

UNC Teacher Preparation Program Effectiveness: 2013 Program Report

University of North Carolina – Asheville

Carolina Institute for Public Policy

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Teacher Preparation Program Effectiveness Report: University of North Carolina – Asheville

The University of North Carolina (UNC) established an initial agenda of research in summer 2009 to address the entry, persistence, and quality of teacher and school leader preparation in North Carolina. Since that time, the teacher quality research has become a very important component of the University's efforts to prepare more, higher quality teachers and school leaders for NC public schools. The results are enabling the leaders on UNC campuses to identify areas of strength, potential areas of weakness, and the areas where their graduates' performance is comparable to the performance of teachers from a variety of other sources. The research should enable state education policy makers to understand where their policies and investments are paying off as well as where they are not achieving the intended purposes.

For this report, the research team at the Carolina Institute for Public Policy (CIPP) compared the performance of traditionally prepared undergraduates at University of North Carolina – Asheville to the performance of all other teachers in the state based on the education and training that qualified them to enter teaching. Detailed below are key features of these models, a summary of the findings, graphs of the results, and a table for teacher counts in each model.

Model Information

Data for this analysis spanned the 2006-07 through 2010-11 school years and was limited to teachers with less than five years of experience in order to best capture the effects of teacher preparation on student achievement. For this analysis, the performance of traditionally prepared undergraduates at University of North Carolina – Asheville is compared to the performance of all other teachers in North Carolina, classified according to the training that qualified them to enter the teaching profession. Models were generated across eleven grade-subject areas—elementary mathematics, reading, and science (5th grade); middle grades mathematics, reading, science (8th grade), and Algebra I; and high school Algebra I & II, English I, science (Biology and Physical Science) and social studies (U.S. History and Civics & Economics)—with control variables for prior student achievement and demographic information, classroom and teacher indicators including years of teaching experience and out-of-field teaching, and school level contextual factors. Supplementary Models that limited comparison to the performance of teachers in the same school were included to control for aspects of school context that could not be measured and controlled for in the models. Additionally, individual teacher-by-year value-added estimates were computed to provide information on program graduates by quintiles of effectiveness. Finally, results are reported only for teacher preparation categories with at least ten teachers in the grade-subject.

Summary of Results

The following key points summarize the results for traditionally prepared undergraduates from University of North Carolina – Asheville.

University of North Carolina – Asheville traditionally prepared undergraduates outperformed teachers from the following preparation categories:

- NC Private University Undergraduate Degree in Middle School Mathematics

University of North Carolina – Asheville traditionally prepared undergraduates underperformed:

- Other UNC Program Traditionally Prepared in High School Algebra I & II
- UNC Graduate Degree Prepared in High School Algebra I & II
- NC Private University Undergraduate Degree in High School Algebra I & II
- NC Private University Graduate Degree in High School English
- Out of State University Undergraduate Degree in High School Algebra I & II
- Out of State University Graduate Degree in High School English
- Teach For America in Middle School Reading, High School Algebra I & II, and High School English
- Visiting International Faculty in Elementary School Reading and Middle School Reading

Graphs

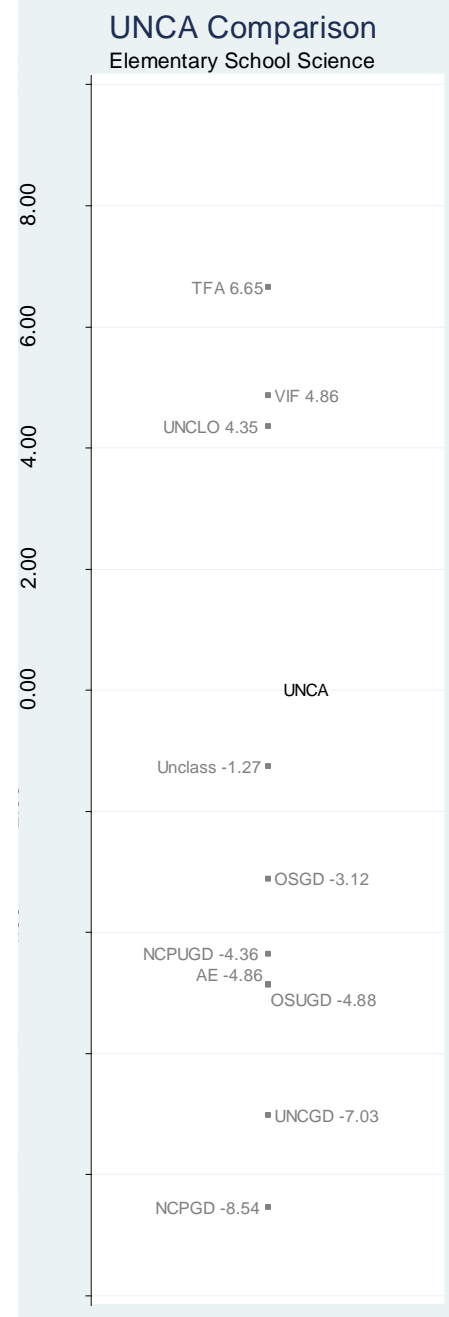
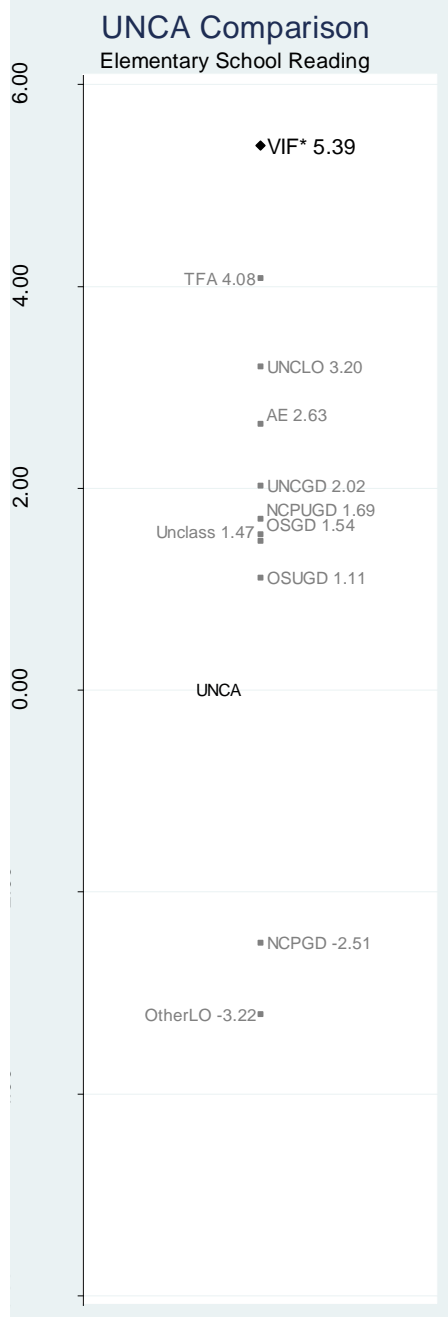
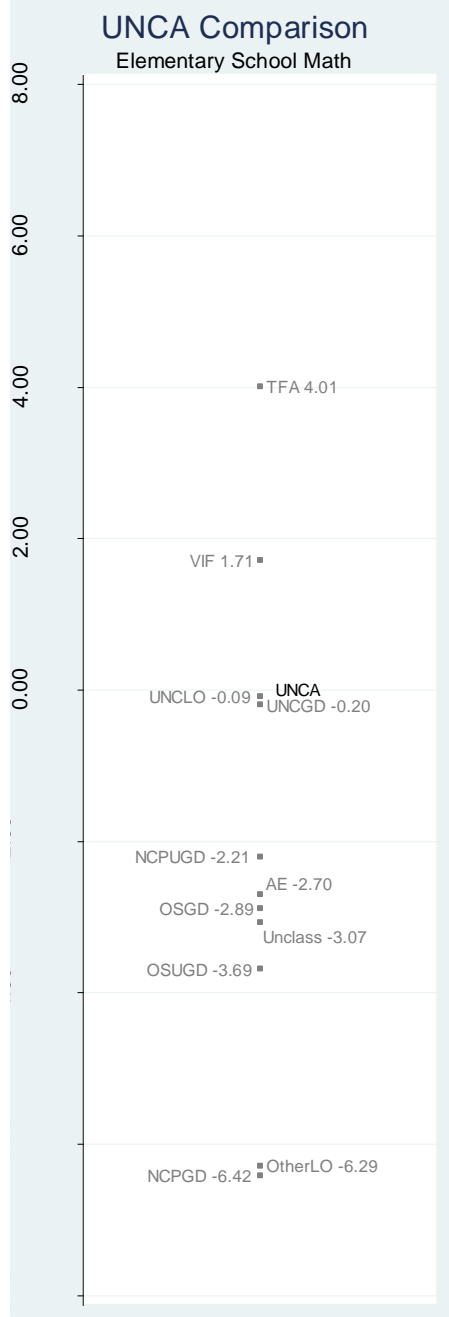
The following pages present graphical results at the elementary, middle, and high school levels. For interpretation, four points are important:

- 1) University of North Carolina – Asheville is set to zero for all graphs and each plot represents the relative difference between the indicated category and UNCA.
- 2) All model results have been multiplied by 100 to express findings as percentages of standard deviations.
- 3) Significant results are expressed with black labels, diamond symbols and asterisks; non-significant results are grayed out with square symbols
- 4) Scaling for graphs differs depending on the magnitude of results.

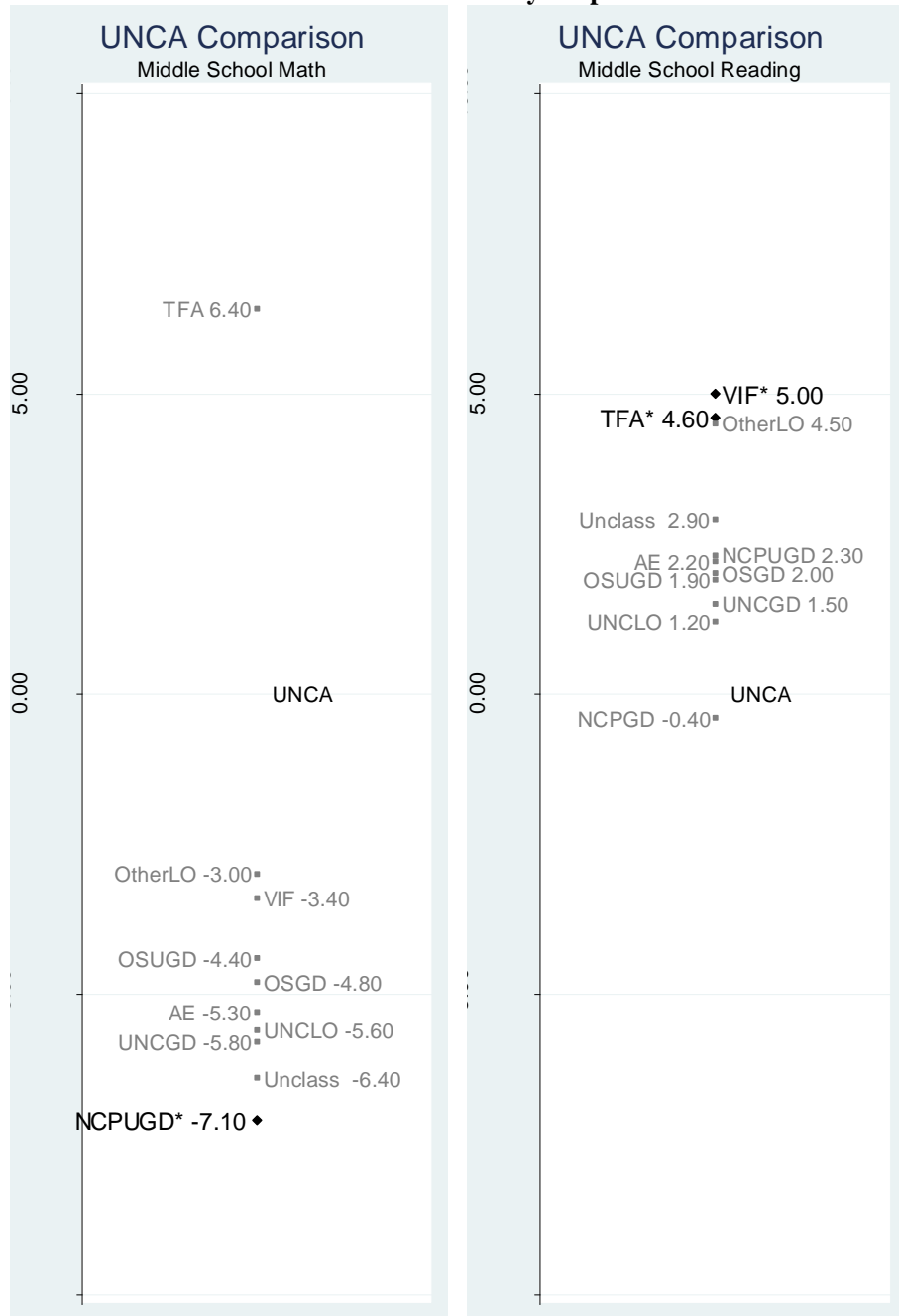
Table 1: Teacher Preparation Category Abbreviations

Teacher Preparation Category	Abbreviation
UNC Traditionally Prepared Undergraduates from Other UNC Institutions	OtherUNC
UNC Graduate Degree Prepared	UNCGD
NC Private University Undergraduate Degree Prepared	NCPUGD
NC Private University Graduate Degree Prepared	NCPGD
Out of State University Undergraduate Degree Prepared	OSUGD
Out of State University Graduate Degree Prepared	OSGD
UNC Licensure Only	UNCLO
Other Licensure Only	OtherLO
Teach For America	TFA
Visiting International Faculty	VIF
Alternative Entry	AE
Unclassifiable	Unclass

Elementary School Results: UNCA Traditionally Prepared Teachers vs. All Other Teacher Categories with 5 Yrs. Experience or Less (2006-07 through 2010-11)



Middle School Results: UNCA Traditionally Prepared Teachers vs. All Other Teacher Categories with 5 Year Experience or Less (2006-07 through 2010-11)



High School Results: UNCA Traditionally Prepared Teachers vs. All Other Teacher Categories with 5 Yrs. Experience or Less (2006-07 through 2010-11)

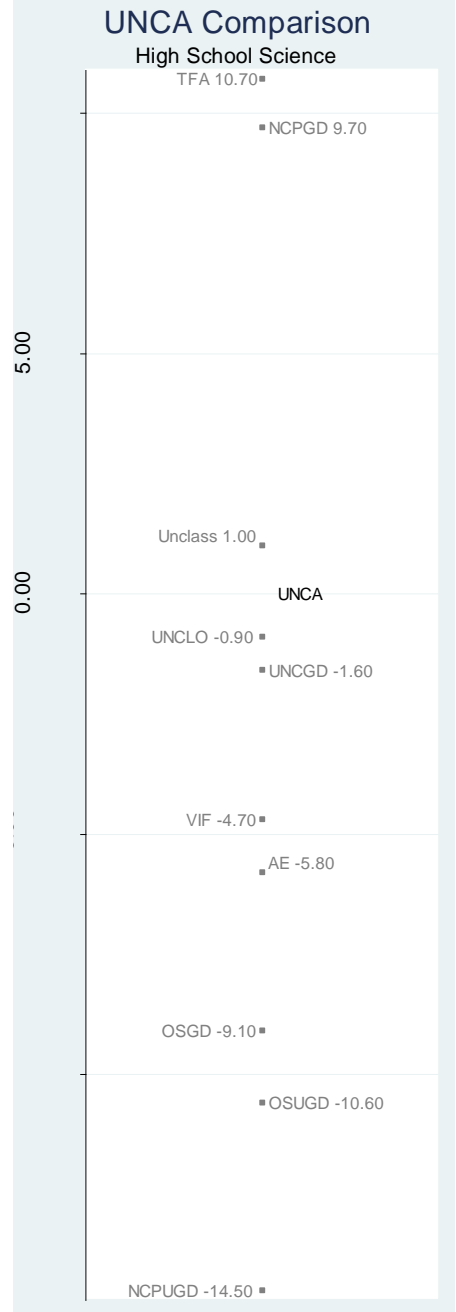
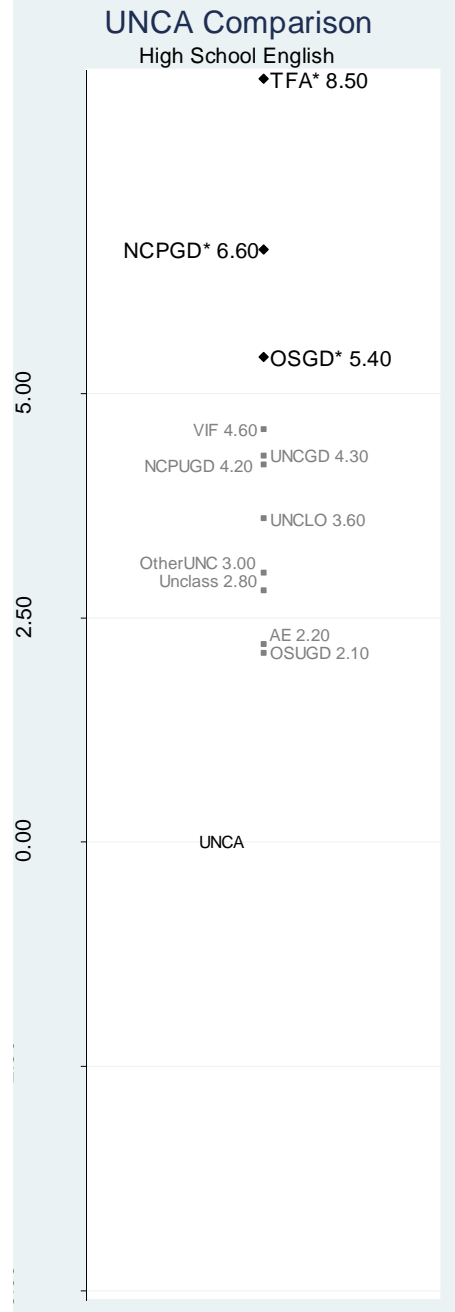
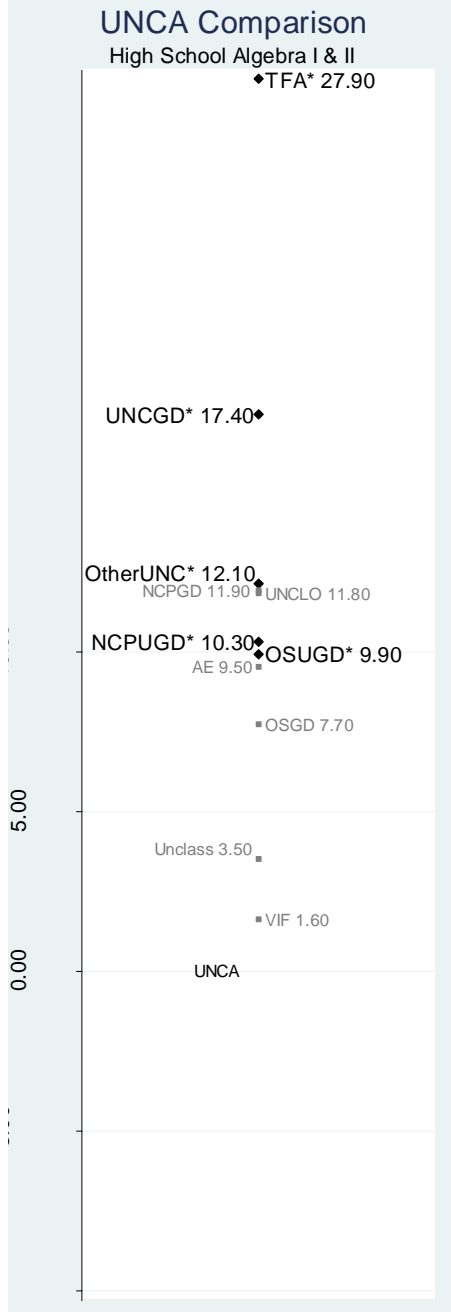
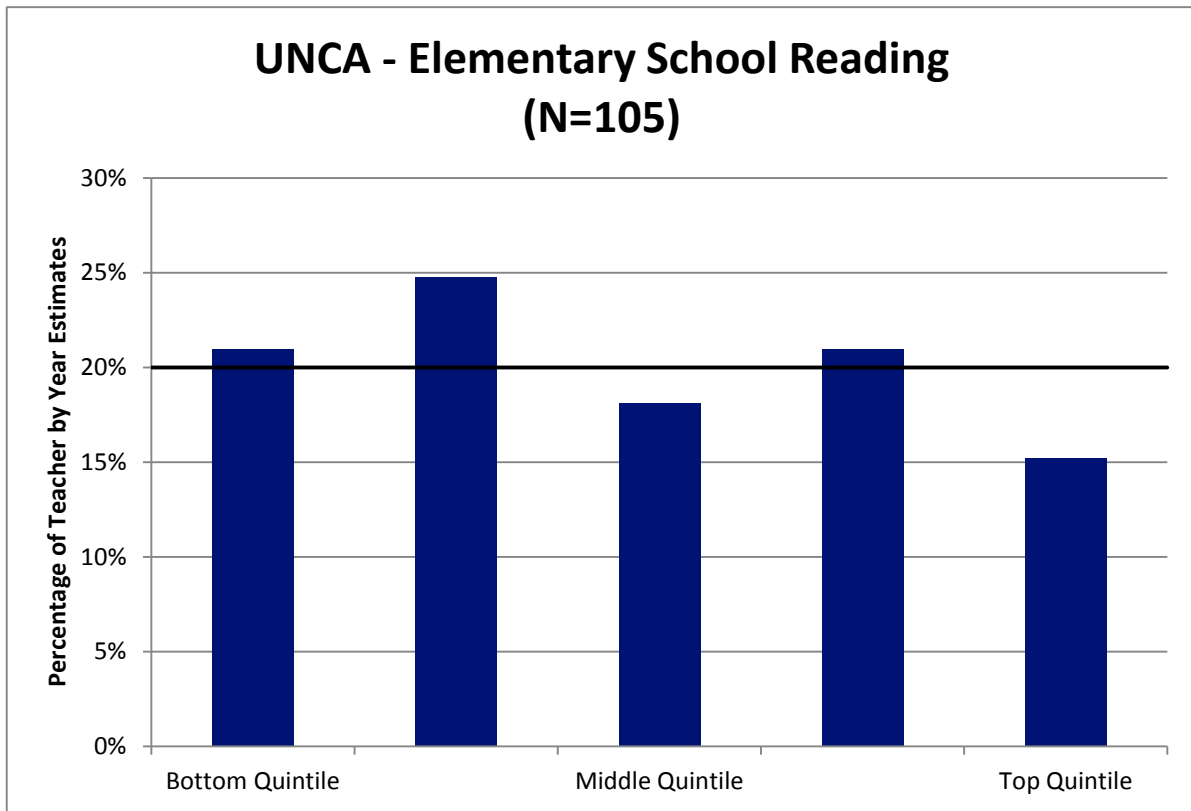
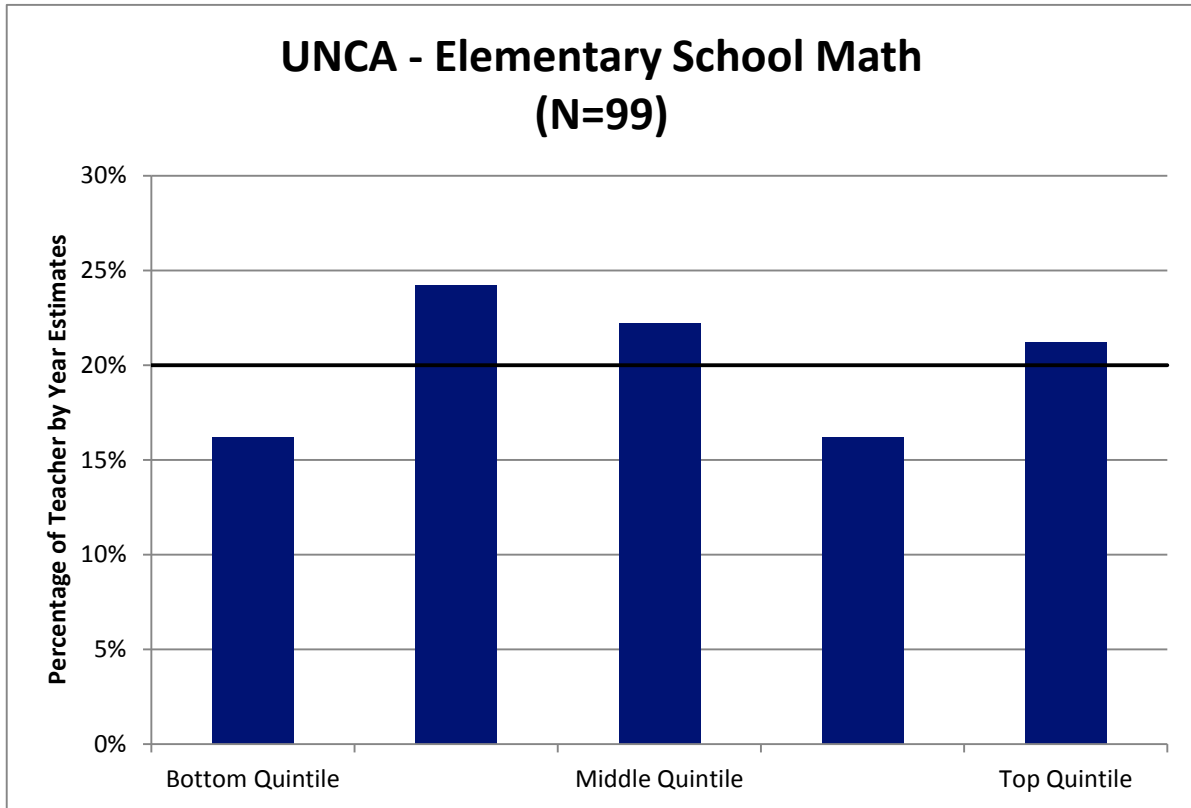


Table 2: Teacher Counts by Preparation Category, Grade Level, and Subject

Teacher Preparation Category	ES Math	ES Read	ES Science	MS Math	MS Read	MS Science	MS Algebra I	HS Algebra I & II	HS English I	HS Science	HS Social Studies
UNCA	46	46	15	10	17	2	4	14	19	13	7
Other UNC	3504	3502	1006	929	958	188	185	647	488	207	510
UNC Graduate Degree Prepared	134	134	37	24	68	10	5	53	105	52	108
NC Private Undergraduate Degree Prepared	1454	1454	377	223	219	28	20	176	119	44	145
NC Private Graduate Degree Prepared	39	39	16	8	15	2	3	27	29	16	31
Out of State Undergraduate Degree Prepared	3133	3131	797	772	826	212	136	371	287	188	323
Out of State Graduate Degree Prepared	687	687	175	157	217	52	36	105	98	101	105
UNC Licensure Only	122	122	34	36	49	6	5	12	34	17	47
Other Licensure Only	33	33	3	5	13	1	1	5	4	7	2
Teach For America	123	123	36	102	116	38	19	76	64	58	47
Visiting International Faculty	215	215	53	96	74	15	14	39	36	26	1
Alternative Entry	762	759	175	1067	1295	406	184	731	607	727	427
Unclassifiable	187	187	45	42	58	12	7	23	33	24	59

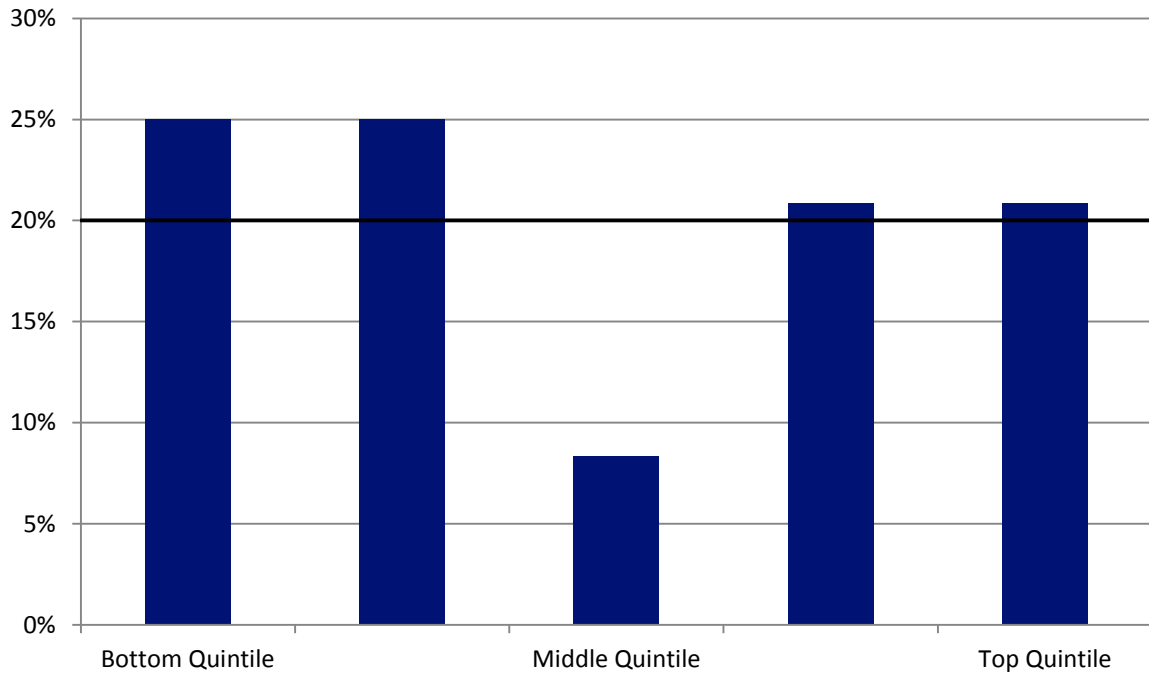
Note: Cells highlighted in grey have less than ten teachers and therefore do not have any results reported.

Distribution of Program Graduates by Effectiveness¹

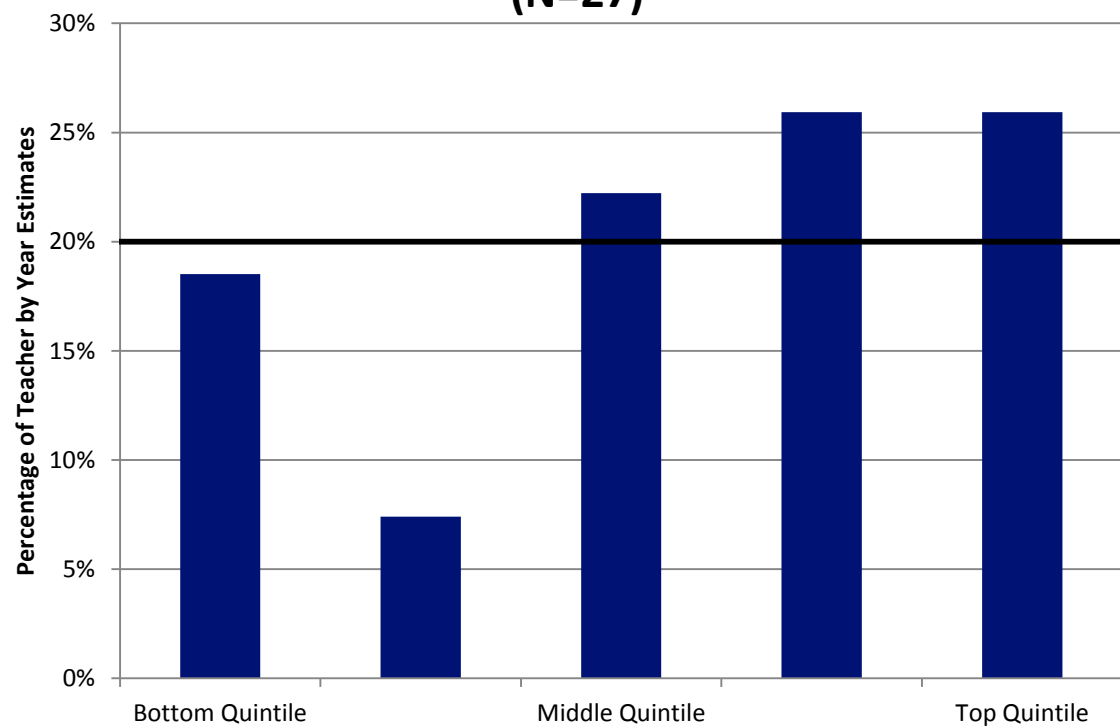


¹ Expected value of each quintile is 20%

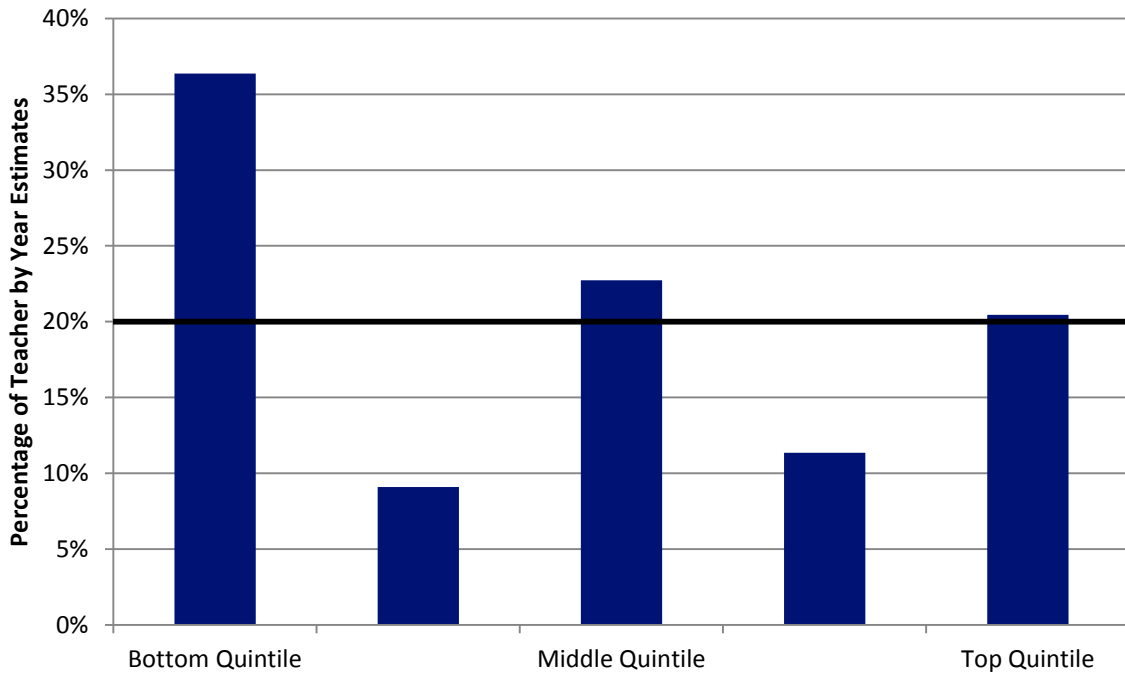
UNCA - Elementary School Science (N=24)



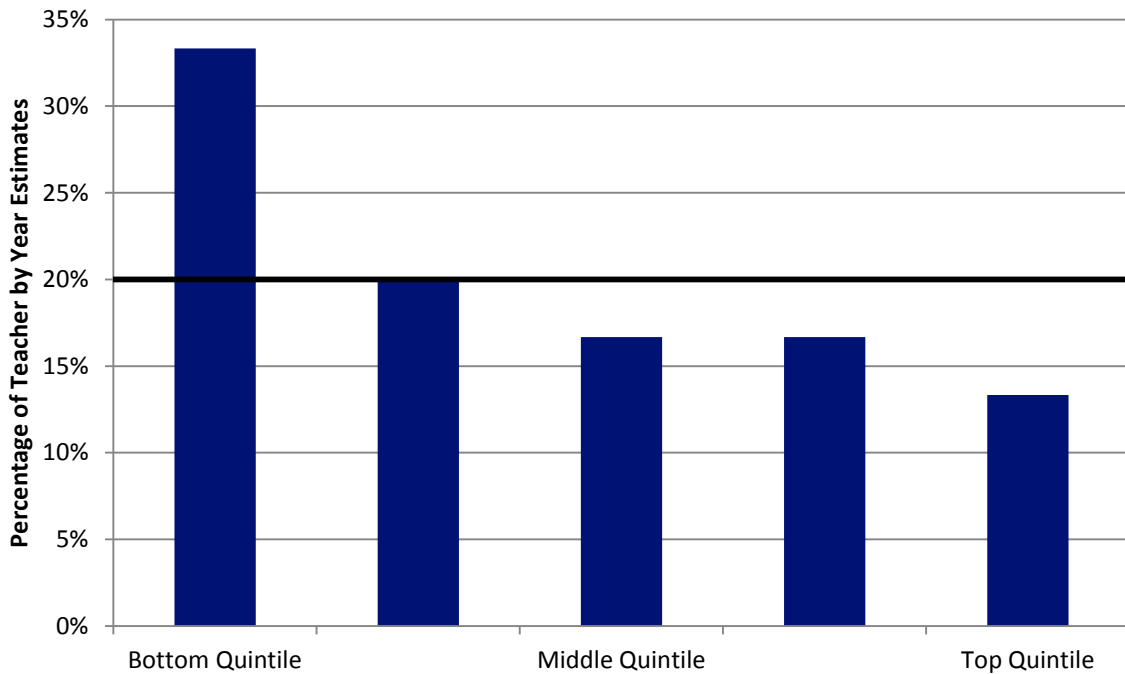
UNCA - Middle School Math (N=27)



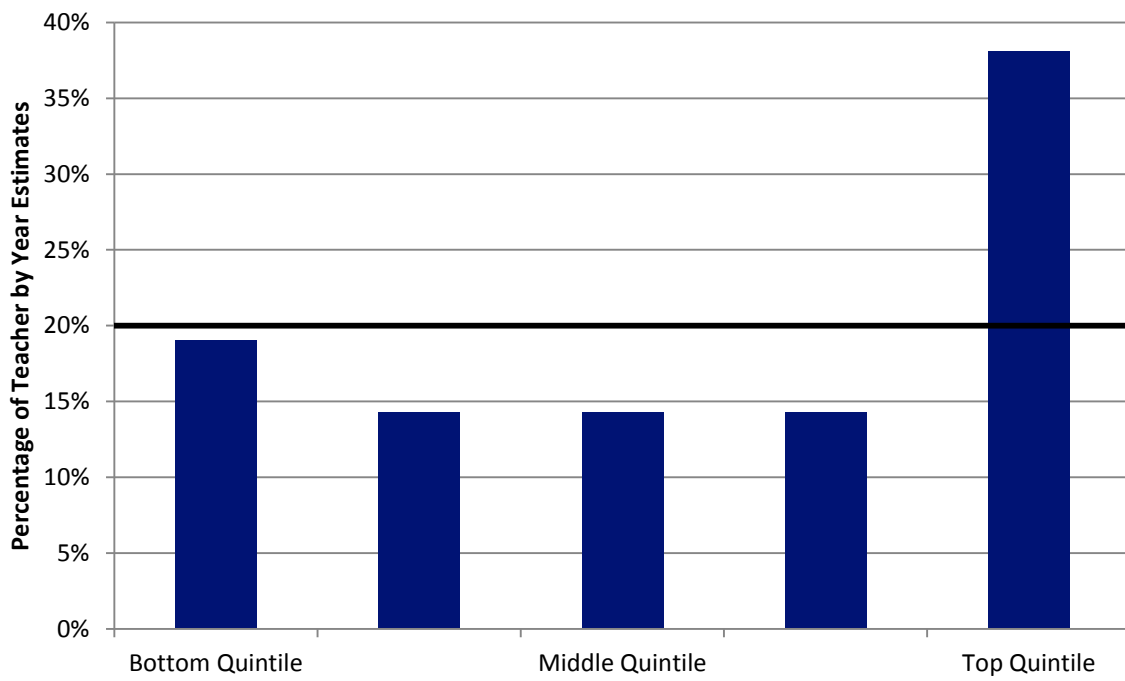
UNCA - Middle School Reading (N=44)



UNCA - High School Algebra I & II (N=30)



UNCA - High School Science (N=21)



Top Hiring Districts for Program Graduates University of North Carolina – Asheville

Early Career Graduates (< 5 Years' Experience)		All Program Graduates	
Elementary School			
Buncombe County Schools	25.53%	Buncombe County Schools	25.00%
Henderson County Schools	14.89%	Henderson County Schools	10.87%
Burke County Schools	6.38%	McDowell County Schools	5.43%
Guilford County Schools	4.26%	Burke County Schools	4.35%
Asheville City Schools	4.26%	Asheville City Schools	3.26%
Transylvania County Schools	4.26%	Transylvania County Schools	3.26%
		Winston-Salem/Forsyth County Schools	3.26%
		Durham Public Schools	3.26%
		Rutherford County Schools	3.26%
% Employed by Top 6 Districts¹	59.57%	% Employed by Top 9 Districts¹	61.96%
Middle School			
Buncombe County Schools	14.71%	Buncombe County Schools	19.35%
Asheville City Schools	8.82%	Asheville City Schools	8.06%
Henderson County Schools	5.88%	Henderson County Schools	4.84%
Alexander County Schools	5.88%	Guilford County Schools	4.84%
Pamlico County Schools	5.88%	Madison County Schools	4.84%
		Caldwell County Schools	4.84%
% Employed by Top 5 Districts¹	41.18%	% Employed by Top 6 Districts¹	46.77%

¹A number of districts hired 1-2 program graduates

Top Hiring Districts for Program Graduates University of North Carolina – Asheville

Early Career Graduates (< 5 Years' Experience)		All Program Graduates	
High School			
Buncombe County Schools	29.03%	Buncombe County Schools	28.30%
Charlotte-Mecklenburg Schools	6.45%	Charlotte-Mecklenburg Schools	5.66%
Henderson County Schools	6.45%	Henderson County Schools	5.66%
Rutherford County Schools	4.84%	Catawba County Schools	4.72%
		McDowell County Schools	4.72%
		Madison County Schools	3.77%
		Burke County Schools	3.77%
		Rutherford County Schools	2.83%
		Wake County Public School System	2.83%
		Gaston County Schools	2.83%
% Employed by Top 4 Districts¹	46.77%	% Employed by Top 10 Districts	65.09%

¹A number of districts hired 1-2 program graduates

Appendix: UNCA Traditionally Prepared Teachers vs. All Other Teacher Categories with 5 Years' Experience or Less, Teaching in the Same School (2006-07 through 2010-11)

Compared to teachers in the same school, University of North Carolina – Asheville traditionally prepared undergraduates outperformed:

- NC Private University Undergraduate Degree in Middle School Mathematics

Compared to teachers in the same school, University of North Carolina – Asheville traditionally prepared undergraduates underperformed:

- UNC Graduate Degree Prepared in High School Algebra I & II
- NC Private University Graduate Degree in High School Algebra I & II
- Teach For America in Elementary School Mathematics, Elementary School Reading, Middle School Mathematics, Middle School Reading, High School Algebra I & II, High School English
- Visiting International Faculty in Elementary School Reading, Middle School Reading
- Alternative Entry in Middle School Reading

See the following pages for results from models which limit comparisons to teachers in the same schools. University of North Carolina – Asheville is set to zero for all tables and each value represents the relative difference between teachers prepared by the marked category and UNCA traditionally prepared teachers, in average student test scores (expressed in standard deviations).

Table A.1: Elementary School: UNCA Traditionally Prepared Teachers vs. All Other Teachers in the Same School with 5 Years' Experience or Less

UNCA as Reference	Elementary School Math		Elementary School Reading		Elementary School Science	
	Value	Standard Error	Value	Standard Error	Value	Standard Error
Other UNC Program Traditionally Prepared	0.002	0.025	0.031	0.021	-0.050	0.051
UNC Graduate Degree Prepared	0.016	0.029	0.044	0.024	-0.076	0.063
NC Private University Undergraduate Degree	-0.010	0.026	0.029	0.021	-0.099	0.052
NC Private University Graduate Degree	-0.054	0.038	-0.005	0.029	-0.081	0.083
Out of State Undergraduate Degree	-0.019	0.025	0.021	0.021	-0.093	0.052
Out of State Graduate Degree	-0.018	0.026	0.026	0.021	-0.062	0.054
UNC Licensure Only	0.007	0.029	0.044	0.023	-0.017	0.056
Other Licensure Only	-0.068	0.041	-0.040	0.031	NR	NR
Teach For America	0.081*	0.032	0.052*	0.026	-0.030	0.066
Visiting International Faculty	0.046	0.030	0.069*	0.024	0.078	0.064
Alternative Entry	-0.007	0.027	0.034	0.022	-0.089	0.055
Unclassifiable	-0.013	0.029	0.023	0.023	-0.013	0.062

Table A.2: Middle School: UNCA Traditionally Prepared Teachers vs. All Other Teachers in the Same School with 5 Years' Experience or Less

UNCA as Reference	Middle School Math		Middle School Reading	
	Value	Standard Error	Value	Standard Error
Other UNC Program Traditionally Prepared	-0.025	0.029	0.036	0.019
UNC Graduate Degree Prepared	-0.025	0.038	0.028	0.021
NC Private University Undergraduate Degree	-0.069*	0.029	0.036	0.020
NC Private University Graduate Degree	NR	NR	0.021	0.031
Out of State Undergraduate Degree	-0.033	0.029	0.034	0.019
Out of State Graduate Degree	-0.040	0.031	0.031	0.020
UNC Licensure Only	-0.034	0.036	0.030	0.021
Other Licensure Only	NR	NR	0.056	0.033
Teach For America	0.082*	0.035	0.057*	0.022
Visiting International Faculty	-0.023	0.032	0.080*	0.024
Alternative Entry	-0.034	0.028	0.038*	0.019
Unclassifiable	-0.062	0.037	0.032	0.022

Table A.3: High School: UNCA Traditionally Prepared Teachers vs. All Other Teachers in the Same School with 5 Years' Experience or Less

UNCA as Reference	High School Algebra I & II		High School English I		High School Science	
	Value	Standard Error	Value	Standard Error	Value	Standard Error
Other UNC Program Traditionally Prepared	0.083	0.055	0.001	0.022	-0.071	0.083
UNC Graduate Degree Prepared	0.160*	0.061	0.013	0.024	-0.003	0.088
NC Private University Undergraduate Degree	0.064	0.056	0.007	0.023	-0.140	0.089
NC Private University Graduate Degree	0.138*	0.064	0.039	0.026	0.134	0.102
Out of State Undergraduate Degree	0.047	0.055	0.000	0.023	-0.116	0.085
Out of State Graduate Degree	0.019	0.063	0.020	0.025	-0.146	0.086
UNC Licensure Only	0.071	0.074	0.009	0.024	-0.069	0.090
Other Licensure Only	NR	NR	NR	NR	NR	NR
Teach For America	0.286*	0.066	0.059*	0.030	0.056	0.095
Visiting International Faculty	-0.094	0.069	0.026	0.044	-0.075	0.094
Alternative Entry	0.056	0.056	-0.004	0.023	-0.077	0.082
Unclassifiable	-0.056	0.076	0.010	0.028	0.023	0.088