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For the Greater Good: Contributions of the School of Consumer & Family Sciences at Purdue University to Family Well-Being

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Editors:
Susan Kontos & Shelley M. MacDermid
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Preface

This volume commemorates the fifth anniversary of The Center for Families at Purdue University. The Center has grown from a dream in the minds of a small group of inspired and determined people to a thriving enterprise. In the past five years, over twenty projects have been undertaken. Annual funding from all sources has grown to over $300,000. Over 30 individuals and organizations have made substantial financial gifts to sustain the Center. The number of faculty, staff and students working on Center projects now numbers close to 100 in any given year.

Susan Kontos, Founding Director of the Center for Families, designed and initiated this monograph as one of the Center’s first projects. In the following chapters, you will read about the contributions already made to the well-being of families by each discipline within the School of Consumer and Family Sciences. You also will learn how each will be pivotal to helping families in the coming decades. The contributions made by present and former faculty members of the School of Consumer and Family Sciences are highlighted throughout the volume.

Since its inception, the scientific study of families has been treated as suspect in some circles. Questions often arise about the degree to which seemingly “common sense” aspects of family life really deserve systematic scientific examination, or to be part of the curriculum in elementary, secondary or higher education. “Family values” have become a catch-phrase in the political arena, their supposed decline often invoked as the reason for blaming families for society’s problems. Experts on family life have emerged from every quarter; prominent today are self-fulfillment gurus, religious leaders, an ex-football coach, politicians and “think tanks.” In such a politically- and ideologically-charged environment, systematic data gathering and thorough, thoughtful interpretation are essential. Scholars in schools such as ours are positioned to arbitrate the national discussion; to train professionals and citizens to understand family-related data in the context of current and past trends; to insist upon high-quality evidence and reasoned debate; and to encourage the full articulation and evidence-based justification of value positions. We also are well positioned to gather and disseminate information about the most promising responses to the challenges facing families today and in the future. The scientific study of families and their concerns is becoming more, not less important, and it is the lynchpin joining departments in our school and schools like it. In turn, the future ability of universities to improve the day-to-day lives of the citizens to whom they are ultimately accountable may rest upon scholars who are experts on family life. I hope that these issues will be much in your mind as you read the succeeding chapters, and I hope that once you have finished, you will have a clearer sense of the great importance and strong potential for future contributions of scholars in the School of Consumer and Family Sciences at Purdue University.

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Shelley MacDermid
Introduction

Building a Healthy Society:
The Challenge of Consumer and Family Sciences

by Dennis A. Savaiano, Ph.D., Dean
School of Consumer and Family Sciences
Purdue University

I believe that the “Golden Age of Home Economics” is today! It may be surprising that I use the term “Home Economics” since most of us agree that it no longer describes the breadth and depth of the subjects we teach and study in schools that once shared this common name. It may also be debatable to suggest that our past is not as “golden” as our present. I seek not to rekindle the discussion of an appropriate name for our discipline, nor to diminish our recognition for the challenges that our foremothers faced. Rather, I wish to argue that the current challenges and opportunities of “Family and Consumer Sciences” have never been more important to society and to families.

We have had an interesting process sorting out our name. Purdue was a leader in seeking a name change to “Family and Consumer Science” in 1976. But we had it reversed, putting the consumer first by renaming the school “Consumer and Family Sciences” to reflect the consumer focus among our faculty at that time. Cornell and Minnesota, Ohio State, Kansas State and others adopted “Human Ecology” to highlight the interaction of families and individuals with their environment. “Human Sciences” is the choice of the National Association of State Universities, Land Grant Colleges and some of Purdue’s sister schools, including Colorado State, Florida State and Texas Tech. Still other schools, including Iowa State and Georgia, followed the national organization, the American Association of Family and Consumer Sciences, and moved to “Family and Consumer Sciences.” I have my personal favorite, as I am certain you do, too. We do not plan to change the name at Purdue and wouldn’t recommend that our colleagues around the country all jump to a common name. However, the current myriad of names causes confusion for the field’s potential, current and former students, as well as for the public and private supporters of our programs. Further, lack of a common
name and a single identity contributes to and promotes focus on individual disciplines. It is said that the cost of staying the same is greater than the cost of change. And so we have changed, from a term that describes the management of the home and its "economies" to multiple terms that individually provide greater clarity, but blur our collective unity in addressing the issues of families and consumers.

The study of families, children and the household began in earnest in land-grant colleges in the United States over 100 years ago. Early programs in home management opened the doors of public higher education to many women. Although Purdue University graduated its first woman engineer 100 years ago, household management remained the field of choice for many women who came from rural communities. These women, many of whom were first generation college students, sought knowledge that would make them an asset in managing the family farm or business. It was only a matter of time before other doors opened and women moved beyond home economics in greater numbers. Home economics changed rapidly, too, to keep up with the growing need for education on skills related to home, family and consumers. In 1998, such skills focus on early childhood education, parenting, child development, marriage and family therapy, consumer behavior, financial management and planning, textiles and clothing, interior design, nutrition, food science, food service, and the management of consumer businesses in hospitality and retailing. I have probably left out your favorite. If so, please forgive me. It is evident that the "home economics" of the 1990s includes businesses and careers that are major contributors to our economy as well as disciplines that directly influence the well-being of our homes, families and communities.

Challenges and Opportunities

The problems and opportunities of the second half of the 20th century have demanded innovative research, teaching, and outreach programs to support families and consumers. Major demographic changes include the tremendous movement of women into the workforce, and substantial growth in the divorce rate. In the 1950s, only a small percentage of married women worked outside the home. Today, most mothers of infants, and a percentage of all mothers approaching that of fathers, are employed. The number of divorced people has quadrupled since the 1970s, with approximately half of all marriages ending in divorce. Today, single parents raise nearly one-third of the nation’s children, a vast increase from the first half of the century. At the same time, an increasingly competitive global economy and a technological workplace have increased pressures on families and community institutions. These changes have been underpinned by the freedom to plan families that birth control has given women (and men). Family planning and women in the workforce have dramatically changed the way society expects children to be raised, and posed new challenges for extended families, school systems and workplaces. There has been unprecedented growth in the business of child care; we now share much of our parenting with second parties. Many critical research questions arise from this change in parenting, with the overall goal of defining how to raise healthy, productive children in today’s society. National debates over the quality of child care, welfare reform, 12-month schooling, single-parent households and many related issues are providing rich and important opportunities for our scholars to promote healthy families.

Similar demographic changes are leading our family studies experts to study problems arising from an increasingly multicultural and aging society. The challenges of caring for elderly parents while maintaining two careers, intergenerational transfer of wealth, multicultural education, human services, child care skills and dietary preferences are a few of the issues facing our students and faculty. Immigration has been the foundation for the American experiment. Today, as in past years, many immigrants work in the least prestigious, lowest paying occupations, but continue to seek a better life for themselves and their children. Participants in the American experiment are about to become even more diverse and elderly. Equipping society, workplaces, classrooms and families to meet this challenge is a major contribution our faculty and students are working to make.

Economic change in the past fifty years has resulted in the development of business-related programs in schools of home economics. The American economy has evolved to lead the global marketplace. The corner “five-and-dime” is now a discount superstore, the soda fountain a fast food restaurant, and the local main street an indoor shopping mall. Retail outlets, chain or franchise, look exactly the same in Los Angeles, Miami or Indianapolis as they do in Singapore or Madrid. Evolving from a tradition of textiles, clothing and interior design, Family and Consumer Science programs have developed internationally recognized expertise in retail management, while retaining expertise in the more traditional home-related fields. A consumer perspective, growing out of a family focus, has evolved into excellent teaching and research contributions to the understanding of consumer behavior and family and personal financial management. Graduates from our programs are in great demand because they bring both strong management and
consumer emphases to the workplace. Further, work in consumer behavior is rapidly embracing the information age. Internet access, digital technologies and free trade are changing the marketplace again. Current and future research aimed at assisting consumers, and the companies that court them, will undoubtedly challenge our faculty and students for years to come.

A major part of our history has focused on food. The educational programs developed to manage a kitchen and prepare food soon evolved to institutional and commercial food service management, and to food and beverage management. Today, graduates of consumer and family science programs have enormous potential to enrich the lives of the consumers with high quality and nutritious food service. Further, our research programs are providing the restaurant and foodservice industries with more efficient processes and consumer oriented products and services. Similarly, programs in home management evolved to institutional management and the management of hotels, restaurants, resorts, clubs and tourism-related businesses. More and more meals are consumed outside the home each year, and today, tourism is the world’s largest business. Eco-tourism, health-focused restaurant entrées and one-stop shopping for hard goods and groceries are once again demonstrating the interaction of food, shelter, clothing and leisure in our daily lives. The opportunities to teach and study tourism are unlimited, as is the potential to enhance local economies and enrich the lives of tourists through new and rewarding leisure experiences.

Building healthy families has always meant that we, as a discipline, focused effort not only on preparing a healthy diet, but also on defining that diet. Historically, this has meant ensuring that families consumed adequate protein, vitamins and minerals to prevent deficiency diseases. We also gave some attention to preventing and treating obesity. Such was the focus of nutrition research in the early 1900s. The past four decades have seen dramatic growth in the study of nutrition and disease. The focus has been on both public health—preventing the occurrence of disease—and treating existing illness. Most of the major diseases of our modern age are thought to have a strong nutritional component to their origin. Today, diets are proposed for optimal health, rather than preventing deficiencies. The potential to improve public health through diet is thought to be enormous. Some estimates suggest that one-third of all cancer deaths could be prevented with proper diet. Most experts agree that diet has a similarly important role in the prevention of cardiovascular diseases. Debate rages over the extent and specifics of the dietary influence on chronic disease. But almost all of the evidence indicates that the effect is powerful and the potential to improve human health is substantial.

The Future

Where will the challenges of the late 20th and early 21st centuries lead schools of Consumer and Family Sciences? Much of the answer to that question depends on our creativity in seeking answers to critical family and consumer questions through well conceived, rigorous research. But even more, I believe that the answer lies in helping society understand our unique potential to improve the quality of life. Outreach, public involvement and highly productive graduates will lead the way in assisting families and consumers to thrive in the years ahead.

What are the keys to moving our programs forward to meet the challenges of the next century? There are several. First, we must become more multidisciplinary and less insular. The opportunities to work with excellent business schools, social science programs, the biomedical sciences, and other disciplines will improve the quality and impact of our teaching, research and outreach programs. Bringing state-of-the-art basic knowledge to issues of families and consumers is essential to maximize our impact. We need to reach out and develop relationships throughout the university and society. Knowledge and the tools to study it are growing so rapidly that the days of isolated academic programs are over. Our prosperity, like that of our colleagues, depends on multidisciplinary efforts.

A few examples illustrate the opportunities for collaboration. Basic business and marketing principles must form a foundation for consumer-based business programs, but current programs lack the resources to develop and provide this basic expertise. Our customer-focused expertise in retailing, hotels, restaurants, financial services, tourism and related areas is equally valuable, but inadequate by itself. Education programs that teach the fundamentals of business along with a customer focus are likely to be most effective in meeting the ongoing needs of business. Similarly, social science research and methodology have much to offer to the study of children, families and consumers. As basic researchers uncover new principles and establish new tools for the study of individuals and groups, our scientists must be at the forefront with this new knowledge to assist families and children live healthy and prosperous lives. Biological science has moved strongly to the molecular level, and our nutritionists must utilize this basic knowledge to uncover the important relationships between diet and health. Utilizing the latest and best basic knowledge and partnering with experts throughout...
forefront in fragmented societies is rapidly becoming a single economy. Many authors have predicted that countries and governments will become less important in the 21st century, as the world communication systems and economies merge. The future of our families, consumers, culture and the economy depends on our success in this new world. The U.S. is still at the forefront in defining what this new world structure will be. Our students, educational programs and research can either lead the way to supporting families, children and consumers in this new world, or we will be pushed aside by others with perhaps less humanistic and less well researched views.

Our international challenges are substantial, but the challenge at home will press us to provide more and better educational and outreach programs to reach diverse and distant audiences. The knowledge in our institutions must not stay solely on campus. We must embrace our land grant mission and outreach role, and develop long lasting partnerships with state and local agencies, the primary and secondary school systems, as well as with the social services, to disseminate research findings. We have unique and critical skills to develop educational programs that will promote child development, healthy individuals and families, and satisfied consumers. We must grow our traditional partnership with the Cooperative Extension Service, as well as new partnerships with non-traditional deliverers of educational programs. Much of this growth will occur because our expertise is desperately needed to address issues in local communities. However, much of our growth in outreach will occur only as we initiate relationships with existing organizations who are unaware of the expertise and experience that we bring to support families and consumers.

In addition to public partnerships, partnerships with the private sector are critical to the future development and success of our programs. Higher education has always been a vehicle for economic development, and today our teaching and research programs are at the forefront of the service-based economy. Traditional curriculum development and innovation, non-traditional educational programs, internships and related work-learn opportunities, and strong partnerships with the private sector all can facilitate applied research programs. Seeking private sector partnerships strengthens our programs by continuously improving student learning experiences and the land-grant research mission to meet the needs of important customers.

Finally, in order to meet the demands of the future, we must be efficient in the use of our resources and, I believe, we must grow. New resources are required to meet the challenges we face. Schools like ours have traditionally been among the least well-funded in universities. We need to aggressively seek resources and partners to expand our programs and our impact. To do less is irresponsible, given our challenge and opportunity to educate and improve society. We must also embrace technology and the advantage it can give us in the delivery educational programs and the conduct of research.

In summary, students and faculty in schools sharing a home economics history have infinite potential to improve the quality of life for families, children and consumers. The societal challenges we face and our responsibilities to meet these challenges are enormous. This Center for Families monograph includes thoughtful and innovative chapters that speak to meeting these challenges in the areas of family studies, diet and health, life-skill education, consumer behavior, and hospitality. Today's challenges provide our students and faculty an opportunity unmatched in the history of our discipline. Our research findings and educational programs will continue to have an immediate and enormous impact on the lives of people throughout this nation and the world. This "Golden Age of Home Economics" is one filled with promise and responsibility.

I wish to acknowledge the thoughtful review of this paper by the Associate Deans and Heads of the School of Consumer and Family Sciences: Chris Ladisch, Associate Dean; April Mason, Associate Dean for Extension; Ray Kavanaugh, Head of Restaurants, Hotel, Institutional and Tourism Management; Douglas Powell, Head of Child Development and Family Studies; Heikki Rinne, Head of Consumer Sciences and Retailing; and Connie Weaver, Head of Foods and Nutrition. I also wish to acknowledge the review and comments of Shelley MacDermid, Director of the Center for Families. Their comments have significantly improved this chapter.
The Study of Children and Families: Challenges for the 21st Century

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Introduction

The well-being of families has traditionally been the central concern of the disciplines focusing on the study of individual development, children and families. From the beginning of the 20th century until the present, the challenges facing families in America have undergone dramatic changes. As we stand on the brink of a new century, it is time to examine recent changes affecting American families and assess the challenges they pose. This chapter will review four broad changes: (1) the increasing diversity of U.S. families; (2) "the caregiving deficit," a term coined here to reflect the increasing support needs of family members because of greater longevity, competing work demands on adult caregivers, and inclusion of individuals with disabilities and chronic illnesses; (3) the shifting nature of the U.S. economy, making an educated, technologically skilled workforce more essential; and (4) the increasingly stressful circumstances of many families, who are coping with poverty, violence, family and work dislocations, and deteriorating community conditions. The challenges posed for families by each of these changes are described. This is followed by a consideration of how scholarly traditions applied to the study of child development and family relationships may help us better understand and cope with these challenges.

Theory and research on children and families have contributed to better understanding of the challenges that may be expected in the 21st
century. Moreover, current research has moved beyond problem identification to the generation of new knowledge that can be applied to prevention and intervention, enhancing the well-being of families in the next century. Solution-focused research initiatives are highlighted in this chapter.

Scholarly Traditions

The field of child development and family relationships seeks to promote the well-being of children and families. It does so by examining development across the lifespan as it occurs in the context of relationships and settings. This ecological approach to the study of children and families emphasizes how individuals develop within specific environments. For example, children both affect and are affected by their families and the quality of relationships among family members; other ecological contexts affecting children are their classrooms and peer groups. Families live in neighborhoods and communities that may be rich or scarce in resources—facilitating or impeding participation in informal networks and community events. Parents work in factories and offices that may be family-friendly or oblivious to the needs of working parents or those with elderly or disabled family members. An ecological approach emphasizes the need to study environments, in conjunction with the people in them, and to consider how the settings are connected. For example, in addressing the issue of promoting educational excellence in children, an ecological approach goes beyond examining just the characteristics of children or their parents or their schools, each in isolation. Rather, from an ecological perspective, it is important to understand the relationship between parents and school environments since both impact children's academic achievement.

A second, related scholarly tradition, a systems perspective, emphasizes the importance of considering how family members mutually influence each other. An emphasis on the family system suggests that changes in any one family member will impact all others, altering the family system. Out of this perspective comes attention to family-based interventions and treatments for problems such as drug abuse, that traditionally have been viewed solely as individual dysfunctions.

A third scholarly tradition, the lifespan perspective, stresses the importance of examining change across the entire arc of an individual's life. The view that development accelerates in childhood, plateaus in adulthood and declines among the elderly is replaced by attention to developmental changes throughout life, and an appreciation of the likelihood of positive growth in all periods. This perspective also stresses the importance of examining families across generations in order to understand more thoroughly the experiences of family members. To illustrate, recent research documents that the quality of the relationship a mother has had with her own mother in turn influences the quality of the attachment she forms with her infant. This bond then contributes to the success of the young child in developing new relationships with peers. Similarly, an intergenerational perspective helps clarify how the needs of different generations may affect common family problems. For example, we can better understand the child care challenges that working families with young children face when we consider that one-third of grandmothers who provide care for their grandchildren while the parents are working are themselves employed.

The Challenge of Family Diversity

In recent years, it has often been noted that families are coming in many more "shapes and sizes" than the "one size fits all" image of what is often called the "traditional" family: a breadwinner father, his work-at-home spouse, and their children. (A dog and stationwagon generally complete the picture.) For example, in Indiana, single mother families increased 130% from 1970 to 1990, to 10% of all families in 1990. The number of single father households in Indiana grew from 9,800 in 1970 to 33,000 in 1990. Underlying these changes is the proportion of marriages experiencing divorce, a proportion that has been steadily rising throughout this century. At current rates, approximately half of all U.S. marriages may be expected to end in divorce. Remarriages and other new unions have increased, resulting in "blended" or "reconstituted" families, some of which can be quite complex. Consider the children born of a union between a divorced mother with several children and a divorced father of several children. This child has a complex set of linkages with half- and stepsiblings, parents of half-sibs and even grandparents.

Young adults are marrying later on average than at any time in the past 100 years; more couples are living together without marriages; and more individuals are living alone. For example, twice the percentage of young women ages 20-24 were never married in 1990 as compared with 1960. It is estimated that a majority of the offspring of the babyboomers (those born in the 1950's) will live with a partner before marrying.

Another source of diversity in family structures stems from the rapid increases of women, especially mothers, participating in the paid labor force. In 1970, 43% of married women with preschool children were in the labor force; by 1989, 58% were working outside the home.
dramatically, the majority of mothers of infants now are working full time.

Many of these demographic changes are interrelated. High divorce rates are associated with economic disruptions, which in turn predict more labor force participation by mothers of young children. While cause and effect are debated (12), one thing is clear: family structures have multiplied and are likely to remain diverse.

A further source of diversity is cultural, ethnic and racial. A rich mix of native and immigrant (both voluntary and involuntary) peoples has always characterized the U.S. population. However, cultural diversity is increasing, not only in high immigration areas such as California, but also in the Midwestern "heartland." For example, Indiana has experienced a 14.2% increase from the 1980 to the 1990 census in people who identify themselves as being of Hispanic origin (13). Competing views of cultural diversity inform the policy debate. The "melting pot" view emphasizes assimilation and conversion to a dominant, majority culture or to an ambiguously defined "civic culture." The "rainbow" or "mosaic" view stresses the importance of cultural heritage and advocates retaining rather than eliminating cultural differences.

Meeting the Challenge of Family Diversity

The influx of mothers of young children into the labor force has thrust the issue of child care to the forefront of the policy agenda. Increasingly, families, whether dual-parent or single-parent, must juggle work and family needs, with the care of their young children an especially pressing concern. For example, a recent national study of the U.S. workforce found that 62% of employed parents with children under age 13 experienced problems finding quality child care. They reported a patchwork of different arrangements for different days of the week. Nor surprisingly, over 25% of the parents had to cope with a breakdown in these arrangements during the previous three months (14).

Information on child care availability, accessibility and quality continues to be urgently needed. For example, how do parents make decisions about child care arrangements? What aspects of child care are most important to them? The ecological perspective, focusing on the impact of settings and relationships on development, provides a useful framework for answering such questions.

Employed parents use a variety of child care arrangements; the most common for young children (under age five) are relative or family day care (32.6%), center care (28.3%) and parent care (27.7%) (15). Douglas Powell and colleagues (16, 17) have examined the process by which parents select child care, and have shown that informal contacts are preferred over more formal ones. Parents' social networks, i.e., their informal contacts with friends, relatives, neighbors and co-workers, are important resources for finding child care.

In what ways do child care arrangements affect young children's development? Recent studies of child care quality (18, 19) document that regardless of type of arrangement, quality is highest when child care providers have specialized training, meet state regulations, engage in developmentally appropriate activities with the children and adopt a professional outlook. However, only 9% of family or relative care arrangements were rated as providing good quality care. When children receive high quality care, they are observed to engage in more complex social and cognitive play as compared to low quality care settings (20). Now that the dimensions of quality care for young children are well documented, the challenge ahead lies in translating these research findings into policy that ensures higher quality care settings. Since at present, accessible and affordable child care often is of lower quality, policy initiatives also are needed to widen parental access to quality care.

The problem of balancing work and family goes beyond child care concerns, since virtually all workers have family obligations. Eighty-seven percent of all employed workers in the U.S. live with family members. When workers are married, their spouses are likely to be employed as well. Half of all workers report they do not have enough time to spend with their spouse or partner, and 66% of parents feel they do not have enough time to spend with their children (21).

In recent years, research by family social scientists has focused on factors that help family members be both productive workers and responsive family members. "Family-friendly" work practices, such as flexible schedules or dependent care support, in addition to traditional fringe benefits, have been documented to support families in their work roles. Both men and women whose jobs are "family-friendly" report more commitment to their work, more satisfaction with their jobs and more initiative at work (22). However, as of 1991, in medium and large establishments (over 100 employees), only 10% of all employees had access to flexible benefits, while only 8% had access to child care assistance of any kind (including information and referral only) (23). In small businesses, such benefits are even less available. There is also evidence that benefits for workers are decreasing over time. For example, 51% of families were fully covered by employer-provided health insurance in 1980; by 1986, only 35% of families had this benefit (24).
support and business concerns to cut costs and maintain competitiveness is to promote joint problem-solving between family scholars and professionals, on the one hand, and business representatives and economists, on the other. As a step in this direction, in 1994, the School of Consumer and Family Science and the Center for Families sponsored a "summit" of Indiana business and family social service professionals to consider the interface between families and the economy. Conference participants agreed upon priorities that would form a framework for addressing work-family issues in the state of Indiana in the next decade (25).

Finally, the diversity in family forms makes it important to understand sources of support for families of different kinds. It is well documented that having supportive family members and friends to provide material assistance as well as emotional support and care is predictive of better coping with stress, more confident and responsive parenting and better development in children (26). Such findings increase the need for programs to provide support to isolated and highly stressed families in a way that is sensitive to varied family structures and conditions. Such parent support programs provide parents with a forum to discuss shared issues with other parents, and to impart new information about parenting (27). Special programs for parents with distinct needs have been developed; one example is Mentor Mothers, which pairs adolescent mothers with older role model volunteer mothers, who are asked to offer education, friendship and support to the new parents (28).

The Challenge of the "Caregiving Deficit"

Over the last century, life expectancy has increased dramatically. The "graying" of America is well underway. For example, it is projected that by the year 2030 the number of Hoosiers in their 70's will increase by 68%, while the number of children under 10 will decline by 17% (29). As a result, it is now estimated that on average, a woman will spend more years caring for her elderly relatives than raising her children (30).

At the same time, with the decrease in the birth rate from the historic post-World War II baby boom high, the size of individual generations appears to be shrinking. Some family experts have noted an emerging family structure—the beanpole family. Like the tall, skinny stalk on which beans grow, the beanpole family structure consists of multiple generations living at one time, with each single generation containing few members (31). For the first time in human history, families may include five living generations (32). Beanpole families are likely to pose increased caregiving burdens for the "squeezed" or "sandwich" generation, those adult family members who may be faced with the care of both younger and older generations at the same time.

Additional trends may increase the need for caregiving across the generations. Medical advances have not only prolonged life, but also permitted many individuals with chronic illnesses and disabilities to be included as more equal members of society. Moreover, civil rights legislation, such as the Americans with Disabilities Act, has extended equal rights to persons with disabilities. At the same time, as we have seen, both men and women in their young-adult and middle-adult years are increasingly unavailable as caregivers to young, old and those with special needs because of competing demands on their time and energy from labor force participation. Thus, a "caregiving deficit" becomes more pronounced, as societal needs for caregiving increase while caregivers become less available.

As an illustration, in the previously cited recent national study of the U.S. workforce, 47% of all employed workers reported some regular caregiving responsibility, whether for dependent children, an ill spouse or an elderly family member. Eighteen percent of the workforce anticipated providing elder care for a relative over the next five years (33). Reflecting traditional role expectations, caregiving burdens fall especially heavily on women. For example, when a full-time employed woman has elder care responsibilities, she tends to spend on average 20 hours per week in elder care, the equivalent of a second, half-time job, while a man in a comparable situation spends on average 12 hours per week (34).

The caregiving crisis is played out in the U.S. policy arena in struggles over health care delivery and cost. On one side are the mushrooming health care needs of an aging population and of children and young families faced with the "new morbidity," diseases of poverty and social upheaval (35). On the other side are exploding costs from an inefficient system of health care delivery, which sacrifices prevention to more costly interventions.

There is also considerable societal disagreement over where responsibility for caregiving needs lies. One view, exemplified by the "It takes a village to raise a child" aphorism which formed the title of Hilary Rodham Clinton's recent book (36), argues that the well-being of children and families is the joint responsibility of individual efforts and community and societal support. An opposing view locates poverty, abuse and family dysfunction in a patronizing, stigmatizing social bureaucracy that cripples individual responsibility (37). The result is widely divergent, indeed contradictory, policy initiatives for improving the well-being of society's most needy. A key challenge for the next
century is to stake out common ground in a shared understanding of who is responsible for child and family well-being.

**Meeting the Caregiving Challenge**

The need for support systems to provide quality care for both younger and older generations and to support the caregiving generations poses a challenge for the next century. Several scholars of children and families have addressed this challenge. One focus examines the influences on children and adults that may promote greater knowledge of and commitment to caring for others. Thus, scholars of child development have focused on how children acquire an orientation toward caring for others (38). Current wisdom suggests that experiences during childhood may help promote (or discourage) empathy and nurturance (39). In particular, since caring for those in need has been viewed as a traditionally feminine role, special attention has been paid to influences on boys' caring orientation. While knowledge is still incomplete, current research suggests that influences include opportunities to practice nurturing skills (for example, by caring for a pet), availability of adult (especially male adult) models who nurture, encouragement of a nurturing orientation, and being cared for by parents whose child-rearing combines warmth, responsivity and firmness (40).

Another focus, primarily that of family sociologists, has been the study of support exchanges across the generations of the “beanpole” family structure. This research on intergenerational relations has illuminated many strengths within families. For example, contrary to popular stereotype, most older Americans do not become a burden on younger generations of family members or on society. Even among those over 85, half live independently in their own homes, and less than a quarter of the frail elderly are in long-term care facilities (41). Supportive services for continued independent living are preferred by elderly individuals to direct care. Such services include convenient public transportation, accessible and affordable health care, auxiliary home maintenance and meal preparation services, and importantly, leisure activities. As successive generations not only live longer but also maintain better health, it is predicted that up to one-third of the lifespan will be spent in retirement. Thus, there is a need for services that promote continued community involvement, educational experiences and leisure pursuits (42).

Research has also documented that older generations often give resources, such as emotional and economic aid, to younger generations, particularly in emergencies, disclaiming the common perception of the elderly as primarily in need of care (43). In fact, one survey found that over half of adults over age 80 continued to make financial contributions to their middle-aged offspring (44). Studies of parent-child relationships during adulthood confirm that the parenting role remains active even as children move into middle age; this is especially true for mothers (45). Thus, the emerging picture of the beanpole family is one of exchanges of resources across generations. Greater understanding of how generations care for each other over the lifespan can help society support the caregiving needs of families in ways that best fit families’ needs. This will become increasingly important in coming decades as the cost of institutional care far outstrips that of family- and community-based care.

**The Challenge of a Changing Economy**

Major economic changes have been taking place globally, transforming the American workplace. In recent decades, America, along with other developed nations, has shifted from an industrial to a postindustrial society. The manufacturing sector has shrunk, and the jobs that remain there demand ever-higher levels of technological skill. Many of the new jobs created are in services and information technology. For example, in Indiana, manufacturing declined from 25% of total employment in 1981 to 21% in 1991, while service jobs increased during the same period from 19% to 23% (46). Many of these new positions tend to provide lower wages, fewer benefits and less job security than union-backed manufacturing jobs.

As a result, many American workers are working longer, harder and with more stress and insecurity than ever before. In 1992, for example, both employed men and women, on average, devoted more than 40 hours per week to their jobs. The majority felt their jobs required working very fast, and 43% agreed that they had excessive amounts of work to do. As a result, 30% reported feeling “burned out” at the end of the day. At the same time, job stress is occurring in an increasingly insecure work environment. Forty-two percent of all workers have experienced downsizing at their workplace, and almost 20% feel it is likely they will lose their job in the next year (47).

Moreover, there is evidence that America is increasingly becoming a two-tiered economic system. Individuals with the requisite educational skills to compete in the postindustrial economy find many opportunities for advancement in an expanding high tech sector, while the educational “have-nots” and “have-not-enoughs” are left further behind. The chances for advancement for minorities remain considerably lower than for non-minorities (48, 49).
Meeting the Challenge of a Changing Economy

Because of the growing importance of education for success in the postindustrial economy, developmentalists and family scholars have been concerned with factors that may promote children’s academic success. As of 1990, a quarter of the U.S. adult population had not completed high school (50). For minorities, high school graduation rates are even lower. For example, in Indiana, as of 1990, 35% of African-Americans and 37% of Hispanic Americans had not completed high school (51). Increasingly, a high school diploma is insufficient to be competitive in a job market that demands ever-higher levels of technical skills. Thus, it is of concern that only 20% of the adult population of the U.S. in 1990 (and 16% in Indiana) had attained a bachelor’s degree (52). A recent study of low-income mothers and fathers of first- through fourth-graders found that these parents worry about their children’s preparation for the changing economy. For about 37% of the parents, the ideal job for their child typically requires more education than they expect their child to attain (53).

The ecological perspective, with its emphasis on the links between schooling and the other aspects of children’s lives, has led to studies of the family factors that may support children’s achievement and success at school. For example, Harold Stevenson and his colleagues have conducted extensive studies of family and school conditions that promote achievement for children in the U.S. and in the Asian countries of Japan, Korea and Taiwan (54). They conclude that parent and teacher expectations for adequate performance, explanations of children’s academic difficulties and focus on academics as the preeminent “job” of childhood all are related to children’s achievement. For example, U.S. mothers, as compared with Asian mothers in their studies, were satisfied with lower grades, attributed learning difficulties more to lack of ability, and placed less emphasis on school achievement (compared to sports, extra-curricular activities and friends).

A similar pattern is found in studies of high- versus low-achieving children within the U.S. Thus, Okagaki, Frencsh & Gordon (55) compared high- versus low-achieving fourth and fifth-grade Mexican-American children. Parents of high achievers felt able to help their children do well in school, engaged in reading activities at home (e.g. checking information in a book, reading a magazine) and were more likely to be upset with lower grades (Cs and Ds). In another study, African-American, Anglo-American and Hispanic-American children from low-income families performed better in school when their mothers felt responsible for fostering the children’s development, endorsed independence training and achievement-oriented beliefs, and limited television viewing (56). Such findings have given rise to programs, such as Links to Learning (57), which are designed to help parents develop skills to promote their children’s school success.

As we learn more about how family and school achievement are linked in childhood, the results may inform an understanding of adult skill acquisition. In a rapidly changing global economy, new technologies and skills must be mastered. Adult workers must increasingly anticipate the need to retrain and the likelihood that they will be in a series of different work roles, rather than a single, life-long career track. As a result, the concept of “lifelong learning” is replacing that of “childhood education” (58). Family scholars with a lifespan perspective are only now turning their attention to how families may support the learning of their adult members; this issue is likely to gain in importance in the next century.

The Challenge of Family Stress

The economic dislocations and family changes already discussed have contributed to stress and struggle for many families. In Indiana, for example, in 1990, 8% of all families were living below the poverty line, the level of income deemed necessary to sustain a minimal standard of living (59). Single mothers and children have been especially hard hit. A majority (56%) of single mothers with children under age five in Indiana were living in poverty, and nearly 14% of all Indiana children regardless of family structure were living in poverty as of 1990, a 5% increase from 1980 (60).

Other indications of economic distress are the number of individuals eligible to receive food stamps and the number of children eligible for free school lunches. In Indiana, there was a 22% increase in the number of persons receiving food stamps from 1991 to 1992. In the 1992/93 school year, 22% of all Hoosier school children participated in the school lunch program (61).

Economic struggle is not restricted to those below the poverty line. For the non-affluent, income levels have stagnated or declined in recent decades (62). As a result, many American families feel they are working harder simply to stay in place.

The impact of economic difficulties on family functioning has been the focus of some contemporary research by family scholars. In a landmark study of rural poverty in Iowa, economic difficulties, such as not being able to make ends meet or pay bills, predicted psychological
depression in both fathers and mothers, marital difficulties and harsh, unresponsive parenting. In turn, children growing up in such stressed family environments were more likely to have academic and behavioral problems, engage in delinquency and have difficulty getting along with other children (63).

Other stressors, often related to economic problems, appear to be on the rise. Child abuse and neglect, adolescent childbearing, delinquency and substance abuse rates remain unacceptably high. For example, consider these figures for the state of Indiana. The number of children reported as victims of abuse or neglect nearly doubled between 1985 and 1991. In 1989, there were 29 births per 1,000 teenage young women ages 10 to 19. The number of juveniles on probation increased 40% between 1988 and 1992, and over 10,000 alcohol related traffic accidents occurred in 1992 (64). Even taking into account more vigilant reporting and lowered tolerance, it is likely that family stress has in fact increased over the last few decades.

Meeting the Challenge of Family Stress

Scholars have focused on the causes, processes and consequences of family stress with the goal of developing interventions and ultimately, prevention. One line of investigation, stemming from a lifespan perspective, examines family violence from an intergenerational perspective. Parents whose own childhoods were characterized by harsh discipline and violence are more likely to engage in punitive child-rearing and even child abuse than other parents are. Studies of such “at risk” parents show that the presence of supportive adults and therapy to better understand one's childhood experiences can help break the “cycle of abuse” (65).

Scholars working within the theoretical perspective of family systems have addressed social problems successfully with interventions that target the family. A good example is the development of family-based treatments for drug abusing individuals. Thus, Robert Lewis and colleagues have demonstrated that the treatment of drug-abusing women is more successful when the women receive couples therapy with their partners in addition to the more traditional individual-based interventions. Women in the more family-focused treatment not only were able to reduce their drug use more, but also reported better family relationships than did women who only received individual-based treatment (66).

Finally, research has also addressed family stress from an ecological perspective. This framework suggests that multiple aspects of environments may provoke or improve stressful conditions that may lead to family violence, drug use, adolescent parenthood or other social problems. For example, a pioneering study by James Garbarino and colleagues (67), showed that neighborhood conditions might contribute to higher rates of child abuse. Neighborhoods with similar levels of affluence were compared; those with fewer community services and more transiency had higher child abuse rates. This work showed that community conditions can create a fertile ground for abuse or other family stress conditions; Conversely, communities that provide supportive environments for families can help lessen the likelihood of family violence.

Summary

Three theoretical traditions—the ecological perspective, the family systems perspective and the lifespan perspective—have informed scholarship on children and families. These traditions have given rise to problem-focused research that may address many of the challenges facing American families as we enter the next century. Four broad challenges have been discussed here: (1) the growing diversity among families; (2) the “caregiving deficit”; (3) the changing economy; and (4) the multiple stressors affecting many families. The discussion of theoretical perspectives, challenges and research initiatives is necessarily selective, and thus, is presented as illustrative rather than comprehensive. Research in many areas needs to be extended and replicated, particularly with minority families, before firm generalizations can be made. More comprehensive evaluation of intervention and prevention programs is needed. Despite these cautions, however, scholars of child development and family relationships have made substantial contributions to our understanding of challenges facing families at present and in the future. We now know much more about what factors both within and outside families promote more optimal development of children and adults, reduce stress and provide wider opportunities for success. Innovative intervention and prevention programs have been developed and tested. The challenges for the coming years lie in replicating and expanding our understanding of challenges facing families in an increasingly diverse population as well as translating current findings into effective policy initiatives in a climate of shrinking resources and increasing skepticism.

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For the Greater Good

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The Financial Well-Being of the American Family and Consumer is the Health of the Country

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We will never be able to say that the economy of the United States is healthy until all individuals and families are financially well. The economic system provides the foundation for families and consumers to create lives of meaning and substance. It creates opportunities to accumulate and maintain sufficient resources and to guarantee an acceptable future.

The field of consumer and family economics addresses the significant issues that form the foundation of individual and family economic well being, such as health care, retirement, estate planning, consumer protection, and business success and failure.

The Broad Political and Social Context

Americans are taking more responsibility for critical issues in their future. They are getting more involved in the financial decisions affecting their personal and family financial futures. As a result, individuals, families and society are concerned about acquiring adequate resources for current use and future stability. They are taking steps to secure satisfaction from the businesses they use and stable income from sound employers.
Families and Individuals Take Charge of Their Future

If the 1950's and 1960's were an era of unlimited growth and opportunity for families, then the 1990's and 2000's are an era of protecting families. We can no longer rely on the federal government to support us in all areas of our lives. Individuals and families must now protect and enhance their personal resources. No longer can we expect the federal government to "keep us" in retirement. No longer will our insurance give us unlimited access and choices in health care. Families skilled in managing their financial resources will make better decisions for a successful future. The "haves" and "have-nots" will be separated not only by the resources they possess, but by their knowledge and ability to manage them.

Personal financial education should be a basic right of all people. Education translates directly into competence to make decisions about one's financial future. Dr. Flora Williams has led the charge over the last 20 years through her leadership of professional organizations and her innovative research and writings. Helping families to change their financial structure and develop a plan of action for family business organization brings about a change in attitude, a sense of control, a feeling of hope, and a more productive work and home life (1, 2).

Over the last 20 years, Williams and her colleagues have established a direct link between financial matters and quality of life. Her research documents the fundamental relationship between family economic decisions and satisfaction with quality of life (3, 4). More importantly, such relationships apply not only to life in the United States, but all over the world (5, 6, 7).

Building on the importance of education, decision and life competence, the Department of Consumer Sciences and Retailing and the American Association of Retired Persons (AARP) have partnered to bring personal financial education and empowerment to middle-aged women, helping them the best possible decisions. In a statewide effort, Janet Bechman trains Cooperative Extension educators to deliver workshops and seminars on the basics of organization, budgeting, savings, credit, decision making, retirement, saving for college and home buying, investing, professional help, taxes, insurance and estate planning. Reports indicate real changes occur as a result of this program. Participants became more confident about making personal financial decisions. They made changes in their investment strategies and were more likely to report reviewing, adjusting or establishing future investment goals to meet their retirement needs (8). Simple intervention education is clearly an effective defense against unwise financial decisions. The resulting savings to society, economic and non-economic, are just beginning to be understood.

The issue becomes more significant as the baby boom generation ages; it is clearer that older women have a distinct need for financial planning to guarantee a level of present and future well being (9). To suddenly make decisions about investments, trusts, estates, taxes, insurance, wills, real estate and other financial matters without the necessary background increases the chances of poor, or even devastating, results.

Personal financial competence lies at the heart of a second program organized by the Department of Consumer Sciences and Retailing and the National Endowment for Financial Education. The goal of the High School Financial Information Program is to increase the knowledge and competencies of high school students in personal finance matters. Unfortunately, educating high school students in these matters is not part of general education requirements in most schools. Teens have access to an enormous amount of money and as adults, will be responsible for themselves and others. Training is provided to high school teachers who translate the material for use in the classroom. Teens who have been through the program have improved their goal setting, knowledge of financial management skills and ability to read financial statements. This will translate into more effective money management and life management through the adult years.

Understanding the Significant Family Resource Policy Issues of the 21st Century

Family resource issues represent some of the most pressing social issues of the 21st Century. Universities can process unbiased information about these social issues and their associated problems in a way no other institution can. With unbiased information, institutions and policy makers can construct social policy in an informed manner (10, 11).

Two of the more pressing social family problems focus on health care and retirement. A recent Gallup Poll found almost one-third of all Americans fear the effects of long term health care. Regarding retirement, studies show people who should be saving for the future are not. They are instead depending on the Social Security system, which may or may not be available upon their retirement (12, 13).

Studies show about 30% of American workers are caring for their older parents. This proportion is expected to grow as the baby boom generation and its parents age. DeVaney & Shrestha (14) have examined
long term care insurance and developed a guide for financial planning and counseling professionals to use when helping individuals and families sort through the difficult financial issues involved (15). This work maximizes impact by training professionals who each will reach hundreds of people. As the saying goes, “Give a person food and you will satisfy their hunger for one meal; teach a person how to grow food and they will never be hungry.”

The political, economic and family ramifications of managed health systems are the subject of much speculation and now some research. Williams, Hagler, Pritchard, Martin & Bailey (16) and Hong & White-Means (17) found that children’s health needs may be superceded by other family and work demands. Policy implications of these findings are interesting. If less attention to health care results in greater health problems, then the inflexibility of workplaces will actually result in more negative effects than if workplace rules were more flexible. For example, sick children require more attention than the time needed for preventative care. Further, as more and more women (still the primary caretakers) become employed, changes in workplace rules must facilitate care for dependents. Workplace supervisors need to “walk the walk” as well as “talk the talk.”

**Family Life and Business Life Are Not Mutually Exclusive**

Home-based businesses are another trend of families taking charge of their economic futures. Two Purdue researchers have highlighted the economic force and consequences of home- and family-based businesses. Alma Owen and Barbara Rowe completed the first book devoted specifically to home business and the dynamics of family life. “Home-Based Employment and Family Life” (18) documents the significant role that home-based businesses play in our economy. Based on projections from a nine state study, they estimate the net income of home-based business owners accounts for over one-half of the income generated by non-farm business ownership in this country. The significance of home-based business suggests that it should be moved to the forefront of political, economic and research agendas.

As rural areas faced a decade of decline, many rural residents turned to home-based self-employment as a way to improve their economic well-being. As a supplement to family income, and in some cases as a sole source of income, home-based business became a rural business phenomenon. The increasingly entrepreneurial tone of American life has now made home-based business an urban phenomenon as well (19). More significantly, as basic and more traditional industries decline, taking good jobs with them, home-based business is predicted to become a crucial part of the formula for life satisfaction and the economic survival of individuals, families and communities.

The importance of economic development has led to hundreds of communities competing for a very small number of large manufacturers. In addition to “smokestack chasing,” politicians and community leaders across the country have focused their attention on other economic development strategies, including attracting small businesses, service firms and tourism. Starting up home-based businesses is an emerging alternative (or supplement) to these activities (20). The added income and purchasing from home-based work makes a large impact on the economy.

Home-based businesses are creating new economic development and revitalizing rural economies. The number of home-based businesses is increasing in rural and urban areas on a scale previously not recognized. Contrary to popular myth, home-based business is as much a male activity as a female activity. Home-based businesses and home-based work will continue to grow as technology makes the traditional workplace less necessary for conducting business. The entrepreneurial spirit of the next generation and the common inclination of victims of corporate downsizing to start their own businesses can be expected to strengthen this trend. In a psychological, economic, sociological and political sense, home-based business may be the next frontier of economic and community development.

**Home-Based Businesses and Families**

While home-based business impacts the economy positively, it has another even more important effect. Heck, Owen & Rowe (21) explain how home-based business influences and is influenced by the family system. Home-based business clearly introduces a set of potential conflicts into the family setting. It is equally clear that a larger culture based on families has an impact on the success or failure of home-based business. Owen has developed a measure of family functioning, allowing her to look at the complicated relationships between home-based business and family functioning. Armed with this family functioning scale, business counselors can help families understand how any particular business may affect and be affected by the family.

This research allows for more informed decision-making about community infrastructure and policy. New training programs can teach individuals and families how to use home-based business as an economic
alternative, complementing and supplementing current activities. “Information generated from this research can assist people who seek to fulfill the dual roles of society: to be financially independent and to nurture strong and healthy children for the next generation” (22).

Potential entrepreneurs must fully understand the unique challenges and opportunities of home-based business. Women in particular must understand the dual demands of business and family. Home-based business owners must understand how to run a business. And family members must understand how they will or will not be involved.

As described by Heck, Rowe and Owen, “Home-based business is a quiet revolution.” The increasing trend is toward home-based work. Through its national research efforts, Purdue University is bringing home-based business to the forefront in national, state and local policy making. By ignoring the significance of home-based business in the past, we have discouraged rather than encouraged individuals and families. Policy makers, educators, planners and home-based workers will soon realize the realities of this vital and significant form of commerce. There is a need to reverse federal, state and local laws that have kept home-based businesses small and vulnerable, because the home-based business of today may be the Fortune 500 firm of tomorrow.

Healthy Business...Healthy Families?

The health of American businesses contributes to the economic health of individuals and families (e.g., jobs, salaries and futures) as well as to their social and psychological health. People depend on the economy to provide them opportunities to accumulate material resources and to make lives better, more interesting and more fulfilling. The disintegration of many Eastern European economies has been wholly consumer driven; governments cannot guarantee or even provide minimal support for basic consumer needs and desires. How businesses can better satisfy the customer is both an economic and a psychological issue.

In the early development of America’s modern consumer economy, businesses saw the consumer as a partner in their business. Without the customer, they had no business. Meanwhile, consumers could not afford to go outside of their local economy for goods and services. It was too expensive for businesses in one part of the country to distribute and sell goods and services outside their immediate trade area. In the modern day consumer economy, a gap has developed between businesses and consumers. Once central parts of community life, today’s shopping malls have become antiseptic arenas of alienation and deindividualization (23). Main streets and their businesses are dying (24). National and multi-
national businesses and retailers have no connection to the families they serve and the communities in which they operate.

It is simply in the best interest of businesses to reestablish themselves as central to family and community life. A business that contributes to the community will flourish. A business that allows employees to be parents, spouses and good citizens will flourish as the community pays it back with loyalty and profits. A series of studies by Chakravarty, Widdows & Feinberg (25, 26) has attempted to define this model of community, family, consumer and business partnership for the banking industry. In this model, the bank is not simply a repository for someone’s money, but a partner that adds value to the lives of families, communities and individuals.

The Rise of Strategic Consumerism

American business needs to change as consumers and families change. Businesses that understand the changes of the 21st century will grow and prosper. Those failing to meet the challenge of the changing family will wither and die in the shadow of businesses that do. Wal-Mart, for example, recognizes that families are on a 24-hour cycle and cannot shop by 5:00 p.m., so they are open 24 hours a day, seven days a week. In the meantime, the main street merchant who claims to have a right to community business by virtue of being on Main Street for 30 years will not stay open past 4:30 p.m. and closes on Sunday. Where is the logical place for consumers to shop?

The declining rate of growth in the workforce means businesses will need to attract and retain non-traditional workers and offer flexible work schedules. The availability of quality day care is already more important than a raise in pay for some businesses in attracting young, motivated female employees. The days of “park your heart at the door, because what we want is your brain” are ending so parents can attend their children’s ballgames and recitals. There is a new world order coming in the business community. Those businesses recognizing and meeting this challenge will be the winners.

Consumers are becoming tough practical shoppers who work hard for their money and want value. Surveys conducted by the Purdue Retail Institute find “price and value” to be the two driving forces in business. People will drive miles out of the way if they believe that a business offers what they want. And they clearly want “value.” Consumers do not wake up in the morning and ask, “What can I do for Business X?” but instead ask, “What can Business X do for me?” If the store doesn’t fulfill their expectations, the consumer simply will not go back. Just as we don’t
go back to restaurants serving bad food, we don’t go back to stores with poor service. Wal-Mart is successful because it fulfills consumers’ expectations better than the competition (27, 28).

Research at the Purdue Retail Institute and the Center for Consumer Driven Quality clearly shows a payoff to the bottom line of any business when customers are satisfied. Satisfaction creates business profit. Customer satisfaction is directly linked to increased sales, increased probability of other purchases, profits, loyalty and positive word of mouth.

Business and industry seem to be recognizing the prominence of customer satisfaction. Customer satisfaction is part of the mission statements of over 75% of Fortune 500 companies. A much smaller percentage of them are actually doing something about it. However, more firms are measuring and tracking customer satisfaction, using the information in strategic decision-making, marketing and business planning, and salary and incentive programs. The day is coming when customer satisfaction will be part of an annual corporate report and an integral part of corporate culture, not simply words offered to employees, consumers and shareholders.

To help businesses understand the role customer satisfaction plays in their future, Jon Anton, Richard Widdows & Richard Bennett have written a text, “Inbound Customer-Call Center” (29), and Anton, Monger, Feinberg & others (30) have written a general text on “Customer Quality Management.” In addition, Anton & Feinberg have put together a nine-hour set of video training tapes, “Total Quality Customer Service” (31) To better serve and satisfy consumers, the Purdue Retail Institute proposes businesses adopt “Ten Commandments of Customer Service.” Research clearly shows businesses that have adopted these principles as operating strategies are more successful and more profitable than businesses that have not.

The 10 Commandments of Customer Service

1. Customers have the right to not wait in line. Waiting in line is one of the top consumer complaints in supermarkets, banks and retail establishments. “Time poverty” causes consumers to cherish every minute.

2. Customers have the right to be treated with respect. Consumers are tired of being ignored, abused and treated as if they are an annoyance.

3. The customer has the right to have it done right the first time, every time. Customers have the right to have everyone who works in the store serve them. If an employee is not serving the customer, they better be serving someone who is. If they are not, they are probably not needed.

4. The customer has the right to products that work as promised. Businesses should choose wisely the vendors they deal with.

5. Customers have a right to value. If businesses are excessively marking up the price of products then they better give the customer some other greater value for their money.

6. Customers have a right to complain and be satisfied. Businesses must be told when they make errors and be given a chance to change.

7. The customer has the right to hear “yes.” Statements like, “we can’t do that,” “I’ll have to ask the manager” and “It couldn’t be helped” should be clues for the customer to find somewhere else to spend their money. Business needs to empower front line people to make the right decision for the customer. A customer whose complaint is resolved is more loyal than one whose complaint is not.

8. The customer has a right to “WOW!” Life is stressful. Work is stressful. Shopping should be fun. It is possible to get to the point where all customers exclaim, “Wow, that was the greatest experience of my life!” each and every time they shop. Stew Leonard’s, Nike Town, Saturn dealerships, the Mall of America and thousands of other small and big businesses have found ways to get customers to “WOW.” “OK” is just not good enough.

9. Customers have the right to get what they want. Businesses are made to satisfy customers. Gone are the days of “If we build it, they will come.”

10. Business must listen to the customer and give them what they want, not simply what the owner wants.

The New World Order of Business

The emerging 21st century consumer will lead to a new order of business. From the dominance of department stores in the 1950’s, the Purdue Retail Institute has tracked the growth and dominance of discount stores like Wal-Mart, K-Mart and Target. Traditional retailers and smaller businesses will continue to feel the pressure of more cost efficient and effective larger stores that allow individuals and families to more easily satisfy their needs.

Technological developments will increase the ability of stores to deliver goods and services more and more easily, at lower and lower prices. The frontier of home shopping is only the beginning. Technology will transform the way consumers and families purchase goods and
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services (32). Soon cable systems will include access to not only your local stores and malls, but also those thousands of miles away. Access to a world wide net of shopping opportunities will allow consumers to watch television and directly click on anything they want. The television will, with another “click,” automatically order the products or services to exact specifications and charge the order to an encrypted credit card account. Clothing will fit perfectly, because a chip in the TV will contain personal measurements. Mass produced, yet individualized products, will be delivered the next day. The “mass-customized products” are mass-produced, but new technology allows individualization for the same price. A consumer who likes the jacket Seinfeld is wearing simply has to click on it while watching television. The program will stop and the customer will be given a choice of size and color. After the order, the show continues where it left off. The jacket arrives the next day. If groceries are needed, the consumer only has to click in the order. One hour later, it will be at the door.

The control of shopping will be in the consumer’s hands. The investment company Charles Schwab’s began with “StreetSmart” software. Feinberg & Eastlick (33) call this an “empowering product,” products that give control to consumers. Through “StreetSmart,” consumers can do anything that they want with their investments without a broker. Charles Schwab has not eliminated the broker, but given the consumer more choices and power in their lives. Federal Express’s personal computer tracking software gives consumers information and control of pick-up, delivery and shipment location in much the same way. Will this mean the end of traditional retailing? Of course not. However, stores will need to better identify and define why customers should shop in their stores, since customers don’t need to go out anymore. Stores and malls must entertain as well as offer unique and interesting goods and services if consumers are going to patronize them (34).

Conclusion

Family issues have emerged as a significant political, economic and social concern in the mid-1990’s. Yet despite families’ many problems, evidence suggests families are viable and taking control of their destinies. In addition, the family is the focus of business strategy. This is partly because women have assumed a more prominent role in the economy. Women own over 40% of all business, up from 25% just 10 years ago. There are more jobs being created in firms owned by women than in all the Fortune 500 companies. There is a new economic world order, and women are driving it.

Life satisfaction is fundamentally determined by financial considerations. The equation of life satisfaction is determined at the intersection of businesses and consumers and families. The ability of a government and society to grow and develop is, in part, determined by the satisfaction of its citizens. The work in the Department of Consumer Sciences and Retailing at Purdue University outlined in this chapter is cemented by the belief that work in the service of consumer and family well being is an individual, family and business issue.

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Impacts on Families and Consumers of Research Conducted by the Restaurant, Hotel, Institutional and Tourism Management Department

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Introduction

The Department of Restaurant, Hotel, Institutional and Tourism Management (RHIT) focuses primarily on education, research and service related to companies or institutions operating in the restaurant, lodging or travel industries. Families, as consumers, ultimately benefit from these activities and create the demand for the industry’s services. Restaurant, lodging and travel industries constitute a very important and growing part of the consumer segment of the economy.

Research in the RHIT Department is part of a growing national research focus spearheaded by the professional organization of CHRIE, the International Council on Hotel, Restaurant and Institutional Education. CHRIE publishes two journals: (1) the Hospitality Research Journal which publishes research-oriented papers focusing on all of the target industries of RHIT, including tourism, and (2) the Hospitality & Tourism Educator which focuses on publishing education-oriented papers. There are many other quality journals serving this industry, including the Journal of Travel Research, Annuals of Tourism Research, International Journal of Hospitality Management, The Cornell H.R.A. Quarterly, and more recently, the Journal of Travel & Tourism Marketing,
Industry Growth

Both the hospitality and tourism industries are growing rapidly and represent a relatively large share of U.S. domestic economic activity. According to economists, these industries have a relatively high-income elasticity of demand. That is, for every 10 percent increase in real income over time, spending on both tourism and hospitality services increase at 5-10 percent.

The foodservice industry now accounts for approximately 50 percent of all spending for food in the United States. Food purchased in food stores increases relatively slowly as income increases, so food store spending has been declining over time as a share of total food spending.

People also like to travel. As personal incomes increase and as businesses expand both nationally and globally, people spend increasing amounts of money traveling. This trend is particularly noticeable in terms of international travel and travel by retired people. The travel industry prospers from the aging population because the first priority of many retired people is to see the nation and the world, now that they have the time. The increasing affluence of the older population has made this objective affordable for more consumers. The travel industry in recent years has contributed about $20 billion annually, or a net basis, to the U.S. balance of trade. This level rivals the contribution made by such major export industries as agriculture. Travelers to this country are spending more money than U.S. travelers are spending in foreign lands, spurred by the weakening value of the U.S. dollar.

Research

Research in the Department of Restaurant, Hotel, Institutional and Tourism Management touches on many of the family-oriented consumer issues mentioned above. They include:

1. Profiling the number and kinds of people who travel, eat in restaurants and stay in hotels.
2. Studying the reasons why people travel and frequent various hospitality businesses.
3. Identifying various customer segments and learning their special needs.
4. Efficiently managing the properties that are expanding to meet the increasing demands of consumers.
5. Improving the food and lodging services in high demand by consumers.
6. Helping these industries find qualified managers and employees.
7. Addressing many of the nutrition, food safety and food labeling issues related to the foodservice industry.
8. Helping schools cope with new legislation designed to improve children's menus and, at the same time, reduce environmental problems with waste disposal.
9. Focusing on the impacts of increasing taxes and other growing public policy issues related to the hospitality and tourism industries.
10. Follow are some of the specific studies and selected findings from research conducted recently in the Department of Restaurant, Hotel, Institutional and Tourism Management.
1. Consumer Food and Foodservice

Food and foodservice research is a priority concern of the RHIT Department. RHIT researchers have studied many different aspects of food as it relates to families and other consumers. Foodservice is a very personal activity that is at the heart of many family celebrations. Analyzing the factors associated with successful foodservice often begins with studies of the demographics and the preferences of participants; the type of food purchased and served, including its nutrient contents; the type of equipment used in preparing the food; and the market characteristics of different segments of the business. The various segments include institutional foodservice, such as food served in hospitals and schools, and the food served in restaurants.

The nutrition labeling law of 1990 is one area of interest in foodservice research. One provision, implemented as recently as 1996, relates specifically to families as they interface with the foodservice industry. Specifically, the law no longer excludes restaurants. The labeling rules for restaurants are less stringent than those for labels on food sold in grocery stores, but restaurants must document the basis of their nutrient claims and make them available to guests.

Almanza and her co-workers have studied obstacles to nutrition labeling in restaurants (8) as well as the nutritional implications of all nutrition labeling (9, 10). In addition, they have analyzed how point-of-sales nutrition information affects entree selection among patrons in a university restaurant setting (11). Results showed that making meal choices is a multi-faceted decision making process. People who took the time to read the nutrition information provided in the study were more likely to select nutritious foods. But simply providing information may not be the most effective way to promote the sale of nutritious entrees, unless people actually take the time to read it.

Food served in schools has been the major focus of a line of research in the Department of Restaurant, Hotel, Institutional and Tourism Management. Since 1990, Hiemstra and Almanza have annually conducted a set of studies commonly referred to as food commodity testing for Indiana schools (12, 13, 14, 15). These many-faceted studies are conducted for the State Department of Education’s School Food and Nutrition Programs Division, which operates the school foodservice programs in Indiana. The objective of these studies is to monitor the foods received from USDA as a part of the commodity support of the programs, which are further processed in Indiana to meet meal requirements and children’s preferences. Chemical tests are conducted to determine the nutrient content of the foods, which then is compared with commercially available products. The nutrients must comply with state contract requirements; and the grams of nutrients served must fulfill nutrient requirements of the children. Sensory tests are conducted to determine student preferences for the various USDA foods in relation to their commercial counterparts. Plate counts are also taken to determine the level of food safety of the food as served.

A related line of research in Indiana schools focuses on the general problem of helping schools to reduce food waste, consistent with state requirements for reducing landfill needs. Ghiselli, Almanza and Hiemstra have conducted several studies on this problem. These studies have spanned the subject by (1) doing a statewide survey to determine the amount of waste generated and the existing efforts by schools in reducing waste, (2) conducting a more in-depth study of a sizable sample of school corporations to determine the precise type of waste generated, from which State totals could be estimated; and (3) developing a system of audits that schools could use in monitoring their own waste and measuring comparisons over time (16, 17).

A relatively new effort is being made to assist schools in meeting new nutrient menu planning requirements, which went into effect in the summer of 1996. This effort included two workshops conducted at Purdue University in 1995 and 1996 to train the State staff and local school foodservice managers in meeting the new requirements. Schools were surveyed on the kinds of foods currently being served (18). Presently, two related studies are underway. The first is providing guidance to schools in implementing nutrient standard menu planning; the second is collecting data in a sample of schools to measure the nutrients in the foods currently being served (19).

The problem of employee theft in restaurants and food safety in implementing new Hazard Analysis Critical Control Point (HACCP) requirements have been studied by Ghiselli and others (20, 21). The acceptability of ratite meat (ostrich, emu, moa, kiwi) by consumers has also been explored (22).

The treatment of minorities and handicapped individuals in restaurants is a basic concern addressed by Jaffe'. He worked with Hardee’s to integrate disabled persons into their work force (23), and with an agricultural extension group to study hunger relief efforts in Indiana, Wisconsin and Iowa (24).

The retail demand for food and projections of retail food prices, both in grocery stores and in restaurants, have been analyzed by Hiemstra. Two recent consumer demand studies were conducted by Hiemstra to
determine the factors that influence consumers in the purchase of food in restaurants. One was based on consumer panel data from CREST (Consumer Research on Eating Share Trends) collected by NPD, Inc. and obtained under a cooperative agreement with USDA. This information is the only major source of household data focused entirely on consumer purchases of food from restaurants (25).

Both studies showed that income level is the most important determinant of spending in restaurants, but there are many other important factors. Distance from the restaurant is important for fine dining, but not for fast food. Spending is higher in summer than other times of the year. Households with working wives spend more money in restaurants than do others. Guests using credit cards spend much more than those using cash. Restaurant spending is much greater on weekends than during the week, and people in the Northeastern part of the country spend more than those in other regions, with the West coming in second.

Another study analyzed U.S. Department of Commerce retail sales data related to eating and drinking places. Researchers wanted to determine how sales were impacted by price changes for restaurant food, price changes for food in food stores and other factors, such as changes in consumer income and taxes eliminating deductions for business meals (26). This work contributed toward a regional USDA project to analyze consumer demand for food (S-216).

Hiemstra also conducted a food consumption and consumer expenditure survey of 900 households in five urban areas of Liberia (27, 28). The study measured food consumption by means of a weekly recall of individual food purchases. The primary purpose was to provide background information for the Ministry of Agriculture to develop or modify its food policies, with a principal concern for the self-sufficiency of rice.

2. Hotels and the Lodging Industry

Research on this subject has been limited primarily to studies of management issues rather than family concerns. For example, Nebel was concerned primarily with research related to understanding the background and career paths of hotel managers (29). But, some studies with a consumer or family orientation have been conducted from the perspective of the industry's employees.

In the late 1980s, one study projected the number of employees the industry would hire by the year 2000. At the time, there were concerns of looming employee shortages and high labor turnover rates (30, 31). The study further identified how industries could use alternative employment strategies to fill the gap (32). In addition, as a consultant to the American Hotel and Motel Association, Hiemstra researched the impact of room taxes on the number of rooms rented (33, 34). In particular, the research addressed how guests and hotel companies shared room taxes.

3. Travel and Tourism

RHIT has a significant research involvement in various consumers and family-oriented studies related to travel and tourism. Some of this research is focused on profile studies to determine the socio-economic characteristics of travelers to specific locations, why they travel and the destinations of primary interest to guests.

One international study focused on why vacationers traveled to Australia (35). Profile studies to determine the origin, interests and preferences of travelers were conducted in several locations, including Columbus, IN, Lafayette, IN, Springfield, MO., Monroe County, IN, Grant County, IN, and Greater Pittsburgh, PA.

Other studies identify various consumer segments of the travel market. This enables the industry to specifically target their customers and better satisfy their preferences. Segmentation studies lately focus on the VFR (visiting friends and relatives) market, which has been ignored in the past (36). A related study focused on the importance of the VFR market to the hotel industry (37). RHIT researchers also have measured and evaluated service quality in hotels and tourism organizations (38).

Various other segmentation studies compare the characteristics of travelers using packages versus those who individually arrange travel (39). The preferences of mature versus youth travelers have also been studied and contrasted (40). Travel expense patterns per household were also studied using data from the 1990 Consumer Expenditure Survey in comparing different segments of travelers (41).

Hiemstra (42) projects a growth rate of world tourists of 4.3 to 4.5 percent annually to the year 2000. Growth is strongest in Asia, which is growing at about 12 percent annually. North America and Europe are lagging in growth rates at only 2.5 to 3.0 percent, but they represent the largest share of total tourism. The United States expressed its concern for the overall importance of this industry last year by holding a White House conference on travel and tourism, where Purdue was represented by Professor Hiemstra. The lack of definitive data and differences in definitions and concepts in the industry are major research concerns.
Summary

RHIT professionals conduct much research concerning families and consumers. This is generally because families and consumers are guests of the organizations operating in the restaurant, lodging and travel industries. It makes good business sense to satisfy customers as fully as possible, particularly in this age of market segmentation. Therefore, it is imperative these industries know the preferences and types of people they are serving.

Stephen J. Hiemstra

Stephen J. Hiemstra retired from Purdue University in May 1998 and currently serves as a consultant in hospitality research. For the previous 15 years, he taught and conducted research in the Restaurant, Hotel, Institutional and Tourism Management Department of Purdue. His focus has been on marketing and economics as related to each of the industry focus areas of the Department. He served as Director of the Ph.D. Program in RHIT since the program was initiated in 1989. Prior to coming Purdue, Hiemstra worked as an economist for the U.S. Department of Agriculture in Washington DC for 23 years.

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Foods and Nutrition

by Avanelle Kirksey

Introduction

The science of foods and nutrition focuses primarily on the chemistry and composition of foods and the body's handling of food components during different stages in the life cycle. Researchers continue to assess dietary constituents and the kinds and amounts of nutrients needed to support the health of individuals, families and the population as a whole. Adequate nutrition is believed to enhance the quality of life of families through its contributions to the overall health and well being of individuals, including learning potential and work performance. Responding to the need for more information about these relationships, faculty in the Department of Foods and Nutrition have conducted much research. This research provides further knowledge about a) optimal amounts of essential nutrients needed by individuals for their well-being; b) human costs, e.g., behavioral and cognitive development, resulting from moderate malnutrition; and c) interactions among diet, genetics and disease, e.g., cancer, coronary heart disease and obesity.

The current obsession of the U.S. population with nutrition has resulted in a mass of information that unfortunately includes fad, fraud and quackery. To combat the serious problem of nutrition misinformation, the Department supports strong research programs, reinforced by equally strong nutrition outreach programs. These programs give the public accurate nutrition information and help low-income populations in Indiana achieve adequate diets.

This chapter will describe selected aspects of the research and outreach programs, led by faculty in the Department of Foods and Nutrition, that have contributed and can continue to contribute importantly to the quality of life of families.
OPTIMAL INTAKES OF NUTRIENTS

The Department's human nutrition research concerning optimal nutrient intakes focuses largely on the calcium needs of adolescent girls and vitamin B-6 needs during pregnancy, lactation and early infancy. At these particular stages in the life cycle, certain nutrients are in higher demand and nutritional inadequacies are more likely. However, the optimal intake remains uncertain. This section describes the Departmental research concerned with the assessment of optimal intakes of calcium and vitamin B-6 and the consequences of inadequacies.

Calcium

Calcium, a major component of mineralized tissue, is essential for normal growth and development of the skeleton and teeth. Because 99 percent of the calcium present in the body is in bone, optimal intake of this mineral refers to the amounts necessary to maximize peak bone mass, maintain bone mass and minimize bone loss in later years.

Calcium needs in adolescence have been investigated by Weaver and colleagues in 12- to 16-year-old girls participating in one or more of the metabolic research camps (Camp Calcium) held at Purdue University. This research focuses on building optimal peak bone mass, whereas to date, investigations have focused largely on decreasing the rate of bone loss in postmenopausal women. The age at which peak bone mass is achieved is of interest because interventions to increase bone mass must occur prior to achieving the peak if they are to be effective. Weaver's group was the first to develop an equation to determine the relative importance of age, weight, and body composition in achieving peak bone mass (1). The equation predicts that 91% of peak bone mass is achieved by age 17 and 99% is achieved by age 26 years.

The most rapid bone growth occurs during adolescence, which is the best time to target nutrition intervention. Using the same controlled study design, Weaver's group examined mechanisms for differences observed in calcium metabolism between adolescent and young adult females who had achieved adult height (2). Adolescents achieved greater calcium retention than adults through less urinary and fecal calcium output and increased absorption. This work and other studies in the literature were used to calculate calcium requirements for various age groups, including adolescents (3).

Aside from determining optimal calcium requirements, achieving currently recommended intakes is quite another matter. Dairy foods provide 75% of the calcium in the U.S. diet. Adolescents need five servings daily of dairy products to optimize their calcium retention. Weaver's research group has screened sources of calcium in a variety of foods to determine its bioavailability. The findings indicate that vegetables and grains can provide calcium, but the quantities of these foods required to replace the amount of available calcium in a glass of milk practically limit the role of other unfortified foods (4).

Osteoporosis is a condition of reduced bone density and is the major underlying cause of bone fractures affecting more than 25 million individuals in the United States with an associated annual health care cost exceeding $10 billion. Even small differences in bone density can have a great impact on risk of fracture; a 5% increase in bone density translates into a reduction of fracture risk of approximately 40%. Increasingly, osteoporosis is being thought of as a completely preventable disease if an individual consumed a lifelong adequate intake of calcium, participates in weight bearing exercise, and, for females, takes estrogen replacement therapy after the menopause.

Vitamin B-6

Research by Kirksey and coworkers (5) uses animal experiments to explore many far-reaching adverse effects of vitamin B-6 inadequacy (marginal to severe) on brain development. Light and electron microsop revealed striking effects of marginal deficits of this vitamin on the brain, e.g., increased numbers of shrunken and dying nerve cells and fewer connections for nerve impulse transmission among surviving cells. Furthermore, the brain abnormalities occurred without evidence of growth retardation, which is usually considered an early signal of inadequate nutrition.

The findings from animal studies prompted a series of human studies (6-9) to determine vitamin B-6 needs for pregnancy and lactation, particularly with respect to fetal and infant nutrition. Vitamin B-6 concentrations of human milk were observed to parallel variations in vitamin B-6 intakes of mothers and in turn were reflected in marked variations in their infant's intakes of the vitamin (7-9). Subsequent interdisciplinary investigations (nutrition, psychology and medicine) examined the relationship of vitamin B-6 status of mothers to the neurobehavior of their newborns and to interactions of mothers and infants at 3 to 6 months of age (10). Newborn behavior, quantified by standardized psychological tests, showed that certain aspects of neurodevelopment of infants (e.g., consolability, rapidity of build-up to crying, and response to aversive stimuli) were clearly associated with the vitamin B-6 status of their mothers. Moreover, vitamin B-6 status of...
families on a global scale will require increased collaborative efforts among nutrition researchers in various parts of the world, as well as the integration of nutrition with other scientific disciplines, e.g., medicine, psychology, economics, etc.

During the 1982-92 decade, Purdue scientists in nutrition, psychology and statistics participated with their counterparts in Egypt in a collaborative research program in human nutrition (11). Thus a cross-cultural multidisciplinary team was formed to examine the effects of mild-moderate malnutrition on human functions, (e.g., pregnancy and lactation, growth, morbidity and cognitive/behavioral development) in an Egyptian village. The design was a naturalistic observational study of village households, enabling the analyses of food intake and functional outcomes within the family context. Targeted members of village families were studied repeatedly over a period of at least one year.

Findings of the Egyptian study (11-13) indicated that dietary quality, especially mineral and vitamin intakes of mothers, were associated with birth weights, and with neurological behavior and cognition of breast-fed infants. Food intakes of toddlers and school-age children predicted their growth and intelligence, independent of the influences of illnesses. At all ages studied, dietary quality predicted cognitive and behavioral performance, independent of socioeconomic variables. This implies that diet mediates certain disadvantages commonly associated with poverty in families.

Currently the U.S. ranks 25th in infant mortality among the industrialized nations (1993), and Indiana ranks 39th among the 50 states (1995). Low birth weight is the greatest determinant of infant mortality and disability. Since 1989, Have A Healthy Baby Program has been a focus of the Expanded Food and Nutrition Education Program in Indiana (42). This program directed by Vandergraff addresses issues of nutrition and life-style choices (drugs, alcohol and smoking) to teenage and limited resource adult participants through videotapes, workbooks, and class activities. Data compiled since the beginning of the program, show the percentage of low birth weights of teenage participants was 6.8% compared to the state of Indiana average of 10%. This translates into estimated savings of several million dollars in health care/Medicaid costs. More importantly, the program has resulted in an increased number of healthy newborns that may later experience fewer neurobehavioral and cognitive problems.

**DIET, GENETICS AND DISEASE RELATIONSHIPS**

**Cancer**

Cancer is a disease that affects the lives of almost every family in the U.S. Investigations into ways of preventing or reversing this devastating disease have been extensive but in most cases, remain elusive. Research in the Department by Teegarden and coworkers (14,15) is attempting to identify key components that regulate cancer progression at the cellular level. They have determined that cell growth characteristics are altered and that the turnover, i.e. both synthesis and degradation, of phospholipids is higher in the presence of a cancer causing gene, the ras oncogene. Degradation produces several regulatory lipid compounds, such as fatty acids and prostaglandins. Several enzymes are responsible for the degradation of the phospholipids and production of the lipid compounds, including phospholipase A2 and prostaglandin H synthase-1 (16). Currently the focus is to determine how these products specifically affect cell growth in the presence of the oncogene and how certain dietary components, such as fatty acids, may modulate the growth of the ras oncogene-containing cells. If key components that regulate the growth of cancer cells can be identified, then treatments, such as diet, may be used to prevent or modulate the progression of cancers. Reducing the incidence of cancers or modifying its progression prevents deaths that can be catastrophic to families.

Research by Belury and coworkers (17-21) shows a dietary polyunsaturated fatty acid, called conjugated linoleic acid (CLA), reduces skin tumor development in cancer-prone mice. This fatty acid is present in meat, cheese, milk and yogurt, and in lesser amounts in poultry, eggs and corn oil. Heat, such as pan-frying and pasteurizing, increases its content in foods. CLA acts at both the initiation stage of cancer by inhibiting cells becoming precancerous and the promotion stage by halting the multiplication of precancerous cells to form tumors. In contrast to most cancer-fighting compounds in foods that are effective in only one tissue type, CLA is protective in a variety of tissues, including skin, stomach and the mammary gland. The overall goal of these studies is to determine how CLA interacts with polyunsaturated fatty acid.
metabolism to modulate tumor promotion. To accomplish this goal, Belury and coworkers are currently investigating the role of CLA in phospholipid metabolism, fatty acid oxidation and in signal transduction.

A series of investigations (22-27) by Morré and coworkers focus on understanding the role of vitamin A under normal conditions and in the progression of tumor formation and growth. Vitamin A can prevent, limit or improve tumorigenesis at various organ sites; however, its therapeutic use is hindered because accumulation in the body results in severe toxicity. On-going research in the Department by Morré and coworkers is attempting to avoid this problem by experimenting with techniques to target tumor cells without producing toxic effects on normal cells. Tumor cells from human cell lines are being used to evaluate cell growth, cell surface enzyme activities and induction of programmed cell death in response to experimental compounds.

Information from these investigations should further our understanding of the role of vitamin A in the progression of human tumor formation and growth.

**Coronary Heart Disease**

The magnitude of the problem of coronary heart disease, greater than that of cancer, means it will impact on the lives of most families. Much of the research in the area of diet and heart disease focuses on cholesterol metabolism because high levels of blood cholesterol (hypercholesterolemia) are associated with an increased risk for coronary heart disease. Therefore, researchers are very interested in finding ways to use dietary modification to reduce hypercholesterolemia and reduce the risk of heart disease. Gaining an understanding of mechanisms involved in dietary modification of cholesterol metabolism is an important public health issue because diet is a relatively noninvasive first line treatment of hypercholesterolemia.

Research by Story and co-workers deals primarily with the role of dietary fiber in cholesterol metabolism, especially the metabolism of bile acids. Bile acids are synthesized from cholesterol and secreted into the intestine where they function in fat digestion and absorption. Most bile acids are reabsorbed from the intestine and re-secreted many times with small amounts excreted in feces. Bile acids are a primary route for excretion of cholesterol; thus, understanding the regulation of bile acid metabolism may be a means of controlling hypercholesterolemia. Several sources of dietary fiber can alter cholesterol metabolism and reduce hypercholesterolemia. Story’s work indicates that modification of bile acid metabolism mediates, at least in part, the effects of dietary fiber.

Studies in rats show several sources of dietary fiber reduces the buildup of cholesterol induced experimentally by dietary cholesterol. These include alfalfa, oat bran, psyllium (the active ingredient in Metamucil®), pectin, and some others. Extensive studies of oat bran, psyllium and pectin show that psyllium and pectin increase bile acid synthesis and change the amounts of various bile acids, a possible mechanism for their hypocholesterolemic effects (28-30). Efforts continue to identify how dietary fiber affects enzymes involved in these changes.

Story and his research group in collaboration with investigators at other universities have extended their research with psyllium and oat bran from animal studies to human subjects (31,32). Both dietary fibers lowered serum cholesterol levels and increased the rate of bile acid synthesis in humans, similar to the effects observed in rats. Also, bile acid excretion in humans increased significantly in response to oat bran. In another collaborative human study (33,34), diets high in fiber, without changes in the levels of fat or cholesterol intake, significantly increased bile acid excretion and decreased serum cholesterol levels, thereby reducing the calculated risk for coronary heart disease. These studies indicated that the effects of dietary fiber were separate from that of other components of the diet.

To understand the usefulness of diet as a modifier of cholesterol metabolism, we must understand the importance of changes in bile acid metabolism, especially in the spectrum of bile acids synthesized in response to dietary fiber. In addition, we must understand how changes in activities affect key enzymes. This, in turn, can provide important information for making public health recommendations to families concerning the impact of diet in coronary heart disease risk.

**Obesity**

Obesity is one of the most common and detrimental nutritional disorders of American families and yet its incidence continues to increase at an alarming rate. During the 1980s, the prevalence of overweight American adults, by government standards, increased from about 25 to 33% of the population. A Harris poll showed that the weights of more than 70% of American adults exceeded the “desirable range” of insurance standards. Obesity is a heterogeneous and complicated disorder of appetite control and energy balance with a strong genetic influence. Thus, obesity tends to run in families and is not affected significantly by mothers’ efforts to prevent their children from overeating.

Conservative estimates in 1986 indicate obesity-related illnesses cost
American families more than $39 billion in medical costs and lost revenues. An additional $30 to $50 billion was spent annually in voluntary efforts to lose weight. Social costs of obesity are equally important, relegating the obese to lower socioeconomic status and to psychological trauma. Hence most Americans, especially females, prefer to be thin. Even so, educational programs on weight control and the resulting efforts of the general population have been a dismal failure. About 95% of obese patients participating in clinically supervised weight-loss programs regain their previous weight, and often more, within a 5-year period.

Conscious efforts to restrict caloric intake for extended periods are doomed to failure because few individuals are disciplined enough to control their appetite in an environment filled with high-caloric appealing foods. Clearly, a new approach is needed.

Based on meta-analysis of obesity research, Abernathy and Black (35) concluded that obesity results from overloaded fat cells that no longer have the capability to remove excesses of glucose and lipids from blood. Furthermore, obesity-related disorders usually respond to reduced food intake and exercise without significant decreases in percent body fat. Numerous studies show obese persons can be functionally healthy by losing about 10% of their body weight, even if they remain obese by standard height-weight tables. Low-fat, high-fiber diets based largely on fruits, vegetables, and cereal grains coupled with a moderate increase in physical activity usually result in small maintainable weight losses and restore the protective functions of fat cells.

Obesity is known to be associated with an increased incidence of heart disease, hypertension, certain cancers, and type II noninsulin-dependent diabetes mellitus. Gretebeck is investigating the mechanisms underlying obesity and its associated complications and risk factors through studies that manipulate energy intake and expenditure through diet and exercise. Gretebeck's research group is studying how the body uses different foods, which are either used for energy or stored in the body. They have demonstrated that glucose and fructose are both stored to the same extent when consumed after exercise by people on a low-calorie diet. But when people are consuming enough calories to maintain their weight, they burn less fat and more carbohydrates after a post-exercise fructose meal. Gretebeck's research group has also found that a diet high in fructose, which is commonly used as a sweetener in convenience foods, is less healthy than a diet high in glucose, which is found in starchy foods. This research shows that the type of carbohydrates American families eat may have important implications for their health.

Students in the Nutrition, Fitness and Health program are helping many adults in the local community maintain or improve their health. Jackman supervises senior Nutrition, Fitness, and Health students in providing expertise and guidance for adult participants in a weight and lifestyle management program. Participants in the program receive a thorough assessment of their eating habits, fitness level, and health. In addition, the transtheoretical model is used to identify each participant's stage of readiness for making changes in dietary and physical activity habits. Students and Jackman then work together with participants to identify specific areas for improvement related to nutrition and physical activity, and in setting attainable, individualized goals. Students and Jackman meet with participants weekly to monitor their progress and to provide nutrition and fitness education and counseling. This program affects families positively by helping participants make permanent changes in their dietary and physical activity habits.

The sensory, cognitive, metabolic, and neural influences on appetite and energy balance are being investigated by Mattes. In one line of study, accumulating evidence suggests there may be a chemically-based mechanism in the oral cavity for detecting dietary fats. Further, stimulation of this system influences lipid metabolism. These findings are presently under study with support from The National Institutes of Health. In a related project, the determinants of the preferred level of fat in foods are being explored.

A peanut study (supported by the U.S. Agency for International Development), is exploring the current view that peanuts are a high-calorie, high-fat food that should be avoided by those concerned about body weight and heart disease. Epidemiologic data suggests nut eaters do not weigh more than abstainers and, due, in part, to the fatty acid composition of peanuts, their diets tend to be more heart-healthy (i.e., higher in poly- and monounsaturated fatty acids). A recently completed short-term study indicates that peanuts have a high satiety value and, when consumed at a level of 500 Kcal/day, do not lead to an increase in daily energy consumption. A chronic feeding study is underway to ascertain the reliability and nutritional significance of this finding.

Mattes is also checking on the effects of food rheology on energy balance and is developing a database on characteristics of successful and unsuccessful dieters. The energetics of alcohol metabolism is also of interest in the lab. Studies are currently being planned to resolve the apparent inconsistency between epidemiological data that show moderate alcohol consumers ingest more daily energy than abstainers, but do not weigh more, whereas clinical studies indicate alcohol should promote...
with gain. Finally there are ongoing studies of the measurement, mechanisms and dietary implications of hunger.

In addition to these studies pertaining to obesity, Mattes is investigating salt-sensitivity classification and cephalic phase responses (physiological responses to sensory stimulation). Anything that affects the health and well being of individuals also affects families.

**Attention-Deficit/Hyperactivity Disorder in Children**

Attention-Deficit/Hyperactivity Disorder (AD/HD), a disorder characterized by inattention, impulsiveness and hyperactivity, has been conservatively estimated to affect 3 to 5% of the school-age population in the U.S. Its cause is presently unknown. In a study of 53 children with AD/HD, Burgess’s group (36) found significantly lower levels of fatty acids in plasma (20:4n-6, 20:5n-3 and 22:6n-3) and in red blood cells (20:4n-6 and 22:4n-6) than were observed in 43 children without the disorder. Importantly, a subgroup of 21 children with AD/HD who exhibited symptoms of essential fatty acid (EFA) deficiency (thirst, frequent urination and dry hair) had lower levels of plasma fatty acids (20:4n-6 and 22:6n-3) than the 32 children with AD/HD, but who had fewer symptoms of EFA deficiency. Moreover, plasma fatty acid concentrations of the children with fewer symptoms did not differ significantly from those of the control population.

Children with low concentrations of total n-3 fatty acids in plasma had more behavioral problems assessed by Conners’ Parent and Teacher Rating Scales than children with higher levels of plasma fatty acids. Children with low levels of both total n-6 and n-3 fatty acids in plasma showed symptoms indicative of EFA deficiency. Burgess’s group must yet determine whether behavioral problems of children with AD/HD can be improved by restoring plasma n-3 fatty acids and if so, what is the underlying cause of lower fatty acid status in children?

**NUTRITION INFORMATION DISSEMINATION AND ASSISTANCE TO LOW INCOME POPULATIONS**

Nutrition specialists of the Purdue University Cooperative Extension Service have major responsibilities to disseminate research-based nutrition, food science, and food safety principles and concepts to families in Indiana. Electronic mail has become an important tool in communicating information about nutrition, both for professionals and for the public. An electronic “mail group” was set up in Indiana in 1987 and was expanded in 1993 by Evers (37). It now links over 500 foods and nutrition professionals around the world. Through this system, educators and researchers receive rapid answers to specific questions, both technical and general, as well as information about publications and programs for use with the general public.

Evers’ research group (38) is exploring the use of flexible and multimedia capabilities of personal computers as avenues to increase the skills of dietitians in the area of clinical reasoning and nutritional assessment. Ultimately, communicating information to patients by interactive computer tutorials relating appropriate food choices to health may improve their compliance to dietary advice.

**Food Safety**

Food borne illnesses and food safety continue to be issues of national concern. In response to this concern, nutrition specialists Mason and Burgess at Purdue University have developed comprehensive food safety educational programs, such as *Producer Through Consumer: Partners to A Safe Food Supply* (39). The purpose of these programs is to aid families in their understanding of basic food safety issues. In addition, materials that include skills in safe food handling and preparation have been adapted for youth (4th-6th grades) and for low literacy and Spanish-speaking populations.

Looking toward the future in food processing, Mason and Wood have developed an educational package that provides reliable information about the safe use of irradiation in food processing (40,41). Irradiation, regulated by the Food & Drug Administration, is capable of destroying microorganisms responsible for many food borne illnesses, i.e. *E. Coli* and *Salmonella*, and extending the shelf-life of foods.

Food banks, food pantries, soup kitchens and other organizations that provide foods to the hungry (individuals and families) often rely on volunteers and staff with minimal or no knowledge of safe food handling. Since 1993, Burgess and Mason have led a team that develops and produces a nationally broadcast videoconference called “Safe Food for the Hungry,” addressing issues of food safety and nutrition. Workshops, coupled with the videoconference, hosted by Extension Educators in 20 sites throughout Indiana focus on food safety issues specifically for the not-for-profit organizations that provide food to the hungry.

Since the Alar scare in 1989, pesticides and contaminants have been a concern of the American public. Recent national attention has been directed at selected populations, such as infants and children, who may be more sensitive to contaminants due to their consumption patterns and their body mass. Santerre is developing rapid methods for measuring...
pesticides, heavy metals and animal drugs in various food systems. These methods will be instrumental in conducting risk assessments of contaminants in food. Santerre is working with educators throughout the State to disseminate accurate, scientifically-based information so that consumers can make informed decisions regarding their food purchasing, handling and consumption. In addition, Santerre’s research group is investigating the influence of food processing and preparation on contaminants. In many instances, processing causes a favorable reduction in contaminants. Research shows a 40-80% reduction in selected organochlorines during smoking, baking and frying of fish. However, they also have found incidences where thermal processing can cause an otherwise innocuous compound (i.e., Alar) to breakdown to a more toxic compound (i.e. UDMH) upon heating of the food. Santerre’s research has provided alternatives to certain food additives (e.g., sulfites) which have been shown to cause adverse health reactions in certain individuals. It is important that families throughout the U.S. continue to rely on the safety of their food, which is touted to be the safest in the world.

Expanded Food and Nutrition Education Program

In Indiana, an estimated 11% of the senior citizens, 12% of families with children and 40% of single mothers live below the poverty level. The Expanded Food and Nutrition Education Program (EFNEP) of the Cooperative Extension Service employs paraprofessional aides to assist low-income families, both rural and urban, to achieve nutritionally adequate and varied diets using limited food resources. The program also helps families overcome some of their management problems of obtaining, storing and using foods. Ultimately, EFNEP programming focuses on human resource development and not solely on nutrition.

SUMMARY

The Department of Foods and Nutrition seeks to maintain and improve the health and well-being of families through its many and varied research and educational programs that are geared to:

• Determine optimal nutrient needs during periods of the life cycle when nutritional adequacy is particularly critical, e.g., infancy and adolescence.

• Explore the human costs of moderate malnutrition in relation to function, e.g., pregnancy outcome, growth and neurobehavior/cognitive development. Even though nutritional deficiency diseases are largely eradicated in this country, moderate malnutrition continues to be a problem among some populations in the U.S. and is widespread globally.

• Identify the interlinks of diet, genes and disease, e.g., cancer, cardiovascular, obesity, osteoporosis and attention deficit/hyperactivity disorders, that may help alleviate these problems. As we understand more about genetic susceptibility to major chronic diseases and of nutrient-gene interactions, we anticipate that in the future gene-directed nutrition may replace population-wide nutritional recommendations.

• Use the flexibility and multimedia capability of computers to improve skills in clinical reasoning and nutritional assessments, which could increase the compliance of individuals to dietary advice.

• Disseminate research-based nutrition information to the public, e.g., reduced caloric foods, special dietary and medical foods and food safety. An electronic mail system initiated at Purdue University now links over 300 foods and nutrition professionals around the world and can provide rapid answers to questions from the general public.

• Assist low-income families in Indiana, both rural and urban, to use limited food resources to achieve nutritionally adequate and varied diets for their families. These issues offer responsibilities, opportunities and challenges to nutritionists.

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Avanelle Kirksey

Avanelle Kirksey, Meredith Distinguished Professor Emerita of Foods & Nutrition, was a faculty member of the Department of Foods & Nutrition at Purdue University for 35 years (1961-1996). In addition to undergraduate and graduate teaching, she developed a research program in Vitamin B-b nutrition in early infant development, which has received national and international recognition. She is also known internationally for her contributions as program administrator (1982-1992) of a nutrition
research program in Egypt sponsored by the U.S. Agency for International Development and as program facilitator (1987-1992) of a World Bank Project in Indonesia to develop graduate and research programs in nutrition. In 1997, she was awarded the degree of Doctor of Science, honoris causa, by Purdue University.

Family and Consumer Sciences Education: Contributing to the Well-Being of Families

by Wanda S. Fox, Ph.D.
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Family and consumer sciences education is an interdisciplinary field that combines expertise in professional education with content knowledge in family and consumer sciences. A large group of family and consumer sciences educators teach in schools, preparing students for family life, work life and careers in the field. Others hold professional positions with the cooperative extension service, community human service agencies and businesses. Family and consumer sciences education is a key link between various specialty areas (e.g. foods and nutrition, child development and family studies) and the general population. The major professional organizations of family and consumer sciences educators are the American Vocational Association, the American Association of Family and Consumer Sciences, and the National Council on Family Relations.

The aim of family and consumer sciences education is to “empower individuals and families across the lifespan to meet the challenges of living and working in a diverse, global society” (1). With this vision, family and consumer sciences education prepares individuals to become independent, to assume family roles, to contribute to the good of the community and society, to balance work and family, and to transfer personal skills to the workplace. This chapter will describe how family
and consumer sciences education stands to contribute to the well-being of individuals and families in the 21st century.

Most family and consumer sciences educator preparation programs are structured to meet state teacher licensing requirements; some offer students an option of whether or not to obtain the credentials needed for teaching in public schools (2). Students who meet licensing requirements qualify for many types of education positions, including, but not limited to, schools. Because programs in schools are the most common type of family and consumer sciences education, they are emphasized in this chapter.

Three major forces contribute to the potential strength of family and consumer sciences educator preparation: (1) a strong education foundation, (2) philosophical changes currently underway in the field and (3) impending changes in teacher licensing structures. The primary focus of the chapter is on the philosophical changes currently under way in family and consumer sciences education, including what these changes mean for curriculum and educator preparation. The existing foundation and the changes in teacher licensing requirements are discussed more briefly to describe how the philosophical changes are being implemented.

Existing Infrastructure

Family and consumer sciences education has a strong foundation, with courses offered in many middle and high schools throughout the country. Program revisions enhance the relevancy and vitality of the courses offered, and enrollments are increasing in many schools (3, 4). For example, the more than 1,100 family and consumer sciences teachers holding positions in Indiana schools work with over 235,000 students each school year. Specifically, more than 80% of Indiana’s middle schools (typically grades 6-8) require one or more family and consumer sciences courses for all students, and many offer additional elective courses. These courses range from 4 to 18 weeks in length. As a result, Indiana’s family and consumer sciences teachers impact more than 156,000 middle school students annually (5). At the secondary level, nearly all Indiana high schools have family and consumer sciences programs which offer a wide variety of one or two-semester courses. Enrollments in these Indiana high school courses exceed 80,000 students each year (6).

There are two major types of family and consumer sciences education in schools: (1) occupational education and (2) education for individual and family life. Occupational education prepares students for paid employment and careers in early childhood, education and services; food production and services; hospitality, tourism and recreation; family and community services; and other related areas. Students enrolled in these programs develop career skills through hands-on experiences in school-based laboratories or through supervised employment in business and industry. Through occupational programs, a large number of students who otherwise are not well served by the public school system gain vital job skills (7). Depending on students’ career goals, occupational education provides a foundation for entry-level employment following high school, additional technical education or related education at a four-year institution. As such, occupational education is an important component of the technology preparation and school-to-work programs in many schools.

The second major type of education, individual and family programs, addresses a broad range of areas including family, human development, interpersonal relationships, parenting, nutrition and wellness, and family and consumer resources. In addition, emphasis is increasingly given to life and career planning, work and family issues, and preparation for the world of work (8).

At the middle school level, family and consumer sciences education helps early adolescents address important developmental needs, such as developing personal identity, becoming independent, fostering relationships with family members and peers, and managing personal and material resources (9). In addition, such education has proven to be an excellent partner in student-centered learning, focusing on practical problems and real-life applications and using hands-on activities that carry into family and community settings (10).

At the secondary level, many high schools now require students to take one or more individual and family courses; these courses are often included in schools’ school-to-work and technology preparation clusters (11). Interdisciplinary courses are also growing. Cross-credit courses such as chemistry of foods and nutrition, consumer economics, and nutrition and fitness are offered in more than 15 states (12, 13). These types of courses enable students to gain knowledge and skills in family and consumer sciences areas while meeting graduation requirements in another subject, such as science, economics or physical education. They also make day-to-day learning more interesting. The integrated learning and hands-on approaches used in these courses are particularly good fits with current educational reforms (14).

The large numbers of teachers and students involved with middle and high school programs are an important feature of our education foundation. Another is the network of administrators who hold positions
with most states' Department of Education. These administrators, often referred to as family and consumer sciences specialists, lead education through curriculum development, funding, inservice teacher education, and many other state and national efforts.

A third facet of the existing education foundation is the active university teacher education programs found in nearly every state through which future family and consumer sciences educators are prepared for ongoing development and growth in the field. The faculty and staff of these programs typically work closely with state specialists and teachers to provide leadership in curriculum development, research and continuing professional development of teachers. For instance, over the past several years, educators of future teachers in Ohio and Oregon have been major contributors to statewide curriculum reform and development efforts that were coordinated by family and consumer sciences specialists with the state Department of Education (15, 16). Ohio teacher educators also have been instrumental in developing the state's teacher-leader program (17). In Indiana, teacher educators have worked closely with the state specialist and teachers to conduct professional development through inservice meetings and internships, as well as in a number of research projects (18). Such joint efforts are an especially powerful feature of our education foundation.

**Philosophical Changes in Family and Consumer Sciences Education**

The descriptions given above of current family and consumer sciences courses and programs show that major shifts have taken place over the past several years in the focus and emphasis of the field. The name change from "Home Economics" to "Family and Consumer Sciences" is a reflection of more important underlying philosophical changes which will enable family and consumer sciences education to address the complex, rapidly changing, and in many ways yet unknown, needs of individuals and families in the 21st century.

In 1994, the Home Economics (now Family and Consumer Sciences) Division of the American Vocational Association adopted two critical documents reflecting these changes: (1) Positioning the Profession for the 21st Century: A Philosophical Framework and (2) Vision and Mission Statements for Vocational Family and Consumer Sciences Education. In particular, the Vision and Mission Statements (see Table 1) represent a shift in family and consumer sciences education away from skill areas such as food preparation and clothing construction toward decision making and problem solving in preparation for family life, work life and careers in the field.

The groundwork for the current philosophical shift was established several years ago with the publication of Home Economics: A Definition (19), which offers a definition of what home economics should be. In particular, Brown and Paolucci describe the issues families face as "practical problems." Practical problems are value-based questions about what actions individuals and families should take in addressing the concerns they face over time, such as "What should we do about ongoing, recurrent matters, such as rearing children, having a place to live or meeting food needs?" Using this approach, the family and consumer sciences mission statements readily lead to questions, such as "What should we do about strengthening the well-being of individuals and families across the life span? What should we do about promoting optimal nutrition and wellness across the life span? What should we do about balancing personal, home, family and work lives?" and so forth.

A key distinction of the practical problems approach is its emphasis on examining and forming goals or valued ends. "A practical question, as a value question, does not ask what to do to reach given valued ends" (20). Instead, practical problem solving requires careful thought not only about how to reach particular goals, but also about what the goals should be. Thus, compared to a more traditional content and skills based approach, the practical problems approach emphasizes examining and identifying "valued ends" rather than acquiring "correct" knowledge and skills. The purpose is to empower individuals and families to critically examine alternatives in order to take actions that are best for them. Brown and Paolucci (21) advocate that this be accomplished through "practical reasoning," a process which includes five interrelated mental activities enacted in an cyclical, rather than sequential way: (1) examining and consciously forming goals or valued ends, (2) interpreting contextual information from multiple sources, (3) obtaining and using technical information and skills related to possible means or strategies, (4) considering consequences of actions, (5) deciding what to do.

In a later publication titled What is Home Economics Education?, Brown (22) says that families need to use three related systems of action to adequately address the practical problems they face: instrumental-technical, interpretive-communicative and critical-emancipatory. Families use instrumental-technical action, for example, to produce, purchase, manage and maintain the food, clothing, shelter and other material items needed for daily life. The second system of action, interpretive-communicative, enables family members to gain shared...
values and understandings, and to agree on goals and standards for the family. Interpretive-communicative actions are central to the socialization and development of children and to interaction with social groups outside the family. Third, families take critical-emancipative actions to examine and critique their own values and beliefs as well as those of society. Ongoing critical-emancipative actions help families gain authentic insight by asking questions such as “Why are we, as a family and a society, doing what we are doing? Is this really the best way to live?” According to Brown (23), the goal of critical-emancipative action to “free individuals, the family, and society from dogmatic beliefs and from social forces which are dominative or exploitive” (p. 101).

Critical-emancipative action is especially relevant to “work and family” issues, a central concern of our field. As indicated in the vision (Table 1), the “unique focus [of family and consumer sciences education] is on families, work and their interrelationships.” Three of the nine mission statements that support this vision are directly related to work and family. As shown in Table 1, these statements specify that “family and consumer sciences education prepares students for family life, work life and careers in family and consumer sciences by providing opportunities to develop knowledge, skills, attitudes and behaviors needed for: balancing personal home, family and work lives; using critical and creative thinking skills to address problems in diverse family, community and work environments; and becoming responsible citizens and leaders in family, community and work settings” (24). These purposes for family and consumer sciences education, combined with increased emphasis on critical-emancipatory action, are extremely relevant to individuals and families as they learn to cope with, and more importantly, to become proactive in examining and shaping their complex personal, family, and work lives in the 21st century.

In the 1991 Home Economics Teacher Education Yearbook, Work and family: Educational implications, several authors call for reexamination of the role of families in society, especially the relationships between families and work. In particular, Way (25) and Felstehausen (26) discuss the movement away from a “separate spheres” approach toward a more integrated perspective. Societal conditions such as increased career expectations for men and women, greater incidence of single-parent families and economic pressures that necessitate dual-earner families have and will demand ongoing consideration of the interdependent nature of work and family. Way and Rossmann (27) assert that “preparation for work life simply can no longer be disconnected from other key life roles, most especially family work roles” (p. 17).

Researchers Felstehausen, Couch, and Wragg (28) describe the role family and consumer sciences education can take in preparing students for the economic and social environment of the 21st century. In an article titled “Building Life Skills for the Changing Family and Workplace,” they state that:

To be productive, contributing members of society, individuals must be knowledgeable, but at the same time they must be healthy, adaptable and able to cope with life's changing situations . . . Success in the work place involves not only mastering employability, but also developing skills for managing stress and balancing work with family and personal life (p. 56).

They suggest that educators incorporate a variety of “skills for life,” including balancing work and family, into their curriculum.

Gender issues are an important concern when addressing the relationships between work and family life. It is well documented that in U.S. society, work-family domains, boundaries and interactions are different for males and females. Bass and Wilhelm (29), in their integrative summary of several work and family studies, explain:

Even though American society has praised the ideal of egalitarian roles from men and women, . . . the boundaries between work and family are asymmetrically permeable for men and women. Because of the difference in role expectations and constraints, women tend to have greater spillover from the family domain into the work domain, while men more often have the work domain spill into the family domain (p. 88).

Because family and consumer sciences courses are widely taken by both male and female students, educators are in an excellent position to foster students' discussion and consideration of their future work and family lives, including gender-related issues (30, 31).

Thompson (32, 33) provides an important theoretical framework for the discussions of gender roles and their relationships to work and family issues. She rigorously addresses the vital personal/private actions used to meet basic everyday needs. This compares to the family dimension of work and family interactions. Thompson opposes the devaluation in modern society of what she calls the “Hestian” or home-based sphere with nearly exclusive value placed on the “Hermean” or public sphere. The “Hermean” sphere parallels the work dimension of work and family. According to Thompson (34), “the dynamic interaction of the Hestian/Hermean systems affects the quality of life for individuals, families, communities and societies” (p. 162). She advocates replacing gender-based attitudes of “women's work” and “men's work” with interdependent and equally valued systems in which both men and
women participate.

To review, we've discussed four closely related philosophical changes in family and consumer sciences education, all of which enhance the ability of family and consumer sciences education to positively impact the changing lives of individuals and families. The first change is to consider family issues as "practical problems" expressed as value-based questions about how to meet daily needs. A second change is that rather than regulate the actions families should take, family and consumer sciences education emphasizes more "practical reasoning." This is a multi-step process individuals and families can use to examine and determine how best to address the practical problems they face. Third, in contrast to focusing on particular homemaking skills, family and consumer sciences education develops three types of joint actions necessary for families to adequately solve practical problems: technical-instrumental, communicative-interpretive and critical-emancipatory. Critical-emancipatory action is essential in examining and addressing the fourth area, the interrelationships of work and family, one of the most challenging issues facing families today and a unique focus of our field. All of these philosophical changes have considerable implications for family and consumer sciences curriculum in middle and secondary schools and for family and consumer sciences teacher education.

Implications for Curriculum

The practical problems approach gives participants (students) the skills for identifying the problems that families face, empowering themselves to ultimately decide which actions to take. As Brown (35) states, the "strategies for reaching the ends defined and formulated must be developed and accepted by those who risk the consequences of action" (p. 81). This is a considerable shift from traditional approaches to education in which the teacher or "expert" selected the knowledge and skills to be taught, with or without examining the valued ends and typically without input from students. The practical problems approach essentially flips traditional approaches by beginning with questions, emphasizing examination of goals and alternative ways to accomplish them, and addressing only the information and skills needed to identify and take the selected actions.

The practical problems approach is reflected in many recent curriculum initiatives. For instance, one of several middle-level units recently developed in Oregon (36) is organized around the question, "What should we do about improving the nutritional intake of the pre-teen/adolescent?" This curriculum emphasizes the three types of collaborative action, particularly critical-emancipatory. It is designed to systematically guide teachers and students in identifying beliefs embedded in our society, critically analyzing how society influences and reinforces our beliefs, and examining alternative beliefs in terms of their consequences for the individual, the family and society (37).

A second example is a middle-level curriculum framework and corresponding curriculum modules currently being developed in Indiana. This curriculum is based on four key questions adopted from the model developed in Ohio:

What should early adolescents do about:
- Creating a self-identity?
- Relating to others?
- Becoming independent?
- Managing resources?

The practical problems approach also implies the need to integrate content and skills. The complex problems families face necessitate a process-oriented curriculum, integrating knowledge and skills from various family and consumer sciences specialties (38, 39). For instance, rather than offering many courses based on specific content areas, Ohio's "Work and Family Education" curriculum includes just six high school level courses with a practical problem solving, integrative focus: (1) personal development, (2) nutrition and wellness, (3) family relations, (4) resources management, (5) parenting and (6) life planning. Four core processes are a part of every course: (1) managing work and family responsibilities, (2) relating to others, (3) solving personal and family problems and (4) assuming a leadership role. Process skills such as these are extremely important in a practical problems based curriculum. This has important implications for family and consumer sciences education and its ability to enable individuals and families to address needs and circumstances that do not yet exist.

Implications for Teacher/Education Preparation

Philosophical changes such as those outlined above have considerable significance for family and consumer sciences educator preparation. In many ways, the practical problems approach makes interpretive-communicative and critical-emancipatory actions primary, while technical-instrumental actions assume a secondary role. These changes
suit modern society and life roles very well, but they are not compatible with traditional teaching approaches. When instruction is structured around communication, critique and practical reasoning, the knowledge and skills needed by educators dramatically change. In this role, an educator mentors, guides, and moderates rather than dispenses information and demonstrates skills. Process skills such as critical and creative thinking, communication, leadership and management become a priority, making the classroom a more learner-centered environment where students and teachers work together to identify and pursue relevant content (40). Alternative assessments like portfolios, authentic tasks and student profiles, which focus on process skills combined with content knowledge, become essential (41). Procedures and skills for accomplishing such assessment are still being developed; as Redick (42) states, “How best to assess growth and changes in a process-oriented curriculum continues to be a concern” (p. 147). Researchers involved with family and consumer sciences teacher preparation programs are examining how to better prepare educators to use the practical problems approach.

Philosophical changes in family and consumer sciences education influence not only the type of teaching approaches used, but the type of content knowledge needed by educators. Schultz (43) favors a shift in family and consumer sciences teacher education to resemble the content preparation required by the National Council of Family Relations for “Certified Family Life Educators.” Components of this certification include families in society, internal dynamics of families, human growth and development, human sexuality, interpersonal relations, family resource management, parent education and guidance, ethics, and family life education methodology. Similar areas of emphasis are reflected in several areas of the National Standards for Secondary Family and Consumer Sciences Education (44), including: career, community and family connections; human development; family; interpersonal relationships; parenting; nutrition and wellness; and family and consumer resources. These emphases reflect a shift in focus from several content areas that have historically had prominent roles in family and consumer sciences education, particularly food preparation and clothing construction. They strongly influence the content knowledge which family and consumer sciences educators now need.

The practical problems approach naturally bridges family and consumer sciences content areas with many other fields, such as science, economics, social studies, communication, health, fine arts and physical education. To advance students’ awareness of context integration, educators must recognize and understand the common ground family and consumer sciences shares with other fields. This approach enables a strongly integrated, practical problems approach for family and consumer sciences education which mirrors the kind of coherent, real learning that students and their families will use throughout their lives. For educators to successfully carry out such interdisciplinary learning with their students, Fox and Van Buren (45) recommend a strong knowledge base in three major areas: family and consumer sciences content, general/liberal academic content, and educational principles related to curriculum integration and educational reform.

Revisions in Teacher Licensure

In addition to a strong and workable foundation and important philosophical changes underway in the field, a third major force currently contributing to the strength of family and consumer sciences education is revised teacher licensure structures. Across the country, more than 30 states are redesigning the licensing requirements for beginning teachers (46). These revisions, along with widespread changes in teacher education (47), provide an opportunity to refine family and consumer sciences teacher education, positioning it to address the changing needs of individuals and families in the coming century.

The 30 states mentioned above are basing their work on the model standards for licensing new teachers developed by the Interstate New Teacher Assessment and Support Consortium (INTASC), a project of the Council of Chief State School Officers. A fundamental difference between the INTASC structure and most current teacher licensing structures is that the proposed framework is based on performance rather than credit-hours:

An important attribute of the proposed standards . . . is that they are performance-based: that is, they describe what teachers should know and be able to do rather than listing courses that teachers should take in order to be awarded a license . . . This approach should clarify what the criteria are for assessment and licensing, placing more emphasis on the abilities teachers develop than the hours they spend taking classes. Ultimately, performance-based licensing standards should enable states to permit greater innovation and diversity in how teacher education programs operate by assessing their outcomes rather than their inputs of procedures (48, italics added).

The new standards, which call for a “major rethinking of [teacher preparation] programs” (49) are strikingly similar with the practical reasoning approach to family and consumer sciences education described above. Specifically,
Rather than merely ‘offering education,’ schools are now being asked to ensure that all students learn and perform at high levels — are able to frame as well as solve problems; find, integrate and synthesize information; create new solutions; learn on their own; and work cooperatively. Rather than merely ‘covering the curriculum,’ teachers are expected to enable diverse learners to learn at high levels, constructing knowledge and developing their abilities in effective and powerful ways (50).

Teachers’ deep knowledge of content and pedagogy is a cornerstone of the learner-centered educational approach advocated in the INTASC standards. Although teacher education programs will not be regulated based on specific credit hour requirements, teacher candidates will be strictly assessed based on their abilities to meet the specified standards. Thus, family and consumer sciences teacher education programs will be responsible for providing students with opportunities to gain “a strong liberal arts background, a strong understanding of content areas to be taught and a well-developed understanding of teaching and learning” (51). The new scope of licensure standards provides an opportunity to create educator preparation programs that take full advantage of the unique strengths of various universities. This will prepare educators who can build on the strong, existing infrastructure while implementing the philosophical changes that have been described.

Conclusion

Family and consumer sciences education can promote and enhance families and their essential role in society. The extensive structural base of students and teachers in secondary and middle schools; educators and clients in the cooperative extension service, businesses and community human service agencies; state specialists; and teacher educators will make this happen.

Ongoing philosophical changes provide important opportunities for family and consumer sciences education to reaffirm its position as a strong profession that enhances the abilities of individuals and families to function effectively in a multidimensional life. Through roles in schools, businesses and community agencies, educators have access to a broad audience, and their potential impact is large. As our education programs continue to be revised, graduates will contribute in diverse and powerful ways to the well-being of individuals and families in the 21st century.

I am grateful to Susan Kontos, Sharon Redick and Peggy Wild for their comments on earlier drafts of this paper.

Table 1

Vision and Mission Statements
Family and Consumer Sciences Education Division
American Vocational Association

Vision

Family and consumer sciences education empowers individuals and families across the life span to manage the challenges of living and working in a diverse, global society. Our unique focus is on families, work, and their interrelationships.

Mission Statements

The mission of family and consumer sciences education is to prepare students for family life, work life and careers in family and consumer sciences by providing opportunities to develop the knowledge, skills, attitudes and behaviors needed for:

- Strengthening the well-being of individuals and families across the life span.
- Becoming responsible citizens and leaders in family, community and work settings.
- Promoting optimal nutrition and wellness across the life span.
- Managing resources to meet the material needs of individuals and families.
- Balancing personal, home, family and work lives.
- Using critical and creative thinking skills to address problems in diverse family, community and work environments.
- Successful life management, employment and career development.
- Functioning effectively as providers and consumers of goods and services.
- Appreciating human worth and accepting responsibility for one’s actions and success in family and work life.
Wanda S. Fox

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6

Sharing Knowledge with People: Consumer and Family Science Extension

by April C. Mason, Ph.D., Professor and Associate Dean
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Introduction

Families are a precious resource. Like the natural resources of water, soil and air, families need to be conserved, strengthened and nurtured. The Cooperative Extension Service, and specifically Consumer and Family Sciences Extension, plays a large part in providing informal, community-based educational programming to assist families. Consumer and Family Sciences Extension provides education in the areas of personal and business finance, human development, leadership development, nutrition, health and wellness to strengthen families, their relationships and their resilience to today's many challenges. Extension education direction is determined by community needs assessment. Extension is truly a grass-roots driven organization, the result of a partnership between Indiana communities and the land-grant university. Cooperative Extension and Consumer and Family Sciences Extension programming have changed over a rich history of effort, but the mission remains constant: to bring needed education to citizens of Indiana, wherever they might be, to strengthen families.

History

The establishment of the Indiana Cooperative Extension Service at Purdue University, now called the Purdue University Cooperative Extension Service, is the result of three important federal legislative
events. The Morrill Act of 1862 established the land grant university system and Purdue University was founded as Indiana's land grant university in 1869. The Hatch Act of 1887 brought special appropriations to the land grant colleges for research, and in 1914, the Smith-Lever Act established federal funding for outreach from the higher education institutions of the land grant universities to the residents of their states. Coupled with state legislative events, the first Extension agent in Indiana was in LaPorte County in 1912. A short 8 years later, 72 of the 92 counties had county Extension programs, and by 1937, all 92 counties of Indiana could boast of one.

Indiana state law requires Cooperative Extension staff in each county to consist of an administrator and staff members in agriculture, home economics, youth and other specialty areas. State law requires the extension educator, under the supervision of the state Cooperative Extension Service at Purdue University, to: 1) provide and carry on education programs in agricultural production, home economics, family living, management, public affairs, community development and recreation; 2) assist other programs for the welfare of the citizens of Indiana; 3) conduct 4-H clubs and other work with youth; 4) give information and council to producers, distributors and consumers regarding agricultural products; and 5) cooperate with farmers, farmers' organizations, home economics organizations, and other rural and urban organizations (Sections 62-64, IC 20-12-42.1-1, 1-2, 1-3 of the Indiana state law).

The Cooperative Extension Service has built home economics, consumer, family living and management issues into their outreach agenda from the very beginning. The School of Consumer and Family Sciences plays a key role in delivering the mandate of both the federal and state government to provide education, information, counsel, technical assistance and cooperation for the welfare of Indiana citizens.

Funding

Funding for the Cooperative Extension Service at the state level is a balance of federal, state and county dollars. Each state tips the balance in different ways. In Indiana in 1997, 31.38% of the total budget was supplied by county appropriations. State allocations from general funds and specific line items constituted another 30.54% of the budget, federal Smith-Lever funds provided 24.81% of the budget, and grants, cooperative agreements and other contracts rounded out the budget with 13.27%. Indiana is unique in this funding arrangement, receiving a much greater part of total support from county dollars than do other comparable Midwest Cooperative Extension Services. As federal dollars fail to keep up with cost increases, due to budget balancing efforts in Washington D.C., the proportion of the Purdue University Cooperative Extension budget coming from the federal partner decreases. Dependence on state and county appropriations continues to increase to make up for the federal dollar shortfall. The emphasis for all Extension staff bringing in extramural grants and contracts increases as well.

Mission of the Cooperative Extension Services and Consumer and Family Sciences Extension

Mission statements are banners for organizations to let people know what they do and what they are about. The mission statement of the Purdue University Cooperative Extension Service is “the education of Indiana citizens through application of the land-grant university research and knowledge base for the benefit of agriculture, youth, families and communities.” Cooperative Extension stands for education. In 1993, the title of county staff in the Purdue Cooperative Extension Service was changed from “agent” to “educator.” The title more aptly describes what staff do; they educate. The mission statement of Consumer and Family Sciences Extension is “…to provide informal educational programs that increase knowledge, influence attitudes, teach skills and inspire aspirations. Through the adoption and application of these practices, the quality of individual, family and community life is improved.”

Programs of Consumer and Family Sciences Extension focus on families of greatly varying circumstances, and strive to develop individuals so they can effectively identify and solve problems directly affecting their welfare. Programs are primarily preventive in nature, but sometimes focus on educational intervention for families in crisis. Extension Consumer and Family Sciences is unique among other social and governmental institutions because its focus is the wholeness of family life instead of fragmentary aspects. It brings current research and the educational programs of Purdue University to bear on local situations, as well as transmitting needs for new knowledge back to the University. This is accomplished through three specialties within Extension Consumer and Family Sciences: Foods and Nutrition, Human Development and Family Resource Management. In addition to the three subject matter specialties, Consumer and Family Sciences Extension focuses on nutrition education for limited resource audiences through the Expanded Food and Nutrition Education Program and the Family Nutrition Program. (See the School of Consumer and Family Sciences web site: http://www.cfs.purdue.edu/extension/mission.htm)
Historical Prospective on Programming

The Cooperative Extension Service started in 1914, the same year World War I broke out in Europe. Cooperative Extension played a large role in assisting fewer people to produce more food during the war years. During the economic depression of the 1920's and 1930's, Extension continued to work with farmers, farm families, including farm women, and with youth through 4-H. The changes experienced by families in the decades of the 40's through the 90's are arguably the most dramatic in American history. A second world war and the changes it brought to the American workforce, growth in consumerism, social inequality, media information transfer and population shifts have all been highly influential trends on families and households. Consumer and Family Sciences Extension responded in the past and continues to respond today to the issues, challenges and needs of families.

In the 1950's, roughly 60% of families were of the mom, dad and two children variety. Families were moving to the suburbs and owned their own homes. Per capita income was increasing and jobs were secure. Women were not a large proportion of the workforce. Programs in Extension were targeted to homemakers. Some of the programming sounds very familiar: home management, including personal finance management, food preparation and preservation, cooking demonstrations, leadership development for women, public policy and government, use of appliances, home safety and parenting.

In the 1960's, 88% of children lived with both of their biological parents and only one in five mothers with children under the age of six were in the work force. The federal government made large investments in social programs and the rate of child poverty was cut in half from levels reported in the 1950's. In Extension, the Expanded Food and Nutrition Education Program (EFNEP) was started. This program for low income families with young children teaches nutrition, food preparation, food purchasing and budgeting, and food safety to families struggling to make paychecks and government assistance stretch to the end of the month.

In the 1970's, programs like school lunch and food stamps began to close the nutrition gap between the poor and rich. Child poverty continued to drop. Welfare benefits to the elderly increased by 52%. Other changes in the U.S. society included the start of a decline in real wage value and a trend to population diversification with in-migration. The Cooperative Extension Service responded with broad-based community programs. Dean Emeritus Eva Goble recounts Extension assisting school lunch program planning and Extension volunteers helping prepare children's lunches. "Master" programs gained popularity, such as master gardener and master food preserver. These Master programs are "train the volunteer" course programs that provide extensive information and training so volunteers can answer questions, assist consumers and assist in training new volunteers.

The 1980's saw major changes in the status and structure of families in the United States. The average number of persons per household dropped to 2.7 and continues to decrease today. Single family home ownership began to decline, and the federal government raised subsidies on public housing and increased tax deductions to homeowners. Large numbers of women with young children entered the work force and our population centers shifted from the farm belt to the cities and suburbs. From 1980-1990, the U.S. population grew by 9.8%: Caucasians 6%, African-Americans 13.2%, Hispanics 53% and Asians 108%.

As dramatically as the society changed in the 80's, so did Extension. Concerted projects in community development and public policy were initiated. Applied research became an important part of the family research agenda. And model evaluation to measure impact of programming was initiated.

Cooperative Extension programming today responds to new and even more challenging changes in family and society. In the 1990's, couples with no children outnumber couples with children, and the largest numbers of households are adults living alone. One third of households today are headed by a single mother; 55% of African American children are raised by a single parent. One in 50 Americans live on a farm. Child poverty levels have returned to the 1965 high. The rate of high school graduation is at an all time high, but a 1996 male high school graduate earned less in real income than a 1963 high school graduate. Life expectancy continues to increase. Public and political debate includes family "values" and family policy.

Cooperative Extension responds to these challenges with targeted issues programming, with local issues identified by diverse community representatives. Federal money given to states supports special initiative programming like food safety, family resilience, personal financial management, work force preparedness and parenting skills. The last section of this chapter of the Center for Families monograph will project what the future holds for the Cooperative Extension response.
Personalities of the Rich Past and Present

In preparation for this chapter, the author conducted four interviews with important members of the Purdue University Cooperative Extension Service’s rich history: Janalyce Rouls, retired Extension Specialist and advisor to the Indiana Extension Homemakers Association; Howard Diesslin, Purdue University Cooperative Extension Service Director from 1962-1983; Henry Wadsworth, Purdue University Cooperative Extension Service Director, 1983 to the present; and Eva Goble, Dean Emerita of the School of Consumer and Family Sciences. It was truly a delight to have the opportunity to converse with these pillars of Purdue University Cooperative Extension. A series of questions were posed of each, including when they began working for Extension and what type of programming they saw as critical. Each provided an optimistic view of the future of Purdue University Cooperative Extension. With the limits of this chapter’s length, included here are only a few glimpses of the wonderful interviews recorded.

Janalyce Rouls was the advisor to the Indiana Extension Homemaker Association for 20 years. She saw the importance of the organization in building self-esteem in women, leadership development and community building. Ms. Rouls says she learned more from the people she taught and worked with, than they did from her. She emphasized this point by saying that not all smart people live in ivory towers and have advanced degrees. Director Diesslin gave advice for the future. Extension should identify critical needs and develop educational programming to help make the greatest amount of difference in the lives of families.

The author’s hour in the home of Eva Goble was magical. Dean Goble started her Extension career as a Home Demonstration agent in Vigo County in 1941. She came to Purdue University in 1943 as a Home Management Specialist and did her graduate work. She studied farm women and work efficiency. She was among the very few women at Purdue University during that time. Dean Goble was instrumental in organizing the Indiana Extension Homemakers to buy a Purdue University Research Foundation house and turn it into a cooperative, Twin Pines, for young women to live and learn while studying at Purdue University. Dean Goble describes a rich future for Extension programming, addressing issues like families with limited resources, work/family balancing issues, health, intercultural relations, welfare reform impact and land use and environmental issues. Her identification of needs sounds like the 1998 county needs assessment conducted only months ago. Dean Goble represents a rich personality of the past, but also a clear visionary for the future of the Cooperative Extension Service.

CFS Extension Staffing

Consumer and Family Sciences Extension is staffed by faculty and professional staff on campus, and by more professional staff in the 92 counties. Each staff member specializes in one of three areas: family resource management, foods and nutrition, or human development. On-campus Extension specialists, faculty and professional staff are integrated into three of the four Consumer and Family Sciences School departments: Child Development and Family Studies (Human Development), Consumer Science and Retailing (Family Resource Management), and Foods and Nutrition. The job description of Consumer and Family Sciences Extension Specialists includes these responsibilities:

1. Provide leadership and direction for statewide Extension educational programs in their respective subject-matter areas,

2. Maintain professional competencies,

3. Function as a team member of the total Extension system,

4. Develop linkages and connection with related organizations and agencies, and

5. Function as a member of an academic department.

Each specialist with a faculty rank has the responsibility of scholarly activity toward tenure and promotion, as any other faculty member. Dean Eva Goble engineered integration of Extension staff into departments within Consumer and Family Sciences in 1967. Dean Emeritus Goble saw the importance of Extension professionals working side by side with their teaching colleagues and the important collaborative projects that could develop in Extension and Research. Administration of Extension specialists within academic departments requires close collaboration of Consumer and Family Sciences department heads and the Extension Program Leader/Assistant Director (Associate Dean, School of Consumer and Family Sciences).

Extension educators are located in county Extension offices in county seats. Required to have a Master’s degree, Purdue University county educators come from many areas of expertise: Family and Consumer
Science education, adult education, dietetics and Extension education to name only a few. County positions are advertised for their subject matter specialization. A balance of subject matter specialized educators are distributed within each of the 10 Extension state geographic areas. Educators conduct programming in their subject matter within multiple counties in their geographic area. Responsibilities of the county Extension Educator are:

1. Program planning,
2. Program development,
3. Program accountability and evaluation,
4. Volunteer leadership development,
5. Interagency collaboration,
6. Community development, and
7. Professional improvement.

The importance of collaboration and communication between campus and county staff cannot be overemphasized: one cannot function without the other. The success of Cooperative Extension programs is determined by careful program development, implementation, evaluation and reporting by both county and campus based partners. Campus staff must maintain strong contacts nationally and follow their academic discipline. County staff are closely integrated into their community, forging collaborations with local education and service professionals, while maintaining expertise in their subject matter.

Indiana’s specialization of its county educators is unlike most other Cooperative Extension systems. Its specialization allows for in-depth professional development, specific programming efforts at the county level and strong departmental ties to Purdue University. Specialization of educators has to be flexible because county needs are diverse. For example, a county with a foods and nutrition specialized educator will also need strong programming in parent education. Extension has responded with in-service education for all educators in high demand/high need topics like parenting, financial management and nutrition education.

**CFS Extension Audience**

When asked who the Consumer and Family Sciences Extension audience was, Janalyce Rouls, retired Extension specialist and former county educator, responded: “The citizens of Indiana.” Indeed, that is the legislative mandate, but a huge task. Consumer and Family Sciences Extension professionals target specific segments of the citizens of Indiana for programming. Programming efforts since the beginning of Extension programming have included a focus on limited resource audiences who may not have other educational opportunities. This emphasis does not exclude other audiences, but Extension has forged collaborations to assist limited resource audiences who face increased challenges with the passage of the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, or Welfare Reform. Extension programming provides education to food stamp recipients, food stamp eligible families, Indiana Manpower and Comprehensive Placement program (IMPACT) workers, court-ordered and/or incarcerated clientele, recipients of Temporary Assistance to Needy Families (TANF), and displaced homemakers (the result of divorce or death). Extension collaborates in its educational mission with state and local Step Ahead Councils, Healthy Families, Head Start programs, schools and faith organizations. Each educator works with local county leaders to identify needs and audiences. “Grass roots” is truly the definition of county Extension program identification.

In 1997, the Indiana State Legislative Services Agency conducted an audit of the Purdue Cooperative Extension Service and focused on the activities of Consumer and Family Sciences Extension in the area of Welfare Reform. The Agency’s report, published in July 1997, found CFS Extension’s activities in programming for audiences affected by Welfare Reform consistent with the mission and legislative mandate of the Extension Service. Care and planning are in place to assure there is no duplication of programming efforts with existing social service organizations. Extension’s educational emphasis creates a clear distinction between Extension and social service programming.

CFS Extension has a rich history of working with local organizations. When discussing clientele, the Indiana Extension Homemaker Association (IEHA) stands out as a partner to Consumer and Family Sciences Extension. From roots in a state home economics association, through a period of high membership growth as the Indiana Home Demonstration Association, IEHA is now independent of Cooperative Extension in organization and membership, but is a partner in adult and continuing education. Today the organization is devoted to state and county programming to benefit Indiana. Examples of the important projects taken on by IEHA include: breast cancer awareness, organ donation, Teddy Bears for hospitalized children and clothes for newborns...
of teenage mothers.

Public policy comes alive when discussing IEHA. The organization has an active legislative telephone network, monitors state and federal legislation that affects families, and educates it membership on the legislative process. In fall 1997, forums were held in the IEHA districts throughout the state to inform members of the impact of public input into the legislative process. Henry Wadsworth, current Director of the Purdue Cooperative Extension Service, recognizes the impact organizations such as IEHA can have on public policy. The IEHA was mobilized to support state legislative funding of Cooperative Extension in the last two legislative sessions.

Purdue University Cooperative Extension feels so strongly about the mission of education to the IEHA, that the Assistant Program Leader in Consumer and Family Sciences Extension administration serves as an advisor to the organization. The organization has an annual educational conference on the Purdue University campus, the Home and Family Conference, with educational sessions given by Extension and non-Extension professionals, and attracting both new and long-time members of the organization. The conference is open to the public.

Current Programming Emphasis

In 1997, 238,672 consumers were contacted directly by Consumer and Family Sciences Extension programs. Programming falls into three main categories: building life skills, strengthening families and impacting communities. In the area of building life skills, Consumer and Family Sciences Extension education helps families to: communicate; manage material resources; provide safe and nutritious food; budget for family needs; ensure the safety of their home and environment; plan for retirement; and make informed savings, investments, insurance and estate-planning decisions. Many pressures impact today's families. Consumer and Family Sciences Extension programming helps families and individuals face issues and pressures of everyday life. Programming addresses parenting, adult care-giving, building self-esteem, stress management, consumer education, financial information, nutrition and food safety education, and prenatal health. Communities in Indiana are changing and dealing with the pressures of that change. Consumer and Family Sciences Extension professionals act as catalysts to bring together educators, service providers and citizens to address community issues and solve local problems. Leadership development is a theme of the Cooperative Extension Service, and Consumer and Family Sciences Extension plays a large role in leadership training through the IEHA

Family Community Leadership program and other leadership development programs.

To make a list of programming efforts in Consumer and Family Sciences would require too much space in this chapter. However, a representative list of specific programs to show the extent and breadth of programming would include:

- Have a Healthy Baby—prenatal nutrition and lifestyle program for expectant mothers;
- Safe Food for the Hungry—food safety and nutrition education for staff and volunteers of not-for-profit food assistance programs;
- Women's Financial Information Program—financial management specifically for women new to handling finances;
- Making Your Money Work—financial literacy program for limited resource audiences, with an emphasis on budgeting and beginning saving;
- Mentor Mothers—the pairing of experienced moms with new young mothers to provide mentoring in the critical first years of parenting;
- It's My Child Too—a fathering curriculum jointed sponsored by CFS Extension and the Center for Families. This curriculum was developed with the specific parenting needs of non-custodial fathers in mind.

In interviews conducted with former leaders in the area of Consumer and Family Sciences Extension, the author was struck by the similarity of programming topics in the decades past compared to today. Issues of financial management, parenting skills, nutritious and safe food were covered in the '50s and continue to dominate programming in the '90s. Issues facing families are much the same today as they have been over the last number of decades, although the demographics and means of reaching audiences and educational technologies have changed significantly. Extension is moving away from exclusive face-to-face group lesson educational programming, to individualized, self-paced newsletters, electronic communication, videotape production, and audio and video conferencing. Each Extension professional must choose the means of educational communication best suited to specific audiences and curricula.
Partnership with the Center for Families

The founding of the Center for Families in 1993 brought a home for research and outreach activities devoted to families of the School of Consumer and Family Sciences. Consumer and Family Sciences Extension has developed a partnership with the Center that expands the reach of either entity alone. Two positions have been formed that represent the linkage. An Extension Specialist position in the Department of Child Development and Family Studies is the Assistant Director of the Center for Families for Outreach. This position is pivotal to providing an outreach mechanism of the outstanding research conducted within the Center. Currently this position is providing leadership to the fathering curriculum It's My Child Too and welfare reform programming in the state. A second position is the Assistant Director of the Center for Families for Policy. This position is responsible for monitoring policy issues and is currently working on establishing Family Impact Seminars in the state of Indiana to provide research based information to state legislators and other decision makers to use in policy making.

Future of CFS Extension

The Cooperative Extension Service is at a turning point as we look forward to a new millennium. At a regional meeting of Extension professionals held in Milwaukee, WI, in 1996, the North Central Region Assistant Directors presented a vision for Extension programming for the 21st Century: Cooperative Extension Programs of the 21st Century will strengthen families and communities by:

1. Partnering with agencies to achieve priority outcomes. No one agency or program is large or diverse enough to address all the issues of families and communities. Coordination of the efforts of many agencies, each working in their particular area of expertise, provides much better resources and staffing to address large issues. The Cooperative Extension Service needs to continue partnering at the federal, state and local levels with related organizations to help serve families and communities more comprehensively.

2. Working toward a dual role of program delivery: staff development and direct education to targeted audiences. Cooperative Extension can provide staff development opportunities both for its own staff and for the staff of partnering agencies. Staff development is a large part of the responsibility of state Extension Specialists. Joint staff development opportunities for Extension and other agency staff could help forge lasting working relationships between staff members. Current examples of this are joint staff development provided to both Extension staff and Department of Health staff, and Extension and Department of Education staff. Although the audience of Cooperative Extension is “the citizens of Indiana,” focus and targeting of high-need audiences is essential. Direct education to targeted audiences using different educational models such as volunteers, train-the-trainer, paraprofessionals and direct staff contacts are essential to multiply the limited number of Extension staff members.

3. Provide research data to assist decision makers that interpret impact of policy options. The Purdue Cooperative Extension Service is backed by a force that cannot be replicated by any other organization—Purdue University. Extension has the mandate to get research data to decision makers. The proposed initiation of Family Impact Seminars in the state of Indiana, under the direction of the Center for Families and Cooperative Extension, will go far to help decision makers understand family policy issues, and help them consider their options to assist families in their legislative district and the entire state.

4. Building strong partnerships with land-grant researchers and communities to implement applied research. Partnerships with state and local agencies are essential; Cooperative Extension also has to partner with the other two arms of the land grant college: research and teaching. Today Extension specialists with faculty rank have joint appointments in teaching and research. Collaborations are formed with professionals across the imaginary boundaries of research, teaching and outreach. A spirit of collegiality is further fostered by the Center for Families with its linkages to teaching and outreach while promoting important family related research.

5. Concentrating on specialized niches where Cooperative Extension has expertise and there is little duplication by other organizations. The Cooperative Extension Service cannot do everything: “be all things to all people.” Current funding, staffing and resources dictate that focus and concentration are essential to making real impact in any area. Administrators need to allow staff to let some things go, and tailor high need, high impact programming to local needs and community priorities. Extension facilitates community needs assessment efforts and helps plan and evaluate community delivered educational programs.

6. Utilizing technology to provide partners and customers with educational information to meet their individual schedules for learning. Cooperative Extension has taken the lead in using different technologies to individualize education to different schedules and styles of learning. Extension needs to continue being a leader in bringing internet courses, distance learning opportunities and the future technologies to people who
need the information.

7. **Generating resources to support program efforts.** Balanced federal budgets and tax reform are inconsistent with new federal financial resources for the Cooperative Extension Service or many other federal agencies. Staff are now required to be creative in funding programs. New resources will come to Cooperative Extension only through grants and contracts. These grants and contracts will be focused and specialized to special niches and particular needs.

The future is bright for Cooperative Extension. It is bright because new Extension professionals and seasoned Extension veterans who see the need for focus and communication of impact in vital program efforts. Extension was founded to take the knowledge of the university to the people. The knowledge of the university continues to grow at ever-heightened speeds and Extension must continue to share that knowledge with all people.

**April Carol Mason**

April Mason serves as the Associate Dean of the School of Consumer and Family Sciences at Purdue University and Assistant Director of the Cooperative Extension Service for Consumer and Family Sciences. In this position, she gives leadership to programs related to families throughout the state of Indiana. Consumer and Family Sciences programs focus on family resource management, foods and nutrition and human development. Topics of current high priority include: money management for low income families, nutrition and food safety education, child care and parenting.

Mason is a professor in the Department of Foods and Nutrition at Purdue and maintains a research program as well as her administrative work with Cooperative Extension. Her primary research areas are: food security and mineral availability from plant food products. Mason is currently collaborating with researchers in Costa Rica on utilization of common beans as a nutritional food source for young children. She has traveled extensively with her research work in Indonesia, People's Republic of China and also was a member of Class 4 of the Agriculture Leadership Program that went to Poland and Germany.

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**A Star is Born:**

**The Origins of the Center for Families at Purdue University**

by Susan Kontos

Department of Child Development and Family Studies
Professor and Founding Director of the Center

The publication of this first monograph of the Center for Families, focused on the disciplines of Consumer and Family Sciences (CFS), offers an opportunity to reflect on the origins of the Center and its potential for contributing to the well-being of families in Indiana and the nation. The donation by CFS alumna Lorene Burkhart that nurtured the Center's unfolding was linked to her personal vision for its role. That vision was, of necessity, sufficiently broad to allow the School of Consumer and Family Sciences as well as the Department of Child Development and Family Studies (CDFS) to shape the Center to uniquely fit its home within Purdue. The inaugural years of the Center were driven by the need to crystallize its mission and to create the infrastructure to support the fulfillment of that mission.

It is important to recognize that ideas had been brewing since the late 1980's within the School of Consumer and Family Sciences concerning its role in improving the quality of life for Hoosier families. It was clear to the late Ann Hancook, Associate Dean for Extension, that the School could be a major resource to policy makers and practitioners trying to address problems facing Hoosier families and maximize their well-being, and she actively pursued avenues for the School to become involved in these efforts. Ann's first major undertaking in this direction was to initiate the 1991 Hoosier Family Policy Summit (coordinated by Gail Melson of the CDFS Department). The Summit brought Hoosier policy makers and
administrators, service providers and academics together for the first time to address challenges facing Hoosier families and to work toward solutions to those challenges. Ann's tireless efforts to benefit Hoosier families set the stage within the School for the creation of the Center for Families.

Another inaugural event in 1993 also helped set the stage for the Center's arrival. Lorene Burkhart, recently appointed to the national cabinet of the Purdue: Vision 21 campaign (the largest fund-raising effort in Purdue's history at that time), was aware of Ann Hancock's work to involve the School in efforts to enhance the well-being of Hoosier families. Thus, she was well-versed on the benefits of giving to the University as well as the benefits families could receive from the University when she attended the first Felker Leadership Conference. This conference was established to build awareness of the power of women as philanthropists and was sponsored by the CFS Development Office under the leadership of Cheryl Altinkemer. At that conference, Lorene realized that she could make her vision of families a reality by giving a major gift to the School. She announced her intent to pledge one million dollars for a Center for Families to Cheryl at the morning break. In addition, she made clear her intent to motivate other women to pledge significant gifts to support the needs of families (now known as CFF advocates—almost 40 to date). The seed was planted.

Lorene Burkhart's vision for the Center was focused on "families as the glue of society" and the need to support families in their role as an investment in our future. Her vision came to light at an auspicious time, since shortly thereafter politicians and policymakers began to loudly echo her concerns about family values and engage in increasingly heated discussions about what it means to support them. Her prescient timing, accompanied by heightened awareness of family issues across the state and nation, opened doors for the Center that might have otherwise been closed. The limelight directed on family issues set the stage within the School for the creation of the Center for Families.

Finding a Niche

It became clear during the search to replace the late Dean Donald Felker that many within the university had little appreciation of what the School of Consumer and Family Sciences stood for as a four-part entity within a land-grant institution. Moreover, the research and outreach productivity of the school were probably better known and appreciated by colleagues in other states than by Hoosiers. Within the School, we knew there was a considerable amount of knowledge and information about families and their environments produced by CFS scholars that was ready to be accessed by the public. Likewise, there was the expertise within the School to pinpoint gaps and anticipate future needs for knowledge. The Center seemed a logical conduit.

To this end, one role the Center could play was simply to increase visibility around the state and nation of what Purdue has to offer regarding meeting family needs. Enhancing the visibility of family issues could also establish a view of the family as the unifying theme for a School consisting of four very different departments. Center activities consistent with this role included newsletters, media contacts, representation at events, conference sponsorship and the World Wide Web homepage. These activities educated internal and external audiences about family-focused expertise in the School of Consumer and Family Sciences at Purdue University and, as a result, linked the four disparate disciplines within the School to the family theme.

The initiation of the Center at a time when family issues had come to the fore led to immediate opportunities for service. Questions were being raised by businesses and legislators, as well as public and private program administrators, about the impact of policies and programs on families. In addition, various communities across the state were identifying specific needs requiring a programmatic response. Through its involvement with the family service sector, the Center is able to model how research can inform practice. Activities consistent with the service role included initiating discussions about bringing Family Impact Seminars to Indiana for public policy makers, disseminating information about balancing work and family responsibilities, designing studies to evaluate programs, providing information to counties to promote awareness of child well-being, and developing curriculum for parenting programs.

Providing visibility and cohesion for School accomplishments in addition to providing service to the state and nation are two important niches for the Center. These roles, however, serve primarily as mechanisms for translating and disseminating existing knowledge about families. Yet there is much we still do not know about maximizing the well-being of all families, and it is just as important to continue to expand our horizons in that domain as it is to disseminate what we already know. Thus, another role for the Center is to encourage research across disciplines focused on promoting the well-being of children and families. Although both basic and applied research are important to the Center, all research must ultimately lead to the enhancement of supports and services for families. Although the Center cannot, nor should it try to, be
a research institute or a primary funder of research, it can serve as a
catalyst for research by pointing researchers toward the gaps in our
knowledge base and toward policy/practice-relevant questions in need of
answers, by encouraging research funders to direct their resources to
issues of concern to the Center, and by supporting the efforts of child and
family scholars to generate new knowledge on these issues.

Finding a niche for the Center has been less a matter of searching for,
than of narrowing the options consistent with, Lorene Burkhart’s vision.
There are many avenues leading to enhanced well-being for families. The
route chosen by the Center must be consistent with its location in an
academic institution with a land-grant tradition and the resources
available, as well as be complementary to (rather than redundant with)
 Purdue’s Cooperative Extension Service. By giving priority to
disseminating information, encouraging and translating research, and
improving services to families, the Center shows it is headed in the right
direction.

The “Inside Scoop” on the Early Days of the Center

Choosing the logo/colors. One of the first tasks we faced following
my appointment as director was how to visually represent the center,
particularly in print (i.e., stationary, brochures, etc.). It was not a foregone
conclusion that this task would be a priority, however, because an initial
fundraising brochure had been created by the Development Office that
appeared to be well-received by alumni. This brochure was headed by a
“child-like” rendering of a family—mom, dad, two children and a dog. It
was questions raised by this depiction of a family that motivated the
discussion of a Center logo. These questions were: Is this depiction of a
family sufficiently inclusive in today’s diverse world? Does such a child-like rendering of the family tend to trivialize the serious
work of the Center? Can a logo like this communicate with corporate
audiences in addition to alumni? Ultimately, primarily at the urging of
CDFS faculty members, the decision was that a more inclusive, professional image was required by the Center.

Discussions about the logo involved the Dean’s office (Acting Dean
Jon Story), the Development Office (Cheryl Altinkemer), and CDFS
(Douglas Powell, Head) in addition to a public relations consultant and
myself. The first alternative offered by the consultant involved an image
of a heart, representing the love, affection and nurturing of families. In
spite of the appropriateness of the sentiments driving the image, there
were still concerns within the group that there was an implicit air of
“cuteness” and informality that was inconsistent with the importance of

the Center’s mission. The subsequent discussion attempted to capture the
essence of what the image needed to represent. The focus was on
diversity, the whole being greater than the sum of its parts, transgenerational, nurturance and warmth. At some point during this
discussion, someone (I believe it was the consultant) suggested the image
of a quilt. There was instant recognition within the entire group that this
was the perfect image.

Once the image of a quilt had been selected, it was still necessary to
narrow down the choices since there is an infinite variety in quilt designs.
It made sense to everyone involved to select a quilt design somewhat
indigenous to Indiana. That led us to select an Amish image: simple and
somber in tone with a traditional nine-patch pattern. The quilt logo is a
simple geometric design in sage green and eggplant with the initials of the
Center embedded in it (much to the surprise of many people who do not
see them at first).

It was a logical next step to wish for an actual quilt based on the logo
that would bring it to life, as well as honor Lorene Burkhart and the
charter advocates of the Center. This wish came true thanks to a local
quilting guild (that wishes to remain anonymous) that took on the task as
a service, asking only that a donation be made in their name to the
Women’s Shelter. They searched for the fabric in the chosen colors,
pieced the quilt and then quilted it. Three talented, generous women in
particular gave their time to this project: Ida Tendam, Kay Beineke and
Mary Losey. Because Kay and Mary are also my neighbors (a total
coincidence), I spent parts of several Saturday afternoons with Kay at
Mary’s house selecting the most appropriate quilting stitches for each
section of the quilt. The result was something very special that now hangs
in the entry way to Fowler House on the Purdue campus.

Although the completion of the quilt was a major accomplishment,
even something so seemingly simple as hanging it became a production.
Cheryl Altinkemer, Douglas Powell and I had to select a location that
would be appropriately prominent without subjecting the quilt to
elements that could damage it (e.g., direct sunlight). Center advocate
Suzann Shackleton donated the wooden quilt hanger. A craftsperson at
Purdue designed the plexiglass box that protects the quilt from admiring
hands. The combined efforts of many people brought about a unique way
of making the concept of the Center come alive symbolically.

Early Board Meetings. I presided over three board meetings. The
first was an afternoon event that was part of the second Hoosier Family
Policy Summit. There had been a stimulating morning of welcoming
remarks, including Cheryl Sullivan, then Director of Indiana’s Families
and Social Services Administration, followed by break-out sessions with policy experts from across the state. At lunch, Ellen Galinsky of the Families and Work Institute spoke on the challenges of families balancing their work and caregiving responsibilities. The Center for Families Board crowded into a meeting room on the second floor of the Memorial Union, went through introductions and then spent the remainder of the time discussing the potential of the Center for contributing to the well-being of families in Indiana and the nation.

The second and third meetings, held in roomier quarters in Stewart Center, were more formal events where Board members were given a chance to hear about on-going Center projects and to engage the directors of these projects in discussion. Information sharing with the Board was followed by feedback from Board members to Center staff regarding directions, challenges and strengths. Each meeting was more productive than the previous one. By the end of the third meeting, we were ready to start talking about strategic planning, something which did not actually occur until Shelley MacDermid came on board.

For me, the most memorable board meeting was the third. We met on a Friday in early May, which was marked by a deluge of rain all day. I needed to temporarily exit the meeting in the early afternoon to be a mother at Cumberland School’s first grade Mother’s Day celebration and returned wearing a “chapeau” created by my daughter out of wrapping paper and starch. As we attempted to wrap up the meeting, the fire alarm in Stewart Center sounded and we were forced to evacuate the building (luckily it turned out to be a false alarm). The board reconvened in the Memorial Union at an overflow eating area on the lower level. Amazingly enough, it was then that the discussion of strategic planning took place (surely an indication of dedication and ability to focus)! The “all-clear” for Stewart Center came too late, and we adjourned our meeting from the Union. If I had been given a choice of ways to end my formal association with the board, this would not have been it. The spirit with which the board responded to this unfortunate situation, however, confirmed in my mind that we had asked the right people to serve.

**Budgeting.** It was an unexpected challenge to create a budget for the Center. This is worrisome to an administrator who is hoping to embark on initiatives, but does not have a clear handle on the financial resources available. One reason for the challenge was the initial heavy reliance on donor funding that came in pledges with different beginning and ending dates. Thus, funding was somewhat of a moving target (and always will be to a certain extent), and typical budgeting strategies did not work. Just as we began to get a handle on resources, the School acquired a new business administrator and our new Dean (Savaiano) came on board. By the end of my tenure as Director, a semblance of a true budget was emerging. That was an important landmark that was a prerequisite to the Center’s ability to do its work.

**Projects that Launched the Center’s Activities**

**Fathering Project / It’s My Child Too.** Thanks to the CFS offices of the Purdue Cooperative Extension Service and the Department of 4-H’s Community System-wide Response (CSR), the Center had the opportunity to develop a curriculum for young fathers, identified by judges involved in CSR as a real need in Indiana. More specifically, judges had observed that young non-custodial fathers needed assistance with understanding the importance of the role of fathers, strategies for resolving conflict between them and the mother and/or maternal grandparents of their child, and effective parenting strategies, as well as sex education (to prevent future unplanned pregnancies).

Douglas Powell, head of CDHS and an internationally known expert on programs for parents, was brought in as a consultant/developer, and it was he who suggested the project be brought under the aegis of the Center. He and I worked together with two assistants during the first year to get the project off the ground. For lack of another name, the project became known as the “Fathering Project.” One of our assistants did a literature review on adolescent fathers to help ground the program in the existing knowledge base. In addition, interviews of young fathers who might be the target of the completed program were conducted to more thoroughly understand their circumstances, needs and developmental levels.

By the end of two semesters, we had a draft curriculum and were ready for pilot testing. Four counties (Porter, Fayette, Cass and Knox) served as pilot sites, and the experiences of Extension Educators in these counties were central to revisions made in the curriculum. The program was designed as a short-term intervention that would raise the knowledge and awareness of young fathers regarding their important role in their child’s life. Linn Veen, an experienced parent educator, played a major role in the curriculum revision work. During this phase, the title, “It’s My Child Too,” was selected, based on feedback from fathers who participated in the pilot phase.

From the very beginning, this project received more attention and positive feedback from constituents than any other Center endeavor. It appeared to be the right project at the right time in Indiana. This project has received support for implementation from training and technical
assistance to local teams in Indiana counties and has been featured at two Governor’s Conferences on Responsible Fatherhood. The project received the 1997 Ann Hancook Educators/Specialists Award from the Purdue Cooperative Extension Specialists Association, Indiana Extension Educators Association and Epsilon Sigma Phi. The team recognized included Janet Gordon, Pam Robbins, Jim Jordan, Dave Caldwell, Richard Rusk, Maurice Kramer and Douglas Powell. “It’s My Child Too” is now being implemented in communities throughout Indiana by local Cooperative Extension educators in collaboration with other agencies, schools and churches. Aadron Rausch, Assistant Director of Outreach for the Center, coordinates this effort with Linn Veen and Douglas Powell.

Web Page. It seems as though everyone knows about the World-wide Web these days. I had never heard of it in 1994 until a bright, talented woman (who also happened to be the mother of two children in our Child Development Laboratories) came to see me because she saw a wonderful opportunity to help families through technology. Her timing was perfect because I had been searching for ways to get the Center’s message to the media via computer linkages, but had no idea where to start. I spent my October break that year attending a workshop on the World-wide Web sponsored by Purdue’s Department of Computer Science. I also hired that bright, talented woman, Kris Schlenker, as a consultant and we embarked upon creating the Center for Families web site. The site was created to provide basic information about the Center (its origins, mission, activities, board members, newsletters, etc.) as well as to be an accessible source of information about family well-being. The first effort to fulfill this purpose involved the inclusion of an annotated bibliography on balancing work and family that was produced by students taking a course from Shelley MacDermid on work-family issues. The Center for Families web site formed the foundation on which the School and departmental web sites were modeled.

Child Well-being Report Cards. Janet Gordon, then Acting Associate Dean for Extension, invited the Center for Families to collaborate with the Cooperative Extension Service in developing a report card on child well-being for each county in Indiana. This project presented an ideal opportunity for collaboration and involved taking existing data on child well-being (produced by such organizations as the Children’s Defense Fund, Indiana Youth Institute and the Annie Casey Foundation) and organizing it by county. We selected indicators of child well-being that were readily available at the county level. Examples of these indicators include infant mortality, proportion of single-parent families, rate of teen birth, violent death rate and child abuse rate. We did not give counties grades for each indicator as a student would expect from a report card. Instead, we let the data speak for themselves. To help users to understand where their county stood with respect to child well-being, state and national level data were included as a point of comparison. It was our hope that the report cards would help counties to set priorities for programs and policies that affect child and family well-being. Once these report cards were sent to extension educators in each county, Janet and I began receiving phone calls from report card recipients, primarily from counties with one or more child well-being indicators that suggested areas of concern. Although many calls initially were to voice protest at the negative depiction of a county, we ultimately found it rewarding to work with county personnel to understand how the indicators were calculated, lessen concerns about the reliability of the data and to think constructively about the implications of the well-being indicators.

Child Care Nutrition Initiative. From the beginning, it was a priority to try to initiate collaboration between the diverse departments within the School. A prime example was the Child Care Nutrition Initiative. During a departmental external review, the CDFS department was encouraged to use its service/training programs (e.g., Child Development Laboratory and Purdue Child Care Program) as mechanisms for outreach. The Purdue Child Care Program had been recently moved to a brand new specially-designed space and was contracting with the department of Restaurant, Hotel, Institutional and Tourism (RHIT) for its food services. It appeared to be a natural opportunity for cross-departmental activity.

The goal of the Child Care Nutrition Initiative was to model an economical, nutritionally sound food program (meals and snacks) for a child care setting that also took into account the cultural and ethnic diversity of the clientele. Louise Peck from the Food & Nutrition department was recruited to address the nutritional aspect of the food program. Barbara Almanza and Keith Molter from RHIT were recruited to address the production aspect (although Barbara, as a registered dietician, also made contributions to the nutritional component). Sandra Pope, Carol Ann Lew, and Cathy Childers from CDFS were recruited as child care staff to address the presentation and consumption aspect of the food program.

The project went through several phases. Initially, a literature review on food programs for young children was undertaken by an interested graduate student. Then, a nutritional analysis of the existing food program was conducted (with special attention to caloric intake, fat and salt). The result of the nutritional analysis was positive in that the existing food program was found to be well-within sound nutritional guidelines for
young children. The focus then shifted to diversity of the food offerings by doing a survey of Purdue Child Care parents about their and their children's food preferences. Based on survey results, it was concluded that parents appeared to be essentially satisfied with the existing food program, but that rice and beans were two foods that many children experienced and home, but not at child care. Thus, efforts were directed toward introducing several variations of these two ingredients to the child care menus.

Based on our experiences, Louise Peck, Kathy Lyons, and I created a brochure that was jointly published by the Extension and the Center for early childhood educators (and potentially parents) that targets the issue of diversity in meal planning as well as methods of introducing new foods to children.

First Steps Evaluation. An important role for the Center is to provide data regarding the impact of existing policies and programs concerning children and families. Indiana’s First Steps Early Intervention System made it possible for the Center to adopt that role very early on. First Steps, part of the Bureau of Child Development in Indiana’s Family and Social Services Administration, provides early intervention services to infants and toddlers with, or at risk for, disabilities and their families. It is funded by state and federal dollars. The assumption is that early intervention services enhance the well-being of children and families eligible for them.

The director of First Steps, Maureen Greer, asked the Center for Families to evaluate the system to determine if this assumption is correct. Karen Diamond and I have been directing this effort since 1995—we are in our final year of funding. Families receiving First Steps services in a number of target counties across Indiana are invited to participate in the evaluation. Participation involves an extensive interview, completing questionnaires and allowing us to have access to their child’s Individualized Family Service Plan as well as information from their primary service provider. So far, more than 200 families have agreed to participate, and at least a third of those have agreed to participate in follow-up interviews one year after the initial one to allow us to determine how children and families change during the time they receive early intervention services. In the final report of this evaluation effort, we will pay careful attention to the ways in which early intervention services are associated with enhanced child and family well-being. Results will help policy-makers and administrators to determine the extent to which this program has its intended impact.

Passing the Torch and Maintaining the Vision

It was gratifying, as director, to see the Center grow and define itself. It is equally gratifying to see the Center come into its own under the leadership of Shelley MacDermid. The transition brought about continuities and discontinuities that lend strength to the Center’s ability to carry out its mission. Shelley’s unique ability to work with the corporate community represents a positive discontinuity. The Fellowship program initiated under Shelley’s leadership represents a continuity to the extent that the seeds for this program were planted, but not grown, under my leadership. In fact, Shelley was the first person with whom I discussed my idea for recruiting Center Fellows (while we were walking to a restaurant in Manhattan) before we ever knew that she would soon succeed me as Center director. The Working Poor Family Initiative, still in its infancy, was conceived under my leadership, but will come to fruition under Shelley’s and thus represents another source of continuity.

As times and the University change, the mission of the Center is likely to evolve. For now, it is well situated to have a positive impact on the well-being of children and families in Indiana and the nation.

I am grateful to Shelley MacDermid for her comments on earlier drafts of this paper. Douglas Powell and Cheryl Altinkemer also provided useful comments.

Susan Kontos has a B.A. in sociology from Barat College, an M.A. in psychology from Southern Illinois University at Edwardsville, and a Ph.D. in child development from Iowa State University. Prior to teaching at Purdue University, she taught at the University of Northern Colorado and the Pennsylvania State University. During her tenure at Purdue, her undergraduate teaching focuses on early childhood education and her graduate teaching focuses on children’s development in non-home settings.

She was awarded the Mary L. Matthews Outstanding Undergraduate Teaching Award in Consumer and Family Sciences in 1996. Her research focuses on the impact of child care on children and child care workers, the inclusion of children with disabilities in regular early childhood classrooms, and the influence of classrooms context on children’s competence. Kontos is the author or co-author of two books on family child care and the former associate editor of Early Childhood Research Quarterly.
and Child and Youth Care Forum. She also serves as a research in review editor for Young Children.

Afterword

Families perform major functions of civilization in every known society, past or present (1). Around the world and throughout the United States, families demonstrate tremendous diversity in their means of achieving success. While modern families clearly are challenged by problems like divorce and poverty, there also is clear evidence that people work hard to begin and sustain involvement in family life – the chances of being married 40 years or more “have never been better” (2).

Families figure large in discussions of social problems. Some scholars suggest that members of our society have become less committed to family life, implying that social problems might be alleviated if individuals were to become more dedicated and disciplined about honoring their commitments (3). Others assert that families cannot surmount the challenges they face unless communities reconstruct a safety net that has become tattered and torn (4). Both perspectives likely hold an element of truth. Discussions of these important issues have been clouded, however, by “experts” on both sides who claim to be knowledgeable, but fail to comply with the standards of evidence which distinguish true scholars. Public debate frequently focuses on family structure, as though the correct configuration of members will ensure long-lasting commitments or competent parenting. Awareness of research-based knowledge about family life has been eroded by reduced course offerings and credit requirements in public schools on that topic. The resulting lack of knowledge contributes to policy decisions based more on personal experience than systematic data gathering and interventions based more on ideology than evidence.

Land grant universities, Purdue among them, have a special relationship with the citizens of their states and the nation, a relationship defined both by law and loyalty. These universities have a mandate to serve citizens through research, education and outreach. Many Hoosiers have a special place in their hearts for Purdue University, and rightfully feel a sense of investment and pride in its accomplishments. The connections between universities and citizens are of concern, however, to prominent figures around the nation who worry that universities have become too isolated. A recent campus publication offers the following
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admonitions from policy-makers in Washington (5):

"The research community needs to take a broader role in public affairs or the public will lose faith in science as a means of social progress."

George E. Brown, Former Chairman of the House Science Committee

"In the future ... scientists will ... need to have a commitment to effective communication with society. Scientists must be seriously concerned with the many and great unsolved problems of human kind."

Neal Lane, Outgoing Director of NSF and Pending Science Advisor to the President

"If we are to maintain public support for our scientific enterprise, what is sorely needed today is a way to translate the grandeur of science into the language of ordinary people."

James Sensenbrenner, Jr., Chairman of the House Science Committee

The founding of The Center for Families at Purdue University was inspired by some of these very same sentiments. Its mandate is to improve the quality of life for families by creating and nurturing partnerships among scholars, extension educators and specialists, human service professionals, employers and policy makers. Like the university as a whole, its tools are education, research and outreach.

The Center for Families is concerned with how families function best – how the adults and children who form them acquire the support, nurturing, socialization and guidance they need to become and remain productive members of society. We at the Center want to help all our audiences work more effectively toward that goal. We insist on rigorous standards of evidence – sharing our methods, grounding our work in existing scientific research and acknowledging gaps in our knowledge.

We recognize that problems do not occur in isolation – families who suffer economic deprivation also often suffer challenges to relationships, inadequate nutrition, few opportunities for leisure and limited resources as consumers. Each of the departments in the School of Consumer and Family Sciences has already made meaningful contributions to helping families weather these multiple challenges. In the future, it is essential that The Center for Families work to extend and expand collaborations among and beyond these departments. The increasing rate of change in our society means that new knowledge will remain current for ever-shrinking intervals in the future. In such a dynamic environment, only those who are flexible and multi-skilled will be able to contribute (6). The most important contributions of the future may lie at the intersections of multiple disciplines, with solutions which are constructed using multiple tools, informed by diverse ways of thinking, and grounded in shared and passionate commitment to family well-being.

As the current director of The Center for Families, I look forward to working with partners, on and off campus, who share the necessary passion and commitment to helping families successfully perform the functions upon which their well-being – and the well-being of our society – depend.

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