

ABSTRACT

Alisa Chapman. TEACHER PREPARATION COST STUDY: A COMPARATIVE ANALYSIS OF UNC SYSTEM-LEVEL FINANCIAL INPUTS AGAINST CAMPUS-LEVEL PRODUCTIVITY OUTPUTS (Under the direction of Dr. William Rouse) Department of Educational Leadership, July, 2009.

The University of North Carolina General Administration has required all constituent institutions with teacher education programs to expand their productivity goals to meet the state's teacher workforce needs. This study examined education program funding over a three-year period by analyzing system-level financial inputs and campus-level productivity outputs to determine if financial support in the form of budgeted faculty has increased or decreased relative to prospective teachers produced, SCHs produced, and education degrees conferred. The analysis provides information that could potentially impact funding streams for teacher preparation programs across the University. This research will assist policy-makers and higher education leaders, and enhance strategic planning efforts underway in the University aimed at addressing teacher supply and demand needs for the State.

TEACHER PREPARATION COST STUDY:
A COMPARATIVE ANALYSIS OF UNC SYSTEM-LEVEL FINANCIAL INPUTS
AGAINST CAMPUS-LEVEL PRODUCTIVITY OUTPUTS

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Alisa Chapman

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CHAPTER 1: INTRODUCTION

Research Topic

The critical shortage of teachers available to fill elementary and secondary classroom vacancies has commanded the attention of educational leaders and policy-makers at national and state levels for more than a decade. Teacher shortages and concerns over workforce supply and demand have been written about extensively since the early 1980s (National Commission on Excellence in Education, 1983; National Commission on Teaching and America's Future, 1996, 1997, 2003; Rhoton & Shane, 2006). In response to the elevated concern and absence of adequate data at the national level, the National Center for Educational Statistics (NCES) developed a *Schools and Staffing Survey* and a *Teacher Follow-up Survey* in the late 1980s to gather more accurate data for the study of school staffing issues and other workforce related problems (Rhoton & Shane). It is from these data and other U.S. Department of Education (USDOE) data sources on educational practice and policy, such as NCES' Integrated Postsecondary Educational Data System (IPEDS), that researchers have conducted further analysis and issued more accurate predictions around teacher supply and demand (Ingersoll, 2003).

As a result of improved data at national and state levels, a clearer picture of the teaching labor force has emerged. 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). In 2007,

3.2 million practicing public school teachers were employed in kindergarten through twelfth grade classrooms across the nation (US DOE, 2003; Hussar & Bailey, 2008). North Carolina alone employed just over 96,000 elementary and secondary school teachers in 2007. The number in North Carolina is projected to increase to over 110,000 by 2017. The data reveals the magnitude and size of the public school teaching workforce, kindergarten through twelfth grade, in North Carolina and across the nation is astoundingly 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 2,537 schools is a highly decentralized and complex challenge for local educators and for state policy makers.

Analysis of supply and demand in the teacher labor market is even more 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 285,000 new teachers in 2005. By the year 2017, the number of new hires in schools is expected to increase 28% at the national level (US DOE, 2003). North Carolina's

current projections are at 11,847 or the need for approximately 12,000 additional teachers each year to fill classroom vacancies. Within five years the number will increase to almost 13,000 according to workforce analysis conducted by the University of North Carolina General Administration (UNCGA) in 2008 (UNCGA, 2009). Approximately 33% 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 (UNCGA, 2008).

Consequently there is a need to examine how North Carolina will meet the labor market demand for new teachers. Of the constituent institutions, UNC's fifteen schools, colleges, and department of education collectively prepare just over 4,000 prospective new teachers annually for the State. Table 1 provides a disaggregate of the 4,003 traditional graduates, alternative licensure completers, and Master of Arts (MAT)/Master of Education (MEd) graduates completing requirements for an initial teaching license by constituent institution for 2006-07 (UNC General Administration, 2008).

UNC is comprised of seventeen constituent institutions: Appalachian State University (ASU), East Carolina University (ECU), Elizabeth City State University (ECSU), Fayetteville State University (FSU), NC Agricultural & Technical State University (NCA&T), North Carolina Central University (NCCU), North Carolina State University (NCSU), UNC Asheville (UNCA), UNC Chapel Hill (UNC-CH), UNC Charlotte (UNCC), UNC Greensboro (UNCG), UNC Pembroke (UNCP),

Table 1

*UNC Traditional Graduates, Alternative Completers and MAT/M.Ed Graduates,
2006-07*

UNC Institution	Traditional Graduates	Alternative Completers	MAT/M.Ed Graduates	Total
ASU	449	16	-	465
ECU	472	212	53	737
ECSU	27	23	-	50
FSU	73	60	*0	133
NCA&T	37	50	-	87
NCCU	71	52	18	141
NCSU	189	131	-	320
UNCA	28	38	-	66
UNCCH	78	30	67	175
UNCC	274	234	87	595
UNCG	369	85	38	492
UNCP	99	43	11	153
UNCW	299	40	15	354
WCU	136	26	44	206

Table 1

*UNC Traditional Graduates, Alternative Completers and MAT/M.Ed Graduates,
2006-07 (continued)*

UNC Institution	Traditional Graduates	Alternative Completers	MAT/M.Ed Graduates	Total
WSSU	24	5	-	29
Total	2,625	1,045	333	4,003

Note. UNC General Administration Report on Production of Teachers for 2006-2007. UNC institutions not authorized to offer a Masters of Arts in Teaching degree or a Masters of Education degree have no number listed in this column. FSU has an authorized MAT program but produced no MAT graduates in 2006-07.

UNC Wilmington (UNCW), Western Carolina University (WCU), Winston-Salem State University (WSSU), North Carolina School of Science and Mathematics (NCSSM), and the North Carolina School of the Arts (NCSA). Fifteen of UNC's seventeen constituent institutions have an accredited teacher preparation program; ASU, ECU, ECSU, FSU, NCA&T, NCCU, NCSU, UNCA, UNC-CH, UNCC, UNCG, UNCP, UNCW, WCU, and WSSU. Of the remaining two constituent institutions, NCSSM and NCSA, the NCSSM is a constituent high school and the NCSA offers both secondary and post secondary education.

The recent workforce analysis completed by the UNC General Administration 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 (UNCGA, 2009). The analysis has determined the approximate percentage of all new teachers that UNC should be producing on an annual basis if the state is to achieve greater equilibrium with teacher supply and demand at the state level, significantly reduce the classroom vacancy gap, and obtain greater authority of predicting the labor market flows within and among school districts across the state. 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 (UNCGA, 2009). Results have also refuted claims that UNC, the state's public university system, should be preparing 100% of the state's supply of new

teachers. The study indicates that UNC's constituent institutions should be producing approximately 54% of all new teachers in North Carolina by 2012-13, with the remaining 46% coming from other identified reliable labor market supply sources. Therefore, UNC's teacher education programs will need to increase the current teacher workforce contribution from 33% in 2006-07 to 54% over the next five years by 2012-13 to a minimum of 7,000 prospective new teachers annually to achieve the goal. With current productivity at 4,000 for the system, a difference of 3,000 prospective new teachers will need to be prepared through programmatic increases on UNC campuses. The remaining 46% or approximate 6,000 vacancies is projected to be reconciled through other reliable teacher supply sources in the state; North Carolina Private and Independent Colleges and Universities contribute between 600 and 1,000 prospective teachers each year, the North Carolina Department of Public Instruction's Regional Alternative Licensure Centers (RALCs) contribute close to 1,000 prospective teachers each year, approximately 2,500 new teachers each year come from out-of-state, and 1,800 teachers that were not teaching the prior year return to the profession annually.

Concern or Issue that Needs Solution

UNC teacher education programs have consistently over time reported insufficient resources and financial support to respond to the state's increasing teacher labor market demands and to adequately meet the increasing level of accountability from UNC General Administration to prepare more and better

teachers for the public schools of North Carolina. Therefore, the purpose of this study is to examine UNC teacher preparation program funding patterns over a three-year period through an analysis of state and system-level financial inputs and campus-level productivity outputs to determine if financial support in the form of budgeted faculty has increased or decreased relative to the productivity measured annually in UNC's Plan to Address the Shortage of Teachers in North Carolina (UNCGA, 2004a).

Justification of Importance

UNC constituent institutions are being held to high expectations in responding to the system's strategic priority to prepare more and better teachers and school leaders for the public schools of North Carolina. Three primary strategies have been identified to guide the system's efforts in responding to this overall priority. These strategies are recruitment, preparation, and better support to improve the retention of new teacher and school leaders. System and campus-level accountability plans have been developed for the first two of the three strategies; recruitment and preparation. The accountability plans have been organized and developed at the state level by the UNC General Administration and the UNC Deans' Council on Teacher Education, in consultation with the North Carolina Department of Public Instruction. The University of North Carolina Deans' Council on Teacher Education is composed of each of the fifteen education deans from UNC's constituent campuses and the University of North Carolina Vice President and Associate Vice President for Academic Planning and

University-School Programs with the UNC General Administration. Outcomes and accomplishments from the plans are reported to the University Of North Carolina Board Of Governors, shared with the North Carolina General Assembly and the North Carolina State Board of Education, and discussed with all levels of UNC campus leadership each year. The third strategic plan, new teacher and school leader support, is being finalized for UNC system implementation in 2009-10 should legislative funding be approved in the 2009-11 biennium budget by the North Carolina General Assembly.

To address the system's strategy to prepare more teachers, UNC has established an ambitious five-year accountability plan aimed at aggressively increasing the supply of new teachers available to address the state's needs. With each year progress in the accountability plan is measured, an additional year of projected productivity goals are added to the "rolling" plan so that there is always a five-year accountability plan in place. Projection models through 2020-21 for overall and high-need licensure areas were provided to the campuses to guide institutional planning efforts. UNC Chief Academic Officers were asked in spring 2008 to work with Education and Arts and Sciences Deans to set expanded productivity goals for the accountability plan out to 2012-13 for overall traditional teacher education graduates, overall alternative licensure completers, and traditional and alternative goals for identified high-need licensure areas. The system plan directs campuses to focus their attention on preparing more teachers in mathematics education, science education, middle grades education,

and special education. It further specifies to constituent institutions that UNC education and arts & sciences academic units will have a shared responsibility in meeting the goals established for mathematics and science high-need licensure areas, as well as a joint responsibility to assist in meeting the overall campus productivity goals.

Because current strategies for recruiting individuals into the prospective teacher pipeline were not strategically planned and organized nor robust enough to meet overall and specific productivity goals, the UNC Teacher Recruitment Initiative was launched to develop a strategic plan to coordinate teacher recruitment efforts with UNC constituent institutions (UNCGA, 2006). UNC General Administration partnered with Noel-Levitz, Incorporated, a leading authority in the United States in optimizing enrollment management on higher education campuses, to assist in developing recruitment plans for each UNC campus to attract more students into their teacher education programs. The plans are organized around market research that was conducted by Noel-Levitz and targeted at six market supply sources identified as having a high potential for entering the teaching profession; undergraduates on UNC campuses, North Carolina community college students, mid-career professionals seeking a career change, high school counselors, high school juniors and seniors, and military personnel and their spouses.

UNC's third strategic plan, addressing new teacher and school leader support, is directed toward establishing a formalized program of support for

beginning teachers for all new graduates and licensure completers of UNC teacher education programs that is focused on retention and ensures these new teachers are supported, monitored, and mentored in the first three years of service until a continuing license is issued (UNCGA, 2007). School leadership was not initially addressed in the teacher recruitment and preparation accountability plans. Further analysis of school leader supply and demand in North Carolina is being conducted by UNC General Administration and will be folded into to the currently established accountability plans for teachers when the workforce study is complete. Additionally, when the new teacher and school leader support plan is fully developed and funded, it will be implemented throughout the state but at the regional and local levels to assist North Carolina school districts in hiring, retaining, and developing high quality teachers and school leaders.

Deficiencies in Knowledge of the Problem

While significant attention has been directed to the analysis of statewide teacher supply and demand trends in North Carolina, minimal attention has been directed toward the analysis of academic program funding distributed to UNC teacher education programs and actual costs relative to teacher preparation program characteristics. A review of state-level financial inputs of teacher education program funding generated from the UNC enrollment growth funding model, in addition to a three-year historical analysis the distribution of campus funding and full-time equivalent faculty positions to teacher education programs

would significantly contribute to the University's strategic planning efforts. This research may help determine if UNC teacher education programs have been funded adequately, relative to their productivity, over the last three years of the system accountability plan implementation. Moreover, determining the cost of teacher preparation by campus will allow for budget projections to be generated for the expanded productivity goals for which each campus is being held accountable. Cost in this study is defined as the cost to the state of North Carolina as generated by the UNC enrollment growth funding formula by which UNC constituent institutions are funded.

Audiences That Will Benefit From the Research

An analysis of system and institutional-level financial support for UNC teacher education programs compared to current and projected productivity goals and overall education degrees conferred will define the costs for preparing teachers at UNC institutions, as well as provide important information that could potentially impact funding streams for teacher preparation programs across the University system. This research is intended to assist policymakers and higher education leaders, and to enhance UNC strategic planning efforts targeted at addressing teacher supply and demand needs for the State.

CHAPTER 2: LITERATURE REVIEW

This literature review is presented in three principal sections. The first section begins with an appraisal of seven seminal reports and studies released since the early 1980s that emphasize the importance of investing in teacher preparation and teacher quality. This section includes highlights of policy and legislation in North Carolina that have focused on teacher quality and quantity in response to influential national reports released over the prior two decades. The second section provides information on instructional costs and productivity data available to institutions of higher education through a national data sharing-consortium known as the Delaware Study, which the UNC General Administration utilizes in benchmarking costs of enrollment funding calculations for its constituent institutions. The third and final section is an examination of the ten empirical research studies identified through this literature review that are related to financial support for teacher preparation addressing equity and cost analysis studies.

Importance of Teacher Preparation and Teacher Quality Investments

The importance of investing in teacher preparation and teacher quality has been emphasized in educational research and policy reform in the United States since *A Nation at Risk* was released in 1983 by President Ronald Reagan's National Commission on Excellence in Education. This landmark report identified alarming *indicators and dimensions of risk* reflected in content, expectations, time and teaching in the United States educational system at the elementary through

post secondary levels and called for a national movement toward achieving greater excellence in education at all levels (National Commission on Excellence in Education, 1983; Darling-Hammond & Berry, 1988). Of the many recommendations put forth in the report, one entire section was devoted specifically to addressing teacher preparation and teacher quality. The Commission identified in its findings that an insufficient supply of academically prepared students were being recruited into the profession, teacher preparation programs were in need of substantial improvements, teacher working conditions were unacceptable and that a shortage of teachers existed in certain licensure areas (National Commission on Excellence in Education). The commission recommended that four-year colleges raise admissions standards and standardized achievement tests at key points throughout the elementary, secondary, and postsecondary continuum, particularly at the high school to college or work-ready transition point. The commission also recommended increasing teacher salaries to market-driven and performance-based rates with teachers being required to demonstrate competence in an academic discipline (National Commission on Excellence in Education). While *A Nation at Risk* pushed educational reform toward improving public education in the United States, policy actions at state and national levels were in part extensions of reforms initiated over prior decades with the exception of two areas; policy reform focused on improving technology competence of students and teachers and policy reform addressing teacher quantity and quality (Darling-Hammond &

Berry, 1988). Within two years of the report's release, a shift to teacher related policy was apparent with the development of "more than 700 pieces of state legislation focused on improving the teaching workforce" (Darling-Hammond & Berry, 1988).

Following the report *A Nation at Risk*, the Holmes Group, a national consortium of ninety six research universities with teacher education programs, released a series of reports as a catalyst for teacher quality and quantity improvement so egregiously identified as "disturbing inadequacies" in the United State educational system by the Commission's report in 1983. The first report from the Holmes Group, *Tomorrow's Teachers*, was released in 1986 and focused on necessary improvements in the preparation of teachers and strengthening teacher education program connections within the university and the K12 teaching profession (The Holmes Group, 1986). Subsequent reports released by the Holmes Group looked at the design of professional development schools in the release of *Tomorrow's Schools* in 1990, and in 1995 the report *Tomorrow's Schools of Education* addressed higher education reform needed to adequately support teacher preparation (The Holmes Group, 1986; The Holmes Group, 1990; The Holmes Group, 1995). While all three reports relate to the importance of investing in teacher preparation and teacher quality, the most relevant is the consortiums' initial report, *Tomorrow's Teachers*, from which five broadly cast goals were identified; Make teaching intellectually sound; Recognize differences in teachers' knowledge, skill, and commitment; Create relevant and

intellectually defensible standards of entry into teaching; Connect schools of education to the schools, and; Make schools better places for practicing teachers to work and learn (The Holmes Group, 1986). From these goals and based on the disciplined knowledge of the educators represented in the consortium, an agenda of action items were developed that might contribute directly to the teacher preparation and teacher quality problems identified in *A Nation at Risk*. Less clear, however, was how the action items would be financially shouldered by institutions of higher education and professional teacher education programs alike. In a critical review of the report, Hawley (1986) indicated that the financial costs of implementing the reform laid out in the report were largely ignored. While other researchers, such as Goodlad (1990) and Fullan (1982) have similarly written about the conditions needed to improve teacher education, few scholars have reported on the financial support necessary to reform and sustain high quality teacher preparation programs.

In 1996 the National Commission on Teaching and America's Future (NCTAF), chaired by then North Carolina Governor James B. Hunt Jr., released *What Matters Most: Teaching for America's Future*. This landmark report delivered a roadmap for recruiting, preparing, and supporting teachers in our nation's schools, acknowledging that the most important element of education reform was ensuring that every child has access to a "caring, competent, and qualified teacher (National Commission on Teaching and America's Future, 1996)." The report further addressed the financial means necessary to support

implementation of the recommendations by suggesting that a major portion of the cost could be managed through reallocation of resources and more efficient and effective investments in educational reform (National Commission on Teaching and America's Future, 1996). By 1996, teacher quality (i.e. the education and qualification of teachers) as an essential element in education reform that is aimed at improving student success had become more widely acknowledged because of reports such as the Holmes Group series and National Commission's initial report (Hirsch, 1998). Mindful of the barriers to implementation, the National Commission benchmarked their goal of educational reform for achievement by the year 2006 (National Commission on Teaching and America's Future, 1996).

The National Commission, in a 1997 progress report entitled *Doing What Matters Most: Investing in Quality Teaching*, analyzed more recent teacher workforce data and policy changes that had been initiated at state and national levels since the prior year's report, *What Matters Most: Teaching for America's Future*, was released (National Commission on Teaching and America's Future, 1997). North Carolina, as well as Connecticut, was lauded in the report for a wide range of reform efforts including investments in improving teacher quality, including increases in teacher salaries, recruitment efforts, improvements in teacher preparation, policy on teacher licensure, and teacher mentoring and professional development (National Commission on Teaching and America's Future, 1997). Specifically North Carolina was recognized as having "passed the

ambitious Excellent Schools Act of 1997, which enacted nearly all of the recommendations of the National Commission that were not already in place in the state (p. 39).” Significant improvements in student achievement gains in mathematics and reading were further cited as commendable progress since North Carolina began implementing the reform. However, more clear today, is that the teacher quality investments initiated in North Carolina through the 1997 Excellent Schools Act were not built on a foundation of, nor funded by outcome-based measures of accountability (North Carolina Excellent School Act, 1997-1998 Session). Other reforms of teacher education and induction were also noted, including several universities that had expanded to five-year teacher preparation programs, new requirements for extensive field-based internships, and redesigned programs of study that required an undergraduate degree in a disciplinary field in addition to graduate level on the study of teaching (National Commission on Teaching and America’s Future, 1997). The report further acknowledged the lack of financial support and resources available to bolster teacher preparation quality improvements in higher education by citing a research study conducted by Howard, Hitz, and Baker (1997) that found professional teacher education programs are funded below the average of other academic disciplines. Data referenced from the National Center for Education Statistics (NCES) also reinforced this lack of financial support by reporting teacher educator salaries below salaries of other education and non-education professors (National Commission on Teaching and America’s Future, 1997).

A second progress report was released by the National Commission in 2003 entitled, *No Dream Denied: A Pledge to America's Children*. It noted a significant increase in teacher supply in the 1990s had yielded enough teachers at the national level to meet the annual need with the exception of some high need licensure areas (National Commission on Teaching and America's Future, 2003). The report pointed to teacher retention as a major issue affecting supply and demand in the teacher labor market, drawing attention school staffing issues as a culprit to the national teacher quality crisis (National Commission on Teaching and America's Future, 2003). Richard Ingersoll (2003), in his analysis of data on teacher attrition for the National Commission, described the challenge of supply and demand as a complex problem of "workforce flows." Building on the recommendations from the National Commission's first report, the report called for "states, school systems, institutions of higher education, unions, school boards, business leaders, and the federal government to join in setting an ambitious goal – to accept the challenge to improve teacher retention by at least 50% by 2006, creating incentives for those moving toward this goal, and rewarding schools that achieve it (p. 15)." A roadmap for achieving this important goal was defined through action steps centered around a three-part strategy; organize schools for teaching and learning success; build a foundation of quality teacher preparation, accreditation and licensure; and develop professional rewarding career paths in teaching (National Commission on Teaching and America's Future, 2003).

North Carolina Legislation and Policy Addressing Teacher Quality Investments

At the state level, the North Carolina General Assembly passed comprehensive teacher policy reform with the Excellent Schools Act (SL 1997-221/SB 272) in 1997 following the release of the National Commission's report *What Matters Most: Teaching for America's Future*. The legislation was largely based on recommendations from this first report and addressed teacher licensure, increasing teacher pay, and professional development (North Carolina Excellent School Act 1997-1998 Session; Hirsch, 1998). The Excellent Schools Act of 1997 raised standards for pre-service preparation, initial licensure, continuing and license renewal; increased teacher salaries; provided for increased salary for teachers completing a master's degree or National Board for Professional Teaching Standards certification; extended the teacher initial licensure period from three years to four years and revised dismissal procedures for tenured teachers; provided for school based incentives for improving student achievement; and created additional professional development opportunities for North Carolina public school teachers (Hirsch; North Carolina Excellent School Act, 1997).

In a report released by the University of North Carolina Board of Governors Task Force on the Preparation of Teachers in November of 1987, a decade prior to the 1997 Excellent School's Act, North Carolina's public system of higher education had already begun to emphasize the importance of investing in teacher preparation and teacher quality. The 1987 report, *The Education of*

North Carolina's Teacher's, provided a comprehensive review of teacher education in North Carolina, including thirty-nine recommendations targeted at improving teacher preparation programs and licensing standards, attracting and retaining teachers, and developing strong cooperative partnership between universities and public schools. In addition to these recommendations, the higher education Task Force directed attention to the demand for teachers over a 10-year period including (a) suggested reforms for increasing teacher education program productivity, (b) reducing teacher turnover, targeted recruitment, and (c) improving teacher pay and working conditions (UNC Board of Governors' Task Force on the Preparation of Teachers, 1986).

From the national level down to the state level, the importance of investing in teacher preparation and teacher quality has been emphasized over the last quarter century through seminal reports and legislation referenced in this literature review. While recommendations emanating from the reports cover an array of critical issues, teacher quality emerges over the twenty-five year period as a central theme of importance for the United State's educational system. This call for attention also prompted equity and cost analysis research studies that address financial support for teacher preparation programs at institutions of higher education in the United States. These studies are identified and summarized in the remainder of this chapter.

Financial Support for Teacher Preparation Addressing Equity and Cost Analysis

A comprehensive review of literature on the adequacy of funding for teacher preparation and comparative analysis of academic program costs in teacher education produces few results. Studies that are available, with few exceptions are dated -- Orr and Peseau, 1979; Ebmeir, Twombly, and Teeter, 1986; Howard, Hitz, and Baker 1997, 2000; Hirsch, Emerick, Barnes and Berry, 2004. The majority of these studies have focused on comparing teacher education programs with other academic programs within higher education institutions. Even fewer studies have focused on the relationship between program costs and program effects -- Denton and Smith 1984; Peseau 1982, 1984; Theobald, 1992. Other studies have looked at the economic benefit of extending teacher preparation to a fifth-year licensure program -- Hawley, 1987; Lewis 1990. Scholars from these research studies frequently point to the complexities of institutional financial data as a barrier to further analysis (Hirsch et al., 2004). Longitudinal studies within these research frames simply do not exist (Ebmeir et al., 1986). The lack of comparative data impedes efforts to determine equity and adequacy of funding for teacher education programs. Ebmeir et al. notes that research encompassing deep analysis of outcome-based measures, including financial inputs and productivity outputs of teacher education is practically non-existent. Studies have instead focused on how well teacher education programs are funded compared to other academic disciplines on the same campus or how well teacher education is funded in comparison to other

teacher education programs on peer campuses (Theobald). Table 2 organizes the ten studies identified in this literature review into four primary categories for better understanding; comparative analysis studies on academic program costs in teacher education versus other academic disciplines; comparative analysis studies on academic program costs, internal resource allocation, and program effects in teacher education; other related studies on financial support of teacher preparation and the economic benefits of extended teacher preparation programs; and comparative analysis studies on academic program costs in the form of financial inputs and outcome-based measures in teacher education.

Peseau (1980) looked at twenty teacher education programs in public senior universities in the South and found significant discrepancies in the distribution of financial resources to the teacher education programs that generated the funding from credit hours or full-time equivalent students produced. The study compared the relative cost of undergraduate, master's and post-master's programs using a formula applied in Texas and Alabama which weights assigned academic programs by complexity levels developed to help allocate financial resources. They found teacher education was funded significantly lower at all levels, undergraduate through post-master's, relative to the formula driven budget at the state-level (Peseau, 1980; Ebmeir et al., 1986). Select institutions from the University of North Carolina were included in the analysis (Peseau, 1980). Peseau (1981, 1982, 1984) has also

Table 2

*Financial Support Studies of Teacher Preparation Addressing Equity and Cost
Analysis Categorized by Study Type*

Category of Study	Reference
Comparative analysis studies on academic program costs in teacher education versus other academic disciplines.	(Orr & Peseau, 1997) (Peseau, 1982, 1984) (Ebmeir, Twombly, & Teeter, 1986) (Hirsch, Emerick, Barnes, & Berry, 2004) (Howard, Hitz & Baker, 1997, 2000)
Comparative analysis studies on academic program costs, internal resource allocation, and program effects in teacher education. Other related studies on financial support of teacher preparation and the economic benefits of extended teacher preparation programs.	(Denton and Smith, 1984) (Theobald, 1992) (Hawley, 1987) (Lewis, 1990)
Comparative analysis studies on academic program costs in the form of financial inputs and outcome-based measures in teacher education.	No studies found

completed other productivity and funding studies on teacher education programs at senior universities. Results from these studies found that students majoring in education pay disproportionately more of the cost of their education than do most other academic majors (Peseau, 1981). Peseau (1981) suggests that the problem in funding for teacher education is typically not with the formulas for institutional allocations but rather with campus leadership responsible for allocating budgets.

Ebmeir et al. (1986) looked at instructional expenditures by major cost categories to determine if funding from six schools of education at comparable research universities, which included select institutions from the University of North Carolina, had changed over the prior decade in both constant and real dollars. The actual expenditures unadjusted for inflation were represented as *real* dollars and the same cost comparison data adjusted for inflation were represented as *constant* dollars. To adjust for inflation in this study, Ebmeir et al. utilized the 1989 Higher Education Price Index. Financial resources of the schools of education were also compared to other academic programs on the campus. The financial information was organized by guidelines from the National Association of Colleges and Universities Business Officers (NACUBO) and Integrative Postsecondary Educational Data Systems (IPEDS), and adjusted to a standardized model utilized by the University of Kansas Board of Regents (Ebmeir et al.). Similar to the analysis conducted by Peseau (1980), financial data were distributed across instructional level and weighted to reflect types and

levels of courses allowing for calculated costs per student credit hour by level (Ebmeir et al.). Both Peseau (1980) and Ebmeir et al. note that the state level funding formulas are based on the historical averages of prior expenditures and do not reflect the current program complexities in teacher education. This method of analyzing the data was documented by Teeter and Christal (1987) prior to Delaware Cost Study (Ebmeir et al.). With few exceptions in the Ebmeir et al. study, schools of education were funded lower than other academic programs on campus. Furthermore, over the last ten years the funding gap at these institutions had widened in constant dollars and in relationship to most other academic disciplines (Ebmeir et al.).

Howard et al. (2000) published a study similar to Peseau (1980), and Ebmeir et al. (1986) which looked at funding for teacher education programs as compared to other academic disciplines utilizing Delaware Study data. Consistent with earlier research, Howard et al. (2000) found there is a wide range of variation in expenditures per student credit hour in education across all types of institutions by Carnegie classification, and within the institutions studied. At the undergraduate level, teacher education programs were funded below average for all academic areas in all types of institutions as compared with seven other discipline areas (Hirsch et al., 2004; Howard et al., 2000). Education programs at the graduate level, with the exception of social work, had a greater percentage of student credit hours as compared with discipline areas analyzed in the study, yet the overall expenditures at this level were less (Howard et al., 2000). Average

faculty salaries in education were found to be less than the average faculty salaries from all other discipline areas (Howard et al., 2000). During the 1996-97 academic year, teacher education faculty were paid approximately 13% below the average faculty salary over all ranks (professor, associate professor, assistant professor, new assistant professor, and instructor) at colleges and universities nationwide (Hirsch et al.; Howard et al., 2000). While Howard et al. (2000) noted that quantity was typically emphasized over quality at the state government level, and that it is the states' prerogative to fund universities to produce more teachers based on projected need, no comparative data on teacher productivity by institution and state workforce need was analyzed in his study.

Results similar to Howard et al. (2000), Peseau (1980), and Ebmeir et al. (1986) were found by Hirsch et al. (2004) in a teacher preparation cost study of select Alabama and other national programs. While the literature indicates that education programs are funded below the institutional average for all disciplines in all Carnegie classifications of institutions, findings from this study corroborate that both education and teacher education programs are generally funded below other clinically intensive programs, such as professional nursing programs that have extensive field-based and internship requirements (Hirsch et al., 2004). All accredited and degree-granting postsecondary institutions in the United States that are represented in the IPEDS system are a part of the Carnegie

classification system which describes institutional differences of what is taught and a profile of the enrollment, size and setting of participating institutions.

Other research studies consist of comparative analysis of academic program costs and program effects in teacher education. In this category, Denton and Smith (1984) investigated the costs of alternative certification and academic majors in education and linked it to program effect data for secondary student teachers. The effects in this investigative study were learner cognitive gains on an evaluation profile instrument as observed by the university supervisor during the student teaching experience. Program costs were determined from an equation yielding cost estimates based on budget allocations across major cost categories and compared to departmental contribution. The study found an increase in costs to train secondary teachers with an education major with mixed effects data, however education majors scored higher on measures of teaching performance based on learner cognitive attainment data (Denton & Smith).

Little empirical research exists on resource allocation within teacher education programs. However, Theobald (1992) focused his study on intradepartmental resource allocation, a level at which teacher education leadership has the ability to allocate resources based on institutional goals. In this case study, Theobald's primary finding was that teacher education programs subsidize other costly faculty-preferred programs and activities by approximately 10% (Theobald). Other studies such as Hawley (1987) and Lewis (1990) look at costs and economic worth of extended teacher education programs. Hawley

(1987) argues that extended programs are high-risk and with uncertain benefits. He suggests these programs are likely to reduce the quality and quantity of teachers prepared by institutions offering an extended program. He noted that other models, such as reform of undergraduate programs and extended post-baccalaureate internships offer an option that, when combined, may be more cost effective than extending teacher education to improve quality and effectiveness (Hawley, 1987). Lewis however, found mixed results in his case study on extended teacher education programs. While extended programs may not be cost beneficial to prospective undergraduates, when compared with other alternative employment options, favorable results for women completing an extended program of study emerged in the study's results (Lewis).

Higher Education Accountability for Educational Expenditures

While concern around higher education accountability was fueled in part by the 1983 report *A Nation at Risk*, one of the most lamentable blind spots in the study of higher education is the lack of reliable data on the relationship between educational expenditures of colleges and universities and their educational results (Bowen, 1980; Brown & Gamber, 2002). A fallacy of the accountability in postsecondary education is that institutions of higher education are commonly ranked on the basis of inputs (faculty salaries, faculty-student ratios, student scores on entrance exams, etc.) and infrequently measured based on the actual output of student or institutional performance (Bowen). But accountability should not be limited to inputs of a minimal quantity; it should address quality as well.

While there is no shortage of claims from professional teacher education programs that more funds will produce greater educational returns, teacher education programs cannot become appropriately accountable without a better understanding of their productivity data and knowledge of the overall results of their efforts. A challenge for institutions of higher education with regard to teacher preparation is how to best support and measure productivity with conventional funding formulas for resource allocation based on academic programs and class size (Brown & Gamber).

Summary

Prior research findings suggest that education is viewed as less complex and implies that schools of education require less funding to sustain their programs that do other academic disciplinary counterparts (Ebmeir et al., 1986). However, the demands of today's public schools require all teachers to know a great deal about how students learn and how to manage the complexity of the learning process (Hirsch et al., 2004). UNC constituent institutions are being held to increasing levels of accountability to increase the quality and quantity of initially licensed teachers being produced, especially in the high need licensure areas of mathematics, science, middle grades and special education (UNCGA, 2009). If teacher preparation quality and quantity is one of the University's highest priorities, the question of financial resources must be examined and addressed if the UNC General Administration is to give substance to this strategic direction and fully address the teacher shortage in North Carolina.

CHAPTER 3: METHODOLOGY

Introduction

As indicated in chapter 1, the UNC General Administration has directed significant attention to the analysis of statewide teacher supply and demand trends in the State. UNC constituent institutions are being held to high expectations in responding to the system's strategic priority to prepare more and better teachers and school leaders for the public schools of North Carolina. While system and campus-level accountability plans have been developed for teacher recruitment, teacher preparation and new teacher support, minimal attention has been directed toward the analysis of academic program funding for UNC teacher education programs to meet these challenges. This chapter provides a review of state-level financial inputs of teacher education program funding generated from the UNC enrollment growth funding model, in addition to the cost study design and methodology which may help determine if UNC teacher education programs have been funded adequately, relative to their productivity, over the last three years of the system accountability plan implementation.

Review of the National Study of Instructional Costs and Productivity

The National Study of Instructional Costs and Productivity, also known as the Delaware Study, offers participating institutions of higher education with data on faculty teaching loads, instructional costs, and sponsored research and service productivity. The study was developed and is maintained by the University of Delaware, Office of Institutional Research. Because so many higher

education institutions across the nation participate in the study, the data-sharing consortium allows for analysis against national benchmarks categorized by Carnegie classifications, such as institution type (research, doctoral, comprehensive – master's, and baccalaureate), faculty type (tenured, other permanent faculty, supplemental faculty, and graduate teaching assistants) degree, undergraduate versus graduate, discipline area, level of instruction, and student credit hours (Middaugh, Graham, & Shahid, 2003; University of Delaware, Retrieved July 21, 2008). Longitudinal data collected from the study has been used for quantitative analysis only (Middaugh et al., 2003).

Participating Institutions contribute data to the Delaware Study longitudinal database using the National Center for Education Statistics' taxonomy for the Classification of Instructional Programs or CIP (Carnegie Classification Descriptions, Retrieved August 22, 2008, from the Carnegie Foundation for the Advancement of Teaching website <http://www.carnegiefoundation.org/classifications/index.asp?key=785>). It is through NCES' classification system that all accredited, degree-granting higher education institutions in the United States represented in the IPEDS system report degrees conferred by level and field of study through a hierarchical six-digit code (Carnegie Classification Descriptions, Retrieved August 22, 2008). The University of North Carolina is one of the many higher education systems that participate in the Delaware Study by contributing to the longitudinal database and by utilizing the consortia data in benchmarking costs of enrollment funding

calculations for UNC constituent institutions. While UNC utilizes national Delaware data for funding decisions and quantitative analysis, the Delaware data is not adequate for addressing issues of academic program quality.

Statement of Problem

UNC teacher education programs have consistently reported insufficient resources and financial support to respond to demand and to meet the increasing level of accountability from the UNC General Administration to prepare more and better teachers for the public schools of North Carolina. The purpose of this study is to examine UNC teacher preparation program funding over a three-year period through an analysis of system-level financial inputs and campus-level productivity outputs to determine if financial support in the form of budgeted faculty has increased or decreased relative to student semester credit hours generated and productivity as defined and measured annually in UNC's Plan to Address the Shortage of Teachers in North Carolina (UNCGA, 2004a).

Research Questions

The following research questions are addressed in this UNC Teacher Preparation Cost study utilizing data from 2005-2006, 2006-2007, and 2007-2008:

1. What is the average cost to the State of North Carolina and yield of budgeted faculty per semester credit hours (SCH) for CIP 13 - Education (Classification of Instructional Programs for Education Majors) by Carnegie classification and instructional level generated by

the UNC Funding Formula for the UNC system and constituent institutions?

2. How do campus allocations of CIP 13 – Education budgeted faculty, grouped by Carnegie classification, compare to the number yielded from the UNC Funding Formula?
3. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to student semester credit hours (SCH) generated?
4. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to campus productivity of initially licensed teachers?
5. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to overall CIP 13 degrees conferred?

Institutional program level will be included in the analysis for each of the research questions, provided that the institutional data is coded to the level needed for analysis and tracking of faculty that teach at more than one instructional level; undergraduate level, graduate level, or doctoral level.

Theoretical Perspective of the UNC Funding Formula

It is from the national Delaware benchmark data that UNC populates a layered twelve cell matrix and utilizes several other identified undergraduate and academic cost factors as the systems enrollment funding model to project instructional costs for each UNC constituent campus. UNC first categorizes the

CIP codes by cost category as defined in Table 3. To review the mix of instructional programs offered at each UNC constituent institution, a student credit hour (SCH) model based on Carnegie cost of instruction per SCH by discipline area is utilized. After the CIP codes are categorized, a basic matrix is developed that includes three student credit hour rows for undergraduate, masters, doctoral instruction by four columns or levels of instructional program costs – low to high. Table 4 displays the basic structure of the twelve cell matrix and identifies the six layers of calculations for each cell in the matrix.

From the twelve cell matrix, campuses input projections for future student credit hours of instruction above or below the current credit hours of instruction. Projections are also provided for on-campus credit hours and credit hours provided through distance education delivery. Utilizing longitudinal data from the Delaware Study that is based on identified institutional peers, the cost per credit hour by discipline area is determined. Discipline areas are categorized by the U.S. Department of Education's National Center for Education Statistics taxonomy known as the Classification of Instructional Programs or CIP. Within this matrix framework, credit hours are grouped by CIP and placed into four cost categories ranging from lowest cost (1) to highest cost (4). UNC obtains undergraduate and graduate credit hours by discipline area from the Delaware Data, in addition to total instructional cost by CIP or discipline area. The total costs come from faculty salaries, benefits, and supplemental cost identified as essential for providing student instruction (facilities, non-faculty support

Table 3

UNC Academic Program Cost Categories by Classification of Instructional Programs (CIP)

UNC Cost Category	Classification of Instructional Programs (CIP)
Cost Category IV: Very High Cost	(14) Engineering and (66) Nursing
Cost Category III: High Cost	(01) Ag Bus & Prod, (03) Conservation & Nat Resources, (04) Architecture, (11) Computers and Info Sciences, (15) Engineering Technology, (25) Library Science, (26) Biological Sciences, (40) Physical Sciences, (44) Public Administration, (50) Visual & Performing Arts, and (51) Health Professions
Cost Category II: Medium Cost	(05) Area Studies, (13) Education*, (16) Foreign Language/Literature, (19) Home Economics, (24) Liberal Arts & Sciences, (30) Inter-disciplinary Studies, (31) Parks & Recreation, and (52) Business Administration
Cost Category I: Low Cost	(09) Communications, (22) Law, (23) English, (27) Mathematics, (29) Military Science, (38) Philosophy & Religion, (39) Theology, (41) Science Technology, (42) Psychology, (43) Protective Services, (45) Social Sciences, (54) History, (90) Other, and (99) Unknown CIP

Note. As approved by the UNC Board of Governors in November of 2004,

student teaching semester credit hours in CIP 13 (Education) are funded in cost category III due to the clinical nature of instructional delivery. All other CIP 13 (Education) semester credit hours are funded in cost category II (UNCGA, 2004b).

Table 4

UNC Funding Formula Basic Twelve Cell Matrix Structure

Instructional Program Level	Category IV	Category III	Category II	Category I
Undergraduate	-	-	-	-
Graduate	-	-	-	-
Doctoral	-	-	-	-

Calculations within the twelve cell matrix are completed for each of the instructional program levels by the four defined cost categories:

Layer 1 - Class size ratios

Layer 2 - Relative value of cost per semester credit hour

Layer 3 - Indexed relative value of cost per semester credit hour

Layer 4 - Calibration of semester credit hours for budgeted faculty calculations

Layer 5 - Semester credit hours per budgeted faculty

Layer 6 – Undergraduate cost factors applied to eligible institutions

personnel, equipment, etc.). The cost per SCH by CIP is calculated from the Delaware data.

Detailed Description of the UNC Funding Formula Calculations

The following section describes each of the six layers' of calculations produced in the UNC funding formula basic twelve cell matrix: layer 1 - class size ratios; layer 2 - relative value of cost per SCH; layer 3 - indexed relative value of cost per SCH; layer 4 - calibration of SCH for budgeted faculty; layer 5 - generation of SCH per budgeted faculty; and layer 6 - undergraduate cost factors applied to eligible institutions.

Layers One and Two of the UNC Twelve Cell Matrix: Class Size Ratios and Weighted Cost per Credit Hour by Discipline and Cost Categories

Class size ratios are used to determine the relative value of cost per credit hour. For this calculation, the ratios for each instructional level by category are multiplied by the cost per credit hour for each category. The result is then indexed to the lowest cost category and instructional level, and calibrated to the actual credit hours produced.

The next step in the enrollment funding model calculations divides the projected number of additional student credit hours from the first matrix layer by the values established in the second matrix layer (see Table 4). This calculation provides the additional faculty positions required to teach the additional hours of instruction by instructional level and by program cost.

The weighted average cost per credit hour for each CIP discipline is calculated by multiplying the fundable UNC credit hours by the national cost per credit hour based on Carnegie classifications. Weighting the cost for each CIP with actual credit hours for UNC constituent institutions provides the actual distribution of costs within the University system. Weighted cost category averages per credit hour are then calculated by multiplying the average weighted cost of instruction by the percentage of fundable credit hours for each discipline area. This process, as displayed in the sample calculations in Table 5, shows the actual UNC disciplines that make up the cost within each category – the weighting is aligned to the distribution of discipline area credit hours within each cost category.

Layer Three of the UNC Twelve Cell Matrix: Weighting Instructional

Level/Instructional Level Costs

The matrix also provides a weighted cost per credit hour by instructional level (undergraduate, master's, doctoral) which is determined by using UNC average class size to calculate class size ratios. These ratios allow UNC to benchmark higher cost in graduate education and offset and disproportionate bi-level (undergraduate and graduate) distribution of credit hours. In this calculation, the total cost of instruction is divided by the annual undergraduate credit hours and graduate credit hours.

Table 5

Sample Display of UNC Funding Formula Basic Twelve Cell Matrix Structure

CIP	UNC System Campus	Carnegie Category	Cost/SCH	UNC Fundable SCH	SCHs per CIP	Cost/SCH times % SCH	UNC weight average
13	UNC-1	Res Ext.	\$125.00	75	18.8%	\$23.44	
	UNC-2	Res Int.	\$125.00	125	31.3%	\$39.06	
	UNC-3	Master's	\$75.00	50	12.5%	\$9.38	
	UNC-4	Bacc.	\$75.00	150	37.5%	\$28.13	
Totals				400			\$100.00

Layers Four and Five of the UNC Twelve Cell Matrix: Determining Credit Hours per Budgeted Faculty and Producing Productivity Matrix

The calibrated or indexed credit hours are divided by the number of budgeted University faculty positions to determine the instructional position factor for the lowest cost undergraduate category. The instructional position factor is divided by the indexed credit hours by cost category and instructional level.

Layer Six of the UNC Twelve Cell Matrix:

Applying Undergraduate Cost Factors to Eligible Institutions.

The UNC enrollment funding model next calculates the additional faculty required to teach undergraduate courses on identified campuses with unique circumstances that are referred to as “undergraduate cost factors.” The UNC Board of Governors has identified four undergraduate cost factors which are applied only to enrollment growth in the funding model. Those undergraduate cost factors are:

- Undergraduate Cost Factor 1: Recognizes students coming from economically disadvantaged families may require more individualized attention and support than other students. This factor is calculated by determined by the number of students eligible for a Pell grant. If more than one third of institutions’ undergraduate students are Pell grant eligible, additional faculty needed for undergraduate instruction is increased by 5%. Campuses receiving additional faculty in 2007-08 due to this undergraduate cost factor were Elizabeth City State

University, Fayetteville State University, North Carolina Agricultural & Technical State University, North Carolina Central University, UNC-Pembroke and Winston-Salem State University.

- Undergraduate Cost Factor 2: Provides a 10% increase to the number of undergraduate faculty teaching at institutions with non-doctoral missions. Campuses receiving additional faculty in 2007-08 due to this undergraduate cost factor were Appalachian State University, Elizabeth City State University, Fayetteville State University, North Carolina Central University, UNC-Ashville, UNC-Pembroke, UNC-Wilmington, Western Carolina University and Winston-Salem State University.
- Undergraduate Cost Factor 3: Provides a 5% increase in the number of faculty teaching undergraduate courses at institutions with less than 6,000 students and addresses the challenges of achieving economies of scale at these smaller institutions. Campuses receiving additional faculty in 2007-08 due to this undergraduate cost factor were Elizabeth City State University, UNC-Asheville, UNC-Pembroke and Winston-Salem State University.
- Undergraduate Cost Factor 4: Applies only to UNC Asheville and recognizes the institution's status as a unique public liberal arts college. With this distinguished status, the campus is expected to maintain a lower student to faculty ratio.

Delimitations and Limitations of the Study

The teacher preparation cost study limitations that may affect the results are in the area of data analysis and campus-level policy. Institution program levels will be included in the analysis for each of the research questions, provided that the institutional data is coded to the level needed for analysis and tracking of faculty that teach at more than one instructional level (bi-level faculty); undergraduate level, graduate level, or doctoral level. Additionally, institutions may have specific campus-level policies that restrict or cap the distribution of budgeted faculty based on certain pre-determined conditions. Such policies could impact the resulting campus allocations of CIP 13 – Education budgeted faculty when compared to the number yielded from the UNC Funding Formula. Additionally, this could impact the analysis of CIP 13 – Education budgeted faculty allocations that have increased or decreased relative to student semester credit hours (SCH) generated, campus productivity of initially licensed teachers, and overall CIP 13 degrees conferred.

Methods

This is a policy-oriented research study and designed to look for associations in UNC program funding patterns over a three-year period through an analysis of state and system-level financial inputs and campus-level productivity outputs. The purpose of the study is to determine if financial support in the form of budgeted faculty has increased or decreased relative to student semester credit hours (SCH) produced and teacher productivity measured

annually in the University of North Carolina's Plan to Address the Shortage of Teachers in North Carolina (UNCGA, 2004a). Results from the analysis have been displayed in a series of tables, as well as, more detailed display of campus-specific CIP 13 – Education funding model data for enrollment change. A full panel of funding model data will be presented by campus and Carnegie classification in the form of calculations of State appropriations request (student credit hours, student credit hours per instructional faculty, and the instructional faculty positions generated).

Study Design

The study design has two primary areas of cost analysis; State level analysis and institutional level analysis. Figures 1 and 2 present a schematic for both of these areas.

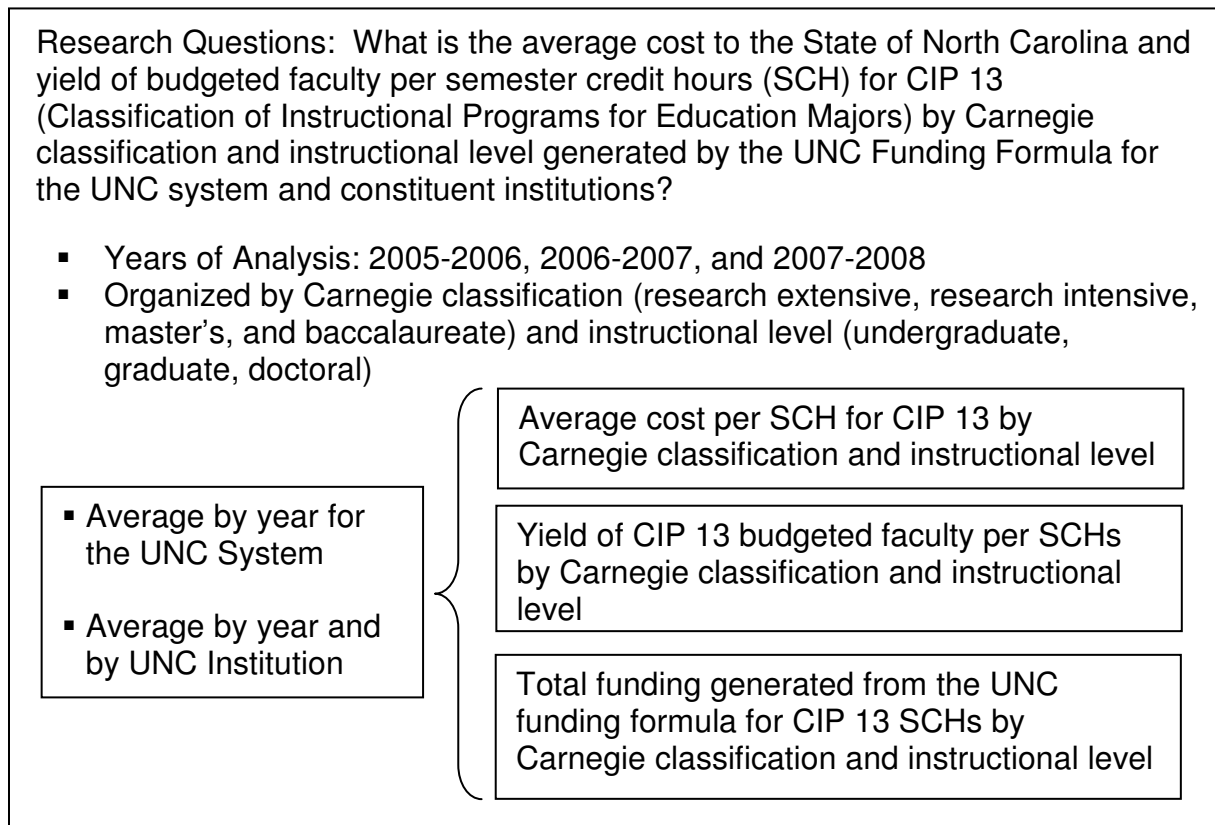


Figure 1. Conceptual model for UNC teacher education comparative analysis of costs, budgeted faculty, and productivity. Part I of the cost study models financial inputs generated as state-level costs and budgeted faculty.

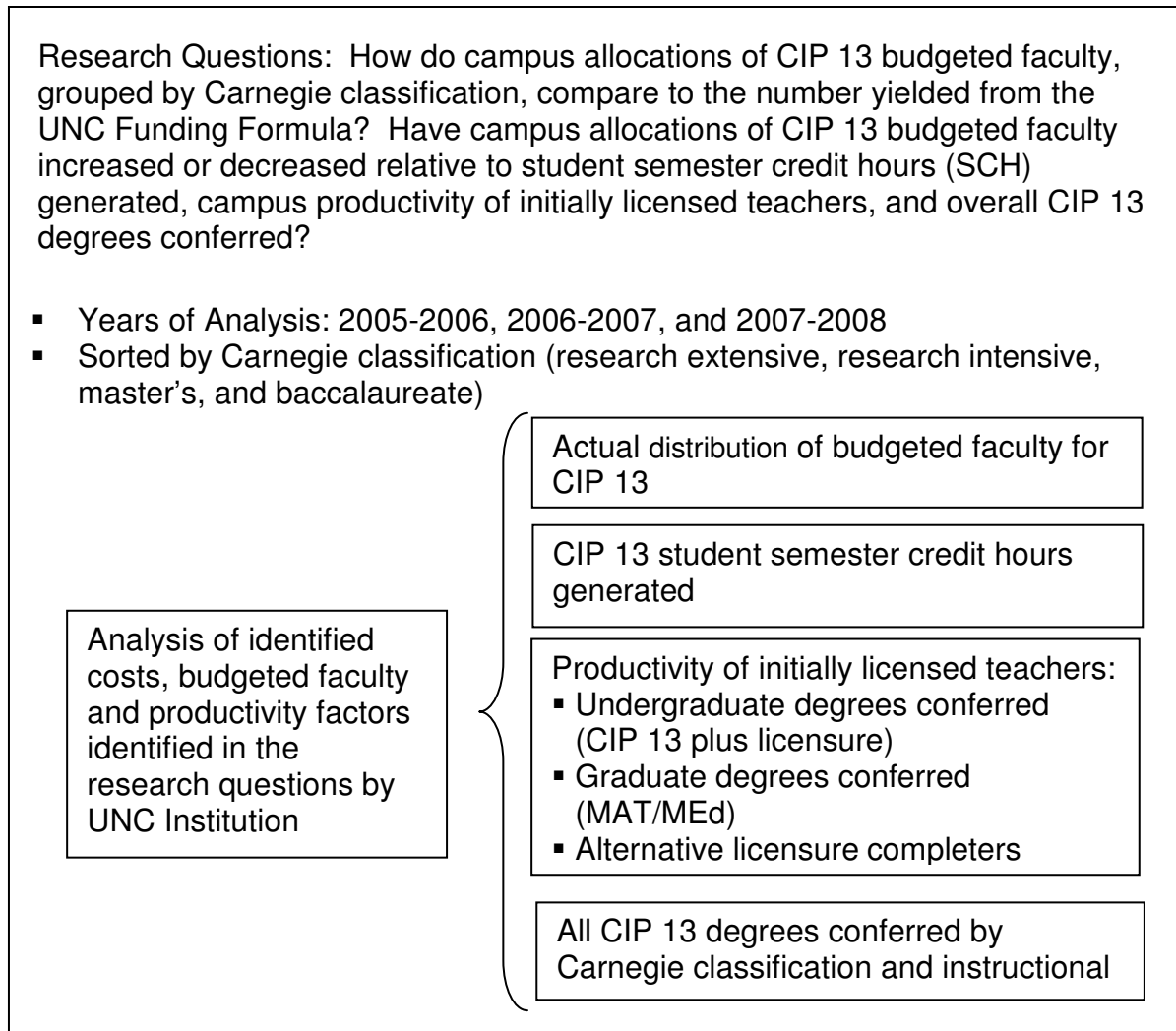


Figure 2. Conceptual model for UNC teacher education comparative analysis of costs, budgeted faculty, and productivity. Part II of the cost study models institutional output of productivity and institutional distribution of CIP 13 budgeted faculty.

CHAPTER 4: FINDINGS AND RESULTS

Introduction

The purpose of this study, as described in chapter 1, is to examine teacher education program funding patterns for UNC institutions over a three-year period (2005-2006, 2006-2007, and 2007-2008) through an analysis of system-level financial inputs and campus-level productivity outputs to determine if financial support in the form of full time equivalent (FTE) faculty has increased or decreased relative to initially licensed teachers produced, semester credit hours produced, and education degrees conferred.

This chapter is organized around the analysis of data addressing the five research questions posed in chapter 3. Those questions are:

1. What is the average cost to the State of North Carolina and yield of budgeted faculty per semester credit hour (SCH) for CIP 13 - Education (Classification of Instructional Programs for Education Majors) by Carnegie classification and instructional level generated by the UNC Funding Formula for the UNC system and constituent institutions?
2. How do campus allocations of CIP 13 – Education budgeted faculty, grouped by Carnegie classification, compare to the number yielded from the UNC Funding Formula?

3. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to student semester credit hours (SCH) generated?
4. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to campus productivity of initially licensed teachers?
5. Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to overall CIP 13 degrees conferred?

The findings and results of this study are presented in this chapter in two sections. The first section provides a descriptive analysis of the data utilized in addressing the research questions in the study. The second section describes the major findings of teacher education program funding for the UNC system and UNC constituent institutions. Chapter 4 concludes with an overall summary of the findings and results.

Descriptive Analysis of Data

This policy-oriented study is designed to look for associations in UNC education program funding patterns in the form of FTE faculty over a three-year period through an analysis of data that compares state and system-level financial inputs to campus-level outputs. For this study, three sources of data were obtained for analysis; UNC institutional data, UNC institutional survey results from the National Survey of Instructional Costs and Productivity (commonly referred to as the Delaware Study), and data derived from UNC funding formula

calculations based on actual semester credit hours produced. The data for each of these sources represents the academic years 2005-2006, 2006-2007, and 2007-2008. Actual funding model costs are not presented in the results due to economic and budgetary factors such as discretionary budget reductions at the campus level and state or system level mandated reductions that would impact costs calculated for appropriation requests in those academic years. To address this factor, data pertaining to costs generated by the UNC funding model are presented in the form of FTE instructional faculty.

UNC institutional data were collected from the UNC General Administration Office of Institutional Research and Analysis. The institutional data files utilized in the analysis include data on fundable regular term and distance education CIP13 - Education semester credit hours produced by institution and by instructional level (undergraduate, graduate, and doctoral), data on initially licensed teachers by institution, and data on CIP13 - Education degrees conferred by institution at the undergraduate, graduate, and doctoral levels.

Results from the National Survey of Instructional Costs and Productivity were obtained on the academic discipline CIP13 - Education from the University of Delaware Office of Institutional Research and Planning. Institutional data are reported to the National Survey of Instructional Costs and Productivity as of a fall census date each academic year. UNC participates in the Delaware Study along with over 500 other higher education systems that contribute institutional data to the longitudinal database. These data include benchmark data at the four-digit

CIP code level for the academic discipline Education (13.XX) and instructional faculty workload data by faculty type. Three types of full time equivalent (FTE) instructional faculty are represented in this study's analysis and results; tenured and tenure-eligible faculty, non-tenure track faculty, and supplemental faculty. A summary of faculty types is also presented. Each of these instructional faculty types have been defined by the Delaware Study for institutional reporting purposes. Tenured and tenured-eligible faculty are individuals that have academic tenure as of the fall census when the data are reported or are expected to receive it. These individuals are typically full, associate, and assistant professors. Non-tenure track faculty are not eligible for academic tenure but typically teach on a recurring contractual basis at the institution. These individuals serve in instructional positions such as instructors, lecturers, and visiting faculty. Supplementary faculty have a non-recurring appointment typically and are paid from temporary funding sources. This type of instructional faculty includes adjunct instructors and administrators that teach but their primary job responsibility is non-faculty (Faculty Type Descriptions, Retrieved April 23, 2009, from the University of Delaware National Study of Instructional Costs and Productivity website <http://www.udel.edu/IR/cost/definitions.html>).

Data utilized in the UNC funding model calculations include fundable regular term and distance education semester credit hours per instructional position and instructional positions generated by funding category and instructional level. These data also include the institution's applied undergraduate

cost factor (total percentage) and the resulting instructional positions generated from calculations with regular term semester credit hour data. Instructional positions generated from the institution's undergraduate cost factor rate are included in the total full time equivalent instructional faculty calculated for the institution.

Results from the analysis of these data are displayed in a series of tables addressing each of the five research questions. A more detailed display of UNC funding model data calculated for CIP13 Education by institution is provided in the appendix. In each of the tables presented in chapter 4 and the appendix, UNC institutions have been grouped by institution type as defined by Carnegie classification scheme. Of the fifteen UNC institutions included in this study, four are categorized by Carnegie classification scheme as Research institutions (NCSU and UNC-CH as Research - Very High, and NCA&T and UNCG as Research - High), two as Doctoral Research (ECU and UNCC) institutions, six as Comprehensive – Master's (ASU, NCCU, UNCW, and WCU as Master's - Large, UNCP as Master's - Medium, and FSU as Master's - Small) institutions, and three as Baccalaureate (UNCA as Baccalaureate – Arts & Sciences, and ECSU and WSSU as Baccalaureate - Diverse) type institutions. Table 6 provides a breakout of the Carnegie Classification schema by institutional type for each UNC institution included in this study.

Table 6

UNC Institutions Categorized by Carnegie Classification Institutional Type

Institution Type	UNC Institution
Research – Very High	North Carolina State University
	UNC Chapel Hill
Research - High	North Carolina A&T State University
	UNC Greensboro
Doctoral Research	East Carolina University
	UNC Charlotte
Master's – Large	Appalachian State University
	North Carolina Central University
	UNC Wilmington
	Western Carolina University
Master's – Medium	UNC Pembroke
Master's – Small	Fayetteville State University
Baccalaureate – A&S	UNC Asheville
Baccalaureate – Diverse	Elizabeth City State University
	Winston-Salem State University

Note. Carnegie Classification of Institutions of Higher Education.

Major Results

In the analysis of data derived from UNC funding formula calculations, FTE instructional faculty for CIP13 – Education for the UNC system have increased by 79% from 2005-2006 to 2007-2008, while in aggregate data reported to the National Survey of Instructional Costs and Productivity by UNC institutions of T/TE instructional faculty increased by 13% and Total FTE instructional faculty increased by 19% over this same period. The percent increase of FTE instructional faculty generated by the UNC funding model exceeds the T/TE FTE and Total FTE instructional faculty reported to the national Delaware Study. When examined across institutions and by Carnegie classifications, there is a wide variance represented in the results. Most institutions had significant increases from 2005-2006 to 2006-2007.

The overall number of initially licensed teachers produced by the UNC system has remained constant over the three year period in this analysis. When this data is disaggregated by graduates and alternative licensure completers the results show that UNC traditional undergraduates have increased by 8%, however the number of alternative completers for the UNC system, which includes MAT/M.Ed graduates, has decreased. The decline in alternative and MAT/M.Ed graduates account for the flat rate of overall initially licensed teachers produced at the UNC system level.

A key finding in this study is that CIP13 – Education degrees conferred and T/TE FTE instructional faculty for the UNC system both increased by 13%

from 2005-06 to 2007-2008. When looking at semester credit hours for CIP13 – Education for the UNC system, the analysis shows an increase of 91% during this three-year period (2005-06, 2006-2007, and 2007-2008). Six of the fifteen institutions included in this study had an increase of 100% or greater. This result draws attention to the fact that these credit hours are used in enrollment growth estimates and as a basis for generating FTE instructional positions in the UNC funding model. UNC institutions are financially incented through the funding model with FTE instructional positions for increasing the number semester credit hours produced regardless of whether the credit hours are directed toward the production of initially licensed teachers.

Research Question One

Research question one, *What is the average cost to the State of North Carolina and yield of budgeted faculty per semester credit hours (SCH) for CIP 13 - Education by Carnegie classification and instructional level generated by the UNC Funding Formula for the UNC system and constituent institutions?*, analysis used actual CIP13 - Education semester credit hours produced and obtained from UNC institutional data files were entered into the UNC funding model. A summary of the total FTE instructional faculty for CIP13 - Education generated by the funding model for the UNC system and its constituent institutions is presented in Table 7. The total FTE instructional positions represented in this table include those generated from regular term SCH and distance education SCH, and FTE instructional positions generated from the institution's

Table 7

CIP13 Full Time Equivalent (FTE) Faculty Generated by the UNC Funding Model

Institution Type	UNC Institution	UNC FM FTE Faculty (RT and DE)			Change 2005-2008
		N 2005-06	N 2006-07	N 2007-08	
Research	NCSU	50.9	93.6	101.1	99%
	UNC CH	52.8	94.6	76.2	44%
	NCA&T	20.0	62.1	75.4	277%
	UNCG	47.6	91.8	96.9	104%
Doctoral Research	ECU	111.7	155.9	167.5	50%
	UNCC	64.7	110.1	106.3	64%
Master's	ASU	76.4	138.3	138.6	81%
	NCCU	39.4	61.2	62.4	58%
	UNCW	41.3	72.2	74.9	81%
	WCU	35.5	54.3	61.8	74%
	UNCP	25.3	52.4	50.1	98%
	FSU	38.5	58.8	62.3	62%
Baccalaureate	UNCA	4.5	6.9	6.9	53%
	ECSU	13.0	24.9	29.5	127%
	WSSU	10.6	26.7	19.5	84%

Table 7

CIP13 Full Time Equivalent (FTE) Faculty Generated by the UNC Funding Model
(continued)

Institution Type	UNC Institution	UNC FM FTE Faculty (RT and DE)			Change 2005-2008
		N 2005-06	N 2006-07	N 2007-08	
<u>System Totals</u>		632.3	1,103.8	1,129.4	79%

Note. UNC FM = UNC funding model; RT = regular term FTE faculty; DE =

distance education FTE faculty. Generated from UNC institution fundable

semester credit hour data utilizing the UNC funding model for FTE calculations.

Percent change is calculated over the 3 year period from 2005-2006 to 2007-

2008.

undergraduate cost factor. In addition to the FTE instructional positions, the percent change in total FTE faculty over a three year period from 2005-2006 to 2007-2008 is provided.

These data indicate the Total FTE instructional faculty for CIP13 - Education generated by the UNC funding model in aggregate for the UNC system is 632.3 for 2005-2006, 1,103.8 for 2006-2007, and 1,129.4 for 2007-2008. This represents an increase of 79%. The largest annual increase over this timeframe occurred between 2005-2006 and 2006-2007 when FTE instructional faculty increased by 75% in a single academic year. When disaggregated by institution, a similar pattern of proportionally large increases of FTE instructional faculty occurred with most institutions between 2005-2006 and 2006-2007. Three institutions had a percent increase of total FTE instructional faculty larger than 100%. Those institutions are NCA&T at 277%, ECSU at 127%, and UNCG at 104%. Institutions with a percent increase of 50% or less were ECU at 50% and UNC-CH at 44%.

The appendix includes detailed tables by institution for 2005-2006 through 2007-2008. These tables present the actual regular term and distance education CIP 13 - Education semester credit hours produced, the semester credit hours per instructional position, and the instructional positions generated by funding category (Category 3 and Category 2) and instructional level (undergraduate, graduate, and doctoral). The total undergraduate cost factor(s) applied to regular term semester credit hours, positions generated from the cost factors, and the

total instructional positions generated for the institution are summarized at the bottom of each table for each institution. The appendix also includes a table that summarizes the undergraduate cost factors applied for each institution by year of analysis. A full description of the cost factors used in the UNC funding model is provided in chapter 3 of this study.

Research Question Two

Research question two, *How do campus allocations of CIP 13 – Education budgeted faculty, grouped by Carnegie classification, compare to the number yielded from the UNC Funding Formula?*, compares CIP13 - Education FTE instructional faculty reported to the National Survey of Instructional Costs and Productivity with CIP13 - Education instructional FTE generated from the UNC funding model. Tables 8, 9, and 10 provide a summary of the faculty types used in the analysis. Tenured and tenure eligible (T/TE), non-tenured (N-T), supplemental (Suppl.), and Total FTE faculty reported for 2005-2006, 2006-2007, 2007-2008 to the National Survey of Instructional Costs and Productivity for CIP13 – Education are included in these tables. For each of the three years represented in these tables (2005-2006, 2006-2007, and 2007-2008), T/TE FTE faculty represent the largest proportion of FTE faculty type reported to the national Delaware Study. Summary data show, T/TE faculty for the UNC system are reported as 587.6 for 2005-2006, 621.5 for 2006-2007, and 664.17 for 2007-2008. Total FTE faculty included in these tables represent the sum of instructional faculty types; T/TE FTE faculty, N-T FTE faculty, and

Table 8

*CIP13 Full Time Equivalent (FTE) Instructional Faculty Reported in the National Survey of Instructional
Costs and Productivity for 2005-2006*

Institution Type	UNC Institution	FTE Faculty Reported			Total
		T/TE	N-T	Suppl.	
Research	NCSU	64.8	23.6	4	92.4
	UNC CH	42.5	12.8	4.3	59.6
	NCA&T	31.9	6.3	1.5	39.6
	UNCG	45.3	4.5	17.6	67.3
Doctoral Research	ECU	77.4	25	15.5	117.9
	UNCC	75.2	10	18.5	103.7
Master's	ASU	87.8	10.2	24.2	122.2
	NCCU	19.2	1	8.6	28.8
	UNCW	28	7.5	18.5	55
	WCU	40	8	3.3	70.3

Table 8

CIP13 Full Time Equivalent (FTE) Instructional Faculty Reported in the National Survey of Instructional Costs and Productivity for 2005-2006 (continued)

Institution Type	UNC Institution	FTE Faculty Reported			Total
		T/TE	N-T	Suppl.	
	UNCP	14	8	7.8	29.8
	FSU	29.7	19.9	0.0	49.7
Baccalaureate	UNCA	7	2	3.5	12.5
	ECSU	13	8.1	2	23.1
	WSSU	12	1	20	33
Totals		587.61	147.9	169.2	904.7

Note. Total FTE faculty includes T/TE FTE, N-T FTE, and Suppl. FTE. T/TE = Tenured and tenured eligible faculty;

N-T = non-tenure track faculty; Suppl. = supplemental faculty; Total = total instructional faculty.

Table 9

CIP13 Full Time Equivalent (FTE) Faculty Reported in the National Survey of Instructional Costs and Productivity for 2006-2007

Institution Type	UNC Institution	T/TE	FTE Faculty Reported		
			N-T	Suppl.	Total
Research	NCSU	65.7	31.8	1.6	99.1
	UNC CH	40.5	12.9	3.1	56.5
	NCA&T	44.6	12.6	0.0	57.5
	UNCG	48.3	4	18	70.3
Doctoral Research	ECU	81.9	30	36.5	148.4
	UNCC	81.8	10	16.2	108
Master's	ASU	89.4	11.6	31.8	132.7
	NCCU	17.5	1.3	16.8	35.6
	UNCW	30.8	6.3	23.5	60.5
	WCU	46	17	22.7	85.7

Table 9

CIP13 Full Time Equivalent (FTE) Faculty Reported in the National Survey of Instructional Costs and Productivity for 2006-2007 (continued)

Institution Type	UNC Institution	FTE Faculty Reported			Total
		T/TE	N-T	Suppl.	
	UNCP	16	8	9	33
	FSU	32.1	24	0.0	56.1
Baccalaureate	UNCA	5	3.5	3.1	11.6
	ECSU	9	5.2	4.3	18.6
	WSSU	13	1	23	37
Totals		621.46	179.1	209.7	1010.6

Note. Total FTE faculty includes T/TE FTE, N-T FTE, and Suppl. FTE. T/TE = Tenured and tenured eligible faculty;

N-T = non-tenure track faculty; Suppl. = supplemental faculty; Total = total instructional faculty.

Table 10

CIP13 Full Time Equivalent (FTE) Faculty Reported in the National Survey of Instructional Costs and Productivity for 2007-2008

Institution Type	UNC Institution	FTE Faculty Reported			Total
		T/TE	N-T	Suppl.	
Research	NCSU	77.3	31.9	3.1	112.3
	UNC CH	41.2	12	8.4	61.5
	NCA&T	41.6	12	1	54.6
	UNCG	52.5	4	20.6	77.1
Doctoral Research	ECU	95.4	28	43.4	166.8
	UNCC	80.7	12	24.8	117.5
Master's	ASU	97.7	11.6	24.6	133.8
	NCCU	17.8	1.5	18.4	37.7
	UNCW	35.3	4.3	23.8	63.3
	WCU	43	9	17.2	69.2

Table 10

CIP13 Full Time Equivalent (FTE) Faculty Reported in the National Survey of Instructional Costs and Productivity for 2007-2008 (continued)

Institution Type	UNC Institution	FTE Faculty Reported			Total
		T/TE	N-T	Suppl.	
	UNCP	18	11	3.8	32.8
	FSU	30.7	26.2	0.0	57
Baccalaureate	UNCA	7	2.5	4.4	13.9
	ECSU	12	11.8	14.1	37.9
	WSSU	14	2	20	37
Totals		664.17	180.6	227.4	1072.2

Note. Total FTE faculty includes T/TE FTE, N-T FTE, and Suppl. FTE. T/TE = Tenured and tenured eligible faculty;

N-T = non-tenure track faculty; Suppl. = supplemental faculty; Total = total instructional faculty.

Supplemental FTE faculty. Summary data for the UNC system show Total FTE faculty as 904.7 for 2005-2006, 1010.6 for 2006-2007, and 1072.2 for 2007-2008. To compare the percent change of faculty types included in this analysis, Tables 11 and 12 display a comparison of the percent change over a three year period of T/TE FTE instructional faculty and Total FTE faculty reported to the national Delaware Study with the percent change of UNC funding model generated FTE instructional positions. A review of the data show, T/TE FTE instructional faculty reported to the national Delaware Study increased by 13% for the UNC system compared to a 79% increase of FTE instructional faculty generated by the UNC funding model. Broken out by faculty type, T/TE instructional faculty increased by 13% while Total FTE faculty (includes T/TE FTE, N-T FTE, and Supplemental FTE) reported to the national Delaware Study increased by 19% for the UNC system over this period (2005-2006, 2006-2007, and 2007-2008).

In Table 11 three institutions have a flat to negative percent change in T/TE FTE instructional faculty reported to the Delaware Study; ECSU declined by 8%, NCCU declined by 7%, UNC-CH declined by 3%, and UNCA's percent change remained constant no change. When compared to the percent change of UNC funding model generated FTE instructional positions, these same institutions show increases of 127%, 58%, and 44% respectively. Within these contrasts of FTE reported to the national Delaware Study and those generated by the UNC funding model, ECSU is one of the institutions with an increase of

over 100% in total FTE instructional faculty for CIP13 - Education generated by the UNC

Table 11

CIP13 Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity and Percent Change over Three-Year Period for T/TE FTE Faculty and UNC Funding Model (UNC FM) FTE Faculty

Institution Type	UNC Institution	T/TE FTE Faculty			Change T/TE 2005-2008	Change UNC FM 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
Research	NCSU	64.8	65.7	77.3	19%	99%
	UNC CH	42.5	40.5	41.2	-3%	44%
	NCA&T	31.9	44.6	41.6	30%	277%
	UNCG	45.3	48.3	52.5	16%	104%
Doctoral	ECU	77.4	81.9	95.4	23%	50%
Research	UNCC	75.2	81.8	80.7	7%	64%
Master's	ASU	87.8	89.4	97.7	11%	81%
	NCCU	19.2	17.5	17.8	-7%	58%
	UNCW	28	30.8	35.3	26%	81%

Table 11

CIP13 Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity and Percent Change over Three-Year Period for T/TE FTE Faculty and UNC Funding Model (UNC FM) FTE Faculty (continued)

Institution Type	UNC Institution	T/TE FTE Faculty			Change T/TE 2005-2008	Change UNC FM 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
	WCU	40	46	43	8%	74%
	UNCP	14	16	18	29%	98%
	FSU	29.7	32.1	30.7	3%	62%
Baccalaureate	UNCA	7	5	7	0%	53%
	ECSU	13	9	12	-8%	127%
	WSSU	12	13	14	17%	84%
System Totals		587.6	621.5	664.17	13%	79%

Note. Percent change is calculated for the 3 year period from 2005-2006 through 2007-2008.

Table 12

CIP13 Total FTE Faculty FTE Faculty Reported to the National Study of Instructional Costs and Productivity and Percent Change over Three-Year Period for Total Faculty and UNC Funding Model (UNC FM) FTE Faculty

Institution Type	UNC Institution	Total FTE Faculty			Change Total 2005-2008	Change UNC FM 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
Research	NCSU	92.4	99.1	112.3	22%	99%
	UNC CH	59.6	56.5	61.5	3%	44%
	NCA&T	39.6	57.5	54.6	38%	277%
	UNCG	67.3	70.3	77.1	15%	104%
Doctoral	ECU	117.9	148.4	166.8	41%	50%
Research	UNCC	103.7	108	117.5	13%	64%
Master's	ASU	122.2	132.7	133.8	9%	81%
	NCCU	28.8	35.6	37.7	31%	58%
	UNCW	55	60.5	63.3	15%	81%
	WCU	70.3	85.7	69.2	-2%	74%

Table 12

CIP13 Total FTE Faculty FTE Faculty Reported to the National Study of Instructional Costs and Productivity and Percent Change over Three-Year Period for Total Faculty and UNC Funding Model (UNC FM) FTE Faculty
(continued)

Institution Type	UNC Institution	Total FTE Faculty			Change Total 2005-2008	Change UNC FM 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
	UNCP	29.8	33	32.8	10%	98%
	FSU	49.7	56.1	57	15%	62%
Baccalaureate	UNCA	12.5	11.6	13.9	11%	53%
	ECSU	23.1	18.6	37.9	64%	127%
	WSSU	33	37	37	12%	84%
System Totals		904.7	1010.6	1072.2	19%	79%

Note. Percent change is calculated for the 3 year period from 2005-2006 through 2007-2008.

funding model. Four other institutions listed in Table 11 have a percent increase greater than 20% for T/TE instructional FTE. Those institutions are NCA&T with 30%, UNCP with 29%, UNCW with 26% and ECU with 44%. In comparison to the T/TE instructional FTE increases, NCA&T had an increase of 277% in Total FTE instructional faculty generated by the UNC funding model.

Table 12 identifies WCU as the only institution with a negative percent change in Total FTE instructional faculty for CIP13 - Education reported to the national Delaware Study. WCU's Total FTE instructional faculty declined by 2% from 2005-2006 to 2007-2008, while their Total FTE instructional faculty generated by the funding model increased by 74%. Five institutions listed in Table 12 have a percent increase greater than 20%. Those institutions are ECSU with 64%, ECU with 41%, NCA&T with 38%, NCCU with 31%, and NCSU with 22%. When compared to the percent change of UNC Funding Model generated positions, these same institutions had percent increase of 127% at ECSU, 50% at ECU, 277% at NCA&T, 58% at NCCU, and 99% at NCSU. From these comparisons, ECSU and NCA&T both had an increase of over 100% in total FTE instructional faculty generated by the UNC funding model as reported prior.

Research Question Three

Research question three, *Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to student semester credit hours (SCH) generated?*, was addressed by comparing semester credit hours in CIP13 - Education to T/TE FTE instructional faculty in the same academic

discipline reported to the National Survey of Instructional Costs and Productivity. Table 13 displays the results of the total semester credit hours produced, and the percent change in semester credit hours and T/TE FTE instructional faculty reported to the national Study from 2005-2006 to 2007-2008.

CIP13 - Education semester credit hours aggregated for the UNC system increased 91% from 2005-2006 to 2007-2008, while T/TE FTE instructional faculty reported to the national Delaware Study increased by 13%. Six institutions had an increase of 100% or greater over this same timeframe. Those institutions are ECSU (145%), UNCP (133%), UNCG (122%), NCSU (112%), ASU (107%), and WSSU (100%). UNC-CH had less than a 50% increase with a 33% growth in semester credit hours, while T/TE FTE instructional faculty declined by 3%.

Research Question Four

Research question four, *Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to campus productivity of initially licensed teachers?*, was analyzed by comparing the number of initially licensed teachers (ILTs) to CIP13 - Education T/TE FTE faculty reported to the national Delaware Study. The comparative analysis for this research question is represented in Table 14 which displays the total number of ILTs produced, the percent change in ILTs, and the percent change in T/TE FTE faculty reported to the national Delaware Study from 2005-2006 through 2007-2008.

Table 13

CIP13 Semester Credit Hours (SCH) Produced and the Percent Change over Three-Year Period of SCHs and Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity

Institution Type	UNC Institution	CIP13 Education SCHs			Change SCH 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
Research	NCSU	15,184	29,438	32,189	112%	19%
	UNC CH	17,472	34,369	23,246	33%	-3%
	NCA&T	14,653	25,396	27,443	87%	30%
	UNCG	14,744	31,076	32,762	122%	16%
Doctoral Research	ECU	36,517	58,592	62,453	71%	23%
	UNCC	19,554	37,405	38,183	95%	7%
Master's	ASU	26,281	54,143	54,303	107%	11%
	NCCU	14,005	24,186	24,380	74%	-7%
	UNCW	16,727	32,416	32,965	97%	26%

Table 13

CIP13 Semester Credit Hours (SCH) Produced and the Percent Change over Three-Year Period of SCHs and Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity (continued)

Institution Type	UNC Institution	CIP13 Education SCHs			Change SCH 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
	WCU	11,391	18,682	21,541	89%	8%
	UNCP	9,178	22,103	21,421	133%	29%
	FSU	13,470	23,409	25,894	92%	3%
Baccalaureate	UNCA	1,683	2,844	2,858	70%	0%
	ECSU	5,138	10,887	12,590	145%	-8%
	WSSU	4,130	11,653	8,242	100%	17%
System Totals		220,127	416,599	420,470	91%	13%

Note. Percent change is calculated for the 3 year period from 2005-2006 through 2007-2008.

Table 14

Initially Licensed Teachers (ILT) Produced and the Percent Change over Three-Year Period for ILTs and CIP13

Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity

Institution Type	UNC Institution	Initially Licensed Teachers			Change ILT 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
Research	NCSU	269	320	279	4%	19%
	UNC CH	186	175	174	-6%	-3%
	NCA&T	76	87	108	42%	30%
	UNCG	470	492	414	-12%	16%
Doctoral Research	ECU	750	737	751	0%	23%
	UNCC	512	595	623	22%	7%
Master's	ASU	528	465	475	-10%	11%
	NCCU	165	141	203	23%	-7%
	UNCW	358	354	334	-7%	26%
	WCU	229	206	273	19%	8%

Table 14

Initially Licensed Teachers (ILT) Produced and the Percent Change over Three-Year Period for ILTs and CIP13

Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity

(continued)

Institution Type	UNC Institution	Initially Licensed Teachers			Change ILT 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
	UNCP	145	153	151	4%	29%
	FSU	133	133	108	-19%	3%
Baccalaureate	UNCA	77	66	59	-23%	0%
	ECSU	42	50	56	33%	-8%
	WSSU	29	29	31	7%	17%
System Totals		3,969	4,003	3,983	0%	13%

Note. Percent change is calculated over the 3 year period. Initially Licensed Teachers (ILT) includes the categories traditional undergraduates, MAT/M.Ed graduates and alternative completers. When ILTs are disaggregated by category, the number and percent change varies by category.

The number of ILTs produced by the UNC system have remained constant from 2005-2006 to 2007-2008 with no overall increase at the system level. In comparison, T/TE FTE faculty reported to the national Delaware Study have increased by 13% over this same period of time. Six institutions have had a decline in the number of ILTs produced; UNCA declined by 23%, FSU declined by 19%, UNCG declined by 12%, ASU declined by 10%, UNCW declined by 7%, and UNC-CH declined by 6%. Four of the six institutions with declining ILT productivity, recognized a percent increase in the T/TE FTE faculty reported to the national Delaware Study. Those institutions are FSU with a 3% increase, UNCW with a 26% increase, ASU with an 11% increase, and UNCG with a 16% increase. In contrast, of the three institutions with a decline in T/TE FTE faculty reported to the national Delaware Study (UNC-CH, ECSU, and NCCU), only one (UNC-CH) also had a decrease in the number of ILTs produced. ECSU and NCCU had a decline in T/TE FTE faculty, yet observed increases in the number of ILTs produced by 33% and 23% respectively.

When the data on UNC ILTs is disaggregated by graduates and alternative licensure completers, the results show that UNC traditional undergraduates have actually increased by 8% and the number of alternative completers for the UNC system, which includes MAT/M.Ed graduates, has decreased. The decline in alternative and MAT/M.Ed graduates account for the flat rate of overall initially licensed teachers produced at the UNC system level.

Research Question Five

Research question five, *Have campus allocations of CIP 13 – Education budgeted faculty increased or decreased relative to overall CIP 13 degrees conferred?*, analysis was conducted by comparing the number of education degrees conferred (DC) to CIP13 - Education T/TE FTE faculty reported to the National Survey of Instructional Costs and Productivity. Table 15 displays the number of education degrees conferred, the percent change in education DCs, and the percent change in CIP13 - Education T/TE FTE instructional faculty reported to the national Delaware Study from 2005-2006 through 2007-2008.

The number of education degrees conferred at the UNC system level and the number of CIP13 – Education T/TE FTE instructional faculty reported to the national Delaware Study both increased at the same rate of 13% from 2005-2006 to 2007-2008. The largest institutional increase in education degrees conferred was a 45% increase at NCCU. Large increases were also observed at UNCP (44%) and UNCC (35%). UNC-CH, with a 7% decrease, was the only institution with a decline in the number of education degrees conferred. As referenced in earlier results, UNC-CH also had a decline of 3% in the number of CIP13 - Education T/TE FTE faculty from 2005-2006 to 2007-2008.

Summary

In summary, a review of the data indicate FTE instructional faculty generated by the UNC Funding Model for CIP13 – Education increased by 79% from 2005-2006 to 2007-2008 at the system level. The percent increase of FTE

Table 15

CIP13 Education Degrees Conferred (DC) and the Percent Change over Three-Year Period for DCs and Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity

Institution Type	UNC Institution	CIP13 Education Degrees Conferred			Change DC 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
Research	NCSU	462	504	507	10%	19%
	UNC CH	322	307	300	-7%	-3%
	NCA&T	214	176	229	7%	30%
	UNCG	536	613	589	10%	16%
Doctoral Research	ECU	872	916	973	12%	23%
	UNCC	513	614	695	35%	7%
Master's	ASU	791	854	820	4%	11%
	NCCU	111	175	161	45%	-7%
	UNCW	333	356	376	13%	26%
	WCU	533	414	547	3%	8%

Table 15

CIP13 Education Degrees Conferred (DC) and the Percent Change over Three-Year Period for DCs and Tenured/Tenure-Eligible (T/TE) FTE Faculty Reported to the National Study of Instructional Costs and Productivity
(continued)

Institution Type	UNC Institution	CIP13 Education Degrees Conferred			Change DC 2005-2008	Change T/TE FTE 2005-2008
		N 2005-06	N 2006-07	N 2007-08		
	UNCP	165	287	238	44%	29%
	FSU	162	136	169	4%	3%
Baccalaureate	UNCA					0%
	ECSU	36	53	75	108%	-8%
	WSSU	28	44	42	50%	17%
System Totals		5078	5449	5721	13%	13%

Note. Percent change is calculated over the 3 year period.

instructional FTE (79%) generated by the UNC funding model exceeds the T/TE FTE (13%) and Total FTE (19%) instructional faculty reported to the national Delaware Study. Across institutions and across Carnegie classifications there is a wide range of results, with most institutions recognizing a significant increase from 2005-2006 to 2006-2007.

Initially licensed teachers produced by the UNC system has neither decreased nor increased in percent change from 2005-2006 to 2007-2008. When this data is disaggregated, the results show that UNC traditional undergraduates have increased by 8% and the number of alternative completers for the UNC system has decreased. The decline in alternative licensure completers and MAT/MEd graduates offset the system-level increase of traditional undergraduates receiving an initial license.

Analysis of the data show semester credit hours for CIP13 – Education for the UNC system increasing by 91% from 2005-06 to 2007-2008, while CIP13 – Education degrees conferred and T/TE FTE instructional faculty for the UNC system both increased by 13% during this same period. This is an important finding in the study and emphasizes the fact that semester credit hours are used in the UNC funding model as a basis for generating FTE instructional positions from enrollment growth. UNC institutions are financially incented through the UNC funding model with FTE instructional positions for increasing the number semester credit hours produced even if the credit hours are not directed toward the production of initially licensed teachers as emphasized in UNC's

accountability plan aimed at preparing more and better teachers and school leaders for North Carolina public schools.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Overview of the Study

As stated in chapter 4, this study is focused on teacher education program funding patterns for UNC and constituent institutions with an accredited teacher education program over a three-year period by analyzing system-level financial inputs and programmatic outputs at the campus-level to determine if support in the form of FTE instructional faculty has increased or decreased relative to initially licensed teachers prepared, semester credit hours produced, and education degrees conferred. The focus of this study emerged from the reported impact by constituent institutions of the increasing levels of accountability in responding to one of the University's highest priorities – preparing more and better teachers and school leaders for North Carolina's public schools. UNC institutions with professional teacher education programs are being held to high expectations by the UNC General Administration and the UNC Board of Governors to act more aggressively in responding to the state's teacher labor market demands. As the expectations for accountability rise, UNC teacher education programs must have adequate plans in place and financial support to be successful. Three targeted strategies have been identified to guide the system's efforts in responding to this overall priority. Those strategies are recruitment, preparation, and better support to improve the retention of new teacher and school leaders (UNCGA 2004a; UNCGA2006; UNCGA 2007). Although significant attention has been directed toward responding to statewide

teacher supply and demand trends, minimal attention has been directed toward the analysis of financial resources compared to productivity outputs that are aligned to the system priority. The issue of financial resources and support for UNC schools, colleges and departments of education must be examined and addressed if the University is to give substance to this strategic direction and fully address the teacher shortage in North Carolina.

Relationship of Results to Literature

Much of the existing research and seminal studies over the last twenty-five years only recently begins to emphasize the importance of investing in teacher preparation and teacher quality. Policy actions at the state and national level in the United States have long been driven by the overriding need to improving public education; however, it is only since the National Commission on Excellence in Education's 1983 report *A Nation at Risk* that policy reform more widely acknowledged the importance of teacher quantity and quality. Following *A Nation at Risk*, several studies and reports were released that issued recommendations and defined action items for how to address the teacher preparation and teacher quality problems identified in the 1983 report. However, less defined was how these recommendations would be financially supported by institutions of higher education and professional teacher education programs alike. While the need to improve public education, and even more specifically teacher preparation and quality, has received considerable attention through national and state-level reports and studies, very few have reported on the

financial support needed to implement the recommended reform and sustain rigorous research-based programs that prepare and support high quality teachers.

In North Carolina these national reports have triggered legislative action and influenced state-level policy. The University of North Carolina responded to the national call through a task force that made recommendations aimed at improving teacher preparation programs and licensing standards, attracting and retaining teachers, and developing strong cooperative partnerships between universities and public schools. The national reports also prompted legislative action and influenced state-level policy in North Carolina most significantly through the 1997 Excellent Schools Act (SL 1997-221/SB 272). This comprehensive legislative reform act addressed an array of teacher quality issues including standards for teacher preparation, initial and continuing licensure, increased teacher salaries, extended teacher initial licensure period, provisions for school-based incentives linked to student achievement, and opportunities for professional development for public school teachers in the state (Hirsch; North Carolina Excellent School Act, 1997).

At the national level, the call for attention to teacher preparation and teacher quality has prompted few and mostly dated studies addressing financial support for teacher preparation programs at institutions of higher education in the United States. These studies primarily focus on how well teacher education programs are funded compared to other academic disciplines on the same

campus, or how well teacher education is funded in comparison to other teacher education programs on peer campuses (Theobald). Studies in this review of literature have also compared teacher education programs with other academic discipline areas in higher education, examined program costs and program effects, and analyzed the economic benefit of five-year teacher preparation programs. Studies that look at academic program costs in the form of financial inputs and productivity in the form of outcome-based measures in teacher education are simply not found in the literature.

Collection of Data

This policy-oriented study covers the academic years 2005-2006, 2006-2007, and 2007-2008. The three-year timeframe aligns with UNC's accountability plans for preparing more and better teachers and school leaders. Data for this study were collected from three sources; UNC institutional data files were obtained from the Office of Institutional Research and Analysis at the UNC General Administration, UNC institutional survey results from the national Delaware Study were obtained from the Office of Institutional Research and Planning at the University of Delaware, and data derived from UNC funding model calculations.

Limitations of the Study

Data and analysis in this study carry several limitations. Actual funding model costs are not presented in the results due to economic and budget related factors such as discretionary budget reductions at the campus level and state or

system level mandated reductions that would impact State costs calculated for appropriation requests. To address this limitation, data pertaining to costs generated by the UNC funding model are presented in the form of FTE instructional faculty. Since the largest portion of an academic program budget is faculty costs, FTE instructional faculty is a reasonable unit of comparison for the analysis in this study.

Another limitation identified in this study is that institutions may have specific campus-level policies that restrict or even cap the distribution of FTE instructional faculty based on pre-determined conditions. Campus level policies such as this could impact the allocation of instructional FTE compared to the number of FTE instructional positions generated in the UNC Funding Formula. This limitation could also impact FTE instructional faculty reported to the national Delaware Study compared to student semester credit hours generated, campus productivity of initially licensed teachers, and overall education degrees conferred. A related limitation is the potential lag time between increases in semester credit hours generated, the FTE instructional positions generated by the UNC Funding Model, and productivity outputs as measured through annual accountability plans. UNC institutions are funded based on enrollment projections above or below the prior years' base funding level, therefore offsetting potential variance and lag time.

A wide range of differences in FTE instructional faculty are noted among constituent institutions across Carnegie classifications, in addition to a

significantly large increase in student semester credit hours and FTE instructional faculty from 2005-2006 to 2006-2007. Of the possible reasons for the observed increase, most plausible is that the timeframe from 2005-2006 to 2006-2007 coincides with UNC's implementation of the U.S. Department of Education's National Center for Education Statistics CIP-2000 conversion which put into place a complete update to the taxonomy of instructional program classifications used for reporting purposes. The ways in which these limitations impact the results presented in this study cannot be fully predicted.

Significance and Recommendations

The results of data analysis in this study yield three primary findings. First, the percent increase of FTE instructional faculty generated by the UNC funding model (79%) exceeds the number of T/TE FTE (13%) and Total FTE (19%) instructional faculty reported to the national Delaware Study. When examined across institutions and by Carnegie classifications, there is a wide variance represented in the results with significant increases observed from 2005-2006 to 2006-2007. Second, initially licensed teachers produced by the UNC system have remained constant from 2005-2006 to 2006-2007. Third, a key finding in this analysis is that CIP13 – Education degree conferred and T/TE FTE instructional faculty for the UNC system both increased by 13% from 2005-2006 to 2007-2008, while semester credit hours for CIP13 – Education for the UNC system have increased by 91%. In other words, UNC institutions are financially incited through the UNC funding model with FTE instructional positions for

increasing the semester credit hours, regardless of whether the credit hours are directed toward the preparation of initially licensed teachers.

Based on the findings and results of this study, the following recommendations are presented in two categories: (a) Practice and (b) Research.

Recommendations for Practice

This study makes three recommendations for practice:

1. Implementation of a comprehensive external audit of institutional research operations and data files at UNC General Administration and all constituent institutions, in addition to the development of an internal annual audit cycle that will help sustain data quality for reporting purposes is recommended.

Discrepancies in institutional data files submitted to UNC General Administration and data submitted to the National Survey of Instructional Costs and Productivity by campuses warrants further review. There is enough variance in the data utilized for this study to rationalize a comprehensive external audit of the institutional research unit on all campuses and at the UNC General Administration. The audit should be concerned with institutional research operational practices and functions at the campus and system levels, validity of the data within institutional research data files, efficiency of processes that cross administrative units and data systems, and overall risk assessment. In addition to the comprehensive audit, the UNC General Administration should institute an

internal annual audit cycle to help sustain the integrity of UNC's system of institutional data reporting. The audit cycle should consist of a rotating campus peer review team with UNC General Administration representation and it should ensure that all constituent institutions are reviewed by the internal audit team every three to five years.

2. Coordinate an annual professional development session for institutional research personnel, as well as others, that fully addresses institutional research annual reporting requirements, shares documentation around these reporting requirements, promotes best practices, and provides for inter-institutional exchange of ideas.

Institutional research personal, as well as other key campus representatives, would benefit from participating in an annual professional development session that provides an opportunity to address system-wide data reporting requirements, a review of documentation addressing these requirements, share best practices, and learn from each other. The professional development opportunity should be separate from the regularly scheduled technical meetings that designated institutional research personnel participate in each year. The session should also include a broader group of campus representatives that are responsible for and engaged in institutional data reporting matters at the campus level.

3. Develop a dashboard of benchmark indicators distributed annually to constituent institutions that is complementary to the system's annual

accountability plans for preparing more and better teachers and school leaders.

To help campuses better track workforce analysis within professional teacher education programs and monitor their progress in responding to the University's accountability to preparing more and better teachers and school leaders, the UNC General Administration should develop a dashboard of benchmark indicators for campuses as a supplemental document to each of the annual accountability plans. The benchmark data should include summary CIP13 Education semester credit hours by level, overall education degrees conferred by 4-digit CIP level, and distribution of FTE instructional faculty by 4-digit CIP level.

Recommendations for Research

This study makes one recommendation for research:

1. Conduct a case study of select institutions that would complete a full workforce analysis on the distribution of FTE instructional faculty by 4-digit CIP and by instructional level, in comparison to productivity outputs in the form of semester credit hours produced by 12-digit CIP, initially licensed teachers produced, and education degrees conferred.

The field would be well served by additional in-depth case studies comparing financial inputs and productivity outputs for professional teacher education programs to determine best practices in efficient and effective management of resources, primarily FTE instructional faculty, in meeting system-level accountability goals. It would be helpful to conduct a case study of select

UNC institutions that would complete a full workforce analysis on the campus-level distribution of FTE instructional faculty by 4-digit CIP and by instructional level in comparison to productivity outputs in the form of semester credit hours produced by 12 digit CIP, initially licensed teachers prepared, and education degrees conferred.

Conclusion

The objective of this study was to collect and analyze financial input data in the form of FTE instructional faculty for the UNC system and its fifteen teacher education programs. UNC's schools, colleges, and departments of education vary greatly in size, capacity, and licensure and degree program offerings. An obvious conclusion from the analysis of FTE instructional faculty to initially licensed teachers, semester credit hours, and education degrees conferred is that there are no identifiable patterns across UNC institutions and across Carnegie classification categories. However, this study does substantiate that UNC institutions are financially incented through the UNC funding model with FTE instructional positions for increasing the semester credit hours, regardless of whether the credit hours are directed toward the preparation of initially licensed teachers.

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APPENDIX A: TABLES ADDRESSING Q1

North Carolina State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	940	33	0	364.9	160.9	123.0	2.6	0.2	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	6,591	2,509	1,562	487.4	249.9	146.7	13.5	10.0	10.6
2	Distance	850	2,288	441	487.4	249.9	146.7	1.7	9.2	3.0
TOTALS	Regular	7,531	2,542	1,562				16.1	10.2	10.6
	Distance	850	2,288	441				1.7	9.2	3.0
					Cost Factor			Total		
Total UG Cost Factor (Applies to RT Total Hours Only)					Applied			0.0		
					0.0%			50.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

North Carolina State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,724	47	0	406.2	186.2	109.9	4.4	0.3	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	13,724	4,809	2,593	535.7	303.9	110.2	25.6	15.8	23.5
2	Distance	1,395	4,284	801	535.7	303.9	110.2	2.6	14.1	7.3
TOTALS	Regular	15,509	4,809	2,593				30.0	16.1	23.5
	Distance	1,395	4,284	801				2.6	14.1	7.3
					Cost Factor			Total		
Total UG Cost Factor (Applies to RT Total Hours Only)					Applied			0.0		
					0.0%			93.6		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

North Carolina State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,787	38	0	406.2	186.2	109.9	4.4	0.2	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	15,169	4,529	2,823	535.7	303.9	110.2	28.3	14.9	25.6
2	Distance	2,562	4,331	959	535.7	303.9	110.2	4.8	14.2	8.6
TOTALS	Regular	16,956	4,567	2,823				32.7	15.1	25.6
	Distance	2,562	4,331	950				4.8	14.2	8.6
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 101.1		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Chapel Hill 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	11,175	2,698	1,746	487.4	249.9	146.7	22.9	10.8	11.9
2	Distance	134	1,719	0	487.4	249.9	146.7	0.3	6.9	0.0
TOTALS	Regular	11,175	2,698	1,746				22.9	10.8	11.9
	Distance	134	1,719	0				0.3	6.9	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 52.8		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Chapel Hill 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,038	567	0	406.2	186.2	109.9	0.0	0.0	0.0
3	Distance	61	18	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	21,985	5,720	2,157	535.7	303.9	110.2	41.0	18.8	19.6
2	Distance	150	2,624	48	535.7	303.9	110.2	0.3	8.6	0.4
TOTALS	Regular	23,023	6,287	2,157				43.6	21.9	19.6
	Distance	211	2,642	48				0.4	8.7	0.4
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 94.6		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Chapel Hill 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,014	531	0	406.2	186.2	109.9	2.5	2.9	0.0
3	Distance	0	12	0	406.2	186.2	109.9	0.0	0.1	0.0
Category	Regular	12,365	4,017	1,994	535.7	303.9	110.2	23.1	13.2	18.1
2	Distance	507	4,682	0	535.7	303.9	110.2	0.9	15.4	0.0
TOTALS	Regular	13,379	4,548	1,994				25.6	16.1	18.1
	Distance	507	4,694	0				0.9	15.5	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 76.2		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

NCA&T State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	108	0	0	364.9	160.9	123.0	0.3	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	1,068	3,772	0	487.4	249.9	146.7	2.2	15.1	0.0
2	Distance	273	432	0	487.4	249.9	146.7	0.6	1.7	0.0
TOTALS	Regular	1176	3,772	0				2.5	15.1	0.0
	Distance	273	432	0				0.6	1.7	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.05%			Total 0.1 20		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

NCA&T State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	294	0	0	406.2	186.2	109.9	0.7	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	13,266	6,232	0	535.7	303.9	110.2	24.8	20.5	0.0
2	Distance	2,554	3,050	0	535.7	303.9	110.2	4.8	10.0	0.0
TOTALS	Regular	13,560	6,232	0				25.5	20.5	0.0
	Distance	2,554	3,050	0				4.8	10.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.05%			Total 1.3 62.1		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

NCA&T State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	390	0	0	406.2	186.2	109.9	1.0	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	12,635	5,909	106	535.7	303.9	110.2	23.6	19.4	1.0
2	Distance	3,279	4,042	1,082	535.7	303.9	110.2	6.1	13.3	9.8
TOTALS	Regular	13,025	5,909	106				24.5	19.4	1.0
	Distance	3,279	4,042	1,082				6.1	13.3	9.8
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.05%			Total 1.2 75.4		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Greensboro 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	93	78	0	364.9	160.9	123.0	0.3	0.5	0.0
3	Distance	15	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	6,980	4,927	824	487.4	249.9	146.7	14.3	19.7	5.6
2	Distance	142	1,652	33	487.4	249.9	146.7	0.3	6.6	0.2
TOTALS	Regular	7,073	5,005	824				14.6	20.2	5.6
	Distance	157	1,652	33				0.3	6.6	0.2
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 47.6		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Greensboro 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	2,688	69	0	406.2	186.2	109.9	6.6	0.4	0.0
3	Distance	195	0	0	406.2	186.2	109.9	0.5	0.0	0.0
Category	Regular	12,999	8,691	1,564	535.7	303.9	110.2	24.3	28.6	14.2
2	Distance	427	4,128	315	535.7	303.9	110.2	0.8	13.6	2.9
TOTALS	Regular	15,687	8,760	1,564				30.9	29.0	14.2
	Distance	622	4,128	315				1.3	13.6	2.9
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 91.8		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Greensboro 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	2,820	30	0	406.2	186.2	109.9	6.9	0.2	0.0
3	Distance	234	42	0	406.2	186.2	109.9	0.6	0.2	0.0
Category	Regular	13,879	8,785	1,795	535.7	303.9	110.2	25.9	28.9	16.3
2	Distance	574	4,315	288	535.7	303.9	110.2	1.1	14.2	2.6
TOTALS	Regular	16,699	8,815	1,795				32.8	29.1	16.3
	Distance	808	4,357	288				1.6	14.4	2.6
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 96.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

East Carolina University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,030	18	0	364.9	160.9	123.0	2.8	0.1	0.0
3	Distance	10	0	0	364.9	160.9	123.0	0	0.0	0.0
Category	Regular	11,128	3,059	671	487.4	249.9	146.7	22.8	12.2	4.6
2	Distance	7,501	12,629	471	487.4	249.9	146.7	15.4	50.5	3.2
TOTALS	Regular	12,158	3,077	671				25.7	12.4	4.6
	Distance	7,511	12,629	471				15.4	50.5	3.2
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 111.7		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

East Carolina University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	3,440	567	0	406.2	186.2	109.9	8.5	3.0	0.0
3	Distance	290	0	0	406.2	186.2	109.9	0.7	0.0	0.0
Category	Regular	21,559	5,112	986	535.7	303.9	110.2	40.2	16.8	9.0
2	Distance	10,412	0	829	535.7	303.9	110.2	19.4	50.7	7.5
TOTALS	Regular	24,999	5,679	986				48.7	19.9	9.0
	Distance	10,702	15,397	829				20.1	50.7	7.5
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 155.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

East Carolina University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	3,440	585	0	406.2	186.2	109.9	8.5	3.1	0.0
3	Distance	550	0	0	406.2	186.2	109.9	1.4	0.0	0.0
Category	Regular	20,970	4,311	1,009	535.7	303.9	110.2	39.1	14.2	9.2
2	Distance	11,559	19,244	785	535.7	303.9	110.2	21.6	63.3	7.1
TOTALS	Regular	24,410	4,896	1,009				47.6	17.3	9.2
	Distance	12,109	19,244	785				22.9	63.3	7.1
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 167.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Charlotte 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,515	216	0	364.9	160.9	123.0	4.2	1.3	0.0
3	Distance	0	48	0	364.9	160.9	123.0	0.0	0.3	0.0
Category	Regular	7,525	5,745	989	487.4	249.9	146.7	15.4	23.0	6.7
2	Distance	156	3,357	3	487.4	249.9	146.7	0.3	13.4	0.0
TOTALS	Regular	9,040	5,961	989				19.6	24.3	6.7
	Distance	156	3,405	3				0.3	13.7	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 64.7		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Charlotte 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	3,720	585	0	406.2	186.2	109.9	9.2	3.1	0.0
3	Distance	195	24	0	406.2	186.2	109.9	0.5	0.1	0.0
Category	Regular	15,513	10,644	1,975	535.7	303.9	110.2	29.0	35.0	17.9
2	Distance	261	4,488	0	535.7	303.9	110.2	0.5	14.8	0.0
TOTALS	Regular	19,233	11,229	1,975				38.1	38.2	17.9
	Distance	456	4,512	0				1.0	14.9	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 110.1		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Charlotte 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	4,620	552	0	406.2	186.2	109.9	11.4	3.0	0.0
3	Distance	48	1	0	406.2	186.2	109.9	0.1	0.0	0.0
Category	Regular	15,833	9,934	2,043	535.7	303.9	110.2	29.6	32.7	18.5
2	Distance	287	2,878	111	535.7	303.9	110.2	0.5	9.5	1.0
TOTALS	Regular	20,453	10,486	2,043				40.9	35.6	18.5
	Distance	335	2,879	111				0.7	9.5	1.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.0%			Total 0.0 106.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Appalachian State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	2,292	0	0	364.9	160.9	123.0	6.3	0.0	0.0
3	Distance	192	0	0	364.9	160.9	123.0	0.5	0.0	0.0
Category	Regular	13,012	2,138	225	487.4	249.9	146.7	26.7	8.6	1.5
2	Distance	2,115	6,298	0	487.4	249.9	146.7	4.3	25.2	0.0
TOTALS	Regular	15,313	2,138	225				33.0	8.6	1.5
	Distance	2,307	6,298	0				4.9	25.2	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 3.3 76.4		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Appalachian State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	5,208	0	0	406.2	186.2	109.9	12.8	0.0	0.0
3	Distance	492	0	0	406.2	186.2	109.9	1.2	0.0	0.0
Category	Regular	26,739	3,990	449	535.7	303.9	110.2	49.9	13.1	4.1
2	Distance	4,277	12,952	0	535.7	303.9	110.2	8.0	42.6	0.3
TOTALS	Regular	31,947	3,990	449				62.7	13.1	4.1
	Distance	4,769	12,952	36				9.2	42.6	0.3
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 6.3 138.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Appalachian State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	5,184	0	0	406.2	186.2	109.9	12.8	0.0	0.0
3	Distance	456	0	0	406.2	186.2	109.9	1.1	0.0	0.0
Category	Regular	28,505	4,208	468	535.7	303.9	110.2	53.2	13.8	4.2
2	Distance	3,809	11,441	232	535.7	303.9	110.2	12.8	37.6	2.1
TOTALS	Regular	33,689	4,208	468				66.0	13.8	4.2
	Distance	4,265	11,441	232				8.2	37.6	2.1
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 6.6 138.6		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

North Carolina Central University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	222	39	0	364.9	160.9	123.0	0.6	0.2	0.0
3	Distance	0	3	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	6,591	2,974	0	487.4	249.9	146.7	13.5	11.9	0.0
2	Distance	2,935	1,241	0	487.4	249.9	146.7	6.0	5.0	0.0
TOTALS	Regular	6,813	3,013	0				14.1	12.1	0.0
	Distance	2,935	1,244	0				6.0	5.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 1.5%			Total 2.1 39.4		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

North Carolina Central University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	570	87	0	406.2	186.2	109.9	1.4	0.5	0.0
3	Distance	0	18	0	406.2	186.2	109.9	0.0	0.1	0.0
Category	Regular	11,684	5,673	0	535.7	303.9	110.2	21.8	18.7	0.0
2	Distance	3,484	2,670	0	535.7	303.9	110.2	6.5	8.8	0.0
TOTALS	Regular	12,254	5,760	0				23.2	19.1	0.0
	Distance	3,484	2,688	0				6.5	8.9	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 1.5%			Total 3.5 61.2		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

North Carolina Central University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	504	36	0	406.2	186.2	109.9	1.2	0.2	0.0
3	Distance	0	24	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	11,718	5,474	0	535.7	303.9	110.2	21.9	18.0	0.0
2	Distance	3,014	3,610	0	535.7	303.9	110.2	5.6	11.9	0.0
TOTALS	Regular	12,222	5,510	0				23.1	18.2	0.0
	Distance	3,014	3,634	0				5.6	12.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 1.5%			Total 3.5 62.4		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Wilmington 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	828	54	0	364.9	160.9	123.0	2.3	0.3	0.0
3	Distance	276	0	0	364.9	160.9	123.0	0.8	0.0	0.0
Category	Regular	12,118	1,550	0	487.4	249.9	146.7	24.9	6.2	0.0
2	Distance	1,793	108	0	487.4	249.9	146.7	3.7	0.4	0.0
TOTALS	Regular	12,946	1,604	0				27.1	6.5	0.0
	Distance	2,069	108	0				4.4	0.4	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 2.7 41.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Wilmington 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	3,324	78	0	406.2	186.2	109.9	8.2	0.4	0.0
3	Distance	636	0	0	406.2	186.2	109.9	1.6	0.0	0.0
Category	Regular	22,375	2,564	0	535.7	303.9	110.2	41.8	8.4	0.0
2	Distance	3,136	303	0	535.7	303.9	110.2	5.9	1.0	0.0
TOTALS	Regular	25,699	2,642	0				49.9	8.9	0.0
	Distance	3,772	303	0				7.4	1.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 5.0 72.2		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Wilmington 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	3,264	78	0	406.2	186.2	109.9	8.0	0.4	0.0
3	Distance	828	0	0	406.2	186.2	109.9	2.0	0.0	0.0
Category	Regular	21,426	2,664	192	535.7	303.9	110.2	40.0	8.8	1.7
2	Distance	4,022	491	0	535.7	303.9	110.2	7.5	1.6	0.0
TOTALS	Regular	24,690	2,742	192				48.0	9.2	1.7
	Distance	4,850	491	0				9.5	1.6	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 4.8 74.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Western Carolina University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	349	84	0	364.9	160.9	123.0	1.0	0.5	0.0
3	Distance	9	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	4,458	2,429	268	487.4	249.9	146.7	9.1	9.7	1.8
2	Distance	1,512	2,252	30	487.4	249.9	146.7	3.1	9.0	0.2
TOTALS	Regular	4,807	2,513	268				10.1	10.2	1.8
	Distance	1,521	2,252	30				3.1	9.0	0.2
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 1.0 35.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Western Carolina University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	936	108	0	406.2	186.2	109.9	2.3	0.6	0.0
3	Distance	35	15	0	406.2	186.2	109.9	0.1	0.1	0.0
Category	Regular	8,118	3,293	728	535.7	303.9	110.2	15.2	10.8	6.6
2	Distance	2,244	2,833	372	535.7	303.9	110.2	4.2	9.3	3.4
TOTALS	Regular	9,054	3,401	728				17.5	11.4	6.6
	Distance	2,279	2,848	372				4.3	9.4	3.4
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 1.7 54.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*Western Carolina University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13
- Education Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	1,332	126	0	406.2	186.2	109.9	3.3	0.7	0.0
3	Distance	161	48	0	406.2	186.2	109.9	0.4	0.3	0.0
Category	Regular	8,530	3,479	594	535.7	303.9	110.2	15.9	11.4	5.4
2	Distance	3,016	3,756	499	535.7	303.9	110.2	5.6	12.4	4.5
TOTALS	Regular	9,862	3,605	594				19.2	12.1	5.4
	Distance	161	3,804	499				6.0	12.6	4.5
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.1%			Total 1.9 61.8		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Pembroke 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	333	0	0	364.9	160.9	123.0	0.9	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	2,905	783	0	487.4	249.9	146.7	6.0	3.1	0.0
2	Distance	3,451	1,706	0	487.4	249.9	146.7	7.1	6.8	0.0
TOTALS	Regular	3,238	783	0				6.9	3.1	0.0
	Distance	3,451	1,706	0				7.1	6.8	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 1.4 25.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Pembroke 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	981	3	0	406.2	186.2	109.9	2.4	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	11,114	2,072	0	535.7	303.9	110.2	20.7	6.8	0.0
2	Distance	5,826	2,107	0	535.7	303.9	110.2	10.9	6.9	0.0
TOTALS	Regular	12,095	2,075	0				23.2	6.8	0.0
	Distance	5,826	2,107	0				10.9	6.9	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 4.6 52.4		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Pembroke 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	12,312	1,715	0	535.7	303.9	110.2	23.0	5.6	0.0
2	Distance	5,248	2,146	0	535.7	303.9	110.2	9.8	7.1	0.0
TOTALS	Regular	12,312	1,715	0				23.0	5.6	0.0
	Distance	5,248	2,146	0				9.8	7.1	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 4.6 50.1		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Fayetteville State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	360	0	0	364.9	160.9	123.0	1.0	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	5,882	1,215	348	487.4	249.9	146.7	12.1	4.9	2.4
2	Distance	3,604	2,061	0	487.4	249.9	146.7	7.4	8.2	0.0
TOTALS	Regular	6,242	1,215	348				13.1	4.9	2.4
	Distance	3,604	2,061	0				7.4	8.2	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 2.6 38.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*Fayetteville State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13
- Education Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	807	3	0	406.2	186.2	109.9	2.0	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	11,740	1,773	474	535.7	303.9	110.2	21.9	5.8	4.3
2	Distance	5,882	2,730	0	535.7	303.9	110.2	11.0	9.0	0.0
TOTALS	Regular	12,547	1,776	474				23.9	5.8	4.3
	Distance	5,882	2,730	0				11.0	9.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 4.8 58.8		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*Fayetteville State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13
- Education Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	792	9	0	406.2	186.2	109.9	1.9	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	12,814	1,650	438	535.7	303.9	110.2	23.9	5.4	4.0
2	Distance	7,302	2,889	0	535.7	303.9	110.2	13.6	9.5	0.0
TOTALS	Regular	13,606	1,659	438				25.9	5.5	4.0
	Distance	7,302	2,889	0				13.6	9.5	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 1.5%			Total 3.9 62.3		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

*UNC Asheville 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education
Generated by the UNC Funding Model*

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	246	0	0	364.9	160.9	123.0	0.7	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.9	0.0	0.0
Category	Regular	1,437	0	0	487.4	249.9	146.7	2.9	0.0	0.0
2	Distance	0	0	0	487.4	249.9	146.7	0.0	0.0	0.0
TOTALS	Regular	1,683	0	0				3.6	0.0	0.0
	Distance	0	0	0				0.0	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 2.5 %			Total 0.9 4.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Asheville 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	426	0	0	406.2	186.2	109.9	1.0	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	2,408	0	0	535.7	303.9	110.2	4.5	0.0	0.0
2	Distance	10	0	0	535.7	303.9	110.2	0.0	0.0	0.0
TOTALS	Regular	2,834	0	0				5.5	0.0	0.0
	Distance	10	0	0				0.0	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 2.5%			Total 1.4 6.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

UNC Asheville 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	348	0	0	406.2	186.2	109.9	0.9	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	2,446	0	0	535.7	303.9	110.2	4.6	0.0	0.0
2	Distance	64	0	0	535.7	303.9	110.2	0.1	0.0	0.0
TOTALS	Regular	2,794	0	0				5.4	0.0	0.0
	Distance	64	0	0				0.1	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 2.5%			Total 1.4 6.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Elizabeth City State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	132	0	0	364.9	160.9	123.0	0.4	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	4,320	251	0	487.4	249.9	146.7	8.9	1.0	0.0
2	Distance	435	0	0	487.4	249.9	146.7	0.9	0.0	0.0
TOTALS	Regular	4,452	251	0				9.2	1.0	0.0
	Distance	435	0	0				0.9	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 1.8 13.0		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Elizabeth City State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	468	0	0	406.2	186.2	109.9	1.2	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	9,353	424	0	535.7	303.9	110.2	17.5	1.4	0.0
2	Distance	642	0	0	535.7	303.9	110.2	1.2	0.0	0.0
TOTALS	Regular	9,821	424	0				18.6	1.4	0.0
	Distance	642	0	0				1.2	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 3.7 24.9		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Elizabeth City State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	738	0	0	406.2	186.2	109.9	1.8	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	10,491	874	0	535.7	303.9	110.2	19.6	2.9	0.0
2	Distance	487	0	0	535.7	303.9	110.2	0.9	0.0	0.0
TOTALS	Regular	11,229	874	0				21.4	2.9	0.0
	Distance	487	0	0				0.9	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 4.3 29.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Winston-Salem State University 2005-2006: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Position Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	135	0	0	364.9	160.9	123.0	0.4	0.0	0.0
3	Distance	0	0	0	364.9	160.9	123.0	0.0	0.0	0.0
Category	Regular	3,526	277	0	487.4	249.9	146.7	7.2	1.1	0.0
2	Distance	192	0	0	487.4	249.9	146.7	0.4	0.0	0.0
TOTALS	Regular	3,661	277	0				7.6	1.1	0.0
	Distance	192	0	0				0.4	0.0	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 1.5 10.6		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Winston-Salem State University 2006-2007: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	279	0	0	406.2	186.2	109.9	0.7	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	10,589	387	0	535.7	303.9	110.2	19.8	1.3	0.0
2	Distance	296	102	0	535.7	303.9	110.2	0.6	0.3	0.0
TOTALS	Regular	10,868	387	0				20.5	1.3	0.0
	Distance	296	102	0				0.6	0.3	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied			Total		
					0.2%			4.1		
Total Positions Generated (RT and DE; UG, G, & D)								26.7		

Note. CIP13 - Education = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

Winston-Salem State University 2007-2008: Yield of Instructional Positions per Semester Credit Hour (SCH) for CIP13 - Education Generated by the UNC Funding Model

		SCH (Actual Hours)			SCH per Instructional Position			Instructional Positions Generated		
		UG	G	D	UG	G	D	UG	G	D
Category	Regular	315	0	0	406.2	186.2	109.9	0.8	0.0	0.0
3	Distance	0	0	0	406.2	186.2	109.9	0.0	0.0	0.0
Category	Regular	6.877	212	0	535.7	303.9	110.2	12.8	0.7	0.0
2	Distance	186	652	0	535.7	303.9	110.2	0.3	2.1	0.0
TOTALS	Regular	7,192	212	0				13.6	0.7	0.0
	Distance	186	652	0				0.3	2.1	0.0
Total UG Cost Factor (Applies to RT Total Hours Only)					Cost Factor Applied 0.2%			Total 2.7 19.5		
Total Positions Generated (RT and DE; UG, G, & D)										

Note. CIP13 (Education) = Classification of Instructional Programs for Education; UG = undergraduate; G = graduate; D = doctoral; FTE = full time equivalent; Regular = regular semester credit hours; DE = distance semester credit hours. From UNC funding model utilizing semester credit hours from UNC Institutional data files.

APPENDIX B: TOTAL UNC FUNDING MODEL COST FACTORS APPLIED BY
 INSTITUTION AND CARNEGIE CLASSIFICATION INSTITUTION TYPE FOR
 THE YEARS 2005-2006 THROUGH 2007-2008

		Cost Factor	2005-06	2006-06	2007-08		
Research	NCSU	Factor 1 (.05)					
		Factor 2 (0.1)					
		Factor 3 (.05)					
		Factor 4 (0.1)					
		Total Applied	0.0	0.0	0.0		
		UNC	Factor 1 (.05)				
			CH	Factor 2 (0.1)			
				Factor 3 (.05)			
				Factor 4 (0.1)			
				Total Applied	0.0	0.0	0.0
		NCA&T	Factor 1 (.05)	.05	.05	.05	
			Factor 2 (0.1)				
			Factor 3 (.05)				
			Factor 4 (0.1)				
			Total Applied	.05	.05	.05	
		UNC-G	Factor 1(.05)				
			Factor 2 (0.1)				
			Factor 3 (.05)				

		Factor 4 (0.1)			
		Total Applied	0.0	0.0	0.0
		Cost Factor	2005-06	2006-06	2007-08
Doctoral Research	ECU	Factor 1 (.05)			
		Factor 2 (0.1)			
		Factor 3 (.05)			
		Factor 4 (0.1)			
		Total Applied	0.0	0.0	0.0
	UNC-C	Factor 1 (.05)			
		Factor 2 (0.1)			
		Factor 3 (.05)			
		Factor 4 (0.1)			
		Total Applied	0.0	0.0	0.0
Master's	ASU	Factor 1			
		Factor 2	0.1	0.1	0.1
		Factor 3			
		Factor 4			
		Total Applied	0.1	0.1	0.1
	NCCU	Factor 1 (.05)	.05	.05	.05
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)			
		Factor 4 (0.1)			

		Total Applied	.15	.15	.15
		Cost Factor	2005-06	2006-06	2007-08
Master's	UNC-W	Factor 1 (.05)			
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)			
		Factor 4 (0.1)			
		Total Applied	0.1	0.1	0.1
	WCU	Factor 1 (.05)			
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)			
		Factor 4 (0.1)			
		Total Applied	0.1	0.1	0.1
	UNC-P	Factor 1 (.05)	.05	.05	.05
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)	.05	.05	.05
		Factor 4 (0.1)			
		Total Applied	.20	.20	.20
	FSU	Factor 1 (.05)	.05	.05	.05
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)	.05	.05	
		Factor 4 (0.1)			
		Total Applied	.20	.20	.15

		Cost Factor	2005-06	2006-06	2007-08
Bacc.	UNC-A	Factor 1 (.05)			
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)	.05	.05	.05
		Factor 4 (0.1)	0.1	0.1	0.1
		Total Applied	.25	.25	.25
	ECSU	Factor 1 (.05)	.05	.05	.05
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)	.05	.05	.05
		Factor 4 (0.1)			
		Total Applied	0.2	0.2	0.2
	WSSU	Factor 1 (.05)	.05	.05	.05
		Factor 2 (0.1)	0.1	0.1	0.1
		Factor 3 (.05)	.05	0.05	.05
		Factor 4 (0.1)			
		Total Applied	0.2	0.2	0.2

APPENDIX C: INSTITUTIONAL REVIEW BOARD APPROVAL LETTER



University and Medical Center Institutional Review Board

East Carolina University • Brody School of Medicine
600 Moye Boulevard • Old Health Sciences Library, Room 1L-09 • Greenville, NC 27834
Office 252-744-2914 • Fax 252-744-2284 • www.ecu.edu/irb
Chair and Director of Biomedical IRB: L. Wiley Nifong, MD
Chair and Director of Behavioral and Social Science IRB: Susan L. McCammon, PhD

TO: Alisa Chapman, 309 Deepwood Rd., Chapel Hill, NC 27514

FROM: UMCIRB *WJ*

DATE: April 22, 2009

RE: Human Research Activities Determined to Meet Exempt Criteria

TITLE: "A Comparative Analysis of UNC System-Level Financial Inputs and Campus-Level Productivity Outputs"

UMCIRB #09-0372

This research study has undergone IRB review on 4.15.09. It is the determination of the IRB Chairperson (or designee) that these activities meet the criteria set forth in the federal regulations for exemption from 45 CFR 46 Subpart A. These human research activities meet the criteria for an exempt status because it is a research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects. *NOTE: 1) This information must be existing on the date this IRB application is submitted. 2) The data collection tool may not have an identifier or code that links data to the source of the information.*

The Chairperson (or designee) deemed this **unfunded** study **no more than minimal risk**. This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any changes must be submitted to the UMCIRB for review prior to implementation to allow determination that proposed changes do not impact the activities eligibility for exempt status. Should it found that a proposed change does require more substantive review, you will be notified in writing within five business days.

The following items were reviewed in determination exempt certification:

- Internal Processing Form (dated 3.27.09)

It was furthermore determined that the reviewer does not have a potential for conflict of interest on this study.

The UMCIRB applies 45 CFR 46, Subparts A-D, to all research reviewed by the UMCIRB regardless of the funding source. 21 CFR 50 and 21 CFR 56 are applied to all research studies that fall under the purview of Food and Drug Administration regulations. The UMCIRB follows applicable International Conference on Harmonisation Good Clinical Practice guidelines.