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Characteristics associated with university teacher education program applicants, graduates, and practicing teachers

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Iowa State University PH.D. 1982

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Characteristics associated with university teacher education program applicants, graduates, and practicing teachers

by

Kuang-Chi Chen

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INTRODUCTION

Teaching is one of the oldest professions known to mankind. In 1980, 2,386,000 or 3% of the American labor force were employed as elementary or secondary school teachers (National Center for Education Statistics, 1980), and yearly, there are more than one hundred thousand graduating students seeking to enter this job market (National Education Association, 1981).

However, in recent years, the decline in public school enrollments and the resulting decrease in demand for teachers, have caused a drop in the number of persons preparing to be certified teachers. Even though there were surpluses in some teaching areas, the National Education Association (NEA) had projected that in certain disciplines and geographical areas, a critical shortage of school teachers would likely occur by 1985 (Watkins, 1981). The surplus of teachers today will more than likely vanish. The NEA also indicated that the present new teacher production has dwindled to little more than half of what it was in 1972. The supply of graduates completing preparation to enter teaching in 1980 (159,485) was 2.4% smaller than the number reported for 1979. It was the eighth consecutive year that the number completing preparation to enter teaching has decreased from the all-time high of 317,254 in 1972 (NEA, 1981). In Iowa, new teacher production in 1980

(2,637) had also dwindled to half of what it was in 1972 (5,619) (Howe, 1981). As a result, teacher shortages had already become a problem for many small schools -- districts with fewer than 2,500 students -- which enroll 75% of the U.S. school population (Dunathan, 1980). Regarding disciplines, teaching assignments in which the supply was least adequate were mathematics, natural and physical sciences, agriculture, special education, industrial arts, distributive education, and vocation-technical participants (NEA, 1981). For example, in 1980, only 78.3% of the national mathematics teacher demand was met (NEA, 1981), whereas in Iowa, only 28% of the teacher demand was met (Howe & Gerlovich, 1981).

There were several reasons for the teacher shortage including attrition due to burnout and professional opportunities outside education. In recent years, teacher burnout has become a phenomenon all too familiar to any adult working in the modern public school. Bardo (1979) reported that the causes of teacher burnout might include such stresses as harassment by the administration, assaults by students, paperwork pressure, and isolation. In Chicago, a teacher union stress survey found 56.6% of 5,500 respondents claimed physical and/or mental illiness as a direct result of their jobs. In 1978, 70,000 teachers in the nation's public schools reported being physically

assaulted (Walsh, 1979), while on April of the same year, the Tacoma (Washington) Association of Classroom Teachers (TACT) became the nation's first teacher group to win stress insurance for its members (KAPPAN, 1979). Apparently, more and more school teachers have left their jobs because they were casualties of professional "burnout" and no longer had the energy and enthusiasm necessary for effective teaching (Bardo, 1979).

Another factor contributing to the teacher shortage was that there were too many teachers being prepared. Only 50% of them could find classroom jobs, therefore many students turned away from teaching careers. According to Watkins (1981), the continuing enrollment decline in teacher education programs was the major reason for the expected dramatic change in the job market for school teachers. Nationally, there was in a 14% drop in freshman enrollment in the fall of 1971. Meanwhile, since 1971, fewer and fewer certified teachers have graduated (Goodlove, 1980). For example, Dr. W. Schloerke (1981), Professor of Secondary Education at Iowa State University, has pointed out that in the past decade, the largest number of ISU Teacher Education Program graduates -- 915 -- was in 1971-72 academic year, since then the number has decreased to 465 in 1980-81 academic year. Meanwhile, for students in the schools' undergraduate teacher-training programs, 60% of them

consider other careers in "nonteaching settings" where they can use their education skills (Watkins, 1981; Lyons, 1980). Due to this trend, more than half of the states have had or will have shortages of teachers (Watkins, 1981).

As enrollment declines, Deans of Education have been blamed for failing to recruit students; while at the same time, university presidents were blamed for failing to allocate enough money to these deans to refresh their programs (Watkins, 1981). However, Watts (1980) suggested that increasing admissions standards for teacher preparatory programs was even more important. When about half of the potential teachers failed a screening exam to be certified as a teacher, Watts believed that it was time to start rewarding teacher preparatory institutions for quality, not quantity. Similarly, Lyons (1980) indicated that the quality of all the teacher training programs should be strengthened. Increasing admissions standards of teacher education programs and strengthening the quality of existing training programs may increase the number of newly certified teachers. However, these would not prevent the teacher burnout.

People's past perception of the job market has always been the main concern of one's major/career choice-making, while the job characteristics, e.g., occupational values, tend to be neglected (Lyons, 1980; Watts, 1980; Travers,

1980; Watkins, 1981). Under these circumstances, teacher educators found that they failed to recruit the right type of students. Some of the students did not enjoy the training and then did not intend to stay in teaching.

Some young people are facing career decisions and wondering if they should become teachers. Those who are now engaged in obtaining substantive knowledge to prepare themselves to teach in their chosen field need answers regarding teaching opportunities and characteristics of good teachers. Likewise, those who are already teachers would like to ascertain if they should continue in the profession, and, if so, should they consider updating their teaching skills. Teacher-educators must supply answers to these and other questions through verified, rigorous research. Unfortunately, most people who have searched for these answers have been disappointed (Dunkin & Biddle, 1974). The research regarding teacher's characteristics and the characteristics of skillful teaching was too complex to be studied easily (Dunkin & Biddle, 1974; Travers & Dillon, 1975; Lortie, 1975). However, some valid information is needed concerning the characteristics of teachers that indicates who teachers are, what teachers do, what rewards they receive, and who should be a teacher. This information will not only help to recruit the best teacher applicants, but also insure that they increase their length stay in

teaching. Therefore, doing validated research on teacher characteristics in order to provide this information should be given first priority.

The purpose of this research is to study the characteristics of those who are considering teaching as their primary career. The literature suggested that potential teacher education program applicant's personal characteristics, academic achievement and aptitude, social background, social and work experience, occupational values, and long range career plan were factors influencing potential teacher selection. For the purpose of this study, it is reasonable to depict a presumed causal model relating potential teacher education program applicants' characteristics to their decisions about teaching. This model is shown in Figure 1.

Since there have been very few studies focusing on the characteristics of students who are considering teaching as a career, articles concerning the characteristics of the teacher education program students and those of the practicing teachers will be reviewed. Similarities among the characteristics of teachers, teacher education program students, and potential teacher education program applicants will be studied. Therefore, in this study, questions will be asked that investigate the practicing teachers', the graduates', and the potential teacher education program

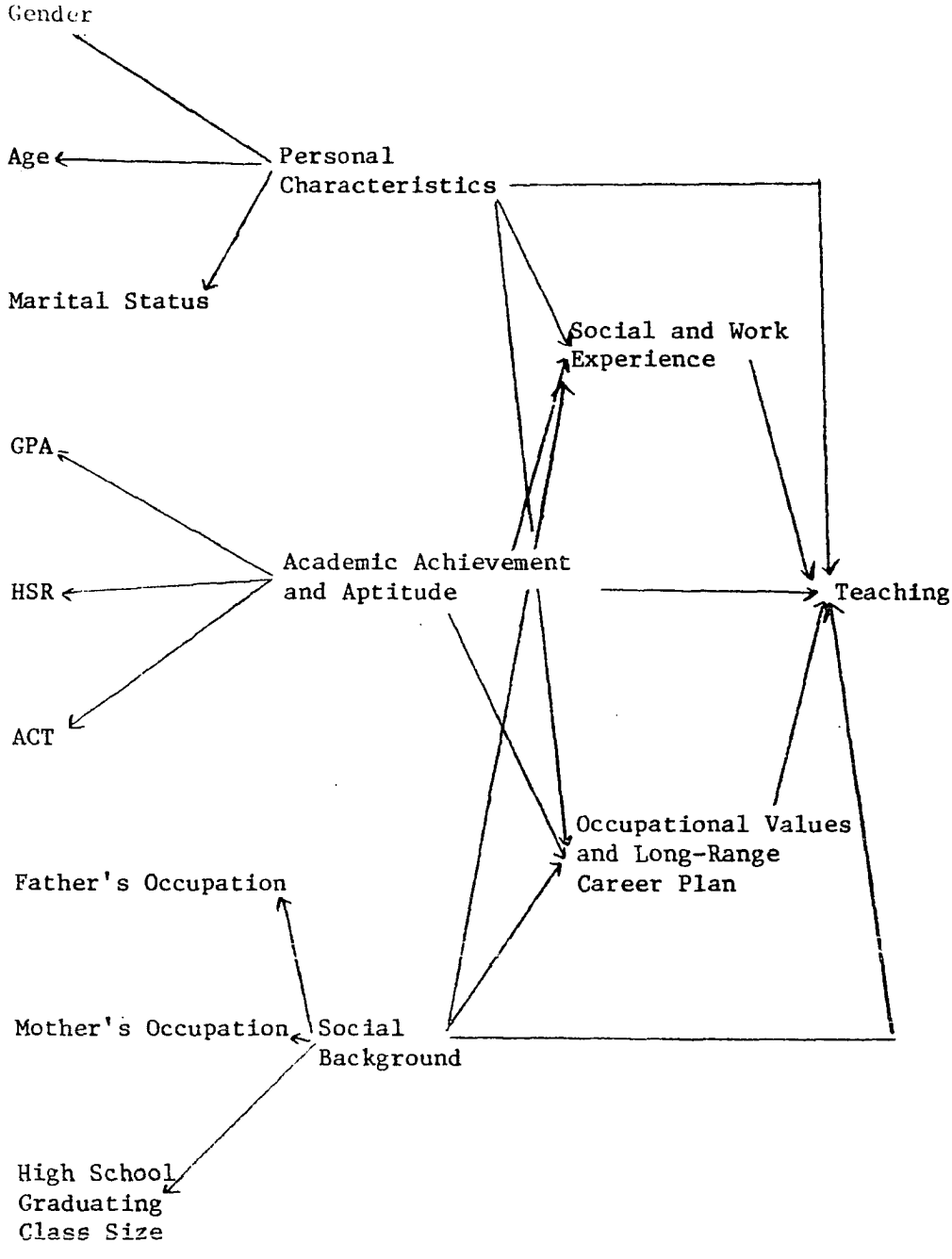

FIGURE 1. The Applicants' Hypothetical Casual Model

applicants' personal characteristics, academic achievement and aptitude, social background, social and work experiences, occupational value systems, and long range career plans. The results of this study may be useful to teacher educators in recruiting potential teachers and to students who are considering teaching as a career.

Participants included in this study were potential ISU Teacher Education Program applicants, ISU Teacher Education Program graduates, and practicing Iowa teachers. Since all of them were currently residing in Iowa, generalizations from this study should be made accordingly.

For the purpose of this research, potential ISU Teacher Education Program applicants will be referred to as "applicants," those ISU Teacher Education Program graduates as "graduates," and when these two groups are discussed together, they will be referred to as the "potential teachers." Those practicing Iowa teachers will be referred to as "teachers," and all these three groups of participants will be referred to as "the participants."

For the purpose of exploring research on ISU Teacher Education applicants, based on the presumed model mentioned previously, the following six hypotheses are presented:

Hypothesis I -- Potential teachers' personal characteristics: more females than males, and more married males than married females will apply for the teacher

education program. Regarding the graduates, more females and married males will decide to stay in teaching for a longer period of time.

Hypothesis II -- Potential teachers' academic achievement and aptitude: The potential teacher's academic achievement and aptitude is an influential factor in his/her choosing teaching as a primary career.

Hypothesis III -- Potential teacher's social background: The potential teacher's parents' occupational status, community population size/high school graduating class size are inversely related to the chance of his/her choosing teaching as a primary career.

Hypothesis IV -- Applicant's social and work experience: Those potential applicants who have work experience, and have more extracurricular and/or leadership experiences will choose teaching as their primary careers more often than those who do not work or participate in many activities.

Hypothesis V -- The participants' occupational value systems and long range career plan: Participants who consider psychic rewards more important than material rewards tend to choose teaching as their primary careers or tend to choose to stay in teaching. However, those potential teachers choosing teaching as a primary career do not necessarily choose teaching as a long range career.

Hypothesis VI -- The presumed causal model of potential applicants' decision: This presumed causal model of potential applicants' decisions on applying for the teacher education program is true: The applicants' social and work experiences, and occupational value systems and long range career plans are assumed to be influenced by their personal characteristics, academic achievement and aptitude, and social backgrounds, further, whether they choose teaching as a primary career is assumed to be influenced by those previous five variables. Therefore, a causal order among these variables is assumed to be known, and the relationship among these variables are assumed to be causally chosen.

LITERATURE REVIEW

Based upon the six hypotheses of this study, the literature review was focused on the potential teachers' and teachers' personal characteristics, academic achievement and aptitude, social background, social and work experience, occupational value systems and long range career plan.

Teachers' and Potential Teachers' Personal characteristics

The modal American teacher, in the late 1950s, was a married woman between the ages of 46 and 55 years, representing approximately 19% of the total occupational group (NEA, 1957). Since that early study, however, Peterson (1958) indicated that when compared to young teachers, teachers at 55 years and older reflect some concern about teaching. They tend to be more learning-centered and continue to teach from traditional educational viewpoints (Biddle & Ellena, 1964). In contrast, young teachers enjoy teaching and their intimate, friendly contact with students much more than their older colleagues.

Sex

The majority of school teachers are female. In 1963, slightly less than three-fourths of the teachers were women (Charters, 1963). In 1970, teaching was still considered to be a women's occupation (Dreeben, 1970).

Between 1960 and 1970, the picture began to change, as the numbers of the male teachers increased 78%, whereas females only increased 52% (Foxley, 1979). According to the National Teacher Association report, the 1975-76 academic year, there were 2,195,740 full-time school teachers with 32.9% of them males and 67.1% females. Already there were more male teachers in secondary schools than in the elementary schools: 54% of the secondary school teachers were males, while only 17% elementary school teachers were males. The National Center for Education Statistics (NCES) also reported that over that past 30 years, the proportion of male public school teachers has increased substantially. The total percent of male school teachers increased from 18.8% in 1948 to 34% in 1978. At the elementary level, the percentage of male teachers has grown from 7.1% to 17%, while at the secondary level the increase was from 40% to 54% (Grant & Ediden, 1980).

Regarding career preferences, Astin (1978) indicated that being a woman carries substantial positive weight in choosing school teaching as a career. Of those who indicated they mere considering teaching, 61% of the women and 47% of the men, actually, became school teachers. Consequently, based on the male teacher growth, it is reasonable to assume that, although there are still more female school teachers, they no longer dominate teaching.

Age

Because of the slow change in school teachers' demographic characteristics during the 1960s, male teachers continued to be predominantly young, while female teachers were middle-aged (NEA, 1976). A decade later, it was still the same picture: the median age of male teacher was 33.6 years old, and 45.5 for female teachers. Since 1960s, however, many younger teachers have started to join in the profession. In Iowa, 7.3% of the total full-time teachers employed in 1979-80 were beginning teachers (Howe, 1981). Since 1960, the proportion of teachers with 20 or more years of experience decreased by almost half. In 1976, teachers with 20 years teaching experience constituted only 14% of the profession, while 45% had taught three to nine years and 11% one to two years. In 1975-76, the average age of teacher was 36 years with males' average being 36 and the females' 37 (NEA, 1976). The median years of teaching was eight, with nine years for men and and eight years for women. In 1978, the median years of teaching service for both genders had decreased when compared to two years previously, with 6.5 years for males and 4.7 years for females (The Condition of Education, 1980). Accordingly, it may be concluded that teachers in elementary and secondary schools are younger than before.

Marital status

In the 1960s, most teachers, both male and female, were married or previously married. Thirty years earlier, about 20 percent of teachers were married women (Charters, 1963). Ten years later, interestingly, women were substantially less likely to become teachers if they were married as undergraduates (Astin, 1978). Dreeben (1970) reported that although most beginning teachers were women (63.6%), more men than women were married. In 1970, the national survey reported that 17.3% of all male teachers were single and 80.5% were married, while 24.6% of the women were single, and 62.4% were married. For 1975-76 school teachers, 20.1% of them were single, with 19.7% of the males and 20.3% of the females (NEA, 1976).

Summary

Based on previous studies about teachers' and potential teachers' personal characteristics, the modal American teacher is no longer an older married woman. Many younger persons have joined the profession. Meanwhile, a larger percentage of the current male teachers are married.

Although the model of the American teacher was different than before, the recent studies mentioned above indicated that teaching was still considered to be primarily a woman's occupation. Therefore, it may be reasonable to hypothesize that the majority of potential teacher education

program applicants are also females. Gender and marital status were found to be confounding factors with more married male teachers indicated than females. In this study, more married male applicants are hypothesized to apply for the teacher education program than the married temales. Finally, due to the applicants' homogeneous age range, age may not be one of the significant influential factors.

Potential Teachers' Academic Achievement and Aptitude

A teacher provides an intellectual model for students (Travers & Dillon, 1975). Therefore, one must possess certain academic achievements and aptitudes to be an effective teacher (Martin, 1944; Watts, 1980; Baer & Brown, 1980). Evaluation methods and admission standards for current and future teachers vary among teacher educational programs and states. Yet, the applicant's grade point average (GPA) has always been one of the popular standards. Most school principals have stated that although the teacher applicant's GPA is not their first consideration, they do expect those teacher applicants to have a minimum grade point average of B (Baer & Brown, 1980).

There are many ways of evaluating potential teacher's academic achievement and aptitude including grades in certain courses, high school rank (HSR), overall university

grade point average (GPA), the American College Test (ACT), the Scholastic Aptitude Test (SAT). Since it is inappropriate to depend on any single indicator, usually, a group of evaluation methods are used in selecting teacher applicants.

Generally, entrance requirements for teacher education program applicants include overall GPA, GPA in major field, grades in English, and faculty recommendations (Watts, 1980; Baer & Brown, 1980; Endicott, 1980). These admission standards have been shown to be highly related to teacher quality. Watts (1980) investigated several existing teacher education programs, and found that the admissions standards were generally too low, which hampered even a high-quality program in producing successful teachers.

As to the prediction of students' success in teacher education programs, GPA, English competence, HSR, science, math, American Council Psychological Exam scores, and freshman interview, have all been shown to carry positive weights (Martin, 1944). Recently, Astin and his associates conducted a longitudinal study on over 2,000,000 students in more than 300 institutions. Again, they indicated that good predictors of successful attainment of the career objective of school teacher included good GPA and HSR (Astin, 1978; Astin & Panos, 1969). However, Astin (1978) added that most of the students receiving A grades frequently consider

professions other than teaching.

Summary

Based on previous studies, it is reasonable to conclude that school principals always consider teacher applicants' academic achievement and aptitude as part of the teacher-selection criteria. Further, teacher education students' academic achievement and aptitude are also good predictors for their success in the program. In this study, potential applicants' academic achievement and aptitude is assumed to be one of the effective predictors of one's choosing teaching as his/her career. However, based on Astin's study, there seemed to be curvilinear relationship between a person's academic achievement and his or her ultimately choosing teaching as a career.

Teachers' and Potential Teachers' Social Background

Teaching is a clearly white-collar, middle-class work (Lortie, 1975). The special mission of teachers gives their occupation a status somewhat higher than people would expect solely on the basis of income. Therefore, in the past, for those who grew up in blue-collar or lower-class families, a teaching career was one of the more attractive routes into the middle class due to the perceived opportunity for upward mobility (Lortie, 1975).

A national study conducted by NEA had revealed that the social backgrounds of teachers approximates a cross-section of the American public and showed a slight upward bias from earlier in this century (NEA, 1963). While in 1911, Coffman reported that 52% of teachers' fathers were classified as "artisans" or "laborers," 30 years later, Greenhoe's (1941) national survey showed that 18% of teacher's fathers were blue-collar workers. Also, in 1957, Wattenburg reported that 29% of Detroit teachers had fathers who were blue-collar workers. Since then, this ratio remained essentially unchanged. In 1975, Lortie indicated that 30% of teachers came from a blue-collar family.

In contrast to most findings in Astin's (1978) longitudinal study which confirmed that many undergraduate students chose the same major/career as his/her fathers', e.g., engineering, this pattern did not hold true for teacher's offspring. Moreover, father's educational level even carried negative weight as a predictor of the student choosing teaching as a career. A possible explanation is that students from middle-upper class families in general tend not to choose teaching as a career.

While existing studies indicated that about 30% of teachers' fathers were blue-collar workers, there were no similar data available regarding their mothers' occupations. However, in recent years, more married women have started

working outside the home (Foxley, 1979). Since the additional income gained may enhance their social status generally, the mother's occupation is also considered as one of the independent variables in this study.

Besides parents' occupations, teachers' and potential teachers' residential background are considered as part of their social background in this study. Years ago, the supply of school teachers in rural areas was more than the demand; therefore, their salaries were lower than those in urban areas. These labor market conditions discouraged students who were raised in small towns or on a farm from pursuing a teaching career (Astin, 1978). However, recently, the increasing birthrate and declining teacher education program enrollments have caused some areas, especially those small, rural areas to have trouble attracting teachers. Consequently, the job market for teachers in small, rural areas has improved (Watkins, 1981; Dunathan, 1980). Since more students from rural areas enrolled in small schools (Astin, 1975), school size should also be considered as an indication of one's social background. Therefore, in this study, potential teacher education program applicants' high school graduating class size is considered as one of the independent variables.

Summary

Previous studies about teachers' and future teachers' social background have generally indicated that more people from blue-collar and lower-middle class white-collar families chose teaching careers. Regarding geographical area, previous studies indicated that in the near future the job market for teachers would be better in small, rural areas.

Teachers' and Potential Teachers' Social and Work Experiences

A teacher has many roles. Besides classroom situation, a teacher has to face many social/extracurricular situations including: planning school programs, working with peers and administration, working with parents or other members of the community, working in professional organizations, etc. (Haberman & Stinnett, 1973). Since the teacher applicants' abilities in dealing with social/extracurricular situations are not reflected in their grades or courses, most principals consider the applicants' previous work experiences and participation in extracurricular activities as part of the criteria in selecting new teachers (Baer & Brown, 1980; Endicott, 1980).

Work experiences, especially those involving contact with the public, are valued as indices of the teacher

applicants' dependability, ability to work with others, and willingness to assume the responsibilities which come with employment. In Astin and Panos' study (1969), over 87% teacher education program students helped to pay their own way through their program training. This indicated that most teachers had some work experience when they were students.

Likewise, previous participation in extracurricular activities is often viewed as a measure of one's probable involvement in the total school operation and community. Leadership and activity participation in various types of extracurricular organizations are of special significances. For example, election to an office has been considered to be an indicator of leadership and ability to work with people; while participation in certain extracurricular activities provides evidence of experience working with people in informal settings (Baer & Brown, 1980; Endicott, 1980). In fact, as early as forty years ago, the extent of student's participation in extracurricular activities in college and number of offices held in college organizations were considered as effective predictors of their success in teacher education programs (Martin, 1944). Participation in school-related activities during childhood and adolescence, likewise, has proven to be significantly related to such effective teacher characteristics as understanding,

friendly, responsible, stimulating, imaginative, etc. (Biddle & Ellena, 1964).

As to major/career decision-making, Astin (1978) indicated that for male future teachers, positive decision of staying in teaching was associated with being elected president of a student organization in high school. For females, positive decision was associated with interest in the performing arts and becoming an expert in finance which could be gained through participating in extracurricular activities and working.

Summary

Previous studies (Haberman & Stinnett, 1973; Baer & Brown, 1980; Endicott, 1980) have indicated that gaining experiences by participating in extracurricular activities and working are meaningful experiences for a teacher. Meanwhile, other studies have shown that most teacher education program students have had some work, social, as well as leadership experiences (Martin, 1944; Biddle & Ellena, 1964; Astin & Panos, 1969; Astin, 1978). Therefore, in this study, relationships among potential teacher education program applicants' social and work experiences and their demographic variables (gender, age, marital status, parents' occupations, academic achievement and aptitudes, and high school graduating class size) will be examined. Furthermore, the relationship between potential

applicants' choosing teaching as their primary careers and their having some social, work, and leadership experiences will be investigated.

Teachers' and Potential Teachers' Occupational Value Systems and Long Range Career Plan

Occupational values

Several years ago, Goode (1957, p. 194) made the point that members of the same occupation should be associated through: (1) a sense of identity, (2) a permanent or near-permanent commitment to the occupation, (3) a shared set of values, (4) an agreed-upon pattern of conduct among members and between members and nonmembers, (5) a common language (imperfectly understood by nonmembers), (6) a control over the conduct of members, and (7) a control over the selection and training of new members. In short, those in the same occupation should share similar occupational value systems.

Many studies indicated that teachers who held value systems shared by the profession as a whole enjoyed teaching more and stayed in teaching longer (Getzels & Jackson, 1963; Biddle & Ellena, 1964; Dreeben, 1970; Lortie, 1975; Bardo, 1979; Walsh, 1979; Freeman, 1979; Richey, 1968; Yauch, Bartels, & Morris, 1955; Erlandson & Pastor, 1981). Therefore, in order to provide information to those who are considering teaching as a career, we should not only find

out the occupational values of those teachers who enjoy teaching, but also find out the characteristics of teaching itself.

Regarding the characteristics of teaching, Myron Lieberman (1956, p.485) provided this thought-provoking list: "Teaching is an occupation that: (1) provides a specific social service, (2) emphasizes intellectual techniques in providing it, (3) requires a prolonged period of preparation, (4) affords broad autonomy both for practitioners and for the occupation as a whole, (5) expects practitioners to accept personal responsibility for their judgment and actions, (6) emphasizes service rendered rather than personal gain, (7) governs and controls the conduct of members, and (8) formulates and expects adherence to a code of ethics." In addition to Lieberman's list, Freeman (1979) claimed that she enjoyed teaching because it was a challenge.

As to the value systems of a happy teacher, Biddle and Ellena (1964) believed that a teacher who enjoyed teaching expressed favorable attitudes toward other persons, especially his or her students and colleagues (Dreenben, 1970; Walsh, 1979). Lytle (1980) believed that teachers would be more motivated if the school administrator's authority could be somewhat restrained. Results of another study (Erlandson & Pastor, 1981) showed that teachers were

more motivated if they desired to participate in decision making, were encouraged to use a variety of valued skills and abilities, given freedom and independence, allowed to express creativity, and given an opportunity to learn and develop. On the other hand, high pay, fringe benefits, job security, friendly co-workers, and considerate supervision had proven to have a less positive relationship with teachers' motivation.

Many previous studies have indicated that a teacher mainly receives more psychic rewards than material rewards (Lortie, 1975; Yauch, Bartels, & Morris, 1955; Richey, 1968; Ornstein, 1980; Astin, 1978; Watkins, 1981). The average beginning salary for a teacher with a bachelor's degree was about $10,000 in 1980. This figure was lower than the average beginning salary offered by almost 200 private companies to graduates in ten other fields (Watkins, 1981). Although some very definite salary improvements have been made during the past several years, even when combined with liberal fringe benefits and job security, teachers still may not earn enough to pay their living expenses. The result of this was that most teachers had to take a part-time job (King, 1980). Ornstein (1980) compared an intermediate standard of living for a family of four to the public school teacher's average salaries. The results indicated that in 1980, a teacher only earned 77.2% of the family budget

needed for an intermediate standard of living. Even worse, in 1990, it is projected to approach half.

In spite of the low salary, the prestige of the teacher has always been ranked high by the public. For a long time, the teacher and the engineer have competed for the second rank, while the medical doctor is ranked highest (Richey, 1968). Since teaching provides more psychic rewards than material rewards, most school administrators believe that only those young, idealistic, and courageous individuals should be recruited into teaching. Those with self-confidence accept the teaching position knowing that they would be able to get along in this chosen work without benefit of any outside help (Lortie, 1975).

Long range career plan

In certain respects, teaching has more in common with noneducational occupations such as social work and librarianship. It also has more in common with the ministry than it does with occupations supposedly in the same general area, such as guidance counseling, school administration, and college teaching (Dreeben, 1970).

As a teacher, one develops the following important skills needed in the business world and in nearly all professions: working under pressure and meeting deadlines, keeping accurate usable records, communicating effectively with people, planning and organizing, motivating people,

enjoying speaking to groups of people or at least becoming comfortable doing so, being familiar with libraries, having good research skills, and being familiar with audio-visual resources. Meanwhile, less specific and less demonstrable than the skills developed in teaching are certain characteristics such as: good interpersonal relationships, decision-making abilities, ability in using an objective problem-solving approach, sense of curiosity, and the ability to come up with ideas in almost any situation (Bestor, 1981). As a matter of fact, many educators believe that teaching involves many skills and develops many characteristics that are transferable to other occupations and profession. Those professions include administration, advertising and public relations, business, counseling and other helping professions, entertainment, government, media, museum work, personnel, publishing, writing, and research (Bestor, 1981; King,1980).

According to Dreeben (1970), about half of the beginning teachers expected to be out of the classroom within five years, and only 21% expected to remain in teaching until retirement. Watkins (1981) pointed out that about 60% of the students in teacher education programs considered nonteaching careers in which they could use their education skills. Since, through one's training, a teacher education program student may develop many skills and

characteristics which are transferable to jobs other than teaching, people should not be surprised that teachers and future teachers may have long range career plans other than teaching.

Summary

Teaching, which provides more psychic rewards than material rewards, has always been considered as a prestigious occupation. Results of previous studies (Biddle & Ellena, 1964; Dreenben, 1970; Walsh, 1979; Lytle, 1980; Erlandson & Pastor, 1981) have shown that teachers who consider psychic rewards, e.g., responsibility, challenge, more important than material rewards, e.g., money, job security, tend to enjoy teaching more. The purpose of this study is to test the observation that teacher education program applicants who consider those job characteristics of psychic rewards more important tend to choose teaching as a career. Regarding teacher's long range career plans, previous studies (Dreeben, 1970; Bestor, 1981; King, 1980) have indicated that teacher training is transferable to other occupations and professions, further, only one-fifth of teachers planned to stay in teaching all their life. Therefore, the potential applicant's long range career plan seems not to be among the significant influential factors of one's choosing teaching as a primary career.

Causal Model

The method of path analysis conceived by Sewell Wright (1921, 1925) over 60 years ago, has only recently been introduced into the educational literature (Anderson, 1978; Anderson & Evans, 1974; Williams, 1978; Wolfle, 1980). Its application in substantive analyses in education has also been infrequent, limited largely to analysis of causes and consequences of educational attainment (Blau & Duncan, 1967; Duncan, Featherman, & Duncan, 1972; Hauser, 1971; Sewell & Hauser, 1975; Sewell, Hauser & Featherman, 1976). In the Statistical Package for the Social Science -- SPSS Handbook (Nie, Hull, Jenkins, Steinbrenner & Bent, 1975, p. 383), the path analysis has been defined as: "primarily a set of variables by assuming that (1) a (weak) causal order among these variables is known and (2) the relationship among these variables are causally closed." Although this method can be and has been used for testing a limited set of causal hypotheses and for interpreting and evaluating linear relationships under somewhat different assumptions, it is, to paraphrase Wright, primarily a method of working out the logical consequences of the two foregoing assumptions (Nie, Hull, Jenkins, Steinbreuner, & Bent, 1975).

Path analysis procedures begin with a statement of a verbal theory that makes explicit the relationships hypothesized among a set of variables as well as the causal

sequence thought to exist among them. Then, the researcher assumes the expected values of the residuals to be zero and to have equal variance (i.e., homoscedasticity). Furthermore, the values of the residuals are statistically independent of each other (i.e., zero covariances), and they are statistically independent of the explanatory variables in the equations (Anderson & Evans, 1974; Wolfle, 1980). Usually, the hypothetical causal relationships should be diagrammed. The path diagram indicates linear, additive relationships among the set of variables that are included in the model. In path analysis, a mark "-->" is usually seen, e.g., X-->Y. According to Duncan (1975), "X-->Y" means: "a change in X produces a change in Y," or "Y depends on X," or "X is the cause of Y." This mark "-->" also indicates causal order and closure relationships among the variables.

Generally speaking, the path coefficient between two variables is equal to their correlation coefficient. For years, researchers have disputed whether using concrete or standardized path coefficients is better in conjunction with a consideration of those of ordinary correlation and regression coefficients (Wright, 1971). Each method has advantages, so, most researchers continue to use both.

Although the method of path analysis is not prevalent in the educational literature, the idea of causal order and

closure relationships among variables is not new. Early in the 1940s, students' background situational factors were used to predict their success in a teacher education program (Martin, 1944). Two decades later, without specifially mentioning path analysis, Rosencrauz and Biddle (1964) also presented several figures to indicate some cause-and-effect relationships among variables of teacher behavior. For example, they believed that teacher's personality was influenced by teacher's family environment, social class, education, religion, country of origin, and other experience, while social situation was a result of shared values, shared beliefs, etc. Furthermore, teacher's behavior were influenced by teacher's personality and social situations.

More recently, Astin (1978) applied a similar method of path analysis -- the stepwise multiple regression analysis -- to analyze his data. He indicated that successful attainment of the career objective of the school teacher was more difficult to predict than any other career outcome. Predictors carrying positive weights included majoring in education as a freshman, good grades in high school and college, and being a woman.

During the last decade, causal modelling procedures have become powerful tools used by educators to bridge the gap between theory and research. Several social-

psychological models of occupational achievement and education attainment were developed (Sewell, Hauser, & Featherman, 1976; Blalock, 1971; Goldberger & Duncan, 1973; Iohnes, 1979; Anderson & Evans, 1974; Wolfle, 1980). In these models, social background, gender, mental ability, father's and mother's occupation, high school rank, college grades, and other experiences were often used as exogenous (independent) variables, while education and occupation were endogenous (dependent) variables.

For example, Atkinson and his associate (1974) developed a model which showed that achievement-related motivation was a determinant of one's formative environment, abilities, personality, knowledge, beliefs, and conceptions, while the endogenous variables included one's motivation, achievement and development. Stayrook, Corno, and Winne's causal model (1978) of teacher's behavior and student achievement is another good example. Their model indicated that student achievement was influenced by student perceptions of the teacher's behavior, and was also influenced by student aptitude and teacher behavior. These models all indicate that selecting a good teacher is important for students' education, while teachers' background and characteristics affect teacher behavior.

Summary

Based on previous studies and models, it may be reasonable to depict the presumed model relating potential applicants' characteristics to their decisions on applying to the teacher education program in Figure 1. In this model, exogenous variables include (1) potential applicants' personal characteristics: gender, age, and marital status, (2) scores of their academic achievement and aptitude: GPA, ACT, and HSR; and (3) social background including parents' occupation, and applicants' high school graduating class size. Endogenous variables include potential applicants' social and work experiences, occupational value systems and long range career plan, and choice of teaching as a primary career. There are direct as well as indirect causal links between the three exogenous variables (applicants' personal characteristics, academic achievement and aptitude, social background) and the final endogenous variable (choosing teaching as a primary career). However, only direct causal links exist between other variables. Meanwhile, the causal flow of influences between these two groups of variables in the model is unidirectional. Interrelationships may exist among those three groups of exogenous variables, as well as, between the two endogenous variables: (1) social and work experience, and (2) occupational value systems and long range career plan.

Duncan (1975, p.149) mentioned that: "We can seldom be sure we have the right model, although we can sometimes be nearly certain, on the basis of empirical evidence that we have been using the wrong one." Fortunately, path analysis can help to determine whether we have the right model. In this study, the presumed potential applicants' model, shown in Figure 1, will be tested.

METHODOLOGY

Introduction

This study was based on three projects conducted by the Research Institute for Studies in Education (RISE), Iowa State University. RISE closely followed the procedures outlined by Dillman, in his book (1978, p 133-165), Mail and Telephone Surveys, The Total Design Method, so it was assumed that the instrument, procedures, and data collection method in this study were reliable and valid. The Iowa State University Committee on the Use of Human Subjects in Research reviewed these projects and concluded that the rights and welfare of the human subjects were adequately protected, that risks were outweighted by the potential benefits and expected value of the knowledge sought, that confidentiality of data was assured and that informed consent was obtained by appropriate procedures. The data to be analyzed were gathered as part of these projects about the views of ISU Teacher Education Program students and graduates toward the Program, and the views of Iowa public school teachers toward education in Iowa. With the help of faculty and staff in the College of Education, the Department of Sociology, and the Survey section of the Statistical Laboratory at ISU, the applicant study was conducted by Drs. Harold Dilts, Richard Warren, and Ann

Thompson. The graduate study was conducted by Drs. Harold Dilts, Richard Warren, Pat Keith, and Ann Thompson. The teacher study was conducted by Drs. Virgil Lagomarcino, Richard Warren, and Harold Dilts. Part of these data were also applied by Dianne James (1982) to her doctoral research.

Participants

All data in this study were collected during the 1980-81 academic year. Three groups of participants included in the study were the applicants, the graduates, and the practicing Iowa teachers.

The applicants

The first group consisted of 563 students who just completed the first course in the Teacher Education Program at Iowa State University during the 1980-81 academic year. This group of participants was identified as the "potential teacher education program applicants."

The title of the course is "The School in American Life (Secondary Education/Elementary Education 204)." The course objectives are designed to help the students to analyze the school's role in society, educational innovations, and alternative schooling patterns. A percentage of students enrolled in this course had not been formally admitted to the teacher education program. They took the course to get

the general information about teaching, however, they might not apply to the program nor earn a teaching certificate. Among these 563 potential applicants, 384 of them (68.7%) indicated that they decided to apply or had already been accepted into the teacher education program. The other 101 (18.1%) were undecided and 74 (13.2%) decided not to apply at the point in time.

The graduates

The second group consisted of 496 graduates who completed the Teacher Education Program at Iowa State University during the 1980- 81 academic year. This group was named "the graduates." They also have completed a student teaching experience, (five to eleven weeks in length) in an Iowa public school and have started the job-search process. The majority of these participants expected to be certified as teachers, while some were considering other careers.

When they were surveyed, two questions were directly related to these graduates' feelings and decisions about teaching. The first one was "If you had it to do over again, would you choose teaching as a career?" The answers available were yes, undecided, or no. The second question was "Do you plan to teach this year?" and the answer might be yes or no. The method of the contingency table analysis -- a joint frequency distribution analysis to cases

according to the responses to these two questions -- was applied to classify those graduates with respect to decisions about teaching. Those who responded "yes" to both questions were classified to be in the Teaching Group (N=224). Those who responded "no" to both questions were in the Nonteaching Group (N=41). Since the remaining graduates were either undecided or provided two conflicting answers, they were classified to be in the Undecided Group (N=215).

Teachers

The last group of participants in this study consisted of 597 full-time public school teachers. Although some teachers had taught longer than others, they all had at least one year of experience. Data from these teachers were collected during the winter of 1980-81.

When they were surveyed, two questions were also directly related to the teachers' feelings and decisions about staying in teaching. The first one was if you had it to do over again, would you choose teaching as a career. There were three possible answers: yes, undecided, or no. The second was: "What is your long range career plan?" The choice for this question were teaching positions, school related positions, and nonacademic jobs. A person could provide more than one answer. Again, contingency table analysis was applied to classify these teachers. Those who responded "yes" to question 1 and "teaching" to question 2

were classified in the Teaching Group (N=248). Those who responded "no" to question 1 and "nonteaching" to question 2 were classified in the Nonteaching Group (N=72). Teachers who responded with a different pattern were classified to the "Undecided Group" (N=271).

Instruments

Each group of participants completed a different questionnaire developed by the Research Institute for Studies in Education at Iowa State University. Certain questions were common to all three questionnaires. The potential applicants completed the questionnaire designed to evaluate Ed. 204, and also to gather the characteristics of students who took this course (Appendix A). Questions included applicants' academic, family, and social backgrounds, long range career plans, occupational value systems, social and work experiences, and such demographic information as gender, age, and marital status.

A questionnaire entitled "What You Think of the Teacher Education Program" (Appendix B) was adminstered to the graduates. This questionnaire was designed to assess the opinions of graduates about the ISU Teacher Education Program. Only some of the items were relevant to this study. These items included the age at which the participant decided to become a teacher, long range career

plans, occupational value systems, whether they planned to stay in teaching, social background, and their demographic characteristics.

A questionnaire entitled "What You Think of Education in Iowa" (Appendix C), was administered to the sample of Iowa teachers. Since this questionnaire was orginally designed for another purpose, again, only small number of those questions were relevant to the present study. These questions included the school level when each teacher decided to teach, long range career plans, occupational value systems, whether they would choose teaching again if they had it to do over again, social background and their demographic characteristics.

Procedure

At the end of each 1980-81 quarter, each instructor for Education 204 administered the questionnaire on a voluntary basis in his/her section(s). Totally, 783 students enrolled in Ed. 204, 563 (72%) returned the questionnaire.

A copy of "What You Think of the Teacher Education Program" was sent to every ISU Teacher Education Program graduate at the end of each 1980-81 quarters. The graduates voluntarily filled in the questionnaires and returned them. Four hundred and ninety-six (65.3%) of the 760 1980-81 graduates returned the questionnaire.

Eight hundred copies of questionnaire "What You Think of Education in Iowa" were mailed to the Iowa teachers' school addresses. They were selected from the 443 school districts within the 99 counties in Iowa. Within each school district, participants (teachers) were selected from different teaching levels: pre-kindergarten, kindergarten, grades 1 through 6, and grades 7 through 12. The return rate was 74.6%.

Design and Analysis

In order to test the six hypotheses of this study, five statistical methods were selected: factor analysis, analysis of variance (ANOVA), Tukey's alternate procedure (Tukey B Test), chi-square analysis, and path analysis.

The method of factor analysis was applied to rearrange those items addressing the question of occupational value systems into fewer components: material rewards components and psychic rewards components. All three groups of participants' answers to these 18 items were factor analyzed. Those commonalities among the new factors of the three groups were chosen to build the new components.

The method of analysis of variance (ANOVA) was applied to differentiate the characteristics of those who decided to stay in teaching from those who were undecided and those who decided not to stay in teaching. Several 2-way ANOVAs were

also computed. Two independent variables were: (1) participants' decision: to stay in teaching (Teaching), undecided, or not staying in teaching (Nonteaching), and (2) participant's status: applicant, graduate, or teacher. The dependent variables included the number of activities that was participated in or lead by applicants, potential teachers' age, academic achievement and aptitude test scores, the graduates' and teachers' student teaching length, and participants' occupational values and community population size or size of high school graduating class.

Tukey B Test was chosen to compare all possible pairs of group means. It was designed to test mean differences when group sizes were unequal. Tukey B Test used different range values for different size subsets, but hold the same experimentwise error rate (alpha=.05).

Chi-square analysis was used to assess differences between the decision group on the discrete dependent variables. The participants' decisions about teaching were treated as the independent variable. The discrete dependent variables included participants' gender, marital status, long range career plan, the teachers' school level when they decided to teach, potential teachers' parental occupations, and applicants' full-time job experience.

In this study, the potential teachers' hypothetical causal models were examined by path analysis. Exogenous

variables included personal characteristics, academic achievement and aptitude test scores, and social background. Endogenous variables included their social and work experiences, occupational value systems, long range career plans, and whether they select to stay in teaching. Endogenous variables were assumed to be directly and/or indirectly influenced by exogenous variables. Moreover, applicants' decisions on teaching were assumed to be directly influenced by their social and work experiences, occupational value systems, and long range career plans.

RESULTS

New Components of Occupational Values

In order to reduce the number of occupational value items and search for the commonalities among those items, reponses to the 18 occupational value items were factor analyzed. Separate factor analyses were performed on the data from the applicants, the graduates, and the teachers.

By examining the factor structures of the three analyses, some common items were found to be located in the same major factors. Four new occupational value components were constructed by grouping these common items together: one material rewards component and three psychic rewards components. The first component consisted of items 4, 5, 12, and 13, which were items of money, social status, secure future, and fringe benefits. This component was entitled "Material Rewards." The second component consisted of items 1 and 2 which were items concerning the opportunity to be creative and to use special abilities and aptitudes. It was entitled "Creativity and Originality." The third component consisted of items 3 and 10 which were concerned with the opportunity to work with people and to help and serve others. It was entitled "People-Orientation." The last component included items 14, 15, and 18 which were concerned with the variety in the work, responsibility, and challenge.

It was entitled "Variety and Responsibility."

For the convenience of discussion, the 18 occupational value items (OVs) will be referred to as OV1 to OV18 in the remainder of this dissertation. The four new occupational value components (NCs) will be referred to as NC1 to NC4.

Characteristic Differences among Applicants

Applicants' general characteristics

The applicants' general characteristics, shown in Table 1, included their gender, age, marital status, high school graduating class size, full-time job experience, long range career plans, and parents' occupations. The coding system applied to these variables is also listed in Table 1. The majority ISU Teacher Education Program applicants were single (92.2%) and female (77.2%). Over 80% were 20 years old or younger, and approximately 36% of them graduated from a small high school with a class size less than 100 students.

Currently, more than one-third of these applicants were students in the College of Education, while 1/4 in the College of Science and Humanities, and 1/5 in the College of Home Economics. Their average HSR was 24.97, their ACT was 21.43, and their current GPA was 2.69.

Reflecting the rural nature of the state, about 30% of their fathers were farmers, and 54% of their mothers were

TABLE 1. Applicants' General Characteristics

CHARACTERISTIC/GROUPING	CODE	NUMBER	ADJUSTED PERCENT
SEX			
Female	1	434	77.2
Male	2	128	22.8
AGE			
18	1	115	20.4
19	2	201	35.8
20	3	141	25.0
21	4	43	7.6
22 thru 29	5	53	9.4
30 and over	6	10	1.8
MARITAL STATUS			
Single	1	519	92.2
Married	2	44	7.8
HIGH SCHOOL GRADUATING CLASS SIZE			
Under 100	1	201	35.9
101-250	2	139	24.8
251-500	3	143	25.5
501-1,000	4	65	11.6
Over 1,000	5	12	2.1
ENROLLED COLLEGE			
Agriculture	A	48	9.6
Design	D	31	6.2
Education	E	190	38.2
Home Economics	H	104	20.9
Science & Humanities	S	123	24.7

FULL-TIME JOB EXPERIENCE			
Never	1	155	27.5
Occasionally	2	328	58.4
Continuously	3	79	14.1
FATHERS' OCCUPATIONS			
Professional/Management	5	222	40.7
Clerical/Sales	4	58	10.6
Farmer	3	158	29.0
Operatives/Services	2	102	18.7
Labors	1	5	0.9
MOTHERS' OCCUPATIONS			
Professional/Management	5	100	18.1
Clerical/Sales	4	105	19.1
Homemakers	3	297	53.8
Operatives/Services	2	49	8.9
Labors	1	1	0.2
LONG RANGE CAREER PLANS			
Teaching	4	349	62.4
School related	3	37	6.6
Nonacademic jobs	1	115	20.6
Multianswers	2	58	10.4

full-time homemakers. The majority of them (72.5%) had some full-time job experience. When they were asked about their long range career plans, 346 (62.2%) chose to be school teachers. Thirty-seven (6.7%) of them chose some school-related jobs including college teaching, counselor, and administrator. The rest (31.2%) chose some nonacademic jobs including business, industry, and homemaker.

Differences among applicants' continuous variables

The applicants' continuous variables included applicants' age, GPA, ACT, HSR, number of their participation/leadership activities, responses of the 18 items of the occupational values and four new value components. The mean differences of these continuous variables among the applicants who made different decisions on teaching were tested by ANOVA and Tukey B Test. Group size, group means, and F ratiors are shown in Table 2. The standard deviations for each applicants' groups are listed in Appendix D.

TABLE 2. Characteristic Differences among Applicants I -- Group Size, Means, F Ratios, and Tukey B Results

CHARACTERISTIC		TEACH. N	TEACH. MEAN	UNDECIDED N	UNDECIDED MEAN	NONTE. N	NONTE. MEAN	F
AGE	c	382	19.83	99	19.34	73	20.13	3.38*
# of participation		384	6.16	101	6.13	74	6.77	1.68
# of leadership		384	2.50	101	2.37	74	2.47	0.21
GPA	a	342	2.73	91	2.57	60	2.60	3.80*
HSR		285	24.34	83	28.72	56	20.82	2.30
ACT		272	21.43	78	21.05	52	20.98	0.58
OV1		384	4.37	101	4.30	74	4.22	1.79
OV2		384	4.35	101	4.29	74	4.43	1.08
OV3		384	4.58	101	4.51	74	4.43	1.47
OV4	bc	384	3.21	101	3.33	74	3.70	10.55**
OV5		384	3.19	101	3.07	74	3.34	2.31
OV6		384	3.57	101	3.39	74	3.41	2.58
OV7		384	3.67	101	3.54	74	3.74	1.36
OV8	bc	384	3.72	101	3.73	74	4.14	8.02**
OV9	ac	383	3.93	101	3.70	74	4.01	4.75**
OV10	b	384	4.61	98	4.53	74	4.36	4.67**
OV11		383	3.82	101	3.80	74	3.82	0.02
OV12		384	4.08	101	4.05	74	4.21	1.00
OV13		384	3.74	101	3.62	74	3.86	1.80
OV14		383	4.34	101	4.28	74	4.41	1.49
OV15	ac	384	4.21	101	4.02	74	4.26	4.35*
OV16		384	4.29	101	4.24	74	4.36	0.87
OV17		384	3.39	101	3.21	74	3.34	2.20
OV18		384	4.44	101	4.32	74	4.34	1.61
NC1	bc	384	3.56	101	3.52	74	3.78	4.45*
NC2		384	4.36	101	4.29	74	4.32	0.63
NC3	b	384	4.59	101	4.46	74	4.40	4.36*
NC4		384	4.33	101	4.19	74	4.33	2.79

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.
a Significant differences exist between Teaching Group and Undecided Group when tested by Tukey B Test.
b Significant differences exist between Teaching Group and Nonteaching Group when tested by Tukey B Test.
c Significant differences exist between Undecided Group and Nonteaching Group when tested by Tukey B Test.

F Values, as shown in Table 2, indicated that among the three applicants' decision groups, four mean differences were significant at .01 level: occupational value items 4, 8, 9, and 10. Meanwhile, another five mean differences were significant at .05 level: age, GPA, OV 15, NC1 and NC3.

When these mean differences were tested by Tukey B Test (alpha=.05), results indicated that the applicants who decided not to teach were older than those who were undecided. Applicants who had made a positive decision had a significantly higher GPA than those who were undecided (alpha=.05), while GPA of the Undecided Group and that of the Nonteaching Group were very close to each other. Tukey B Test results also showed that the Nonteaching Group rated the importance of money (OV4), opportunity for advancement (OV8), and material rewards (NC1) significantly higher than did the Teaching and Undecided Groups. Conversely, the Teaching Group rated the importance of a people-oriented job (NC3) and the opportunity to help and serve others (OV10) more important than the Nonteaching Group did. Both of those who made positive and negative decisions about teaching rated the leadership (OV9) and responsibility (OV15) more important than did those undeciders.

Differences among applicants' discrete variables

Applicants' discrete variables included gender, marital status, college of enrollment, parents' occupations, high school graduating class size, full-time job experiences, and their long range career plans. Relationships between these discrete variables and applicants' decisions to apply to the teacher education program were tested by chi-square values. Results including group size, percentage of applicants in three decision groups, and chi-square values are shown in Table 3.

Among these seven discrete variables, three chi-square values were significant: the applicants' high school graduating class size (alpha=.05), applicants' long range career plans, and college of enrollment (alpha=.01). Gender, shown in Table 3, was not significantly related to the applicant's decision to apply to the program.

More than 60% of the applicants graduated from high school with the class size of less than 250 students, and about 70% of these applicants made a positive decision to apply to the program, while only 25% of those who graduated from a high school class size over 1,000 made the positive decision. The results indicated that individuals who intended to apply to the teacher education program were more likely to come from smaller high schools.

The results in Table 3 showed that more applicants

TABLE 3. Characteristic Differences among Applicants II -- Total Sample Size, Adjusted Percentages, and Chi-Square Values

CHARACTERISTIC	NUMBER	TEACH. %	UNDECIDED %	NONTE. %	CHI-SQUARE
SEX					0.33
Female	430	69.1	17.4	13.5	
Male	128	68.0	19.5	12.5	
MARITAL STATUS					4.36
Single	516	67.6	19.0	13.4	
Married	43	81.4	7.0	11.0	
FATHERS' OCCUPATION					11.17
Professional	222	66.2	21.2	12.6	
Clerical	58	75.9	6.9	17.2	
Farmer	158	72.8	15.2	12.0	
Operatives	102	64.7	21.6	13.7	
Labors	5	100.0	0.0	0.0	
MOTHERS' OCCUPATION					3.52
Professional	100	70.0	17.0	13.0	
Clerical	105	66.7	21.9	11.4	
Homemakers	297	70.4	15.8	13.8	
Operatives	49	63.3	22.4	14.3	
Labor	1	100.0	0.0	0.0	
HIGH SCHOOL SIZE					17.70*
Under 100	200	70.0	18.0	12.0	
101-250	139	69.8	16.5	13.7	
251-500	140	66.4	19.3	14.3	

501-1,000	65	76.9	10.8	12.3	
Over 1,000	12	25.0	58.3	16.7	
ENROLLED COLLEGE					49.23**
Agriculture	48	68.8	16.7	14.6	
Design	30	66.7	16.7	16.7	
Education	190	85.3	10.5	4.2	
Home Economics	102	55.9	30.4	13.7	
Science & Humanities	123	56.1	22.0	22.0	
FULL-TIME JOB EXPERIENCE					5.22
Never	154	63.0	18.8	18.2	
Occasionally	325	71.1	17.8	11.1	
Continuously	79	70.9	16.5	12.7	
LONG RANGE CAREER PLANS					189.90**
Teaching	346	82.1	15.6	2.3	
School-related	37	59.5	24.3	16.2	
Nonacademic jobs	114	25.4	26.3	48.2	
Multianswer	58	82.8	10.3	6.9	

* Chi-square values are significant at .05 level.
** Chi-square values are significant at .01 level.

enrolled in the College of Education (85.3%) decided to apply for teacher education program than did those enrolled in other colleges. Applicants who included teaching in long range career plans were also likely to apply to the teacher education program. The results in Table 3 indicated that more than 80% of those who chose teaching as the long range career plan intended to apply to teacher education. In addition, 80% of those applicants who had more than one long range career plans were in the Teaching Group. About 60% of those who planned to be a school counselor or administrator, and only 24% of those who planned to get a nonacademic jobs were in the Teaching Group.

While applicant's gender, shown in Table 3, was not related to their decisions to apply to teacher education, gender was still not related to their decisions when those applicants' marital status was controlled. Chi-square value and sample size are shown in Table 4.

Summary

One of the applicants' personal characteristics (age), one of their academic achievment and aptitude scores (GPA), and one of their social background characteristics (high school graduating class size), were significantly related to their decisions to apply or not to apply to the teacher education program. None of the social and work experiences variables differed significantly among the three decision

TABLE 4. Married Participants' Decisions about Teaching -- Sample Size, Adjusted Percentages, and Chi-Square Values

CHARACTERISTIC	NUMBER	TEACH. %	UNDECIDED %	NONTE. %	CHI-SQUARE
Applicants					0.92
Male	11	90.9	0.0	9.1	
Female	31	80.6	6.5	12.9	
Graduates					5.95*
Male	30	33.3	53.3	13.3	
Female	92	57.6	37.0	5.4	
Teachers					55.79**
Male	198	25.6	53.3	21.1	
Female	283	56.9	37.5	5.7	

* Chi-square values are significant at .05 level.
** Chi-square values are significant at .01 level.

groups. Compared to undeciders and non-future-teachers, applicants who planned to apply to teacher education were generally from small high schools, enrolled in the College of Education, and with higher GPAs.

Regarding occupational values and long range career plans, responses of five occupational value items and two new occupational value components differed significantly among the three applicants' decision groups. Applicants' long range career plans were significantly related to their decisions about applying to the teacher education program.

Applicants intending to apply to teacher education were more people-oriented and less materially oriented than those not intending to apply to teacher education. Undecided applicants were younger and tended to put less emphasis on the importance of leadership, power and responsibility as occupational values than the other two groups. Those who did not plan to apply to the program were older and less people-oriented.

Characteristic Differences among the Graduates

Graduates' general characteristics

Graduates' general characteristics included gender, marital status, age, community population size, parents' occupations, college of enrollment, future teaching level, self-rating as teachers based on their student teaching, choice of doing over again, and their long range career plans. These characteristics along with coding system, sample size and adjusted percentage are shown in Table 5.

As is shown in Table 5, the majority of these 596 graduates were females (77.3%), single (74.6%), and 22 years old or younger (68.8%). About 1/3 of these graduates were living on a farm when they were surveyed. More than half (59.4%) of their mothers were full-time homemakers, and 31.8% of them declared that their fathers were farmers.

Regarding these graduates' career training, 45.2% of

TABLE 5. GRADUATES' GENERAL CHARACTERISTICS

CHARACTERISTIC/GROUPING	CODE	NUMBER	ADJUSTED PERCENT
SEX			
Female	1	434	77.3
Male	2	112	22.7
MARITAL STATUS			
Single	1	367	74.6
Married	2	125	25.4
AGE			
22 and under	1	335	68.8
23 thru 29	2	133	27.3
30 thru 39	3	14	2.9
40 and over	4	5	1.0
COMMUNITY POPULATION SIZE			
Farm	1	104	33.3
Nonfarm country	2	12	3.8
Small town less than 5,000	3	43	13.8
Town, 5,000 to 50,000	4	82	26.2
City, over 50,000	5	71	22.8
FATHERS' OCCUPATIONS			
Professional/Management	5	205	43.2
Clerical/Sales	4	45	9.5
Farmer	3	151	31.8
Operatives/Services	2	61	12.8
Labors	1	13	2.7
MOTHERS' OCCUPATIONS			
Professional/Management	5	112	23.1
Clerical/Sales	4	57	11.7
Homemakers	3	288	59.4
Operatives/Services	2	27	5.6
Labors	1	1	0.2
ENROLLED COLLEGE			
Agriculture		44	8.9
Design		18	3.6
Education		224	45.2
Home Economics		129	26.0
Science & Humanities		81	16.3

FUTURE TEACHING LEVEL			
Preschool		59	11.9
Elementary		151	30.4
Secondary		246	49.6
K-12		40	8.1
SELF-EVALUATION OF BEING A TEACHER			
Excellent	5	205	41.8
Above average	4	260	53.0
Average	3	22	4.0
Below average	2	3	0.6
Inadequate	1	1	0.2
CHOOSE TEACHING IF DOING OVER AGAIN			
Yes	3	274	55.8
Undecided	2	160	32.6
No	1	57	11.6
LONG RANGE CAREER PLANS			
Teaching	4	198	40.7
School-related	3	39	8.0
Nonacademic jobs	1	78	16.0
Multianswers	2	171	32.2

them graduated from the College of Education, and 26% graduated from the College of Home Economics. About half of these graduates were trained to teach at the secondary level (49.6%), and 30.4% of them were trained to teach at the elementary level. Almost all of them (94.8%) rated themselves as better than average teachers. About forty percent chose teaching as their long range career plan. More than half (55.8%) said they would choose teaching as a career again. Only 11.6% said "No".

Mean differences among continuous variables for graduates

Graduates' continuous variables included their age, GPA, ACT, HSR, age when they decided to teach, responses to the 18 occupational value items and the four new occupational value components scores. Differences were tested by ANOVA and Tukey B Test. Group size, group means, and F ratios are shown in Table 6. The standard deviations for each graduates' groups are listed in Appendix E.

TABLE 6. Characteristic Differences among Graduates I -- Group Size, Means, F Ratios, and Tukey B Results

CHARACTERISTIC		TEACH. N	TEACH. MEAN	UNDECIDED N	UNDECIDED MEAN	NONTE. N	NONTE. MEAN	F
AGE		220	23.29	212	22.60	41	22.63	2.74
GPA		224	3.16	217	3.08	41	3.04	3.11*
HSR		181	19.54	179	19.13	36	23.22	1.09
ACT		161	22.91	162	22.60	28	22.96	0.23
AGE WHEN DECIDED TO TEACH		216	16.29	205	16.68	36	17.72	1.52
OV1	ab	224	4.27	217	4.46	41	4.32	17.63**
OV2		224	4.63	217	4.53	41	4.44	2.63
OV3	ab	224	4.82	216	4.60	41	4.44	13.62**
OV4	abc	224	3.15	217	3.56	41	3.87	20.70**
OV5	a	222	3.13	217	3.42	41	3.34	7.66**
OV6	b	222	3.87	215	3.74	41	3.54	4.23*
OV7		224	3.66	217	3.80	41	3.63	1.78
OV8	abc	223	3.84	217	4.19	41	4.51	18.70**
OV9		224	4.17	217	4.26	41	4.29	1.19
OV10	abc	224	4.27	217	4.60	41	4.39	8.07**
OV11		223	3.98	216	3.94	41	4.17	0.92
OV12		223	4.14	216	4.14	41	4.27	0.63
OV13		224	3.93	217	4.01	41	4.20	2.39
OV14	a	224	4.62	217	4.49	41	4.46	3.29*
OV15	a	224	4.55	217	4.42	41	4.37	3.50*
OV16		224	4.57	217	4.52	41	4.37	2.24
OV17		224	3.22	217	3.37	41	3.32	1.97
OV18	a	224	4.66	217	4.53	41	4.44	4.12*
NC1	ab	224	3.60	217	3.79	41	3.92	8.83**
NC2	ab	224	4.67	217	4.50	41	4.38	11.41**
NC3	abc	224	4.77	217	4.61	41	4.41	13.62**
NC4	abc	224	4.61	217	4.48	41	4.42	5.72**

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.
a Significant differences exist between Teaching Group and Undecided Group when tested by Tukey B Test.
b Significant differences exist between Teaching Group and Nonteaching Group when tested by Tukey B Test.
c Significant differences exist between Undecided Group and Nonteaching Group when tested by Tukey B Test.

The ANOVAs indicated that three graduate decision groups differed significantly on variables GPA, OV1, 3, 4, 5, 6, 8, 10, 14, 15, 18, and all four NCs. The graduates who decided to stay in teaching had higher GPAs than the others.

The results of Tukey B Test (alpha=.05) indicated that a job with a good deal of money (OV4) was rated more important by those who decided not to teach than by those who were undecided and those who decided to teach. The undeciders also rated money more important than did the future teachers. On the other hand, a job with the opportunity for advancement (OV8), one with the opportunity to help and serve others (OV10), and a people-oriented job (NC3) were rated more important by the Teaching Group than did the other two. The Nonteaching Group also have different occupational values than the Undecided: the former rated the advancement (OV8) more important than the latter group did, and the latter considered a people-oriented job (NC3) and a job that can help and serve others (OV10) more important than the former did. In addition, creativity and originality (OV1), opportunity to work with people (OV3), People Orientation (NC2), and Responsibility (NC4) were rated more important by the Teaching Group than the Undecided and Nonteaching Groups. Material rewards (NC1) were rated more important by the Nonteaching Group

than the other two. The undeciders and the non-future-teachers shared similar values which were significantly different than the future teachers: future teachers rated the social status and prestige (OV5) less important, but rated the variety in work (OV14), responsibility (OV15), and challenge (OV18) more important. The Teaching and Undecided Groups shared only one value which was different from the Nonteaching Group: the former two considered the opportunity to effect social change (OV6) more important than the latter one did.

Differences among the discrete variables of graduates

The discrete variables for the graduates included their gender, marital status, community population size, parents' occupations, college of enrollment, future teaching level, self-rating as a teacher, and long range career plans. The relationships between these discrete variables and graduates' decisions about teaching were tested by chi-square values. Results including sample size, percentage in each sample, and chi-square values are shown in Table 7.

Chi-square values in Table 7 indicated that graduates with different gender, future teaching level, self-rating, and long range career plans made significantly different decisions about teaching (alpha=.01). Percentage distributions indicated that more females (50.2%) made the positive decision, while more males (51.4%) were undecided.

TABLE 7. Characteristic Differences among Graduates II -- Total Sample Size, Adjusted Percentages, and Chi-Square Values

CHARACTERISTIC	NUMBER	TEACH. %	UNDECIDED %	NONTE. %	CHI-SQUARE
SEX					9.93**
Female	370	50.0	43.0	7.0	
Male	109	34.9	51.4	13.8	
MARITAL STATUS					1.73
Single	357	44.8	46.2	9.0	
Married	122	51.6	41.0	7.4	
COMMUNITY SIZE					5.66
Farm	100	42.0	52.0	6.0	
Small country	12	41.7	50.0	8.3	
Less than 5,000	40	40.0	55.0	5.0	
5,000 to 50,000	80	53.8	38.8	7.5	
Over 50,000	70	40.0	50.0	10.1	
FATHERS' OCCUPATION					9.43
Professional	204	47.1	45.6	7.4	
Clerical	42	66.7	31.0	2.4	
Farmer	146	43.2	45.9	11.0	
Operatives	56	42.9	48.2	8.9	
Labor	13	46.2	46.2	7.7	
MOTHERS' OCCUPATION					6.31
Professional	111	49.5	42.3	8.1	
Clerical	53	39.6	56.6	3.8	
Homemaker	280	47.1	43.2	9.6	

Operatives	25	40.0	52.0	8.0	
Labor	1	0.0	100.0	0.0	
ENROLLED COLLEGE					11.51
Agriculture	44	43.2	45.5	11.4	
Design	16	25.0	68.8	6.3	
Education	219	53.0	38.4	8.7	
Home Economics	125	40.0	52.8	7.2	
Science & Humanities	78	44.9	46.2	9.0	
TEACHING LEVEL					41.94**
Preschool	57	59.6	40.4	0.0	
Elementary	147	62.6	31.3	6.1	
Secondary	239	34.3	52.7	13.0	
K-12	39	41.0	50.4	2.6	
SELF-EVALUATION					45.26**
Excellent	200	58.5	38.0	3.5	
Above average	253	41.9	48.6	9.5	
Average	22	4.5	63.6	31.8	
Below average	3	0.0	100.0	0.0	
LONG RANGE CAREER PLANS					156.42**
Teaching	194	62.9	36.6	0.5	
School-related	38	47.4	52.6	0.0	
Nonacademic jobs	76	9.2	48.7	42.1	
Multianswers	165	46.7	48.5	4.8	

* Chi-square values are significant at .05 level.
** Chi-square values are significant at .01 level.

The percentages of graduates in different teaching levels indicated that graduates from elementary and preschool programs were more likely to intend to teach than were graduates from secondary and K-12 programs.

Graduates with higher self-ratings were more likely to intend to stay in teaching. Not surprisingly, graduates with different long range career plans made different decisions about teaching: more graduates who chose teaching as their long range careers decided to stay in teaching (63%) than graduates who chose alternative careers.

While graduates' gender was significantly related to their decisions about teaching (Table 7), when the marital status was controlled, gender was still significantly related to their decisions (Table 4). More married female graduates decided to teach (57.6%), and more males were undecided (53.3%).

Summary

Graduates who made different decisions about teaching had different characteristics. Females, both single and married, were more likely than males to stay in teaching. Graduates intending to stay in teaching had higher GPAs. These future teachers were more people-oriented and less material-oriented, they valued occupations with the opportunity for creativity and originality more than did the graduates not intending to teach. More males were undecided

about teaching. Those undeciders valued the opportunity to effect social change less than did the others. Those who did not plan to stay in teaching exhibited occupational values emphasizing materialistic concerns.

Characteristic Differences among Iowa Teachers

Teachers' general characteristics

The teachers' general characteristics along with the coding system are presented in Table 8. Among these 597 practicing teachers, 355 (60%) were females and 237 were (40%) males. The majority of them (81.6%) were married or previously married; and 18.3% were single. About 1/3 were residents of a town with less than 5,000 population.

Over 60% of these teachers decided to teach during their senior high school or college years. More than half (52.2%) taught at the secondary level, and 40.7% taught at the elementary level.

These Iowa teachers had taught on the average for 13.8 years (males 12.9 years; females 14.4 years). The median years of teaching experience was 12 years (males 11 years; females 12.6 years). Compared to the national teachers' median years of teaching in 1978 (6.5 years for men, 4.7 for women), Iowa teachers had been in the classroom longer. The percentage of Iowa teachers with 20 or more years of experience (22.3%) was also far greater than the 1976

TABLE 8. Teachers' General Characteristics

CHARACTERISTIC/GROUPING	CODE	NUMBER	ADJUSTED PERCENT
SEX			
Female	1	355	60.0
Male	2	237	40.0
MARITAL STATUS			
Single	1	109	18.3
Married	2	486	81.6
COMMUNITY POPULATION SIZE			
Farm	1	48	8.0
Nonfarm country	2	46	7.7
Town less than 5,000	3	201	33.7
Town, 5,000 to 50,000	4	187	31.7
City over 50,000	5	115	19.3
SCHOOL LEVEL WHEN DECIDED TO TEACH			
Elementary school	E	90	15.2
Junior high	J	53	8.9
Senior high	S	217	36.6
College	C	180	30.4
Other	O	53	8.9
TEACHING LEVEL			
Preschool	P	18	3.1
Elementary	E	237	40.7
Secondary	S	306	52.2
K-12	K	25	4.3

YEARS IN TEACHING			
5 AND less	1	119	20.0
6 to 10	2	142	24.0
11 to 15	3	115	19.4
16 to 20	4	85	14.3
21 and over	5	132	22.3
SELF-EVALUATION OF BEING A TEACHER			
Excellent	5	133	22.3
Above average	4	412	69.1
Average	3	50	8.4
Below average	2	1	0.2
LONG RANGE CAREER PLANS			
Teaching	4	352	59.2
School-related	3	14	2.4
Nonacademic jobs	1	97	16.3
Multianswers	2	132	22.2
CHOOSE TEACHING IF DOING AGAIN			
Yes	3	358	60.0
Undecided	2	127	21.3
No	1	111	18.8

national percentage (14%).

Regarding self-rating, about 90% considered themselves as better than average teachers. About 60% of them chose teaching as their long range career plan; 2.4% wanted to become counselors or administrators. Sixty percent of the teachers would choose teaching as their career again, while less than twenty percent would not.

The joint frequency distribution of gender and marital status, and that of the gender and teaching levels were also computed. The results (Table 9) indicated that more male Iowa teachers were married (84.3%) than females (79.9%). Compared to the national sample of single teachers in 1975-1976 (19.7% male, 20.3% female), fewer 1980-81 Iowa male teachers were single (15.7% single male and 20.1% single female Iowa teachers).

The distribution of male and female teachers in different teaching levels in Iowa indicated that there were more female teachers in all school levels but secondary. In this study, 63.7% of secondary teachers were males. Compared to the 1978 national distribution of male teachers (17% in the elementary and 54% in the secondary level), Iowa had a greater proportion of male teachers in the secondary level and of a smaller in the elementary (14.3% in elementary, 64% in the secondary level) during 1980-1981.

TABLE 9. Number and Percentage of Male and Female Teachers in Each Marital Status and Teaching Level

	MALE		FEMALE	
CHARACTERISTIC	NUMBER	PERCENT	NUMBER	PERCENT
MARITAL STATUS				
Single	37	15.7	71	20.1
Married	199	84.3	283	79.9
TEACHING LEVEL				
Preshool	0	0.0	13	100.0
Elementary	34	14.3	203	85.7
Secondary	195	63.7	111	36.3
K-12	6	24.0	19	76.0

Differences among teachers' continuous variables

In this study, the teachers' continuous variables included the years of teaching experience, responses on the 18 occupation value items (OV1 to OV18) and the four new occupational value components (NC1 to NC4). These variables were tested by ANOVA and Tukey B Test. Group size, group means, and F ratios are shown in Table 10. The standard deviations for each teachers' groups are listed in Appendix F.

TABLE 10. Characteristic Differences among Teachers I -- Group Size, Means, F Ratios, and Tukey B Results

CHARACTERISTIC		TEACH. N	TEACH. MEAN	UNDECIDED N	UNDECIDED MEAN	NONTE. N	NONTE. MEAN	F
YEARS IN TEACHING	ab	246	15.94	271	12.72	76	10.74	13.41**
OV1		245	4.50	270	4.38	77	4.39	2.35
OV2		245	4.52	269	4.40	77	4.47	2.45
OV3	abc	246	4.61	269	4.38	77	4.10	18.00**
OV4	bc	248	3.33	270	3.44	77	3.92	14.20**
OV5		247	3.11	270	3.19	77	3.10	0.63
OV6	bc	246	3.65	267	3.54	77	3.30	5.54**
OV7	b	247	3.73	268	3.82	77	4.00	3.16*
OV8	abc	246	3.43	268	3.76	77	4.27	27.85**
OV9	a	247	3.74	270	3.98	77	3.97	5.82**
OV10	abc	248	4.55	269	4.37	77	4.00	19.87**
OV11		247	3.30	269	3.40	77	3.26	0.97
OV12		246	4.16	270	4.18	77	4.31	1.15
OV13		247	4.03	270	4.04	77	4.25	2.21
OV14		248	4.29	270	4.40	77	4.31	1.73
OV15		245	4.30	269	4.27	77	4.12	2.34
OV16		248	4.37	270	4.43	77	4.35	0.85
OV17		247	3.13	269	3.16	77	3.08	0.30
OV18	b	248	4.52	270	4.40	77	4.30	5.07**
NC1		248	3.68	272	3.75	77	3.89	2.79
NC2		248	4.56	272	4.44	77	4.43	2.66
NC3	abc	248	4.60	272	4.43	77	4.05	20.28**
NC4		248	4.40	272	4.40	77	4.24	2.50

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.
a Significant differences exist between Teaching Group and Undecided Group when tested by Tukey B Test.
b Significant differences exist between Teaching Group and Nonteaching Group when tested by Tukey B Test.
c Significant differences exist between Undecided Group and Nonteaching Group when tested by Tukey B Test.

As F ratios in Table 10 indicates, the teachers' decisions about teaching significantly related to the following variables: years of teaching experience, OV 3, 4, 6, 7, 8, 9, 10, 18, and NC3. Tukey B Test results showed that the average years of teaching experience was significantly longer for the Teaching Group than for Undecided Group and the Nonteaching Group.

Tukey B Test results showed that teachers intending to continue teaching rated the opportunity to work with people (OV3), the opportunity to help and serve others (OV10) and a people-oriented job (NC3) more important than did undecided teachers, both the Teaching and Undecided Groups rated these three characteristics more important than did the Nonteaching Group. Teachers not intending to continue considered the opportunity for advancement (OV8) more important than did undecided teachers, and both of these two groups rated this variable higher than did the Teaching Group.

Teachers who were positive and undecided about teaching shared similar occupational values which were significantly different from those not intending to teach. The Nonteaching Group rated the importance of earning a good deal of money (OV4) higher than the Teaching and Undecided Groups did. On the other hand, the Nonteaching Group rated the importance of the opportunity to effect social change (OV6) lower than the other two groups did. Undecided

teachers and those not intending to continue also shared some similar values. Both of them rated the importance of opportunity to exercise leadership (OV9) higher than the Teaching Group. Tukey B Test results indicated that the Nonteaching Group rated that "the relative freedom from supervision by others" more important than did the Teaching Group, while the Teaching Group rated challenge (OV18) as more important than the Nonteaching Group did.

Differences among discrete variables of teachers

The discrete variables of teachers are listed in Table 11. Differences among the decision groups were tested by chi-square analysis, the percentage distribution and chi-square values are also presented in Table 11. Four of the six chi-square values were statistically significant: gender, school level when they decided to teach, teaching level, and community population size.

TABLE 11. Characteristic Differences among Teachers II -- Sample Size, Adjusted Percentages, and Chi-Square Values

CHARACTERISTIC	NUMBER	TEACH. %	UNDECIDED %	NONTE. %	CHI-SQUARE
GENDER					53.57**
Female	355	53.0	39.7	7.3	
Male	237	24.9	54.4	20.7	
MARITAL STATUS					5.31
Single	109	32.1	51.4	16.5	
Married	486	43.8	44.0	12.1	
RESIDENTIAL SIZE					16.43*
Farm	48	56.3	35.4	8.3	
Small town	46	50.0	41.3	8.7	
Less than 5,000	201	35.8	46.8	17.9	
5,000 to 50,000	187	43.9	48.1	8.0	
Over than 50,000	115	38.3	46.1	15.7	
SCHOOL LEVEL WHEN DECIDED TO TEACH					36.30**
Elementary school	90	65.6	30.0	4.4	
Junior High	53	50.9	39.6	9.4	
Senior High	217	36.9	47.9	15.2	
College	180	30.6	53.9	15.6	
Other	53	47.2	41.5	11.3	
TEACHING LEVEL					51.33**
Preschool	18	72.2	27.8	0.0	
Elementary	237	54.9	38.8	6.3	
Secondary	308	30.2	51.9	17.9	
K-12	27	25.9	48.1	25.9	
SELF-EVALUATION					4.44
Excellent	133	41.4	46.6	12.0	
Above average	412	43.0	44.2	12.9	
Average	50	30.0	54.0	16.0	
Below average	1	0.0	100.0	0.0	

* Chi-square values are significant at .05 level.
** Chi-square values are significant at .01 level.

Significantly more females and those who came from farms and small towns decided to stay in teaching. The earlier in their life teachers decided to teach, the more likely they would stay in teaching. However, the higher their teaching level, the less likely teachers were to stay in teaching.

The relationship between teachers' long range career plans and whether they would choose to teach again was also tested by chi-square analysis, the results are shown in Table 12. Not surprisingly, teachers who chose teaching as their long range career plan were also significantly more likely to choose teaching again. Married teachers' decisions were also tested by using gender as the independent variable. Results in Table 4 indicated that more married females decided to stay in teaching (50.9%), and more married males were undecided (53.3%). Chi-square value was significant at .01 level.

Summary

Significant characteristic differences existed among teachers who made different decisions about staying in teaching. Generally, teachers who intended to continue teaching were females, in preschool or elementary school, living on a farm or in a small town. They preferred psychic rewards to material rewards, had more years of teaching experience, and had decided to be a teacher when they were

TABLE 12. Teachers' Long Range Career Plans Related to Their Choosing Teaching if Doing Over Again -- Sample Size, Adjusted Percentages, and Chi-Square Value

GROUPING	NUMBER	TEACH. %	UNDECIDED %	NONTE. %	CHI-SQUARE
LONG RANGE CAREER PLANS					75.22**
Teaching	352	70.5	19.6	9.9	
School related	14	78.6	14.3	7.1	
Nonacademic jobs	97	29.9	26.8	43.3	
Multiply answers	132	52.3	22.7	25.0	

** Chi-square value is significant at .01 level

young. More males and secondary school teachers were undecided about staying in teaching. Those undeciders valued occupations with the opportunity to help and serve others less than the other two groups. Teachers who intended to leave teaching were less people-oriented and valued the opportunity to earn more money and the opportunity for advancement. They valued occupations with the opportunity to effect social change less than others did.

Characteristic Differences among all Participants Who Made Different Decisions about Teaching

Some 2-way ANOVAs were computed by using (1) participants' decisions and (2) their status as independent variables. For the variables, age, GPA, HSR, ACT, information was available only for the applicant and graduate groups. For these variables, the analysis was a 2 (status) by 3 (decision) factorial. Since information was available on the occupational value items and new components for all 3 decision groups; 3 (status) by 3 (decision) ANOVAs were performed on these data. F values for the main effects of the two independent variables: decisions and status, and F values of the interaction effects are presented in Table 13. Group means for participants in the decision groups and status groups are listed in Appendices G and H, respectively.

As Table 13 indicates the main effect of participants' status was significant for all 26 dependent variables,

TABLE 13. Participants' Characteristic Differences among Three Decision Groups and Three Status Groups -- F Ratios

CHARACTERISTIC	F RATIOS		
	STATUS	DECISION	S. X D.
AGE a	647.30**	1.46	0.65
GPA a	147.08**	2.70	0.06
HSR a	16.98**	0.50	2.57
ACT a	15.20**	0.62	0.05
OV1	21.72**	11.55**	2.90*
OV2	17.60**	3.21*	2.40*
OV3	18.08**	23.22**	3.40*
OV4	0.74	43.14**	2.10
OV5	3.50*	3.12*	3.30**
OV6	17.85**	10.18**	1.00
OV7	4.40**	2.45	2.41*
OV8	29.18**	52.23**	2.57*
OV9	27.96**	4.64**	3.62**
OV10	17.85**	27.12**	2.16
OV11	69.25**	0.18	0.95
OV12	0.92	3.73*	0.13
OV13	19.96**	6.68**	0.58
OV14	17.93**	0.21	4.15**
OV15	31.70**	4.02**	4.00**
OV16	17.72**	0.08	2.33*
OV17	10.60**	0.48	1.21
OV18	12.48**	7.60**	1.20
NC1	4.80**	14.57**	1.18
NC2	22.12**	7.06**	2.30*
NC3	15.97**	30.19**	3.30*
NC4	25.40**	3.22	4.50**

a There was no such information for teachers.
* F ratios are significant at .05 level.
** F ratios are significant at .01 level.

except two (OV4 and OV12). Adventure (OV11) and responsibility (OV15) were the two occupational values where participants in the three status groups had the most different views (F values=69.25, 31.70). However, they shared similar views about the material rewards: the opportunity to earn a good deal of money (OV4), and the opportunity for a relatively stable and secure future (OV12).

Compared to the main effect of participants' status, the main effect of the participants' decision was less significant. Only 16 F values in Table 13 were statistically significant. All participants had different occupational values on all but five items (OV7, 11, 14, 16 and 18). The highest two F values for the main effects of decisions were OV8 and OV4 (52.23, 43.14). This indicated that participants in different decision groups had significantly different views about a job with opportunity for advancement (OV8) and the opportunity to earn a good deal of money (OV4). Participants in the three different decision groups shared these similar occupational values: freedom from supervision (OV7), adventure (OV11), variety in the work (OV14), control over what I do (OV16), and control over what others do (CV17).

In order to examine the characteristic differences among participants who made positive decisions about

teaching, some ANOVAs were computed. All participants in the Teaching Group were selected. Their status was used as the independent variable, and the potential teachers' age, GPA, ACT, HSR, and all participants' responses on the four occupational value components as dependent variables. Results including sample sizes, means, and F values are presented in Table 14.

TABLE 14. The Teaching-Participants' Characteristic Differences among Three Status Groups -- Group Size, Means, and F Ratios

	APPLICANTS		GRADUATES		TEACHERS		
CHARACTERISTIC	N	MEAN	N	MEAN	N	MEAN	F
AGE	264	19.30	159	22.35			357.67**
GPA	264	2.70	159	3.15			85.96**
HSR	264	23.97	159	19.18			8.33**
ACT	264	21.54	159	22.88			8.62**
NC1	343	3.55	224	3.60	248	3.68	3.09*
NC2	343	4.35	224	4.67	248	4.56	24.91**
NC3	343	4.60	224	4.77	248	4.60	9.95**
NC4	343	4.33	224	4.61	248	4.40	22.97**

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.

All the eight F values in Table 14 were statistically significant. Seven of them were significant at .01 level, while materials rewards (NC1) was the only one significant at .05 level. Group means indicated that the Teaching

Graduates not only were three years older than the Teaching Applicants, but also had better GPA, HSR, and ACT. In addition, these Teaching Participants in the different status groups had different occupational values. Teachers considered material rewards more important than did the graduates and the applicants at .05 level, while the Teaching Graduates rated all three psychic rewards more important than did teachers and applicants at .01 level.

Although results in both Tables 13 and 14 showed that participants in different decision groups had different occupational values, means of the four new components in Table 15 presented a consistant trend. Participants in the same decision groups but different status groups might rate the importance of the four occupational components differently, but the trend of their ratings were the same. No matter what their status is, all Teaching Participants rated the importance of material reward lower, and rated all three psychic rewards higher than did those undecided or those who did not intend to teach.

Summary

Participants' continuous variables were not only different in the different decision groups but also different in the different status groups. The graduates were older and had higher academic achievement and aptitude scores than the applicants. All participants in the

TABLE 15. Comparisons of the Average Occupational Value Ratings for Applicants, Graduates, and Teachers in Three Decision Groups

CHARACTERISTIC/GROUPING	MEANS		
	TEACH.	UNDECIDED	NONTE.
NC1: MATERIAL REWARDS			
Applicants	3.56	3.52	3.78
Graduates	3.60	3.79	3.92
Teachers	3.68	3.75	3.89
NC2: CREATIVITY/ORIGINALITY			
Applicants	4.36	4.29	4.32
Graduates	4.67	4.50	4.38
Teachers	4.56	4.44	4.43
NC3: PEOPLE-ORIENTATION			
Applicants	4.59	4.46	4.40
Graduates	4.77	4.61	4.41
Teachers	4.60	4.43	4.05
NC4: VARIETY/RESPONSIBILITY			
Applicants	4.33	4.19	4.33
Graduates	4.61	4.48	4.42
Teachers	4.40	4.40	4.24

different decision/status groups had some different occupational values. Their viewpoints about money were not different among the status groups, but different among the decision groups. In the different status groups, those intending to continue in teaching considered the psychic rewards more important and the material rewards less important than did those undeciders and those intending to pursue another career.

PATH MODEL

Correlation Coefficients, Alpha Coefficients, and Factor Analysis

Based on the applicants' hypothetical casual model in Figure 1, exogenous variables included three groups of characteristics: (1) personal characteristics (age, gender, marital status), (2) academic achievement and aptitude scores (GPA, ACT, HSR), and (3) social background (parents' occupations, and high school size). Two groups of endogenous variables included: (1) social and work experiences (total numbers of activities of participation/ leadership, full-time job experience), and (2) occupational values and long range career plans. The final endogenous variable was the applicant's decision about applying for the teacher education program.

Correlation coefficients were computed to examine the homogeneities among those variables that were grouped together in the hypothetical model. Correlation coefficients among exogenous variables and among endogenous variables were computed and are presented in Table 16 and 17. Two of the three personal characteristics, applicants' age and marital status, were highly correlated (r=.53). The academic achievement and aptitude scores: GPA, HSR, and ACT were also highly correlated. The correlation coefficient

between HSR and ACT was .46, between GPA and ACT was .50, and between GPA and HSR was .54. However, none of the three characteristics of the social background were significantly correlated with each other. The correlation coefficients of the two groups of endogenous variables are presented in Table 17. The total numbers of activity participation and leadership were significantly correlated (r=.48). Both NC2 and NC3 were significantly correlated with NC4; the correlation coefficients were .40 and .44.

Alpha coefficients were also computed to examine the homogeneities within the same hypothetical groups. Alpha coefficients are presented in Table 18. As shown in Table 18, only the standardized coefficient among academic achievement and aptitude scores (.75) was high enough to indicate that they were significantly homogeneous. In addition, some values of "alpha if item reduced" suggested that to drop one item in a hypothetical group could increase it's homogeneity. Dropping gender in the group of the personal characteristics brought the alpha from -.03 to .25. Dropping full-time job experience in the "social and work experiences" brought the alpha value from .41 to .61.

These low correlation and alpha coefficients suggested that some of the hypothetical groups were not ideal. Therefore, factor analysis was applied to analyze those exogenous variables and endogenous variables. Results are

TABLE 16. Correlation Coefficients among Exogenous Variables

CHARACTERISTIC	CORRELATION COEFFICIENTS				
	GENDER	AGE	MARTIAL STATUS	GPA	HSR
GENDER	1.00	-.25	-.07	.04	.08
AGE		1.00	.56*	.10	-.08
MARITAL STATUS			1.00	.11	-.07
GPA				1.00	.59*
HSR					1.00
ACT					
FATHERS' JOB					
MOTHERS' JOB					
HIGH SCHOOL SIZE					

CHARACTERISTIC	ACT	FATHERS' JOB	MOTHERS' JOB	HIGH SCHOOL SIZE
GENDER	-.15	.06	.08	.02
AGE	.15	.03	-.05	-.05
MARITAL STATUS	.07	.10	.00	.05
GPA	.50*	.01	.12	-.11
HSR	.51*	.03	.01	-.05
ACT	1.00	.10	.04	-.01
FATHERS' JOB		1.00	.22	.31
MOTHERS' JOB			1.00	.10
HIGH SCHOOL SIZE				1.00

* Correlation coefficients are significant at .01 level.

presented in Table 19.

Two factors emerged after the exogenous variables were factor analyzed. The first factor included GPA, HSR, and ACT and was referred to as Academic Achievement and Aptitude

TABLE 17. Correlation Coefficients among Endogenous Variables

CHARACTERISTIC	CORRELATION COEFFICIENTS # OF PARTICIPATION	# OF LEAD.	FULL-TIME JOB EXPERIENCE	NC1
# OF PARTICIPATION	1.00	.48*	-.20	-.01
# OF LEADERSHIP		1.00	-.04	-.00
FULL-TIME JOB			1.00	-.00
NC1				1.00
NC2				
NC3				
NC4				
LONG RANGE PLANS				

CHARACTERISTIC	NC2	NC3	NC4	LONG RANGE CAREER PLANS
# OF PARTICIPATION	.07	.04	.01	-.09
# OF LEADERSHIP	.10	.08	.14	-.07
FULL-TIME JOB	-.03	-.10	-.04	.01
NC1	.05	.04	.16	-.10
NC2	1.00	.24	.40*	.01
NC3		1.00	.44*	.10
NC4			1.00	-.04
LONG RANGE PLANS				1.00

* Correlation coefficients are significant at .01 level.

(AAA). The second factor included age and marital status and was referred to as Maturity. The high homogeneities within these two factors were also supported by their high correlation coefficients and alpha coefficients.

Two new factors emerged after the endogenous variables

TABLE 18. Alpha Coefficients among Variables Grouped in the Applicants' Causal Model

CHARACTERISTIC/GROUPING	ALPHA COEFFICIENTS	STANDARDIZED ALPHA	ALPHA IF ITEM REDUCED
PERSONAL CHARACTERISTICS:	-.03	.15	
Gender			.25
Marital status			-.35
Age			-.14
ACADEMIC ACHIEVEMENT AND APTITUDE:	.32	.75	
GPA			.37
HSR			.22
ACT			.06
SOCIAL BACKGROUNDS:	.43	.42	
Fathers' jobs			.16
Mothers' jobs			.45
High school size			.33
SOCIAL & WORK EXPERIENCES:	.41	.28	
# of participation			-.04
# of leadership			-.11
Full-time job			.61
OCCUPATIONAL VALUES & LONG RANGE CAREER PLANS:	.27	.41	
NC1			.34
NC2			.17
NC3			.11
NC4			.13
Long range plans			.45

had been factor analyzed. Factor one included total numbers of participated activities and leadership; this factor was referred to as the Activity Experience (AE). The second factor included NC3 and NC4 and was referred to as People-

TABLE 19. Factor Matrix

CHARACTERISTICS	FACTOR 1	FACTOR 2
EXOGENOUS VARIABLES:		
GENDER	-.0734	-.2302
AGE	.3259	.8778*
MARITAL STATUS	.1959	.5684*
GPA	.7423*	-.1433
HSR	.7198*	-.3752
ACT	.6711*	-.0529
FATHERS' JOB	-.0329	-.1097
MOTHERS' JOB	.0904	.0118
HIGH SCHOOL SIZE	-.0870	.0373
ENDOGENOUS VARIABLES:		
# OF PARTICIPATION	.5730*	-.7123
# OF LEADERSHIP	.4016*	-.3381
FULL-TIME JOB	-.1551	.1055
NC1	.1168	.0977
NC2	.3988	.2154
NC3	.4471	.2963*
NC4	.7431	.4533*
LONG RANGE PLANS	-.0575	.1092

* Characteristics may be grouped in the new factor.

Orientation and Responsibility (NC34). Again, the homogeneities within these two new factors were supported by their high correlation coefficients and alpha coefficients.

Applicants' causal model

After the homogeneities of those exogenous variables and of those endogenous variables in the same hypothetical

group were tested by correlation coefficients, alpha coefficients, and factor analysis, a revised hypothetical causal model was constructed and is presented in Figure 2. In this hypothetical ISU Teacher Education Program Applicants Model (ISU TEPA model), exogenous variables included gender, maturity, AAA, fathers' occupations, mothers' occupations, and high school size. The endogenous variables included the activity experiences, full-time job experiences, NC1, NC2, NC34, long range career plans, and decisions about applying to teacher education. This TEPA model was tested by path analysis. Multiple correlations and those path coefficients significant at .05 level are presented in Table 20. These significant path coefficients suggested that some causal relationship exist among these variables. The final causal model relating potential ISU Teacher Education Program applicants' characteristics and their decisions on applying for teacher eduation was depicted in Figure 3.

This final model indicated that applicants' activity experiences were positively influenced by their academic achievement and aptitude scores (.11), but negatively influenced by their high school size (-.26) and their maturity (-.11). Both maturity (.41) and high school size (.13) had positive effect on the applicants' full-time job experience, but such experiences were negatively influenced

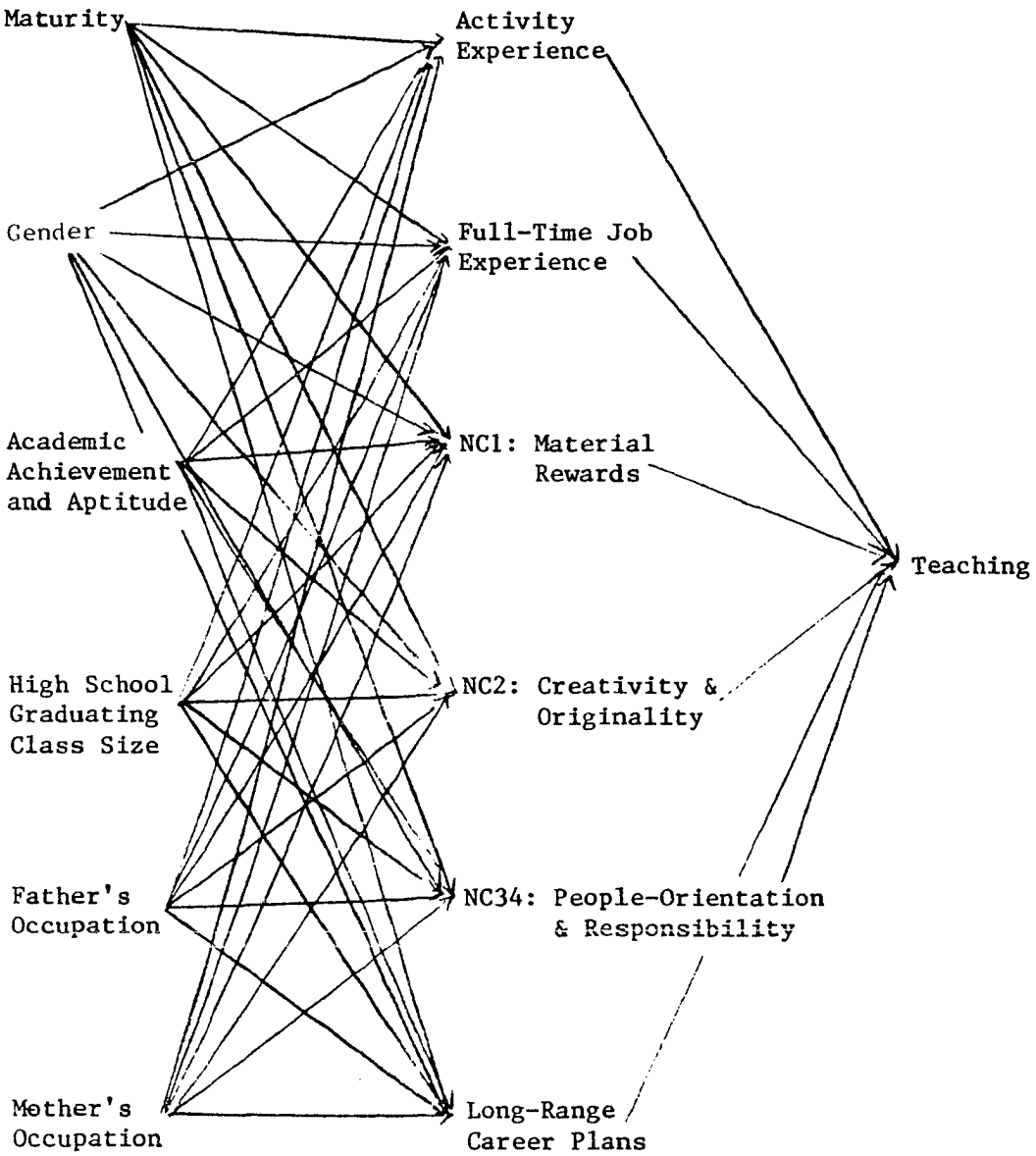

FIGURE 2. The Revised Applicants' Hypothetical Causal Model

TABLE 20. Multiple Correlations and Path Coefficients of Applicants' Characteristics related to Their Decisions on Applying the Program

DEPENDENT VARIABLES	INDEPENDENT VARIABLES	MULTIPLE R	PATH COEFFICIENTS BETA
Activity experiences	High school size	.32	-.28*
	AAA		.11*
	Maturity		-.11*
Full-time job	Maturity	.47	.41*
	Gender		-.19*
	High school size		.13*
	AAA		-.08*
NC1	Gender	.11	-.11*
	High school size		-.09*
NC2	Fathers' jobs	.12	.12*
NC34	Gender	.18	.18*
Long range career plans	Gender	.09	.09*
Decisions on applying for the program	Long range career plans	.55	.54*
	NC1		-.11*
	Maturity		.07*
	AAA		.07*

* Path coefficients are significant at .05 level.

by their academic achievement and aptitude scores (-.08). Since the male was coded as 1 and female was 2, the path coefficient of gender (-.19) indicated that male applicants had more full-time job experience than those females did.

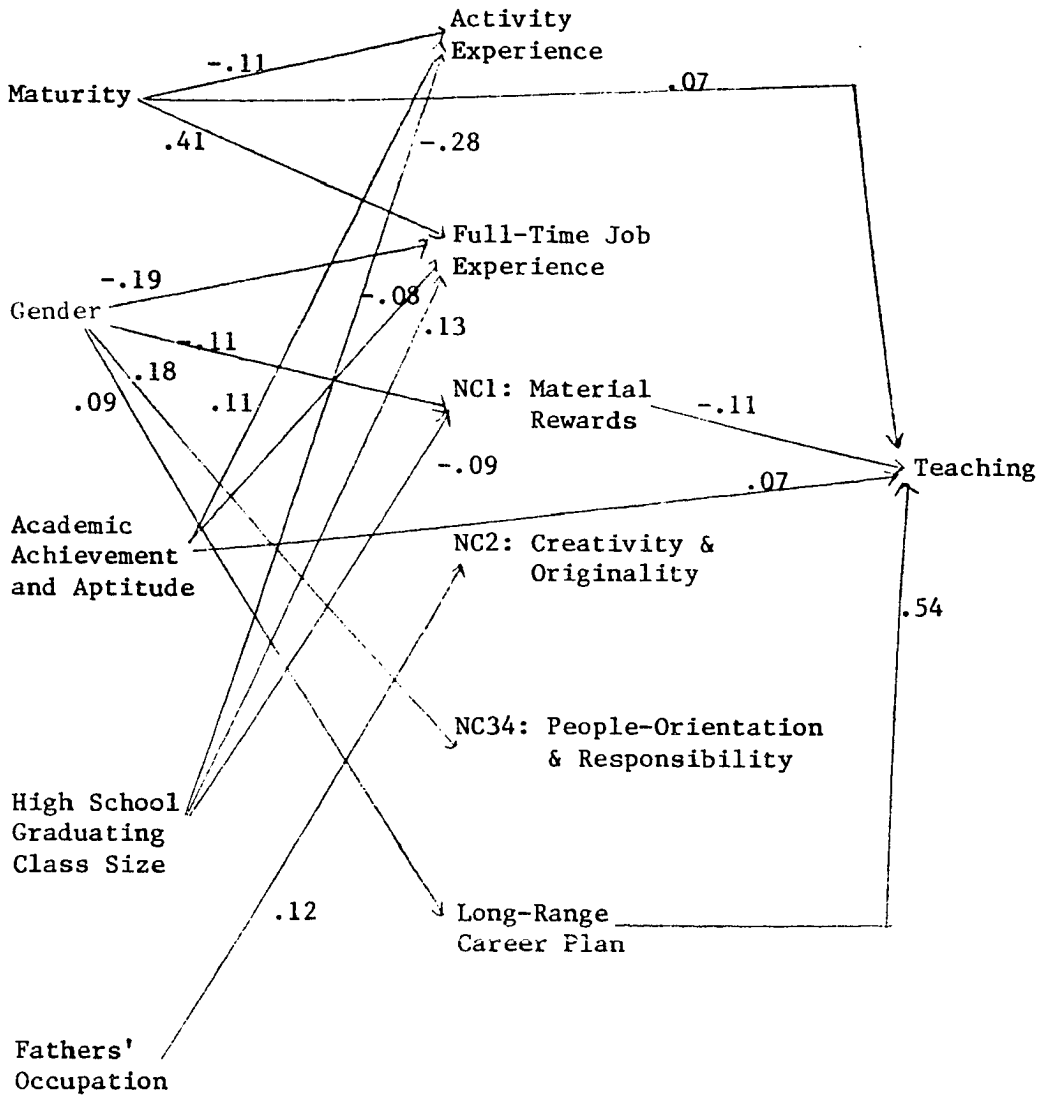

FIGURE 3. The Path Model Relating Applicants' Characteristics and their Decision about Teaching

Path coefficients (gender=-.11, high school size=-.09) indicated that males, and applicants who came from small high schools rated the importance of material rewards (NC1) higher than did the females, and those graduated from big high schools. The fathers' occupation only significantly affected one endogenous variables, the applicants' ratings of Originality and Creativity (NC2). Its path coefficient (.12) indicated that those applicants whose fathers hold a white-collar job tended to rate job with opportunities for creativity and originality important. Being a female has a positive effect on both NC34 (.18) and choosing teaching as their long range career plans (.09). Females tended to rate a people-oriented job and a job with variety and responsibility more important than males did.

This final model indicated that the applicants' decisions to apply to the ISU Teacher Education Program was directly and positively influenced by their choosing teaching as a long range career plan (.54), maturity (.07), and academic achievement and aptitude (.07). In addition, such decision was directly but negatively influenced by the applicants' needs for material rewards (-.11). The higher the applicants rated the importance of material rewards, the less chance one would choose to apply to the program. Gender and high school size had indirect, weak influence on applicants' decisions to apply to the teacher education

program. In this causal model, mother's occupation had no effect on any endogenous variables, therefore, it was dropped.

Graduates' causal model

In addition to the path model relating potential teacher education program applicants' characteristics to their decisions to apply to teacher education, a path model relating the graduates' characteristics to their decisions to continue in teaching was also examined. In the graduates' hypothetical model, age, gender, marital status, GPA, HSR, ACT, parents' occupations, and community population size were treated as exogenous variables, while ratings of occupational value components (NC1 to NC4), long range career plans, and decisions on teaching were treated as endogenous variables.

After the homogeneities among the exogenous variables and the endogenous variables were tested by alpha coefficients, results indicated that only two variables: ratings of NC3 and NC4 (r=.44), were homogeneous enough to be combined. Therefore, the graduates' hypothetical model could be described as: (1) ratings of occupational value components (NC1, NC2, NC34), and graduates' long range career plans were directly influenced by their age, gender, marital status, GPA, HSR, ACT, parents' occupations, and community population size; and (2) graduates' decisions on

teaching were directly affected by their ratings of NC1, NC2, NC34, and their long range career plans. Their decisions on teaching were directly or indirectly affected by their age, gender, marital status, GPA, HSR, ACT, parents' occupations, and community population size. The graduates' hypothetical model was examined by path analysis. Multiple correlations and those path coefficients significant at .05 level are reported in Table 21. The graduates' final path model is depicted in Figure 4.

Path coefficients in Table 21 indicated that male graduates had higher needs for material rewards (r=-.20), meanwhile, such needs were negatively affected by the graduates' ACT (r=-.25). The path coefficient between gender and NC34, 0.23, indicated that female graduates rated the importance of People-Orientation and Responsibility (NC34) higher than males did. Path coefficients also indicated that graduates choosing teaching as their long range career plan was negatively influenced by their age (-.13) and their GPA (-.18). Finally, those graduates' decisions on teaching were directly and positively influenced by their ratings on People-Orientation and Responsibility (NC34) (.21), being a female (.20), and choosing teaching as long range career plan (.20), but negatively influenced by their rating on NC1: Material Rewards (-.13). In addition, age, GPA, and ACT had indirect

TABLE 21. Multiple Correlations and Path Coefficients of Graduates' Characteristics related to Their Decisions on Teaching

DEPENDENT VARIABLES	INDEPENDENT VARIABLES	MULTIPLE R	PATH COEFFICIENTS BETA
NC1	ACT	.28	-.25*
	Gender		-.20*
NC34	Gender	.23	.23*
Long range career plans	GPA	.18	-.18*
	Age		-.13*
Decisions on Teaching	NC34	.41	.21*
	Long range career plans		.20*
	NC1		-.13*
	Gender		.20*

* Path coefficients are significant at .05 level.

effect on graduates' decisions on teaching.

Summary

A path model relating the characteristics of teacher education program applicants and their decisions about applying to teacher education was constructed and assessed. This model indicated that those who were older and married, those who had better academic achievement and aptitude scores, and those who chose teaching as their long range career plan, tended to apply for the program. Those who preferred high material rewards tended not to apply for the program.

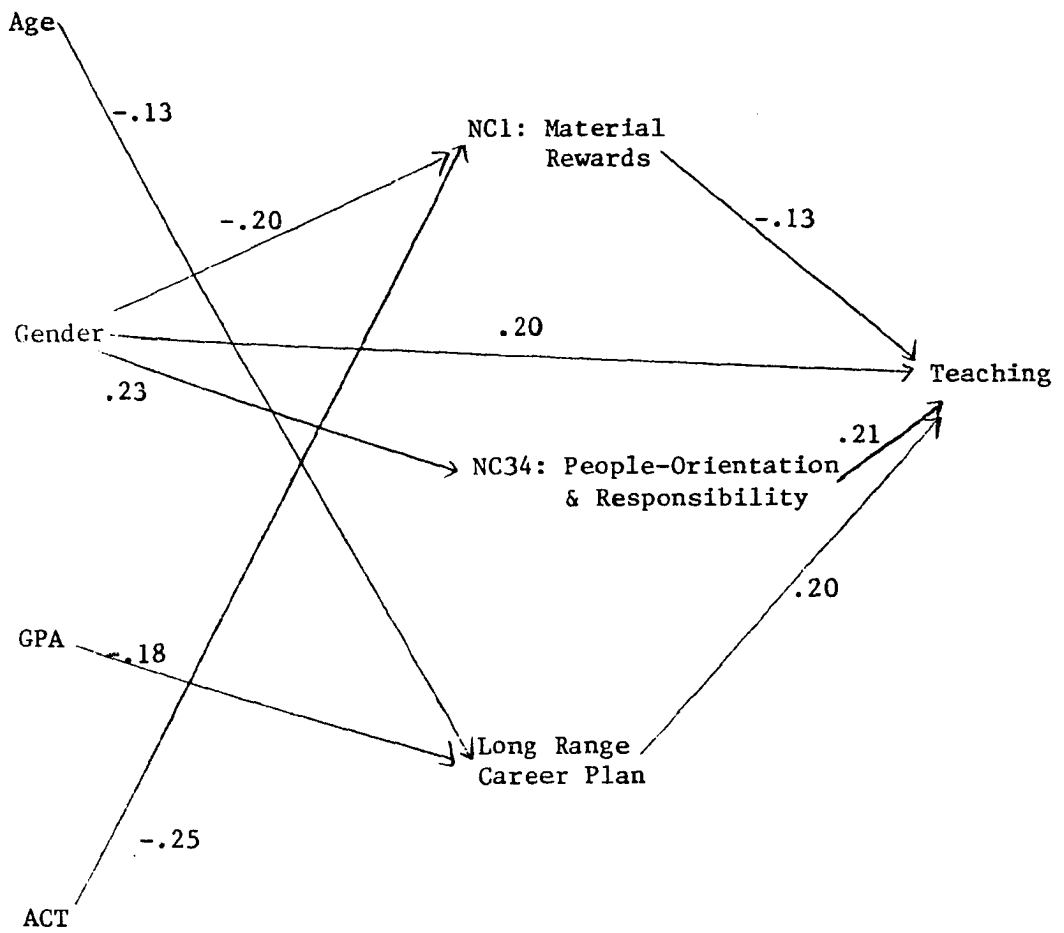

FIGURE 4. The Path Model Relating Graduates' Characteristics and their Decisions about Teaching.

A path model relating the characteristics of teacher education program graduates and their decisions on teaching was also examined. This model indicated that females, those who rated the importance of psychic rewards high and the importance of material rewards low, and those who chose teaching as their long range career plan decided to stay in teaching.

DISCUSSION

Most previous studies have investigated teachers' and teacher education students' background characteristics, but have not examined the characteristics of potential applicants. Hence, information about potential teacher education applicants is limited. In order to provide information on the characteristics of those potential applicants, the purpose of this research was to study the characteristics of those who were considering teaching as their primary career. A secondary purpose of the investigation was to examine a hypothetical causal model which related the characteristics of potential teacher education applicants to their decisions about applying to the teacher education program. Hopefully, generalization from this study may be useful to teacher educators in recruiting potential teachers and to students who are considering teaching as a career. Such information should be valuable for counseling prospective teacher education students on the similarity of their own characteristics with those of teachers, teacher education graduates, and those of students who opt to remain in teacher education and teaching.

Some characteristic similarities among the potential applicants, graduates, and teachers were investigated. Characteristic differences among teachers, graduates, and

applicants who made different decisions about continuing in teaching were examined. Several hypotheses were generated and subsequently tested. The discussion will center on these hypotheses.

Teachers' and Potential Teachers' Personal Characteristics

Teachers' and potential teachers' personal characteristics that were studied included their age, gender, and marital status. The personal characteristic differences among participants who intended to continue or not continue in teaching were examined and presented.

Hypotheses I -- More females than males, and more married males than married females apply for the teacher education program; regarding the graduates, more females and married males decide to stay in teaching for a longer period of time -- was only partially supported by findings in this study. Indications from this study were that gender and marital status only had indirect/weak effects on applicants' decisions, while graduates' decisions were strongly affected by these two factors. More single and married female graduates had decided to stay in teaching.

The findings of the present study differed from previous studies which indicated that more young teachers, and more married male teachers would stay in teaching. In this study, younger applicants were more to be likely

undecided about continuing in teaching; while older graduates, and teachers who had taught longer tended to stay in teaching. Female graduates and teachers, both single and married, also were more likely to intend to stay in teaching. In this study, 60% of the Iowa teachers were females, while a larger percentage (77%) of teacher education applicants and graduates were females. Further, more female potential teachers and female practicing teachers intended to continue in teaching (57.6%, 56.9%) than those males did (33.3%, 25.6%). According to this age and gender trend, Iowa may have more older, female teachers in the near future.

Older teachers have been accused being too much learning-centered, meanwhile, the elementary schools have been criticized for being a too "feminine" environment for little boys who have been encouraged at home to be independent and active (Peterson, 1958; Foxley, 1979). Since findings of this study indicated that Iowa may have more older, female teachers, Iowa teacher educators should consider recruiting more young persons and more males into teaching.

Potential Teachers' Academic Achievement and Aptitude

Potential teachers' academic achievement and aptitude scores: GPA, HSR, and ACT were collected and tested. Based

on the findings of this study, Hypothesis II -- The potential teacher's academic achievement and aptitude is an influential factor in his/her choosing teaching as a primary career -- was supported. Students with higher grades and aptitude scores were more likely to intend to continue in teaching.

School principals always consider teacher applicants' academic and aptitude scores as part of the standards when they recruit teachers (Baer & Brown, 1980). Those scores have also been considered as part of the teacher education program admission standards, and have been proven to be effective predictors of students' success in teacher education program (Watts, 1980; Martin, 1944). Based on the results of this study, one more use of these scores was supported: potential teacher education program applicant's academic achievement and aptitude scores positively affect one's decision about applying for the program.

As compared to most occupations, teaching is more academically-oriented. The results in this study indicated that those more academically-oriented potential teachers intended to continue in teaching. However, the analysis of aptitude and achievement scores revealed different information: while the applicants' GPA, HSR, and ACT were highly related, the graduates' GPA, HSR, and ACT were unrelated. The explanation of this difference awaits

further study.

Potential Teachers' Social Background

The social background variables of parents' occupations, community population size and/or high school graduating class size were collected for the applicant and graduate groups. For the practicing teachers, community population size was also collected.

Hypothesis III stated that the status of parents' occupations, community population size/high school graduating class size would be inversely related to the chance of those potential teachers' choosing teaching as a primary career. This hypothesis was only partially supported by the present study. For these potential teachers, status of parents' occupations had no effect on their decisions about teaching. The percentage of those came from a blue-collar family in this study is similar to the national percentage -- 18% to 30% (Greenhoe, 1941; Wattenberg, 1957; Lortie, 1975). However, unlike the indications in some of the previous studies, a teaching career was not seen as one of those attractive routes into the middle class by those ISU teacher education applicants and graduates who came from a blue-collar family.

Instead, data indicated that the community population size or the high school size was inversely related to the

teacher's or the applicant's positive decision on teaching. More applicants and teachers living in small population centers intended to stay in teaching.

While teacher shortages have already become a problem for many small schools (districts with fewer than 2,500 students) (Dunathan, 1980), the findings of this study indicated that this might not be a problem for Iowa schools in the near future. However, one should not forget the teacher surpluses and low teaching salaries which resulted from teacher surpluses in small rural areas years ago. Under such circumstance, many people in small population centers turned away from teaching and resulted today's teacher shortages (Astin, 1978). If people's perception of the job market is still the main concern of one's major/career decision-making, teacher surplus and then teacher shortage would also jeopardize education in Iowa. Therefore, teacher educators should remind their students that characteristics of teaching, instead of job market conditions, should be the main concern of their major/career decision-making.

Applicants' Social and Work Experiences

Hypothesis IV stated that the amount of work experience and the degree of extracurricular activity experience would be positively related to the applicants' intention to

continue in teaching. This hypothesis was not supported by the results of the present study. Students who made different decisions about applying to the teacher education program did not differ in amount of social and work experience.

Having social and work experience has always been considered as part of the characteristics of effective teachers and successful teacher education students (Baer & Brown, 1980; Endicott, 1980; Martin, 1944). In the present study, however, having such experiences was not related to applicants' intention to continue in teaching.

Relationships among those potential teacher education program applicants' social and work experiences and their demographic variables were also investigated. Applicants who had more activity experiences were single, young, from smaller high schools, and had higher academic achievement and aptitude scores.

Working and leadership/activity participation experiences could help one to build up effective teaching skills (Baer & Brown, 1980; Endicott, 1980). Since results in this study have indicated that those who decided to stay in teaching did not have more of such experiences than those who did not, teacher educators should encourage their students, especially those who came from big high schools, to gain more of leadership/activity experiences during their

college days.

Participants' Occupational Value Systems and Long Range Career Plans

The first part of Hypothesis V that stated persons who choose teaching consider psychic rewards more important than material rewards would be more likely to continue in teaching, was strongly supported by the present study. Applicants, graduates, and teachers who intended to continue in teaching valued psychic rewards higher than material rewards. While people-orientation has always been considered as one of the characteristics of a happy teacher (Biddle & Ellena, 1964), in this study, those participants who planned to teach also rated the importance of People-Orientation very high. The graduates who planned to teach also appreciated more of the opportunity to be creative and original, with variety and responsibility in their career.

The second part of Hypothesis V stated that potential teachers who chose teaching as a primary career would not necessarily choose teaching as a long range career. This was not supported by the present study. In this study, 40% of the applicants and teachers, and 60% of the graduates included nonteaching jobs as their long range career plans. This percentage range agrees with many previous findings (Dreeben, 1970; Watkins, 1981). However, both significant

chi-square values and path coefficients indicated that those potential teachers choosing teaching as a long range career plan was closely related to their choosing teaching as a primary career. All participants in this study have included teaching in their long range career plans, so they planned or had chose to be teachers.

As mentioned before, teaching is a people-oriented job, it provides more psychic rewards than material rewards (Biddle & Ellena, 1964; Dreeben, 1970; Walsh, 1979). Those teachers who hold value systems shared by the profession as a whole enjoy teaching more and stay in teaching longer (Lortie, 1975; Bardo, 1979; Erlandson & Pastor, 1981). Therefore, teacher educators should not only provide the information regarding the characteristics of teaching, but also help the students to understand their own characteristics and occupational values. Based on the results of this study and many previous studies, it may be true that only those who are people-oriented, preferring psychic rewards than material rewards, should be recruited into teaching.

Causal Model Relating Potential Teachers' Characteristics to Their Decisions about Teaching

Both the applicants' and the graduates' hypothetical causal models were examined by path analysis. Generally

speaking, results in this study supported Hypothesis VI. Applicants' social and work experiences, occupational values and long range career plans would be influenced by their personal characteristics, academic achievement and aptitude, and social backgrounds, further, their decisions on teaching would be influenced by these characteristic variables.

Compared to the applicants' causal model, more career-related characteristics and fewer background characteristics affected graduates' decisions about teaching. This may be because the graduates know more about the characteristics of teaching through teacher education training program than those applicants who just took one education course. Two of the applicants' background characteristics (maturity, academic achievement and aptitude test scores), and two of the career-related characteristics (needs for material rewards, and long range career plans) significantly affected their decisions about applying to the program. Gender, which had weak and indirect effect on applicants' decisions, was found to be the only significant background characteristic affecting the graduates' decisions about teaching. More female graduates decided to stay in teaching. Graduates' decisions were also positively affected by their needs for the Psychic Rewards: People-Orientation and Responsibility, and choosing teaching as a long range career plan, but negatively affected by their

needs for material rewards. The graduates who rated the importance of Originality and Creativity, People-Orientation and Responsibility higher, and material rewards lower, and chose teaching as the only or one of their long range plans tended to stay in teaching.

Obviously, characteristics which significantly affected the applicants' deicisions to apply to teacher education were not exactly the same as those that affected the graduates' decisions on staying in teaching. Background characteristics, except gender, had more influence on applicants' decisions, while gender and occupational values had more influence on graduates' decisions about teaching.

Generally, counselors would suggest that students who face career/major decision-making problems take some career/interest tests, e.g., Strong-Campbell Interest Inventory, in order to compare their characteristics to those who have been in the career averagely five years. However, the different influential factors on the applicants' and the graduates' decisions on teaching found in this study may suggest it is even premature to compare applicants' characteristics to those of the graduates. Some of those late adolescents' characteristics may not have been full developed yet, and/or because of their lack of fully self-understanding, it could be more premature to compare the applicants' characteristics to those of the teachers.

Therefore, information on comparing students who have completed their first education course and have decided to apply to teacher education with students who decided not to apply or who have undecided could be more meaningful for those potential teacher education applicants.

Anderson and Evans (1974) mentioned that the causal modelling procedures provide social scientists with powerful methodological tools that permit them to bridge the gap between theory and research. However, owing to the sample in this study: all participants were ISU Teacher Education Program potential applicants and graduates, the causal models which related their characteristics with their decisions on teaching were only practical casual models. They are not error free. It was inappropriate to develop a theoretical model (an error free model) which could be applied generally, on the basis of this information. These two causal models may only be appropriate to apply to the ISU students or teacher education program students in Iowa.

SUMMARY AND RECOMMENDATION

Summary

This research was undertaken to study the characteristics of those who were considering teaching as their primary career. Such information was potentially useful to educators for recruiting future teachers, to counselors/advisers for career counseling, and to young people for career/major decision-making. Most previous studies had investigated the characteristics of those who had already chosen teaching. This study was designed to investigate whether the characteristics of those who are in teaching would affect one to choose teaching as a career in the first place.

This study was based on three projects conducted by the RISE staff at Iowa State University. Three groups of participants in Iowa completed questionnaires designed to assess: (1) the first course in ISU Teacher Education Program (Ed. 204), (2) the ISU Teacher Education Program, and (3) education in Iowa. There were three status groups, applicants, graduates, and teachers. The applicant group of participants (N=563) had just completed the first course in the ISU Teacher Education Program. The graduate group of participants (N=443) had just graduated from ISU Teacher Education Program. The teacher group of participants

(N=597) were Iowa full-time public school teachers.

Participants were asked if they intended to continue in teaching. Based on the responses they were classified into three decision groups: (1) Continue-in-Teaching (Teaching Group), (2) Undecided, and (3) Pursue-Other-Career (Nonteaching Group). Comparisons among the decision and status groups were made on each of the dependent measures. In addition, path analysis procedures were applied to assess the validity of causal models of applicants' and graduates' decisions about teaching. The following results emerged:

1. For applicants, gender and marital status did not influence the decision to apply to teacher education, however, age did. Younger applicants were more likely to be undecided than older applicants. Older, married applicants were more likely to apply to teacher education. For graduates and teachers, gender did influence the decisions about continuing in teaching. More female graduates and teachers, both single and married, decided to stay in teaching. Age had more influence on applicants' decisions, while gender had more influence on graduates' and teachers' decisions.
2. The GPAs of applicants and graduates who decided to continue in teaching were significantly higher

than those participants who had decided to pursue another career or who were undecided. The combined effect of applicants' GPA, HSR, and ACT had a positive relationship with the decision to apply to the teacher education program. This means that good academic achievement and aptitude scores are not only considered as the characteristics of effective teachers by school principals, these characteristics also positively influence students to apply to teacher education.

3. For graduates, the social backgrounds of parents' occupations and community population size/high school graduating class size did not influence decisions about teaching. However, for applicants and teachers, being from smaller high schools or smaller communities increased the likelihood of continuing in teaching. In general, applicants' social economic status did not significantly influence their decisions about teaching.

4. Full-time job experiences and the amount of activity experience did not influence applicants' decisions to apply to teacher education. Work/activity experience was found to be significantly related to some of the applicants'

background characteristics. One would have more full-time job experience if one is a male, being mature, from bigger high school, and with lower academic achievement and aptitude scores. Meanwhile, activity experience was positively influenced by good academic and aptitude scores, but negatively influenced by high school size, age, and being married.

5. Occupational values influence applicants', graduates' and teachers' decisions about continuing in teaching. Participants who considered psychic rewards more important than material rewards more often choose to stay in teaching than the participants who valued material rewards more than psychic rewards. The applicants' and the graduates' decisions about teaching were significantly related to their long range career plans. Almost all of the participants had considered teaching as the only or one of their long range career plans before they entered the teacher education program. Not surprisingly, choosing teaching as a long range career plan was positively related to potential teachers' decisions to continue in teaching.

Recommendation for Further Study

Generally, causal modelling procedures are applied to bridge the gap between theory and research, to develop a theoretical (error free) model. In this study, two practical causal models relating potential teachers' characteristics to their decisions about teaching were examined and depicted. Since all participants in this study were Iowa State University students/graduates, their background characteristics may be different than the general population of the American college students. The theoretical causal models that could be applied generally were not possible to be developed based on the data of the present study. However, it would be possible to eliminate this shortcoming by conducting a similar study using a representative national sample of teacher education applicants, graduates, and the practicing teachers. Then, a theoretical causal model which related potential teachers' characteristics to their intention about continuing in teaching could be constructed from this national data.

In addition, a more logical coding system for parents' occupations should be developed. Based on the writer's observation, those who hold similar jobs but live in the different states may have different social economical status. For instance, in agricultural states, where farmers have higher social and economic status, farming is not

usually considered as a blue-collar job. In this study, farming was categorized differently from blue-collar jobs. However, in those nonagricultural states, and, farming usually is considered as a blue-collar job. Therefore, the writer suggests that if parents' occupations were considered as part of the variables in this future study, adopting a more thoroughly considerated coding system of occupations would be necessary.

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APPENDIX A -- EVALUATION OF EDUCATION 204

Iowa State University of Science and Technology Ames, Iowa 50011

Secondary Education
College of Education
202 Quadrangle
Telephone 515-294-7002

December, 1981

Dear Teacher Education Student:

We are currently engaged in a research project designed to evaluate and improve the Teacher Education Program at Iowa State University.

Students in various phases of the program are being contacted to participate in the study. As a student beginning your Teacher Education classes, you can provide valuable information for our project. Your voluntary participation would be greatly appreciated.

You may be assured of complete confidentiality. We ask you for your social security number for data analysis procedures; we will match information from this questionnaire with instructor class information such as year in school and curriculum, and your evaluations of the Teacher Education Program as you progress through your program and careers. New identification numbers are assigned for data analysis and the information is analyzed in terms of groups, not in terms of individuals. Names and social security numbers are used only for contacting and matching purposes. The information provided is for use in this research project only.

We ask that you complete the enclosed questionnaire and return it by the end of the class period. If you have questions about this study, please contact the Office of Research Institute for Studies in Education, or call 515-294-7009.

Thank you for your assistance in our project; the information you provide should help us to continually improve the Teacher Education Program.

Sincerely,

Harold E Dilts

Harold E. Dilts
Associate Dean

First, we would like to ask you some questions about your current involvement with the Teacher Education Program.

1. Please check the response which best describes your current position on applying to the Iowa State Teacher Education Program.

____ I have been admitted to Teacher Education
____ I have applied for admission to Teacher Education
____ I plan to apply for admission to Teacher Education
____ I am uncertain whether or not I will apply for admission to Teacher Education
____ I plan to complete a Teacher Education Program at another institution
____ I do not plan to apply to a Teacher Education Program

2. Check the response which best describes your primary reason for enrolling in Education 204.

____ It is a requirement for the Teacher Education Program
____ I wanted to obtain more information on a teaching career
____ My advisor recommended the class
____ Friends recommended the class
____ It was the only class available during this time
____ Other ---> Specify _____

3. In what way has Education 204 influenced your decision on teaching as a career?

____ It has confirmed my previous decision to become a teacher
____ It has caused me to decide to become a teacher
____ It has confirmed my previous decision not to become a teacher
____ It has caused me to decide not to become a teacher
____ It has caused uncertainty about my decision to become a teacher
____ It has caused uncertainty about my decision not to become a teacher
____ It has not affected my decision

Now, we would like to ask you some questions about your plans for the future.

4. What is your current long-range career plan? Please specify area(s). Check the one most appropriate response.

____ Elementary Teaching _____

____ Secondary Teaching _____

____ K-12 Teaching _____

____ College or University Teaching _____

____ School Counselor
____ School Administrator
____ Business or Industry _____

____ Government Employment (Other than Military) _____
____ Military
____ Full-time Homemaker
____ Other _____

5. How important is it that a job provide you with the following characteristics? Please circle one number for each characteristic. Use the following response categories.

Very Important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very Unimportant . . 1

		Please circle your response				
a.	Opportunity to be creative and original. . .	5	4	3	2	1
b.	Opportunity to use special abilities or aptitudes.	5	4	3	2	1
c.	Opportunity to work with people rather than things.	5	4	3	2	1
d.	Opportunity to earn a good deal of money . .	5	4	3	2	1
e.	Social status and prestige	5	4	3	2	1
f.	Opportunity to effect social change.	5	4	3	2	1
g.	Relative freedom from supervision by others.	5	4	3	2	1
h.	Opportunity for advancement.	5	4	3	2	1
i.	Opportunity to exercise leadership	5	4	3	2	1
j.	Opportunity to help and serve others	5	4	3	2	1
k.	Adventure.	5	4	3	2	1
l.	Opportunity for a relatively stable and secure future.	5	4	3	2	1
m.	Fringe benefits (health care, retirement benefits).	5	4	3	2	1
n.	Variety in the work.	5	4	3	2	1
o.	Responsibility	5	4	3	2	1
p.	Control over what I do	5	4	3	2	1
q.	Control over what others do.	5	4	3	2	1
r.	Challenge.	5	4	3	2	1

6. When did you begin your course work at Iowa State?

_____ _____
Month Year

7. What was your approximate rank in your high school graduating class? (check one)

____ in upper 10%
____ in upper 11-25%
____ in upper 26-50%
____ in upper 51-75%
____ in lower 25%

8. Did you transfer to Iowa State from another college or university? (check one)

____ Yes ---> Go to Question 9
____ No ---> Go to Question 11

9. (Transfers only) How many semester hours did you transfer to Iowa State?

____ Semester hours (Semester hours = quarter hours x 2/3)

10. (Transfers only) What was your approximate G.P.A. at the time of transfer? (check one)

____ below 2.00
____ 2.01 - 2.50
____ 2.51 - 3.00
____ 3.01 - 3.50
____ above 3.50

11. What was your approximate G.P.A. (earned at Iowa State) at the beginning of this semester? _____

12. Have you worked in a full-time (40 hours per week) job? (check one)

____ Never ---> skip to 14
____ Occasionally ---> (including summers and vacations)
____ Continously from 1 - 3 years
____ Continously for more than 3 years

13. Please describe the occupation in which you worked the majority of the time. (Please be specific)

_____

14. Please check any of the following activities in which you have been involved as a participant.

_____ 4-H
_____ Scouts
_____ Varsity Sports
_____ Intramural Sports
_____ Religious Youth Activities
_____ Youth Camps
_____ Foreign Travel
_____ School Music Activities
_____ FFA or FHA
_____ Speech/Debate
_____ Student Council
_____ Cheerleading
_____ School Newspaper/Yearbook
_____ Honor Society
_____ Service Clubs ---> Please Specify _____
_____ Interest Clubs ---> Please Specify _____
_____ Other ---> Please Specify _____

15. Please check any of the following activities in which you have been involved as a leader, counselor, coach or aide.

_____ 4-H
_____ Scouts
_____ Varsity Sports
_____ Intramural Sports
_____ Religious Youth Activities
_____ Youth Camps
_____ Foreign Travel
_____ Youth Choir or Band
_____ Nursery School
_____ Elementary School
_____ Secondary School
_____ Student Government
_____ Other ---> Please specify _____

16. What is your age? _____

17. Sex? (Circle) M F

18. What is your Social Security Number? _____

19. What was your father's occupation most of the time while you were living at home? (Please be specific)

_____

20. What was your mother's occupation most of the time while you were living at home? (Please be specific)

_____

21. Are you currently a resident in Iowa? (Please check)

____ Yes
____ No
If "No", what is your state or country of residence? _____

22. What was the approximate number of students in your high school?

____ Students

23. What is your current marital status? (check one)

____ Single
____ Married
____ Married, one or more children
____ Other (Widowed, Separated, Divorced)

Now, we would like to ask you questions about your current attitudes toward teaching.

24. Please think about the best teacher you have known. What were the characteristics that made that teacher outstanding?

(1) _____

(2) _____

(3) _____

25. List the two most significant factors attracting you to the teaching profession.

(1) _____

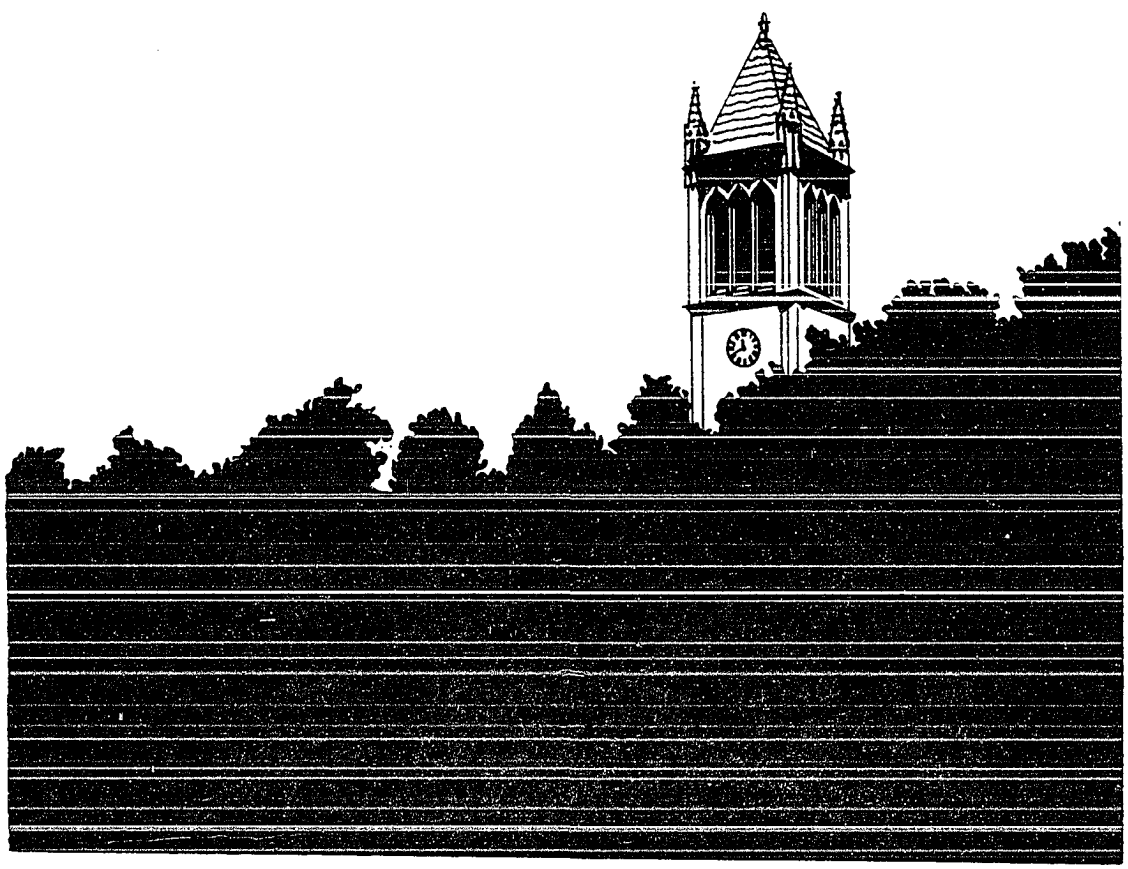
(2) _____

APPENDIX B -- WHAT YOU THINK OF TEACHER EDUCATION

We are interested in what you think

TEACHER EDUCATION PROGRAM

A study by Iowa State University
Research Institute for Studies in Education,
College of Education



Iowa State University of Science and Technology Ames, Iowa 50011

Office of the Dean
College of Education

October 24, 1980

Dear Teacher Education Graduate:

Congratulations on completing your program in teacher preparation at Iowa State University!

We hope that your teaching and learning experiences in the program have been rewarding and have provided the basis for continuing professional and personal development. We appreciate your participation in the program and the contributions you have made through coursework and other activities to the total program.

We need your opinions and observations to assist in improving present programs and developing new programs. Your voluntary participation in evaluating the programs at Iowa State University in terms of quality, effectiveness and adequacy is requested. You may be assured of complete confidentiality. The questionnaire has an identification number for mailing purposes and data analysis. Your name will not be placed on the questionnaire. The information provided will be analyzed in terms of group summarizations.

Return postage on the questionnaire has been prepaid, so you need only to drop the completed questionnaire in a mailbox.

If you have questions about this study, please contact the Office of Research Institute for Studies in Education or call 515 294-7009.

Thank you for your assistance in completing the questionnaire which provides us with your insights about program strengths and weaknesses.

We wish you success in all your future activities.

Sincerely,

Virgil S. Lagomarcino
Dean

Richard D. Warren
Director
Research Institute for Studies in Education

First, we would like information about your teacher preparation program.

1. How long did you student teach? (check one)

___ 7 weeks or less

___ 8 - 10 weeks

___ 11 - 12 weeks

___ Over 12 weeks

2. Should student teaching have been longer or shorter?

How many weeks?

___ Longer ⟶ _____

___ Shorter ⟶ _____

___ About right

3. At what level did you student teach?

___ Nursery/Kindergarten ⟶ skip to Q. 6

___ Elementary ⟶ skip to Q. 6

___ Secondary ⟶ skip to Q. 5

___ K - 12 ⟶ Q. 4 then skip to Q. 6

4. (K - 12) In what teaching area of specialization do you expect to get a teaching certificate?

___ Art ___ Health ___ Music ___ P.E.

5. (Secondary) In what teaching area(s) of specialization do you expect to get a teaching certificate?

___ Agricultural Education
___ Art
___ Biology
___ Chemistry
___ Earth Science
___ English
___ Foreign Language
___ General Science
___ Health Education
___ Home Economics Education
___ Industrial Education
___ Journalism
___ Mathematics
___ Music
___ Physical Education
___ Physics
___ Psychology
___ Safety Education
___ Social Studies
___ Speech

If you checked more than one, what is your major area? _____

6. Using the rating scale below indicate how satisfied you were with aspects of your student teaching experience.

Very satisfied. . . . 5
Satisfied 4
Neutral 3
Dissatisfied. 2
Very dissatisfied . . 1

	Please circle your response				
a. Getting your choice of geographical location for your student teaching assignment.	5	4	3	2	1
b. Your cooperating teacher.	5	4	3	2	1
c. Your university supervisor.	5	4	3	2	1
d. Based on your student teaching experience, what is your reaction to teaching as a career for you?.	5	4	3	2	1

7. At what age did you decide to become a teacher? _____ years old.

8. If you had it to do over again would you choose teaching as a career?

___ Yes

___ No

___ Undecided

9. Do you feel you will be ...

___ ... an excellent teacher,

___ ... a better than average teacher,

___ ... an average teacher,

___ ... a below average teacher, or

___ ... an inadequate teacher?

10. During your academic program at Iowa State University, have you done any work with computers or had training with applications of computers to teaching?

___ No

___ Yes ⟶ Please list experiences _____

_____

11. Please indicate how adequate your professional education preparation program was in the following areas. Use the following response categories.

Very Adequate . . . 5
Adequate. 4
Neutral 3
Inadequate. 2
Very Inadequate . . 1
Not Applicable. . . N

		Please circle your response					
a.	Planning units of instruction and individual lessons	5	4	3	2	1	N
b.	Ability to prepare and use instructional media and equipment.	5	4	3	2	1	N
c.	Maintaining student interest in classroom activities.	5	4	3	2	1	N
d.	Understanding and dealing with behavior problems in the classroom	5	4	3	2	1	N
e.	Methods of dealing with emotionally disturbed.	5	4	3	2	1	N
f.	Methods of dealing with learning problems	5	4	3	2	1	N
g.	Diagnosis of learning disabilities . .	5	4	3	2	1	N
h.	Skill in developing tests.	5	4	3	2	1	N
i.	Comprehension and use of standardized tests.	5	4	3	2	1	N
j.	Content preparation in your area of specialization	5	4	3	2	1	N
k.	Comprehension of professional ethics and legal obligations	5	4	3	2	1	N

11. (continued)

Very Adequate . . . 5
Adequate. 4
Neutral 3
Inadequate. 2
Very Inadequate . . 1
Not Applicable. . . N

		Please circle your response					
l.	Knowledge of psychology of learning and its application to teaching	5	4	3	2	1	N
m.	Evaluating and reporting student work and achievement	5	4	3	2	1	N
n.	Relating activities to interests and abilities of students	5	4	3	2	1	N
o.	Knowledge of materials and resources in your specialty area.	5	4	3	2	1	N
p.	Evaluating your own instruction	5	4	3	2	1	N
q.	Individualizing instruction	5	4	3	2	1	N
r.	Selecting and organizing materials. . .	5	4	3	2	1	N
s.	Knowledge and skill with different techniques of instruction	5	4	3	2	1	N
t.	Understanding teachers' roles in relation to administrators, supervisors, and counselors.	5	4	3	2	1	N
u.	Skill in working with parents	5	4	3	2	1	N
v.	Skill in working with other teachers. .	5	4	3	2	1	N
w.	Assessing and implementing innovations.	5	4	3	2	1	N

Now, we would like to ask some questions about your plans for the future.

12. What is your long range career plan? (Check all that apply)

___ Remain in teaching positions at present level

___ Change to a different teaching level

___ Become a counselor

___ Become an administrator

___ A nonacademic job

___ Military

___ Fulltime homemaker

___ Other (please specify)

_____

13. How important is it that a job provide you with the following characteristics? Please circle one number for each characteristic. Use the following response categories.

Very Important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very Unimportant . . 1

		Please circle your response				
a.	Opportunity to be creative and original. . .	5	4	3	2	1
b.	Opportunity to use special abilities or aptitudes.	5	4	3	2	1
c.	Opportunity to work with people rather than things.	5	4	3	2	1
d.	Opportunity to earn a good deal of money . .	5	4	3	2	1
e.	Social status and prestige	5	4	3	2	1
f.	Opportunity to effect social change.	5	4	3	2	1
g.	Relative freedom from supervision by others.	5	4	3	2	1
h.	Opportunity for advancement.	5	4	3	2	1
i.	Opportunity to exercise leadership	5	4	3	2	1
j.	Opportunity to help and serve others	5	4	3	2	1
k.	Adventure.	5	4	3	2	1
l.	Opportunity for a relatively stable and secure future.	5	4	3	2	1
m.	Fringe benefits (health care, retirement benefits).	5	4	3	2	1
n.	Variety in the work.	5	4	3	2	1
o.	Responsibility	5	4	3	2	1
p.	Control over what I do	5	4	3	2	1
q.	Control over what others do.	5	4	3	2	1
r.	Challenge.	5	4	3	2	1

14. Do you plan to teach this year?

___ Yes ⟶ Please answer Part A.

___ No ⟶ Please answer Part B.

PART A (Plan to Teach)

Have you accepted a teaching position for this year yet?

___ No ⟶ Skip to Q. 16 page 8

___ Yes

↓

a. What will you be teaching? _____

Specify the level _____

b. Where will you be teaching? _____
Please go to Q. 15, page 7.

PART B (Do Not Plan to Teach)

a. Why do you plan <u>not</u> to teach this year? Check as many as apply.

___ Decided to wait for now and will attempt to obtain a September 1981 teaching position.

___ Graduate study (Please specify _____).

___ Could not find a teaching position in location I wanted.

___ Better salaries in nonacademic jobs.

___ Prefer working with adults rather than children or youth.

___ Marriage/family obligations.

___ Had not planned to enter education.

___ Decided not to work in education because of experiences in student teaching.

___ Liked people I interviewed with in a nonacademic job.

b. Have you accepted a nonacademic position for this year?

___ No ⟶ Skip to Q. 16, page 8

___ Yes

↓

(1) What type of work will you be doing? (Please be specific)

_____

(2) Where is it located? _____

Please go to Q. 15, page 7

15. If you have accepted a teaching or non-teaching position for this year...

PART A How important were each of the following in your decision to accept your position for this year? Use the following response categories for Part A and Part B.

Very Important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very Unimportant . . 1
Not Applicable . . . N

		Please circle your response					
a.	Desirable location	5	4	3	2	1	N
b.	Salary offered	5	4	3	2	1	N
c.	Type of assignment	5	4	3	2	1	N
d.	Size of school organization.	5	4	3	2	1	N
e.	Reputation of school, firm or organization	5	4	3	2	1	N
f.	Liked people I interviewed with.	5	4	3	2	1	N
g.	Spouse has a job in the community.	5	4	3	2	1	N
h.	Only job I was offered	5	4	3	2	1	N

PART B Rate the importance of the following in helping you obtain your job for this year. Continue using the same importance continuum as in Part A.

		Please circle your response					
a.	Faculty advisor or professor	5	4	3	2	1	N
b.	College placement office	5	4	3	2	1	N
c.	Direct personal application.	5	4	3	2	1	N
d.	State employment agencies.	5	4	3	2	1	N
e.	Private employment agencies.	5	4	3	2	1	N
f.	Family contacts.	5	4	3	2	1	N
g.	Want ads	5	4	3	2	1	N
h.	Professional societies or contacts . . .	5	4	3	2	1	N
i.	Employer contacted you directly.	5	4	3	2	1	N

PART C If you have accepted a non-teaching position, did your teacher preparation program help you obtain your non-teaching position?

___ No

___ Yes ⟶ Please explain. _____

_____

Now we would like to ask you some general questions about yourself and your family.

16. Up to the present, where have you spent the majority of your life?

___ ... on a farm?

___ ... in a non-farm country home?

___ ... in a small town (less than 5,000)?

___ ... in a town between 5,000 and 50,000?

___ ... in a city over 50,000?

17. Sex

___ Male
___ Female

18. Age _____ years

19. Marital status

___ Single (never married)

___ Married, no children

___ Married, one or more children

___ Divorced or separated

___ Widowed

20. What was your father's occupation most of the time while you were living at home? Please be specific.

_____

21. What was your mother's occupation most of the time while you were living at home? Please be specific.

_____

22. Was your mother employed outside the home at any of the following times? Check all that apply.

___ Before you were age 6

___ When you were in grade school

___ When you were in high school

___ No, full-time homemaker

___ Other (please specify) _____

23. Please think about the best elementary or secondary teacher you know or have known. What are/were the characteristics that make/made that teacher outstanding?

_____

_____

_____

The College of Education and the Research Institute for Studies in Education appreciates the time you have taken to complete this questionnaire.

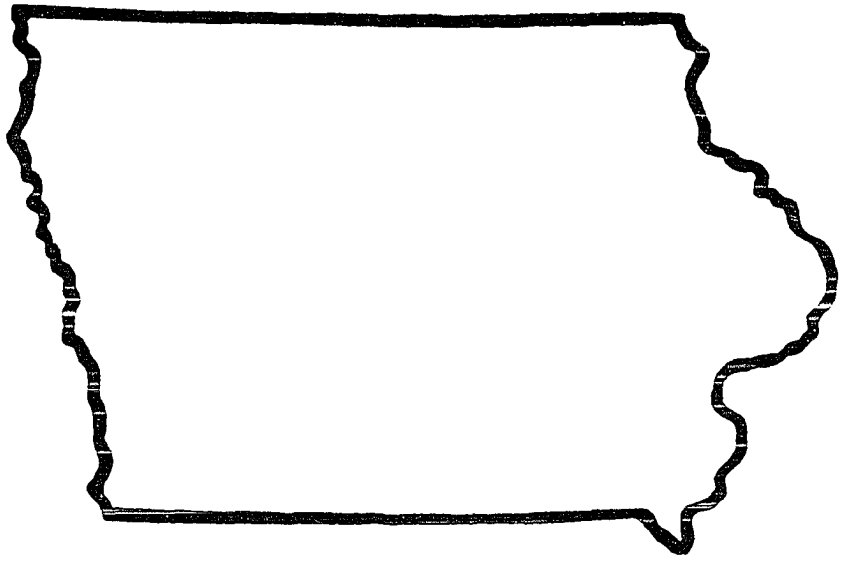
Postage for the questionnaire is prepaid, so all you need do is drop it in a mailbox.

APPENDIX C -- TEACHER ATTITUDE ABOUT EDUCATION IN IOWA

We are interested in what you think

Education in Iowa

A statewide study by Iowa State University Research Institute for Studies in Education, College of Education



Iowa State University of Science and Technology Ames, Iowa 50011

Office of the Dean
College of Education

During the 1980's, our schools must meet the continuing challenge of educating young people to live and work successfully in our changing society. For this reason, the College of Education at Iowa State University is conducting a study of a representative group of Iowa teachers to find out what they think about our educational system. In particular, we want to know teachers' attitudes and opinions about the quality of the public schools, improvement of public school programs, and the important problems in education and teacher preparation programs. This information will be valuable to educators, school boards, citizen groups, as well as to the general public in planning for the future.

You were selected in a random sample of teachers in Iowa. Enclosed is the questionnaire which we would like you to complete and return to us. For our results to be representative of teachers of Iowa, it is important that each questionnaire be completed and returned. Your voluntary cooperation will help make the results useful in planning the educational programs in our public schools.

You may be assured of complete confidentiality. The questionnaire has an identification number to be used only for record-keeping purposes. It enables us to check your name off the mailing list when your questionnaire is returned. Your name will never be placed on the questionnaire.

Return postage on the questionnaire has been prepaid, so you need only to drop the completed questionnaire in a mailbox. If you have any questions, please write or call us collect at 515-294-7009.

We thank you in advance for your cooperation and your continuing role in helping to shape the future of education in Iowa.

Sincerely,

Virgil S. Lagomarcino

Virgil S. Lagomarcino
Dean

Richard D. Warren

Richard D. Warren
Director
Research Institute for Studies in Education

mhb
Enc.

First, we want you to think about your local school district.

Students are often given the grades of A, B, C, D, or F to evaluate the quality of their work. Suppose the public schools in your school district were graded on the quality of the job they are doing.

1. We would like you to grade your school overall as well as some different groups within your school district. Please circle the grade you would give each. If you don't feel you know enough about the school or group to grade it, you may circle "Don't know"--this is a perfectly legitimate response.

	Grade (circle your answer)					Don't know
a. Public schools overall in your district	A	B	C	D	F	DK
b. Public elementary schools in your district	A	B	C	D	F	DK
c. Public secondary schools in your district	A	B	C	D	F	DK
d. Your local School Board	A	B	D	D	F	DK
e. Parent-teacher organizations in your district	A	B	C	D	F	DK
f. Area Community College	A	B	C	D	F	DK

Now think about all the schools in Iowa. How would you grade these schools in the state of Iowa?

g. Iowa public schools in general	A	B	C	D	F	DK
h. Iowa public universities	A	B	C	D	F	DK
i. Iowa private colleges and universities	A	B	C	D	F	DK

2. We have listed below three organizations. How would you grade each of these organizations?

	Grade (circle your answer)					Don't know
a. Area Education Agency in your district	A	B	C	D	F	DK
b. State of Iowa Department of Public Instruction	A	B	C	D	F	DK
c. Iowa State Education Association	A	B	C	D	F	DK

3. What do you think is the most serious problem in the public schools in your school district?

_____

_____

_____

4. Listed below are some potential problems of public schools. Please rate how serious each problem is in your local district on a scale of 0 to 10. Use the following scale to indicate how serious you think the problem is in your district.

No problem at all — Very serious problem

0 1 2 3 4 5 6 7 8 9 10

A response of 0 means no problem at all. A response of 10 means a very serious problem. The intermediate responses indicate varying degrees of seriousness. Please rate each problem.

	Your rating
a. Discipline in schools	_____
b. Amount of financial support for schools	_____
c. School facilities in general	_____
d. Alcohol abuse	_____
e. Drug abuse	_____
f. Lack of public interest	_____
g. Collective bargaining of teachers	_____
h. Lack of students' interest in learning	_____
i. Size of classes	_____
j. Local School Board policies	_____
k. Lack of involvement and participation by parents	_____
l. Lack of communication between the school and the community	_____
m. Lack of classes and programs for adults	_____
n. Busing for the purpose of integration	_____

5. Now, we want you to grade specific programs and personnel in your local public schools. How would you grade the public elementary and secondary schools in your school district on each of the following?

	Grade (circle your answer)					Don't know
a. Preparing students for jobs after high school	A	B	C	D	F	DK
b. Preparing students for college	A	B	C	D	F	DK
c. Preparing students for additional vocational-technical training beyond high school	A	B	C	D	F	DK
d. Teaching of basic skills - reading, writing, arithmetic	A	B	C	D	F	DK
e. Quality of the total learning experience	A	B	C	D	F	DK
f. Competitive athletic program for boys	A	B	C	D	F	DK
g. Competitive athletic program for girls	A	B	C	D	F	DK
h. Other extracurricular activities, such as music, drama, student publications, speech and debate	A	B	C	D	F	DK
i. Providing for students with special needs, such as physically or mentally handicapped, gifted and talented and emotionally disabled	A	B	C	D	F	DK
j. Counseling and vocational guidance	A	B	C	D	F	DK
k. Quality of the elementary school teachers	A	B	C	D	F	DK
l. Quality of the secondary school teachers	A	B	C	D	F	DK
m. Quality of school counselors	A	B	C	D	F	DK
n. Quality of school administrators	A	B	C	D	F	DK
o. Use of tax dollars	A	B	C	D	F	DK

6. In your opinion, what are the public schools in your school district doing best?

_____

_____

7. In your opinion, what is the main thing that the public schools in your community could do to improve the quality of education?

_____

_____

8. If expenditures in your school district had to be reduced, what would you recommend be done?

_____

_____

9. Listed below are some possible goals for public schools. Please use the following scale to indicate how important you think each goal should be in your local school.

Not important at all — Very important

0 1 2 3 4 5 6 7 8 9 10

A response of 0 means the particular goal is not important. A response of 10 means the goal is very important. The intermediate responses indicate varying degrees of importance. Please rank each goal.

	Your rating
a. Teaching students to be good citizens?	_____
b. Developing skills in reading, writing, speaking and listening?	_____
c. Teaching the skills of family living?	_____
d. Teaching students to respect and get along with people with whom they work and live?	_____
e. Developing skills to enter a specific field of work? . . .	_____
f. Teaching students how to use leisure time?	_____
g. Teaching the principles of health and safety?	_____
h. Teaching students how to be good managers of money, property and resources?	_____
i. Developing a desire for learning now and in the future? . .	_____

10. Here are some general statements about schools and communities. Please indicate your agreement or disagreement with each of these statements. Use the following response categories.

Strongly agree . . . SA
Agree. . . . . A
Undecided. . . . . U
Disagree . . . . . D
Strongly disagree. . SD

	Please circle your response				
a. Iowa public schools should offer a program for 4 year olds.	SA	A	U	D	SD
b. Iowa public schools should offer a program for 3 year olds.	SA	A	U	D	SD
c. Students today receive a better elementary education than I did	SA	A	U	D	SD
d. Students today receive a better secondary education than I did	SA	A	U	D	SD
e. In addition to meeting college requirements for a teacher's certificate, those wishing to be teachers should be required to pass a state board examination on the subjects they will teach	SA	A	U	D	SD
f. Students should be required to pass competency tests before graduating from Iowa high schools . . .	SA	A	U	D	SD
g. Reports from Iowa schools to parents are adequate. .	SA	A	U	D	SD

11. There are various services which affect the quality of life in a community. For <u>your</u> community, how would you rate the quality of each of the following services, again using the grades of A, B, C, D, or F.

	Grade (circle your answer)					Don't know
a. Health services?	A	B	C	D	F	DK
b. Public transportation?	A	B	C	D	F	DK
c. Social services?	A	B	C	D	F	DK
d. Police protection?	A	B	C	D	F	DK
e. Fire protection?	A	B	C	D	F	DK
f. Leisure and recreation services? . .	A	B	C	D	F	DK

Now, we would like to ask you some questions about your teaching and teacher education preparation.

12. How long have you taught? _____.

13. At what level do you presently teach?

___ Kindergarten ⟶ Skip to Q. 16, please.

___ Elementary (grades 1 - 6) ⟶ Skip to Q. 16, please.

___ Junior High ⟶ Please continue with Q. 14.

___ High School ⟶ Please continue with Q. 14.

___ K - 12 ⟶ Please continue with Q. 14.

14. During your teacher education preparation, what were your major areas or specialization?

Major _____ Minor _____

15. At the present time, in what subject area(s) do you teach?

_____

16. When in life did you decide to become a teacher?

___ Elementary School
___ Junior High
___ High School
___ College
___ Other: Specify _____

17. If you had it to do over again, would you choose teaching as a career?

___ Yes

___ No

___ Undecided

18. Do you feel you are ...

___ ... an excellent teacher

___ ... a better than average teacher

___ ... an average teacher

___ ... a below average teacher

___ ... an inadequate teacher

19. Are you a member of a professional education association?

___ Yes ⟶ Please specify _____.
⟶ Please continue with Q. 20.

___ No ⟶ Skip to Q. 21, please.

20. (For members of professional education associations) Could we get a little more detail about your participation in your association(s)? Please indicate your activity for each of the following levels.

	Very Active	Moderately Active	Not Active
	(circle your answer)		
Local	VA	MA	NA
State	VA	MA	NA
National	VA	MA	NA

21. In general, how important is it to belong to a professional education association? (circle your response)

Not important at all — Very important

0 1 2 3 4 5 6 7 8 9 10

22. How would you rate on a scale of 0 to 10 the quality of the teacher preparation program from which you graduated? (circle your response)

No quality — Very high quality

0 1 2 3 4 5 6 7 8 9 10

23a. How would you rate the overall quality of the institution from which you received the bachelor's degree? (circle your response)

No quality — Very high quality

0 1 2 3 4 5 6 7 8 9 10

23b. The institution I attended was . . . ___ public ___ private.

23c. The institution I attended was . . . ___ in state ___ out of state.

23d. The institution I attended had approximately . . . _____ students.

24. Please indicate how adequate your professional education preparation program was in the following areas. Use the following response categories

Very Adequate . . . 5
Adequate. 4
Neutral 3
Inadequate. 2
Very Inadequate . . 1
Not Applicable. . . N

		Please circle your response					
a.	Planning units of instruction and individual lessons	5	4	3	2	1	N
b.	Ability to prepare and use instructional media and equipment	5	4	3	2	1	N
c.	Maintaining student interest in classroom activities	5	4	3	2	1	N
d.	Understanding and dealing with behavior problems in the classroom	5	4	3	2	1	N
e.	Methods of dealing with emotionally disturbed . .	5	4	3	2	1	N
f.	Methods of dealing with learning problems	5	4	3	2	1	N
g.	Diagnosis of learning disabilities	5	4	3	2	1	N
h.	Skill in developing tests	5	4	3	2	1	N
i.	Comprehension and use of standardized tests . . .	5	4	3	2	1	N
j.	Content preparation in your area of specialization	5	4	3	2	1	N
k.	Comprehension of professional ethics and legal obligations	5	4	3	2	1	N
l.	Knowledge of psychology of learning and its application to teaching	5	4	3	2	1	N
m.	Evaluating and reporting students work and achievement	5	4	3	2	1	N
n.	Relating activities to interests and abilities of students	5	4	3	2	1	N
o.	Knowledge of materials and resources in your specialty area	5	4	3	2	1	N
p.	Evaluating your own instruction	5	4	3	2	1	N

24. (continued)

Very Adequate . . . 5
Adequate. 4
Neutral 3
Inadequate. 2
Very Inadequate . . 1
Not Applicable. . . N

		Please circle your response					
q.	Individualizing instruction	5	4	3	2	1	N
r.	Selecting and organizing materials	5	4	3	2	1	N
s.	Knowledge and skill with different techniques. of instruction	5	4	3	2	1	N
t.	Understanding teachers' roles in relation to administrators, supervisors, and counselors. . .	5	4	3	2	1	N
u.	Skill in working with parents	5	4	3	2	1	N
v.	Skill in working with other teachers.	5	4	3	2	1	N
w.	Assessing and implementing innovations.	5	4	3	2	1	N

25. What is your long range career plan? (check all that apply)

___ Remain in teaching position

___ Change to a different teaching level

___ Become a counselor

___ Become an administrator

___ A nonacademic job

___ Fulltime homemaker

___ Other (please specify) _____

26. How important is it that a job provide you with the following characteristics? Use the following response categories.

Very important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very unimportant . . 1

		Please circle your response				
a.	Opportunity to be creative and original	5	4	3	2	1
b.	Opportunity to use special abilities or aptitudes . .	5	4	3	2	1
c.	Opportunity to work with people rather than things. .	5	4	3	2	1
d.	Opportunity to earn a good deal of money.	5	4	3	2	1
e.	Social status and prestige.	5	4	3	2	1
f.	Opportunity to effect social change	5	4	3	2	1
g.	Relative freedom from supervision by others	5	4	3	2	1
h.	Opportunity for advancement	5	4	3	2	1
i.	Opportunity to exercise leadership.	5	4	3	2	1
j.	Opportunity to help and serve others.	5	4	3	2	1
k.	Adventure	5	4	3	2	1
l.	Opportunity for a relatively stable and secure future	5	4	3	2	1
m.	Fringe benefits (health care, retirement benefits). .	5	4	3	2	1
n.	Variety in the work	5	4	3	2	1
o.	Responsibility.	5	4	3	2	1
p.	Control over what I do.	5	4	3	2	1
q.	Control over what others do	5	4	3	2	1
r.	Challenge	5	4	3	2	1

27. How important were each of the following in your decision to accept your present teaching position? Use the following response categories.

Very important . . . 5
Important. 4
Neutral. 3
Unimportant. 2
Very unimportant . . 1
Not applicable . . . N

		Please circle your response					
a.	Desirable location.	5	4	3	2	1	N
b.	Reputation of the school.	5	4	3	2	1	N
c.	Salary offered.	5	4	3	2	1	N
d.	Liked the community	5	4	3	2	1	N
e.	Friends teach in the school system. . . .	5	4	3	2	1	N
f.	Liked people I interviewed with	5	4	3	2	1	N
g.	Spouse has employment in the community. .	5	4	3	2	1	N
h.	Only position I was offered	5	4	3	2	1	N
i.	Other (please specify) _____	5	4	3	2	1	N

Now we would like to ask you some general questions about yourself.

28. What is your level of academic preparation for teaching?

___ Less than Bachelor's Degree

___ Bachelor's Degree, ___ semester hours beyond

___ Master's Degree, ___ semester hours beyond

___ Specialist degree

___ Ed.D. Degree

___ Ph.D. Degree

29. What is your marital status? Are you . . .

___ ... married,

___ ... widowed,

___ ... separated or divorced, or

___ ... single, never married?

30. Do you presently live ... (Check one)

___ ... on a farm?

___ ... in a non-farm country home?

___ ... in a small town (less than 5,000)?

___ ... in a town between 5,000 and 50,000?

___ ... in a city between 50,000 and 250,000?

31. How long have you lived in this community? _____ years

32. Do you have any children?

___ Yes ⟶ Continue with Q. 33

___ No ⟶ Skip to Q. 34, please.

33. This last school year, did you have any children who were enrolled in an elementary or secondary school in Iowa?

___ Yes ⟶ How many children? _____

___ No

34. Which of the following categories best describes your <u>total family income</u> during 1979?

___ Less than $10,000

___ $10,000 to $19,999

___ $20,000 to $29,999

___ $30,000 to $49,999

___ $50,000 and over

35. How would you describe yourself? Would you say you are ...

___ ... very conservative,

___ ... conservative,

___ ... moderate,

___ ... liberal, or

___ ... very liberal?

36. Please think about the best teacher you know or have known. What were the characteristics that made that teacher outstanding?

_____

_____

_____

The Research Institute for Studies in Education here at Iowa State University appreciates the time you have taken to complete this questionnaire, and we hope your opinions will help improve the education of Iowa children in the future. Thank you.

Postage for the questionnaire is prepaid, so all you need do is drop it in a mail box.

APPENDIX D -- CHARACTERISTIC STANDARD DEVIATIONS AMONG APPLICANTS IN THE THREE DECISION GROUPS

CHARACTERISTIC		TEACH. N	TEACH. S.D.	UNDECIDED N	UNDECIDED S.D.	NONTE. N	NONTE. S.D.	F
AGE	c	382	2.19	99	1.64	73	2.06	3.38*
# of participation		384	2.61	101	2.90	74	2.91	1.68
# of leadership		384	1.83	101	1.84	74	1.62	0.21
GPA	a	342	0.56	91	0.57	60	0.71	3.80*
HSR		285	17.45	83	20.24	56	19.48	2.30
ACT		272	4.62	78	5.01	52	5.50	0.58
OV1		384	0.65	101	0.69	74	0.80	1.79
OV2		384	0.62	101	0.71	74	0.68	1.08
OV3		384	0.66	101	0.78	74	0.81	1.47
OV4	bc	384	0.81	101	0.96	74	0.87	10.55**
OV5		384	0.82	101	0.85	74	0.78	2.31
OV6		384	0.79	101	0.79	74	0.78	2.58
OV7		384	0.83	101	0.77	74	0.89	1.36
OV8	bc	384	0.81	101	0.85	74	0.85	8.02**
OV9	ac	383	0.73	101	0.81	74	0.77	4.75**
OV10	b	384	0.61	98	0.61	74	0.82	4.67**
OV11		383	0.88	101	0.79	74	0.93	0.02
OV12		384	0.80	101	0.73	74	0.86	1.00
OV13		384	0.84	101	0.80	74	0.87	1.80
OV14		383	0.68	101	0.62	74	0.70	1.49
OV15	ac	384	0.62	101	0.63	74	0.62	4.35*
OV16		384	0.62	101	0.65	74	0.65	0.87
OV17		384	0.77	101	0.73	74	0.82	2.20
OV18		384	0.67	101	0.65	74	0.76	1.61
NC1	bc	384	0.45	101	0.43	74	0.55	4.45*
NC2		384	0.59	101	0.64	74	0.63	0.63
NC3	b	384	0.49	101	0.47	74	0.56	4.36*
NC4		384	0.56	101	0.74	74	0.71	2.79

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.
a Significant differences exist between Teaching Group and Undecided Group when tested by Tukey B Test.
b Significant differences exist between Teaching Group and Nonteaching Group when tested by Tukey B Test.
c Significant differences exist between Undecided Group and Nonteaching Group when tested by Tukey B Test.

APPENDIX E -- CHARACTERISTIC STANDARD DEVIATIONS AMONG GRADUATES IN THE THREE DECISION GROUPS

CHARACTERISTIC	TEACH. N	TEACH. S.D.	UNDECIDED N	UNDECIDED S.D.	NONTE. N	NONTE. S.D.	F
AGE	220	4.11	212	2.07	41	1.48	2.74
GPA	224	0.39	217	0.38	41	0.36	3.11*
HSR	181	15.56	179	14.05	36	19.34	1.09
ACT	161	4.57	162	4.30	28	4.28	0.23
AGE WHEN DECIDED TO TEACH	216	5.68	205	3.70	36	2.99	1.52
OV1	224	0.48	217	0.59	41	0.65	17.63**
OV2	224	0.57	217	0.54	41	0.59	2.63
OV3	224	0.41	216	0.62	41	0.74	13.62**
OV4	224	0.82	217	0.86	41	0.82	20.70**
OV5	222	0.83	217	0.77	41	0.82	7.66**
OV6	222	0.74	215	0.74	41	0.92	4.23*
OV7	224	0.88	217	0.75	41	0.99	1.78
OV8	223	0.84	217	0.76	41	0.55	18.70**
OV9	224	0.79	217	0.68	41	0.75	1.19
OV10	224	0.48	217	0.55	41	0.63	8.07**
OV11	223	0.93	216	0.86	41	0.88	0.92
OV12	223	0.67	216	0.72	41	0.63	0.63
OV13	224	0.71	217	0.78	41	0.81	2.39
OV14	224	0.55	217	0.60	41	0.67	3.29*
OV15	224	0.53	217	0.60	41	0.62	3.50*
OV16	224	0.56	217	0.54	41	0.70	2.24
OV17	224	0.78	217	0.75	41	0.82	1.97
OV18	224	0.55	217	0.60	41	0.59	4.12*
NC1	224	0.58	217	0.57	41	0.53	8.83**
NC2	224	0.43	217	0.48	41	0.58	11.41**
NC3	224	0.34	217	0.53	41	0.61	13.62**
NC4	224	0.42	217	0.49	41	0.49	5.72**

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.

APPENDIX F -- CHARACTERISTIC STANDARD DEVIATIONS AMONG TEACHERS IN THE THREE DECISION GROUPS

CHARACTERISTIC		TEACH. N	TEACH. S.D.	UNDECIDED N	UNDECIDED S.D.	NONTE. N	NONTE. S.D.	F
YEARS IN TEACHING	ab	246	9.30	271	9.22	76	6.54	13.41**
OV1		245	0.59	270	0.63	77	0.67	2.35
OV2		245	0.53	269	0.64	77	0.66	2.45
OV3	abc	246	0.57	269	0.72	77	0.92	18.00**
OV4	bc	248	0.80	270	0.84	77	1.01	14.20**
OV5		247	0.87	270	0.91	77	1.09	0.63
OV6	bc	246	0.80	267	0.87	77	0.96	5.54**
OV7	b	247	0.80	268	0.85	77	0.83	3.16*
OV8	abc	246	0.83	268	0.95	77	0.87	27.85**
OV9	a	247	0.83	270	0.84	77	0.97	5.82**
OV10	abc	248	0.55	269	0.71	77	0.90	19.87**
OV11		247	0.98	269	0.97	77	1.18	0.97
OV12		246	0.70	270	0.81	77	0.78	1.15
OV13		247	0.81	270	0.84	77	0.85	2.21
OV14		248	0.68	270	0.65	77	0.83	1.73
OV15		245	0.63	269	0.63	77	0.73	2.34
OV16		248	0.64	270	0.62	77	0.70	0.85
OV17		247	0.86	269	0.87	77	0.98	0.30
OV18	b	248	0.57	270	0.62	77	0.70	5.07**
NC1		248	0.60	272	0.78	77	0.67	2.79
NC2		248	0.65	272	0.71	77	0.60	2.66
NC3	abc	248	0.53	272	0.74	77	0.79	20.28**
NC4		248	0.52	272	0.63	77	0.57	2.50

* F ratios are significant at .05 level.
** F ratios are significant at .01 level.
a Significant differences exist between Teaching Group and Undecided Group when tested by Tukey B Test.
b Significant differences exist between Teaching Group and Nonteaching Group when tested by Tukey B Test.
c Significant differences exist between Undecided Group and Nonteaching Group when tested by Tukey B Test.

APPENDIX G -- PARTICIPANTS' CHARACTERISTIC DIFFERENCES AMONG THREE DECISION GROUPS -- MEANS

	MEANS		
CHARACTERISTIC/GROUPING	TEACH.	UNDECIDED	NONTE.
AGE	20.44	21.26	22.34
GPA	2.87	2.91	2.77
HSR	22.17	22.01	23.29
ACT	22.04	22.07	22.22
OV1	4.50	4.40	4.35
OV2	4.47	4.43	4.48
OV3	4.65	4.49	4.30
OV4	3.24	3.48	3.87
OV5	3.15	3.26	3.25
OV6	3.67	3.58	3.39
OV7	3.68	3.77	3.85
OV8	3.67	3.93	4.31
OV9	3.94	4.05	4.10
OV10	4.62	4.48	4.23
OV11	3.71	3.67	3.68
OV12	4.12	4.15	4.30
OV13	3.88	3.97	4.15
OV14	4.40	4.41	4.42
OV15	4.34	4.29	4.25
OV16	4.39	4.43	4.37
OV17	3.26	3.26	3.22
OV18	4.52	4.44	4.37
NC1	3.61	3.74	3.89
NC2	4.50	4.44	4.42
NC3	4.65	4.50	4.27
NC4	4.42	4.39	4.35

APPENDIX H -- PARTICIPANTS' CHARACTERISTIC DIFFERENCES AMONG THREE STATUS GROUPS -- MEANS

	MEANS		
CHARACTERISTIC/GROUPING	APPLICANT	GRADUATE	TEACHER
AGE	19.33	22.34	
GPA	2.67	3.11	
HSR	24.55	19.57	
ACT	21.48	22.76	
OV1	4.34	4.57	4.43
OV2	4.36	4.57	4.46
OV3	4.56	4.69	4.43
OV4	3.33	3.39	3.46
OV5	3.19	3.28	3.15
OV6	3.50	3.78	3.55
OV7	3.65	3.72	3.81
OV8	3.80	4.05	3.69
OV9	3.93	4.22	3.87
OV10	4.58	4.64	4.39
OV11	3.83	3.97	3.34
OV12	4.12	4.15	4.19
OV13	3.75	3.99	4.07
OV14	4.34	4.55	4.34
OV15	4.20	4.48	4.26
OV16	4.29	4.53	4.40
OV17	3.35	3.30	3.14
OV18	4.41	4.58	4.44
NC1	3.59	3.71	3.74
NC2	4.35	4.57	4.49
NC3	4.56	4.67	4.45
NC4	4.31	4.53	4.37