 1, Number 2

December 2011

Steven M. Urdegar, Ph.D., Director

## Teach for America: *An Analysis of Placement and Impact*

### **1. What is the purpose of this report?**

This report examines the placement of Teacher for America (TFA) teachers and examines their impact on the learning gains of their students from 2008-09 to 2010-11. TFA is an organization that recruits and trains recent college graduates/professionals to teach for two years in selected communities. Admission is competitive. All members attend five-weeks of intensive preparatory training. Teachers who do not hold certification in their assigned content areas receive alternative certification through coursework taken while completing the program. TFA teachers receive the regular district salary and benefits supplemented by a private voucher that can be used to cover previous student loans, credentialing, or further education.

### **2. Which populations were targeted in this report?**

Sets of eligible TFA teachers were identified in 2008-09, 2009-10, and 2010-11, which included all TFA teachers assigned to grades tested by the Florida Comprehensive Assessment Test (FCAT) in reading and mathematics. Separate comparison groups for reading and mathematics, defined for each school year, included all Non-TFA teachers assigned to FCAT tested grades, who had course loads in which the majority of courses were the same as those taught by the TFA teachers.

### **3. How were the data for this report collected and analyzed?**

Data used in this analysis were obtained from archival records supplemented by data from the student data-base system and student annual learning gains data computed by the Florida Department of Education (FLDOE). The analysis of the placement of TFA teachers was limited to descriptive statistics. The analysis of the impact of TFA teachers was conducted by comparing the proportion of TFA and Non-TFA teachers' students who made learning gains and gauging the statistical significance of any differences in the comparisons using chi-squared ( $\chi^2$ ) tests. Phi ( $\phi$ ) coefficients were used to classify the practical significance of any statistically significant comparisons found as .10 (weak), .30 (moderate), or .50 (strong), based on Cohen's (1988) classification.

### **4. At what school levels were Teach for America teachers placed?**

The assignments of TFA teachers varied across the years of the program's implementation in terms of grade organization, subject area, and level of the courses. Tables 1 lists for each year, the total number of schools with TFA teachers, the total number of TFA teachers in those schools, and the number and percent TFA teachers assigned to FCAT tested grades and subjects within each school type.

**Table 1. Schools with Teach for America Teachers**

School Type	2008-09				2009-10				2010-11			
	Schools	Teachers			Schools	Teachers			Schools	Teachers		
		Total	<i>n</i>	%		Total	<i>n</i>	%		Total	<i>n</i>	%
	<i>N</i>	FCAT			<i>N</i>	FCAT			<i>N</i>	FCAT		
Elementary	21	32	12	37.5	14	27	11	40.7	6	31	16	51.6
K-8	7	9	4	44.4	2	6	--	--	2	5	1	--
Middle	13	30	14	46.7	11	36	20	55.6	9	47	27	57.4
Senior	6	16	8	50.0	5	21	12	57.1	4	58	32	55.2
Alternative	1	2	1	50.0	--	--	--	--	--	--	--	--
Total	48	89	39	43.8	32	90	43	47.8	21	141	76	53.9

Note. Percentages shown are within school type (row) and cannot be added together.

- The number of TFA teachers increased by nearly two-thirds, while the number of schools where they are deployed decreased by more than half between 2008-09 and 2010-11. Most of the additional teachers were assigned to middle and senior high schools.
- Only about half of TFA teachers are assigned to grades and subjects tested by FCAT.

## 5. What types of courses were taught by the TFA teachers across all three years examined?

Tables 2 (reading) and 3 (mathematics) list the number and percentage of courses to which TFA teachers were assigned, by course group (first seven digits of course number) within course level: Elementary (Grades 3-5), Middle (Grades 6-8), and Senior (Grades 9-10). Counts are duplicated, as teachers may be assigned to teach multiple courses.

- Reading/Language Arts (see Table 2)
  - ◆ Elementary: The percentage of the TFA teachers' course loads represented by ESOL/ESOL related courses increased from around 55% in 2008-09 and 2009-10 to 100% in 2010-11. The remainder of the TFA teachers' course loads was comprised of standard education courses.
  - ◆ Middle: The percentage of the TFA teachers' course loads represented by Intensive Reading has dropped from 40.7% in 2008-09 to 12.1% in 2010-11, while the percentage represented by advanced courses has nearly doubled from 16.8% to 30.2%, during the same period. The remainder of the TFA teachers' course loads was comprised of standard education courses.
  - ◆ Senior: The percentage of the TFA teachers' course loads represented by Intensive Reading has alternated from 20.9% in 2008-09 to 62.5% in 2009-10 to 22.9% in 2010-11. The percentage of the TFA teachers' course loads represented by advanced courses has gone from 7.0% to 0.0% to 29.3%, during the same time period. The remainder of the TFA teachers' course loads was comprised of standard education courses.

**Table 2. Teach for America Teachers' Reading Course Assignments**

Course Group	Course Name	2008-09		2009-10		2010-11	
		N	%	N	%	N	%
<b>Elementary</b>							
5010010	English for Speakers of Other Languages	5	10.9	4	7.8	13	22.0
5010020	Elementary Reading Functional Basic Skills	0	0.0	3	5.9	0	0.0
5010044, 46	Language Arts - ESOL Related	0	0.0	0	0.0	23	39.0
5010050	Reading-Elementary - ESOL Related	20	43.5	21	41.2	23	39.0
7710020	Reading Grade Four - ESE	1	2.2	1	2.0	0	0.0
7710030	Language Arts - ESE	1	2.2	1	2.0	0	0.0
5010040	Language Arts	19	41.3	21	41.2	0	0.0
	<b>Total</b>	<b>46</b>	<b>100.0</b>	<b>51</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>
<b>Middle</b>							
1002000	M/J Language Arts 1 Through ESOL	0	0.0	0	0.0	3	4.5
1002181	M/J Developmental Language Arts through ESOL	0	0.0	0	0.0	5	7.6
7810010	Language Arts - ESE	0	0.0	1	2.3	0	0.0
7810020	Reading - ESE	0	0.0	1	2.3	0	0.0
1000010	M/J Intensive Reading	22	40.7	18	40.9	8	12.1
1001010	M/J Language Arts 1	6	11.1	6	13.6	15	22.7
1001040	M/J Language Arts 2	10	18.5	9	20.5	5	7.6
1001070	M/J Language Arts 3	7	13.0	4	9.1	10	15.2
1001020	M/J Language Arts 1, Advanced	7	13.0	0	0.0	10	15.2
1001050	M/J Language Arts 2, Advanced	1	1.9	5	11.4	2	3.0
1001080	M/J Language Arts 3, Advanced	1	1.9	0	0.0	8	12.1
	<b>Total</b>	<b>54</b>	<b>100.0</b>	<b>44</b>	<b>100.0</b>	<b>66</b>	<b>100.0</b>
<b>Senior</b>							
1000410	Intensive Reading	9	20.9	5	62.5	32	22.9
1001310	English 1	7	16.3	2	25.0	26	18.6
1001340	English 2	22	51.2	1	12.5	20	14.3
1001370	English 3	0	0.0	0	0.0	3	2.1
1001400	English 4	0	0.0	0	0.0	1	0.7
1006300	Journalism 1	1	2.3	0	0.0	1	0.7
1006310	Journalism 2	1	2.3	0	0.0	6	4.3
1009300	Writing 1	0	0.0	0	0.0	10	7.1
1001320	English Honors 1	0	0.0	0	0.0	13	9.3
1001350	English Honors 2	3	7.0	0	0.0	21	15.0
1020830, 50	Classical/World Literature Honors	0	0.0	0	0.0	7	5.0
	<b>Total</b>	<b>43</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>	<b>140</b>	<b>100.0</b>

*Note.* Course groups are the first seven digits of the course number. Course groups with commas are combined across multiple course groups each of which is indicated by a stem followed by the two or more digits after the comma (e.g., 5010044, 46 ≡ 5010044 and 5010046). Course groups are organized within course levels (as opposed to grade organizations) as follows: Elementary (Grades 3-5), Middle (Grades 6-8) and Senior (Grades 9-12).

**Table 3. Teach for America Teachers' Mathematics Course Assignments**

Course Number	Course Name	2008-09		2009-10		2010-11	
		n	%	n	%	n	%
<b>Elementary</b>							
7712010	Mathematics - Grade Three - ESE	1	3.6	0	0.0	0	0.0
5012070	Mathematics - Grade Five - ESOL Related	4	14.3	4	33.3	5	15.6
5012050	Mathematics - Grade Three	4	14.3	2	16.7	17	53.1
5012060	Mathematics - Grade Four	19	67.9	6	50.0	10	31.3
<b>Total</b>		<b>28</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>32</b>	<b>100.0</b>
<b>Middle</b>							
1204000	M/J Intensive Mathematics	0	0.0	0	0.0	16	15.5
1205010	M/J Mathematics 1	10	27.8	14	29.2	19	18.4
1205040	M/J Mathematics 2	18	50.0	10	20.8	37	35.9
1205020	M/J Mathematics 1, Advanced	3	8.3	6	12.5	8	7.8
1205050	M/J Mathematics 2, Advanced	2	5.6	5	10.4	3	2.9
1205070	M/J Mathematics 3, Pre-Algebra	3	8.3	13	27.1	20	19.4
<b>Total</b>		<b>36</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>103</b>	<b>100.0</b>
<b>Senior</b>							
1200400	Intensive Mathematics	12	46.2	20	25.6	8	11.8
1200310	Algebra 1	3	11.5	7	9.0	1	1.5
1206310	Geometry	6	23.1	28	35.9	23	33.8
1200320	Algebra 1 Honors	3	11.5	6	7.7	6	8.8
1200340	Algebra 2 Honors	0	0.0	5	6.4	8	11.8
1206320	Geometry Honors	0	0.0	3	3.8	10	14.7
1201310	Analysis of Functions	2	7.7	9	11.5	11	16.2
1202340	Pre-Calculus	0	0.0	0	0.0	1	1.5
<b>Total</b>		<b>26</b>	<b>100.0</b>	<b>78</b>	<b>100.0</b>	<b>68</b>	<b>100.0</b>

*Note.* Course groups are the first seven digits of the course number. Course groups with commas are combined across multiple course groups each of which is indicated by a stem followed by the two or more digits after the comma (e.g., 5010044, 46 ≡ 5010044 and 5010046). Course groups are organized within course levels (as opposed to grade organizations) as follows: Elementary (Grades 3-5), Middle (Grades 6-8) and Senior (Grades 9-12).

- Mathematics (Table 3)
  - ◆ Elementary: The percentage of the TFA teachers' course loads represented by ESE/ESOL related courses alternated between 17.9% in 2008-09 to 33.3% in 2009-10 to 15.6% in 2010-11. The remainder of the TFA teachers' course loads was comprised of standard education courses.
  - ◆ Middle: The percentage of the TFA teachers' course loads represented by Intensive Mathematics increased from 0.0% in both 2008-09 and 2009-10 to 15.6% in 2010-11. The percentage of the TFA teachers' course loads represented by advanced courses alternated from 22.2% in 2008-09 to 50.0% in 2009-10 to 30.1% in 2010-11. The remainder of the TFA teachers' course loads was comprised of standard education courses.

- ◆ Senior: The percentage of the TFA teachers' course loads represented by Intensive Mathematics courses dropped from 46.2% in 2008-09 to 11.8% in 2010-11. The percentage of TFA teachers' course loads represented by advanced courses rose from 7.7% to 32.4% during the same time period. The remainder of the TFA teachers' course loads was comprised of standard education courses.

## 6. What was of the impact of the TFA teachers on students' learning gains?

The impact of TFA teachers on students' learning gains was examined by comparing the proportion of TFA and Non-TFA teachers' students who made learning gains and gauging the statistical significance of any differences found using chi-squared tests. Tables 4 (reading) and 5 (mathematics) list the total number of comparisons and the number and percentage of students who made gains when taught by TFA and Non-TFA teachers, followed by the results of chi-squared tests and phi coefficients used to gauge the statistical and practical significance of any differences found, for the 2008-09 to 2010-11 school years, by grade within school type: 3-5 (elementary), 6-8 (middle), and 9-10 (senior). Results from any K-8 centers are partitioned into elementary and middle grades. Statistically significant differences are indicated by asterisks following the results of the chi-squared test. The direction and practical significance (size) of the statistically significant difference is given by the phi coefficient: Positive signs indicate that higher percentages of students made gains when taught by TFA teachers when compared to Non-TFA teachers. Negative signs indicate that lower percentages of students made gains when taught by TFA teachers when compared to Non-TFA teachers.

- Reading (Table 4)
  - ◆ The percentage of students who made gains was lower at the senior high schools than at the middle and elementary schools for both TFA and Non-TFA teachers across the years of the study.
  - ◆ Only 25.0% (5 of 20) of the valid by grade comparisons, in Grades 4 - 10, were statistically significant. Of those, two favored the TFA teachers and three favored the Non-TFA teachers. All significant differences represented weak levels of practical significance.
- Mathematics (Table 5)
  - ◆ The percentage of students who made gains dropped from around 65% in Grade 4 to less than 40% in Grade 6, then generally rebounded from seventh to tenth grade for both TFA and Non-TFA teachers across the years of the study.
  - ◆ Only 26.3% (5 of 19) of the valid by grade comparisons, in Grades 4-10, were statistically significant. Of those, four favored the TFA teachers and one favored the Non-TFA teachers. Three of the comparisons that favored the TFA teachers occurred in 2010-11. The significant differences represented weak to moderate levels of practical significance.

**Table 4. Comparison of TFA and Non-TFA Teachers' Students' Annual Learning Gains in Reading**

Grade	2008-09									2009-10									2010-11								
	TFA <sup>a</sup>			Non-TFA			$\chi^2$	$\phi$	TFA <sup>a</sup>			Non-TFA			$\chi^2$	$\phi$	TFA <sup>a</sup>			Non-TFA			$\chi^2$	$\phi$			
	Gain			Gain					Gain			Gain					Gain			Gain							
	N	n	%	N	n	%			N	n	%	N	n	%			N	n	%	N	n	%			N	n	%
<b>Elementary</b>																											
3	5	5	100.0	286	149	52.1	4.53 *	.12 <sup>b</sup>	25	15	60.0	107	66	61.7	0.02	-.01	5	4	80.0	81	44	54.3	1.26	.12 <sup>b</sup>			
4	133	83	62.4	2,327	1,540	66.2	0.80	-.02	59	36	61.0	793	512	64.6	0.30	-.02	2	2	100.0	228	160	70.2	0.85	.06 <sup>b</sup>			
5	50	39	78.0	2,416	1,506	62.3	5.14 *	.05	85	37	43.5	773	387	50.1	1.31	-.04	136	66	48.5	237	137	57.8	3.00	-.09			
ALL	188	127	67.6	5,029	3,195	63.5	1.27	.02	169	88	52.1	1,673	965	57.7	1.97	-.03	143	72	50.3	546	341	62.5	6.91 **	-.10			
<b>Middle</b>																											
6	234	137	58.5	4,100	2,364	57.7	0.07	.00	138	48	34.8	2,384	1,055	44.3	4.75 *	-.04	416	202	48.6	2,358	1217	51.6	1.32	-.02			
7	270	150	55.6	4,616	2,888	62.6	5.33 *	-.03	318	205	64.5	2,732	1,626	59.5	2.91	.03	146	102	69.9	2,790	1800	64.5	1.74	.02			
8	130	69	53.1	5,152	3,282	63.7	6.17 *	-.03	102	65	63.7	2,255	1,393	61.8	0.16	.01	209	126	60.3	2,760	1638	59.3	0.07	.00			
ALL	634	356	56.2	13,868	8,534	61.5	7.41 **	-.02	558	318	57.0	7,371	4,074	55.3	0.62	.01	771	430	55.8	7,908	4655	58.9	2.77	-.02			
<b>Senior</b>																											
9	73	30	41.1	2,851	1,399	49.1	1.81	-.02	28	8	28.6	3,000	1,308	43.6	2.55	-.03	605	259	42.8	1,319	562	42.6	0.01	.00			
10	312	125	40.1	3,509	1,196	34.1	4.53 *	.03	60	15	25.0	2,120	582	27.5	0.18	-.01	702	249	35.5	1,367	420	30.7	4.77 *	.05			
ALL	385	155	40.3	6,360	2,595	40.8	0.04	.00	88	23	26.1	5,120	1,890	36.9	4.32 *	-.03	1,307	508	38.9	2,686	982	36.6	2.00	.02			

*Note.* The results for Grade 3 students, all of whom are retained, are included above for the sake of completeness, but are excluded from the synthesis of the results. The gains displayed above are the Annual Learning Gains as defined by the Florida Department of Education for use in the state's school grading system. Chi-squared ( $\chi^2$ ) tests measure the difference in the proportion of the groups' students who made gains with, statistically significant differences indicated by asterisks (\*). Phi ( $\phi$ ) coefficients are effect sizes that indicate the direction and practical significance of those differences, which have been classified as .10 (weak), .30 (moderate), and .50 (strong) by Cohen (1988). Positive signs in this analysis favor Teach for America (TFA) teachers, while negative signs favor Non-TFA teachers.

<sup>a</sup>Teach for America. <sup>b</sup>Chi-squared may not be a valid test if any of the four cell sizes in a comparison is less than five.

\*  $p < .05$ . \*\*  $p < .01$ .

**Table 5. Comparison of TFA and Non-TFA Teachers' Students' Annual Learning Gains in Mathematics**

Grade	2008-09								2009-10								2010-11													
	TFA				Non-TFA				$\chi^2$	$\phi$	TFA				Non-TFA				$\chi^2$	$\phi$	TFA				Non-TFA				$\chi^2$	$\phi$
	Gain			N	Gain			N			Gain			N	Gain			N			Gain			N	Gain			N		
	N	n	%		N	n	%				N	n	%		N	n	%				N	n	%		N	n	%			
<b>Elementary</b>																														
3	5	4	80.0	282	218	77.3	0.02	.01	10	9	90.0	116	93	80.2	0.58	.07 <sup>b</sup>	13	13	100.0	63	52	82.5	2.65	.19 <sup>b</sup>						
4	203	123	60.6	2,150	1,255	58.4	0.38	.01	89	68	76.4	741	451	60.9	8.19**	.10	125	89	71.2	266	173	65.0	1.46	.06						
5	47	33	70.2	2,231	1,387	62.2	1.27	.02	38	25	65.8	781	430	55.1	1.69	.05	34	29	85.3	396	242	61.1	7.86**	.14						
ALL	255	160	62.7	4,663	2,860	61.3	0.20	.01	137	102	74.5	1,638	974	59.5	11.90***	.08	172	131	76.2	725	467	64.4	8.64**	.10						
<b>Middle</b>																														
6	187	45	24.1	3,241	1,267	39.1	16.90***	-.07	330	134	40.6	2,228	883	39.6	0.11	.01	525	200	38.1	1938	601	31.0	9.45**	.06						
7	351	271	77.2	3,409	2,551	74.8	0.96	.02	384	290	75.5	2,380	1,773	74.5	0.18	.01	611	390	63.8	1991	1337	67.2	2.31	.03						
8	205	158	77.1	4,414	3,185	72.2	2.37	.02	372	282	75.8	2,410	1,816	75.4	0.04	.00	361	279	77.3	2327	1886	81.0	2.82	-.03						
ALL	743	474	63.8	11,064	7,003	63.3	0.07	.00	1,086	706	65.0	7,018	4,472	63.7	0.68	.01	1497	869	58.0	6256	3824	61.1	4.78*	.02						
<b>Senior</b>																														
9	--	--	--	--	--	--	--	--	237	170	71.7	3,318	2,365	71.3	0.02	.00	--	--	--	--	--	--	--	--						
10	239	159	66.5	2,245	1,492	66.5	0.00	.00	499	369	73.9	1,886	1,403	74.4	0.04	.00	614	432	70.4	956	598	62.6	10.10**	.08						
ALL	239	159	66.5	2,245	1,492	66.5	0.00	.00	736	539	73.2	5,204	3,768	72.4	0.22	.01	614	432	70.4	956	598	62.6	10.10**	.08						

Note. The results for Grade 3 students, all of whom are retained, are included above for the sake of completeness, but are excluded from the synthesis of the results. The gains displayed above are the Annual Learning Gains as defined by the Florida Department of Education for use in the state's school grading system. Chi-squared ( $\chi^2$ ) tests measure the difference in the proportion of the groups' students who made gains, with statistically significant differences indicated by asterisks (\*). Phi ( $\phi$ ) coefficients are effect sizes that indicate the direction and practical significance of those differences, which have been classified as .10 (weak), .30 (moderate), and .50 (strong) by Cohen (1988). Positive signs in this analysis favor Teach for America (TFA) teachers, while negative signs favor Non-TFA teachers.

<sup>a</sup>Teach for America. <sup>b</sup>Chi-squared may not be a valid test if any of the four cell sizes in a comparison is less than five.

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



## **7. What were the principal conclusions of this report?**

Since 2008-09, the number of TFA teachers who serve in the District increased by more than two thirds, and became concentrated in half the number of schools. In middle and senior high schools, the proportion of advanced coursework assigned to TFA teachers has also increased in both reading and mathematics. When learning gains made by students of TFA teachers are compared with those made by students of Non-TFA teachers who taught similar courses, no consistent impact was found across the years of implementation. However, in mathematics once a larger portion of the TFA teachers' senior high assignments were devoted to advanced coursework, their students did achieve somewhat higher learning gains from 2009-10 to 2010-11.