



**The Preparation of Middle Grades Teachers in an Era of
High Stakes and High Standards:
Philadelphia's Predicament**

Elizabeth Useem

Robert Barends

Kirsten Lindermayer

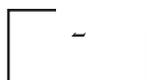
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EXECUTIVE SUMMARY

The Philadelphia Education Fund conducted a study during 1999 on selected aspects of the preparation and certification of middle level teachers in Pennsylvania and the Philadelphia area. The research was prompted by the Fund's concern about the shortage of qualified teachers in middle schools in the School District of Philadelphia. We obtained data on the staffing of middle schools in Philadelphia in order to assess the need for teachers with strong content-area preparation in those schools. We gathered information from all 50 states on their middle grades teacher certification policies to provide a comparative context for the analysis. We also conducted a telephone survey of directors of teacher education programs at the 19 colleges and universities in the Philadelphia area to find out whether or not they had specific middle grades teacher preparation programs in operation or were planning such programs in wake of the state's newly-enacted middle level certification option. In addition, we reviewed relevant literature in order to identify exemplary training programs across the country.

We have prepared this report as part of the Excellence in Teaching Partnership Initiative funded by the William Penn Foundation. This effort is a collaboration among the Fund, Temple University, and the Office of Human Resources and Office of Leadership and Learning of the School District of Philadelphia. The aim of the initiative is to encourage undergraduate students at Temple to enroll in its new specialized program of teacher preparation for the middle grades; to link the University more closely with neighboring middle schools; to expedite hiring of the program's graduates by the School District of Philadelphia; and to enhance the District's induction of new middle grades teachers. The grant also specified that the collaborating groups would explore ways to encourage the state to strengthen requirements for the preparation of teachers of young adolescents.

This report aims to do four things:

- Lend urgency to the need for specialized preparation for teachers in Philadelphia's middle grades;
- Place Pennsylvania's teacher certification policies in a wider context by summarizing the status of other states' requirements and options for licensure in the middle grades;
- Profile exemplary teacher education programs for middle grades teachers in order to assist the Pennsylvania Department of Education in creating criteria for the middle level certificate, and to assist Philadelphia-area colleges and universities as they re-think preparation for teachers at the middle level; and
- Describe the middle level programs currently being offered in the area's higher education institutions.

The Need

The need for strong middle grades teachers is not a new one. What is new are higher standards for student performance, including high-stakes state and district promotion and graduation requirements. Also new is the accumulation of research evidence that teacher quality, particularly proficiency in subject matter knowledge, has a dramatic impact on student achievement. The state has only recently approved (1999) a middle level certificate for grades 6-9, a credential that is optional and still not clearly defined. Until now, teachers have been certified for the elementary level (K-6th grade) or for a subject specialty at the secondary

level (7th-12th grade). Pennsylvania allows the assignment of elementary-certified teachers to seventh and eighth grade classes.

Philadelphia's 42 middle schools (typically grades 6-8) have great difficulty attracting and retaining qualified teachers who are committed to teaching young adolescents. Our analysis of District data shows that 93 percent of the teachers in Philadelphia's neighborhood middle schools are elementary certified which means they typically have had little prior preparation in core content areas such as mathematics, science, and social studies. It comes as no surprise, therefore, that eighth grade standardized achievement scores are low, particularly in mathematics and science. Further, teacher mobility out of middle schools is higher than that of any other school type in the District.

Trends in State Credentialing Policies for the Middle Grades

States in the 1990s have moved in the direction of offering and/or requiring middle grades licenses or endorsements (additions) to an elementary or secondary teaching license. Our review of state regulations as of June, 1999 found that:

- 42 states offer middle level credentials, up from 33 in 1992;
- 28 of these states offer full certification for the middle grades while 14 have an endorsement credential that can be added to an elementary or secondary certificate;
- 14 states require a middle level certificate or endorsement (or its equivalent) to teach in the middle grades compared to 11 states in 1992;
- Only four states offer a "generalist" certificate or endorsement for this level, i.e. one that does not require one or more subject-area specializations;
- Middle grades is most commonly defined for credentialing purposes as grades 5-8 (13 states) or grades 5-9 (13 states).

Pre-Service Teacher Preparation

Our survey of 19 Philadelphia-area colleges and universities revealed that three institutions have specialized teacher education programs in operation that are aimed at the middle grades:

- Rosemont College offers a Master's in Education degree in middle school education;
- Widener University began offering a middle school education major within its Master's in Education degree program in the fall of 1999.
- Temple University, the largest supplier of new teachers to the School District of Philadelphia, kicked off an undergraduate middle school endorsement program in the fall of 1999.

Cheyney University is planning a middle grades Master's program that it hopes to launch by September 2000. The University of Pennsylvania is planning an urban-oriented middle grades Master's degree that is scheduled to begin in the fall of 2001. A number of other colleges and universities contacted for this

study indicated an interest in developing a program pending clarification from the state about the specifics of the new middle level certificate.

Our review of exemplary programs across the country, four of which are profiled in the report, reiterated the conclusions of other researchers that strong programs emphasize teachers' knowledge of 1) one, preferably two, academic subject area(s); 2) the developmental needs of young adolescents; 3) instructional strategies that motivate students; and 4) organizational practices that promote both student learning and a collegial professional community among the staff. In addition, intensive field experiences in schools are a hallmark of high quality pre-service programs.

Philadelphia's Predicament

Philadelphia's public schools have a serious shortage of qualified teachers, particularly in grades 6-8. School districts in the rest of the state, however, have an oversupply of teachers, leaving reformers in Philadelphia with few allies to press the state for more rigorous certification requirements for middle level teachers. Further, superintendents and principals across the state prefer not to have required middle grades licensure, fearing that such restrictions would limit the ease of scheduling they now enjoy by deploying teachers across a wide range of grade levels. An additional problem is that Pennsylvania, unlike many other states, has not developed a comprehensive package of initiatives to upgrade the teacher workforce.

Conclusion

Children have a right to receive classroom instruction from qualified teachers in an era where they face harsh penalties in school and later in the labor market for faltering academic performance. Young adolescents in the urban underclass will not find a way out of poverty if their classrooms are staffed by a succession of faculty yearning to be with six year-olds, substitute teachers, emergency-credentialed instructors, and elementary-certified teachers lacking subject-area specializations. The state and the School District of Philadelphia need to put in place a range of incentives and requirements that lead to an expanded pool of qualified faculty willing to teach in the District's middle schools.

I. THE LOCAL, STATE, AND NATIONAL CONTEXTS

More than ever, the nation's students need skilled classroom teachers. They are entering a high-skill economy where success in post-secondary training or higher education is essential. Recognizing the need for strong preparation from kindergarten through high school, states and districts around the country are implementing new curricular and performance goals and accompanying assessments. Students in Philadelphia public schools, like their counterparts elsewhere, now face higher standards for promotion and graduation. The data presented in this study underscore the special problems characterizing the qualifications of teachers in the District's middle grades schools at a time when the need to align standards for teacher pre-service education with academic standards for students is becoming more pressing.

This report, prepared as part of the Excellence in Teaching Partnership initiative of the Philadelphia Education Fund, aims to do four things:

- Highlight the urgency of Philadelphia's need for qualified middle grades teachers;
- Place Pennsylvania's policies in a wider context by summarizing the status of other states' requirements and options for licensure in the middle grades;
- Profile exemplary teacher education programs for middle grades teachers in order to assist 1) the Pennsylvania Department of Education in crafting criteria for the middle level certificate, and 2) Philadelphia-area colleges and universities that are choosing to re-think preparation for teachers of early adolescents;
- Describe the middle level programs currently being offered in the area's higher education institutions.

We gathered data for this report from several sources. The School District of Philadelphia provided us with 1999-2000 academic year data on teacher certification levels (elementary or secondary certified, by subject level) in the District's middle schools and on teacher-transfer patterns within the District over the last four years. We collected information from all 50 states and the District of Columbia via websites, telephone interviews, e-mail, and mailed materials with regard to their middle grades teacher certification policies. We also conducted a telephone survey of Deans or Directors of Teacher Education programs at all of the colleges and universities (19) in the Philadelphia area with teacher training programs to find out the status of middle grades preparation at their schools. In addition, we reviewed relevant literature in order to identify exemplary middle grades teacher preparation programs across the country.

The Problem

Middle grades schools in Philadelphia and other urban areas urgently need teachers who have completed specially-designed programs for middle level instruction since solid preparation in these grades is critical for students' subsequent success. Robert Balfanz and Douglas MacIver, middle school researchers and reformers from Johns Hopkins University with extensive experience in Philadelphia, describe the situation in stark terms:

In many respects, it is during the middle grades that the battle for urban education is lost. It is here that the absence of strong curricula and the lack of well-prepared teachers are most severe. ¹ It is also during the early years of adolescence that students become disengaged from school and fail to receive the academic preparation that they need to succeed in high school. Alienated, unsure, and having received a very uneven and substandard middle grades education, up to half the students in our nation's largest cities are unable to make a successful transition to high school. ²

In Philadelphia, approximately two-thirds of eighth graders perform below grade level in standardized tests in mathematics and science. Almost half of all ninth graders in the District earn an average of D or F for all their courses, reflecting weak prior preparation. ³

Eighth graders in the School District of Philadelphia must meet new academic standards beginning in the 1999-2000 school year. By June, 2002 the District will not allow eighth graders to be promoted to the ninth grade unless they a) receive passing grades in language arts, math, science, and social studies, with 20 percent of the course mark based on new citywide final exams in those subjects; b) score at grade level ("Basic") or above on Stanford 9 standardized tests in English, math, and science or, alternatively, pass all of the citywide final exams for grade eight; and c) complete interdisciplinary and service learning projects. Projected requirements for promotion and high school graduation become even more stringent in subsequent years.

Strong middle grades preparation will also be increasingly critical for students if they are to meet Pennsylvania's high school graduation performance standards for 2002-03. Seniors will not graduate unless they score at the "proficient" level or above in reading, writing, and mathematics on the Pennsylvania state assessment tests (PSSA) or on equivalent locally-designed assessment measures. Students whose PSSA scores in the eleventh or twelfth grades fall in either the "proficient" or "advanced" range will receive a State Seal of Proficiency or Distinction that will be affixed to their diplomas and noted on their transcripts.

Faithful implementation of higher academic standards, however, assumes that qualified teachers are in the

classroom. In Philadelphia's 97 schools with middle grades (42 of them middle schools), this assumption is often false. The District has a critical shortage of teachers who are prepared and willing to teach in grades 6-8. Applicants to the District who are elementary-certified for grades K-6 or who have secondary certification in one or more subject areas for grades 7-12 usually prefer placements in elementary schools (this includes K-8 schools) and high schools respectively, accepting middle school positions only as a last resort.⁴

The vast majority of the teachers, 93 percent, in neighborhood middle schools in Philadelphia are elementary certified which means they were not initially trained to teach beyond the sixth grade.⁵ A further problem is that Apprentice Teachers with emergency credentials are often assigned to fill middle school vacancies. Such staffing practices stand in sharp contrast to those of many suburban middle schools that have high percentages of core subject specialists certified to teach grades 7-12.

Pennsylvania certification regulations and established practices bear some responsibility for this state of affairs. The state did not create a middle level teacher certification option (grades 6-9) until 1999. Criteria for awarding that certificate are still in the process of development. New middle grades teachers will not be required to have this certificate or endorsement (an addition to an existing credential) in order to teach in those grades. New elementary certified and secondary-certified candidates can still teach in middle schools without any additional preparation. It should be cause for alarm that Pennsylvania still allows middle schools to assign elementary-certified teachers to instruct grades seven and eight despite holding a K-6 license at a time when standards-based curricula and assessments are being implemented. This particular practice is increasingly uncommon in other states.

Two features of policies governing placement of teachers in Philadelphia schools further exacerbate the problem of teacher quality in high-poverty schools. First, seniority provisions in the teachers union contract enable teachers to apply for transfer out of school to another school(s) in the District with a vacancy after just two years of service in the original school. Teachers use this provision to transfer out of high-poverty schools to schools with somewhat more advantaged and higher achieving student bodies, a practice that allows "low performing schools to serve as a farm system for stronger schools."⁶ A 1999 District study of transfer data over a four year period demonstrate that middle schools have the highest net loss of staff after voluntary and involuntary teacher transfers compared to other schools types (K-8, elementary, and high schools).⁷ Second, applicants who score higher on the District's proficiency test can choose a school placement ahead of lower scoring applicants, leaving the least-prepared teachers available for assignment to the most troubled schools.

Teachers' responses to a 1999 survey conducted by the Consortium of Policy Research in Education

(CPRE) indicate that, compared to elementary and high school teachers, middle school teachers have less teaching experience and fewer graduate credits. Middle school teachers are also more likely than their counterparts in other school types to report that they are assigned to courses outside of their field.⁸

1999 Credentialing Policies for Middle Grades Teaching by State

States in the 1990s have moved in the direction of offering and/or requiring middle grades licenses or endorsements to an elementary or secondary license. (See Chart 1) According to our review of state regulations, 42 out of the 50 states and the District of Columbia currently offer such credentials. Twenty-eight of these states offer full certification/licensure while 14 offer only an endorsement option to an elementary or secondary certificate. In 1992, the last year from which data have been published, only 33 states had such credentials.⁹ Of the 42 states offering middle level credentials in 1999, 14 require either a middle level certificate/license or endorsement (or its equivalent) to teach in the middle grades, up from 11 states in 1992.

Only four states offer a “generalist” certificate or endorsement that does not include a requirement for one or more content specializations. The rest require strong content preparation in one or two subject areas. In general, our investigation revealed that those states in the process of revamping their licensing requirements were moving in the direction of requiring greater subject-area knowledge for teachers. The State of New York made credentialing in subject-area preparation much more stringent in 1999 when it decreed that all prospective teachers in middle schools complete college majors in the subjects they propose to teach.

The grade span defined as middle level varies from state to state. Thirteen states define it as grades 5-9; another 13 specify grades 5-8, and six more designate grades 4-8. Only four states restrict the definition to just three grades--three states specify grades 6-8 and one more refers to grades 7-9. Five more states use other grade spans such as 4-9, 5-10, or 6-9. One state leaves the definition of middle grades to the discretion of individual districts. Pennsylvania defines the middle grades as grades 6-9 or ages 11-14.

States offering middle grades licenses or endorsements also vary in how they measure the proficiency of prospective teachers. Twenty-one states use a curriculum-based system of credentialing whereby specific semester hours and coursework are spelled out along with minimum field experience hours. Ten states, including Pennsylvania, use a competency or standards-based system of regulation. States list areas of competency—what applicants should know and be able to do—leaving institutions of higher education to fashion a program, subject to state approval. The remaining states use some combination of both methods.

**CHART 1
STATUS OF STATE MIDDLE LEVEL TEACHER CREDENTIALS: JUNE 1999**

	Offer credential	Type of Credential		Credential Required (For teaching grades 7 and 8)	Criteria for Credential			Grade span				
		License/Certificate	Endorsement		(Courses Specified)	Standards Based (Competencies Specified)	Both					
Alabama	x	x	or	x			x		4-8			
Alaska	x			x			x		6-8			
Arizona	x			x	x				5-9			
Arkansas	x	x			under consideration		x		5-8			
California	x			x			x		district defined			
Colorado	x	x	or	x			x		5-9			
Connecticut	x	x	or	x		x			4-8			
D.C.	x	x	or	x		x			4-8			
Delaware	x	x	or	x	x	x			5-8			
Florida	x	x	or	x	x	x			5-9			
Georgia	x	x	or	x	x	x			4-8			
Hawaii												
Idaho												
Illinois	x			x	x				5-8			
Indiana	x	x					x		5-9			
Iowa	x			x		x			5-8			
Kansas	x	x						x	5-9			
Kentucky	x	x	or	x	x	x			5-8			
Louisiana												
Maine	x			x		x			5-8			
Maryland												
Massachusetts	x	x		x				x	5-9			
Michigan	x			x				x	5-9			
Minnesota	x			x		x			5-9			
Mississippi												
Missouri	x	x		x		x			5-9			
Montana												
Nebraska	x	x				x			4-9			
Nevada	x			x		x			5-9			
New Hampshire	x			x			x		4-8			
New Jersey												
New Mexico	x	x						x	5-9			
New York	x	x	or	x	x	x			7-9; 7-12	Secondary certification includes middle school training		
North Carolina	x	x		x			x		6-9			
North Dakota	x	x	or	x		x			5-8			
Ohio	x	x				x			4-9			
Oklahoma	x			x		x			6-8			
Oregon	x	x					x		5-10			
Pennsylvania	x	x					x		6-9	Certificate criteria not yet specified		
Rhode Island	x			x		x			5-8			
South Carolina	x			x		x			5-8			
South Dakota	x			x		x			5-8			
Tennessee	x	x							5-8			
Texas	x	x		x					4-8	Certificate criteria not yet specified		
Utah												
Vermont	x	x	or	x	x			x	5-8	Required in middle schools only		
Virginia	x	x		x				x	6-8			
Washington												
West Virginia	x	x		x			x		5-9	Subject specialization required		
Wisconsin	x	x					x		5-9	for grades 5-12		
Wyoming	x	x							5-8			

Mere requirement of a middle level credential does not, of course, guarantee teacher quality. The nature of the requirements for that credential vary from state to state with some states having much higher standards than others. The same can be said for the quality of teacher education programs within the states. There are multiple routes to strong middle grades preparation: a full-fledged middle grades certification or endorsement requirements that include subject-area proficiency; an elementary certificate with an advanced degree in a subject area(s); or a secondary certificate with additional coursework (2-3 courses) in early adolescent development and pedagogical approaches to middle level teaching.

Another option is to do as New York state does by building coursework and field experiences into the secondary certificate in order to prepare prospective teachers for both middle grades (7,8) and high school teaching. New York also requires that elementary certified teachers (PreK-6) obtain a middle grades certificate requiring the equivalent of a college major in a content area plus additional coursework in early adolescent development and pedagogy before they can teach a core subject area in grades 7-9.

Teacher Preparation Programs for the Middle Grades

The attention to teachers' pre-service preparation comes at a time when middle grades educators and policymakers are recognizing that the academic component of the middle grades' reform movement has not been vigorously implemented.¹⁰ This movement, in full swing for more than a decade, sought to end the mismatch between the traditional departmentally organized junior high school and the needs of young adolescents. Specifically, these reformers aimed to address middle grades students' needs for 1) supportive relationships with peers and adults; 2) attention to their physical and mental health; 3) active and challenging learning opportunities; and 4) chances to exercise choice and autonomy.

As a result of this national effort, middle schools have moved in the direction of creating more personalized and nurturing environments for students, more stimulating integrated curricula, and increased opportunities for mentoring and guidance. The increased attention of states and districts to academic standards and higher-stakes assessment, however, has spotlighted weaknesses in middle grades curriculum and instruction. Indeed, data from the National Assessment of Educational Progress (NAEP) and the Third International Mathematics and Science Study (TIMSS) show disappointing achievement levels among the nation's eighth graders.¹¹

The case for aligning new standards for students with more rigorous licensure requirements for teachers is now supported by a significant number of recent studies demonstrating the enormity of the impact of teacher quality on student achievement.¹² These studies highlight the need for teachers who know their subject areas with enough depth to reconfigure academic material in multiple ways so that the

material is understandable to students. Sondra Cooney, who has studied the qualifications of middle grades teachers in southern states, puts it this way:

Standards and more accountability by themselves cannot move the middle grades forward. States can adopt rigorous content standards and assess them; districts and schools can develop challenging curricula and require teaching practices that research has proven to be effective. But if the teacher in the classroom does not understand the structure and content of mathematics, he or she will not be able to teach algebra so that all students can learn it.¹³

The National Middle School Association and the National Council for the Accreditation of Teacher Education (NCATE) have long pushed for middle grades licensure. Other policy groups such as the National Forum to Accelerate Middle Grades Reform and the Southern Regional Education Board¹⁴ are now advocating for rigorous preparation as well, particularly for requirements for content-specific training equal to a college minor in core subject areas.

Researchers have amply documented the paucity of middle level teacher preparation programs for some time.¹⁵ The majority of middle grades teachers across the country have been trained to teach either elementary or secondary students. The elementary-trained teachers generally lack the subject-matter knowledge needed for these grades, particularly the seventh and eighth grades, and the secondary-certified teachers are often unfamiliar with the social psychology of early adolescence and age-appropriate pedagogical approaches.

The picture in Philadelphia and other urban districts is particularly disturbing. Instead of entering their classrooms with enthusiasm, new teachers in districts with high proportions of low income students and in states with no required middle school teaching credentials often accept positions in middle schools only because they have not found jobs at other levels of schooling. Insufficient training in pedagogy, content, and classroom management strategies lead to high teacher turnover in these schools.¹⁶ Even committed veteran teachers struggle when they are rotated among several disciplines and grade levels.¹⁷ Many principals harbor mistaken notions that elementary-certified teachers should be able to teach all core subjects, providing a rationale for scheduling practices that undercut the development of teachers' expertise in content areas, particularly at the crucial seventh and eighth grade levels.

In response to the crying need for teachers trained explicitly for the middle grades, an increasing number of colleges and universities are creating middle level training programs. We conducted a telephone survey of 19 Philadelphia-area colleges and universities in November 1999 to determine the number of such programs available locally. Of the 19 institutions contacted, three are operating middle level preparation programs—Temple University, Rosemont College, and Widener University. All three programs, profiled in

the Appendix of this report, have been developed within the last three years.

West Chester University offers intensive field experiences in two middle schools (one of them in Philadelphia) and a cluster of individual courses in middle grades education at the graduate level. Cheyney University plans to offer a middle grades Master's degree beginning in the fall of 2000. The University of Pennsylvania is in the process of designing a two-year Master's degree in middle grades education in collaboration with the School District of Philadelphia, a program it plans to launch in the fall of 2001. Several other institutions are contemplating such programming pending clarification from the state about the nature of the middle level certificate.

Philadelphia's Predicament

Philadelphia's need for qualified middle grades teachers far outstrips those of other public school districts in the state. This means that education reformers in the city cannot count on support from other districts in pressuring the state for a required middle level teaching credential. Although districts across the state report shortages in specific fields of teaching (special education, certain sciences, and foreign languages), Pennsylvania's 90 teacher preparation institutions train many more teachers than there are jobs, particularly in elementary education, mathematics, and social studies. The state currently certifies 13,000 to 14,000 new teachers a years. According to an exhaustive 1997 study by Robert P. Strauss and his colleagues at Carnegie Mellon University, nearly two-thirds of the state's 3,700 to 6300 teacher vacancies are filled by applicants with prior teaching experience, which means that only 1200-2000 of newly-licensed teachers get hired annually.¹⁸

Pittsburgh, the second largest district in the state, (with 39,000 students compared to 214,000 in Philadelphia), draws from a large pool of recruits, including those willing to teach in middle schools. When the Pennsylvania Department of Education polled district superintendents across the state on the issue of creating a mandatory middle grades certification, the superintendents overwhelmingly said they did not want such a certification, preferring instead to have the flexibility of assigning elementary-trained generalists to a variety of courses in the middle grades.¹⁹

This lack of support for a required middle grades credential from the field combined with a sizable oversupply of elementary-trained teachers willing to work in middle schools undercuts efforts by reformers who push for specially-trained teachers for the middle grades. Superintendents in districts saturated with numerous applicants for a comparatively small number of teaching positions can scrutinize credentials, appointing secondary-certified teachers who have a special interest in or experience in the middle grades or elementary-certified people with advanced study in a content-area specialization. Philadelphia, however,

with few applicants for many openings is not in that enviable position.

All public school children in Pennsylvania suffer from the state's comparative inattention to the issue of teacher quality. Unlike many other states, including neighboring New Jersey, the state legislature and judiciary have refused to remedy serious differences between high and low-wealth districts in per pupil expenditures. The resulting inequities in teacher salaries and working conditions enable affluent districts to hire more qualified teachers from the new-candidate pool and from nearby lower-wealth school systems.

Further, Pennsylvania has made only feeble efforts to create a package of incentives and teacher training requirements to upgrade the teacher workforce, a track record that stands in sharp contrast to that of states like North Carolina and Connecticut whose aggressive teacher development strategies have paid off in significant statewide increases in student achievement.²⁰ Only 16 teachers in Pennsylvania, for example, have successfully completed the rigorous process of earning voluntary certification from the National Board of Professional Teaching Standards. In North Carolina, 1,262 teachers hold this prestigious credential.

Put simply, then, Philadelphia's public school system finds itself with the following predicament: it has a serious shortage of qualified teachers, particularly for grades seven and eight, in a state with an oversupply of teachers and few statewide initiatives to upgrade the teacher workforce.

Recommendations

In an era where students face harsh penalties in school and later in the labor market for faltering academic performance, they have a right to receive classroom instruction from qualified teachers. States and their partners in higher education should be held accountable for high standards in the preparation of the nation's teachers. Young adolescents in the urban underclass will not find a way out of poverty if their classrooms are staffed by a succession of newly-hired faculty wishing they were in elementary or high schools, substitute teachers, emergency-credentialed instructors, and elementary-certified teachers with skimpy content preparation.

Pennsylvania has taken a first step in offering teachers the option of a middle grades certificate, and a handful of higher education institutions have recently fashioned programs for the training of teachers in the middle grades. State lawmakers and officials, however, must take even bolder steps to upgrade the teacher workforce. These steps should include: the requirement that newly-licensed teachers have the equivalent of a college minor in order to teach a core subject in the seventh or eighth grade; pressure on low-performing teacher preparation programs to raise standards; the development of incentives to attract teachers to high-poverty middle schools; more equitable funding policies that enable low-wealth districts to have competitive salary scales; and the creation of incentives for teachers to pursue certification from the National Board for

Professional Teaching Standards. Higher education institutions, for their part, must devise programs that attract students to middle grades teaching.

At the school district level, Philadelphia needs to continue its internal reform of teacher hiring and transfer practices and to encourage middle level principals to assign teachers to courses for which they are trained. The District should also consider instituting financial incentives for teachers willing to teach in high-poverty middle schools. Such initiatives would go a long way toward providing the kinds of teachers students must have if they are to survive and thrive in a high-standards system.

II. EXEMPLARY MIDDLE LEVEL TRAINING PROGRAMS

Pre-service programs for teachers in the middle grades must prepare people to work in school environments that stress both nurture and academic rigor. This preparation should address four areas: disciplinary content knowledge, preferably in two curriculum areas; instructional practices that motivate students; awareness of organizational structures that promote collegial professional community and student learning such as interdisciplinary teaming; and understanding of the emotional and physical development of early adolescents in order to provide mentoring and guidance. A good deal of this learning should take place in the context of extensive experience in the classroom, both through practicum classroom placements and student teaching.

Here we profile four exemplary programs. Those at the University of Kentucky and the University of North Carolina at Chapel Hill are four-year undergraduate middle school teacher certification programs. Studies for a middle level endorsement at San Francisco State University take place during a fifth year of undergraduate work, while the endorsement program at the University of Alaska operates at the graduate level. We hope the descriptions that follow will assist teacher educators as they think about developing middle-grades training programs. A description of 14 exemplary programs is available in a 1995 publication of the National Middle Schools Association authored by C. Kenneth McEwin and Thomas S. Dickinson.²¹

The University of Kentucky

The University of Kentucky offers a four-year undergraduate middle level certification program. Approximately 25 students graduate from the program each year. They earn a BA in Education with a major in Middle School Education and obtain state certification for teaching at the middle school level (grades 5-8). In addition to completing the university's core curriculum in math, science, social science,

the humanities, and foreign language, students must take six courses in the professional education sequence.

These include:

- Human Development and Learning
- Teaching Exceptional Learners in Regular Classrooms
- Education in American Culture
- Introduction to Instructional Media
- Teaching Reading and Language Arts
- Middle School Curriculum and Instruction (focuses on teaming, block scheduling, advising, and student-centered learning)

The courses “Middle School Curriculum and Instruction” and “Teaching Reading and Language Arts” are taught on-site in the University of Kentucky’s middle level Professional Development School (PDS), a Title I middle school of approximately 700 students in north Lexington. This partnership allows PDS teachers to assist in instructing classes; provides students with partner teams for inquiry projects, unit development, and other assignments; and allows students to participate fully in the life of the school, from instruction through cafeteria lines and fire drills.

The professional education course sequence emphasizes the role of active learning experiences in teaching early adolescent learners how to connect classroom knowledge with their surrounding environments. These areas of competence include preparation for how teachers can be advisors and mentors for young adolescents. It also incorporates several field placements in which students work directly with early adolescents at local middle schools. Faculty in the program model team teaching and cooperative learning, two key components of middle school organization and curriculum.

In addition to these courses, students also complete a one-semester practicum. This practicum provides students with the opportunity to take methods courses and work with middle school students simultaneously. During the semester, students are able to apply the skills they learn in methods courses to their work with early adolescent learners. This practicum consists of two field placements and the following four courses:

- Designing a Reading and Language Arts Program for the Middle School
- Early Adolescent Practicum Seminar
- Special Methods Courses in Each of Two Content Areas of Specialization: Teaching in the Middle School (mathematics, social studies, science, English and communication)

Students also attend a weekly series of seminars about issues of middle level education, including multicultural education, cooperative learning, advising, programs for at-risk students, and suicide preven-

tion. During the following semester, students complete two eight-week student teaching placements, one for each content area of specialization.

The methods courses prepare students for teaching two content areas of specialization in a manner that effectively addresses the learning needs of young adolescents. For each content area of specialization, students must complete additional course requirements. In preparation for teaching English and Communication, students take courses in American literature, adolescent literature, composition, linguistics, and public speaking. In preparation for teaching mathematics, students take courses in problem solving, calculus, geometry, and algebra. The requirements for teaching science include coursework in biology, ecology, general chemistry, physics, and earth science. The requirements for teaching social studies include coursework in geography, cultural anthropology, political science, economics, non-western civilizations, European history, Latin American history, and American history.

The University of North Carolina at Chapel Hill

The University of North Carolina at Chapel Hill also offers a four-year undergraduate middle level teacher certification program. Students in this program receive a Bachelor of Arts degree in Education and are certified to teach two subject areas (mathematics, science, social studies, or language arts) in grades 6-9. Students complete the majority of the requirements during their junior and senior years. During these years, they enroll in 30 credit hours of Education (including 12 hours of student teaching) and 39-41 credit hours of Arts and Sciences (21-23 hours in the first subject area; 18-20 in the second subject area).

The mission of this program is to prepare teachers to address the learning and developmental needs of early adolescents. It strives to familiarize prospective teachers with the pedagogy, organization, and curriculum of middle schools. Students learn how to implement various middle school practices, including team teaching, student-centered learning, cooperative learning, and advising. Both coursework and field placements aim to prepare teachers to work effectively in middle schools.

In order to foster such preparation, this program models several features of good middle schools. Students progress through the program in a stable cohort of approximately 25 prospective teachers. Since students specialize in different content areas, the cohorts create the opportunity for engagement in teaming and interdisciplinary education. This program is also a formal partnership between the University of North Carolina and public middle schools in four districts. University professors, clinical instructors, and local middle school teachers collaborate in teaching courses and supervising field placements, thereby providing models of team teaching. The inclusion of middle school teachers in the course faculty also enables students to connect theory with practice and gain familiarity with the middle school environment. One of the field

placement sites for this program is also a UNC Professional Development School.

The course sequence in this middle level education program is the following:

- Introduction to the Teaching Profession
- Planning for Teaching (focuses on designing curriculum that is appropriate for early adolescent learners and reflects an understanding of early adolescent development, learning theory, middle school pedagogy, and a diverse repertoire of middle school teaching methods)
- Teaching Skills Laboratory (entirely field-based, with teaching and reflective seminars; focuses on learning how to work effectively in a middle school environment)

For the senior year, students are placed in their internship sites. In the fall, they spend at least one half-day each week at their respective sites; in the spring, they student teach full-time at the same sites. In the senior fall semester, the final course “Teaching in the Middle Grades” focuses on the curriculum, instructional methods, and learning strategies in middle school education. Students gain experience with teaching methods that are responsive to the cognitive, social, physical, and emotional development of early adolescents. They also learn how to incorporate technology into the classroom, teach reading and writing, and provide enriching educational experiences to students with special needs. Finally, students learn how to implement middle level instructional methods for two content areas of specialization.

After students complete this course sequence, they student teach in a middle school classroom for a semester. During this semester, students enroll in a related course, “Seminar on Teaching in the Middle School.” The purpose of this course is to provide student teachers with the opportunity to reflect on their own teaching methods. They learn how to develop relationships with students and parents from diverse backgrounds, examine means of addressing the instructional needs of students, and participate in a community of professional development at their cooperating middle schools.

San Francisco State University

San Francisco State University offers a fifth-year undergraduate program in which students obtain either a Single Subject or Multiple Subject teaching credential with a middle school endorsement. Presently, this program is one of only two middle level endorsement programs that are approved by the state. Either elementary or secondary certification is sufficient for teaching in California middle schools; a middle level certificate or endorsement is not required. The mission of the program at San Francisco State University is to prepare prospective teachers to meet the instructional and developmental needs of early adolescent learners.

Students enroll in this program as a fifth year of study; approximately 25 students in a cohort

complete this program each year. Candidates must qualify for admission in either the Single or the Multiple Subjects program and earn either the Single Subject Teaching Credential/Middle Level Emphasis or Multiple Subjects Teaching Credential/ Middle Level Emphasis. Graduates of this program earn both elementary and secondary certification and are thus qualified and prepared to teach single subjects or multiple subjects. The Single Subject candidates receive Multiple Subject certification by passing the Multiple Subject Aptitude Test. The Multiple Subjects candidates receive single subject certification by completing a Supplementary Authorization.

During the fall semester, students take a sequence of education courses. University faculty model middle school concepts and philosophy by team teaching and integrating experiential and cooperative learning approaches into these courses. In addition to taking these courses, students' fieldwork enables them to rotate among six middle schools in the fall. The program establishes ongoing collaborative relationships with middle schools that have components characteristic of developmentally-responsive middle schools, as described by the Carnegie Council and the National Middle School Association. The schools represent urban, semi-urban, and suburban populations. In November, students begin a full-time student teaching placement in one of these middle schools. They remain at this placement until June and gain experience in team teaching, advisory, and teaching in diverse instructional settings. During the spring semester, students enroll in several advanced education courses while they also student teach in a middle school.

The following courses comprise the program of study for the fall semester:

- Foundations of Middle Level Education (focuses on cognitive and emotional development of early adolescents and philosophy of middle level education)
- Observation/Participation (fieldwork in public middle schools)
- Curriculum and Instruction in Middle Level Education (focuses on interdisciplinary curriculum, team teaching, cooperative learning, advising, and issues of diversity)
- Curriculum and Instruction in Subject Area (taught by faculty in the major department)
- Teaching in Culturally and Linguistically Diverse Classrooms (focuses on addressing cultural, gender, and socioeconomic diversity through instruction)
- Skills for the Teacher/Advisor (focuses on instructional and informal advisement)

During the spring semester, students enroll in the following courses:

- Student Teaching in Middle Level Schools (focuses on departmentalized and core teaching, team teaching, and advisory assignments)
- Advanced Seminar in Middle Level Schools (focuses on methods of addressing the instructional needs of individual students, methods of evaluation, and means of working with parents and community)

- Teaching of Reading and Language Arts in Middle Schools (focuses on reading problems of early adolescents, writing across the curriculum, and whole language learning)

The University of Alaska at Anchorage

The University of Alaska at Anchorage offers a graduate program leading to a middle school endorsement on either an elementary or secondary teaching certificate. A middle school endorsement is not required in order to teach in Alaska middle schools. In order to enter this program, candidates must have a type A teaching certificate (elementary or secondary), one teaching major and a minor for secondary teachers and two specialty areas for elementary teachers, and pass the National Teacher's Examination (Praxis II) in the major or main specialty area. The state of Alaska will endorse a minor on the transcript as a second endorsement. The core of this middle level endorsement program is a sequence of education courses (18-22 credits) and field placements in middle schools. While this endorsement is independent of a Master's program, candidates can use these credits as the specialty area for a Master of Education degree.

The following courses comprise the program of study:

- Middle School: Transescent Years (focuses on theory and practice of middle school education, the developmental needs of early adolescent learners, classroom management, interdisciplinary teaming, and instructional strategies)
- Teaching in the Middle School (focuses on curriculum and instruction appropriate for middle school students, interdisciplinary education, cooperative learning, inquiry-based instruction, and technology in the classroom)
- Advanced Practicum: Education (a supervised middle school field placement in a candidate's area of specialization)
- The Impact of Social Issues on Education (focuses on an overview of social issues that affect students in public schools, an exploration of a teacher's role in understanding the social and cultural background of students, and means of promoting physical, mental, and emotional well-being of students)

Or:

- Restructuring Education: Crisis and Opportunity (focuses on an examination of the pedagogical, social and political issues that surround the structure and organization of public education)
- Technology in Teaching and Learning (focuses on how technology can enhance teaching and learning environments)

In addition to completing this course sequence, students can either take the following two courses or enroll in two electives by advisement:

- Styles: Teaching and Learning (focuses on how different styles of personality and communication relate to the gathering and processing of information and inform teaching methods and strategies)
- Brain Theories: Development and Learning (focuses on how recent brain research has informed theories of teaching and learning)

Or:

- Neurological Aspects of Education (focuses on developmental psychology and recent neurological research with implications for instructional practices)

Elements of Exemplary Programs

Content Area Preparation

Since many middle schools assign teachers to two or more disciplinary areas, prospective teachers in middle level education programs often specialize in two content areas. The extent of this preparation, however, varies from one program to the next. The programs at the University of Kentucky and the University of North Carolina include extensive preparation in two content areas. In these programs, students take between four and ten courses in appropriate departments in order to fulfill the requirements for content area preparation. For instance, a prospective English teacher at the University of Kentucky must take courses in American literature, adolescent literature, composition, theater, and journalism.

In the program at San Francisco State University, prospective teachers obtain either a single subject or multiple subjects credential. They also earn both elementary and secondary certification and are therefore able to teach in both single and multiple subject classrooms. In this program, students must complete preparation in two content areas. They also must take one content area methods course. The graduate-level endorsement program at the University of Alaska offers less extensive content area preparation. It requires that students have an instructional certificate prior to admission to the program that includes a teaching major and minor for secondary teachers or two specialty areas for elementary teachers.

Middle School Organization and Instruction

In each of these middle level education programs, prospective teachers learn about organizational elements such as teaming, interdisciplinary education, block scheduling, and advisement. They also learn about effective practices of middle school instruction, including inquiry-based learning, multicultural education, cooperative learning and the use of technology. In each program, students take between two

and four courses in this area.

Students at the University of Kentucky and San Francisco State University take courses about middle school instruction and curriculum in specific content areas as well. At the University of North Carolina, students do not take methods courses for specific content areas but have the opportunity to focus on instructional issues for particular subject areas within the context of a general course on middle school instructional methods. The graduate program at the University of Alaska does not include coursework on middle school instruction and curriculum for specific content areas but requires content-area specializations as a pre-requisite for admissions to the program.

Several programs provide further preparation by modeling middle school organization and instruction within program structure and coursework. In courses at the University of Kentucky, professors model methods such as team teaching and cooperative learning as an additional means of familiarizing students with features of middle school organization and instruction. At the University of North Carolina, the formal partnership between university professors and local middle school teachers serves as an effective model of team teaching. Since team teaching is an important component of middle school organization, this modeling provides prospective teachers with further preparation for teaching in middle schools. The cohort structure of this program also enables students to gain experience with middle school organization and instruction. Since students specialize in different content areas, the cohorts create the opportunity to participate in both teaming and interdisciplinary education.

Issues of Early Adolescent Development

Each of these middle level education programs includes coursework that focuses on the psychosocial, emotional, cognitive and physical development of early adolescents. This coursework focuses on issues of cultural and gender diversity, self-esteem, identity development, high-risk behavior, and peer relationships.

The programs at the University of Kentucky and San Francisco State University include courses that focus entirely on issues of early adolescent development. Students also take additional courses that address developmental issues in the context of middle school organization and instruction. The programs at the University of North Carolina and the University of Alaska do not include courses that focus exclusively on issues of psychosocial and emotional development of early adolescents. Instead, students learn about the relevance of these issues in the context of courses that focus on related middle school features, such as interdisciplinary education and advisory periods.

Fieldwork in Middle Schools

Each of these middle level education programs includes fieldwork in middle schools. The program at the University of Kentucky includes the most extensive fieldwork. For many of the courses in the professional education sequence, prospective teachers work for several hours a week in middle school classrooms. They also complete a semester-long practicum that consists of two extensive field placements and related methods courses. Finally, prospective teachers have two eight-week student teaching placements, one in each of their content areas of specialization. The program at San Francisco State University also includes multiple middle school field placements as a component of coursework. As the year progresses, these field placements grow with respect to the level of responsibility and commitment. In November, prospective teachers begin an eight-month period of student teaching in middle schools.

The program at the University of North Carolina also requires field placements as a component of coursework. In particular, one course focuses on learning effective middle school instruction through field placements. Prospective teachers then complete one semester of student teaching in a middle school. The graduate program at the University of Alaska for students who already have either an elementary or secondary teaching certificate does not include extensive fieldwork. Students take one education practicum in which they have a middle school field placement in their areas of specialization.

Endnotes

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APPENDIX

Information on the formal middle grades teacher preparation programs available in the Philadelphia area as of the 1999-2000 academic year is presented below. The descriptions are drawn directly from program brochures and information sheets.

Temple University

College of Education

Middle School Endorsement Program for Undergraduates

Temple University's College of Education Middle School Endorsement allows undergraduate students in either the elementary or secondary certification major to obtain a Middle School Endorsement. An early commitment to the Middle School Endorsement allows the student to obtain this focus by selecting earmarked sections of required courses and completing two additional courses beyond the graduation requirements of 128 semester hours.

The Middle School Endorsement's goal is to improve the content mastery and learning environment for students in grades five through eight. This goal will be realized through the enhanced preparation of pre-service teachers, support of quality educational reforms at the middle level, and the connection of research to practice.

The following courses have sections offered with an increased focus on middle school:

- The Developing Individual Across the Lifespan (3 s.h.)
- Assessment and Evaluation (3 s.h.)
- Field Experience: Managing Contemporary Classrooms (3 s.h.)
- Student Teaching and Seminar (9 s.h.)

The above courses are part of the 128 hours required for graduation and certification. Temple's Middle School Endorsement requires the Elementary or Secondary Education Certification major to take two additional courses.

- Research-Based Practices in Middle Level Organization and Instruction (3 s.h.) (offered as an on-line course)
- Instructional Practices for the Middle Level (3 s.h.) (team taught by a Philadelphia public middle school principal and teachers from the school)

For more information, contact Dr. Vincent Anfara, Jr., Temple University, College of Education, Department of Educational Leadership and Policy Studies, 266 Ritter Hall, Philadelphia, PA 19122. Phone 215-204-6174; vanfara@astro.ocis.temple.edu or contact Temple University College of Education, Office of Student Services, 238 Ritter Annex, 1301 Cecil B. Moore Avenue, Philadelphia, PA 19122. Phone 215-204-8011.

Rosemont College

Master's in Education Degree in Middle School Education

Candidates will be required to complete 36 credits to receive this Master's in Education degree. Credit distribution is as follows:

- Core curriculum 21 credits
- Electives 9 credits
- Thesis or Final Project 6 credits (alternative option: comprehensive examination)

Each class, with the exception of the summer Seminar/Action Research, meets for three hours (3 credits), once a week. The program is designed for two classes per week (Monday and Thursday 6-9 pm) but may be taken one at a time. It provides a core curriculum, a broad range of electives, and an opportunity to work with middle school students while doing action research.

The Core Curriculum includes the following courses:

- Growth and Development of the Middle School Child
- Interpretation and Analysis of Research in Middle School Education
- Models of Teaching and Learning in the Middle School
- Using Technology in the Middle School
- Reading and Writing across the Middle School Curriculum
- Graduate Seminar and Action Research (6 credits, summer, with participation of middle school students)

Electives:

- Gender Issues in Middle School Education
- Methods of Assessing Student Learning
- Pre-Adolescent Literature
- Effective Teaching Strategies for Diverse Learners
- Teaching Included Students in the Middle School Classroom

For more information, contact Anne Janson at Rosemont College, 1400 Montgomery Avenue, Rosemont, PA 19010. Phone 610-527-0200 extension 2349 or 2982. www.rosemont.edu

Widener University

School of Human Service Professions Center for Education Master of Education

Middle School Education Major

To qualify for the degree of Master of Education with a Middle School Education Major, the candidate must complete at least 30 semester hours of credit. These courses (all 3 credits), include:

Research: (3 semester hours)

Applications of Educational Research

Foundations (6 semester hours)

Curriculum Theory

Adolescent Psychology

Professional Core: (21 semester hours)

The Middle School

Models for Teaching and Learning in the Middle School

Reading and Writing across the Middle School Curriculum

Curriculum Development Project

9 hours from the following:

School Law and Child Rights

Foundations of Educational Measurement

History and Philosophy of Education

Teaching Reading in the Content Areas, Grades 4-12

Adolescent Literature

Folklore

Needs and Nurture of the Gifted Child

Diagnostic and Prescriptive Teaching

Introduction to Special Education

Current Issues in Education

Introduction to Sex Education

Teaching Social Studies in the Secondary School or other Discipline-related Methods courses for the Middle School

For more information, contact Dr. Shelley B. Wepner, Center for Education, School of Human Service Professions, Widener University, One University Place, Chester, PA 19013-5792. Phone 610-499-4345. www.widener.edu

