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Need for home economics teachers in Iowa's public schools for the next decade

Chryssoula T. Drizou
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Need for home economics teachers in Iowa's public schools for the next decade

Drizou, Chryssoula T., Ph.D.
Iowa State University, 1993
Need for home economics teachers in Iowa's public schools for the next decade

by

Chryssoula T. Drizou

A Dissertation Submitted to the Graduate Faculty in Partial Fulfillment of the Requirements for the Degree of DOCTOR OF PHILOSOPHY

Department: Family and Consumer Sciences Education and Studies
Major: Home Economics Education

Approved: Signature was redacted for privacy.

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For the Graduate College

Iowa State University
Ames, Iowa
1993

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CHAPTER 1. INTRODUCTION

In recent years, concern has been expressed about an upcoming teacher shortage. In 1986, the National Center for Educational Statistics projected that if current trends in education continue, there would be a demand for 72,000 teachers by the year 1992 (American Federation of Teachers, 1986). More recent educational statistics show this demand to be even greater. In 1989, there was already a demand for 237,000 teachers across the nation and projections showed that the annual demand for new teachers could be 240,000 in 1995 and 261,000 by the year 2000 (Statistical Abstract of the United States, 1991). Other analysts even project that the nation will need 2.5 million new teachers during the decade of the nineties, a number almost equivalent to the number of teachers practicing today (Hall, 1991). In 1989 the total number of classroom practicing teachers in the United States was 2,737,000 (Statistical Abstract of the United States, 1991).

Several factors influence teacher supply and demand (Bartolini, 1985). Those that have been important over time are: 1) the number of students enrolled, 2) age of the teaching force as related to retirements, 3) number of teachers resigning, 4) number of teachers prepared and 5) decisions to increase, decrease or eliminate course offerings.
National enrollment patterns indicate that enrollments in public elementary and secondary schools across the nation are expected to increase through the year 2005. National figures also show a significant increase in teachers retirement and resignation rates. On the other hand, rates for those completing teacher preparation programs nationwide have been declining for some time and are expected to continue.

Another factor that is impacting the need for teachers is related to curriculum changes. State legislatures continue to legislate new requirements related to both content and total requirements for high school graduation. The nature of decisions that local school boards are likely to make about curriculum are therefore influenced by these state-legislated mandates and other factors which relate to a particular school district. This may affect existing curricular areas either positively, increasing the need for teachers in the area, or negatively, decreasing the need.

The declining number of new teacher graduates, the increasing number of teacher retirees, and the changing nature of school curricula began to generate responses. The National Center for Educational Statistics (1989) conducted a series of surveys to collect data on teacher supply and demand. However, even though results of several surveys project shortfalls in the future supply and demand for teachers in subject areas such as math and science, no information for home economics can be found.

Because there have been tremendous changes in home economics curricula and the profession is staffed almost exclusively by women, it is difficult to accurately extrapolate information for home economics from data in other teaching fields. The need for home economics teachers probably follows trends for other subject areas; however, the need may be even more extreme. Home economics as a field dominated by women has been more affected by the recent diversification in careers pursued by
women than have most other fields (Chamberlain and Lytle, 1985). Home economics teacher education enrollments in colleges and universities decreased drastically between 1968 and 1982, with baccalaureate degrees granted dropping by 78%. Several universities have even eliminated their home economics teacher preparation programs (Harper and Davis, 1986), contributing further to the future ability to respond the shortage of home economics teachers.

Hall (1991) indicates that: "... this shortage is critical to the ability of schools to offer a home economics program. At the time when social conditions indicate need for home economics education programs that emphasize parenting skills, preventing teen pregnancy, improving family nutrition and wellness, and balancing work and family demands, fewer teachers are being prepared than can meet the demand" (p. 32). Based on the drastic decreases in the number of home economics teachers being prepared and the difficulties that home economics education programs face with recruitments, questions arise regarding the future of home economics teacher education. What will happen to elementary, secondary and adult home economics education programs if universities are not able to provide an adequate supply of graduates? In the state of Iowa the only program that prepares home economics teachers now is in Family and Consumer Sciences Education and Studies at Iowa State University.

Information on the need for home economics teachers in the next decade is necessary for several reasons. Institutions of higher education need guidance to revise programs of teacher preparation, recruit and advise students about potential careers and maintain cooperative programs with school districts and local school personnel. Specifically, this information will enable university administrators at Iowa State University to make responsible decisions about the future for their home economics
teacher education programs. Local school districts need to make plans for teacher recruitment, staff development, and budgets. State and federal education agencies must develop policy and the corresponding fiscal proposals and allocations. States must make certification (or licensure) decisions such as the institution of emergency certification and changes in existing certification requirements. Current teachers and administrators need information to formulate their own career plans, e.g., move to another area, pursue an advanced degree, or change careers (Office of Educational Research and Development, 1986, pp. 3-4).

Objectives

The purpose of this study is to identify the expected need for home economics teachers for the next decade in the public schools in the State of Iowa. The proposed objectives are to identify:

1. home economics teachers' personal retirement and resignation plans.

2. home economics teachers' perceptions about curricular trends in home economics for the next decade and expectations they have for their schools' programs.

3. school principals' perceptions about curricula trends in home economics for the next decade and plans they have for their schools' programs.

4. student enrollments in home economics classrooms.

With these objectives met, the variables in the supply and demand equation related to the need for home economics teachers in Iowa for which data are not available will be quantified.
Definitions

The use of certain terms which relate to the need for teachers can confuse the issue if they are used inconsistently. The following terms and their definitions are used extensively in this project, and therefore warrant clarification.

- **Teacher supply**: the number of persons trained as licensed or certified teachers and who are available and willing to fill educational positions in schools.

- **Teacher demand**: the number of full-time qualified teachers that schools need to hire during any one school year to adequately staff school programs.

- **Teacher need**: a discrepancy that occurs when the demand for teachers exceeds the supply of available and willing teachers with requisite certifications and qualifications.

- **School**: in this study, describes kindergarten through twelfth grade programs in the United States.

- **Family and consumer sciences**: includes the areas of housing and home management, food and nutrition, individual and family health, family living and parenthood, consumer education, textiles and clothing, and child development.

- **Home economics occupational areas**: includes the areas of child care and guidance, home furnishing and equipment, clothing, apparel and textiles, food production and services, institutional home management.

- **General skills**: includes the areas of leadership, job getting and keeping and entrepreneurship.
• "Old fashioned-traditional" objectives: objectives that were outdated, not important as preparation for family life in tomorrow's world.

• "Progressive" objectives: contemporary; important as preparation for family life in tomorrow's world.
CHAPTER 2. LITERATURE REVIEW

A shortage of teachers is being experienced throughout the United States, for all grade levels and in most subject areas. Home economics teachers who were in great supply in 1970s are in short supply in the 1990s. Recent publications have projected a shortage of home economics teachers during the 1990s and recognize a critical need for recruiting potential home economics teachers (Bobbitt, 1988; Hall, 1991; Burge and Stewart, 1991). At the same time social conditions indicate the greatest need for home economics education programs that support families as students develop skills to improve the quality of life in a fast-paced, complex, worldwide economy (O'Brien and Crabtree, 1987).

The purpose of the present study is to identify the expected need for home economics teachers for the next decade in the public schools in the state of Iowa. According to Bartolini (1985), factors identified to influence teacher supply and demand are: 1) the number of students enrolled, 2) age of the teaching force as related to retirements, 3) number of teachers resigning, 4) number of teachers prepared and 5) decisions to increase, decrease or eliminate course offerings. Literature related with the factors that affect teacher supply and demand was reviewed in order to support the study. For each factor, literature was reviewed for teachers in general and for the United States as well as for home economics teachers and for the state of Iowa.
Enrollment trends in the U.S.A.

National school enrollment patterns in the United States indicate that the enrollment expansion from the "baby boom" generation, which extended from 1946 to about 1964, was followed by a national slump in kindergarten through twelfth grade enrollments from 1964 to 1978 (Dunlap, 1986). Since 1978, however, the number of annual births has been increasing steadily. According to the United States Department of Commerce's Bureau of Census, the birth rate (births per 1000 persons) rose slightly during the decade of the 1980s (National Catholic Educational Association, 1991). By 1990 a birth rate of 15.8 had produced 3.9 million births, the most since 1965. This phenomenon, known as the "baby echo" or "baby boomlet", has led to increases in the pre-primary and 5-to-17-year-old population.

According to U.S. Bureau of Census data examined and interpreted by the American Educational Research Association, the number of children living in the United States will likely continue to grow over the next thirty years. Projection for the 0-to-17-year-old population is one of gradual increase, from 63 million in 1982 to 73 million in 2020, a growth of 16% (Treadwell, 1991). These population increases will significantly increase the enrollments in elementary and secondary schools across the nation by the year 2005 (Gerald et al., 1989).

More specifically, elementary and secondary school enrollments, which peaked in 1971, decreased steadily thereafter until a low point of 39.2 million was reached in 1984. After that, enrollment began to increase as larger numbers of young children entered school. In the fall of 1990, total enrollment was 41 million and in fall 1991 about 41.6 million children were expected to have entered school. Projections of the National Center for Educational Statistics show increasing enrollments through the
1990s, reaching 44.1 million by 1995 and 46.5 million in the year 2000, higher than the record established in 1971 (Statistical Abstracts of the United States, 1991; Snyder, 1991).

Enrollment trends have been characterized in recent years by differences between lower grades and upper grades because the changes in birth rates have moved through the school system. Elementary enrollment in kindergarten through eighth grade, after reaching a low point of 26.9 million in 1984, increased steadily in 1990 and is expected to reach an all-time high of about 33 million by 2000, an increase of 11% over the 1990 enrollment. By contrast, enrollment in ninth through twelfth grade declined from 1976 to 1990. The year 1991, however, is expected to mark the beginning of a period of steady increase that will continue through the nineties. By the year 2000, high school enrollment is expected to increase 20% over the 1990 enrollment (Snyder, 1991).

Results of most recent national surveys also describe variability regarding enrollment trends across different population groups. Children of minority background continue to enter public schools in large numbers. Between 1984 and 1990, Hispanic enrollment jumped by 42%. Asian/Pacific Islander and American Indian enrollments together rose by 18%, and African American enrollment rose by 15 percent. This trend of increasing numbers and proportions of minority students is expected to continue into the future due to higher fertility rates among minority women as compared to majority women and to increased stable minority immigration rates. The growth in the numbers of Hispanic children ages five to 13 has exceeded the growth rates of both the African American and white populations in recent years, and the trend is expected to accelerate in the 1990s (Snyder, 1991).
The increasing number of minority children also explains the geographic differentiation in enrollment trends. In the decade of the 1990s, the largest enrollment increase is expected in the West, with sizable increases in the Northeast and South, and moderate increases in the Midwest. The large increases in the West are highlighted by a projected 15 percent increase in Arizona and 14% increase each for Hawaii, Nevada, and California. The Northeast is expected to have an average growth of eight percent with remarkable increases in New Hampshire and New Jersey (19 and 15% respectively). A rise of about seven percent is expected in the South, but West Virginia can anticipate a decline of about 10%. School enrollment is expected to be modest in the Midwest, averaging about two percent. While Missouri is projected to have an increase of about six percent, many of the other midwestern states are expected to show enrollment declines, especially with a decrease of Iowa of seven percent and North Dakota with one of six percent (Gerald, et al., 1989; Snyder, 1991).

**Enrollment trends in Iowa**

As stated above, projections regarding enrollments for the state of Iowa do not follow the national patterns of projected increases. Iowa, as a midwestern state with an agriculture-based economy, lost population to out migration in the last several years. Iowa’s 1990 Census population was 2,776,755, 4.7% below that of 1980 (Shirer and Sternweis, 1991).

If we look at Iowa's race and ethnicity composition in 1990, 96.6% of the population was white, 1.7% was African American, 1.2% was Hispanic and 1.7% was from other groups. These figures explain why Iowa typically has the lowest percent of minority students in the region and also helps to explain why future enrollment
projections anticipate negative growth. In the 1990-1991 school year, only 5.46% of all public school students were members of a racial minority group. Half of these students (2.73%) were African Americans (Quinn, 1990; Shirer and Sternweis, 1991).

The birth rate in Iowa is dropping. Iowa recorded 39,330 births in 1990, 8,467 less than in 1980, with the birth rate per 1,000 persons declining from 16.4 in 1980 to 14.2 in 1990 while, as mentioned earlier, the national figure for 1990 was 15.8. Following the lower birth rates, enrollment in Iowa schools is of course decreasing and this decrease is expected to continue. Although 516,216 students were enrolled in 1981, enrollment had fallen to 480,826 in 1987 and 478,486 for the 1989-90 school year. The downward trend has been tempered in the past few years by small enrollment increases in the lower elementary grades. If we look at enrollment figures by grade, they show a significant increase in 1985 of 2,000 for the entering kindergarten class. The growth in enrollment again slowed after 1985 until 1990, when again there was a marked increase. In elementary school, the figures increased by 3,711 and in secondary schools by 1,455 as compared to 1989 enrollments (Legislative Fiscal Bureau, 1991) bringing total enrollment back up to 483,652. This came as a surprise because those making projections regarding enrollment trends for Iowa had predicted enrollment declines by seven percent during the 1990s. Perhaps this can be explained by immigration not yet documented in state record keeping systems.

National home economics enrollment trends

Although general enrollment trends and statistics are widely available and very accurate at the national and state level, information regarding enrollment in home economics courses for grades K-12 is difficult to find. A search of the literature reveals
that there were just three national studies that provided this enrollment information for specific past years and then only for selected locations in the nation. The first study, titled "Home Economics in Public High Schools" was published in 1938-39. The second titled, "Home Economics in Public Elementary Schools," was reported 20 years later (Coon, 1958). The third, "The National Census Study of Secondary Vocational Consumer and Homemaking Programs", was published in 1980 but reported data collected in the 1978-79 school year. Results of this last study revealed that in the 1147 schools included in the study, 288,365 students were enrolled in vocational consumer and homemaking classes. Of these, 19% were males. The same study shows that the largest percentage of students (21%) was enrolled in comprehensive home economics classes, followed by 19% in foods and nutrition, 11% in family relations, 10% in child development, eight percent in consumer education, five percent in housing, two percent in family health, and two percent in home management (Rougvie and Woods, 1980).

Apart from these three studies regarding enrollments in home economics, no other studies were found. Other writings, however, suggest that student enrollment in home economics rose significantly during the 1970s, home economics classes increased in both number and variety, and additional teachers were necessary. At the same time, home economics was designated as a vocational subject and had continued access to federal funds that allowed for innovations in curriculum and improved equipment and materials (Sandholtz, 1987).

During the 1980s, there were significant changes in education throughout the United States that have impacted home economics enrollments. With the back-to-basics school reform and increased requirements in math and science, enrollments in
home economics courses have declined in many schools as students had no time within the school day to take home economics elective courses (Kellett, 1991; Dagenais, 1987).

Funding of education also became increasingly tight during the 1980s, and priorities for the increasingly limited funds responded to the academic focus. Sandholtz (1987) states that even though the back-to-basics emphasis and the reductions in the federal budget for vocational education, and especially for consumer and homemaking programs, had differing impacts on home economics across particular states and districts, the trend was clear. The number of course offerings in home economics was reduced and enrollments decreased during the 1980s.

However, as we enter the 1990s, secondary school teachers, counselors, and administrators are again acknowledging the value of courses designed to help students achieve personal and occupational goals (Kellett, 1991). Other recent publications confirm these beliefs as illustrated by Burge and Stewart (1991) who indicate that “...middle and high school home economics enrollments have been increasing in many states. For example, enrollment data from the Texas Education Agency and the Virginia Department of Education show steady growth in home economics enrollment” (p. 2).

Iowa home economics enrollment trends

There are no complete historical records for enrollments in home economics courses for grades 6 through 12 in Iowa. Woods (1981), in her report of the “Iowa Census Study of Secondary Vocational Consumer and Homemaking Programs,” states that “...although data have been needed for some years, it was not until federal legisla-
tion mandated the review and evaluation of the quality and effectiveness of consumer and homemaking programs that an upsurge in data collection became evident" (p.
1).

In response, during the 1979-80 school year, the Iowa Department of Public In-
struction and the Home Economics Education Department (now the Department of
Family and Consumer Sciences Education and Studies) at Iowa State University con-
ducted an enrollment census of the secondary vocational consumer and homemaking
program. This study for grades 9 through 12 focused on vocational consumer and
homemaking programs and did not include occupational programs, those preparing
students for paid employment in home economics occupations. Data for this census
came from 98 home economics teachers. Results revealed a projected enrollment of
24,330 for these 98 teachers. Of this, 22% were males and 78% were females. Food
and nutrition and family relations courses were again the content areas with the

At about the same time, the Iowa Department of Public Instruction's Manage-
ment Information Division started collecting enrollment data for homemaking courses
for 9th through 12th grades. An analysis of the data showed that during school year
1977-78, 81,411 students were enrolled in home economics courses in Iowa. Enroll-
ment declined continuously up to school year 1984-85 when enrollment was 53,131.
In school-year 1985-86, however, enrollment in home economics courses increased to
54,101 at the same time that total secondary school enrollment decreased by 6,339
as compared with enrollment in the previous school year (Iowa Department of Public
Instruction, 1986; Legislative Fiscal Bureau, 1991) The report of the Iowa Depart-
ment of Public Instruction (now called the Iowa Department of Education) also shows
that during 1985-86 there were 17 different home economics courses (including occupational programs) offered throughout Iowa for grades 9 through 12. The course with the highest enrollment (15,145) was Food and Nutrition, followed by Family Relations (9,190), Comprehensive Home Economics (9,046), Clothing and Textiles (5,797) and Child Development (4,949). The rest of the courses had fewer than 2,000 enrolled. Because the report gives enrollment numbers for boys and girls, we also know that in 1985-86 a little over a quarter (27.3%) of the students enrolled in all courses were boys.

Retirement trends and teacher age distribution in the United States and Iowa

Coberly (1991), in her article "Older Workers and the Older Americans Act" examined the retirement trends of older workers for the past 20 years. She concludes that although there has been a very small upward shift in the labor force participation rates of older workers in the last several years, the 1970s and 1980s were characterized by continued early retirement for American men. In 1965, almost 28% of men aged 65 and over were in the labor force. In 1991, less than 17% were employed. The decrease was even more dramatic for the age group 55-64, in which participation fell from 84.6% in 1965 to 67.7% in 1990. For women, the picture is somewhat different. The participation rate for women ages 65 and older dropped from 10% in 1965 to 8.7% in 1990 while the rate for women ages 55 through 64 actually rose from 41.4% in 1965 to 45.3% in 1990.

It is also widely accepted that the Age Discrimination in Employment Act (ADEA), which sought to "...promote employment of older persons based on their
ability rather than age; and to prohibit arbitrary age discrimination in employment..." has had little, if any, effect on older workers' retirement decisions. The 1978 amendments to ADEA abolished mandatory retirement before age 70 for most workers, and the 1986 amendments eliminated mandatory retirement altogether. Although the elimination of mandatory retirement may be important in allowing individual older workers to remain on the job when they wish, there is little evidence that they are making such a choice.

The Coberly article describes retirement trends of all American workers. However, it can give us an idea of teacher retirement trends as well. There was no literature found that specifically reported trends for teacher retirements. Since the mid-1980s, there is an increased concern regarding the aging of the teacher population throughout the country. In 1986, 45% of the teachers in the United States - - an unusually high number - - were over fifty years of age (Dunlap, 1986). National data also show that in 1986 teachers of all grade levels were older than they were in 1976. The median age of secondary teachers in 1976 was 33 while in 1986 it was 41 (U.S. Department of Education, 1990). Taking into consideration the aging of the teaching force and the earlier retirement trends discussed above, it is obvious that the teaching force will be significantly reduced due to retirements during the 1990s.

For Iowa, there are no available data to indicate teacher age. Regarding the retirement policy for school teachers, §97B.45 of the Iowa Code Annotated (1991) states that such policy is the pursue of each school district. That way the school district can plan for its administrative needs, recruitments, and it can maintain a mixture of younger and more experienced teachers. Such a policy also bears a rational relationship between the government interests of maintaining quality of public
education and regulating public employment and thus a mandatory retirement policy is not a violation of equal protection. School districts in Iowa that have adopted mandatory retirement policies, however, cannot ask the teacher to retire until he or she reaches the age of 70, and after July 1, 1993, when new laws take effect, will have no mandatory retirement age.

**Home economics teacher retirement trends and age distribution in the U.S.A. and in Iowa**

During the 1970s, the end of the baby boom era and the resulting decreases in school enrollment translated into fewer new teachers being hired. At the same time, females who represented the majority of the nation's teachers, and in particular the teachers in the field of home economics, started to view teaching more as a life-time career than as a job between college and the beginning of motherhood. The result of this trend was that female teachers increasingly stayed in the work force until retirement, a fact that caused the turnover rates to slow down from an annual rate that had typically been around six percent (Hecker, 1986). For example, in Kentucky the vocational home economics teacher hire rate annually averaged only 1.3% of the total number of teachers for the period 1980 through 1985 (Tulloch, 1985).

In addition to the fact that female teachers increasingly stayed in the work force until retirement, during the 1980s when enrollments in home economics declined and teachers were dismissed, the remaining teachers were those with the most seniority (Sandholtz, 1987). Tulloch (1985) found that in 1985 the average age of Kentucky vocational home economics teachers was approximately 40, and the average years of experience was 14.7.
In a national study undertaken by Hall and Miller (1989) that reported opinions of thirty home economics teacher educators, they believed it to be quite likely that a large percent of home economics teachers would retire between 1988 and the year 2000. Frazier (1989) also expressed concern for the "imminent shortage" of home economics teachers due to a high percentage of retirements. She stated that between 1989 and 1995 eight of every eleven home economics teachers in New England will be eligible for retirement. Pain (1991) described a similar situation for Canada, projecting that 50% (2,500) of all Canadian home economics teachers will retire in the period 1990 to 2005.

For the state of Iowa, there was no available information for the age distribution and retirement eligibility of home economics teachers prior to this study.

Teacher resignations and career shifts in the U.S.A. and in Iowa

National figures on teacher resignations show a significant increase. The usual attrition rate (combined retirements and resignations) for teachers is about six percent a year (Dunlap, 1986; Sherberg, 1988). In 1986, however, the national attrition rate was running at 9 percent and was rising (Dunlap, 1986). According to "A Report on the Teacher Shortage in America", published by the American Federation of Teachers (1986), teachers defect from the profession because of low pay, low status, and poor working conditions. The same report stated that researchers estimated that 40 to 50% of the men and women employed as first-year teachers in 1982 would leave teaching within seven years under the conditions existing in the mid-80s. These include beginning salaries for teachers that are lower than those in virtually any other field requiring a bachelor's degree. Between 1971 and 1981, average salaries for
teachers declined by nearly 15% in real dollar terms. During the 1980s, however, the national average salary for teachers has increased from $19,000 in 1982 to $33,000 in 1991, and projections show that by the year 2000 the average salary should surpass $36,000 (Legislative Fiscal Bureau, 1991; Statistical Abstract of the United States, 1991).

There is no available information regarding the attrition rate due to resignations in Iowa. The average Iowa teacher's salary followed the national trend of increase during the 1980s but at a slower pace. In 1982, the average salary was $18,000 and in 1991 it was $28,000. This 1991 Iowa average was $5,000 less than the national average (Legislative Fiscal Bureau, 1991).

Home economics teacher resignations and career shifts in the U.S.A. and in Iowa

No information was found in the literature regarding home economics teacher resignations and career shifts for the United States and for Iowa. Home economics teachers may follow trends similar to those for teachers in general, but it is also possible that resignations and career shifts may be higher for home economics teachers. In the 1980s, with the back-to-basics emphasis, home economics courses faced declining enrollments, there was a reduced number of course offerings, and tight funding impacted programs (Dagenais, 1987; Barton, 1991). These facts created fears in home economists for the future of their profession. Both Moxley (1984) and Adair (1989) agree that home economics teachers had good reason to worry. Living in an era of rapid changes, with depleting resources and declining enrollments, home economics programs were reduced or eliminated to strengthen other academic programs. In
addition, many home economics teachers were among the total of all teachers dismissed due to enrollment declines (Sandholtz, 1987). Naturally, the remaining home economics teachers feared that their programs and careers could also be terminated, motivating them to leave school teaching for other more secure fields.

In addition to the concern about an unknown future, home economics teachers had to face the low status and erroneous image of “cooking and sewing” generally held by others for their profession. Referring to consumer and homemaking programs in 1986, Secretary of the Department of Education William Bennet stated: “We continue to believe this program should be terminated. Just as the Federal Government does not provide specific support for such curriculum areas as World History, or Mechanical Drawing, or Fine Arts, so too, it should not provide the funding to the narrow categorical area of Consumer and Homemaking education” (Council of Vocational Educators, 1986). Knowing that the Secretary of Education held such beliefs, home economics teachers had one more reason to feel fear for their professional future. Even though home economics groups throughout the country have made numerous attempts to correct the image, the general status of home economics has remained “in the realm of second-class citizenry” according to Glines (1985). During the 1990s, however, some believe that other secondary school teachers, counselors and administrators are again acknowledging the value of courses that help students achieve personal and occupational goals (Kellett, 1991). In the 1992 presidential campaign, the issue of family stability, the role of family institutions in the national economy, and “family values” have received much attention, perhaps providing received opportunity for home economics teachers to reaffirm their role in helping to develop skills in interpersonal relations, parenting, family resource management and decision-making
through school programs.

Teacher preparation in the U.S.A. and in Iowa

College enrollments rose to 13,710,000 from 12,087,000 during the 1980s, an increase of 13%. Even though these statistics appear to be encouraging, the picture changes when compared with the increase of 41% during the 1970s (U.S. Department of Education, 1990; U.S. Department of Education, 1992). A further review of enrollment figures by field of study shows great differences among fields. While some fields like business and management continued to enjoy increases, others like education have experienced declines (Agyeman, 1992; Dunlap, 1986). According to the American Federation of Teachers (1986), in 1972 there were 317,000 education majors among college students, while in 1984 the number had fallen to 146,000, more than a 50% decrease. The Rand Corporation in its report “Beyond the Commission Reports, The Coming Crisis in Teaching” (Darling-Hammond, 1984) explains this decrease by emphasizing that teaching is not an attractive career for talented individuals who may achieve more prestige, higher pay, and less stress in many other fields. In addition, other professions draw more from the potential pool of graduates who may have become teachers in past years, particularly women and minorities. Today’s sharp shift in opportunities for women has resulted in many fewer seeking to become teachers. Other perceptions of teaching such as low salaries, poor working conditions and lack of professional prestige have contributed to the decline in the number of students seeking to enter elementary and secondary teacher education programs (Sherberg, 1988).

According to Dunlap (1986), by 1993 the supply of new graduates will meet only
part of the demand; the United States will be short by about 400,000 teachers. By 1996, if the enrollment trends in teacher education continue to be the same as those in the mid 1980s, and schools decide to hire only new graduates with combined SAT scores of 1,000 or above, a proposal made by Dunlap, schools will need every available college graduate, not just those who graduate from teacher education programs and receive state certification or licensure.

In 1986, Michigan was producing only 25% of the teachers needed in the state while Arizona during 1988 was preparing only about one-half of the teachers they needed. Those states that prepare fewer teachers than needed must depend upon in-migrants to fill the remaining open positions. This is not unusual, especially in the western states where the number of in-migrants as a percentage of total supply of new teachers ranges from 26% in Utah to 89% in Alaska (Dunlap, 1986; Sherberg, 1988). At the same time, however, teacher retirements throughout the U.S. will open positions in many areas, contributing to a decline in the potential to tap in-migrant teachers from other states.

For these reasons, many states are now becoming more aggressive in recruiting students into the education field, focusing their efforts on minority groups. Whereas teaching had been a career of choice for minority men and women in the past, as it had been for white women, opportunities for minorities have broadened and better-paying, more prestigious jobs become available just as they have for women. At a time when the population of minority students is growing (as mentioned in the enrollment section), the number of minority teachers is not. Since the mid-1980s, many states have scrambled to recruit new minority teachers through both traditional teacher education programs and through alternate paths. During 1988, 27 states had
either task forces that were studying minority recruitment or programs in place to implement such recruitment (Sherberg, 1988).

Many states also studying were alternate routes to state certification or licensure. For example, certification may be made available to people who have a B.S. or B.A. degree in a content field and who would like to teach in that areas but have not completed education courses or student teaching requirements. Through "post-baccalaureate programs", these potential teachers may be able to take courses in subjects such as teaching methods and learning theory and complete nine weeks of traditional practice teaching in preparation for certification, as in Arizona and New Jersey. Alternately, prospective teachers may be trained completely by the school district where they go to teach, as in Massachusetts (Sherberg, 1988).

Home economics teacher preparation programs in the U.S.A. and in Iowa

Gorman and Harper (1970), in their report "A Look at the Status of Home Economics in Higher Education", reported that in the 1950s there was little or no gain in enrollment or degrees granted at the baccalaureate level in any area of home economics as compared to the 1960s when home economics enrollments in higher education grew vigorously. Enrollments at undergraduate and graduate levels during the 1960s increased by 95% and 121% respectively. By 1970, there were 15,612 degrees granted at the baccalaureate level, 1,770 at the master's level, and 143 at the doctoral level. By 1975, Harper reported that the enrollment at the undergraduate level in home economics exhibited a proportional rate of growth greater than was generally true for all of higher education at the time in the nation. In 1982-83, however, except for doctoral programs, enrollment and numbers of degrees granted in home economics
began to decline. In addition, the number of the colleges and universities offering home economics degrees decreased. By 1982-83 there were 57 fewer undergraduate degree-granting programs in home economics than there had been in 1968-69 (Harper and Davis, 1986).

Even though growth in total home economics enrollments continued until 1972, differences by specific fields were significant. Up to 1968-69, home economics education continued as the major area of specialization at the undergraduate level with the largest percentage of majors, with 45% of all undergraduate degrees being granted in home economics education (Gorman and Harper, 1970). After 1969, however, enrollments, number of degrees granted, and colleges offering home economics education decreased sharply. Within the decade of the 1970s, degrees in home economics education granted at the baccalaureate level decreased 42% annually while all the rest of home economics subject areas increased. For certain areas, the increase was very high; e.g., degrees granted for foods, nutrition, and dietetics increased 256% and for interior design increased 185% (Harper, 1981).

During the 1980s, enrollment in home economics education programs continued to decline. In 1983, a survey conducted by Hall, Wallace, and Lee revealed that 25 (22%) institutions out of the 113 responding feared closure or indicated program elimination; 42 (37%) indicated program stability, and only 11 (10%) projected program growth. According to the same source, the average number of home economics education graduates at each institution was 27 in 1975 and only 11 in 1982. In 1986, five or fewer baccalaureate degrees in home economics education were awarded in 60% of the universities which offered the degree (Weis and Pomraning, 1986). Similar results are indicated by the review of the 1989 National Directory of the Home
Economics Division of the American Vocational Association; over 60% of the colleges and universities offering home economics education programs awarded five or fewer baccalaureate degree during the 1988-89 school year (Weis and Pomraning, 1986).

Kellett’s 1991 study reveals the most recent information regarding enrollments. According to their data, 41.5% of the undergraduate home economics education programs enrolled 10 or fewer students, 26.8% of programs enrolled 11 to 20 students, and more than 21 students were enrolled in the remaining 31.7% of programs. Predictions of enrollment trends for the future, another focus of the study, were diverse. Forty-nine programs (41.9%) predicted stable baccalaureate enrollments, 39 (33.3%) predicted an increase and 29 (24.8%) expected a decrease.

There were many attempts to explain the sharp decline in enrollments in home economics education programs during the last two decades. Hall, Wallace, and Lee (1983) attributed enrollment declines during this period to “...publicity on the oversupply of teachers, local district ... elimination of elective courses/programs, and the decrease in federal vocational funds” (p. 13). Johnson (1987) suggested that home economics was reflecting national trends, including a smaller college-age cohort and females more often selecting majors in what had formerly been male-dominated fields. Kellett (1989) agreed that many women were being drawn to male-dominated fields because of higher pay and job status, although men were not likely to pursue a nontraditional career like home economics. Burge and Stewart (1991) also stated that there was no success to report from efforts to recruit males into home economics teaching.

Recruitment of both male and female students into home economics teaching faced two basic problems; first, home economics teachers who had been the best re-
Recruiters for the profession in the past, had stopped actively encouraging their high school students to enter the profession. During the 1980s, home economics teachers had been faced with curriculum changes across the entire school curriculum, new models of testing, teacher effectiveness, and budget cuts. With these pressures, teachers were not motivated to encourage their students to enter their own profession (Barton, 1991). The second problem was the negative images that had evolved about home economics, as described by Robinson (1989). She found that students and parents perceived secondary home economics classes as emphasizing traditional skill areas of food preparation and clothing construction rather than more current family and consumer issues. To the extent that these perceptions are widely held, recruiting high school males and females from high school populations becomes increasingly difficult. Stenberg and Elliot (1990) state that it is obvious, therefore, that the entire profession can benefit from efforts to eradicate the stereotyped views of home economics. However, few concrete efforts can yet be documented that such efforts are underway in a focused, concerted, and serious manner.

**Home economics curricular trends in the U.S.A. and in Iowa**

Home economics, with its emphasis on families, has been a part of secondary school curricula for over 75 years and a part of post secondary programs since the development of land grant universities. Over the years, home economics curricula have changed to reflect the changing needs of families. Until the 1960s, classroom content placed emphasis on homemaking skills and home servicing which seemed consistent with societal needs. Social reform movements and new lifestyles of the 1960s brought drastic changes to all aspects of the family unit, to roles of individuals
and to the interface between the home and work life (Sandholtz, 1987; Burge and Stewart, 1991). While all these changes were taking place, some home economics curricula did not keep pace with them. In 1966, Morley stated: “I cannot emphasize sufficiently that the cooking and sewing approach is not sufficient for the 1960s” (p. 49). In 1970, East wrote: “It is evident that we have left behind us the period of home production and home servicing. We are in a consumer economy. We now buy our bread, our canned or frozen food, most of our clothing...” (p. 14). In the early 1970s, a prime focus of home economists activities was to define the changes impacting families and to adapt home economics programs to meet the new needs resulting from these changes. The 61st Annual Meeting of the American Home Economics Association, held in 1970 had the theme “The Family Faces Change.” It focused on the social, economic, and political forces in the world at that time, and their impact on families (Sandloltz, 1987). This emphasis on adaptation and change soon became evident at the secondary school level. New courses were developed to meet the needs of students, with particular emphasis on consumer education. Home economists were encouraged to initiate new programs, and to modify and innovate the old ones. At that time in most areas of the United States, class offerings increased in both number and variety. Student enrollment increased significantly and additional teachers were needed. In addition, home economics as a vocational subject had access to federal and local funds to innovate the curriculum (Sandholtz, 1987).

During the 1980s, however, there were significant changes in education throughout the United States. In 1983, the report “A Nation at Risk” was released and there was a growing emphasis on “back-to-basics,” identified by the National Commission on Excellence in Education (1983) as English, mathematics, science, social studies,
and computer science. However, in the report "Unfinished Agenda," developed by the National Commission on Secondary Vocational Education (1984), the importance of preparation for family life and work outside the home was also emphasized. But in spite of these reactions that challenged the back-to-basics school reforms, enrollment in home economics courses declined significantly in many schools as more and more courses in mathematics, science, social studies, and English were mandated, leaving little or no time within the school day to take home economics elective courses (Dagenais, 1987; Kellett, 1991).

Because of the resulting lower enrollments and reduced number of course offerings in home economics, experts in home economics education tried to find an answer by studying possible problems in the home economics courses at the secondary school level. Hughes, Kister, and Smith (1985) reported that "...while many secondary home economics programs are exemplary, others need to be redirected to reflect the needs of the families and communities in today's society" (p. 15) Sandholtz (1987) stated that the most serious problem was not the reduction in home economics courses but rather the direction of reduction that had failed to respond accurately to societal and student needs. According to Sandholtz, courses that had managed to survive were the traditional foods and clothing ones which she characterized as "...perhaps the least useful in today's society." She gave three reasons for this. First, she believed tradition had been used as a default mechanism; since foods and clothing had been the primary courses in home economics, tradition dictated that they should be the ones to survive. Second, she suggested that as enrollments decreased, and teachers were dismissed, the remaining teachers were those with the most seniority and thus the more traditional curricular philosophy. Research supports this suggestion, indicating
that many of the older teachers hold the most traditional beliefs and are least oriented to change (Hood, 1975; Swan, 1975). The third reason suggested for the direction of change is related to student enrollment. Sandholtz suggested that teachers believe that food preparation classes will draw the most students because "students like to eat." Pain (1991) agreed that some home economics programs in secondary schools, despite national efforts toward change, continue to be "...out of touch, left behind and clinging to the past" (p. 5) by teaching mostly foods preparation and clothing construction, courses that keep students involved in hands-on activity, also controlling classroom discipline problems.

Other publications, however, indicate that home economics educators have redirected their programs away from homemaking manipulative skills to focus on family issues and broader skills needed to improve family life. Some sources also state that in some schools enrollments have increased, much of it due to the fact that in many schools more than one-third of the students are boys (Willerton, 1990). Adair (1989) suggested that the most important step that home economics teachers have to take is to design a curriculum that meets the students' needs today and tomorrow. In a recent survey regarding curriculum development in home economics (Carr and Greene, 1989), results indicated that 40 state supervisors employed in state departments of education reported that they were developing or had recently developed new curriculum materials for use by the teachers in their states. Results of the same survey also revealed what changes state supervisors of vocational home economics would like to make or planned to make in home economics curricula to meet needs of students by the year 2000. Although answers were quite varied, there was considerable agreement that issues pertaining to successful family relationships and to the task
of career balancing and family work loads were of high priority. Other responses include the need to develop skills in critical thinking and problem solving skills as applied to the needs of daily living, the need to incorporate academic basics into the home economics content, parenting, comprehensive health education, employability skills in home economics jobs, global awareness, and entrepreneurial and home based business skills.

Some schools, in their attempt to revive declining enrollments in home economics courses, described how the content of their courses met the demands of the "new basics." If a home economics teacher could document that students taking a home economics course spent a majority of time on the basics of science, for example, the student could get credit for having taken the basic course. Peterat and Tabbada (1988) found that programs in 20 states were using this approach. Stewart (1991), in her report "Where is Home Economics in State Graduation Requirements" found that 26 of the 43 states that responded had no state requirements for courses related to home economics at the high school level while the other 17 states had a wide range of requirements. For example, in three states completion of a sequence of home economics courses could substitute for certain other requirements in math, science, humanities, or art. In seven states, health courses were required and two of them reported that 20 to 25 percent of these courses were taught by home economics teachers. At the middle school level, 31 out of the 43 states reported no state requirements, but three of these indicated that local schools often mandated at least an exploratory course in home economics. Another six states reported having specific requirements for home economics courses in the middle school, with most courses ranging from 6 to 12 weeks in length. For example, in New York all students are required to have
completed approximately 30 weeks of Home and Career Skills before leaving the 8th grade. In Iowa, there are no state requirements regarding home economics courses (Code of Iowa, 1991), but there are requirements that concepts usually thought of as home economics content be included in the curriculum of all students.

For those states that have no mandates regarding home economics courses at the secondary school level, administrators of schools play an important role in the availability and the existence of the programs. However, there are few research studies that focus on the perceptions and beliefs of the administrators regarding home economics courses. Schwausch (1984), in her report about Texas administrators' perceptions for vocational education found that administrators believed vocational education programs did not benefit the majority of students enrolled in their schools. In another survey designed to elicit responses regarding what should be taught in home economics, Pomraning (1989) found that while administrators ranked the statement that students ought to be able to make their own clothes as one of the least important topics to be taught in home economics, home economics teachers ranked the same objective as one of the most important.

Literature review related to the factors which influence teacher supply and demand revealed that while enrollments have been projected to increase in most areas of the United States, the state of Iowa does not follow the national patterns. Projections expect enrollment declines with a decrease of 7%. In addition, literature review showed that there is no recent available information regarding enrollments in home economics courses, and no available information for the home economics teacher age distribution, resignations and career shifts for Iowa. At the same time there is only one program that prepares home economics teachers to be licenced to teach in the
states secondary schools, the Family and Consumer Sciences Education and Studies Department at Iowa State University, with an average of less than five graduates per year for the last five years. Finally because in Iowa there are no state requirements regarding home economics courses, the decision of the principal of schools plays an important role in the availability and the existence of the programs. Based on the above information it was clear that from all factors that influence the teacher supply (number of teachers prepared, age, and career movements) and demand (societal needs and related curriculum developments, and student enrollments) equation, data for the number of teachers prepared and student enrollments were available. However, for the rest of the factors (age, career movement, societal needs and curriculum development) there is a need to measure the missing data in order to complete the teacher supply and demand equation and to meet the objectives of the present study.
CHAPTER 3. METHODOLOGY

The purpose of the study was to describe the expected need for home economics teachers for the next decade in the public schools in the State of Iowa. Specific research objectives were to identify:

1. home economics teachers' personal retirement and resignation plans.

2. home economics teachers' perceptions about curricular trends in home economics for the next decade and expectations they have for their schools' programs.

3. principals' perceptions of trends for home economics programming for the next decade and plans they have for their schools' programs.

4. student enrollments in home economics classrooms.

Research design

Several factors influence teacher supply and demand (Bartolini, 1985). Those that have been important over time are: number of students enrolled, age of the teaching force as related to retirements, number of teachers resigning, number of teachers prepared, and decisions to increase, decrease, or eliminate course offerings. Lack of existing data for several of these variables was the main factor dictating
the methodology used to accomplish the objectives for this study. Without this information, it is not possible to project the demand for home economics teachers in Iowa. The mandatory retirement age for teachers in Iowa is set by each school district board. However, school teachers cannot be required to retire until they reach age 70 (Iowa Code Annotated, 1991). Also, there are no records of ages of practicing teachers in Iowa. Therefore, the best source of information about age and retirement plans is the teachers themselves. In addition, there are no required documents on file with the Iowa Department of Education outlining current curriculum offerings in home economics, and there are no documents that describe future plans. Again, this information best comes from the teachers and administrators involved.

To obtain the data necessary to accomplish the objectives of this study, a mailed questionnaire was the chosen format. This seemed the most efficient, valid, and accurate method to obtain the information needed.

Population and sample

The population for this study consisted of all middle, junior, and senior high school home economics teachers in public schools in Iowa and all their middle, junior, and senior high school principals that were listed in the 1991-1992 Iowa Educational Directory prepared by the Iowa Department of Education. A sample of 200 (28%) of the 698 teachers was selected from the list of home economics teachers by using a random-number generating computer program. For each teacher selected, the corresponding principal was identified. Fifteen schools had two home economics teachers selected in the random sampling procedure, so the number of principals in the study was 185. Teachers' names, their school names, and addresses were taken
from the computer output list printed and provided by the Iowa Department of Education. Next, principals' names and addresses were taken from the Iowa Educational Directory, 1991-92, identifying the principals by matching school names.

Instrument development

Instruments used in the very few similar studies were reviewed and evaluated (Lee, 1973; Hall and Miller, 1989). It was concluded that none could be used because they did not fit the objectives of this study as developed from our conceptual construct about the variables affecting supply and demand for home economics teachers. Therefore, new questionnaires were developed, one for teachers and a second modified version for administrators.

Teacher's instrument

The instrument "The Iowa Home Economics Curriculum and Careers Survey" (Appendix A) for gathering information from home economics teachers consisted of five sections. These focused on information about the teachers, their careers, and the curriculum in their home economics classrooms.

Information about the teacher (pages 1-2). This section contained five items. Four were designed to identify the grade level(s) at which the teachers' taught, if they taught full time or some fraction thereof, what other subjects they taught in addition to home economics, if any, and if so, what percentage of their teaching appointment was spent teaching home economics. The fifth item was designed to describe what home economics content areas the teachers were covering for the school year 1991-92 as well as the grades in which they taught any amount of these content
areas. This last item was divided into the three subsections of: Family and Consumer Sciences, Home Economics Occupations, and General Skills. Under each of these subsections, specific home economics content areas were included. The wording and arrangement of the subsections and the content areas were based on the Home Economics Education Program Management Guide for the State of Iowa with which home economics teachers are familiar. This was developed by the Iowa Home Economics Program Management Committee and published in May 1991 (Davison et al., 1991).

**Demographic information (page 3).** The second section was developed to identify personal characteristics of the teachers. It contained five items. Information about gender, age, number of years as a teacher, salary, and education was requested.

**Future Likelihood Scale (pages 4-5).** The third section was designed to assess teachers’ beliefs about the future of the home economics teaching profession in general. Literature reveals that the most significant problem in measuring a future time perspective is the lack of adequate instrumentation. Daltrey and Langer (1984) stated that there are few researchers who have paid attention to develop a measure regarding beliefs about the future. Because there is limited research, future perspective data collection has generally taken the form of either an open-ended question or of an autobiographical projections while there are few attempts to develop objective instruments. Review of those objective instruments (Larson and Schrankel, 1986; Blinn and Schwartz, 1988; Hall and Miller, 1989) developed to assess beliefs about future, indicated that in order to develop such an instrument current and projected trends are identified and used as items of the instrument. Nuttin (1985) stated that the larger the number of perceived possibilities and trends, the higher the richness
and quantity of images perceived for the future.

From literature review related to current and projected trends in home economics teaching field (Hall and Miller, 1989; Lee, 1973; Morgan, 1984; Pain, 1991; Sandholtz, 1987), 26 items were identified and used to develop the "Future Likelihood Scale." Teachers were asked to indicate their perception of likelihood for each scenario next year, in five years, and in ten years. A five-point Likert-type scale used by Blinn and Schwartz (1988) for recording responses was used: (1-Never, 2-Slight Chance, 3-Perhaps, 4-Probably, 5-Definitely). While current and projected trends in home economics education programs were the primary bases for developing the Future Likelihood Scale, the following six items were modifications of existing instruments. Five items, 1, 13, 20, 21 and 22, were modifications of items from the instrument developed by Hall and Miller (1989). One item, 17, was adapted from a questionnaire used to assess and delineate the future of home economics and administered at the 1973 American Home Economics Association Annual Meeting in Atlantic City (Lee, 1973).

Future plans for the teachers’ school home economics program (pages 6-7). The fourth section was developed to assess home economics teachers' beliefs about specific curricular trends in home economics for the next decade and the expectations they have for their own schools' program. Each of the first twenty-four items is a possible instructional objective for a home economics classroom for either middle level or senior high school. The development of the twenty-four items was based on two ideas. First, these items represented the seven home economics content areas used in Iowa: housing and home management, food and nutrition, individual and family health, family living and parenthood, consumer education, textiles and
clothing, and child development. Second, within each of the seven areas two categories of objectives were developed: the "traditional" home economics objectives and the "progressive" ones.

"Traditional" home economics objectives were defined as those objectives that some home economics teachers may continue to teach but are outdated and do not serve the needs of students in contemporary society according to leaders in home economics education (Pain, 1991). To create these items (objectives), seven home economics education experts in the Department of Family and Consumer Sciences Education and Studies at Iowa State University were interviewed. They were asked to identify three to five areas from their own experiences in the profession that they believed illustrated outdated content for secondary schools. Fifteen draft items were developed. After pilot testing (see section: Validating and pilot testing the instruments), ten of those items, 1, 2, 4, 7, 12, 13, 14, 15, 20, and 23, appear on the final copy of the questionnaire. Teachers participating in the study were asked to indicate if they believed each objective would be included in their home economics program next year, in five years, and in 10 years by selecting either "yes" or "no" as the answer.

"Progressive" home economics objectives were defined as those objectives that serve contemporary needs of students. These were chosen from two sources. One source was the objectives developed for middle level students in Iowa (Smith et al., 1991) based on input from students, teachers, administrators and parents. For high school, objectives from the "Home Economics Education Program Management Guide" (Davison et al., 1991) were used. In the first draft of the questionnaire, 17 objectives from these two sources were randomly selected. After pilot testing, 14
"progressive" items were selected for the final questionnaire, 3, 5, 6, 8, 9, 10, 11, 16, 17, 18, 19, 21, 22 and 24.

Fifteen additional items were developed for this fourth section of the questionnaire to assess home economics teachers' beliefs about curricular trends for home economics programs and their expectations for their own schools' programs in the future for specific home economics content areas. These items were used to identify if teachers believed that entire content areas rather than only parts of areas were going to be eliminated from future home economics curricula. Content areas were taken directly from the "Iowa Home Economics Education Program Management Guide" (Davison et al., 1991), which divides them into three program areas of family and consumer sciences, home economics occupations, and general skills. Under each program area, the specific home economics content areas were included.

Career and retirement plans (page 8) Section five consisted of 11 items designed to identify teachers' career plans for next year, in five years, and in ten years. The first nine items were developed to identify if teachers plan to remain in the same position, seek a teaching position elsewhere, seek a full-time teaching position if only part-time now, seek a part-time teaching position if full-time now, seek employment in education other than secondary teaching, seek employment outside education, temporarily leave the work force, permanently leave the work force before retirement, or retire and, if so, at what age they plan to do so. The tenth item was developed to assess the plans that teachers have for their future regarding their own professional development. In the eleventh item, teachers were encouraged to share their thoughts about their job and the profession of home economics education now and in the future. An open-ended format was chosen for this question.
Principal’s instrument

The instrument “The Iowa Home Economics Curriculum and Careers Survey” (Appendix B) developed to collect data from school principals was a modified version of the instrument developed for the home economics teachers. It consisted of three sections and included information about the school, future likelihood, and future plans for home economics program sections but not the career and retirement plans section.

Information about the school (page 1). The first section, consisting of six items, requested information about the school in which the principals are working. The first two items asked about the level of the school administered and if it was a full-time appointment. The third item collected information about their education. Three more items were developed to identify gender, size of the student body, and number of students enrolled in home economics courses.

Future Likelihood Scale and plans (pages 2-6). The second and third sections corresponded exactly to the third and fourth sections of the teachers’ instrument. Instructions, however, were reworded to make them appropriate for the principals. In the last item, in the same way that it was used in the teachers’ instrument, principals were encouraged to share their general thoughts about curriculum in home economics now and in the future in a question with an open-ended format.

Validating and pilot testing the instruments

Instruments were reviewed at this stage by 13 home economics education and home economics evaluation professionals involved in higher education in Iowa to verify that the instruments appeared to measure what they were intended to measure. All
13 professionals received copies of the instruments as well as copies of the objectives for the study. All 13 returned them with comments.

Instruments were also sent to 15 home economics teachers and their 15 principals who met the same criteria as the final sample but who were not included in the final sample. Completed pilot questionnaires were returned from seven teachers and 14 principals.

The returned questionnaires from the higher education professionals, school teachers and principals were examined for comments, questions, and ease in responding. Based on the comments, item 5 in the first section of the teachers' instrument was rewritten.

In the section regarding the future plans for the teachers' (or the corresponding principals') home economics program, several comments were made regarding the "progressive" and "traditional" objectives that questioned the validity of the objectives characterized as "traditional". Therefore, this section was subjected to further development and pilot testing to refine validity. Thirty-two of the same items were given to 22 home economics education professionals. Respondents were asked to mark each objective using the following key:

1. "Old fashioned" – outdated, not important as preparation for family life in tomorrow's world.

2. "Progressive" – contemporary, important as preparation for family life in tomorrow's world.

After examining the results, eight items were eliminated, one because the results were opposite to what had been expected and seven because responses did not indicate
clear discrimination between the two categories. Twenty-four items remained for the final copy of the instrument.

Human subjects review

Following Federal law and University policy, the Iowa State University Committee on the Use of Human Subjects in Research reviewed the procedures and the questionnaires used in this study. It concluded that there were no risks to participants, and that their rights and welfare were adequately protected. Confidentiality was assured, names would not be identified with individual or composite results, and each participant had the right not to take part in the study (Appendix C).

Data collection

Data for this study were collected by mailed questionnaires during January, February, and March 1992. On January 20, a week before the questionnaires were mailed, a post card was mailed to the sample to inform them that a survey was coming (Appendix D). According to Dillman (1978), this adds to later willingness to respond. Questionnaires were mailed to the 200 teachers and 185 principals on January 27, a time identified as a period when teachers and principals would have completed first semester records and have more time to respond. Personalized and signed cover letters (Appendix E) on original letterhead of the Department of Family and Consumer Sciences Education and Studies explained the purpose and importance of the study, requested participation, and assured confidentiality of responses. Questionnaires were numbered and color coded, yellow for teachers and blue for principals, to expedite data analysis in terms of pairs and follow-up procedures. Each letter to a
principal identified the name(s) of the home economics teacher(s) in the school who had received the corresponding questionnaire. In bold type, a request asking the principal to answer the questionnaire rather than delegating the task to the home economics teacher was made. This was critical to the validity of the research results. On the inside cover of the questionnaire, background information about the study (Appendix F), directions for completing the questionnaire, as well as the date for mailing it back, were provided.

Follow-up postcards (Appendix G) were sent on February 17, two weeks after the questionnaires were mailed, to the 119 non-respondents. A week after the follow-up postcard was mailed, 137 (68.5%), and 129 principals (69.7%), resulting in 87 (43.5%) pairs of teachers and principals at the same school, had returned the questionnaires. On that date, February 24, a new cover letter and another copy of the questionnaire was mailed to those who had still not responded. In the letter (Appendix H) to the 42 home economics teachers whose principals had already returned the questionnaire, a personalized hand-written note was attached to the cover letter encouraging them to fill out their questionnaire because their principal already had.

On March 20, data collection was halted. By that date, 163 teachers had returned the completed questionnaires. Eight teachers out of the original sample were not able to answer for the following reasons: Two teachers were on maternity leave, three were not home economics teachers and their names were on the list by mistake, two had passed away, and finally one refused to answer the questionnaire because the school was closing. After these eight people were excluded from the original sample a response rate of 87% (163 out of 192) was built. Out of 184 (one principal was hospitalized at that time), 161 answered the questionnaire and a response rate
of 87.5% was built. The respondents included 140 matched pairs of teachers and principals at the same school, a 73.3% response rate for pairs.

Data analysis

The completed questionnaires were coded in a manner suitable for statistical analysis. Data were entered in the computer by the Statistics Department at Iowa State University during March and April 1992. The statistical program was developed in a way to allow separate data analysis for the teachers’ and the principals’ questionnaires as well as comparisons between them. Descriptive statistics, including frequency distributions and percentages were computed first. These statistics were used mainly for analyzing the sections regarding information about the teachers, demographic information, and the career and retirement plans from the teachers’ questionnaire, and the section regarding information about the school from the principals’ questionnaire. Total means were computed for the sections of future likelihood scale, and future plans for home economics curricula for each time period (next year, in five years, in ten years) and for both teachers and principals questionnaires.

Reliability coefficients to estimate internal consistency were computed for the sections of future likelihood and the “traditional” and “progressive” subsections of the future plans for home economics programs section. The reliability was computed for each time period (next year, in five years, in ten years) and for both teachers and principals.

Inferential statistics, including analysis of variance, and t-test were used to examine differences in the means for each time period in the future likelihood scale and differences between teacher(s) and principal responses for this section. T-test was also
used to determine differences in the responses between the three time periods of the "traditional" and "progressive" subsections of the future plans for home economics programs section, and also to compare the responses of teachers and principals.
CHAPTER 4. FINDINGS AND DISCUSSION

The purpose of this study was to identify the expected need for home economics teachers for the next decade in the public schools in the State of Iowa. This meant obtaining and studying data for all factors affecting teacher supply (number prepared, age, and career movement) and demand (societal needs and related curriculum developments, and student enrollments). Data for the first and last factors, number of teachers prepared and student enrollments, were available. To fill in the missing data for the remaining factors in the supply and demand equation, teacher and principal versions of "The Iowa Home Economics Curriculum and Careers Survey" were used. Completed surveys were received from 167 teachers (87% of the final sample) and from 161 principals (87.5% of the sample). The respondent included 140 matched pairs of teachers and principal of the same school, which reflects a 73.3% response rate for pairs.

Results from the analysis of data will be discussed in the following order: 1) information from teachers, 2) information from principals and 3) comparisons between information from teachers and principals.
Information collected from teachers

The teacher version of "The Iowa Home Economics Curriculum and Careers Survey" consisted of five sections. These focused on information about the teachers' school, job, personal characteristics, how teachers perceive the future for home economics in schools, how they perceived more specific curricular trends, and finally, what they anticipated as their personal career and retirement plans. Results from the analysis of data will be presented in the following sub-sections: 1) characteristics of teachers' schools and jobs, 2) personal characteristics of teachers, 3) perceived future for home economics in schools, 4) perceived curricular trends, and 5) career movements.

Characteristics of teachers' schools and jobs

In the first section of the questionnaire, teachers were asked to report the grade level(s) at which they taught, if they taught full time, what subject areas they were teaching in addition to home economics and what home economics content areas they had covered during the school year 1991-92 as well as the grades in which they taught any amount of these content areas.

Grade level(s) that teachers taught. Teachers were asked to indicate whether they taught middle, junior high, high school, and senior high school, or some combination of these. As shown in Table 4.1, 106 teachers reported teaching in high school, 64 teachers taught junior high, 50 taught middle school and just 22 taught senior high.

Teachers' appointment status. From the participating teachers (N=167), 129 (77%) reported having a full-time position while 37 teachers reported having
Table 4.1: School levels at which teachers taught (N=167)

<table>
<thead>
<tr>
<th>School</th>
<th>Number of Responses</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle School</td>
<td>50</td>
<td>31.0</td>
</tr>
<tr>
<td>Junior High</td>
<td>64</td>
<td>38.0</td>
</tr>
<tr>
<td>High School</td>
<td>106</td>
<td>63.5</td>
</tr>
<tr>
<td>Senior High</td>
<td>22</td>
<td>13.8</td>
</tr>
</tbody>
</table>

Table 4.2: Appointment of teachers (N=167)

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>129</td>
<td>77.0</td>
</tr>
<tr>
<td>Part-time</td>
<td>37</td>
<td>33.0</td>
</tr>
<tr>
<td>25%</td>
<td>1</td>
<td>2.7</td>
</tr>
<tr>
<td>26-50%</td>
<td>14</td>
<td>37.8</td>
</tr>
<tr>
<td>51-75%</td>
<td>14</td>
<td>37.8</td>
</tr>
<tr>
<td>76-87%</td>
<td>4</td>
<td>10.8</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>13.5</td>
</tr>
</tbody>
</table>

part-time appointments (one person did not respond to this question). From the 37 that reported part-time appointments, one teacher had a 25% appointment, 14 teachers had appointments ranging from 26 to 50%, another 14 ranged from 51 to 75%, four teachers had appointment in the 76 to 87% range, and five teachers did not report the exact percentage of their appointment (see Table 4.2).

Subject areas in addition to home economics that teachers taught. Ninety-eight (58.7%) out of the 167 participant teachers reported that they taught only home economics subject areas. The remaining 66 teachers (39.5%) reported teaching other additional subject areas (three teachers did not respond to this question). Teachers had the chance to check more than one subject area, so the total
Table 4.3: Other subject areas taught by home economics teachers (N=66)

<table>
<thead>
<tr>
<th>Subject areas</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>50</td>
<td>75.7</td>
</tr>
<tr>
<td>Science</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Math</td>
<td>4</td>
<td>6.0</td>
</tr>
<tr>
<td>Art</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>Language</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Physical Education</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>Talented and gifted</td>
<td>2</td>
<td>3.0</td>
</tr>
<tr>
<td>Others</td>
<td>17</td>
<td>25.7</td>
</tr>
</tbody>
</table>

number of other subject areas exceeds 66.

Examination of Table 4.3 reveals that the majority of the home economics teachers who also teach other subject areas are teaching health. More specifically, of those 39.5% teachers who are teaching home economics and something else, for 75.7% the "something else" is health. Other subject areas reported to be taught by home economics teachers are shown in Table 4.3.

Those 66 home economics teachers who reported teaching additional subject areas were also asked to report what percentage of their appointment was spent teaching home economics. Table 4.4 shows that 15.2% of the teachers reported they spent up to 40% of their appointment teaching home economics, while 60.6% of the teachers spent from 41% to 80% of their appointment teaching home economics, and almost a quarter of those teachers (24.2%) spent the majority of their time, 81% to 99%, teaching home economics.

Content areas and grade levels covered by home economics teachers during 1991-92. Teachers were asked to indicate specific home economics content
Table 4.4: Percentage of appointment devoted to teaching home economics (N=66) for part-time teachers

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-20%</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>21-40%</td>
<td>5</td>
<td>7.6</td>
</tr>
<tr>
<td>41-60%</td>
<td>13</td>
<td>19.7</td>
</tr>
<tr>
<td>61-80%</td>
<td>27</td>
<td>40.9</td>
</tr>
<tr>
<td>81-99%</td>
<td>16</td>
<td>24.2</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>100.0</td>
</tr>
</tbody>
</table>

areas they taught as well as the grades in which they taught any amount of these content areas. The question was first divided into the three areas of family and consumer sciences, home economics occupations, and general skills. Under each of these, specific home economics content areas were included. Results will be presented for each subsection as well as for each specific content area.

From the literature review, it was clear that some home economics programs still focus just on the traditional foods and clothing content areas (Sandholtz, 1987; Pain, 1991). However, results of the present study do not support the idea that home economics teachers in Iowa focus just on those two areas. Even though the majority of teachers (N=157) covered food and nutrition, other subject areas were also reported by a great number of teachers (Table 4.5). For other subject areas, 144 teachers taught consumer education, 138 teachers taught textiles and clothing, 136 taught family living and parenthood, and 135 teachers taught individual and family health. The least reported subject area was housing and home management. So we can conclude that while food and nutrition is taught by the great majority of the respondent teachers, other subject areas also have a solid place in the curriculum.
Table 4.5: Family and consumer sciences content areas taught (N=164)

<table>
<thead>
<tr>
<th>Content area</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing and Home management</td>
<td>119</td>
<td>72.6</td>
</tr>
<tr>
<td>Food and Nutrition</td>
<td>157</td>
<td>95.7</td>
</tr>
<tr>
<td>Individual and Family Health</td>
<td>135</td>
<td>82.3</td>
</tr>
<tr>
<td>Family Living and Parenthood</td>
<td>136</td>
<td>82.9</td>
</tr>
<tr>
<td>Consumer Education</td>
<td>144</td>
<td>87.8</td>
</tr>
<tr>
<td>Textiles and Clothing</td>
<td>138</td>
<td>84.1</td>
</tr>
<tr>
<td>Child Development</td>
<td>130</td>
<td>79.2</td>
</tr>
</tbody>
</table>
Table 4.6: Family and consumer sciences content areas and grade levels taught by teachers

<table>
<thead>
<tr>
<th>Family and Consumer Sciences content areas</th>
<th>Number of teachers reported teaching in each grade level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Housing and Home Management</td>
<td>2</td>
</tr>
<tr>
<td>Food and Nutrition</td>
<td>16</td>
</tr>
<tr>
<td>Individual and Family Health</td>
<td>12</td>
</tr>
<tr>
<td>Family Living and Parenthood</td>
<td>6</td>
</tr>
<tr>
<td>Consumer Education</td>
<td>9</td>
</tr>
<tr>
<td>Textiles and Clothing</td>
<td>9</td>
</tr>
<tr>
<td>Child Development</td>
<td>10</td>
</tr>
</tbody>
</table>
The information in Table 4.6 shows that housing and home management is taught mostly in grades 11 and 12. Foods and nutrition is taught in grades 9, 10, 11, and 12, by over 100 people. Individual and family health was reported mostly in grades 9, 10, 11, and 12 (over 70 people reported that). Family living and parenthood was reported more frequently in grades 11 and 12 by more than 80 teachers while consumer education was taught in grade 8 through grade 12, with 60 teachers reporting that they teach this area in these grades. More than 70 teachers reported teaching textiles and clothing in grades eight through 12 while more than 90 teachers taught child development in grades 11 and 12.

Results for the home economics occupations area are reported in Table 4.7. It is clear that the areas of child care and guidance occupations, food production and services, and clothing, apparel and textiles are the key occupational programs provided, as reported by more than 50 teachers. Institutional home management was reported by just ten teachers. Looking at Table 4.8 it is also obvious that home economics occupations are taught in higher grade levels, mostly in grades 9 through 12, except that institutional home management is taught only in grades 11 and 12 and only by six teachers.

Results for general skills programs are reported in Table 4.9 and Table 4.10. Leadership as well as job getting and keeping are taught by the majority of the teachers. Leadership is taught by more than 40 teachers in grades 7 through 12, while job getting and keeping is taught by the same number of teachers in grades 9 through 12, and Enterpreneurship is taught just in grade 12 by more than 40 teachers.
Table 4.7: Home economics occupations content areas taught by teachers (N=164)

<table>
<thead>
<tr>
<th>Content area</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Care and Guidance</td>
<td>66</td>
<td>40.2</td>
</tr>
<tr>
<td>Home Furnishing and Equipment</td>
<td>46</td>
<td>28.0</td>
</tr>
<tr>
<td>Clothing, Apparel and Textiles</td>
<td>57</td>
<td>34.7</td>
</tr>
<tr>
<td>Food Production and Services</td>
<td>62</td>
<td>37.8</td>
</tr>
<tr>
<td>Institutional Home Management</td>
<td>10</td>
<td>6.0</td>
</tr>
</tbody>
</table>

**Personal characteristics of teachers**

In this second section of the questionnaire, teachers were asked to report information about themselves; gender, birth year, education, number of years they had taught, and annual salary. Specific data for each are given below.

**Gender.** Out of 167 teachers, all but two of them were females (99%). Just one was male and one person did not respond to this question. These results were expected because it is known that home economics is a field dominated by women.

**Age.** Examination of Figure 4.1 reveals that the largest proportion of teachers (43.3%) are 40 to 49 years old. The second largest group (26.2%) are teachers in the 50 to 59 years old range. This means that the great majority of teachers (72.5%) are above 40 years of age. Also the median age for the participant teachers was 45, significantly higher than the reported median age of secondary teachers in 1986 which
Table 4.8: Home economics occupations content areas and grade levels taught by teachers

<table>
<thead>
<tr>
<th>Home economics occupations content areas</th>
<th>Number of teachers reported teaching in each grade level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6  7  8  9  10 11 12</td>
</tr>
<tr>
<td>Child Care and Guidance</td>
<td>5 13 17 23 32 44 47</td>
</tr>
<tr>
<td>Home Furnishing and Equipment</td>
<td>1 5 12 19 24 32 30</td>
</tr>
<tr>
<td>Clothing, Apparel and Textiles</td>
<td>2 9 24 35 26 25 26</td>
</tr>
<tr>
<td>Food Production and Services</td>
<td>3 9 17 27 30 40 44</td>
</tr>
<tr>
<td>Institutional Home Management</td>
<td>0 2 4 1 1 5 6</td>
</tr>
</tbody>
</table>

Table 4.9: General skills content areas taught by teachers

<table>
<thead>
<tr>
<th>Content area</th>
<th>Number of teachers cover them</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>103</td>
<td>62.8</td>
</tr>
<tr>
<td>Job Getting and Keeping</td>
<td>101</td>
<td>61.6</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>57</td>
<td>34.7</td>
</tr>
</tbody>
</table>
Table 4.10: General skills content areas and grade levels taught by teachers

<table>
<thead>
<tr>
<th>General Skills content areas</th>
<th>Number of teachers reported teaching in each grade level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Leadership</td>
<td>7</td>
</tr>
<tr>
<td>Job Getting and Keeping</td>
<td>5</td>
</tr>
<tr>
<td>Enterpreneurship</td>
<td>1</td>
</tr>
</tbody>
</table>

was 41 (Statistical Abstract of the United States, 1988).

**Educational level.** All participating teachers (N=162, 5 teachers did not respond to this question) hold BS or BA degrees and seven of them hold a second Bachelor's degree as well. Thirty-two teachers (19.7%) reported having a Master's degree and eight (4.9%) reported having a specialist's or doctorate degree.

**Year of degree.** For the first degree reported (N=162) (Table 4.11), 50.9% of teachers reported that they received their degrees before 1970, while 38.4% reported graduating during 1971 to 1980, and only 10.7% reported that they received their degrees after 1981. These results are explained by the age distribution of the teachers and are also in agreement with other reports that state that the number of degrees granted in home economics education started to decline during the decade of the 1970s and decreased at even a higher rate during the 1980s (Harper, 1981; Hall et al., 1983). For those holding a second degree (N=44), 27.3% earned it before 1970, 68.2% earned it between 1971 and 1990, and just 2 (4.5%) teachers received their
second degree in the year 1991. Two people reported holding a third degree, both of them earning it during the 1980s.

**Major.** Home economics education was reported as the teachers major either for their bachelors degree, masters or doctorate degree by 140 teachers. Thirty reported holding a degree with a major in vocational home economics, three had a major in food service, two in family environment, eleven in education, three in health and one in textiles and clothing.

**Institution.** For the first degree earned, a total of 119 teachers (72.6%) reported that they were earned in Iowa institutions. Of those 119 teachers who graduated from Iowa schools, 69 (57.9%) received their degrees from Iowa State University (ISU), 26 (21.8%) graduated from the University of Northern Iowa (UNI), another six (5%)
Table 4.11: Years in which participating teachers received their degrees

<table>
<thead>
<tr>
<th>Time period</th>
<th>Number of teachers</th>
<th>First degree</th>
<th>Second degree</th>
<th>Third degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Valid %</td>
<td>n</td>
<td>Valid %</td>
</tr>
<tr>
<td>1950 to 1960</td>
<td>25</td>
<td>15.0</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>1961 to 1970</td>
<td>56</td>
<td>33.5</td>
<td>10</td>
<td>6.0</td>
</tr>
<tr>
<td>1971 to 1980</td>
<td>61</td>
<td>36.5</td>
<td>16</td>
<td>9.6</td>
</tr>
<tr>
<td>1981 to 1990</td>
<td>13</td>
<td>7.8</td>
<td>14</td>
<td>8.4</td>
</tr>
<tr>
<td>1991 to 1992</td>
<td>4</td>
<td>2.4</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Not Applicable</td>
<td>0</td>
<td>0.0</td>
<td>120</td>
<td>71.8</td>
</tr>
<tr>
<td>No Response</td>
<td>8</td>
<td>4.8</td>
<td>3</td>
<td>1.8</td>
</tr>
</tbody>
</table>
Table 4.12: Number of years teachers taught (N=167)

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 10</td>
<td>37</td>
<td>22.1</td>
</tr>
<tr>
<td>11 to 20</td>
<td>69</td>
<td>41.3</td>
</tr>
<tr>
<td>21 to 30</td>
<td>43</td>
<td>25.7</td>
</tr>
<tr>
<td>31 to 38</td>
<td>11</td>
<td>6.6</td>
</tr>
<tr>
<td>No Response</td>
<td>7</td>
<td>4.2</td>
</tr>
</tbody>
</table>

graduated from the University of Iowa (UI), one graduated from Drake University, and 14 (11.8%) graduated from other private colleges in Iowa. Three teachers did not report the university from which they earned their degrees.

For those reported holding a second degree (N=44), 33 (75%) of them were earned in Iowa, 16 from ISU, eight from UNI, five from UI, one from Drake University, and three from other colleges in Iowa. One of the two that reported a third degree was a graduate of ISU.

**Number of years teachers have taught.** Table 4.12 shows that 22.1% of the participating teachers have ten or fewer years of teaching experience, while the majority (67%) have 11 to 30 years of teaching. Only 6.6% had 31 to 38 years of teaching experience.

**Annual salary.** Table 4.13 shows that almost half of the teachers (49.1%) were earning $20,000 to $29,999. Another 22.2% earned $30,000 to $34,999 and just 2.4% earned more than $40,000. Almost one-fifth of the teachers (18.6%) earned less than
Table 4.13: Annual salary of Iowa home economics teachers

<table>
<thead>
<tr>
<th>Salary</th>
<th>Number of teachers</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $10,000</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>$10,000 to $14,999</td>
<td>15</td>
<td>9.0</td>
</tr>
<tr>
<td>$15,000 to $19,999</td>
<td>14</td>
<td>8.4</td>
</tr>
<tr>
<td>$20,000 to $24,999</td>
<td>38</td>
<td>22.8</td>
</tr>
<tr>
<td>$25,000 to $29,999</td>
<td>44</td>
<td>26.3</td>
</tr>
<tr>
<td>$30,000 to $34,999</td>
<td>37</td>
<td>22.2</td>
</tr>
<tr>
<td>$35,000 to $39,999</td>
<td>11</td>
<td>6.6</td>
</tr>
<tr>
<td>$40,000 to $44,999</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>$45,000 to $49,999</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>No Response</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>167</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

$20,000. This can be explained by the fact that 33% of the teachers who responded were in part-time appointments. Two-thirds (67.7%) of the respondents, therefore, reported earning less than $30,000. In 1991 the average annual salary for an Iowa full-time teacher was $28,000 (Legislative Fiscal Bureau, 1991). For the present study, a precise average annual salary cannot be calculated because the annual salary was asked to be reported within $5,000 ranges. In addition, part-time teachers were also asked to report their salary which makes it impossible to calculate the average annual salary for the full-time teachers.
Perceived future for home economics in schools

The third section of the questionnaire called the “Future Likelihood Scale” was designed to assess teachers’ beliefs about the future of the home economics teaching profession. By responding to 26 items describing possible futures, teachers indicated their perceptions of likelihood for each scenario in the next year, in five years, and in ten years. Responses were recorded on a five-point Likert-type scale ranging from never (coded as 1) to definitely (coded as 5). The teachers’ responses to each item (i.e., never or definitely, etc.) gave a measure of how teachers perceive the future of home economics teaching profession for the next year, in five years, and in ten years, with high values indicating optimism about the future of the profession and low values indicating pessimism. Negatively-oriented items (items 18, 23, and 24) were reverse coded for analysis, so that all items had the higher number representing optimism.

Total means were computed for each time period (next year, in five years, and in ten years) for 25 of the 26 items of the Future Likelihood Scale. Item 6, was not included in the final calculation of the total means because it was decided retrospectively that it did not fit theoretically with the rest of the items. In addition, reliability increased by its elimination.

Figure 4.2 shows that while the mean was 3.0 for the year 1992, for the year 1997 it increased to 3.3, and for the year 2002 it increased to 3.5. Based on results of the analysis of variance, (computed as a part of the statistics for reliability), there is a significant difference among the three means at the \( p \leq .001 \). To clarify where this differences lay, three t-tests were calculated next for 1992 and 1997, 1997 and 2002, and 1992 and 2002. Because predictions were to be made for three t-Tests in order
to decide the probability, one of Bonferroni's inequalities was used (Snedecor and Cochran, 1989). According to this procedure, in order to obtain the probability for n t-tests, the probability alpha (\( \alpha \)) has to be divided by n. For example, if we want to make predictions at \( \alpha = 0.005 \) for n=10 predictions, we use \( t_{0.005/10} = t_{0.0005} = 3.58 \) instead of \( t_{0.05} = 2.23 \). By using the Bonferroni's inequalities, it was clear that the two means for 1997 and 2002 were both significantly higher than the mean for the year 1992. These results indicate that current teachers were moderately optimistic about the future of the home economics teaching profession for next year and that they believe the outlook will be moderately better in ten years.

Figure 4.2: Teachers' perceived future for home economics in schools

*** P < 0.001
Reliability: Reliability is one of the most important assessments of measurement devices. According to Gronlund (1985), reliability provides the consistency that makes validity possible, and indicates how much confidence we can place in our results. For the Future Likelihood Scale, Cronbach's alpha coefficient of internal consistency for the 25 items was calculated for each time period. For “next year,” $\alpha$ was 0.79, for “in five years” it was 0.80, and for “in ten years” it was 0.81.

Perceived curricular trends

The fourth section was developed to assess home economics teachers' beliefs about specific curricular trends in home economics for the next decade and the expectations they have for their own schools' program. For this reason ten “traditional” and 14 “progressive” items were developed. The ten “traditional” items (items 1, 2, 4, 7, 12, 13, 14, 15, 20, and 23) were home economics objectives that some home economics teachers may continue to teach but are believed by many to be outdated and not serving the needs of students in contemporary society. The 14 “progressive” items (items 3, 5, 6, 8, 9, 10, 11, 16, 17, 18, 19, 21, 22, and 24) were home economics objectives that are judged to be serving contemporary needs of students.

Teachers participating in the study were asked to indicate if they believed each objective would be included in their home economics program next year, in five years, and in ten years by selecting either “yes” (coded as 1) or “no” (coded as 0) as the answer. They were not given information about the “traditional” and “progressive” labels that would be attached to the items during data analysis. Total means were calculated for each group of the “traditional” and of “progressive” objectives for each of the three time periods. Figure 4.3 shows the total mean scores for the “traditional” and
"progressive" objectives over the three time periods. Using Bonferroni’s inequalities, nine t-Tests were calculated: six to identify if total means were significantly different for each group of the “traditional” ($T_N^T F$, $T_N^T T$, $T_F^T N$) and “progressive” ($P_N^IP_F$, $P_N^IP_T$, $P_F^IP_N$) objectives over the three time periods and three to identify if the total means for the “traditional” and “progressive” objectives ($T_N^N P_N$, $T_F^F P_F$, $T_T^T P_T$) were significantly different from each other for each time period. Results indicate that for all three time periods, current teachers reported teaching “progressive” objectives significantly more than “traditional” ones. This means that teachers are adjusting curricula in progressive directions to meet the needs of today’s students, and thereby preparing them to meet the needs of tomorrow’s society. However, although there are statistically significant changes, questions about the practical significance of the changes could be raised.
For this fourth section of the questionnaire, 15 more items were developed and provided in a subsection to determine teachers' beliefs about entire program areas in home economics and their likelihood to be continued or eliminated in the future. Content areas were taken directly from the Iowa Home Economics Education Program Management Guide (Davison et al., 1991), which divides them into three program areas, family and consumer sciences, home economics occupations and general skills. Under each program area, more specific home economics content areas were included. Participating teachers were asked to indicate if they believed each content area would be included in their home economics program next year, in five years, and in ten years by selecting either "yes" (coded as 1) or "no" (coded as 0) as the answer. Total means were calculated for each of the three broad program areas. Figure 4.4 shows the total means for each of these three program areas for the three time periods. Results indicate that teachers are currently teaching significantly more of the area called family and consumer sciences in Iowa than they are the other two areas. Teachers project that they will continue at these same high levels in the future. For home economics occupational programs, the total means increased very slightly over the period of the next ten years, but this increase is not statistically significant indicating that teachers expect here, too, to make little change. For general skills subject areas teachers predict will become more common during the next five years and then be maintained at that level for the next five years. However, the increase is not a statistically significant one. These results that indicate little change as projected by teachers among the three broad kinds of home economics programs may be unique to Iowa. The majority of occupational programs in Iowa are offered at the community college level. Also, the area conceptualized as general skills by the
Figure 4.4: Perceived subject areas trends

Iowa Department of Education (as presented in the Iowa Home Economics Education Program Management Guide, Davison et al., 1991), is not commonly conceptualized in this way by other states.

**Career movements**

Section five of the instrument for teachers consisted of 10 items. The first nine were designed to identify teachers' career plans for next year, in five years, and in ten years. Figure 4.5 reveals information regarding the expected career movements of the participating teachers. For those teachers who ignored directions to select only
Table 4.14: Teachers' age at retirement

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>50 to 55</td>
<td>7</td>
<td>11.3</td>
</tr>
<tr>
<td>56 to 60</td>
<td>24</td>
<td>38.7</td>
</tr>
<tr>
<td>61 to 65</td>
<td>28</td>
<td>45.2</td>
</tr>
<tr>
<td>66 to 70</td>
<td>2</td>
<td>3.2</td>
</tr>
</tbody>
</table>

one choice for each time period and made more than one, the choice given first was arbitrarily chosen as the most likely one for the purposes of analysis. Results are cumulative over time. In the next five years almost 6% of the current teachers will retire while 63% plan to remain in the same job. By 2002, however, a quarter (25.5%) of current teachers plan to retire, 42.4% plan to move to other careers, and only a little over a quarter (26.6%) plan to remain in the same job. This means that of the 165 respondents, only 44 expect to be teaching home economics. Projected to the total population of 698 home economics teachers in Iowa, this means that 181 might be expected to be teaching, leaving 517 positions to be filled if indeed the future for the curriculum is stable or increases somewhat.

The question about retirement also asked teachers to provide their anticipated age at retirement. This item was answered by 62. Data in Table 4.14 show that the great majority of the teachers (83.9%) are planning to retire when they are between ages 56 and 65, and only 3.2% plan to retire when they are between the ages of 66 and 70. This suggests that although the laws about mandatory retirement ages are changing, home economics teachers do not plan to take advantage of the opportunities to work longer than they have been able to do earlier.
Figure 4.5: Career movements
With the tenth item, teachers were encouraged with an open-ended question to share their thoughts about their job and the profession of home economics now and in the future. More than half (53.3%) of the teachers took the time to write their thoughts. The teachers' input on this question was more than expected. Some teachers used the entire $5\frac{1}{2}$ inch by $8\frac{1}{2}$ inch page and some even included an extra piece of paper. The "rich" data collected from this question are available for another researcher to study using qualitative research methodologies. Results can complement the results of this present study by adding perspective about the views, concerns, and ideas of home economics teachers regarding their profession at the present and in the future. However, for the purpose of this study, only a general overview of the comments will be given.

A review of the comments revealed the following:

- There is still a number of teachers who want to see the emphasis in home economics classes remain in food preparation, nutrition and sewing. One of these teachers stated that she became a home economics teacher specifically because she liked to sew and that she was disappointed by the fact that a class in clothing construction is becoming rare. She finished her comment by asking, "What area will interest the student now to be a home economics educator?"

- In contrast, there are teachers who stated that they believe the home economics curriculum needs to change because it is "out-of-touch," and "geared to the 1950's." One believed it was time to show others that the home economics teacher is no longer a "Betty Crocker."

- A number of home economics teachers believed that home economics already
has started to change from traditional courses to more “appropriate topics for our changing lifestyles.” These teachers see more emphasis on life skills such as money and time management, maintaining physical and emotional health, consumerism, family relationships, communication, parenting, self-esteem and decision making while they continue to keep food preparation and sewing skills as a minor part of their curriculum.

- A number of teachers, especially those working in rural areas where small schools are common reported that they have had their appointment cut back to part time but there will be many of those part-time positions available for home economics teachers in the future.

- Other teachers reported that they felt insecure about their jobs. Reasons stated were that: 1) parents, administrators and guidance counselors view home economics in schools as “a low-priority subject” (an attitude needing to be changed), 2) emphasis is on meeting new state graduation requirements that do not include home economics and on college preparation courses, and 3) budget problems that administrators face often leads them to tend to cut courses in home economics because this is easier than eliminating courses in foreign languages or art.

- Another point that teachers brought up was that home economics teachers as a profession fail to “toot our own horn” about programs and contributions offered by home economics. This has meant that teachers in other areas have added health, consumerism, life skills, etc., to their curriculum, “encroaching” on home economics content and leading to home economics “extinction” because
home economics teachers have not been proactive in making themselves and their professional contributions more visible to the public.

• A part of the teachers stated that they feel unappreciated, taken advantage of and burned out as home economics teachers. In addition to the above, those teachers that were one person in the home economics department in schools felt isolated and burned out because of the big amount of paper work.

• On the other side there were teachers that reported that they feel great and they were proud to be home economics teachers. They stated that they loved their career, they were optimistic about the years to come and they were pleased with their position. These teachers stated that have adapted their classes to meet the demands/interests of today's students They reported high enrollments and they blame low enrollments in home economics classes in some schools in the outdated curricula. In addition, they believe that home economics classes will be in demand if home economics teachers change their classes to meet needs of today's society. They stated also that parents and administrators recognize importance of family thus importance of the home economics courses.

• Almost all teachers (pessimistic and optimistic about the future of home economics) agreed that home economics courses will be necessary for the future and that kids now and in the future will need more than ever the life long skills that home economics courses offer.

• A great majority of the teachers mentioned the need for health certification.
Information collected from principals

The principal's version of "The Iowa Home Economics Curriculum and Careers Survey" consisted of three sections. These three focused on information about the school, the principals, how principals perceive the future for home economics in schools and curricular trends for home economics.

Even though mailed questionnaires were returned from 161 principals (86.5% of the sample), in the process of data entering, data from seven principals were entered twice because those seven principals had two home economics teachers in their schools. In that way, comparison of responses between teachers and the principals was possible. Therefore results of data analysis is based on the sample N=168, instead of N=161.

Results from the analysis of data will be presented in three sections. 1) Information about the school and the principal. 2) Principals' perceived future for home economics in schools. 3) Principals' perceived curricular trends.

Information about the school and the principal

In the first section of the principals' version of the questionnaire, principals were asked to report the level of the school that they administer, if they had a full time appointment, information regarding their education, their gender, and the enrollment in home economics classrooms for grades six to twelve. Specific data for each question are given below.

School level(s) that principals administer. Principals were asked to check among middle, junior high, high, and senior high school what level(s) they were administering. As shown in Table 4.15, the majority of the principals (62.5%) reported
administering a high school, while the least number of the administrators (11.3%) reported administering a senior high school. Principals here were asked to check all levels that applied to them, so some principals checked more than one. This explains the fact that the total number of principals reported to be administering middle, junior high, high and senior high schools (N=232) exceeds the number of teachers who participated in the study (N=168).

**Principals' appointment status.** From the participating principals (N=168), 163 (97%) reported to have a full-time job and only 5 principals (3%) had part-time appointments.

**Educational level.** Only 66% of the principals reported their Bachelors degree, when asked to indicate degrees earned in an open-ended format. Instead they reported the higher degree they held. From Table 4.16 it is obvious that the great majority of the principals hold a Masters degree, 20.8% hold a specialists certificate and 15 principals (9%) hold a doctorate degree.

**Year of degree.** For the first degree each reported, whether the bachelors or an advanced degree, as it is clear from Table 4.17, the majority of the principals (53.6%) received their degrees between 1961 and 1980, and 21.4% received their first-reported degree between 1981 and 1990. For those reporting a second degree,
Table 4.16: Educational level

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number of Principals</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors</td>
<td>111</td>
<td>66.0</td>
</tr>
<tr>
<td>Masters</td>
<td>151</td>
<td>89.8</td>
</tr>
<tr>
<td>Specialist</td>
<td>35</td>
<td>20.8</td>
</tr>
<tr>
<td>Doctorate</td>
<td>15</td>
<td>9.0</td>
</tr>
</tbody>
</table>

Table 4.17: Years that participating principals received their degrees

<table>
<thead>
<tr>
<th>Time period</th>
<th>Number of teachers</th>
<th>First degree</th>
<th>Second degree</th>
<th>Third degree</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Valid Percent</td>
<td>n</td>
<td>Valid Percent</td>
</tr>
<tr>
<td>1950 to 1960</td>
<td>19</td>
<td>12.3</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>1961 to 1970</td>
<td>45</td>
<td>26.8</td>
<td>27</td>
<td>16.0</td>
</tr>
<tr>
<td>1971 to 1980</td>
<td>45</td>
<td>26.8</td>
<td>53</td>
<td>31.5</td>
</tr>
<tr>
<td>1981 to 1990</td>
<td>36</td>
<td>21.4</td>
<td>29</td>
<td>17.3</td>
</tr>
<tr>
<td>1991 to 1992</td>
<td>7</td>
<td>4.2</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Not applicable</td>
<td>3</td>
<td>1.8</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>No response</td>
<td>13</td>
<td>7.7</td>
<td>47</td>
<td>28.0</td>
</tr>
</tbody>
</table>

only 4.8% reported that they earned it before 1960. The majority (31.5%) of those reporting a second degree received it during the 1970s. About one fourth (26.2%) of the principals reported a third degree. Of those, 16% got their degrees during the 1970s and 1980s.

**Major.** For the first degree reported, 68 principals (40.5%) reported administration as their major, 18 principals (10.7%) reported physical education as their major, while 16 (9.5%) reported education and 10 (6.0%) reported math as their majors. Five principals (3.0%) reported home economics education as their major. From those reporting that they hold a second degree and also reported the major for
that degree (N=168), the majority (63.6%) reported administration as their major. One principal reported home economics education as the major of the second degree. Finally from those 44 principals holding a third degree, and stated their major, 30 (68.1%) reported administration as the major for that degree.

**Institution.** For the first degree reported, a total of 104 (66.2%) principals of 157, reported that they received their degrees in Iowa. Of those 104 principals who graduated from Iowa, 41 (39.4%) got their degree from UNI, 22 (21.1%) from ISU, 9 (8.6%) from University of Iowa, 16 (15.4%) from Drake University, and five from other colleges in Iowa. Eleven principals did not report the universities from which they got their degrees.

For those reporting a second degree, a total of 65 (55.0%) principals out of 118 reported that they received their degrees in Iowa. From those 65 principals, 30 were graduates of UNI, 11 from Drake University, 9 from ISU, 7 from University of Iowa, and 2 from other colleges in Iowa.

For the third degree reported, 30 (66.6%) out of the 45 principals who stated the university and the state from which they graduated, were graduates from Iowa schools. From those 30 principals, eight graduated form ISU, eight from UNI, three from the University of Iowa, six from Drake University, and two from other colleges in Iowa.

**Gender.** One hundred fifty six principals (93%) out of 168 were males.

**Size of the student body.** From Table 4.18, it is clear that more than half the principals (54.8%) reported that their school have from 200 to 599 students enrolled. Another 16% of the principals reported enrollments in the range of 100–199, 10.4% reported a range of 600 to 799 students, while another 10% reported a range of 1000
Table 4.18: Size of the student body (N=168)

<table>
<thead>
<tr>
<th>Number of students</th>
<th>Number of principals</th>
<th>Valid percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 100</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>100 – 199</td>
<td>27</td>
<td>16.0</td>
</tr>
<tr>
<td>200 – 399</td>
<td>51</td>
<td>30.4</td>
</tr>
<tr>
<td>400 – 599</td>
<td>41</td>
<td>24.4</td>
</tr>
<tr>
<td>600 – 799</td>
<td>17</td>
<td>10.4</td>
</tr>
<tr>
<td>800 – 999</td>
<td>6</td>
<td>3.6</td>
</tr>
<tr>
<td>1000 – 2000</td>
<td>17</td>
<td>10.1</td>
</tr>
<tr>
<td>Over 2000</td>
<td>3</td>
<td>1.8</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
<td>1.2</td>
</tr>
</tbody>
</table>

to 2000.

Enrollment in Home Economics Courses. Principals here were asked to enter the total number of students enrolled in all home economics courses at each grade throughout the entire 1991-1992 school year. Table 4.19 shows that grades 7 and 8 have the greatest enrollment followed by grades 12, 11 and 10. Five principals reported only a composite enrollment in their home economics courses for all grade levels without providing a breakdown by grade. So the total reported enrollment for grades 6 through 12 was 38,122.

The last information available regarding home economics enrollments in schools from school-year 1985-86 (Iowa Department of Public Instruction, 1986; Legislative Fiscal Bureau, 1991), when the total enrollments in home economics courses for grades 9 through 12 throughout Iowa was reported to be 54,101. For the present study, enrollment for grades 9 through 12 was reported to be 13,838, not including that for the five principals who reported only composite enrollments. Accurate comparisons are not possible between the present study and the reports of the Iowa De-
Table 4.19: Enrollment in home economics courses

<table>
<thead>
<tr>
<th>Grades</th>
<th>Number of students</th>
<th>Number of principals</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>2,736</td>
<td>46</td>
</tr>
<tr>
<td>7</td>
<td>10,081</td>
<td>92</td>
</tr>
<tr>
<td>8</td>
<td>10,405</td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>3,722</td>
<td>98</td>
</tr>
<tr>
<td>10</td>
<td>2,564</td>
<td>93</td>
</tr>
<tr>
<td>11</td>
<td>3,577</td>
<td>93</td>
</tr>
<tr>
<td>12</td>
<td>3,975</td>
<td>92</td>
</tr>
<tr>
<td>All grades together</td>
<td>1,062</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>38,122</td>
<td>NA</td>
</tr>
</tbody>
</table>

department of Public Instruction, of course, because the results of the present study are based on a sample, while the reports of the Iowa Department of Public Instruction are based on a total census. However, if one projects the sample enrollment reported by the 30% sample to the population, that projection would be about 52,000 students, indicating little decrease or increase in high school home economics enrollments. When comparing results of the present study with the results of an older study “Iowa Census Study of Secondary Vocational Consumer and Homemaking Programs” (Woods, 1981), however, one may assume some decrease in enrollment over that longer period. During the 1979–80 school year, enrollments in home economics courses for grades 9 through 12 based on reports of 98 home economics teachers, about half the number in our present study was 24,330. This may suggest that any decrease in enrollment in high school home economics occurred between 1979–80 and 1985–86 have since been relatively stable.
Perceived future for home economics in schools

The section of the questionnaire was designed to assess principals' beliefs about the future of home economics programs in schools. The same twenty-six items used in the teachers' version of the questionnaire were used. Items were describing possible futures and principals were asked to indicate their perceptions of likelihood for each scenario for home economics in schools next year, in five years, and in ten years. Responses were requested in the same way that they were for teachers, on a five-point Likert-type scale ranging from never (coded as 1) to definitely (coded as 5). Principals' responses to each item gives a measure of how principals perceive the future of the home economics teaching profession for the next year, in five years and in ten years.

For the analysis of the data for this section, the same procedure used for the information collected by the teachers was followed. Figure 4.6 shows that while the mean for the year 1992 was 2.82, for the year 1997 it becomes 3.06 and for the year 2002 it is 3.14. Based on results of the analysis of variance table, it was clear that there is a significant difference among them. By using Bonferonnis' theory, it was clear that both means of 1997 and 2002 were significantly higher. The mean for the year 1992 (x=2.82) indicates that principals are neutral and leaning towards slight pessimism about the home economics profession for the next year; however their beliefs became moderately more optimistic for the future.

Reliability. The Cronbach's alpha coefficient of the internal consistency for the 25 items was calculated for the principals' version of the questionnaire for each time period. The alpha for the time period of the next year was \( \alpha = 0.76 \), for five years was \( \alpha = 0.78 \), and for the ten year period was \( \alpha = 0.80 \).
Figure 4.6: Principals' perceived future for home economics

*** \( p < 0.001 \)
Perceived curricular trends

This section was developed to assess school principals' beliefs about specific curricular trends in home economics for the next decade and the expectations they have for their own schools' program. For this reason the same 10 "traditional" and 14 "progressive" items as described in the teachers questionnaire were used.

Principals participating in the study were asked to indicate if they believed each objective would be in their home economics program next year, in five years, and in ten years by selecting either "yes" (coded as 1) or "no" (coded as 0) as the answer. Total means were calculated for the "traditional" and "progressive" objectives over the three time periods (see Figure 4.7).

Results indicated that for all three time periods (next year, in five years, and in ten years) principals reported that they expect to provide significantly more "progressive" than "traditional" curricular to meet needs of student over the next decade. By looking at the mean scores for "traditional" and "progressive" objectives over the three time periods, it is clear that principals are planning to use significantly more "progressive" curricula five and ten years from now, when compared with the next year and, at the same time, planning to significantly reduce the "traditional" components of the curriculum.

In the third section of the questionnaire, 15 other items, again the same as used for the teachers, were used to describe principals' beliefs about entire subject matter areas roles in future home economics programs. The subject matter areas were divided into the three areas used in Iowa: family and consumer sciences, home economics occupations and general skills. Total means were calculated for each of the three subsections over the three time periods (see Figure 4.8). Results indicate that
Figure 4.7: Principals' perceived curricular trends
Figure 4.8: Importance attributed to home economics areas over the next ten years as perceived by principals
principals expect that the areas of Family and Consumer Sciences and Home Economics Occupations may be very slightly reduced over the next ten years. Although there is a statistically significant decrease for Family and Consumer Sciences from 1997 to 2002, the practically significance decrease is interpreted as minor. The general skills are is perceived by principals to increase somewhat. Again, the statistically significant difference should be interpreted in relation to professional interpretations of practical significance.

Principals, in the last section of the questionnaire were encouraged to share their thoughts about home economics teaching now and in the future, through the use of an open-ended question, as had also been done with the teachers. Only 45 principals (26.8%) took the time to write their comments. For the purpose of this study, a general review of the collected comments will be given. The major themes that came out of the review are the following:

- Some principals stated home economics courses "are going down hill fast" and they are among the first to be cut. The reason is low interest shown from the students and budget cuts.

- Other principals agreed that home economics courses face low enrollments. Students have little choices and the time to meet requirements and college preparation courses, and no time to take elective home economics offerings. In addition in the last years there is an increase of student curriculum choices in the computer, math and science areas.

- Some principals reported that low enrollments is justified by the outdated curriculum, which is no longer relevant to student needs. They expressed the need
to change and reconstruct the curriculum.

- Another point made by few principals was that they are offering courses covering the objectives used in the questionnaire but they are not called home economics. One principal stated that many of the objectives were under two courses required for graduation, living skills and relationships, but they are not offered by the home economics department.

- Several principals reported that home economics has already moved beyond the stereotype of being only "girls courses", and that while home economics courses continue to include foods and clothing concepts, they also expanded their curriculum to include more health and family-related courses.

- Some principals reported that they would like to see more emphasis in the home economics curriculum on the following areas: an updated food and nutrition curriculum (concentrating on diet, fast foods, and using the microwave), health and sexuality, parenting and relationships, child development, personal life skills, family living and more information on family and social issues.

- Some principals reported that there is a need to change the name from home economics in order to attract male participation. Suggested names were living skills, human living and relationships.

- Most of the principals, including some of those that plan to cut home economics due to low enrollments and budget cuts, stated that they believe there is a need in society for home economics programs. They justify this by adding that students live in changing family structures and do not always learn basic skills
in other settings. Principals stated that the work of home economics teachers is “commendable” and is “very practical and useful information”.

Comparison between information from teachers and principals

In the previous two sections, results of data analyses for information collected from the teachers and the administrators was presented. In this section, the comparisons between the teacher and principal information will be presented.

Each teacher and principal answered versions of the “Iowa Home Economics Curriculum and Careers Survey” that included exactly the same sections for two areas: perceptions of future likelihood and perceptions of future curricular trends.

There were 140 matched pairs of teachers and principals at the same school, a 73.3% response rate for pairs among the 191 potential pairs in the study sample. For the data analysis in this section, new total means with N=140 were therefore calculated for the teachers and the principals. So the means presented here are different than the means presented in the previous sections because the results are based only on the number of matched pairs (N=140). Results from the analysis of the data provided by the teachers and the principals from the same school will be presented for each of the two areas of the questionnaires that were identical: 1) comparison of the perceptions about the future of home economics in schools, and 2) comparison of perceptions regarding curricular trends.

Comparison of perceptions about the future of home economics in schools

Both teachers and principals answered the “Future Likelihood Scale”, which was designed to assess their beliefs about the future of the home economics teaching pro-
Figure 4.9: Comparison of perceptions regarding the future of home economics

fession. Figure 4.9 shows the total means for each time period (next year, five years, ten years) for both teachers and principals in the 140 matched pairs. T-test results indicated that there is no significant difference on how teachers and principals perceive the future of home economics profession for the year 1992. The means for both teachers and principals was the same, x=2.8, which indicated that both teachers and principals were moderately pessimistic about the home economics teaching profession for the year 1992. For the periods five and ten years in the future, the means increased for both teachers and principals, showing that their perceptions become more optimistic over time. Home economics teachers were found to perceive the future of their profession for the years 1997 and 2002 as significantly more optimistic than did principals. However, this difference was not statistically significant. In addition, the practical significance of these differences is rather limited.
Comparisons of perceptions regarding curricular trends

Both teachers and principals answered the section which was developed to assess their beliefs about specific curricular trends in home economics for the next decade and the expectations they have for their own school's program. The first part of this section consisted of 24 items (the ten "traditional" and 14 "progressive" objectives described in previous sections). Both teachers and principals were asked to indicate if they believed each objective would be included in their home economics program next year, in five years and in ten years without knowing the information about the traditional and progressive labels that would be attached to the items during data analysis.

Total means were recalculated for both teachers and principals in the 140 matched pairs for each time period and for each group of "traditional" and "progressive" objectives. T-tests were used to identify if there were significant differences between teachers and principals for the same group of objectives for each of the three time periods. From Table 4.20, it is clear that both teachers and principals in the matched pairs reported a similar perceived future for "progressive" objectives. Both teachers and principals predict an increase in the inclusion of "progressive" objectives for the next ten years. However, this increase is not a statistically significant one, as shown in the table.

Table 4.21 shows that there is a statistically significant difference in the way that teachers and principals perceive the use of the "traditional" objectives in the curriculum for the 1992 academic year, with the principals perceiving significantly higher use as compared to the teachers. However, when we look at the results for the periods five years and ten years from now, it is obvious that principals see a sharper
Table 4.20: Means for perceptions regarding “progressive” home economics curricular trends for three future time periods as reported by teachers and their principals

<table>
<thead>
<tr>
<th>Year</th>
<th>Teachers</th>
<th>Principals</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>.91</td>
<td>.93</td>
<td>139</td>
</tr>
<tr>
<td>1997</td>
<td>.94</td>
<td>.96</td>
<td>134</td>
</tr>
<tr>
<td>2002</td>
<td>.94</td>
<td>.96</td>
<td>129</td>
</tr>
</tbody>
</table>

Table 4.21: Comparisons of perceptions regarding “traditional” curricular trends

<table>
<thead>
<tr>
<th>Year</th>
<th>Teachers</th>
<th>Principals</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>.69</td>
<td>.76</td>
<td>139</td>
</tr>
<tr>
<td>1997</td>
<td>.63</td>
<td>.67</td>
<td>135</td>
</tr>
<tr>
<td>2002</td>
<td>.59</td>
<td>.59</td>
<td>131</td>
</tr>
</tbody>
</table>
Table 4.22: Importance attributed to home economics areas over the next ten years as perceived by teachers and principals

<table>
<thead>
<tr>
<th>Year</th>
<th>Family and Consumer Sciences</th>
<th>Home Economics Occupations</th>
<th>General Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teachers</td>
<td>Principals</td>
<td>Teachers</td>
</tr>
<tr>
<td>1992</td>
<td>.91</td>
<td>.94</td>
<td>.69</td>
</tr>
<tr>
<td>1997</td>
<td>.91</td>
<td>.94</td>
<td>.62</td>
</tr>
<tr>
<td>2002</td>
<td>.91</td>
<td>.91</td>
<td>.66</td>
</tr>
</tbody>
</table>

decrease in the use of such objectives than do teachers, so that by 2002 the scores for each group are identical.

Both teachers and principals also answered the 15 items which were developed to determine beliefs about the three home economics program areas of family and consumer sciences, home economics occupations and general skills as they are defined in the state of Iowa. The items provide a measure of their perception related to the likelihood of each of three areas to be continued or eliminated in the future. Total means for each of the three program areas for both principals and teachers for 1992, 1997, and 2002 are presented in Table 4.22.

Results indicate that both teachers and principals perceive that the family and consumer sciences programs will continue to be the most prevalent component of the home economics curriculum over the next ten years, with means consistently ranging above .91 on the 0.0–1.0 scale.

For the home economics occupations programs, those that develop wage-earning
skills in areas such as food service and child day care, there is, however, a statistically significant difference in the way that teachers and principals perceive this area for the next year and for the next five years. The principals predict that the home economics occupational programs will be more prevalent in the curriculum than do the teachers, although the practical difference may not be great. As mentioned earlier, the majority of occupational programs now offered in Iowa, are at the community college level. Principals may be reacting to information they have about the potential for more occupational programming at the secondary school level. It is interesting to note, however, that the trend is perceived by teachers to be slightly upward over the next ten years while principals see it is to likely be slightly downward.

For the general skill areas both principals and teachers feel that this area will become more common during the next ten years as a component of home economics curriculum. While the total means for principals were higher than those for teachers, there were no statistically significant differences.
The purpose of this study was to identify the need for home economics teachers in Iowa's public schools for the next decade. Teacher need has been defined as the discrepancy that occurs when the demand for teachers exceeds the supply of available and willing teachers with requisite certifications and qualifications. Based on the above definition for teacher need, the teacher supply and demand equation with the factors that influence both teacher supply and teacher demand was developed. Factors that influence teacher supply are: 1) the number of teachers prepared, 2) the age of the teacher force as related to potential retirements, and 3) the number of teachers resigning or expecting to make career changes. Factors influencing teacher demand are: 1) the number of students enrolled and 2) the decisions to increase, decrease or eliminate course offerings based on societal needs and related curriculum developments. The equation, therefore, provides information on the balance between supply and demand when information about each of the factors is available.

More specifically, the proposed objectives for this study were to identify:

1. home economics teachers' personal retirement and resignation plans.

2. home economics teachers' perceptions about curricular trends in home economics for the next decade and expectations they have for their schools' pro-
grams.

3. school principals' perceptions about curricula trends in home economics for the next decade and plans they have for their schools' programs.

4. student enrollments in home economics classrooms.

With these objectives met, the variables in the supply and demand equation related to the need for home economics teachers in Iowa for which data are not available will be quantified.

A sample of 200 (28%) from a total list of 698 teachers was selected using a random-number generating computer program. For each teacher selected, the corresponding principal was identified. Because fifteen of the schools had two home economics teachers selected, the total number of principals in the study was 185.

To obtain the data necessary to accomplish the objectives of this study, a mailed questionnaire was the chosen format. A review of existing instruments used in similar studies did not provide an instrument which could be adopted to fit the objectives of this study. Therefore, new questionnaires were developed, one for teachers and a second one for administrators. A few items from previous questionnaires were included in the development of the new questionnaires, either unchanged or with proper modifications.

As a result, one instrument titled "The Iowa Home Economics Curriculum and Careers Survey" was developed to gather information from home economics teachers. It consisted of five sections: 1) information about the teachers, 2) demographic information, 3) the Future Likelihood Scale, 4) future plans for the teachers' school home economics program, and 5) the teachers' career and retirement plans. A second
instrument with the same title was developed to collect data from school principals. It was a modified version of the one developed for the teachers that contained three sections: 1) information about the school, 2) the Future Likelihood Scale, and 3) the principals’ future plans for the school’s home economics program.

Both instruments were reviewed by 13 home economics education and home economics evaluation professionals involved in higher education in Iowa to verify that the instruments appeared to measure what they were intended to measure. The instruments were also sent to 15 home economics teachers and their corresponding principals who met the same criteria as for the final sample but who were not included in the final sample. The returned questionnaires from the higher education professionals and school teachers and principals were examined for comments, questions, and ease in responding. Based on this examination, revisions were made and the final copies of the questionnaires were mailed to the sample on January 20, 1992. One-hundred, sixty-three out of 192 teachers returned usable questionnaires for the data analysis, so a response rate of 87% was built. Out of 184 principals, 161 returned usable questionnaires, yielding a response rate of 87.5%. The respondents included 140 matched pairs of teachers and principals at the same school, a 73.3% response rate for pairs. To build such a high response rate, strategies such as an “alert” post card sent a week prior to the questionnaire mailing, original letterhead and signatures for the cover letter, personalized letters, an easy-to-follow questionnaire format, postage stamps, typed envelopes, and two follow-up mailings to non-respondents were used.

The completed questionnaires were coded in a manner suitable for statistical analysis. A statistical program was developed to allow separate analyses for the teachers and principals’ questionnaires as well as comparisons between them. The
data were analyzed using descriptive statistics as well as inferential statistics including analysis of variance and t-tests. The results from the data analysis are summarized in three sections: 1) information from teachers, 2) information from principals, and 3) comparisons between information from teachers and principals.

**Information from teachers**

Analysis of the data collected from teachers revealed that 63.5% of them taught in high schools and 77% had a full-time position. Thirty nine percent of the teachers reported teaching other subject areas in addition to home economics with the majority of them (75.7%) teaching health. With regard to the home economics curriculum, the results showed that home economics teachers in Iowa do not focus only on the traditional foods and clothing content areas. While foods, nutrition, textiles, and clothing are taught by most if not all respondents, other subject areas such as consumer education, family living, parenthood, individual and family health, housing, and resource management also have a solid place in the curriculum.

With regard to the personal characteristics of teachers, all but two of them were females. The majority of the teachers (72.5%) were above 40 years of age and the median age was 45, significantly higher than the reported median age of all secondary teachers which was 41.

All participating teachers held BS or BA degrees. Thirty-two teachers (19.7%) had a Master's degree and eight (4.9%) had a specialist or doctorate degree. Half of the teachers reported that they received their degrees before 1970 and just 10.7% reported that they received their degrees after 1981. The majority (72.6%) received their BS or BA degrees in Iowa institutions.
Concerning the future of the home economics profession, teachers were moderately optimistic about the very near future (next year) and they believed that the outlook would be even slightly better in ten years. The teachers also reported that they will be teaching “progressive” topics significantly more than “traditional” ones next year, in five years, and in ten years. This reflects an adjustment of their curriculum to meet the needs of today’s students.

In relation to teachers’ resignations, career changes, or retirement plans, for the next school year (1992-1993), 94% of the respondents planned to remain in the same position, 3% planned to change careers, and 2.4% were unsure about the future. In the next five years, 63% planned to remain in the same job, 14.5% planned to move to another job, 6.1% planned to retire and 16.4% did not have definite plans. By the year 2002, however, only a little over a quarter (26.6%) planned to remain in the same job, with a quarter of the current teachers planning to retire, and 42.4% planning to move to other careers. This means that out of 165 respondents, only 44 planned to be teaching home economics by the year 2002. Projecting these figures to the total number of 698 home economics teachers in Iowa, it follows that over 500 positions will need to filled over the next ten years, provided that other demand factors in the supply and demand equation remain stable.

Information from principals

The majority of the principals (62%) reported administering a high school, others administering junior high, middle, or combination schools. The great majority (89.8%) held a Master's degree, 20.8% held a specialist’s degree, and 9% held a doctorate degree. One-hundred, fifty-six (93%) were males. With regard to the student
body size, 54.8% of the principals reported that their school had between 200 and 600 students enrolled. Only 30% of the principals gave figures on the enrollment in home economics courses. A total enrollment of 38,122 was reported from the sample for grades 6 through 12, while the reported enrollment for grades 9 through 12 was 13,838. Extrapolation of the figures given to the total sample suggests that there is a definite decrease in home economics enrollments when compared to the 1979-1980 figures, but that there is practically no change in high school home economics enrollments when compared to the corresponding 1986 figures.

With regard to the future of the home economics profession for the next year, principals were neutral and leaning toward slight pessimism. However, their beliefs became moderately more optimistic for the profession's outlook in the next decade. As far as the home economics curriculum in their schools is concerned, principals were planning to encourage more "progressive" curricula five and ten years from now as compared to next year's plans, while, in parallel, significantly reducing the "traditional" components of the existing curriculum.

Comparison between information from teachers and principals

For this part of the study, data analyses were based on the 140 matched pairs of teachers and principals. The questionnaires sent to teachers and principals contained two identical sections: a) The Future Likelihood Scale and b) the perceptions of future curricular trends. Comparison were restricted to the information obtained in these two sections.

For the Future Likelihood Scale, the means for both teachers and principals for the next year were the same, indicating that both were moderately pessimistic about
the home economics teaching profession for the year 1992. However, for the periods five and ten years from now, the means increased for both teachers and principals, suggesting that the perceptions of both groups regarding the future of the home economics teaching profession optimistic.

Concerning curricular trends, both teachers and principals foresee an increase in the inclusion of "progressive" topics over the next ten years. However, there is a significant difference in the way that teachers and principals perceive the use of the "traditional" objectives in the 1992-1993 curriculum, with principals forecasting a significantly higher use as compared to teachers. The results for the periods five and ten years from now show that the principals forecast a sharper decrease in the use of "traditional" objectives than do teachers.

Conclusions

The information we obtained by the analysis of the five factors that define the teacher supply and demand equation permit us to draw some final conclusions regarding the need for home economics teachers in Iowa's public schools for the next decade. These conclusions are summarized for each of the five determining factors in the equation as follows:

1. Number of teachers prepared: There have been about ten to fifteen graduates each year for the last five years from the home economics teacher certification program of the Department of Family and Consumer Sciences Education and Studies at Iowa State University, the only program in the State of Iowa that currently prepares home economics teachers. If we consider that 72.6% of the home economics teachers who participated in the study obtained their degrees
from Iowa institutions, it is clear that the supply of home economics teachers depends strongly on the number of Iowa home economics graduates.

2. Age of teachers: In January 1992, more than seventy percent of the practicing home economics teachers in Iowa were between 40 and 65 years old. At the same time, only 4.2% were under the age of 30.

3. The number of teachers resigning or expecting career changes: By the year 2002, 42% of the home economics teachers who participated in the study plan to resign, 25.4% plan to retire, 5.4% were unsure, and only 26.6% plan to remain in their current teaching positions.

4. Student enrollments: Previous studies had projected a slight decrease of only 7% in the next decade for total student enrollments for the state of Iowa. In home economics, it appears that enrollments since 1986 have been stable. These two indicators suggest only a slight decrease in home economics student enrollments by 2002. However, current concerns in society about family relations, parenting skills, and resource management may serve to increase enrollments in home economics.

5. The decisions to increase, decrease or eliminate course offerings based on societal needs and curriculum developments: Home economics teachers were slightly more positive about the future of the home economics profession than were administrators, but both teachers' and principals' perceptions became increasingly more optimistic over the long-term. Both teachers and principals predict that the family and consumer program areas of housing and home management, foods and nutrition, individual and family health, family living and parent-
hood, consumer education, textiles and clothing, and child development will be significant components in their school curriculum. Principals predict that the home economics occupational areas of child care and guidance; home furnishings and equipment; clothing, apparel and textiles; food production and services; and institutional home management will be offered on a larger scale in the future than do teachers. Both teachers and principals predict that the general areas of leadership, job getting and keeping and entrepreneurship will become more common in the school curriculum. Finally, both teachers and principals foresee increases in the offerings of “progressive” objectives such as the development of problem-solving techniques and the description of procedures for prevention and control of diseases while they predict decreases in the use of the “traditional” ones, such as learning of decorating cakes and planning a wedding.

Based on the findings summarized above, it is obvious that although the student enrollment may decrease slightly in the next decade, there will be a strong and continuous need for home economics teachers in Iowa’s secondary schools. The majority of the participating teachers were above 40 years old and only a quarter of those working today plan to remain in their teaching position in ten years. Projecting these results to the total number of 698 home economics teachers in Iowa, only 181 may be expected to be teaching home economics by the year 2002, leaving more than 500 positions to be filled over the ten-year period. At the same time, the number of home economics teachers being prepared in the undergraduate program at Iowa State University is currently expected to meet only a fraction of this demand. This is serious, considering that at the same time both teachers and principals see a continu-
ing need for home economics curricula in their school program. The final conclusion
drawn from the results of this study is that there is going to be a significant need for
home economics teachers in the state of Iowa for the next decade.

Recommendations

Based on the findings of the study, the following four recommendations are made:

1. The Department of Family and Consumer Sciences Education and Studies at
Iowa State University, the only public program in the State of Iowa that now
prepares home economics teachers, should encourage current teachers to recruit
and advise high school students for a potential career in the home economics
teaching profession. In parallel, the department should continue to foster part­
nerships with school administrators as well as the Iowa Department of Educa­
tion to work jointly to update, reorganize, and develop “progressive” directions
for the existing home economics curricula in public schools.

2. This study taking place in Iowa suggests, however, a problem that is regional
and national in scope. Complimentary studies of a similar nature should be
carried out by other states to provide a complete global picture about trends
for home economics teachers and programs.

3. This work focused on quantitative data and broad perceptions about curricular
trends. As a complement or extension of this study, a qualitative analysis
of the ad hoc open-ended comments made by teachers and principals could be
carried out. Such a study could shed light into other aspects of the problem not
addressed here and would, in general, enrich and supplement the quantitative
results obtained in the present study. Another enrichment procedure could be to select a limited number of teachers and principals for in-depth personal or telephone interviews in relation to the same general areas pursued in this study.

4. The study presented in this document could very appropriately be repeated at two- to five-year intervals to provide stronger evidence of developing trends and thereby provide more accurate bases for decision-making and program planning.
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APPENDIX A. TEACHER'S INSTRUMENT
The Iowa Home Economics
Curriculum and Careers Survey

Department of Family and Consumer Sciences Education and Studies
Iowa State University
PLEASE ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR TEACHING THIS YEAR.

1. WHAT LEVEL(S) DO YOU TEACH? CHECK (✓) ALL THAT APPLY.
   ___ Middle school (grades 6-8)
   ___ Junior high school (grades 7-9)
   ___ High school (grades 9-12)
   ___ Senior high school (grades 10-12)

2. DO YOU TEACH FULL-TIME?
   ___ Yes
   ___ No, I have ______ percent appointment.

3. WHAT SUBJECT AREA(S) IN ADDITION TO HOME ECONOMICS DO YOU TEACH?
   CHECK (✓) ALL THAT APPLY.
   ___ No others (skip to question #5)
   ___ Social studies
   ___ Science
   ___ English/language arts
   ___ Math
   ___ Foreign language
   ___ Music
   ___ Health
   ___ Business
   ___ Physical education
   ___ Art
   ___ Other (specify):__________________________

4. WHAT PERCENT OF YOUR APPOINTMENT IS SPENT TEACHING HOME ECONOMICS? PLACE AN (X) ON THE LINE AT THE APPROPRIATE PLACE.

0% 20% 40% 60% 80% 100%
5. **FIRST, CHECK (✓) THE HOME ECONOMICS CONTENT AREAS YOU ARE COVERING THIS YEAR, WHETHER IT IS IN A SURVEY COURSE THAT INCLUDES SEVERAL CONTENT AREAS OR IN A CONTENT-SPECIFIC COURSE THAT MAY LAST ANY LENGTH OF TIME FROM A FEW WEEKS TO NINE MONTHS. NEXT, CIRCLE ALL THE GRADES IN WHICH YOU TEACH ANY AMOUNT OF THE CONTENT AREA.**

<table>
<thead>
<tr>
<th>Content areas (check ✓)</th>
<th>Grades (circle)</th>
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<tbody>
<tr>
<td><strong>Family and Consumer Sciences</strong></td>
<td></td>
</tr>
<tr>
<td>Housing and home management</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Foods and nutrition</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Individual and family health</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Family living and parenthood</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Consumer education</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Textiles and clothing</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Child development</td>
<td>6 7 8 9 10 11 12</td>
</tr>
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<td>Child care and guidance</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Home furnishings and equipment</td>
<td>6 7 8 9 10 11 12</td>
</tr>
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<td>Clothing, apparel and textiles</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Food production and services</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Institutional home management</td>
<td>6 7 8 9 10 11 12</td>
</tr>
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<td>Leadership</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Job getting and keeping</td>
<td>6 7 8 9 10 11 12</td>
</tr>
<tr>
<td>Entrepreneurship</td>
<td>6 7 8 9 10 11 12</td>
</tr>
</tbody>
</table>
WE WOULD NEXT LIKE TO ASK SOME QUESTIONS ABOUT YOU.

1. GENDER: _____ Male _____ Female

2. BIRTH YEAR: 19___

3. DEGREE YEAR INSTITUTION STATE MAJOR MINOR

4. NUMBER OF YEARS YOU HAVE TAUGHT: __________

5. ANNUAL SALARY FOR 1991-1992 SCHOOL YEAR:

   _____ Less than $10,000
   _____ $10,000 to $14,999
   _____ $15,000 to $19,999
   _____ $20,000 to $24,999
   _____ $25,000 to $29,999
   _____ $30,000 to $34,999
   _____ $35,000 to $39,999
   _____ $40,000 to $45,999
   _____ $45,000 to $49,999
   _____ $50,000 and over
FOR EACH STATEMENT BELOW, DO YOU BELIEVE IT WILL HAPPEN NEXT YEAR? IN FIVE YEARS? IN TEN YEARS? CIRCLE THE APPROPRIATE NUMBER IN EACH COLUMN.

KEY:
1. Never
2. Slight Chance
3. Perhaps
4. Probably
5. Definitely

<table>
<thead>
<tr>
<th></th>
<th>Next Year</th>
<th>Five Years</th>
<th>Ten Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>The demand for home economics teachers will increase.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>2.</td>
<td>Home economics will survive funding cutbacks.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>3.</td>
<td>Home economics will add programs to improve wage-earning skills.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>4.</td>
<td>Student enrollments in home economics will increase.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>5.</td>
<td>Home economics will be equally acceptable for boys and girls.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>6.</td>
<td>A large percent of today’s home economics teachers will retire.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>7.</td>
<td>Home economics will prepare students for work roles inside the home.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>8.</td>
<td>Home economics will be a graduation requirement for all students.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>9.</td>
<td>Home economics will improve family practices that enhance human development.</td>
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KEY:
1 Never
2 Slight Chance
3 Perhaps
4 Probably
5 Definitely

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<td>---</td>
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<tr>
<td>13.</td>
<td>Plan a wedding.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>14.</td>
<td>Prepare food from recipes and basic ingredients.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>15.</td>
<td>Establish criteria for selecting silverware and china.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>16.</td>
<td>Evaluate life-style choices in relation to long-term effects on health.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>17.</td>
<td>Use communication skills in everyday life to promote relationships.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>18.</td>
<td>Appreciate diverse family patterns and lifestyles.</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>19.</td>
<td>Learn to use the decision-making process in financial management.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>20.</td>
<td>Construct a garment.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>21.</td>
<td>Establish criteria for consumer decisions.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>22.</td>
<td>Understand the relationship between appearance and self-concept.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>23.</td>
<td>Repair and alter clothing.</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>24.</td>
<td>Learn to consider needs of others in sharing space, equipment and other household items.</td>
<td>Y</td>
<td>N</td>
</tr>
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FOR EACH SUBJECT AREA BELOW, DO YOU BELIEVE IT WILL BE INCLUDED IN YOUR HOME ECONOMICS PROGRAM NEXT YEAR? IN FIVE YEARS? IN TEN YEARS? CIRCLE THE APPROPRIATE LETTER IN EACH COLUMN.

KEY:  
Y = Yes  
N = No

<table>
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<tr>
<th>Family and Consumer Sciences</th>
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<th>Five Years</th>
<th>Ten Years</th>
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</thead>
<tbody>
<tr>
<td>1. Housing and home management.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
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<tr>
<td>2. Food and nutrition.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
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<tr>
<td>3. Individual/family health.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
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<tr>
<td>4. Family living and parenthood.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
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<tr>
<td>5. Consumer education.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>6. Textiles and clothing.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
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<tr>
<td>7. Child development.</td>
<td>Y N</td>
<td>Y N</td>
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<thead>
<tr>
<th>Home Economics Occupations</th>
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<tbody>
<tr>
<td>8. Child care and guidance.</td>
</tr>
<tr>
<td>9. Home furnishings and equipment.</td>
</tr>
<tr>
<td>10. Clothing, apparel and textiles.</td>
</tr>
<tr>
<td>11. Food production and services.</td>
</tr>
<tr>
<td>12. Institutional home management.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>General Skills</th>
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<tr>
<td>13. Leadership.</td>
</tr>
<tr>
<td>14. Job getting/job keeping.</td>
</tr>
<tr>
<td>15. Entrepreneurship.</td>
</tr>
</tbody>
</table>
WHAT BEST DESCRIBES YOUR CAREER PLANS FOR NEXT YEAR? IN ABOUT FIVE YEARS? IN ABOUT TEN YEARS? CHECK (✓) ONLY ONE BOX IN EACH COLUMN. (REMEMBER, WE WILL NEVER IDENTIFY YOUR RESPONSE WITH YOU OR YOUR SCHOOL).

<table>
<thead>
<tr>
<th>Next Year</th>
<th>Five Years</th>
<th>Ten Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Remain in same position</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Seek teaching position elsewhere</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Seek full-time teaching position (if part-time now)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Seek part-time teaching position (if full-time now)</td>
<td></td>
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</tr>
<tr>
<td>5. Seek employment in education other than secondary teaching as...</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• School administrator in a local school district</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Teacher or administrator at community college/university</td>
<td></td>
<td></td>
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<tr>
<td>• Educational specialist (e.g., consultant, counselor, coordinator, or in an AEA)</td>
<td></td>
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<tr>
<td>• Other (specify): ____________________________</td>
<td></td>
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</tr>
<tr>
<td>6. Seek employment outside education. Specify:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Leave work force temporarily. Reason: ______</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Leave work force permanently (before retirement). Reason: ____________________________</td>
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<tr>
<td>9. Retire. Age at retirement: ______________</td>
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</table>
WHAT PROFESSIONAL DEVELOPMENT DO YOU PLAN FOR YOUR FUTURE?
CHECK (✔️) ALL THAT APPLY.

_____ Work for advanced degree(s).
    _____ Masters
    _____ Specialist
    _____ Doctorate

_____ Take graduate courses.

_____ Participate in workshops.

_____ Participate in professional meetings.

_____ Seek certification to teach home economics in grades K through 6
    if it becomes available in Iowa.

_____ No plans.

_____ Other (specify): __________________________

10
WE ENCOURAGE YOU TO USE THIS PAGE TO SHARE WITH US YOUR GENERAL THOUGHTS ABOUT YOUR JOB AND THE PROFESSION OF HOME ECONOMICS EDUCATION NOW AND IN THE FUTURE.

AGAIN, THANK YOU FOR YOUR CONTRIBUTION TO PLANNING FOR THE FUTURE! PLEASE STAPLE THE COMPLETED QUESTIONNAIRE AND RETURN IT TO US BY FEBRUARY 12.
APPENDIX B. PRINCIPAL'S INSTRUMENT
WE WOULD LIKE TO ASK SOME QUESTIONS ABOUT YOU AND THE SCHOOL IN WHICH YOU ARE WORKING.

1. WHAT LEVEL(S) DO YOU ADMINISTER? CHECK (√) ALL THAT APPLY.
   ______ Middle school (grades 6-8)
   ______ Junior high school (grades 7-9)
   ______ High school (grades 9-12)
   ______ Senior high school (grades 10-12)

2. IS YOUR ADMINISTRATION POSITION FULL-TIME?
   ______ Yes
   ______ No, I have ______ percent appointment.

3. DEGREE YEAR INSTITUTION STATE MAJOR MINOR
   ______ ______ ______ ______ ______
   ______ ______ ______ ______ ______
   ______ ______ ______ ______ ______

4. GENDER: ______Male ______Female

5. WHAT IS THE SIZE OF THE STUDENT BODY WHERE YOU WORK?
   ______ Under 100 ______ 600-799
   ______ 100-199 ______ 800-999
   ______ 200-399 ______ 1,000-2,000
   ______ 400-599 ______ over 2,000

6. ENTER THE TOTAL NUMBER OF STUDENTS ENROLLED IN ALL HOME ECONOMICS COURSES AT EACH GRADE THROUGHOUT THE ENTIRE 1991-1992 SCHOOL YEAR.

<table>
<thead>
<tr>
<th>Grades</th>
<th>Enrollment</th>
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<tbody>
<tr>
<td>6</td>
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<td>7</td>
<td></td>
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<td>11</td>
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KEY: 1 Never  
2 Slight Chance  
3 Perhaps  
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<td>2. Home economics will survive funding cutbacks.</td>
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<td>3. Home economics will add programs to improve wage-earning skills.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>4. Student enrollments in home economics will increase.</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>5. Home economics will be equally acceptable for boys and girls.</td>
<td>1 2 3 4 5</td>
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<tr>
<td>6. A large percent of today's home economics teachers will retire.</td>
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<td>7. Home economics will prepare students for work roles inside the home.</td>
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<td>8. Home economics will be a graduation requirement for all students.</td>
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<td>Home economics will begin in preschool.</td>
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<td>16.</td>
<td>Parents will have a more positive attitude toward home economics.</td>
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<td>17.</td>
<td>Home economics will be independent of federal vocational funding.</td>
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<td>18.</td>
<td>Colleges will prepare fewer home economics teachers.</td>
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<td>19.</td>
<td>There will be an increased demand for home economics teachers in middle schools.</td>
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<td>20.</td>
<td>Home economics will teach courses that meet high school graduation requirements in science, math and/or health.</td>
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<td>21.</td>
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<td>22.</td>
<td>The number of male home economics teachers will increase.</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>23.</td>
<td>Home economists without degrees in teaching will be licensed to teach.</td>
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<td>1 2 3 4 5</td>
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<tr>
<td>24.</td>
<td>Foods and clothing will be the primary courses in home economics.</td>
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<tr>
<td>25.</td>
<td>Home economics will become more common in adult education programs.</td>
<td>1 2 3 4 5</td>
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<th></th>
<th>Next Year</th>
<th>Five Years</th>
<th>Ten Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.</td>
<td>Plan a wedding.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>14.</td>
<td>Prepare food from recipes and basic ingredients.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>15.</td>
<td>Establish criteria for selecting silverware and china.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>16.</td>
<td>Evaluate life-style choices in relation to long-term effects on health.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>17.</td>
<td>Use communication skills in everyday life to promote relationships.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>18.</td>
<td>Appreciate diverse family patterns and lifestyles.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>19.</td>
<td>Learn to use the decision-making process in financial management.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>20.</td>
<td>Construct a garment.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>21.</td>
<td>Establish criteria for consumer decisions.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>22.</td>
<td>Understand the relationship between appearance and self-concept.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>23.</td>
<td>Repair and alter clothing.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>24.</td>
<td>Learn to consider needs of others in sharing space, equipment and other household items.</td>
<td>Y N</td>
<td>Y N</td>
</tr>
</tbody>
</table>
FOR EACH SUBJECT AREA BELOW, DO YOU BELIEVE IT WILL BE INCLUDED IN YOUR HOME ECONOMICS PROGRAM NEXT YEAR? IN FIVE YEARS? IN TEN YEARS? CIRCLE THE APPROPRIATE LETTER IN EACH COLUMN.

**KEY:**
- **Y** = Yes
- **N** = No

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>Next Year</th>
<th>Five Years</th>
<th>Ten Years</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Family and Consumer Sciences</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Housing and home management.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>2. Food and nutrition.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>3. Individual/family health.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>4. Family living and parenthood.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>5. Consumer education.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>6. Textiles and clothing.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>7. Child development.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td><strong>Home Economics Occupations</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Child care and guidance.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>9. Home furnishings and equipment.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>10. Clothing, apparel and textiles.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>11. Food production and services.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>12. Institutional home management.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td><strong>General Skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Leadership.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>14. Job getting/job keeping.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
<tr>
<td>15. Entrepreneurship.</td>
<td>Y N</td>
<td>Y N</td>
<td>Y N</td>
</tr>
</tbody>
</table>
WE ENCOURAGE YOU TO USE THIS PAGE TO SHARE WITH US YOUR GENERAL
THOUGHTS ABOUT CURRICULUM IN HOME ECONOMICS NOW AND IN THE FUTURE.

AGAIN, THANK YOU FOR YOUR CONTRIBUTION TO PLANNING FOR THE FUTURE! PLEASE
STAPLE THE COMPLETED QUESTIONNAIRE AND RETURN IT TO US BY FEBRUARY 12.
APPENDIX C. HUMAN SUBJECTS APPROVAL FORM
Checklist for Attachments and Time Schedule

The following are attached (please check):

12. ☑ Letter or written statement to subjects indicating clearly:
   a) purpose of the research
   b) the use of any identifier codes (names, #’s), how they will be used, and when they will be
      removed (see Item 17)
   c) an estimate of time needed for participation in the research and the place
   d) if applicable, location of the research activity
   e) how you will ensure confidentiality
   f) in a longitudinal study, note when and how you will contact subjects later
   g) participation is voluntary; nonparticipation will not affect evaluations of the subject

13. ☐ Consent form (if applicable)

14. ☑ Letter of approval for research from cooperating organizations or institutions (if applicable)

15. ☑ Data-gathering instruments

16. Anticipated dates for contact with subjects:
   First Contact
   November 1991
   ____________________________
   Month / Day / Year
   ____________________________
   Last Contact
   December 1991
   Month / Day / Year

17. If applicable: anticipated date that identifiers will be removed from completed survey instruments and/or audio or visual
tapes will be erased:
   December 1991
   ____________________________
   Month / Day / Year

18. Signature of Departmental Executive Officer
   Date
   ____________________________
   Department or Administrative Unit
   (Signature of Dept. Exec. is indicated on Item 3 of cover sheet)

19. Decision of the University Human Subjects Review Committee:
   ☑ Project Approved
   ☐ Project Not Approved
   ☐ No Action Required

   Patricia M. Keith
   Name of Committee Chairperson
   ____________________________
   Date
   Signature of Committee Chairperson
APPENDIX D. PRECONTACT POST CARD
KEEP AN EYE
ON YOUR MAILBOX!

We need to identify the expected demand for home economics teachers for the next decade. This will help high school students plan careers and ISU and the Iowa Department of Education expand teacher preparation and in-service programs.

Your input is critical! So keep an eye on your mailbox. A survey asking for your input will arrive in one week. We will appreciate your prompt response. Thank you.

Judy K. Brun  Chryssoula Drizou  Mary Petersen
Department Chair  Research Assistant  Consultant, Iowa

Dept. of Education
APPENDIX E. COVER LETTERS
January 27, 1992

«Teacher's Name»
«School»
«Address»
«City», «State» «Zip»

Dear Ms. «Name»:

Iowa State University is working with the Iowa Department of Education to develop long-range plans to respond to the home economics teacher shortage. To do so, we need the best possible information about the future. This will help you better guide high school students in career planning and help ISU and the Iowa Department of Education expand pre-service, in-service, and graduate programs.

The best information about curriculum trends, student enrollments, and career plans of teachers—key factors affecting teacher supply and demand—comes from you, the home economics teacher. The enclosed survey is designed so you may easily participate in providing this information. We will also be asking your school administrator to respond to a similar survey.

Directions are provided on the cover. The survey is coded for mailing purposes only, and the codes will be removed from the completed questionnaire as soon as it is checked in. All information will be treated confidentially and all responses will remain anonymous and be treated as group data in the written report.

Please complete the survey and return it by February 12. Thank you for your cooperation. Your partnership with us is appreciated as we work together to maintain and improve the quality of home economics education in Iowa.

Sincerely,

Judy K. Brun
Department Chair

Chryssoula Drizou
Research Assistant

Mary Petersen
Consultant, Iowa
Department of Education
January 27, 1992

«Principal's Name»
«School»
«Address»
«City», «State» «Zip»

Dear Mr. «Name»,

Iowa State University is working with the Iowa Department of Education to develop long-range plans to respond to the upcoming home economics teacher shortage. To do so, we need information about the future. This will help you better guide high school students in career planning and help ISU and the Iowa Department of Education expand pre-service, in-service, and graduate programs.

One key factor affecting teacher supply and demand is curriculum trends. We need your expert insights as an administrator about these trends.

We ask you to respond to the enclosed questionnaire. Your experiences and future perspectives are very important for our study. We ask that you complete the questionnaire, rather than your home economics teacher. «Home economics teacher's name» is receiving a similar questionnaire.

Directions are provided on the cover. The survey is coded for mailing purposes only, and the codes will be removed from the completed questionnaire as soon as it is checked in. All information will be treated confidentially and all responses will remain anonymous and be treated as group data in the written report.

Please complete the survey and return it by February 12. Thank you for your cooperation. Your partnership with us is appreciated as we work together to maintain and improve the quality of home economics education in Iowa.

Sincerely,

Judy K. Brun
Department Chair

Chryssoula Drizou
Research Assistant

Mary Petersen
Consultant, Iowa
Department of Education
APPENDIX F. BACKGROUND INFORMATION
BACKGROUND INFORMATION

Social issues impacting families are expanding the need for home economics education programs to help families and youth lead productive and happy lives. At the same time, we are already experiencing a shortage of home economics teachers who deliver such programs in secondary and postsecondary schools.

Factors that influence teacher supply are the number prepared, age, and career movement. Demand for teachers is influenced by societal needs and related curriculum developments, and by student numbers.

Data about the factors influencing supply are not currently available for Iowa. In relation to demand, information about current curriculum and future plans is scarce. In addition, data on student enrollments are incomplete. With your help, the Iowa Department of Education and Iowa State University hope to document these factors so that we all can plan most wisely for the future. This is essential for public-funded education.

We are grateful for your willingness to volunteer to help with this study. We know your time is tightly scheduled and very valuable. But we also hope you will experience satisfaction from helping to plan for a top-quality future for the home economics teaching profession. Thank you.

IT WILL TAKE APPROXIMATELY 15 MINUTES TO COMPLETE THIS QUESTIONNAIRE. THEN TAPE IT SHUT AND PLACE IT IN A MAILBOX. NO STAMP IS REQUIRED. MAIL BY FEBRUARY 12.
APPENDIX G. FOLLOW-UP POST CARD
February 10, 1992

Two weeks ago a questionnaire about home economics was mailed to you. If you have already completed and returned it, please accept our sincere thanks. If not, could you please do so today.

Because it has been sent to only a small, but representative, sample, it is extremely important that your response be included. If by some chance you did not receive the questionnaire, or it got misplaced, please call us right now, collect (515-294-6444) and we will get another one in the mail to you today.

Sincerely,

Judy K. Brun
Department Chair

Chryssoula Drizou
Research Assistant

Mary Petersen
Consultant, Iowa
Dept. of Education
APPENDIX H. FOLLOW-UP LETTER
February 24, 1992

Name
School
Address
City, State Zip

Dear Ms. Name:

Three weeks ago a questionnaire seeking your thoughts about home economics was mailed to you. As of today we have not yet received your completed questionnaire.

The large number of questionnaires returned is very encouraging. But whether we will be able to identify accurately the expected demand for home economics teachers in Iowa for the next decade depends upon you and the others who have not yet responded. This is because our past experiences suggest that those of you who have not yet sent in your questionnaire may have quite different insights than those who have.

This is the first statewide study of this type that has ever been done. Iowa State University is working with the Iowa Department of Education to develop long-range plans to respond to the home economics teacher shortage. To do so, we need the best possible information about the future. This will help you better guide high school students in career planning and help ISU and the Iowa Department of Education expand pre-service, in-service, and graduate programs.

It is for these reasons that we are sending a replacement, in the event that your questionnaire has been misplaced. Directions are provided on the cover. The survey is coded for mailing purposes only, and the codes will be removed from the completed questionnaire as soon as it is checked in.

We urge you to complete and return the questionnaire as quickly as possible. Your contribution to the success of this study will be appreciated greatly.

Sincerely,

Judy K. Brun
Department Chair

Chryssoula Drizou
Research Assistant

Mary Petersen
Consultant, Iowa
Department of Education