APPENDIX WW

THE UNIVERSITY OF NORTH CAROLINA

REPORT ON UNC PRODUCTIVITY OF INITIALLY LICENSED TEACHER EDUCATION GRADUATES AND ALTERNATIVE LICENSURE COMPLETERS FOR 2010-2011

The University of North Carolina General Administration

June 2012

CONSTITUENT INSTITUTIONS OF THE UNIVERSITY OF NORTH CAROLINA

ASU	Appalachian State University
ECU	East Carolina University
ECSU	Elizabeth City State University
FSU	Fayetteville State University
NCA&T	North Carolina Agricultural & Technical State University
NCCU	North Carolina Central University
NCSU	North Carolina State University
UNCA	University of North Carolina at Asheville
UNC-CH	University of North Carolina at Chapel Hill
UNCC	University of North Carolina at Charlotte
UNCG	University of North Carolina at Greensboro
UNCP	University of North Carolina at Pembroke
UNCW	University of North Carolina at Wilmington
UNCSA	University of North Carolina School of the Arts
WCU	Western Carolina University
WSSU	Winston-Salem State University
NCSSM	North Carolina School of Science and Mathematics

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I. EXECUTIVE SUMMARY

Elementary and secondary school enrollment in the U.S. has risen by 19 percent since the mid 1980's. The number of new teacher hires has increased at an even faster rate of 48 percent. Teacher retirement and turnover of first year teachers have also increased. In North Carolina the need for new teachers is driven by two factors; student population in the state and the need to replace teachers who leave. Of these, replacing leavers is the primary factor (90% +/-) influencing teacher supply and demand. Responding to school staffing issues at a local district level or policy associated with teacher supply and demand at a state or national level is an enormous and complex challenge for educators and leaders charged with the responsibility. Supplying the number of appropriately qualified elementary through secondary teachers that meet the needs of North Carolina's 115 school districts and 2,512 public and charter schools is a highly decentralized and complex challenge for local educators and for state policy makers.

UNC teacher education programs are responding to these challenges through several strategic efforts aimed at preparing more and better teachers and school leaders for the public schools of North Carolina; recruitment, preparation, new teacher support, and teacher quality research. The results of these efforts are evidenced in research findings and in the increase of teachers eligible for an initial teaching license produced by UNC schools, colleges, and departments of education over the past five years.

UNC institutions increased the overall productivity of traditional teacher education graduates, graduate-level initial licensees, and alternative licensure completers from 4,003 in 2006-07 to 4,436 in 2010-2011. This trend suggests a relatively steady rate of increase; however, there was a slight decline in 2010-2011 which is most likely attributable to cumulative effects of the economic downturn. UNC's teacher quality research results reveal that UNC undergraduate prepared teachers have greater impacts on K12 student achievement and perform better than teachers from many other routes of preparation. Increased productivity in these programs contributes to a comparative advantage in the teaching labor force for NC public schools.

This report provides information about teacher supply and demand trends at national and state levels, as well as detailed information about the productivity of initially licensed teachers by UNC's fifteen teacher education programs.

II. TEACHER SUPPLY AND DEMAND AT THE NATIONAL AND STATE LEVEL

The critical shortage of teachers available to fill elementary and secondary classroom vacancies has captured the attention of education leaders and policy-makers at national and state levels for more than a decade. Public elementary school enrollment (prekindergarten through grade 8) is projected to increase by 7 percent between 2010 and 2019. Public secondary school enrollment (grades 9 through 12) is expected to increase 4 percent between 2010 and 2019. Overall, total public school enrollment is expected to increase 6 percent between 2010 and 2019 (US DOE, 2003, 2009, 2010). Concerns about teacher shortages and workforce supply and demand have been written about extensively since the early 1980s (National Commission on Excellence in Education, 1983, 1996, 1997, 2003). As a result of improved research and data collection at national and state levels, a clearer picture of the teaching labor force has emerged. Analysis of this information reveals elementary and secondary school teachers are the second largest degreed occupation in the United States, making up 4% of the entire civilian workforce (Ingersoll, 2003; USDOE, 2003, 2009, 2010). In 2010, 3.2 million practicing public school teachers and 0.5 million private school teachers were employed in kindergarten through twelfth grade classrooms across the nation (US DOE, 2010). North Carolina alone employed just over 100,500 elementary and secondary school teachers in 2009-2010. The number in North Carolina is projected to increase to over 110,000 by 2017 (UNC Workforce Analysis, 2011). The magnitude and size of the public school teaching workforce, kindergarten through twelfth grade in North Carolina and across the nation is considerably large. Responding to school staffing issues at a local district level or policy associated with teacher supply and demand at a state or national level is an enormous and complex challenge for educators and leaders charged with the responsibility. Supplying the number of appropriately qualified elementary through secondary teachers that meet the needs of North Carolina's 115 school districts and 2,512 public and charter schools is a highly decentralized and complex challenge for local educators and for state policy makers.

Analysis of supply and demand trends in the teacher labor market is particularly complex when viewed nationally. Ingersoll (2003) estimates that approximately one third of the nation's

teaching workforce "transitions into, between, or out of schools" annually, characterizing the phenomenon as a "revolving door" of workforce flows (p. 11). Coincident to, and in part a result of the effect of workforce flows described by Ingersoll, American schools hired 284,000 new teachers in 2006 (US DOE, 2009). By the year 2018, the number of new hires in schools is expected to increase 26% at the national level to 357,000 (US DOE, 2009). Ingersoll (2010) further describes two significant trends about the national teaching force; the graying effect and the greening effect. The graying effect depicts the modal age of employed teachers as 41 in 1987-1988 compared to the modal age of 55 in 2007-2008 twenty years later. More specifically, the age distribution of the teaching force is now two-peaked; 24-28 and 54-60. The younger peak (24-28) reinforces the second trend. The greening effect is evidenced by the change in years of teaching experience, from the modal years of experience in 1987-88 at 15 years, to the modal years of experience 2007-2008 at 1 year. These trends dramatically impact the national labor market and add further complexity to responding to school staffing issues.

Workforce analysis completed each year by UNC General Administration (UNCGA) projects the annual number of newly licensed teachers needed in North Carolina based on historical data and it identifies other reliable labor market supply sources in the State that regularly contribute to teacher supply and demand (UNC Workforce Analysis, 2011). North Carolina's projections in 2010-11 were at 12,350 or the need for approximately 12,000 additional teachers each year to fill classroom vacancies. Within five years the number will increase to almost 14,000 (UNCGA, 2011). The need for new teachers in North Carolina is driven by two factors; student population in the state and the need to replace teachers who leave. Of these, replacing leavers is the primary factor (90% +/-) influencing teacher supply and demand. Approximately 33 percent of North Carolina's supply of new teachers is prepared by constituent institutions of the University of North Carolina (UNC), the state's single largest supply source of new teachers (UNC Teacher Quality Research – Teacher Portals Analysis, 2012). UNC's fifteen professional teacher preparation programs prepare approximately 4,400 prospective newly licensed teachers for the State each year. Results from the workforce study have been used to justify and substantiate the expansion of teacher productivity goals with each of UNC's fifteen campuses that have accredited teacher education programs.

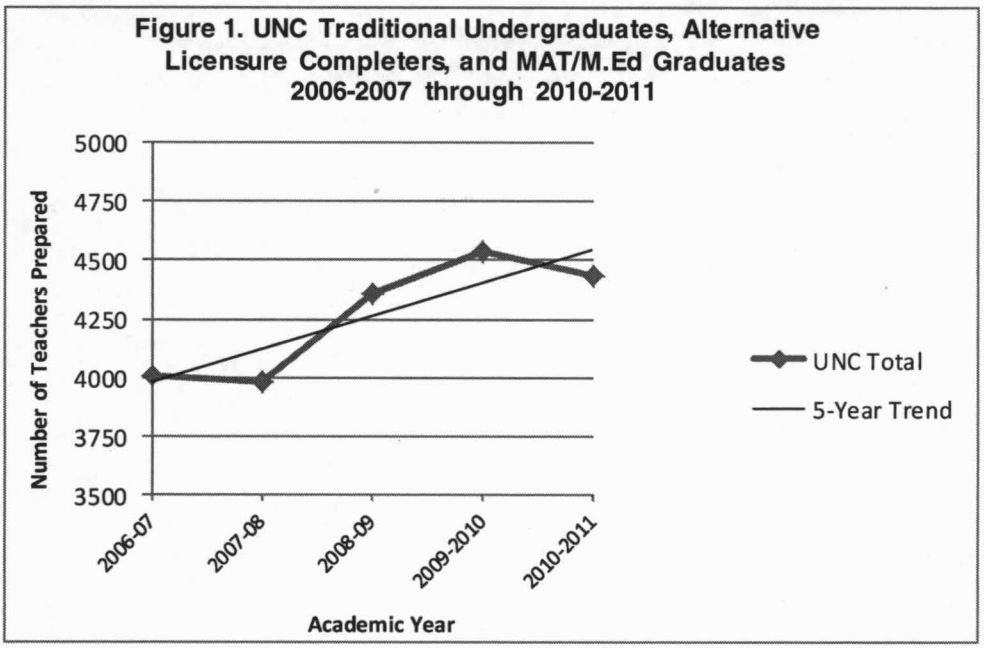
III. TRACKING UNC TEACHER PRODUCTIVITY OVER A FIVE-YEAR PERIOD

The most recent UNC teacher productivity data for 2010-2011 reflects a substantial increase in the number of teachers eligible for initial licensure produced by UNC schools, colleges and departments of education over the past five years. The overall rate of traditional teacher education graduates, graduate-level initial licensees, and alternative licensure completers increased from 4,003 in 2006-07 to 4,436 in 2010-2011 (see Table 1). Whereas the overall trend suggests a relatively steady rate of increase, there was a slight decline from 4, 538 in 2009-2010 to 4,436 in 2010-2011. This decline is most likely attributable to effects of the economic downturn, as well as budget reductions at the campus level.

Table 1. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT/M.Ed Graduates 2006-2007 through 2010-2011

Campus	2006-07	2007-08	2008-09	2009-2010	2010-2011
ASU*	465	475	580	609	552
ECU	737	751	796	799	743
ECSU*	50	56	72	74	79
FSU	133	108	141	170	129
NCA&T	87	52	108	94	107
NCCU	141	203	126	130	116
NCSU	320	279	362	313	394
UNCA*	66	59	72	80	83
UNC-CH	175	174	190	169	172
UNCC	595	623	566	627	676
UNCG*	492	414	451	519	427
UNCP	153	151	122	176	196
UNCW	354	334	396	390	378
WCU	206	273	330	335	322
WSSU	29	31	43	53	62
UNC Total	**4003**	**3983**	**4355**	**4538**	**4436**

General Notes:
1) 2010-2011 academic year includes the terms SII10, F10, S11, SI11
2) Traditional undergraduate and MAT/M.Ed data from UNC institutional data files
3) Data pulled using certification flags in student data files
4) Alternative completer data only includes individuals the institution recommended for licensure
5) MAT/M.Ed grad. are initial licensure completers and are not double counted in alt. completer totals



Teachers eligible for Initial licensure in high-need areas (mathematics education, science education, middle grades education, and special education) have increased significantly as well, from 1,006 to 1,452 over this same period of time (see Table 2). This increase represents an important shift in focus from responding to overall statewide licensure needs to a more focused strategy on meeting the most critical needs of K12 schools across the state. Despite trying economic times, campus recruitment efforts remain successful and continue to contribute to UNC's overall goal of preparing more and better teachers and school leaders for North Carolina's public schools.

Table 2. High Need Licensure Areas: Mathematics, Science Middle Grades and Special Education 2006-2007 through 2010-2011

Campus	2006-07	2007-08	2008-09	2009-10	2010-11
Mathematics (Middle & Secondary)	256	225	327	357	336
Science (Middle & Secondary)	188	183	281	267	301
Middle Grades (Includes Math & Science)	196	166	414	492	420
Special Education	366	321	345	352	395
UNC Total	**1006**	**895**	**1367**	**1468**	**1452**

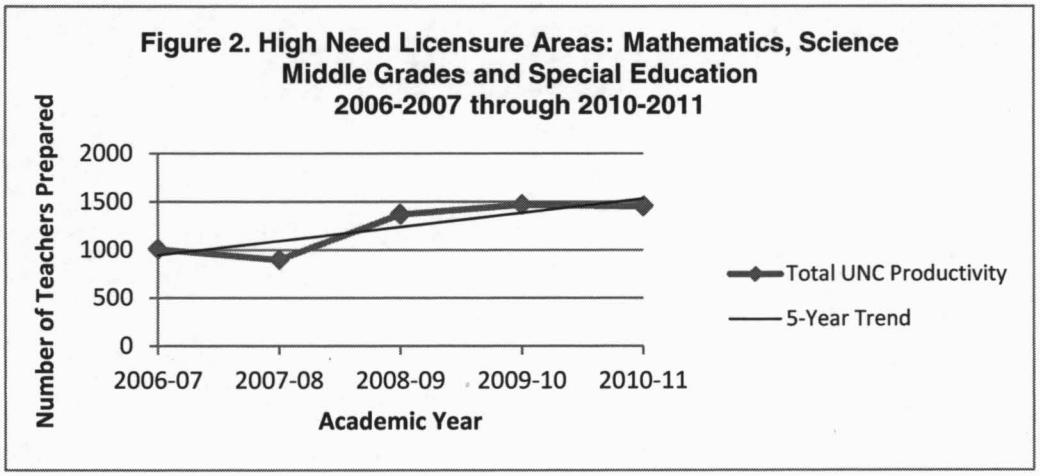


Figure 2. High Need Licensure Areas: Mathematics, Science
Middle Grades and Special Education
2006-2007 through 2010-2011
Number of Teachers Prepared
2000
1500
1000
500
0
2006-07
2007-08
2008-09
2009-10
2010-11
Academic Year
Total UNC Productivity
5-Year Trend

IV. PRODUCTIVITY OF TRADITIONAL TEACHER EDUCATION GRADUATES IN 2010-2011

UNC teacher education programs have increased the number of teacher education graduates eligible for initial licensure at the undergraduate level by 890 from 2002-2003 (base year for accountability measure) to 2010-2011. This represents a system-wide increase of approximately 45% (see Table 3). When disaggregated by campus, the majority of institutions have increased undergraduate teacher productivity. The largest headcount increases are at ASU (167), NCSU (124), UNCG (105), and ECU (104), all increasing by more than 100 graduates. ASU produced the most traditional teacher education graduates in 2010-2011 (535), with ECU (458), UNCG (323), UNCC (304) UNCW (285), and NCSU (239) also producing a significant number in this category as well.

An additional measure of growth in productivity is the percent increase over the base year. This varies widely by campus, reflecting the campuses' starting point and its capacity to rapidly increase enrollment and program graduates. By this measure, five campuses (WSSU, NCSU, ECSU, UNCA, and WCU) have all experienced significant growth of traditional graduates, increasing productivity by over 65% from 2002-2003 to 2010-2011. Growth in UNC's increase of undergraduate prepared teachers also influences teacher quality in NC's public schools. In UNC's Teacher Quality research study that benchmarks the performance of teachers prepared by UNC's fifteen traditional undergraduate preparation programs, against the performance of teachers who entered through eleven other preparation pathways reveals that UNC traditionally prepared teachers have greater impacts and perform better than teachers from several other routes of preparation. Based on this outcome data, increasing productivity in UNC's undergraduate teacher education programs establishes a comparative advantage for the teaching labor force for NC public schools.

Table 3. Traditional Teacher Education Graduates: 2002-2011

Campus	Base Year 2002-03	2010-2011	Change Headcount	% Change
ASU*	368	535	167	45.38%
ECU	354	458	104	29.38%
ECSU*	28	58	30	>100.00%
FSU	73	99	26	35.62%
NCA&T	39	55	16	41.03%
NCCU	53	49	-4	-7.55%
NCSU	115	239	124	>100.00%
UNCA*	27	47	20	74.07%
UNC-CH	83	108	25	30.12%
UNCC*	213	304	91	42.72%
UNCG*	218	323	105	48.17%
UNCP	78	100	22	28.21%
UNCW	252	285	33	13.10%
WCU	111	188	77	69.37%
WSSU	2	56	54	>100.00%
UNC Total	**2014**	**2904**	**890**	**44.19%**

V. ALTERNATIVE LICENSURE COMPLETERS AND GRADUATE LEVEL INITIAL LICENSURE IN 2010-2011

Alternative licensure completers represent another constant supply source of teachers in North Carolina. These individuals typically have a baccalaureate degree and are completing the required coursework and licensure requirements to become a fully licensed teacher in the state. School districts in North Carolina can hire teachers who have not fully met the State's licensure requirements but are progressing on a path in meeting the requirements. These individuals are identified as *lateral entry teachers* by the NC State Board of Education (SBE). The SBE's definition of *lateral entry* implies current employment in a NC public school. The term *alternative entry* is utilized in UNC's analysis of teacher supply and demand to define the broader scope of individuals concurrently employed as a practicing public school teacher and seeking licensure, as well as individuals not employed but enrolled in an alternative preparation program leading to licensure. The North Carolina Department of Public Instruction (NCDPI) allows lateral entry teachers up to three years to complete all the course work needed to fully meet the requirements. In serving these individuals and other alternative licensure candidates, UNC teacher education programs write programs of study fulfilling SBE licensure requirements and enroll students to complete the university-based program. Similarly, the NCDPI Regional Alternative Licensure Centers (RALC) also develop programs of study in order to qualify lateral entry teachers for licensure in a particular field. The UNCGA tracks students enrolled in university-based alternative preparation programs on UNC campuses and other programs such as the Master of Arts in Teaching (MAT) degree that prepares initially licensed teachers. Only the individuals recommended for a license by a UNC teacher education program are counted in the productivity data. However, UNC institutions spend considerable time and effort in offering coursework to individuals completing licensure requirements through a RALC that are ultimately recommended for full licensure by a RALC.

Table 4 displays university-based alternative completers and MAT/M.Ed. initial licensure completers for 2010-2011. A total of 1,532 of these individuals fully completed a campus-based program of study and were recommended by a UNC institution for licensure. Of these, 389 were in graduate level programs that offer an initial licensure track while completing a master's

degree. It is important to note that not all UNC campuses have an approved graduate degree program such as an MAT or M.Ed. Leading all campuses in alternative program completers and MAT/M.Ed graduates were UNCC (372) and ECU (285). Five other campuses produced more than 90 alternative completers; NCSU (155), WCU (134), UNCG (104), UNCP (96) and, UNCW (93).

Table 4. Initial Licensure for Alternative Completers & MAT/M.Ed Graduates 2010-2011

Campus	Alternative Completers	MAT/M.Ed Graduates*	Total
ASU*	17	--	17
ECU	226	59	285
ECSU*	21	--	21
FSU	18	12	30
NCA&T	8	44	52
NCCU	53	14	67
NCSU	88	67	155
UNCA*	36	--	36
UNC-CH	12	52	64
UNCC*	372	0	372
UNCG*	66	38	104
UNCP	78	18	96
UNCW	66	27	93
WCU	79	55	134
WSSU	3	3	6
UNC Total	**1143**	**389**	**1532**

General Notes (applies to all tables and charts):

1) 2010-2011 academic year includes the terms SII10, F10, S11, SI11
2) Traditional undergraduate and MAT/M.Ed data from UNC institutional data files
3) Data pulled using certification flags in student data files
4) Alternative completer data only includes individuals the institution recommended for licensure
5) MAT/M.Ed grad. are initial licensure completers and are not double counted in alt. completer totals

Campus Notes:

1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C only provides initial licensure through an M.Ed. for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) UNC-C had 76 actual MAT graduates in 2009-10. These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.

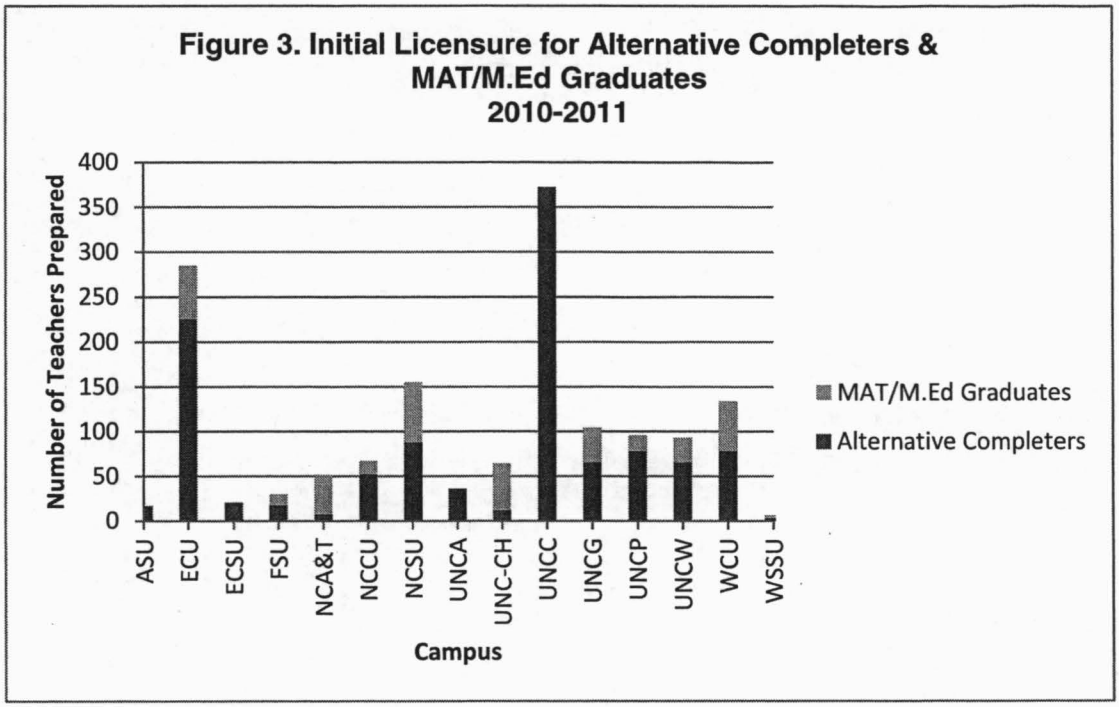


Figure 3. Initial Licensure for Alternative Completers & MAT/M.Ed Graduates 2010-2011
Number of Teachers Prepared
400
350
300
250
200
150
100
50
0
ASU
ECU
ECSU
FSU
NCA&T
NCCU
NCSU
UNCA
UNC-CH
UNCC
UNCG
UNCP
UNCW
WCU
WSSU
Campus
MAT/M.Ed Graduates
Alternative Completers

VI. OVERALL PRODUCTIVITY OF INITIALLY LICENSED TEACHERS IN 2010-2011

When traditional graduates from teacher education programs are combined with alternative licensure completers, and graduates from MAT/M.Ed programs offering initial licensure, UNC institutions produced 4,436 graduates and licensure completers (see Table 5). Productivity of initially licensed teachers in each of these categories varies considerably across campuses. Leading all campuses in overall productivity of initially licensed teachers was ECU with a combined total of 743. Two other campus's productivity exceeded 500; ASU (552) and UNCC (676). Other institutions producing over 300 initially licensed traditional graduates and alternative completers were UNCG (427), NCSU (394), UNCW (378) and WCU (322).

Table 5. UNC Traditional Undergraduates, Alternative Licensure Completers, and Initial Licensure MAT/M.Ed Graduates 2010-2011

Campus	Traditional Graduates	Alternative Completers	Graduate (Initial Licensure)	Total
ASU*	535	17	--	552
ECU	458	226	59	743
ECSU*	58	21	--	79
FSU	99	18	12	129
NCA&T	55	8	44	107
NCCU	49	53	14	116
NCSU	239	88	67	394
UNCA*	47	36	--	83
UNC-CH	108	12	52	172
UNCC*	304	372	0	676
UNCG*	323	66	38	427
UNCP	100	78	18	196
UNCW	285	66	27	378
WCU	188	79	55	322
WSSU	56	3	3	62
UNC Total	**2904**	**1143**	**389**	**4436**

Campus Notes:

1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C only provides initial licensure through an M.Ed. for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) UNC-C had 76 actual MAT graduates in 2009-10. These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.

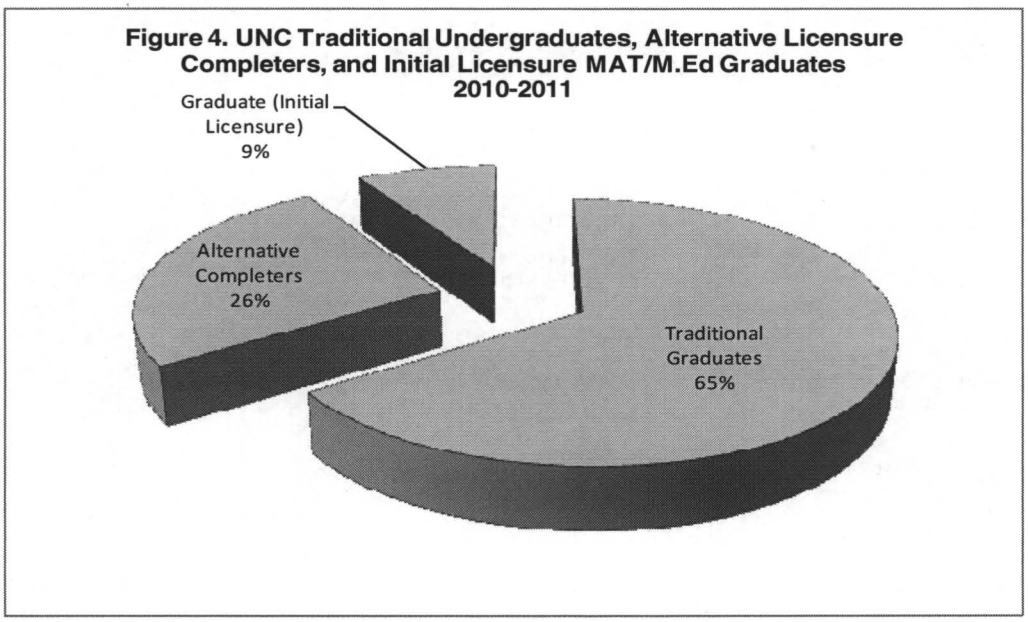


Figure 4. UNC Traditional Undergraduates, Alternative Licensure Completers, and Initial Licensure MAT/M.Ed Graduates 2010-2011
Graduate (Initial Licensure) 9%
Alternative Completers 26%
Traditional Graduates 65%

VII. TEACHER PRODUCTIVITY IN HIGH-NEED LICENSURE AREAS IN 2010-2011

Mathematics, Science, Middle Grades, and Special Education

In addition to overall productivity of initially licensed teachers in all content and licensure areas, UNC tracks increases in prospective teachers seeking licensure in high-need areas identified by the NCDPI. These areas in North Carolina are mathematics education, science education, middle grades education, and special education. In the area of middle grades there is an overlap with individuals who have a concentration in mathematics and/or science. Table 6 displays the aggregate of teacher productivity in each of these areas. UNC institutions prepared 1,452 initially licensed teachers in high-need licensure areas in 2010-2011. Tables 7-11 present this data by institution. In middle grades education some duplication is included in the total with graduates and alternative completers that also had a content concentration in mathematics, science or both.

Table 6. High Need Licensure Areas: Mathematics, Science, Middle Grades and Special Education 2010-2011

Campus	Traditional Graduates	Alternative Completers	MAT/M.Ed Graduates	Total
Mathematics	213	102	21	336
Science	105	154	42	301
Middle Grades	229	168	23	420
Special Education	153	194	48	395
UNC Total	**700**	**618**	**134**	**1452**

Figure 5. High Need Licensure Areas: Overall Productivity

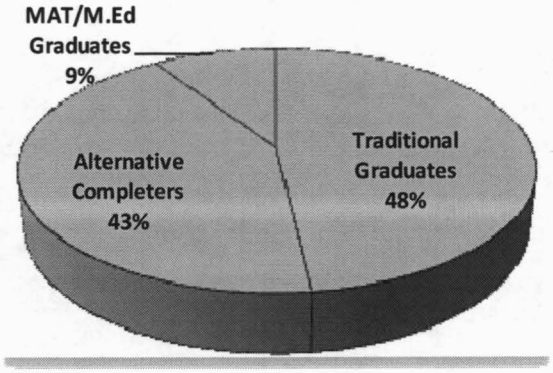
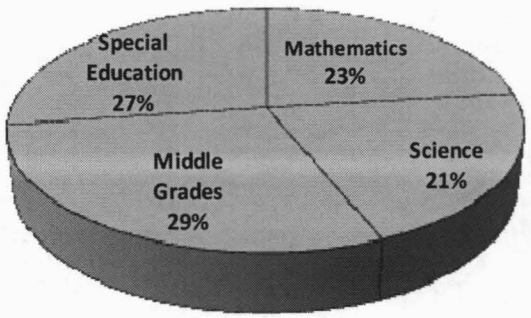


Figure 6. High Need Licensure Areas: Subject Area



Mathematics Productivity at the Secondary and Middle Grades Levels

Overall, UNC institutions produced 336 mathematics graduates and alternative licensure completers at the middle grades (Table 7) and secondary (Table 8) levels in 2010-11. Of those, a total of 153 were at the middle grades level and 183 were at the secondary level. When combining overall middle grades and secondary mathematics, UNCC produced the greatest number of mathematics education graduates and licensure completers (73), with NCSU (54), ECU (47), and ASU (38), also making a significant contribution in this high need area.

Table 7. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Middle Grades Mathematics 2010-2011

Campus	Traditional Middle Grades Mathematics (6-9)*	Alternative Middle Grades Mathematics (6-9)*	MAT Graduates with MG Mathematics (6-9)*	Traditional Combination Math & Science (6-9)	Alternative Combination Math & Science (6-9)	Total Traditional & Alternative Mathematics (6-9)
ASU*	7	0	--	4	1	12
ECU	10	8	1	2	1	22
ECSU*	3	0	--	0	0	3
FSU	4	0	0	0	0	4
NCA&T	--	--	--	--	--	--
NCCU	1	1	0	0	0	2
NCSU	8	4	0	1	0	13
UNCA*	0	0	--	0	1	1
UNC-CH	7	3	0	2	0	12
UNCC*	9	34	0	4	0	47
UNCG*	0	0	0	2	0	2
UNCP	7	0	0	2	0	9
UNCW	4	3	0	2	0	9
WCU	3	8	1	2	0	14
WSSU	2	0	1	0	0	3
UNC Total	**65**	**61**	**3**	**21**	**3**	**153**

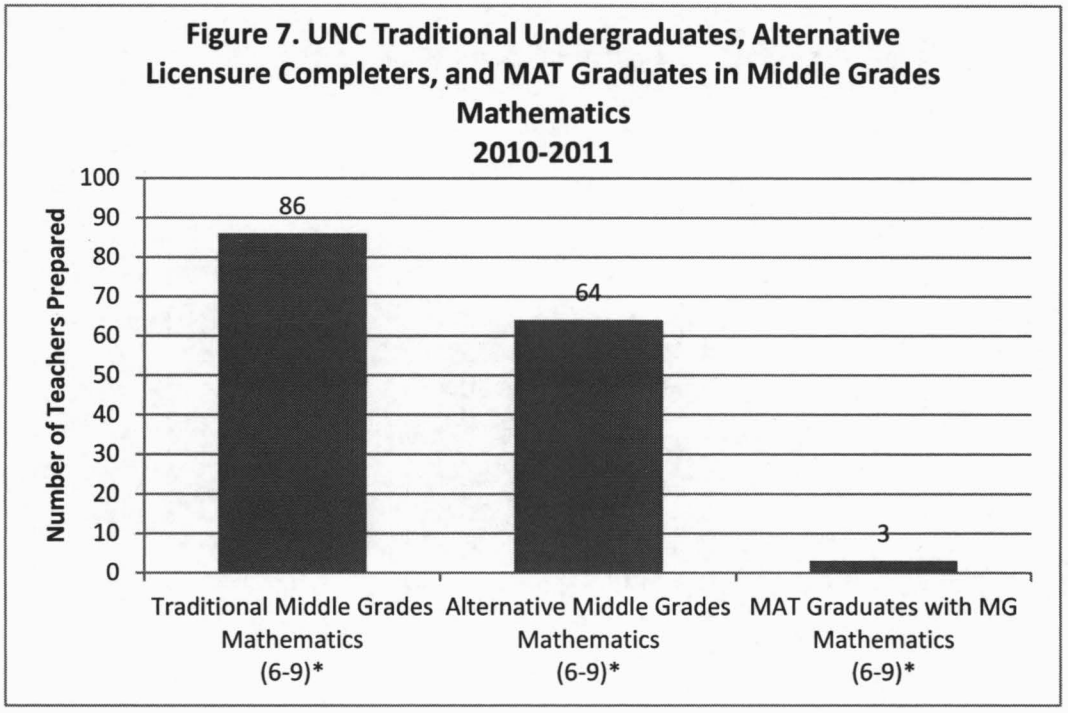
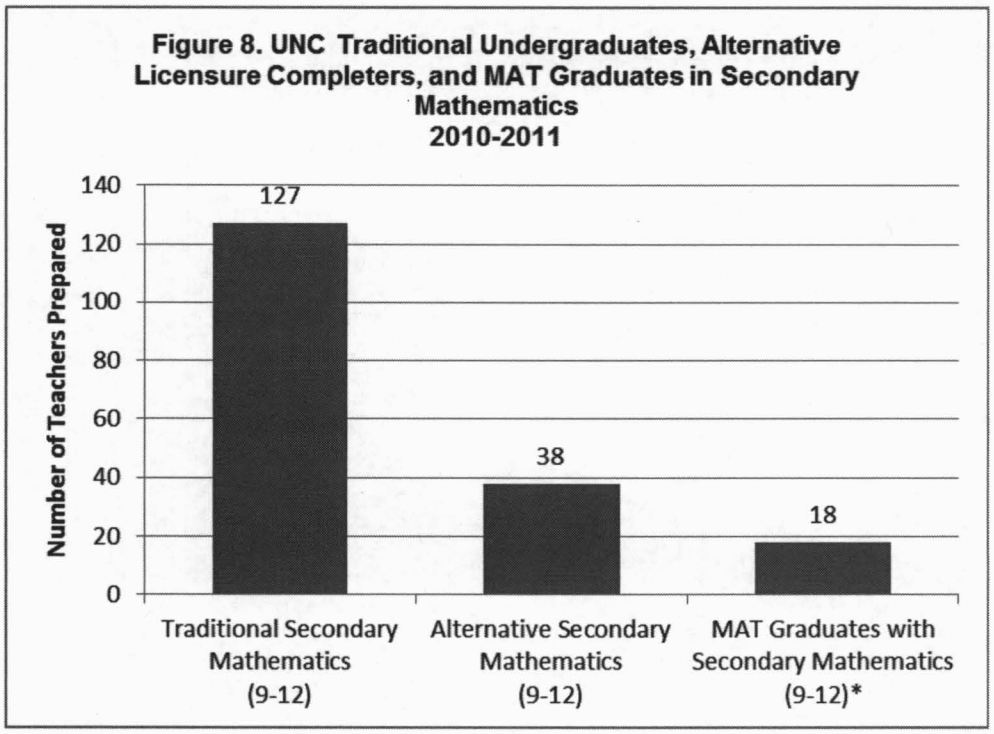


Table 8. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Secondary Mathematics 2010-2011

Campus	Traditional Secondary Mathematics (9-12)	Alternative Secondary Mathematics (9-12)	MAT Graduates with Secondary Mathematics (9-12)*	Total Traditional, Alternative, MAT Mathematics (9-12)
ASU*	26	0	--	26
ECU	16	9	0	25
ECSU*	5	0	--	5
FSU	5	1	0	6
NCA&T	3	0	1	4
NCCU	0	0	0	0
NCSU	29	6	6	41
UNCA*	10	0	--	10
UNC-CH	0	0	4	4
UNCC*	7	19	0	26
UNCG*	8	1	0	9
UNCP	1	0	1	2
UNCW	11	0	0	11
WCU	5	2	6	13
WSSU	1	0	0	1
UNC Total	**127**	**38**	**18**	**183**



Campus Specific Notes:

1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C provides initial licensure through an M.Ed. only for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) NCA&T does not offer middle grades licensure
6) UNC-C had 3 actual middle grades mathematics and 2 secondary mathematics MAT graduates in 2009-10.These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.
7) Traditional and alternative mathematics/science combination results have been divided between mathematics and science to avoid duplication.

APPENDIX WW

Science Productivity at the Secondary and Middle Grades Levels

UNC institutions collectively produced 301 science graduates and alternative licensure completers at the middle grades (Table 9) and secondary (Table 10) levels in 2010-2011, a total of 146 at the middle grades level and 155 at the secondary level. When combining overall middle grades and secondary science productivity, UNCC (77) prepared the greatest number of science education graduates and completers, with NCSU (48), and ECU (37) also producing a significant number of graduates and completers in this high need licensure area as well.

Table 9. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Middle Grades Science 2010-2011

Campus	Traditional Middle Grades Science (6-9)*	Alternative Middle Grades Science (6-9)*	MAT Graduates with MG Science (6-9)*	Traditional Combination Math & Science (6-9)	Alternative Combination Math & Science (6-9)	Total Traditional & Alternative Science (6-9)
ASU*	8	0	--	3	0	11
ECU	1	13	2	3	2	21
ECSU*	0	0	--	0	0	0
FSU	0	1	0	0	0	1
NCA&T	--	--	--	--	--	--
NCCU	0	2	0	0	0	2
NCSU	3	7	0	2	0	12
UNCA*	0	0	--	0	0	0
UNC-CH	5	1	0	2	0	8
UNCC*	7	31	0	5	0	43
UNCG*	2	8	1	2	0	13
UNCP	0	1	2	2	0	5
UNCW	2	10	0	2	0	14
WCU	2	10	3	1	0	16
WSSU	0	0	0	0	0	0
UNC Total	**30**	**84**	**8**	**22**	**2**	**146**

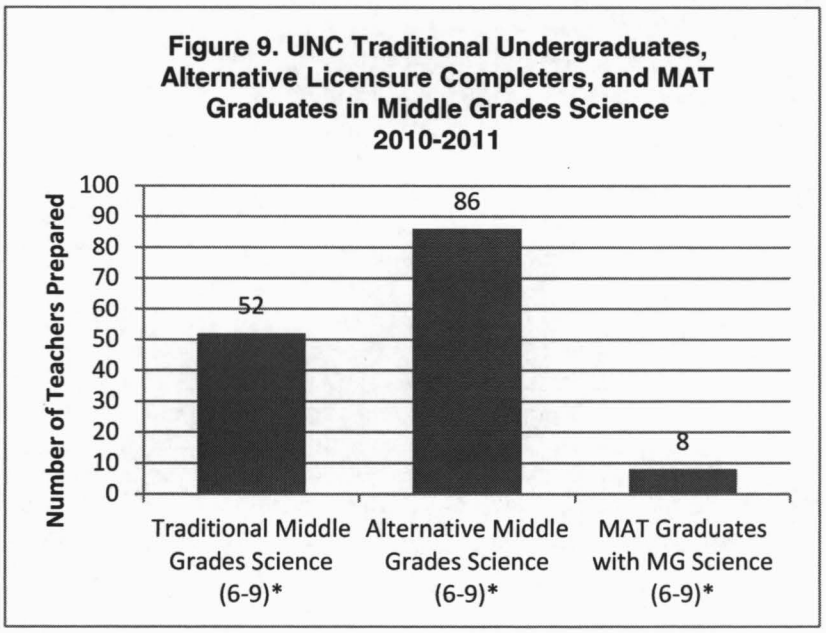
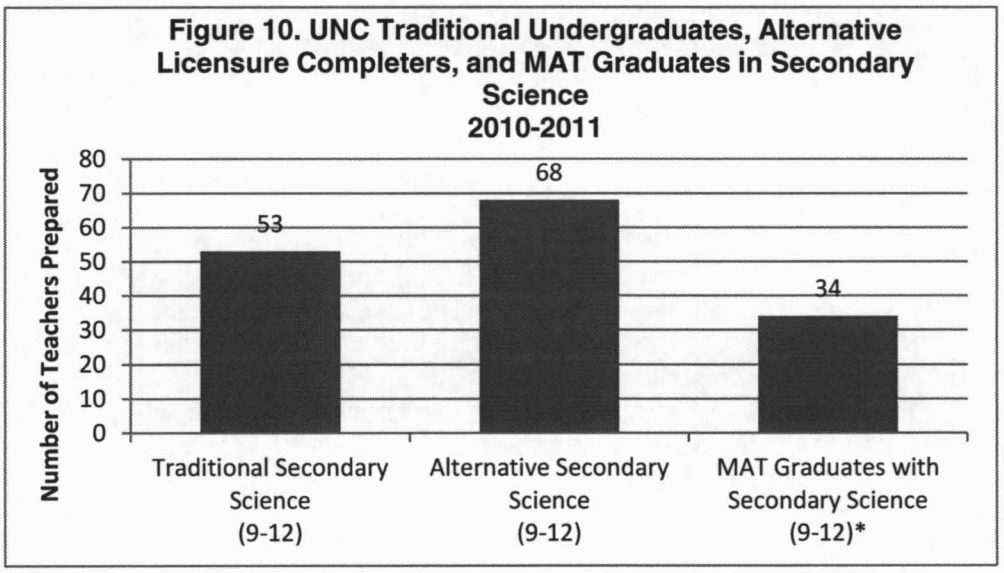


Table 10. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Secondary Science 2010-2011

Campus	Traditional Secondary Science (9-12)	Alternative Secondary Science (9-12)	MAT Graduates with Secondary Science (9-12)*	Total Traditional & Alternative, MAT Science (9-12)
ASU*	8	0	--	8
ECU	3	10	3	16
ECSU*	1	0	--	1
FSU	1	0	1	2
NCA&T	0	2	1	3
NCCU	1	0	0	1
NCSU	17	9	10	36
UNCA*	3	0	--	3
UNC-CH	10	2	4	16
UNCC*	4	30	0	34
UNCG*	0	7	0	7
UNCP	1	0	4	5
UNCW	0	5	8	13
WCU	4	3	3	10
WSSU	0	0	0	0
UNC Total	**53**	**68**	**34**	**155**



Campus Specific Notes:

1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C provides initial licensure through an M.Ed. only for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) NCA&T does not offer middle grades licensure
6) UNC-C had 4 actual middle grades science and 4 secondary science MAT graduates in 2009-10. These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.
7) Traditional and alternative mathematics/science combination results have been divided between mathematics and science to avoid duplication.

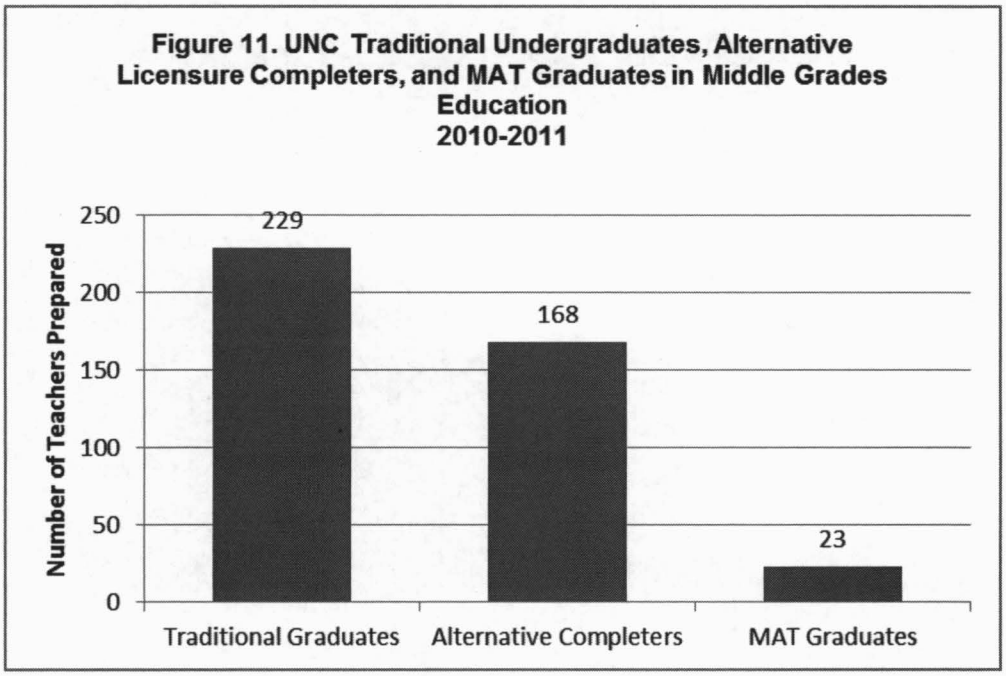
APPENDIX WW

Middle Grades Productivity

In middle grades licensure, UNC institutions produced 420 newly licensed graduates and completers in 2010-2011 (Table 11). Across all campuses, UNCC (121) produced the most middle grades education graduates and licensure completers, followed by three other institutions with high yield in this area; ECU (63), ASU (42), and NCSU (42).

Table 11. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Middle Grades Education 2010-2011

Campus	Traditional Graduates	Alternative Completers	MAT Graduates	Total
ASU*	40	2	--	42
ECU	23	35	5	63
ECSU*	3	2	--	5
FSU	8	0	1	9
NCA&T	--	--	--	--
NCCU	3	2	0	5
NCSU	40	0	2	42
UNCA*	0	0	--	0
UNC-CH	25	1	0	26
UNCC*	30	91	0	121
UNCG*	14	14	0	28
UNCP	12	2	5	19
UNCW	14	2	3	19
WCU	12	17	6	35
WSSU	5	0	1	6
UNC Total	**229**	**168**	**23**	**420**



Campus Specific Notes:

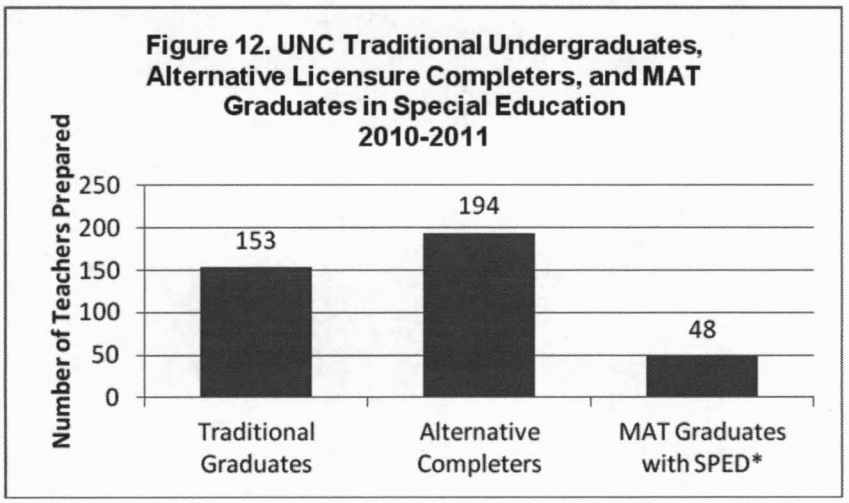
1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C provides initial licensure through an M.Ed. only for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) NCA&T does not offer middle grades licensure
6) UNC-C had 12 actual middle grades MAT graduates in 2009-10. These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.

Special Education Productivity

In special education, both general and adaptive licensure tracks, UNC institutions produced 395 initial licensure graduates and completers in 2010-2011 (Table 12). UNCC (78) lead all campuses with ECU (60), WCU (59), and UNCG (51) also producing a large number of special education licensed teachers. Not all campuses are approved to offer teacher licensure in all identified high-need areas.

Table 12. UNC Traditional Undergraduates, Alternative Licensure Completers, and MAT Graduates in Special Education 2010-2011

Campus	Traditional Graduates	Alternative Completers	MAT Graduates with SPED*	Total
ASU*	28	1	--	29
ECU	20	40	0	60
ECSU*	6	0	--	6
FSU	--	1	5	6
NCA&T	0	3	3	6
NCCU	--	8	14	22
NCSU	0	8	9	17
UNCA*	--	3	--	3
UNC-CH	--	5	0	5
UNCC*	27	51	0	78
UNCG*	36	15	0	51
UNCP	6	1	0	7
UNCW	16	26	0	42
WCU	12	32	15	59
WSSU	2	0	2	4
UNC Total	**153**	**194**	**48**	**395**



Campus Specific Notes:

1) ASU, ECSU, UNC-A, and UNC-G in the 2010-11 year did not offer a MAT degree program
2) UNC-G offers a M.Ed degree program that operates like an MAT offering initial licensure
3) UNC-A does not offer graduate degrees. They offer special education alternative licensure only
4) Only UNC-G and UNC-C have M.Ed programs that operate like an MAT offering initial licensure. UNC-C provides initial licensure through an M.Ed. only for their Birth-K program, all other initial licensure programs at the graduate level are offered through UNC-C's MAT degree program
5) FSU, NCCU, UNC-CH do not offer special education licensure through a traditional undergraduate program
6) UNC-C had 15 actual special education MAT graduates in 2009-10. These MAT graduates were backed out of the total because the individuals were issued an initial teaching license in a prior year and counted as an initially licensed alternative completer. This is to avoid duplicating the count of initially licensed teachers in the annual productivity report.

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