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# Lateral Entry To Teacher Education: Impact on Labor Quantity, Quality and Student Equity

by **Bettye MacPhail-Wilcox** and **Lynn K. Bradshaw**

Alternative routes to teacher certification have become popular again. By 1990, all but one state, Arkansas, had or was considering an alternative certification program (Feistritzer, 1990). One of the most popular alternative certification strategies is the lateral entry program, and early versions of it have been described elsewhere (MacPhail-Wilcox and King, 1988).

Alternative certification programs are labor "sufficiency policies", intended to address teacher shortages which have occurred periodically throughout the history of public education (Sedlak, 1989). Earlier policies established policies which provided for provisional endorsement, approved out-of-field assignments, and emergency licensure programs as means for increasing the employable labor pool.

Concern about teacher quality escalates often following the adoption of alternative certification programs, thus making "quality" a persistent issue in the history of education (Lortie, 1986). For example, "provisional certification" policies and out-of-field assignment practices of the 1970s became targets of criticism when the extent of the practice was made public. Accreditation standards were tightened and legislative mandates were introduced to reduce the proportionate time a teacher might be assigned out-of-field without jeopardizing accreditation status. In other words, labor "quality policies" were adopted to guard against the anticipated erosion of classroom productivity resulting from the earlier adoption of a "sufficiency policy".

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The perennial and proximal nature of these events reveals the constant tension between efforts to balance the demand for enough teachers to "have school" with assurance that students will receive "quality" instruction when they are in school. They also illustrate the differential value placed on teacher preparation programs, and how those values are shifted and compromised by changing demographic, economic, labor market, and political circumstances.

At one extreme are those who contend that the successful completion of a teacher preparation program is an indicator of quality (Feiman-Nemser, 1990; Everston, Hawley, and Zlotnik, 1985), a promise of savvy skill in the classroom that will translate into better student outcomes. At the other are those who assert that teacher preparation is a meaningless hurdle, unduly restricting the flow of "high quality" human resources to the teaching labor market (Johnson, 1989). The tension between these positions, coupled with a changing context, results in policies which oscillate between the competing concern about labor sufficiency and quality. With some periodicity, new versions of old policies intended to widen or narrow the gate to teaching positions are established, and so it is with present day lateral entry policies.

This time, sustained teacher shortages (Weaver, 1979; Haggstrom, Darling-Hammond & Grissmer, 1988) and widely notorious reports that the "best and brightest" teachers were not entering or remaining in the classroom (Weaver, 1981; Schlechty & Vance, 1981, 1982) sparked efforts to increase the size of the teaching labor pool. New "alternative routes" to teaching, made possible by the lateral entry policies of the late 1980s and 1990s (MacPhail-Wilcox & King, 1988; AACTE, 1990; Feistritzer, 1990), spread quickly. But, this time the sufficiency policy had a new twist.

Proponents contended that in addition to improving the supply of teachers, lateral entry policies also would improve the "quality" of the teaching labor pool (Smith, Nystrand, Ruch, Gideonse, & Carlson, 1985). They urged that with short, intense training, the more highly qualified persons prepared for other labor markets could enter the teaching ranks and improve school performance. Proponents clearly assumed that teacher education is not a value-added enterprise, and that persons who enter teacher education and stay in the classroom really do represent human capital resources of lower quality than is characteristic of persons in other labor pools.

To examine the validity of these assumptions an exploratory comparative analysis of traditionally and alternatively certified first-year teachers was conducted. The conceptual framework guiding the investigation was derived from human capital theory. It is a study for which data were difficult to obtain, and it represents important knowledge to the field, particularly with respect to resource equity for students. For these reasons, the study seems to warrant both rapid replication in other states and expansion to include additional "teacher quality" variables. The information generated will be useful in the formulation of future teacher certification policies and the improvement of teacher preparation programs.

## **Human Capital Theory: Conceptual Underpinnings**

Schultz (1971) defined human capital as the skills and knowledge acquired as a result of deliberate investments in education. He asserted that the value of one's capital varies with the way it is used, its age, and the effects of depreciation, obsolescence, and supply and demand. Hence human capital theory suggests that labor pools can be increased by expanding the type of educational investments which enable persons to enter a specific labor market. This is consistent with the intent of lateral entry policies to increase the size of the teaching labor pool.

However, human capital theory also warns that increasing the size of the labor pool without rational restrictions may affect the value of one's capital in that labor market. To the degree that one's investment in education does not match the demands of the specific labor market, the quality of one's contribution will be affected negatively. The value of that contribution is productivity, a measure which is fraught with difficulty in education (MacPhail-Wilcox and King, 1988).

Research in education, like research in other human service professions, cannot attest unequivocally to the productivity of differentially prepared teacher educators. In the absence of such knowledge, and without adequate measures of productivity, status variables such as grade point averages, SAT, GRE and mandatory state test scores, classroom performance ratings, teacher attitudes, and other indirect measures, such as employability in other labor markets, are used to assess the quality of human capital in education markets. These measurement inadequacies make it imperative to be diligent and vigilant about the use and interpretation of such measures. They have the capacity to suggest validity where none exists.

The study reported here suffers from these same measurement limitations. It is unique, however, in its use of multiple proxy measures for quality, and it is the first study in this state to employ a field-based measure of teacher quality. It is unique also in that it examines quantity, quality, and equity effects of an alternative certification policy.

### Methodology

North Carolina embraced lateral entry programs as an alternative to traditional certification in 1985 and expanded it in 1990. These changes provided the opportunity to conceptualize and conduct this pre-experimental static-group study. The purposes of the investigation were to compare the proportionate numbers of differentially prepared teachers in both groups and in selected classes of school districts and to assess the "quantity and quality of human capital" embodied in traditionally and alternatively certified first-year teachers.

There were two classes of lateral entry teachers. One entered teaching through the state's Modified Certification Program, which enabled local school districts to provide training and recommend certification for non-teacher education graduates. The other entered teaching as members of the Teach for America national program in which they were selected and attended a summer institute to prepare them to teach.

Descriptive statistics were used to assess general differences between the traditional and alternatively certified teachers. School districts were classified four ways in order to examine the distribution of alternatively certified teachers. First, they were classified according to the district's socio-economic advantagement, then district accreditation status, ability to recruit new teachers, and finally according to district size. National Teacher Examination Core Battery and area examination scores along with teacher performance appraisal ratings derived from a mandatory eight-function state-wide evaluation system were the designated measures of "quality". Status variables were collected from the archival files of the State Education Agency and job performance data were requested from local school districts. To address the twin issues of sufficiency and quality of the labor pool, the data were sorted into two groups. These two groups of teachers then were described and differences between them were tested at the .05 level of significance.

### Findings of the Study

Of the 2,191 first-time certified teachers in North Carolina between May 1, 1990 and April 30, 1991, 81.6 percent were graduates of approved teacher education programs and 18.4 percent entered teaching through an alternative certifica-

tion route. Among the alternatively certified group (N=403) were those who were provisionally certified through a state sanctioned modified certification program operated by local units (N=374) and members of the North Carolina Teach for America Group (N=29).

The sample (N=2,191) used in this study is smaller than the actual pool of persons holding initial teaching certificates during the time of this study (N=2,332). This is due to several factors. Some teachers were not employed in North Carolina by May 1, 1991 (N=466), and counselors, social workers and school psychologists were excluded deliberately from the sample. Similarly, the full contingent of lateral entry teachers (N=403) could not be used for each statistical evaluation because a criterion measure was not available for some of them. For example, only 154 of the lateral entry teachers had taken the NTE. The other 249 were not required to complete this examination until after the period during which this study was conducted.

### The Impact of Lateral Entry On Labor Sufficiency

Lateral entry teachers for whom data were available (N=346) were more likely to be male, non-white and older than their traditionally certified counterparts for whom data were obtainable (N=1736). African-American females constituted 8.9 and 14.5 percent of the traditional and alternatively certified groups, respectively. For African-American males the percentages were 1.4 and 9.8, respectively. In all age categories up to 65, except for less than 25 years, the proportion of alternatively certified teachers was greater than that for traditionally certified teachers.

Lateral entry teachers were hired in all subject areas with higher proportions than would be expected by chance in foreign language, dance, and vocational education teaching positions. The largest percentages of alternatively certified teachers were hired to teach Science (10.2%), Foreign Language (28.5%), Art (8.4%), and Exceptional Children (10.4%). By comparison, the largest percentages of traditionally certified teachers were employed to teach elementary classes (32.2%), English/Language Arts (11.7%), Social Studies (10.6%), and Exceptional Children (11%).

First-year, traditionally certified teachers were proportionately more likely to be employed in districts reporting average to least difficulty in recruitment, that were meeting accreditation standards, and were classified as having average or above average levels of socio-economic advantagement. They were concentrated in districts reporting between 2,500 and 25,000 students.

Lateral entry teachers were significantly overrepresented in smaller districts reporting most difficulty in recruiting adequate numbers of teachers. They were concentrated in districts ranging from 2,500 to 9,999 in enrollment, the smaller school units. A greater proportion of lateral entry teachers than would have been expected by chance were hired in school districts which were below average in socio-economic advantagement and that failed to meet state accreditation standards.

In summary, the labor sufficiency policy had differential impacts based on race, gender, and age of members of the teaching pool. Lateral entry teachers were more likely to be employed by small school districts finding it difficult to recruit personnel and in districts with higher levels of socio-economic disadvantage, districts with significantly greater student needs. Lateral entry teachers were significantly more likely to be employed in school districts which were performing below standard with respect to accreditation status. Because lateral entry teachers are more concentrated in districts with high need populations that are already not performing well, questions of quality become more critical in an absolute sense and with respect to equity.

### The Impact of Lateral Entry on Labor Quality

Differences between mean NTE Professional Knowledge scores for alternatively and traditionally certified teachers were not significantly different. However, there was a tendency for lateral entry teachers to have lower mean scores on subject area exams in elementary education, biology, general science, and math. They demonstrated higher mean scores than traditionally certified teachers in English, Art, French, and Spanish.

Mean scores on the NTE Communication Skill and General Knowledge for lateral entry teachers were significantly higher than those for traditionally certified teachers. There were significant interaction effects with gender and ethnicity. Scores were highest for lateral entry males, and they were lower for African-Americans. However, lateral entry African-Americans scored higher than did traditionally certified African-Americans. These findings are consistent with those reported in other studies of alternatively certified teachers (Cornett, 1984; Cooper-Shoup, 1988; Peck, 1988; Schechter, 1987; Hutton, 1987).

The variance within groups on these scores was patterned. In all cases, the variance was wider for the lateral entry teachers. The greatest variance was in General Knowledge, followed closely by Communication Skill, and then Professional Knowledge. For Specialty Area Scores, traditionally certified teachers outperformed lateral entry teachers in Elementary Education, Science, Math, and Physical Education. Lateral entry teachers performed better in English, Social Studies, Art, and Foreign Languages. Variance was greater among the lateral entry teachers in all areas except English, Social Studies, and Physical Education.

Mean scores for all eight functions on the N.C. TPAI were well above the "at standard" (3.0) rating for both groups, and they were not significantly different. However, scores for alternatively certified teachers were slightly lower on six of the eight functions on the TPAI (Student Behavior, Instructional Presentation, Instructional Feedback, Facilitating Instruction, Communicating in the Educational Environment, and Performance of Non-Instructional Duties.). In two of the functions, "management of instructional time" and "instructional monitoring" there were no differences between the groups.

When the performance scores were disaggregated to distinguish between Modified Certification Plan (MCP) and Teach For America (TFA) groups, differences were sharper. TFA scores were much lower than those for MCP and traditionally certified teachers on Student Behavior and Facilitating Instruction and slightly lower on Instructional Feedback and Non-Instructional duties. However, the TFA group scored higher than MCP and traditionally certified teachers on Instructional Presentation.

### The Impact of Lateral Entry on Student Equity

Student equity refers to fairness in the quantity and quality of services received by school children. Vertical equity standards make clear that services afforded children should be in accordance with their educational needs. The underlying assumption is that students vary in their need for educational resources if they are to attain similarly with regard to school goals.

To explore the impact of lateral entry policies on student equity, analysis of variance was used to assess the distribution of "quality" embodied in the human capital of lateral entry teachers. NTE scores and performance appraisal ratings for lateral entry teachers in different types of school districts were compared. It was assumed that a state computed measure of school district socio-economic advantage, failure to meet accreditation standards, size, and difficulty in recruiting teachers were valid indices of differential educational needs among students in those districts.

A higher proportion of lateral entry teachers than would have been expected by chance were hired in school districts which were below average in socio-economic advantage,

failed to meet accreditation standards, experienced difficulty in attracting new teachers, and were relatively small (2,500 to 9,999 students).

Main effects for school district socio-economic advantage, ability to recruit new teachers, and size were significant for Communication and General Knowledge scores. These scores tended to be higher for lateral entry teachers when compared to traditionally certified teachers, except in small districts where they were lower.

The interaction effect of school district size and certification type was significant for the Professional Knowledge test, as were the main effects of socio-economic advantage and the ability to recruit new teachers. In large (25,000+ students) and small districts (<2,500 students) the professional knowledge score was lower for lateral entry teachers than it was for traditionally certified teachers. In the medium size districts (2,500 to 24,999 students) the mean professional knowledge scores were higher for lateral entry teachers.

In districts below average in socio-economic advantage, lateral entry teachers scored higher than traditionally certified teachers on the professional knowledge test. They scored lower in districts of average or higher socio-economic advantage.

Lateral entry teachers outscored traditionally certified teachers on professional knowledge in districts reporting average and most difficulty in recruiting new teachers. They scored lower in districts reporting little difficulty in recruiting new teachers.

Performance appraisal ratings (TPAI scores) also were used to compare "quality" variation between lateral entry and traditionally certified teachers. TPAI scales encompass use of instructional time, management of student behavior, quality of instructional presentation, quality of instructional monitoring, quality of instructional feedback, skill in facilitating instruction, communication skills, and non-instructional duties.

An analysis of TPAI ratings showed significant main effects for school district socio-economic disadvantage, ability to recruit teachers, and school district size. Scores were generally lower on all TPAI functions in all types of school districts for lateral entry teachers, but especially so in districts with high or low advantage and greatest or least difficulty in recruiting teachers. Contrarily, lateral entry teachers employed by districts with average socio-economic advantage and average levels of difficulty recruiting new teachers were rated higher on all of the eight TPAI functions.

More specifically, there were significant interaction effects with district disadvantage, for management of instructional time and providing instructional feedback. Significant main effects were observed for management of student behavior, instructional presentation, instructional monitoring, facilitating instruction, communicating in an educational environment, and attending to non-instructional duties, with traditionally certified teachers outperforming their lateral entry colleagues.

The same pattern of performance held in the analysis based on district difficulty in recruiting new personnel. Only in districts experiencing average levels of difficulty did lateral teacher performance ever surpass that of traditionally certified teachers.

The main effect of school district size was significant for communicating in an educational environment and attending to non-instructional duties. Here, both scores were higher for traditionally certified teachers in large school districts.

### Conclusions and Implications

Despite measurement and design limitations, this is an important study of labor sufficiency and quality among traditional and lateral entry teachers. It expands the heretofore limited operational definitions of teacher labor quality by including a field-based performance measure, and it employs multiple

measures of "quality". Both tactics represent important steps toward improving the validity of generalizations about the quality of the teaching labor pool. It is important also in its attempt to assess the differential impact that one state policy can have on school districts in the same state.

This study has demonstrated that within one southern state, lateral entry policies do affect the quantity of the teaching labor pool, results which are consistent with other research (Feistritzer, 1990; MacPhail-Wilcox and King, 1988; Schechter, 1987). For example, this study revealed that proportionately more lateral entry teachers are hired by low socio-economic, small districts who frequently fail to meet accreditation standards and experience more difficulty in recruiting teachers. Furthermore these increases were most pronounced for previously under-represented groups (African-Americans and males) and for older members of the general labor pool. The findings corroborate and extend earlier reports that alternative routes to teaching attract more minority candidates than traditional programs (Barnes, Salmon & Wale, 1986; Hutton, 1987; Schechter, 1987; and Wale & Irons, 1990). Further, lateral entry teachers hired by these districts tended to have lower NTE test scores and teaching performance ratings than did those hired in more advantaged and higher performing districts.

It is difficult to partial out the degree to which these employment patterns reflect differences in demand for alternatively certified teachers or differences in teacher preferences for districts in which to work. It is also impossible to state unequivocally that the quality of lateral entry and traditionally certified teachers is different in instructionally valid ways. The validity of using standardized test scores for this purpose is a continuing problem, and it is well known that teacher performance appraisal instruments and processes have shown little capacity for capturing fine discriminations in performance (Millman, 1981).

Nonetheless, this lateral entry policy does increase the teaching labor pool in districts often characterized as unattractive or difficult work environments. Thus, it does seem to enhance the sufficiency of teaching labor, especially for selected classes of people. It is possible, then, to conclude that lateral entry programs do enable society "to have school". But, is sufficiency of the teaching labor pool without concern for the quality of that labor sensible? We think not.

This study does not offer a clear answer to the question of what impact lateral entry policies have on the quality of instruction students receive. However, it does suggest that lateral entry teachers and traditionally certified teachers do display differential levels of "quality". Lateral entry teachers do score higher on some portions of national standardized tests not designed or known to be a measure of teaching quality. Contrarily, their overall performance in the "field" was not as positive as the performance of their traditionally certified counterparts when the criterion measure is derived from a state mandated appraisal instrument. To the degree that the field measurement should have more validity than the test scores as job relevant criteria, the interpretation of findings slightly favors traditionally certified teachers. In other words, the analysis does demonstrate that on some measures of quality, lateral entry and traditionally certified teachers do exhibit "value-added" differences, even though many are not significant. These differences are to a limited degree validated by the observed qualitative differences among two classes of lateral entry teachers and the pattern of performance variation within groups. This provides some confirmation of the human capital theory proposition that the value of one's training is linked to the particular labor market in which one will deploy that capital. Whether or not these differences are critically important turns on the matter of job validity. Less equivocal answers will require the replication of this study using much finer grained measures of labor "quality", perhaps including student outcomes.

This study confirms the danger of relying upon standardized test scores like those produced by the NTE and GRE as salient and valid indicators of teacher quality. It does so by demonstrating the interpretive differences to the question of quality that result from using different standardized test scales and when using data drawn from classroom observation scales.

Despite the fact that lateral entry teachers scored significantly higher on some dimensions of these standardized tests than did traditionally certified teachers, overall differences in classroom performance in six of eight teaching functions favored traditionally certified teachers. These findings confirm Ayers' (1989) assertion that standardized test scores tend to be unrelated to classroom performance, and they confirm other studies which reported less pedagogical proficiency among lateral entry teachers in the classroom (Clarridge, 1990; Soares, 1989).

Moreover, and perhaps most importantly, by combining these assessments of the quantity and quality of alternatively certified teachers with multiple classifications of school districts, distributional inequities in the "quality" of teaching labor were identified. The most "needy" districts (those with higher levels of disadvantage, smaller size, failed efforts to meet state accreditation requirements, and persistent difficulty in recruiting adequate numbers of teachers) employed proportionately more of the pool of lateral entry teachers. In other words, they drew persons with substantially higher Communication and General Knowledge NTE scores, who performed somewhat less well in the classroom than did other districts.

The implications of this study for policy makers are multiple. Among the most important are the need to carefully consider the effects of sufficiency policies on instructional quality and the distribution of equitable educational opportunities. The study confirms the need for multiple and more valid measures of teacher quality that link more directly to student, class, and school productivity, particularly the inclusion of a wide range of student outcome measures. It directs policy makers to insure that teacher labor "sufficiency" policies contain "quality" safeguards that will minimize the possibility of distributional inequities among teaching resources to students. Thus, it directs policy makers to anticipate policy consequences and follow-through the policy making process with analyses of intended and unintended consequences of policy.

For teacher educators, this study reveals the importance of insuring that preparation programs do increase the novice teacher's capacity to function productively in the classroom. In order to optimize teaching capital, the knowledge and skill embedded in preparatory programs must be tightly linked to the specific demands of the teaching labor market. The fact that traditional teachers outperformed lateral entry teachers in Professional Knowledge by such a slim margin is cause for reexamining what is tested and what pedagogical value is added by traditional preparation programs. The fact that standardized test scores and classroom ratings for traditional and lateral entry teachers yielded nearly opposite conclusions regarding the distribution of teacher "quality" should increase the momentum to clarify school goals and to define the resources necessary to attain them for different kinds of students.

Researchers can benefit both policy makers and teacher educators by identifying the teaching functions which are most effective for different classes of students who seek to obtain the same learning objectives. They can contribute by developing more valid means of assessing and comparing teacher quality, perhaps through the use of more finely discriminating performance appraisal strategies that yield ratings which are unambiguously linked to student learning gains. From this information, they should be able to discern the stocks and flows of resources needed for each class of students to obtain these school goals.

The tension between teacher certification policies which address sufficiency and quality is not likely to diminish. However, continuous assessment of the consequences of such policies, especially distributional equity, and subsequent policy adjustments are essential if all children are to have access to an equivalent high quality of education. Lateral entry policies, while increasing labor quantity in difficult-to-staff schools, may compromise student equity via quality. This study has demonstrated the need to carefully anticipate and monitor the consequences of a labor "sufficiency" policies in teacher education.

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