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ABSTRACT

This special issue focuses on problems and challenges confronting the California family and on research and extension efforts to provide at least partial answers. Research briefs by staff include "Challenges Confront the California Family" (state trends in poverty, divorce, single-parent families, child abuse, delinquency, teen births, limited English proficiency, and academic achievement); "Lead Poisoning Continues To Pose Threat"; "UC Offers Lead Test around State"; and "EFNEP: 25 Years' Worth of Sound Advice" (about the Expanded Food and Nutrition Education Program). Articles are (1) "Hunger in the Midst of Affluence: Task Force Combats Hunger in Contra Costa County" (Mary Lavender Fujii); (2) "Farmworker Housing in Crisis: How Rural Communities Can Learn from the Arvin Experience" (Patricia Harrison); (3) "Does Mothering School-Age Children Mix with Paid Employment?" (Brenda K. Bryant); (4) "Helping Youth at Risk: 4-H and Cooperative Extension Venture into Child Care" (Sharon Junge, Dave Riley, Jill Steinberg, Chris Todd, Ina McClain); (5) "For Children Facing Adversity: How Youth Programs Can Promote Resilience" (Marc T. Braverman, James M. Meyers, Lynn Bloomberg); (6) "In-Home Treatment of Child Abuse: Healing at Home Can Be Effective and Cost-Effective" (Keith Barton); (7) "Project 4-Health Develops Program To Curb Youth Tobacco Use" (Marc T. Braverman, Joel M. Moskowitz, Carol N. D'Onofrio, Valodi Foster); and (8) "Gang Identity or Self-Expression? Researchers Look beyond the Surface of 'Gang Clothing' and Appearance" (Janet Hethorn). Contains many photographs. (SV)

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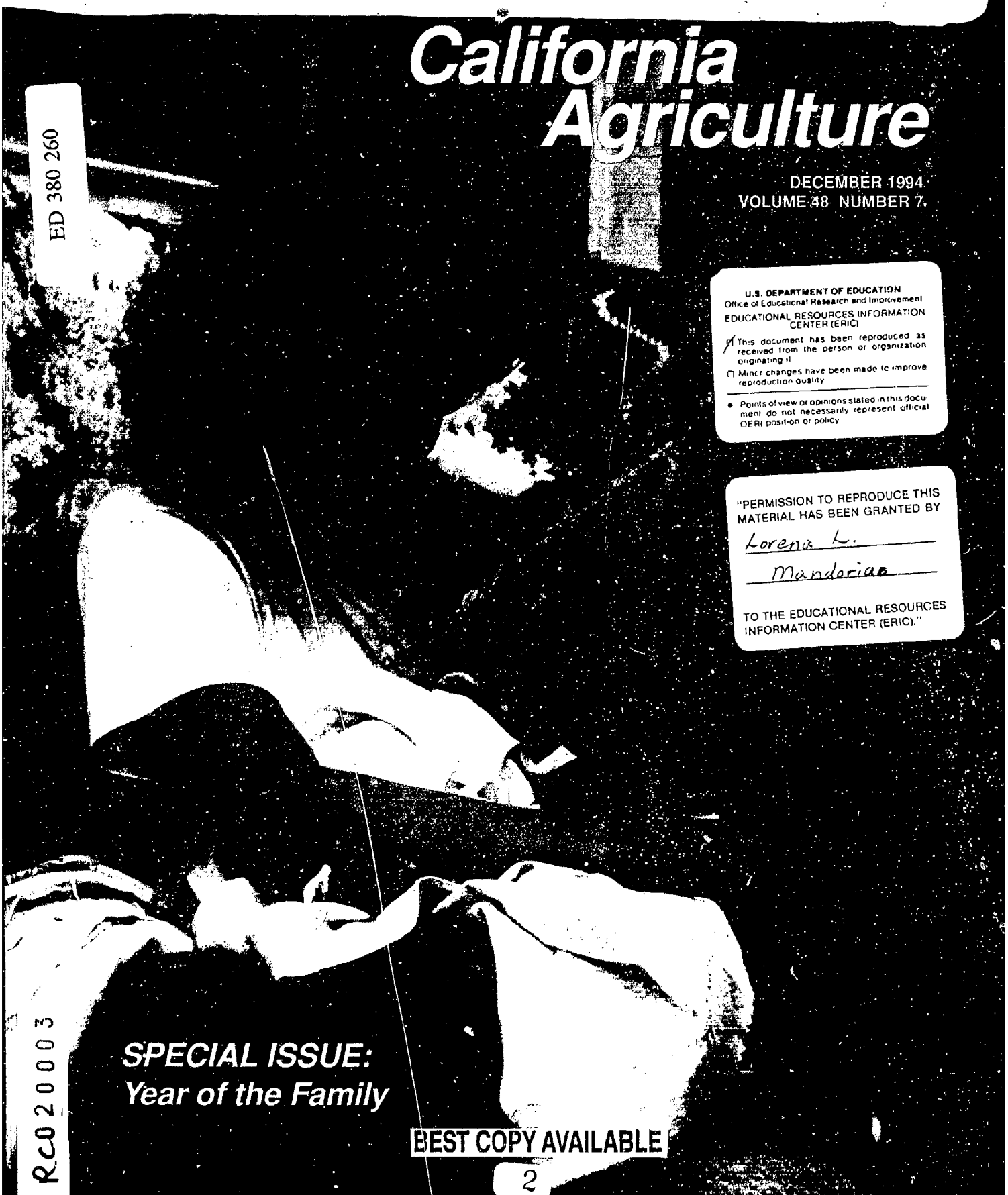

SPECIAL ISSUE: Year of the Family

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University of California • Division of Agriculture and Natural Resources • Reports of Research and Reviews

UC addresses challenges to the California family

BARBARA SCHNEEMAN
Dean, College of Agricultural and Environmental Sciences
UC Davis

We are all members of a family, and our knowledge of family structure and function is strongly influenced by personal experience. In fact, our families are so basic and familiar, guiding our earliest initiation into social life, that we frequently overlook their fundamental contribution to the viability of our economy and society.

Diverse groups use similar words and phrases to characterize families; however, we do not have a common scientific base or understanding of that language. This dilemma is perhaps best illustrated by the public debates in which the term 'family values' is used to convey a political agenda, with the agenda varying by the group using the term. By recognizing the United Nations' International Year of the Family, we can raise the level of discussion about the function of families in society and recognize the knowledge needed to support this vital unit. We also have the opportunity to focus on California's unique human resources — their diversity and their multiple modes of problem solving. These efforts will only be successful if the Year of the Family is seen as the beginning of a constructive dialogue, not simply a commemorative event.

When the land grant university system was established in 1862, the majority of Americans were involved in family farming. Research and extension programs focused on promoting the success of this system. Many of the University of California's highly effective programs in food, nutrition, clothing, human development, design and financial management developed from this heritage. Today's urbanized families still have a profound connection to agriculture and the land-grant university. It is families who support education, consume agricultural products, utilize land and environmental resources, provide labor, and teach values — the values that guide society's use of natural resources. For instance, consumers can and do influence agricultural production through their market decisions. Their concerns about food safety have had a profound impact on farming systems.

Yet the impact of our institutions and policies on families is often overlooked. We routinely generate environmental and economic impact reports, but have no comparable process for assessing family impacts. Ultimately, the myriad decisions made by families determine environmental or economic impacts. It is families who decide to move from one area of the country to another, to keep land in production or sell it for development, to buy or rent housing, to visit the national parks. Families decide whether to migrate with seasonal crop production, how to provide for their children's health and education, whether both parents should work outside the home, and which foods and clothes to buy. Family decisions may or may not promote functional communities that protect the health and welfare of members. If society gave greater consideration to the family impact of institutions and policies, the community as a whole would benefit by allowing each of us to fulfill our family roles.

The contributors to this special issue provide insight into how programs that relate to families are integrated into UC's Division of Agriculture and Natural Resources. For many years, the disciplines of production agriculture and those concerned with agricultural consumption were viewed as discrete entities. Today we recognize they are parts of a continuum. Shelter, food and clothing are fundamental needs of individuals and families. Child care, health promotion and youth development are critical components affecting the quality of life of all individuals and families. The sustainability of both UC and the state's agricultural enterprise depends upon our ability to respond to the needs and interests of individuals in the context of family life.

Furthermore, if we agree that families are the fundamental units through which society teaches values, and provides food, shelter, clothing and education, we must consider how all families can gain access to the basic necessities of an active and healthy life. The articles in this special issue raise questions about how well our society is performing this role, and offer hope that strong research and extension efforts can provide at least partial answers to the myriad challenges facing California families.

Families and communities are our most valuable resources. It is my hope that this special issue of *California Agriculture* will mark the beginning of an essential public dialogue. UC can and should play a critical role in the discovery of knowledge about the social and cultural value of families and the integration and extension of this science to serve society.

Publication of this special, seventh issue of California Agriculture *(in addition to the normal six printed this year) was made possible by funding from the Office of the Vice President, Division of Agriculture and Natural Resources. Guest editors for the issue were UC faculty members Doris Calloway, Larry Harper, Susan Laughlin and Jeanette Sutherlin. Valerie Sullivan was the free-lance editor for this special issue.*

SPECIAL ISSUE: Year of the Family

In commemoration of the 1994 International Year of the Family, a look at critical issues affecting the future of all Californians

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COVER: In California, 13% suffer from stark hunger; 57% of single mothers and one in four children live below the poverty line. —*Photo by Suzanne Paisley*

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California has led the nation in total farm production every year since 1948. Yet the ranks of the hungry are growing in California — especially among young children. The irony has prompted growers and other citizens to establish food banks, food pantries and soup kitchens, extraordinary efforts that still fall short of the need.

Research tells us that when poverty and chronic hunger affect young children, the repercussions are felt by society for years to come. As the International Year of the Family comes to a close, we look at the complex reasons for persistent poverty as well as other critical issues affecting the California family. We begin by taking stock of the challenges facing the state, then explore some innovative solutions, ranging from nutrition programs and food relief to construction of farmworker housing and development of youth programs. We also look at factors affecting child development: the working mother, child care, treatment of child abuse, and the role of gang clothing in teenage self-expression. —*Ed.*

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Challenges confront the California family

How well does California treat its children? Children Now gave the state either a "D" or a "D-" for its efforts in the years 1989 to 1992. Last year, the national advocacy group did not give letter grades, but disclosed disturbing facts in its most recent report *California: The State of Our Children 1993*. For instance, when compared to other states, California's children are:

- more likely to grow up poor;
- less likely to have health insurance;
- less likely to receive child support;
- more likely to have babies as teenagers;
- less likely to go to college;
- more likely to be unemployed; and
- more likely to be victims of homicide.

Can a state's future be foretold by the way it treats its children? Advocacy organizations say "yes." If they are right, California has witnessed foreboding changes in the last 20 years; some of them, including a 50% rise in poverty, increases in divorce and the number of single parents, mirror national trends. Others, such as the dramatic shifts in California's racial and ethnic composition, are unique to the state. In part due to economic stress and the breakup of the family, Children Now reports that the state has witnessed "alarming declines" in its efforts to contain such rising problems as child abuse, up 41% between 1988 and 1991; juvenile homicide, up 59%; and teen births, which rose 23% during the same 4-year period.

Although it's difficult to draw conclusions about exact cause and effect, a large body of evidence points to one unfortunate result: When problems like hunger and poverty occur early in life, they cause a cascade of effects that touch all Californians for years to come.

One of the most dramatic changes in the state has been its increasing ethnic diversity; the white population is projected to be a minority by the year 2000. More than half of California's schoolchildren are minorities, and one in five California schoolchildren has only limited English proficiency, according to recent studies.

Statistics show that minorities are disproportionately affected by poverty and its associated problems. For instance, the 1993 Current Population Survey Report shows a 16% poverty rate for the state as a whole. However, among Hispanics the rate was 28%; among African-Americans, 25.4% and among whites, 9.5%.

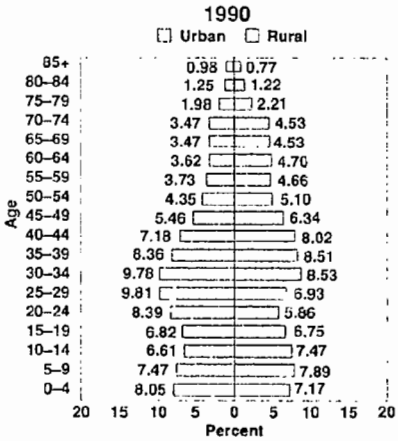
Suzanne Paisley

In California, 1 out of every 4 children lives in poverty, a statistic that has implications for all Californians.

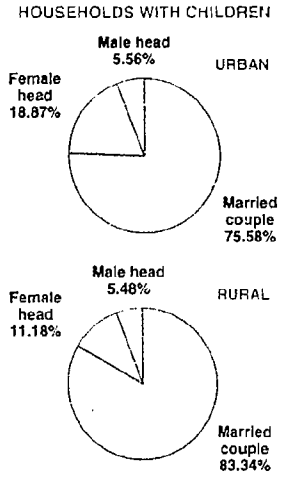
Although the majority of California children continue to live with two-parent families, the families may be reconstituted with stepparents and stepsiblings. More than half of all California children will spend at least a portion of their childhood in a single parent home, according to Children Now. UC studies show 24% of all California mothers are unmarried, and some 60% of children come from divorced or single-parent homes.

By contrast, more than 80% of children in the postwar generation grew up in an intact family with two biological parents, according to writer Mary Beth Whitehead in an extensive review of the single-parent family which appeared in the *Atlantic Monthly* in April 1993.

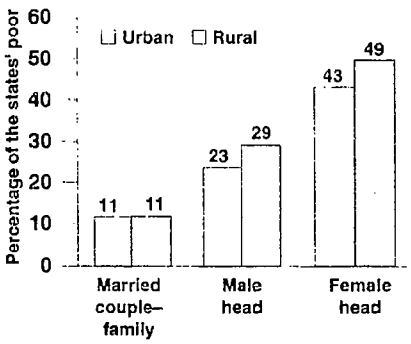
A constellation of problems surrounds single parenthood and especially single motherhood. Half the single mothers in the United States live below the poverty line, with income declining an average of 30% for women after divorce. This statistic holds true for California, where 57% of all female-headed households with children lived in poverty in



The age distributions of both rural and urban Californians are pictured above. Both rural and urban areas show bulges for the very young, ages 0–4, and in the 20 to 40-year-old range.



Although the majority of California children still live in two-parent homes, single-parent households, particularly those headed by women, are increasing in both urban and rural areas.



Among families with children, women with children comprise the fastest growing segment of the state's poor. Percentages have been rounded.

1990, according to census figures. Partly as a result of this, one-fourth of California's children now live in poverty, significantly more than the 15% who did so in 1980, according to Children Now.

If present trends continue, fully one-third of California's child population will live in poverty by the year 2000, advocacy officials predict.

Child poverty is an important indicator of child well-being. Poor children are four times as likely to die in infancy. They are also more likely to suffer serious illness, drop out of school or become pregnant as teenagers.

As noted elsewhere in this issue, (see page 11) about 13% of California's population is hungry, which puts the state among the top 15 with the largest hungry populations. Almost one-third of all school children in the state receive free or reduced-price lunches.

While it is difficult to point to any one cause for California's ills, research suggests that in addition to economic stress, the breakup of the family may be at the root of such problems as poverty, high school dropout rates and even increases in violent juvenile crime.

In her 1993 review of the single-parent family. Whitehead reported that children in single-parent families are six times more likely to be poor as children from two-parent families. They are also more likely to drop out of high school, get pregnant as teenagers, abuse drugs and get in trouble with the law. Nationwide, over 70% of all juveniles in state reform institutions come from fatherless homes.

Half the single mothers in the United States live below the poverty line, with income declining an average of 30% for women after divorce.

Children from single-parent families usually do not receive the financial support of two parents. Nearly one-third of all California babies are born to unmarried parents, and many custodial parents do not seek or receive court-ordered child support. In 1994, less than half (40%) of children with court-ordered child support received even partial payment.

Economic instability can lead to many other problems, not the least of which are the emotional adjustments that may be required of children forced to move to a new home, form new attachments with a stepparent or lose contact with the noncustodial parent. One study showed that 10 years after a marriage breaks up, more than two-thirds of children report not having seen their father for a year.

Children in disrupted families face a myriad of other problems. They are nearly twice as likely to drop out of high school. One study which focused on white families found that daughters of single parents are not only more likely to divorce, they're also more likely to marry or have children as teenagers. Fewer children from disrupted families attend college.

California's family portrait mirrors many of these national trends. In its 1993 report, Children Now examined 27 benchmarks, which taken together provide a statistical profile of the California child.

There were some reasons for hope — most noticeably, a 13% decrease in the number of infant deaths between 1988 to 1992, and a decrease in the number of students who dropped out of high school. That number, which had been 18.2% in 1990–91, dropped to 16.6% in 1991–92.

But there were reasons for concern as well, with increases reported in such areas as child abuse and neglect, teenage arrests for felony crime, teen homicides and teenagers giving birth.

For instance, in 1992 the number of reported cases of child abuse and neglect was almost double the number of reported violent crimes such as rape, murder and assault. Child abuse reports increased 41% between 1988 and 1991 — to more than double the incidents reported in 1984.

Teen crime and homicide also increased. According to Children Now, 828 teenagers were murdered in California in 1992, a 59% increase from just 4 years earlier — almost two teenagers killed per day.

Although crime often is associated with big cities, Children Now found that predominantly rural counties logged the highest rates of juvenile felony arrests. Overall, juvenile incarceration rates rose 23% between 1988 and 1991, climbing to 256 arrests every day.

More than 70,000 babies — or 1 in 8 — are born to teenagers in California every year, according to statistics. Although the numbers fluctuate, California's rate of teen births is higher than the national average, with teen mothers accounting for 11% of all mothers in the state, according to Children Now.

Education statistics were not much more optimistic. According to a 1992 report issued by the Policy Analysis for California Education (PACE),

a university-based research center, the state spends less per pupil than any other industrialized state. Class size in California is second highest in the nation, after Utah.

The report noted that California gains an average of 150,000 new students a year. In 1991–92, California's public schools enrolled more than 5 million students, 1 million more than the combined enrollments of Colorado, Florida, Minnesota and Maryland. California has more students in its K–6 system than New York has in its entire K–12 system. Private schools account for nearly 10% of the school-age population.

The PACE report found that academically, California students are not doing as well as they once did. While the high school dropout rate improved, there were continued gaps in achievement between racial and ethnic groups, with African-Americans and Latinos scoring substantially lower in the California Assessment Program tests — particularly in reading.

In 1960, according to the Center on Budget and Policy Priorities, a Washington, D.C. think-tank, California spent 21% more per student than the rest of the nation. Now, it spends 14% less than the national average.

With statistics such as these, it's hard to know what to be optimistic about as the International Year of the Family ends. But even officials of advocacy organizations, who make a point of assessing what's wrong in order to improve it, see room for hope.

"There's a lot of hope and there are a lot of examples of good efforts that are happening around the state," said Amy Abraham, acting policy director for Children Now. These include efforts described in this issue, as well as other government programs and community attempts to solve such problems as teenagers giving birth, or fathers failing to provide child support.

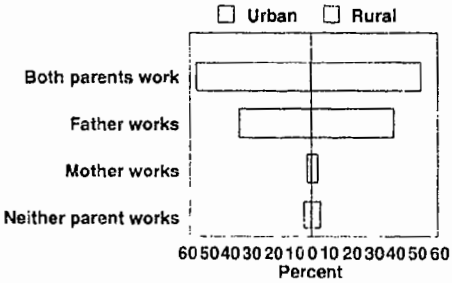
Among programs Children Now cited in its 1993 report were "Healthy Tomorrow," a Contra Costa County program designed to improve the health of pregnant women and infants, with special emphasis on African-Americans. Outreach workers visited soup kitchens, shelters and other facilities to find pregnant women and link them with health care. They provided transportation to health care programs along with improved health care, education and nutrition information. As a result, the county now has the lowest infant mortality rate for African-Americans and has already reached its target goal for the year 2000.

Hope for the California family rests in part with communities themselves, which have taken the initiative to develop programs targeting such areas as educational achievement, teen parenting and prenatal care.

The issue of child support is highlighted in a California Department of Social Services program to educate kids about the child support system. "What Kind of Parent Will You Be?" is a curriculum designed for 9th through 12th graders, to help them understand the emotional and financial responsibilities of being a parent. The program is included in Los Angeles Unified School District's curriculum, and is taught in many other California high schools. A second program, called the Parent Opportunity Program, allows natural parents of a child to acknowledge paternity by simply signing a declaration at the birth site, cutting down on court time and making it more likely that both parents will be involved and honor their obligations. Governor Wilson has signed legislation ensuring this program will be expanded statewide by January 1995.

Poor children are four times as likely to die in infancy. They are also more likely to suffer serious illness, drop out of school or become pregnant as teenagers.

In an effort to improve the educational achievement of all kids, not just the academically advanced, several San Jose schools have adopted the Accelerated Schools Project, which challenges conventional wisdom about



The figure above shows the number of working parents in two-parent homes. The majority of children come from homes where both parents work.

Class size in California is second highest in the nation, after Utah.

education by speeding up, rather than slowing down, the learning process for at-risk kids. The result has been substantial improvement in test scores for all kids, with seventh graders showing test score improvements of more than a grade level in math, and most eighth grade students going on to take geometry in high school.

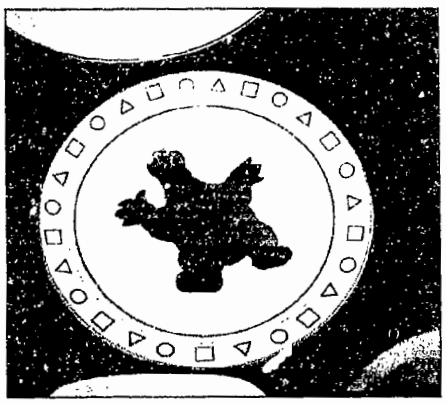
Other efforts include "Humanitas," a Los Angeles-based program that encourages team-teaching based around a relevant theme to engage kids in the learning and writing process; Barrios Unidos, a Santa Cruz program that brought together teenagers, their parents and community sponsors to build a soccer field and park as an alternative to violence; and LA's BEST, a Los Angeles-based organization that hopes to steer kids away from violence by providing them with after-school activities, such as tutoring younger kids, designed to boost their self-esteem.

—Editor

Lead poisoning continues to pose threat

Despite recent efforts to reduce the amount of lead in the environment, lead poisoning remains one of the most common environmental health problems for children in the United States today.

The Centers for Disease Control (CDC) and the American Academy of Pediatrics have both called for universal screening of children ages 6 months to 6 years in an effort to ward off the physical and developmental problems associated with even relatively low blood levels for lead.



Cookie Monster decorates a "hot" lead-leaching piece of ceramicware. However, similar plates made of plastic do not leach lead. (Photo by Ron Goble)

In addition, the CDC recently lowered the acceptable blood lead level from 25 to 10 micrograms per deciliter (µg/dl) — the lowest level yet at which effects from lead exposure have been seen.

One of the most effective ways to deal with the problem continues to be education. UC Cooperative Extension efforts to educate Californians about the dangers of lead poisoning and methods for its prevention include workshops for community health care workers, as well as the development of a lead test designed to determine if household ceramics and pottery are leaching lead (see opposite page).

Nutrition Science Specialist Sheri Zidenberg-Cherr, colleagues from the Department of Nutrition at UC Davis and county advisors in Tulare, Fresno and San Bernardino, are conducting research designed to determine what impact diet has on a child's susceptibility to lead poisoning. If a relationship between certain nutrients and lead absorption can be found, then detailed nutrition education programs might be targeted to high-risk populations, she explained.

Chronic exposure to lead can lead to serious health and behavioral problems such as anemia, kidney disease, lower IQ and other permanent cognitive deficiencies, Zidenberg-Cherr noted.

Children are considered especially at risk of lead poisoning because their central nervous systems are still developing. They are also the ones most likely to pick up lead in the environment through crawling or putting things in their mouth.

Although blood lead levels for children have dropped in the last decade, due in part to such efforts as banning lead-based house paint and introducing lead-free gasoline, experts remain concerned about the effects of low-level exposure from such sources as water, soil, and the colorful pottery Americans may pick up when traveling.

The most common source of lead poisoning is lead-based paint which was commonly used in homes until it was banned for such use in 1977. Children who live in older homes are at risk of lead poisoning, especially if the paint is chipped or peeling, or the house is undergoing renovation. Lead also can be ingested or inhaled from dust kicked up during remodeling.

Lead exposure also can occur in some jobs, such as radiator repair or battery making, and in some hobbies, such as working with stained glass which uses lead in the soldering process.

Children of migrant workers are considered at high risk of lead exposure due to environmental contamination in their homes and work environments. Poverty is a risk factor for lead toxicity, in part because more low-income children live in older, dilapidated homes. People who are poor may not have adequate diets, which can increase a child's susceptibility to lead poisoning, according to Zidenberg-Cherr.

Animal studies have shown that diets low in calcium or iron, or high in fat, can enhance lead absorption.

Zidenberg-Cherr's study involves more than 200 children between the ages of one through five.

The study population comes from San Bernardino, Fresno, and Tulare counties, all counties within the top 10 for reported elevated blood lead levels in children. In addition, Sonoma County was also sampled since it is in the top third of California counties with houses built prior to 1950.

Using a Food Frequency Questionnaire and three 24-hour dietary recalls, along with blood tests, Zidenberg-Cherr hopes to determine whether diets low in such nutrients as calcium, iron and zinc increase a child's susceptibility to lead toxicity.

The pilot project is also designed to test how well their methods work in getting dietary information about children. Among other things, parents are asked to recount what their children typically eat and the size of their portions. "With kids that's really hard," she said.

Zidenberg-Cherr said this study is designed to determine whether a relationship exists between certain nutrients and blood lead levels. She hopes to conduct a second study, using the results from the current study to determine whether supplemental diets might be used as a means to reduce lead toxicity in children.

The California Department of Health has estimated that some 80,000 children have blood lead levels above 15 ug/dl. Children with extremely high blood lead levels are treated with drugs called "chelators" which have the ability to bind to lead and remove it from the body. Cost of such treatment is dependent on severity, and ranges from about $200 to $5,000, Zidenberg-Cherr said.

Some have argued for universal screening, which would cost about $25 per child, she said. Reaction among health care professionals is mixed in part because of the cost, and because no therapy is available for children with slightly elevated blood lead levels, beyond simply removing the sources of lead and educating parents. — *Editor*

Chronic exposure to lead can lead to serious health and behavioral problems such as anemia, kidney disease, lower IQ . . .

UC offers lead test around state

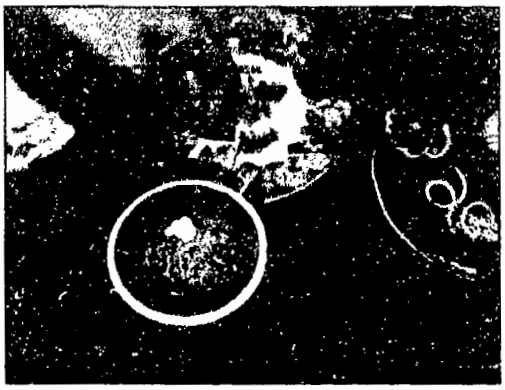
For the past few years, UC Cooperative Extension offices around the state have been offering what they call the "UC Quick Lead Test," a 20-minute test which can determine whether a piece of pottery or ceramic ware is leaching lead.

Many pottery glazes contain lead, which adds color, texture and luster. When properly fired — or heated to a high enough temperature for a long enough time — the metals become incorporated into the glaze and are resistant to acid leaching.

But some pottery isn't properly prepared or fired. Glazes that are cracked or worn can also cause leaching of lead when they come into contact with acidic foods, such as tomatoes, according to UC Home Economist Shirley Peterson.

In 1991, concerned about the health effects of lead, the U.S. Food and Drug Administration (FDA) issued new guidelines concerning pottery and ceramics manufactured in, or imported to, the United States. Pottery made in the United States, or foreign pottery imported through FDA-approved channels, are screened for leachable lead. Not all pottery or ceramics manufactured in foreign countries meet FDA standards. Tourists and military may bring home dishware from foreign countries, which are not subjected to the screening process, but may contain leachable lead. Lead can also be found in antiques.

The UC lead test, which is adapted from an FDA test, uses a mixture of citric acid, "about as strong as lemonade," which is placed on all colors in the pottery that come into contact with food, Peterson said. After standing for 20 minutes, some of this citric acid is transferred to filter paper, where it is tested with rhodizonic acid, which turns from goldenrod to pink on contact with lead. The darker the pink, the more lead is there.



UC's 20-minute lead test uses citric acid to determine the presence of leachable lead in pottery.

Cooperative Extension originally offered the test at a Davis farmers' market and the Sacramento County Extension Office. Of 92 pieces tested, they found more than 6% leached lead, many of them pieces from Mexico, in which the glaze had been poorly or incompletely applied, and the pieces gave a "thunk" when tapped, which is indicative of ceramic ware fired at a low temperature.

Peterson said the lead tests are available at many of the Cooperative Extension offices. In addition, they can be obtained commercially for people who are concerned about the safety of their ceramic ware. — *Editor*

Science brief

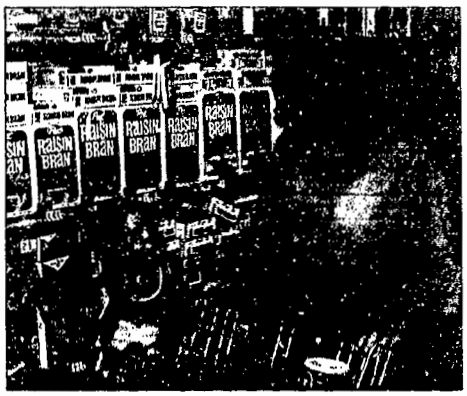
EFNEP: 25 years' worth of sound advice

For the last 25 years, the Expanded Food and Nutrition Education Program (EFNEP) has been dispensing advice ranging from the four basic food groups to how to build a healthier taco.

The UC Cooperative Extension program, which marks its 25th anniversary this year, is more than just a nutrition education program. It's aimed at improving the health and well-being of low-income Californians, said Extension Specialist Amy Joy, who has been with the program for 15 years.

Cutting back on fats and sugar and eating more fruits and vegetables is one aim of the EFNEP program.

"Eating is not just about food. It also is an important social and family event. It is a way to bring people together. Our program goal is to help people help themselves. By learning about nutrition and a healthy diet, people have more options and opportunities to improve their own and their families' well-being," she said.



With EFNEP, families learn how to use coupons and comparison shopping to buy healthy foods and save money.

EFNEP, as it is informally known, started in 1968 as a pilot project using federal funds to provide nutrition education to low-income Americans. The California program receives $3.1 million a year from the federal government, Joy said. This year, that money went to provide nutrition education for 12,500 Californians, all with monthly incomes of under $1,000.

Groups of EFNEP participants meet six to eight times. Lessons are provided by paraprofessionals trained in the program, most of them coming from the same community. The lessons focus on the nutrition basics — such as the four food groups, and how to incorporate them into a diet. They also include information about how to prepare healthier foods by cutting back on fats, sugar and salt, and increasing fruits and vegetables; how to safely handle and store foods; and how to stretch a food budget by comparison shopping and using coupons.

"Our aim is to offer ways to improve nutrition by reducing cost, fat and salt in the diet. We always offer recommendations based on the cultural and ethnic traditions of the families we work with," Joy said. A healthy taco, for instance, has less meat and more vegetables.

The program recently conducted an evaluation to see how effective EFNEP is in increasing consumption of healthy foods. The study examined 650 families, half of whom were participating in EFNEP programs. It found that those families who had EFNEP training had better diets and ate significantly greater amounts of fruit, vegetables and dairy products.

But the benefits of EFNEP are not limited to nutrition, Joy noted. Some participants are recent immigrants, who may not speak the language, or know how to provide a healthy diet for their families on a limited income in a new country.

The EFNEP staff may help people determine their eligibility for such programs as food stamps. It also performs a worthwhile goal by bringing people together. In some cases, those relationships continue after the EFNEP program has ended, with people forming buying clubs, baby-sitting cooperatives, and lifelong friendships.

The 25th year of the EFNEP program comes at a time when more and more Americans are going hungry. Though the program cannot actually put food on the table, it can help Californians by teaching them ways to stretch their food budget and still get adequate nutrition, Joy said. In 1989, she recalled, Congressman Leon Panetta of California called EFNEP "not just good for people in terms of good nutrition information; it is a good investment in the future."

"We will continue to offer assistance to all low-income families, especially those with the most needs," Joy said. — *Editor*

Suzanne Paisley

Even counties thought to be invulnerable are showing signs of hunger and homelessness. Here, a homeless couple in Contra Costa County lives in a park just yards away from a children's soccer game.

Hunger in the midst of affluence . . .

Task force combats hunger in Contra Costa County

Mary Lavender Fujii

In Contra Costa County, one of the most affluent counties in California, an increasing number of men, women and children line up for free food every day. Research conducted over the past 7 years has shown that these people, many of them families, are turning to emergency food pantries and soup kitchens to avoid hunger. This research has led to actions to alleviate the problem.

Despite the abundant output of the state's agricultural industry, more than 3.6 million Californians, or one in eight people, are at risk of going to bed hungry. Of the state's children, one in five are at risk. This population does not have enough money to meet basic living expenses — including food. They live at or below poverty line, the income level determined by the federal government as the minimum necessary to meet life's basic needs. The 1994 annual poverty threshold for a family of three is $12,320. Yet even this amount does not guarantee adequate food, either in quantity or quality, to provide a healthful diet. For the majority of people living at or below poverty level, there is simply not enough money to pay for housing, utilities, transportation, clothing, laundry, supplies and food throughout the month.

In Contra Costa County, considered one of the most affluent counties in the state, 57,000 people lived in poverty in 1990, according to the latest census. Although the view from the freeway gives the impression of success and vitality, it has long been evident to local health and social service professionals that many residents suffer the effects of poverty. In 1987, a Hunger Task Force was formed (see box, p. 17) to document the nature and extent of hunger, and develop and implement strategies to alleviate the problem. This task force, composed of representatives from local private and public educational, health, social service and

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More than one way to describe a problem

In popular usage, "hunger" can mean anything from stomach pangs after skipped lunch to famine which takes a devastating toll in human lives.

Today many experts believe a more useful term is "food insecurity." Those involved in hunger research say "food insecurity" is a broader term that encompasses not only the physical manifestations of hunger but such social issues as the availability and affordability of food.

This wider definition enables people to work on longer-term solutions. Hunger is seen not in isolation but as part of a continuum ranging from food security, to insecurity and hunger. "Food insecurity," for example, would describe a household where food supplies are limited. In this situation, families adopt strategies for survival that include smaller portions, smaller meals, or stretching meals by modifying ingredients. As the situation worsens, the level of food insecurity increases. Adults start cutting back on amounts or skipping meals entirely. There might be two to three different levels of food insecurity before the family reached a level where they can be said to be experiencing hunger.

Food security requires that a variety of foods be available through normal channels — not at soup kitchens or food pantries. It also requires that food be accessible both economically and geographically. If the grocery store is three miles away and there is no means of transportation or money to buy food, then it is not considered accessible.

The food must also be nutritionally adequate and safe. It is extremely difficult to buy nutritionally adequate food at a neighborhood convenience or liquor store. The source of the food must also be reliable.

Food insecurity means there is not ready access to nutritious, safe, acceptable food through regular means. There must also be choice. A household is insecure in its food supply if there are only potatoes to eat. Having to rely on charities such as emergency food pantries or soup kitchens is an indication of food insecurity.

Hunger is sometimes defined as a condition in which people lack the basic food calories and nutrients needed for fully active, healthy lives. **Undernutrition** refers to inadequate intake of food energy (measured by calories) and **malnutrition** is a failure to obtain nutrient requirements. Most hunger in this country is cyclical, occurring the last 2 weeks of the month when paychecks and food stamps run out.

Poverty guidelines originated in the 1960s when the federal government designed the "economy food plan," which consisted of a minimally adequate market basket of staple foods. Using the 1955 USDA Survey of Food Consumption, it was determined that an average family of three spent approximately one-third of its income on food. Therefore, any family which was spending the average one-third on food, but found the amount was too small to purchase the minimal-diet food plan, could be classified as poor. The poverty line has been adjusted yearly, using the Consumer Price Index (CPI), and accounting for family size.

In 1993, 39.3 million people in the United States (15% of the population) lived below the poverty level. —*Editor*

religious agencies undertook a research project to survey people standing in line for free food in Contra Costa County.

The Hunger Task Force undertook a systematic assessment of the county's hunger problem in 1987 and again in 1992. For both studies, they compiled county statistics indicating the number of people served by charitable and public food assistance programs from soup kitchens to school lunch programs. Task force members then interviewed more than 325 people who received free food from emergency food pantries, soup kitchens and USDA commodity distribution sites. These emergency food recipients were asked to provide information about their housing, health and general economic situations, as well as why they asked for help and how often they or members of their family went to bed hungry.

The results of the studies were disturbing. While the numbers of people going hungry do not nearly equal those of counties such as Los Angeles, which have large urban areas, it is evident that hunger exists and is increasing in an area previously considered immune to such problems. Emergency food pantries, which provide recipients with a 3-day supply of food, had already seen a 39% increase in the numbers they were serving from 1985–87; by 1987, they were serving 5,240 people per month. Three new soup kitchens opened that year, bringing to eight the total number of places where families could come for a hot meal. Of those eight, four served meals daily or during weekdays, while the other half offered meals much less often.

In 1987, these soup kitchens were already serving twice to three times the anticipated number of people — an estimated 900 per month. The USDA commodity distribution sites were handing out a relatively attractive basket of food, including 5-pound blocks of American cheese, to 13,000 people per month.

By 1992, the situation had worsened noticeably, especially for children. Although fewer people lined up for food dispensed at USDA sites (11,600 compared to 13,000 five years earlier) the food bags were smaller

and inconsistent, often not including all the staples provided in the earlier bags. Soup kitchens were now serving an estimated 2,000 people per month. But the largest increase was borne by the food pantries, which served 11,000 people per month in 1992 — double the numbers served just 5 years earlier.

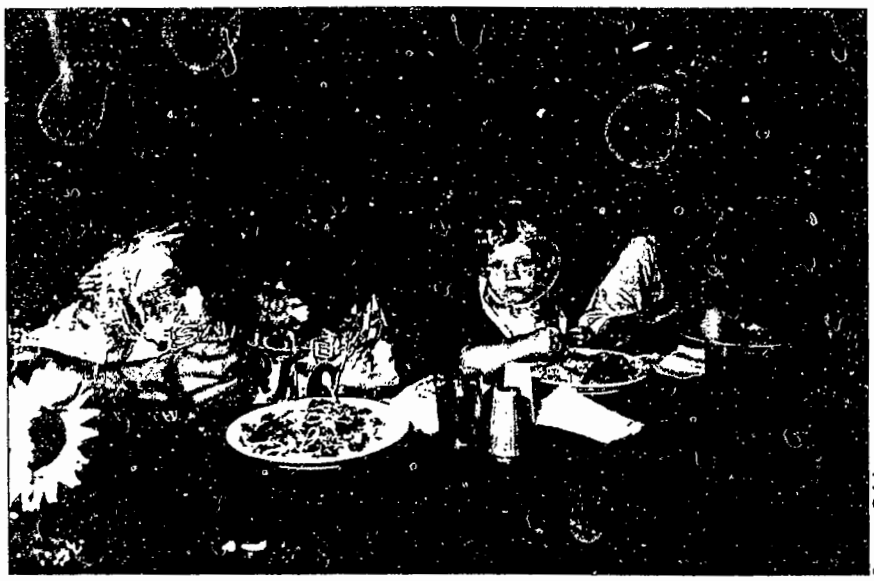
The profile of hunger

In 1992, children under 18 accounted for 43% of those who received free food, compared to 34% of recipients in 1987. This finding is consistent with a nationwide profile of free food recipients completed by the Second Harvest National Food Bank Network in late 1993 (see sidebar, p. 14). In Contra Costa in 1992, almost one in five beneficiaries was under the age of six. This is particularly disturbing since the effects of hunger, physical as well as psychological, can last a lifetime.

Asked how often they went hungry on a scale ranging from never to always, half of the adults reported going without food sometimes or often. Fifteen percent of children went to bed hungry at least on occasion, with some parents indicating this happened on a regular basis.

Neither the breakup of the nuclear family nor transience could explain the prevalence of hunger in Contra Costa in 1992. Two-parent families made up the largest group of people who sought food aid (table 1). Three-quarters of all recipients rented or owned housing (table 2). Almost all (98%) lived in the county, with half having lived in Contra Costa for more than 4 years.

The ethnic makeup of those who stood in line for free food in 1992 mirrored the ethnic makeup of the county's known poor. Whites represented the largest group, making up 45% of recipients. Blacks accounted for 36% of recipients, while Hispanics made up 16%, Asians 2% and Native Americans 1%. The largest discrepancy between emergency food recipients and the general poverty population was for Asians, who made up almost 10% of people in poverty, yet accounted for only 2% of those who sought emergency food. Further study is needed to determine if the emergency food network could do more to reach out to these communities in more culturally appropriate ways.



Suzanne Paisley

Increasingly, families are the most frequent participants in emergency food programs, with children making up almost half of those who receive free food.

The recipients' stated reasons for seeking food included losing their jobs or being injured and unable to work (table 3). The prevailing feeling was one of shame for needing free food. Many stated that they were "hard workers" who never dreamed they would come to rely on charity to feed their family.

TABLE 1. Recipient family types

Two-parent families	28%
Single males	23%
Single-parent families	19%
Adult families without kids	17%
Adult families with unrelated kids	7%
Single females	6%

TABLE 2. Where emergency food recipients live

Rent apartment	40%
Rent house	19%
Homeless, on the street	11%
Rent room	8%
Homeless, live with family members/friends	7%
Own their home	4%
Own/rent a mobile home	4%
Homeless, stay at a shelter/mission	4%
Homeless, sleep in a car/RV/van	2%
Homeless, stay at hotel/motel	1%

TABLE 3. Why people need emergency food assistance

- They run out of food stamps
- They separate from their spouse
- They lose their job and become unemployed
- They experience unusual medical and other expenses
- They have an injury accident and are unable to work
- They apply for aid but aren't receiving it yet

Minimum wage is not enough

It is not hard to understand why someone would face household food shortages when trying to support a family of three on $657 a month, which was the average income for a family of this size in the 1992 study. This amount is 30% below the poverty level. It is expected to cover all living expenses for a month. In addition to food, this includes housing, utilities, supplies, clothing, transportation and child care costs. Most of these expenses are fixed costs; the rent is not negotiable with the landlord and bus fare is a set amount. After the bills are paid, there is often no money left for food.

As in other areas of the state, the average family spent almost half of its income on housing. Another 13% went to utilities, water and telephone. Since fewer than two in five emergency food recipients owned cars, they relied on walking or public transportation. Some recipients walked several miles to get a meal at a soup kitchen.

Even those working full time for minimum wage could not stay out of poverty. While slightly more than half (52%) of the adults surveyed were out of work, another 16% were employed at low-wage jobs ranging from factory and automotive jobs to child care. The

Who are the hungry?

Contrary to what most people believe, the hungry are not primarily transients, homeless or even adults on welfare. Children and the elderly make up the largest groups of the nation's hungry — children 43%, elderly 22% — according to a recent survey by Second Harvest, the national food bank network.

Hunger is also creeping into the middle class, according to a Tufts University study. From 1989 to 1992, poverty rose 21% in suburbs, compared to 5% in inner cities — a significant finding since rates of hunger closely follow poverty rates.

March 1994 findings from Second Harvest's nationwide survey confirmed that emergency food programs are now widespread in the suburbs. Because Second Harvest serves 26 million people a year, a number close to the estimated 30 million hungry in this country, its survey results are considered strong indicators of national hunger needs.

The survey also found:

- Food bank clients are not only the poorest of the poor, transients and the homeless. Of free food recipients, 77% live in stable housing. Food banks and food stamps, in fact, do little to reduce hunger among the homeless who lack kitchens to store and prepare food.
- Most clients are in the labor force or recently unemployed: 60% have gotten help less than a year; 32% less than 3 months.
- Unemployment and underemployment are the chief reasons people seek food. Of Second Harvest client households, almost one-third have a worker in the labor force. Of unemployed clients, 66.5% are actively seeking work; 44% have been out of work a year or more.
- Even though many needy and hungry people work, the prevalence of low-wage jobs often leads to inadequate household incomes: 88% of client households earned less than $14,000 a year — under the poverty threshold. The federal minimum wage of $4.25 an hour equals about $800 a month or $9,600 a year, almost $2,000 below the poverty line for a family of one adult and two children in 1993.

Who is hungry: nationwide

John Cook, Research Director at Tufts University's Center on Hunger, Poverty and Nutrition Policy, confirmed that poverty and hunger are on the rise nationally, particularly in suburban areas. From 1973 to 1992, poverty rose 76% in suburbs, 56% in inner cities and 36% in rural areas. Part of this change is due to demographics as more people move to suburbs and cities from rural areas. But it also reflects economic conditions leading to hard times, which many people try to hide, he said.

People may look affluent, Cook said, but "Then you discover they come to your food pantry. Then you find out they've been laid off, and they're sweating their mortgage payments."

Compared to images of malnourished and starving children in Africa, hunger in America is largely invisible and often cyclical, occurring in the last 2 weeks of the month when paychecks and food relief run out. Hunger disproportionately affects children, whose chronic undernourishment can lead to permanent losses in learning and development.

The Communuity Childhood Hunger Identification Project (CCHIP) —

How to help

Farmers are waging a war against hunger not only by producing food, but by donating their surpluses to the needy.

F.O.O.D. Crops in Castroville provides a prime example. The volunteer food distribution effort, started by growers working with food assistance agencies, serves Monterey, Santa Cruz and San Benito counties. Growers and shippers who want to donate surplus produce can call the organization, which picks up and delivers the food to local food banks. By working with the agency, donors are assured that the produce is not channeled into secondary markets, they obtain protection under the Good Samaritan Law and they receive receipts for the tax deductible donations.

The service has expanded quickly, said F.O.O.D. Crops director Leslie Sunny. The group moved 2.8 million pounds of food in 1993 and 4.3 million pounds in 1994. "This year it has been so successful that we took in more than the tri-county area could handle," she said. The excess food was directed to California Emergency Foodlink, a nonprofit agency that picks up food that cannot be used or stored by a single food bank and distributes it to others in the state.

It is impossible to quantify the volume of food donated statewide by growers because most of it is contributed directly to local food banks, but the amount handled by Foodlink alone in 1994 totaled 15 million pounds.

Contacts for growers wishing to donate surplus food include:

- F.O.O.D. CROPS (800) 331-FOOD
- California Emergency Foodlink (800) 283-9000
- Second Harvest (800) 771-2303, which can refer growers to the closest local foodbank.

considered one of the most rigorous and comprehensive studies of childhood hunger ever conducted in the United States — found that 23% of U.S. families with young children are either hungry or at risk of being hungry. Five million children (from 12% of all families with children under 12) were going to bed hungry. Children from another 11% were at risk.

CCHIP conducted house-by-house surveys of 2,335 low-income households in seven states, including California. Surveyed households had incomes of 185% poverty level or less, and at least one child under age 12. (For a family of four, 185% of poverty level was $26,520 in 1993.) People were asked eight questions relating to hunger. If they answered yes to five of the questions, they were considered hungry. If they answered yes to four or less, they were considered at risk of being hungry, said Laurie True, a senior policy analyst with California Food Policy Advocates, who helped produce the report.

The report documented that although the majority of low-income families were either hungry or at risk of being hungry, some had found ways to cope, either by relying on relatives or depending on emergency assistance, True said.

Suzanne Paisley

Statistics show that an increasing number of children go to bed hungry. Here, children bed down in a homeless shelter in Northern California. People working full time for minimum wage often do not make enough to stay out of poverty.

Who is hungry: California

Overall, California ranks 14th among the states in numbers of hungry people, with 13.2% of its population experiencing hunger, according to a 1992 analysis by Tufts University.

The CCHIP study further illuminated the hunger problems of low-income Californians in the Central Valley, with low-income households surveyed in Fresno, King, Stanislaus and Tulare counties. More than half (57%) said they ran out of money to buy food at least once a year; 36% relied on emergency food programs such as soup kitchens, food pantries and commodity foods; and 62% relied on friends and relatives for help in feeding their children.

Even those who worked full-time were not always able to make enough to avoid the risk of hunger, the report noted. The California families also spent on average 44% of their income on housing.

The CCHIP study called for loosening restrictions on eligibility and making additional efforts to reach those who are eligible but do not receive emergency food aid.

Who is hungry: L.A. County

A 1990 Los Angeles County Cooperative Extension survey revealed again that children were the largest class of the hungry: 76% of emergency food recipients were families with children. Barbara Turner, Los Angeles County CE home economist, reported that among those surveyed, the average monthly income for a family of four was $834, or $224 below poverty level.

Families on average spent 60% of their income on housing, twice the amount the government considers to be the "maximum affordable." The average food budget for a family of four was 59% less than the amount recommended by the Thrifty Food Plan, which is the government's calculation of the bare minimum needed for a nutritionally adequate diet.

The federal government will attempt to measure the nation's hunger problem by including questions about food security on its 1995 annual Current Population Survey conducted in April. The questions are designed to measure several levels of "food insecurity," from people who are at risk to those who are skipping meals, going to bed hungry, or otherwise actively experiencing hunger.

This is the first time the government has tried to institutionalize a measurement, according to Cook. "We will have hunger and food insecurity estimates the same way we have poverty estimates," he said. —*Editor*

Material for this sidebar was derived from publications of Second Harvest, Tufts University, the Community Childhood Hunger Identification Project and Los Angeles County Cooperative Extension.

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Hunger and public policy

Suzanne Paisley

Federal assistance has not kept pace with the numbers of people requiring emergency food. Charities and religious organizations, when they can, shoulder an increasing amount of the need. Here volunteers in Contra Costa County inspect and sort donated food destined for free food baskets.

In the mid-1970s, hunger in this country fell to an all-time low, largely due to the Great Society initiatives of the 1960s. Since then, cutbacks in food, job and housing programs, coupled with a long-term decline in workers' real wages, have spurred hunger rates. With the recent recession, the situation worsened further. Tufts University's Center on Hunger, Poverty and Nutrition Policy estimated that 30 million Americans were hungry in 1991 — a 54% increase since 1984.

Responding to the visible signs of hunger in their communities, private citizens have established close to 150,000 food pantries and soup kitchens nationwide — most of them since 1980. Today more than half of Americans contribute to hunger relief, distributing as much as $4 billion of food annually.

But the private feeding movement has not been able to close the gap left by federal cutbacks. Why? Because the size and efficiency of federal food programs dwarfs even the extraordinary efforts of private citizens. After the cutbacks of the 1980s, federal food programs still provide $39 billion to the needy — 10 times the amount private charities have mustered.

"The private feeding movement can provide part of the solution to hunger, but it is neither possible nor appropriate for private charities to take the place of government programs," said Mary Fujii, UC home economist in Contra Costa County. "Soup kitchens and food pantries must depend on donated food, and supplies vary according to the wealth of communities. Even well-stocked facilities sometimes run out of food and turn people away. Charities cannot offer consistent supplies of staple foods, much less food that is nutritionally balanced. Donated food is least plentiful in the neediest places."

While federal food programs are assisting more people than ever before — 39 million, or one in six Americans — the programs themselves are inadequately funded and the benefits they provide fall short of the need. These programs include the Food Stamp Program, the Special Supplemental Food Program for Women, Infants and Children (WIC), and the School Breakfast and School Lunch programs.

For instance, a statewide survey conducted by the California Community Childhood Hunger Identification Project (CCHIP) found that 39% of households receiving food stamps still experienced hunger, with monthly benefits lasting only 2 weeks. Contra Costa County figures show that emergency food recipients there receive an average of 50 cents per meal in food stamps.

CCHIP also found that food stamps are underutilized, with less than half (48%) of those eligible actually receiving them. Reasons for not participating included lack of knowledge about the program, embarrassment, transportation difficulties and language problems.

Statewide, only 30% of eligible women, infants and children receive WIC benefits. The reasons are numerous. For one, WIC receives only two-thirds of full funding. As a result, health departments change categories of eligibility and reduce outreach efforts. Of those who remain eligible, fewer are aware of relief programs.

Nevertheless, federal food programs are highly effective as far as they go. The General Accounting Office has calculated that every dollar spent on WIC prenatal care saves up to $4.21 in Medicaid costs. Inadequate funding of WIC means that nationwide nearly 3.5 million women and children are unable to participate.

The school lunch program is highly effective, with 98% of schools participating; for poor children this may be the only meal in the day. But other statewide figures show only 25% of eligible children receive school breakfasts, and 6% of eligible children receive summer food service. The reasons include administrative barriers, inadequate outreach and the stigma of participating.

Full funding of all existing federal food programs would cost an additional $10 billion a year, less than 1% of total federal spending, and could eliminate hunger in this country by the year 2000, according to the Medford Declaration to End Hunger in the U.S., which was endorsed by more than 3,000 national leaders and organizations in 1991. —*Editor*

Material for this sidebar was derived from publications of Bread for the World, Tufts University, the General Accounting Office, the Contra Costa County Hunger Task Force and CCHIP.

remaining 32% were homemakers, students, retired or disabled adults. For those who did work, the mathematics were discouraging. The minimum wage is $4.25 per hour. Yet it would have to be $6.00 per hour for a family of three to be above the poverty line and able to afford life's basics.

The Food Stamp program is the USDA entitlement program meant to supplement a family's food budget to alleviate hunger. Yet over half of those who stood in line for free food also received food stamps every month. They still depended on charity because, for most food stamp recipients, one month's allocation is only enough to buy food for two weeks. The average monthly food stamp benefit for a family of three in Contra Costa is now $134, or 50 cents per meal per person.

Budget cuts in other social service areas have combined to make the situation even more dire. Recipients of free food who depend on Aid to Families with Dependent Children, Supplemental Security Income or Social Security benefits, have seen their benefits decrease during the last 5 years due to inflation and cuts in state spending.

Hunger increased in 1992

In 1992 Contra Costa food pantries distributed food to 125,000 people. More than 250,000 meals were served at soup kitchens. It is clear that food pantries and soup kitchens, most sponsored by religious and nonprofit organizations, are taking on a larger role in the battle against hunger. Yet, even though they serve as a crucial stop-gap, they cannot be considered the long-term solution to hunger.

Comparing data from the two hunger surveys yielded disturbing results. Emergency food pantries and soup kitchens served nearly twice as many people in 1992 as they did in 1987. Among their recipients were increasing numbers of children who went to bed hungry, as well as adults who found it necessary to skip meals. Clearly, both the number of people experiencing hunger and the severity of their need had grown — at a rate exceeding the capability of emergency food providers.

The choice between homelessness and hunger is a real one which many families confront constantly. In 1992 a quarter of food recipients were homeless, a small decrease from 1987, when 31% of recipients were homeless, living in a shelter, car, motel, or with family or friends. While this may strike one as an optimistic figure on the surface, it also suggests the possibility that many do not have enough money for both food and housing. When confronted with the difficult choice of spending their last remaining dollars on shelter or food, more are now choosing to stay housed as long as possible and taking their chances on handouts of food for themselves and their children. Although anyone can line up to eat at a soup kitchen when it's open, such facilities depend on charity and may run out of food. For the same reason, the food they offer may not be nutritionally adequate. While hungry people may obtain 3 days' supply of groceries at food pantries and USDA sites, they are restricted to receiving this benefit twice every 6 months or once a month, respectively. Clearly, charities cannot fulfill the food needs of any family or even any one individual.

Members of the Hunger Task Force

American Cancer Society
California Hunger Action Coalition
Church Women United
Contra Costa Food Bank
Contra Costa Child Care Council
Contra Costa County Community Services Department
Head Start Program
Contra Costa County Health Services Department
Child Health and Disability Prevention Program
Office for Service Integration
Prevention Program
Public Health Nursing
Senior Nutrition Program
Women, Infants, and Children (WIC) Program
Contra Costa Nutrition Council
Contra Costa County Social Services Department
Food Stamp Program
Office on Aging
Diablo Valley Dietetics Association
League of Women Voters
Loaves and Fishes Soup Kitchen
Mt. Diablo Unitarian-Universalist Church
University of California Cooperative Extension
Expanded Food and Nutrition Education Program
Volunteers of America

Research promotes hunger relief

The results of this research have been put to good use locally. Data from each report have been used by local providers of emergency food to expand services into identified areas of need. After discovering in the 1987 survey that food stamps were underutilized by emergency food recipients, task force members decided to initiate a food stamp outreach campaign. Contra Costa County was the only county in the state to receive federal matching funds to implement such a program. In its 2 years of existence, this program helped increase food stamp usage in Contra Costa by 64% compared to an average increase of 36% for the state.

The studies have also been the impetus behind expansion of local child nutrition programs. After reviewing the 1987 findings, the local school district with the highest rate of eligibility for free and reduced-priced school meals in the county reinstituted its school breakfast program. The next year an additional 10,000 needy students had breakfast available at school. The Hunger Task Force also succeeded in expanding summer feeding programs so that children had access to a nutritious meal when school was not in session. Since 1987, almost 1,000 additional children have begun participating in the Summer Food Program.

The Contra Costa County Food Bank has also responded to research results by starting the "Prepared Foods Program," where trained food bank staff collect wholesome foods donated by restaurants, caterers and other commercial food service operations and take them to soup kitchens to feed the ever-growing number of guests. "Food for Children" is another program developed to meet the needs of preschool-aged children unable to participate in other food assistance programs. In this program, specially prepared bags of groceries are given each month to needy families with young children.

Efforts continue

Hunger Task Force members continue to promote and facilitate the expansion of publicly funded food assis-

tance programs for children, pregnant and breast-feeding women, families and seniors. The University, through Cooperative Extension, has played, and should continue to play, an important and appropriate role in this effort. In the Contra Costa studies, the University's involvement was critical in providing the research tools enabling those concerned to do a credible job of documenting the problem and framing the issues. The survey tool used in the two studies was developed, tested and validated by Cooperative Extension, and has been used statewide.

Conditions change so that these programs will need continual support just to maintain an adequate level of service. Private agencies will continue to need technical information and training enabling them to meet the needs of the families who depend on them. A hunger survey is planned for 1997 to monitor the situation. Until economic conditions change, and counties are hunger-free, the need for these collaborative efforts is still there. The task force's accomplishments reflect the synergy of coordinated efforts reproducible anywhere.

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The author gratefully acknowledges members of the Hunger Task Force for their participation in the research and hunger abatement activities, especially John Bateson and Michael Flood of the Contra Costa Food Bank, Arnell Hinkle and Larry Cohen of the Prevention Program of the County Health Services Department. The survey instrument used was first developed by Linda Garcia, Cooperative Extension Home Economist in Sonoma County and validated and refined by Amy Block Joy of the State EFNEP office of UC Cooperative Extension.

Copies of the Hunger Task Force reports are available from the author.

Farmworker housing in crisis . . .

How rural communities can learn from the Arvin experience

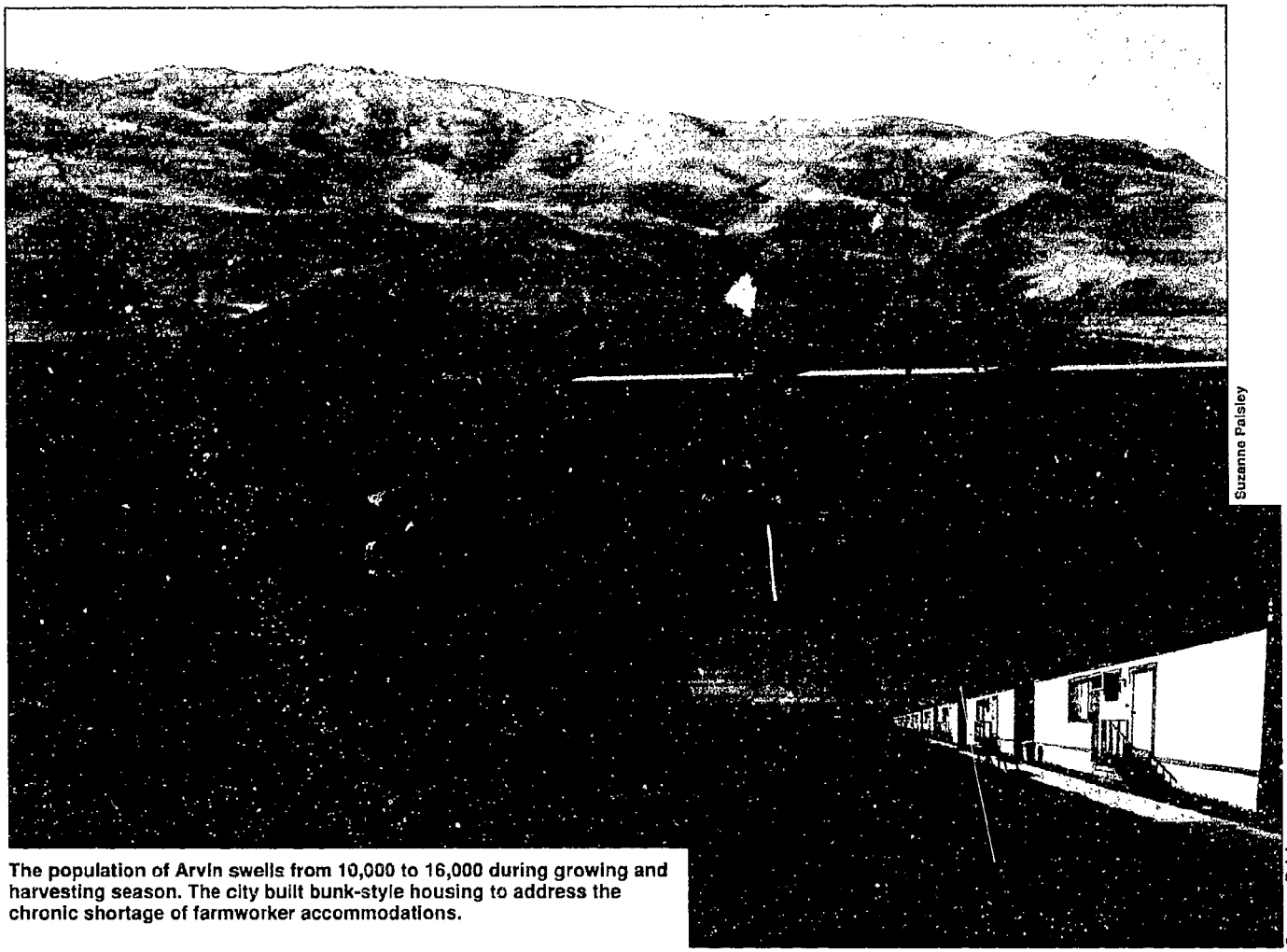
Patricia Harrison

A greater percentage of seasonal agricultural workers and their families live in California on a year-round basis than ever before. Rural communities are facing serious housing shortages; they must address farmworker needs ranging from short-term migrant facilities to permanent family residences. Arvin, California, pioneered an effort to reduce the farmworker housing shortage by supporting the development of an innovative housing environment for 300 men. This experience, while not totally satisfactory, suggests guidelines for other rural communities to utilize as they look for ways to address their own local housing needs.

The Bracero Program of the 1960s allowed Mexican farm laborers to be brought legally into California for short periods of time. Since the end of the program in 1965, rural communities have faced increasingly serious and complex farmworker housing shortages as a greater number of farmworkers and their families have opted to obtain legal residence status and live in California instead of migrating from Mexico on a seasonal basis. U.S. Labor Department statistics confirm that seasonal workers now perform more than 80% of all California farm work. The number of farm employees in the state ranges from more than 500,000 workers at peak season in September to a reported low of 253,000 in February. Of this number it is estimated that 54% of seasonal workers and their families spend the entire year in the United States, while another 30% are essentially permanent residents, spending less than 4 months each year out of state. Seventy-eight percent of these workers said they would prefer not to travel beyond normal commuting distances to work, but many do so for short periods as required to earn a living wage. Thus, a demand for both affordable permanent housing and short-term housing for seasonal labor persists in most rural areas.

The growing year-round presence of seasonal agricultural workers in rural communities has led to severe housing shortages and documented cases of overcrowding, rent gouging, and families or single men living in unsafe and unhealthy circumstances, such as sheds, backyards, cars, or outdoors throughout California. Newspaper reports of deplorable housing conditions often cast responsibility for these circumstances onto growers or rural communities, without discussing the statewide scope, magnitude, and complexity of the housing problems.

Rural communities face several obstacles in their efforts to address the seasonal farmworker housing crisis. Federal and state support for low-income rural housing has declined significantly in the last 15 years. In many areas suburban expansion into agricultural regions has raised land values and reduced the availability of land for low-income housing. California growers increasingly rely on farm



Suzanne Paisley

Suzanne Paisley

The population of Arvin swells from 10,000 to 16,000 during growing and harvesting season. The city built bunk-style housing to address the chronic shortage of farmworker accommodations.

labor contractors to supply seasonal workers, and have reduced the number of grower-operated seasonal labor housing units. The California Department of Housing and Community Development reports that registered employee housing sites declined from a high of over 5,000 in 1968 to just over 1,000 in 1994. Worsening economic and political conditions in Mexico and Central America have led to an increase in illegal immigration, further compounding rural housing problems. Solutions to rural housing shortages require careful assessment of farmworker housing needs in specific regions of the state, innovative and cost-effective approaches to housing design, and effective partnerships among communities, government funding agencies, and nonprofit housing providers to overcome these challenges.

Arvin, a small agricultural community located in Kern County near Bakersfield, California, embarked on a housing project to reduce serious seasonal housing shortages in its area. Examination of Arvin's experiences in the development and operation of an innovative housing approach offers significant information and guidelines for other communities that may be contemplating housing programs in their own areas.

Arvin's farmworker housing project

Normally, Arvin is a community of around 10,000 people. But its population swells by 4,000 to 6,000 individuals during peak growing and harvest seasons. Concerned that affordable, decent housing be available for its short-term residents, the community agreed to sponsor construction of a 300-man bunk housing environment within town limits. A local developer proposed construction of bunk-type trailer dwellings for male seasonal employees to reduce the local housing need and provide an innovative, cost-effective alternative. The developer emphasized the importance of its cooperative private-public venture as a first step in solving the state's farmworker housing crisis, and envisioned a system of such housing centers throughout the state.

Some local growers and labor contractors were asked to participate in the financing and to rent or purchase blocks of beds for their employees, but all refused, declaring they could house workers in grower-owned housing or in low-fee hotels in Bakersfield for less. Arvin also invited the Housing Authority of Kern County to become involved, but the authority declined, predicting that the project was not financially viable.

Trailers initially meant to house single men were converted to family use and quickly filled. (Photos by Suzanne Paisley)

Nonetheless, Arvin decided to proceed, funded by private investors and city loan guarantees. The $3-million village opened for occupancy in October 1992. The fenced site included 50 trailers housing six men each, a recreation building, and a combination grocery, laundry and administrative building. Bunk trailers surrounded a large soccer field at the center of the site; two tennis courts were constructed; and parking was located outside a controlled entry gate. Each trailer was a complete living unit with six bunk beds, a small kitchen, shower, and toilet spaces; and each complied with the minimal standards of the Employee Housing Act for farm labor housing. The opening was heralded in the local press as an example of the private sector's capacity to creatively address the region's critical farmworker housing shortage.

However, the housing project did not perform as predicted. Despite the developer's market research, only 16 men rented bunks in the first 7 months of operation. Disturbed by this outcome, as well as other aspects of the project management, the City of Arvin took over operation in April 1993. A former city treasurer was asked to manage the project and its finances. City officials obtained permission from the California Department of Housing and Community Development to convert one bunk in each of the trailers to a fold-out double bed for couples. Renamed Arvin Village, the development was reopened for family housing. Within 3 weeks all dwellings were rented and there was a waiting list of more than 80 families.

The grocery store was stocked with items requested by residents, tennis courts were converted to basketball courts, picnic areas were constructed around the soccer field, and the recreation building was stocked with activities for adults and children. Arvin Village began to function smoothly and long-range plans were implemented for site maintenance, improvements, and payment on the project debt.

However, Arvin Village's recovery experienced a serious setback during the winter of 1993–94, when prolonged rainfall and freezing weather caused roofs to leak, walls to warp and floors to buckle. The freezing weather also damaged crops and caused widespread unemployment. Workers unable to pay the monthly rent "moved out in droves," according to City Manager Thomas Payne. "Everything that could go wrong did go wrong," he recounted. By April, occupancy had dropped to just six families and 15 men. With the end of poor weather, the dwellings were repaired and farm employment was restored. Families returned to the project and today it is running at full capacity. Yet the project still faces persistent long-range problems: high maintenance costs and rents that are unaffordable for unemployed workers.

Lessons from Arvin

What can be learned from Arvin's housing project that can be of use to other rural communities contemplating farmworker housing solutions? Despite disappointing and costly setbacks, Arvin remains generally supportive of its effort to create affordable dwellings for its seasonal farmworker population. The community is currently exploring ways to generate more subsidized financing and to develop housing units more appropriate for families. The original project investors have also remained firmly behind the project, despite the setbacks. None has asked for repayment of their original investment; several investors told the city manager they feel a "moral responsibility" to Arvin Village.

An analysis of the steps this small community took to address its farmworker housing shortage can offer important information for other rural areas as they consider projects to meet their own housing needs. Seven significant guidelines are suggested by examination of Arvin Village's development.

Assess needs of the area. Arvin's farmworker housing shortage was well documented in reports such as Kern County's Comprehensive Housing Affordability Strategy (CHAS), a recent Housing Market Survey prepared for the Housing Authority of the County of Kern (HACK), and employment statistics from the California Employment Development Department (EDD). According to 1990 EDD statistics, Kern County employed about 23,000 seasonal workers during its peak season. While the EDD statistics did not report the number of these seasonal workers who were county residents at that time, the CHAS estimated that about 9,200 were resident seasonal workers and almost 14,000 were migrant laborers from other areas. The 1993 CHAS targeted the Arvin area as desperately needing affordable low-income housing for both resident and migrant farmworker families.

The county housing authority manages 280 units of seasonal migrant farmworker housing for the California Office of Migrant Services. These units, which are open 6 months of the year, are always in high demand. In addition, Kern County has 33 registered bunkhouse facilities housing 837 employees, predominantly male, on a seasonal basis. Privately rented dwellings, many in substandard condition, can also be found in Arvin. A survey prepared for HACK in 1991 indicated that Arvin had "no vacancy" in rentals.

Arvin Village's success as a family housing unit demonstrates the need for affordable family housing. The plan to house 300 men at one location may have contributed to the original project's failure. Questioned by local labor contractors, male migrant workers expressed concern about potential fights, alcohol abuse, and theft in an all-male environment. Those concerns, coupled with the $180-per-man monthly bunk rental, may have discouraged many renters.

Match housing types to needs. Previous research based on interviews with farmworkers indicates that each agricultural region of the state has specific and different housing needs based on three factors: the length of stay of seasonal and migrant workers, the presence or absence of complete families, and farmworkers' ability to afford housing. According to the California Institute for Rural Studies, the greatest percentage of year-round resident farmworker families live in the farming regions of the Central Valley. California's north central and south coast regions have greater percentages of migrant male workers traveling without families. Knowing the term of residence and the presence or absence of complete families is essential to planning housing types.

Bunk trailers in manageable numbers can work for males traveling alone but are unsuitable for families, especially for extended periods of time. At Arvin Village, six individuals, including parents and children ranging from infants to teenagers, may be crowded into a 392-square-foot space, limiting activities to little beyond sleeping and eating. Privacy is minimal. Storage for clothing and personal belongings is inadequate and the absence of outdoor clotheslines necessitates hanging laundry on porch railings or using costly clothes dryers. The potential for energy savings through cross ventilation and good thermal insulation was ignored in the original design. The regimented placement and uniform color treatment of the dwellings created the somewhat dehumanizing appearance of barracks instead of a pleasant residential community.

Freezing weather and unemployment took their toll on the housing complex where "everything that could go wrong did," according to one city official. (Photo by Suzanne Paisley)

Housing alternatives and innovative, cost-saving methods must be explored. There is a need for a variety of living situations including year-round enclaves of small family dwellings with common recreation and laundry facilities; short-term, male-focused, bunk-type environments in the form of hostels; roadside rests with toilet, laundry facilities and farmworker campgrounds; efficiency units for men; and multifamily rental units. Comprehensive assessment of the farmworker population can result in responsible projects tailored to local demands.

Affordability is a significant factor. Rent for Arvin's family dwellings is $450 per month, including utilities. This is high when compared to rents of between $135 and $210 per month charged by California's Office of Migrant Services' (OMS) family centers for larger and more pleasant two- and three-bedroom dwellings. The OMS centers are affordable for families in part because the low rents are subsidized by state funds, although there have been efforts in recent years to raise rates. The National Agricultural Workers Survey reports the average annual income of seasonal workers is between $5,000 and $7,500. Using the standard government estimate of 30% of income for housing, rents for individuals should average between $125 and $185 per month for singles, and between $250 and $375 per month for working couples.

Clearly, Arvin needs some type of external rent subsidy for residents if it is to operate year-round and repay the project debt. Farmworkers are willing to contribute to the rent, but their ability to pay is limited by their incomes. Innovative and cost-effective housing designs are key factors in addressing the issue of affordability.

Supervise specifications and construction closely. Arvin failed to employ professional consultants responsible to the community for knowledgeable assessment of materials and construction methods and for inspection of the dwellings as they were built. The absence of expert advice resulted in what many believed to be poorly constructed dwellings requiring costly maintenance.

Consult with local growers. Arvin sought participation of some growers, but failed to create a working partnership. Yet growers, as members of the rural community, can lend expertise about the numbers of seasonal workers, their needs, periods of employment, and most importantly, access to land suitable for farmworker housing. Arvin was able to purchase a large site within town limits. But other communities may not have available properties and will need to draw upon land parcels owned by growers. Arvin's site permitted housing for 50 families in one location. Smaller housing enclaves with reduced concentrations of farmworkers may be an alternative for regions concerned about the overall impact of farmworker housing projects on local traffic patterns, and integration and acceptance of the housing into the local fabric.

Solicit suggestions from workers. Farmworkers can offer valuable information about appropriate housing types, contribute to project costs through payment of reasonable rents, and be responsible for effective project management through participation in tenant committees. At many housing forums farmworkers have expressed their desire for clean, safe, and affordable housing, and they harbor few illusions about the housing amenities they can afford. Until the city assumed management of Arvin Village, suggestions from local seasonal workers were not solicited. Ongoing consultation with families on products for the store, planned recreational activities, and grievances has produced a sense of "ownership" among residents which in turn has promoted tenant responsibility for community behavior and maintenance.

Build effective partnerships with government and nonprofit entities. Arvin joined forces with a development group in the belief that its housing concept was innovative and cost-effective. The town proceeded despite a warning by the Kern County Housing Authority that the project was financially problematic. Arvin also failed to avail itself of existing state and federal funding sources, or consultation with experienced nonprofit housing and human service providers.

While state and federal funding for farmworker housing has been reduced in the last 15 years, nonprofit housing groups and county housing authorities have developed many rental units and home ownership opportunities for low-income farmworker families. These housing developers and agencies can offer significant assistance with needs assessment and design, financing and construction, and long-term management and maintenance systems for farmworker housing.

Nonprofit housing developers tend to focus on self-help housing for more successful farmworker families, and multifamily rental housing for lower-income families. In recent years, however, they have begun to consider innovative short-term rentals for

Although the community suffered considerable setbacks, Arvin's experience can provide a valuable lesson for other communities considering farmworker housing. (Photo by Suzanne Palsley)

migrant male workers and families in recognition of the variety of housing needs in the state.

Besides providing affordable shelter, farmworker housing projects offer opportunities to educate residents and their children about work and language skills, legal and health issues, and cultural information that will help them function successfully in California. Nonprofit housing groups often work with other service providers in child care, health, and education services to assist communities in tailoring programs to fit local needs and resources. Funding derived from comprehensive partnerships have produced successful farmworker housing projects throughout the state.

Conclusions

Looking back to a time when migrant workers came to California for seasonal work and then returned to homes in Mexico denies the present reality. Most seasonal farmworkers and their families live in California year-round and they desperately need decent, safe, and affordable housing if they are to obtain regular employment, education and job training, and make a sustained contribution to the state's agricultural economy and rural community development. Innovative and cost-effective housing solutions are essential to meet critical housing shortages and address the range of short- and long-term housing settings this population group can afford.

Leadership in solving the housing crisis can best come from rural communities such as Arvin, which routinely confront housing shortages and are most impacted by the inclusion of farmworker housing within their areas. While Arvin Village has a problematic history, its experience suggests that small rural communities can initiate farmworker housing projects with positive results. Arvin's most significant problems arose from a lack of expertise in housing development and a failure to organize a cooperative approach to the project. Despite the difficulties, 50 seasonal labor families now live in a decent setting, making productive contributions to the local economy.

Many other challenges face agricultural communities: rapid population growth, demographic shifts, suburban encroachment, aging or inadequate infrastructure, and the need to revitalize economic activities to balance or enhance agribusiness. Comprehensive planning that provides for the housing needs of seasonal agricultural workers can help communities make responsible decisions about their environment and the community's future. Effective partnerships among rural communities, local growers, farmworker residents, and experienced local, state, and federal housing and human service agencies are key to sound project planning and integration of farmworker housing with established local traditions and long-term goals. Guidelines suggested by Arvin's experience point to potential success for other rural communities willing to venture into farmworker housing developments.

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Jack Kelly Clark

Dropping kids off at day care is more commonplace as increasing numbers of women join the workforce.

For too long, the question has been, "Should mothers work for pay or not?" But the debate over maternal employment, and whether it's "good" or "bad," should be broadened to encompass many issues, including the role of economics in a mother's decision to work, the availability of "child-friendly" policies in the workplace and at home, the quality and nature of child care or after-school programs, and the involvement of both parents in parenting tasks. This paper explores factors that can help full-time employed mothers and nonemployed mothers address issues of availability to, or potential over-investment with, their children.

Does mothering school-age children mix with paid employment?

Brenda K. Bryant

Sixty-nine percent of mothers with school-age children and adolescents are in the work force. What impact does maternal employment have on parenting and child development during these years? This analysis uses a selective review of the literature to characterize the dimensions of a comprehensive answer.

First, it is clear that maternal investment in work does not preclude an investment in parenting. While it would be easy to report, as have others, that research indicates maternal employment does not have any clear effects on child development, this technically correct statement is misleading (see sidebar, reference #1, p. 24).

Does a mother's employment impact on parenting and child development? The answer is most definitely "yes" and the consequences can be positive and/or negative. Can a mother's lack of employment impact on parenting and child development? Again the answer is most definitely "yes;" and the consequences again can be positive and/or negative.

The impact of maternal employment must be explored in terms of "proximal" factors, which are those factors children experience directly. Research fails to document clear and consistent effects of maternal employment on child development, indicating there is a dynamic interplay between the varying conditions of maternal employment and the immediate experiences of children in their daily lives. Maternal employment can have an impact, good or bad, on the kinds of proximal factors that are important to a child's development.

To understand the role maternal employment plays in the development of school-age children (grades 1–12), several issues must be assessed. These include the role economics plays in the decision of parental employment, whether "family-friendly" policies

Does working outside the home preclude an investment in parenting? Not if parents respond to children's specific needs.

exist in the workplace and at school, the involvement of both parents in the parenting arena at home, and the child's experience during after-school hours. A multicontextual analysis is useful, one that recognizes the impact of features of the immediate family environment as well as that of the wider physical and social context in which the child and parent function, including, but not limited to, parents' workplace (sidebar, #2).

An economic issue

Any discussion of maternal employment and its impact on parenting and child development during the school-age years must first recognize that for many, maternal employment is an economic necessity. For these women, maternal employment eliminates or reduces economic distress, a form of family stress that can impact negatively on both parenting and child development. In general, economic distress has been found to lead to parental depression, marital conflict, and disruption in skillful parenting: this disruption in parenting skill has adverse consequences on child development (sidebar, #3). It is not the economic adversity *per se* that has the negative impact, but rather the disruption and conflict that it causes in marital relations and parent-child relations that can negatively affect a child.

Studies of families in lower socioeconomic situations have documented that employed mothers are more likely than their unemployed counterparts to provide structured rules for their children and have consistency between theory and practice (sidebar, #4). If economic distress impacts negatively on parenting, and maternal employment can reduce this distress, maternal employment then can be beneficial to both parenting and child development.

Putting aside the issue of economic distress, discussions are often framed as though there is an absolute "yes" or "no" answer to the question of whether mothers should work for pay when considering the good of their children. Research on family functioning and child development suggests that such polarization of thinking is

Notes for further reading

As editorial policy, *California Agriculture* devotes its limited space to developing a meaningful interpretation of technical research; it does not print extensive literature citations. However, because the accompanying article reviews the work of 42 developmental psychologists and sociologists, and because readers may wish to pursue avenues of this research, we include the following abbreviated list of references which corresponds to major findings cited in the text. Each numbered item lists the author(s), publication year(s) and journal or book to which the matching note in the text refers. For a complete reference list, contact Brenda Bryant at (916) 752-2242.

References

1. Matthews, K.A., & Rodin, J. 1989. *American Psychologist.*
   Greenberger, E., & Goldberg, W. 1989. *Developmental Psychology.*
   D'Amico, R.J.; Haurin, R.J.; & Mott, F.L. 1983. *Children of working parents: Experiences and outcomes.*
   Gottfried, A.E. 1991. *Employed mothers and their children.*
   Hoffman, L.W. 1988. *Maternal employment and children's development: Longitudinal research.*
   Richards, M.H., & Duckett, E. 1991. *Employed mothers and their children.*
2. Bronfenbrenner, U. 1977. *American Psychologist.*
   Parke, R. 1978. *Children and the environment.*
3. Conger, R.D.; Conger, K.J.; Elder, G.H.; Lorenz, F.O.; Simons, R.L.; & Whitbeck, L.B. 1992. *Child Development.*
4. Hoffman, L.W. 1974. *Developmental Psychology.*
5. Gold, D., & Andres, D. 1978. *Child Development.*
   Hoffman, L.W. 1974. *Developmental Psychology.*
   Hoffman, L.W. 1979. *American Psychologist.*
6. Moorehouse, M.J. 1991. *Developmental Psychology.*
7. Montemayor, R. 1984. *Journal of Youth & Adolescence.*
8. Bryant, B.K. 1992. *Family-peer relationships: Modes of linkage.*
9. Robinson, B.E.; Rowland, B.H.; & Coleman, M. 1986. *Latchkey kids.*
10. Belle, D. 1994. *Social networks and social support in childhood and adolescence.*
    Robinson, B.E.; Rowland, B.H.; & Coleman, M. 1986. *Latchkey kids.*
11. Steinberg, L. 1986. *Developmental Psychology.*
12. Wallston, B. 1973. *Journal of Child Psychology & Psychiatry & Allied Disciplines.*
13. Crouter, A.C., & Crowley, M.S. 1990. *Journal of Early Adolescence.*
    Hoffman, L.W. 1974. *Developmental Psychology.*
    Montemayor, R. 1984. *Journal of Youth & Adolescence.*
14. Pleck, J.H. 1985. *Working wives/working husbands.*
15. Benin, M., & Chong, Y. 1993. *The employed mother and the family context.*
    Pleck, J.H. 1985. *Working wives/working husbands.*
16. Pittman, J.F., & Kerpelman, J.L. 1993. *The employed mother and the family context.*
17. Piotrkowski, C.S., & Gornick, L.K. 1987. *The psychology of separation and loss: Perspectives on development, life transitions, and clinical practice.*
18. Bryant, B.K. 1993. *Proceedings of Western Region Home Management and Family Economics Educators Conference.*

unwarranted. Working and not working both generate potential problems for parenting and child development. While parental absence is seen as the crux of the potential problem for working mothers, the need to live vicariously through their children and prohibit a child's emerging autonomy is viewed as a potential problem of maternal nonemployment.

Findings to date suggest that mothers who work full-time and mothers who do not work all show some degree of distress in their parent-child relationships. Studies have indicated that mothers who do not work for pay may over-invest in the mother role because it is the only one from which they derive a sense of self-worth (sidebar, #5). At the same time, mothers who work full-time often feel guilty about being physically unavailable. Research shows that young school-age children whose mothers work full-time demonstrate a clear need to spend time with their mother in shared pleasurable activities (sidebar, #6). Adolescent males (but not females), have been shown to have longer, more frequent, and more intense arguments with mothers who worked (sidebar, #7). Clearly, both employment and nonemployment bring risks to the developmental processes in children. A better way to frame the discussion of maternal employment and children's development would be to address issues such as the availability of working mothers to their children and the potential over-investment of the nonemployed mother in her children's dependency.

The quality of after-school care is an important component of good parenting when parents have jobs away from home.

No firm list for quality parenting

The factors that children experience directly are what appear to matter most to a child's development. A full-time employed mother's ability to engage her young school-age child in enjoyable activities appears to be an important proximal, family factor that benefits children's social and cognitive functioning at school. In a study of the impact of maternal parenting on child development and school competence, M.J. Moorehouse (sidebar, #6) found that when mothers increase their employment commitments to full-time or sustain long work hours on a stable basis, both the facilitative effects of shared mother-child activities and the detrimental effects of infrequent mother-child activities appear to be accentuated among young school-age children. Full-time employed mothers who were not able to share enjoyable activities with their entry-level school children were more likely to have children who did not function as well cognitively and socially as did children whose mothers worked part-time or not at all.

This link between frequency of enjoyable activities with one's mother and school achievement and adjustment existed only for children of full-time working mothers and was especially strong for children whose mothers had recently increased their employment commitment to full time. These findings, in effect, serve to remind us that quality parenting is not a list of specific "do's" and "don'ts" that guarantee certain benefits for children. Good parenting strategies are effective when they address children's specific needs, and not all children have the same needs.

Consistent with this notion is the finding that children whose mothers were not employed appeared to benefit from opportunities to engage with peers away from direct adult supervision, while children whose mothers worked full-time benefited from group activities in which there was direct adult supervision (sidebar, #8). Stated another way, children of both working and nonworking mothers experienced activities with and without adult supervision, but these experiences operated differently for the two groups of children.

For working mothers, children's need for adult supervision is clear. Children need after-school care (sidebar, #9), but just how this adult guidance ought to be effected is not so evident. It is becoming evident that a variety of after-school arrangements can work well. Even self-care can be managed well by children in certain circumstances. Research indicates few or no differences in the social and cognitive development of self-care children when compared to children in adult-monitored care arrangements (sidebar, #10). Self-care does not mean that adult monitoring is not present. Children who have rules and routines

to follow while at home (e.g., no TV viewing unless homework is completed) fare much better than children who are left unsupervised without such rules and routines (sidebar, #11).

It is important to note that there are many ways in which maternal employment status is unrelated to many aspects of parenting. First, employment *per se* has been found to be unrelated to child-rearing patterns and to summary measures of the adequacy of mothering (e.g., limit-setting, sensitivity to the child's needs, warmth) among equally educated, two-parent, white families (sidebar, #12). Second, only moderate adjustment or no adjustment by fathers has been documented (sidebar, #13). Fathers seem to take on slightly more child care tasks when wives are employed (sidebar, #14), but mothers remain primarily responsible for ensuring that children have adequate child care (sidebar, #15). The increase in paternal involvement rarely matches the wife's shift in employment status and concomitant need for accommodations in family workload. Finally, family tasks such as managing unexpected child care needs such as those of a sick child typically fall to women rather than men (sidebar, #16).

It would be useful to children's development to broaden the issue of maternal employment to include both parents, the parents' employers, and children's school guardians. If we recognize that the various contexts that impact on children's lives all bear some responsibility for helping children fulfill their developmental challenges, the question may change from "Should mothers seek employment or not?" to "How can family needs be fulfilled in ways that help children's development to flourish?" Children need physical and emotional availability from their parents. Children need some of this parental availability to be consistent and responsive to their time schedules, not an employer's. Children of this age have emerging needs for autonomy. And finally, they need adult monitoring for safety. The range/extent of such requirements varies with age and developmental status, gender, and individual differences demonstrated across children. Within some constraints posed by these parameters, it is clear that children living with mothers who work full-time and children living with mothers who are not employed do not simply manage, but thrive.

Reframing the ownership of responsibility for children's development has numerous implications. Examples follow.

"Family-friendly" work policies

In contrast to ordinary work-related separations, there exist forms of "extraordinary separations." These include shift work, moonlighting, weekend work, commuter marriages, and job-related travel (sidebar, #17). Work-related separations need not have negative effects, but extended, inflexible, or unpredictable work absences may be problematic; the effects of these problematic separations need greater attention by employers and researchers.

Workplace policies are needed that recognize the importance of accommodating school-age children's needs for occasional physical access to their mothers. Both access by phone and the ability of a parent to leave a place of employment occasionally appear to have a positive impact on children's well-being in school and at home (sidebar, #18).

"Family-friendly" school policies

Parental involvement at the school site is an important aspect of the home-school relationship. Meetings, class/school performances, school site council meetings, and school assemblies/field trips could be scheduled with employed parents' availability considered.

Rather than assigning homework that puts mothers in the role of taskmaster, it would be more beneficial for teachers to assign homework involving the student and mother in pleasurable shared activities. This change would benefit academic and social adjustment at school among children whose mothers work full-time.

School hours; on-site, after-school programs, and other adult- supervised programs need to be coordinated with parents' work hours to be truly beneficial to children and their families.

"Child-friendly" family policies

Parents who seek employment need to make sure they balance the financial and personal rewards of their jobs with the costs of less physical and emotional availability to their children. This might mean adjustments in work to accommodate their child's needs; these adjustments might be costly in terms of reduced financial rewards and self-esteem obtained from full commitment to employer needs. Similarly, parents who do not seek employment need to examine the basis for their self-esteem and determine if their children are being made to pay them back in ways that are costly to child development.

Family friends and relatives who can provide school-age children with additional physical, emotional, and supervisory support can help parents establish a crucial link between family, school, and home in ways that benefit developing children.

After-school care

Children's actual experiences of their after-school care arrangements must be obtained and considered valuable. The same after-school program may be a wonderful, socially supportive experience for one child and an isolating, distressing experience for another. A list of activities and adult-child ratios are not sufficient criteria for determining the value of a particular after-school arrangement. Children need to welcome the option of the after-school care arrangement.

Opportunities for adult monitoring of the child's whereabouts and well-being are needed throughout the school years, even when self-care or after-school arrangements are made.

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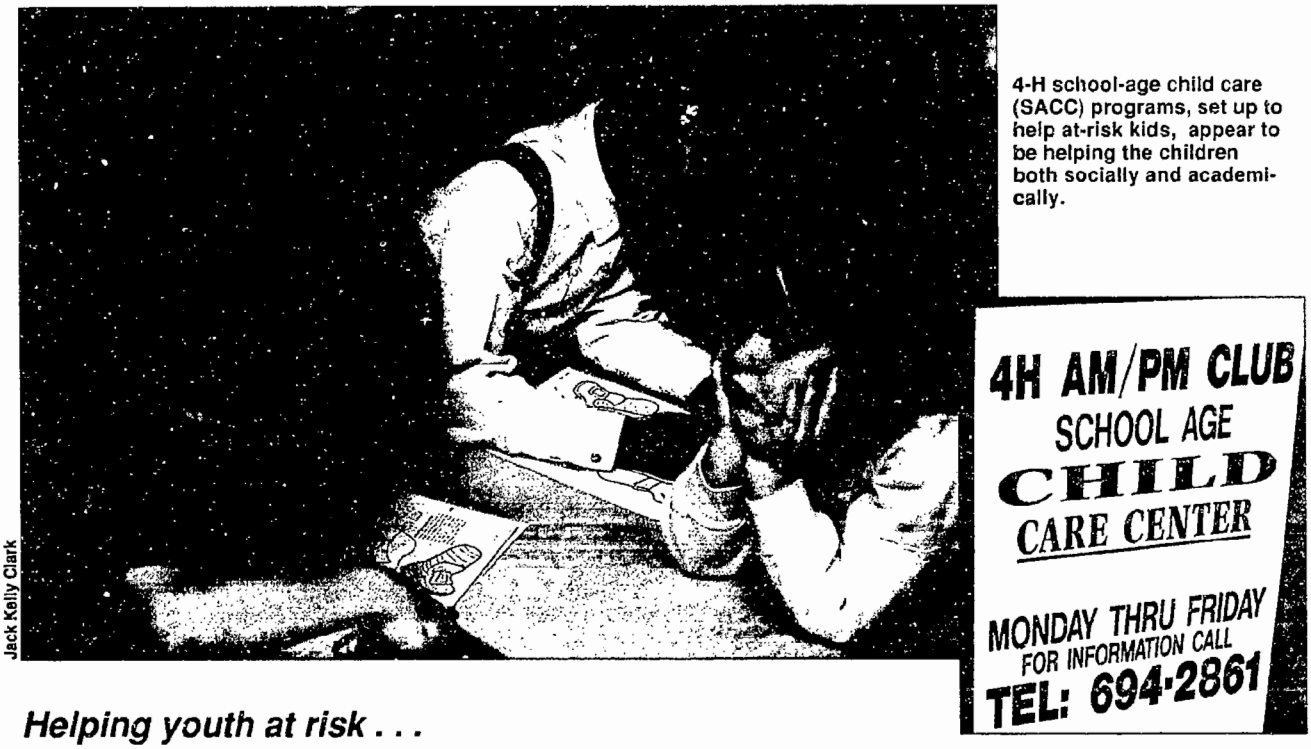

Jack Kelly Clark

Jack Kelly Clark

4-H school-age child care (SACC) programs, set up to help at-risk kids, appear to be helping the children both socially and academically.

Helping youth at risk . . .

4-H and Cooperative Extension venture into child care

Sharon Junge ❑ Dave Riley ❑ Jill Steinberg ❑ Chris Todd ❑ Ina McClain

An increasing number of children in America are considered at risk because of poverty, homelessness, hunger, family violence or other social ills. As part of its "Youth at Risk" initiative, the national Cooperative Extension System started school-age child care (SACC) programs to promote positive youth development by providing high quality, after-school care. UC Cooperative Extension and 4-H participated in this effort, supporting SACC sites in targeted communities throughout California. This report summarizes the California portion of a national evaluation to determine if the SACC programs are having their desired effects.

For more than a decade, educators and policymakers have been concerned with the issue of children being left at home, unsupervised, after school. When that lack of supervision combines with other family, social or community risk factors, it increases the likelihood of poor developmental outcomes for children.

As part of its "Youth-at-Risk" initiative, the national Cooperative Extension System (U.S. Department of Agriculture) started or assisted in setting up school-age child care (SACC) programs in targeted communities across the nation. UC Cooperative Extension participated in this effort, helping to establish or support high quality, after-school programs in high-risk communities throughout California. Compared to the Extension System's traditional 4-H programs, children in the SACC programs have up to 10 times more hours of program contact. This presents both a challenge — and a greatly expanded opportunity — for Extension to positively affect youth development across the state.

To determine if these programs were having their desired effects of reducing or preventing problem behaviors while increasing positive development in youth, a national evaluation of 76 Extension-supported programs in 16 states was undertaken. This report summarizes findings from the California portion of the evaluation, which surveyed 31 4-H–assisted SACC programs in 11 counties: Colusa, Humboldt, Lake, Fresno, Mendocino, Nevada, Placer, San Diego, Sutter, Tuolumne and Yuba.

The evaluation study

The impact of SACC programs upon 1,138 children, ages 4 to 14, was investigated by use of a "key informant" survey using three kinds of observers: the SACC lead teachers, classroom teachers associated with the

Jack Kelly Clark

Learning to get along with other kids is a goal of the SACC program, shown here in Placer County.

children, and the school principals. Response rates were mixed, with an 84% response rate for SACC staff, 34% for classroom teachers, and 41% for principals.

By surveying principals and teachers, this study attempted to tap the expertise of professionals who observe the children daily, who could see how they have changed over the course of a year. The method was efficient, but also had its weaknesses. While 13 principals returned our questionnaires, 25 did not and we were concerned that broader-based data might have painted a different picture of the program's impacts. Therefore, we must exercise caution and remain tentative in stating our conclusions for the study.

The communities in which these SACC sites are located were selected by UC Cooperative Extension as especially likely to benefit from SACC programs and, in addition, met some or all of the "at risk" criteria identified by Extension's federally funded "Youth at Risk" initiative. Risk factors included inadequate care, shelter and food, neighborhood and family violence, child abuse and neglect, and family and community poverty. Of the 31 elementary schools, 77% received federal Chapter 1 funding, which is increased funding for school districts based on high risk and poverty issues. It is important to note, however, that just because a community is considered "at risk" does not mean that every child in it will be performing below grade level or exhibiting "at risk" behaviors.

School principals reported that 31% of the children were working below grade level in terms of academic skills at the beginning of the year. The SACC staff gave a similar estimate (28%), while classroom teachers offered a more pessimistic view, reporting that 41% were behind academically. In the area of social skills, principals reported 26% of the children were performing below average, with SACC staff reporting 32% and classroom teachers, 38%. These estimates suggest that between one-quarter and one-third of all SACC program children were having difficulties in school, either academically, socially, or both.

Respondents also were asked if they saw changes in the children which they considered due specifically to the effects of the SACC program. The questions were asked only of respondents in a position to answer accurately. For example, we asked school teachers, but not SACC staff, about changes in children's grades.

All three groups reported that SACC programs were having clear, positive impacts upon the children. The following is a summary of reported improvements in three areas: increased pro-social behavior, decreased problem behavior, and improved academic performance.

Shy and rejected children

We had expected that SACC programs might have special benefits for children low in social skills. Like a good 4-H program, a good SACC program offers opportunities for recreation-based, multi-age activities in the company of a caring adult.

We were especially concerned with two areas of social skill: shyness and rejection. As Z. Rubin found in "Children's Friendships," rejection by childhood peers is important, not just in terms of current heartache, but also because it predicts lifelong negative consequences in social relations and personality development.

Asked whether some children had become more outgoing and skilled at joining group activities because of their involvement in SACC programs, SACC staff indicated that 26% had. School teachers reported a similar percentage (30%). As one classroom teacher remarked about a previously shy student, "Ashley started kindergarten as an extremely shy and withdrawn little girl. She is much smaller than the other children and had few academic and social skills. By the end of the year, Ashley had blossomed into a much more outgoing student, who was much more at ease participating in classroom activities, as well as developing a large circle of playground friends. I attribute a great deal of her incredible transformation to her participation in the SACC program."

Staff found that SACC programs also provided opportunities for rejected children to learn how to make friends. The staff noted positive impacts for 23% of the children while classroom teachers gave SACC programs credit for having positive impacts on 20% of their SACC students. Said one SACC staff member, "We had a boy who was not accepted by his peers because he was different. He was overweight . . . and would rather be with adults than peers. We decided to help him by making him a junior leader. With that, he gained a lot of self-esteem. He was able to take charge, do demonstrations for groups, and become more outgoing. His new responsibilities made him feel better about himself. He soon began to lose weight and befriend other students. He now gets along better with the other kids."

Respect for adults

Learning to get along with adults is another aspect of positive social behavior we hoped to enforce in the SACC programs. Because of the adult involvement, we believed that these programs had the potential to teach young people to live within rules, and respect the reasonable authority of adults. This kind of learning, if it had not already taken place within the home, would become crucial in the years of middle childhood, before

young people reached the wider world of adolescence.

Classroom teachers, principals and the SACC staff all indicated involvement in the SACC programs had helped the children to become more cooperative with adults, and more willing to follow adult directions and rules. The three groups of respondents gave similar estimates, with SACC staff reporting improvement in 21% of the children, classroom teachers in 24% of the children, and the principals in 23% of children.

SACC students are exposed to a wide range of new activities and interests. (Photo by Jack Kelly Clark)

One classroom teacher explained, "The afternoon 4-H AM/PM [program] coordinator provided the continuation of standards and rules used in my class and at our school. He was kind, but firm. [The child] had been allowed not to mind, not to follow rules and to be very disruptive in the other daycare centers and this was a great problem when he entered kindergarten in my class and when he entered the 4-H AM/PM program. After much work, and almost daily keeping in touch with the 4-H AM/PM director about Billy's behavior and/or success, I feel Billy will have a very good possibility of success in first grade now and I believe the 4-H AM/PM director and his program have added to his chances."

Children explore new interests

Pre-adolescence is a time when children like to take on challenges and attempt to do harder things for themselves. It is a time when their horizons widen greatly as they develop new and sometimes lasting interests. A good program for pre-adolescent children will expose them to a wide variety of activities and provide opportunity for in-depth exploration of these activities. New interests developed during this period can form the basis for lifelong vocational or avocational pursuits.

Children in the SACC programs were exposed to a wide range of new activities, including recreational reading and writing, art, drama, and hobbies. This exposure had positive impacts for many of the children, with SACC staff reporting that 38% had developed interests in new topics or activities. Classroom teachers verified this by reporting nearly the identical percentage of children (39%) with new interests gained in the SACC programs.

Reducing problem behaviors

Research has shown that children with positive social skills have fewer behavior problems. In an attempt to determine if this held true for SACC programs, we asked staff, teachers and school principals about behavior problems, and what, if any, effects the SACC programs had in reducing them.

School principals and classroom teachers both indicated they thought SACC programs had an impact on reducing behavior problems. Both noted improvement in 21% of the children, while SACC staff reported gains for 19%. Said one school principal: "I have two families of two siblings who have felt secure and safe and cared for in this SACC environment, and who definitely do not have that sense at home. As a result, these four are no longer so inclined to 'fall apart' at every small change in events or even at bigger upsets."

To be effective, a good youth program must address the issues of violence and aggression that have become so common on America's playgrounds and in classrooms. A good way to reduce violence is to teach alternatives. Both staff and school teachers believe SACC programs attempt to do this. Staff reported that 27% of the children "have learned to handle conflicts by talking or negotiating more often, instead of just hitting or fighting." Classroom teachers saw similar improvement in 23% of their children. As one school principal explained, "Through consistent supervision, students have been provided a structure that has reduced the number of office referrals. Students manage conflicts in a more positive way — less fighting and more dialogue."

Improving academic behaviors

We wanted to know whether SACC programs had any impact in improving children's academic performance in targeted neighborhoods.

The classroom teachers we surveyed suggested that they do. The teachers reported that 26% of SACC-program children had developed a new interest in recreational reading, 12% had improved their school attendance, and 27% were turning in more or better quality homework. Not surprisingly, this led to better grades for 30% of the children. Many teachers felt that involvement in the SACC program kept some students either from being held back a grade or being placed in a special education program. The teachers indicated that 7%, or 31 children, had avoided grade retention, and 6% had avoided placement in special education. Principals estimated that 5% of SACC children had avoided grade retention. In both cases, the teachers and principals reported that the improvements were specifically "because of their involvement in the SACC program."

One teacher recounted: "Jenny comes from quite an unstable home. The time she spent in 4-H seemed to have many positive effects, such as completed homework assignments, a more positive attitude and an overall calming effect. I would say that 4-H was a positive experience for this little girl!"

Such improved academic performance has benefits that extend beyond the individual child or school. The average cost to repeat a year of school was $3,852 for the school districts we surveyed. We estimate that SACC programs helped to save taxpayers more than $119,000 last year by preventing grade retention for the 31 children whom teachers considered academically at risk.

A positive change

All three groups of respondents showed considerable consensus in their responses. Surprisingly, in many cases the principals saw even greater gains due to the SACC programs than did the SACC staff.

The SACC programs operated by UC Cooperative Extension appear to have multiple, positive impacts on the children and their schools. As evidenced by this survey, these impacts range from social skills, to reduced problem behaviors and increased academic achievement.

The results of this study do not obviate the need for randomized field experiments, but they provide the most convincing evidence to date that Extension-assisted SACC programs are causing significant, positive changes in these children's lives.

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A variety of factors, including problem-solving skills and social competence, can help children develop resiliency and cope better with their environment.

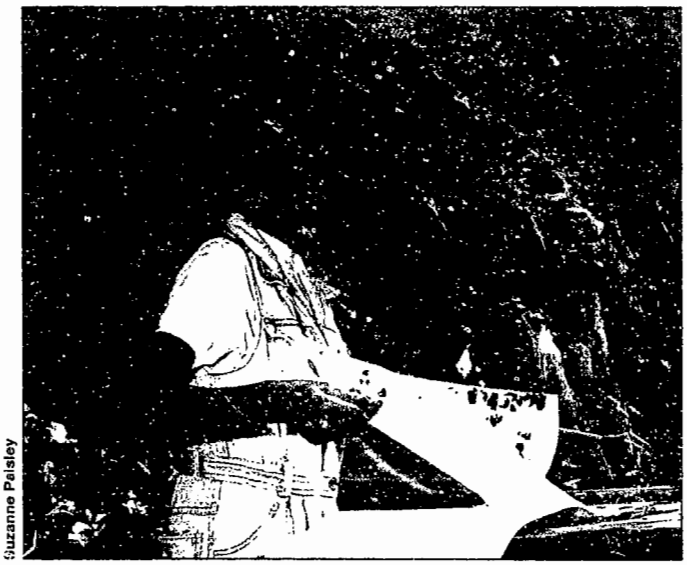
For children facing adversity . . .

How youth programs can promote resilience

Marc T. Braverman ❑ James M. Meyers ❑ Lynn Bloomberg

Some children appear to be able to withstand significant environmental stress and develop into healthy adults. Psychologists call this quality "resilience." Research has shown that children can develop psychological resilience through the fostering of certain protective factors in their lives. This paper provides a brief overview of concepts and findings from recent resilience research, and addresses issues of particular importance to youth program developers. Analysis suggests that youth programs have an important role to play in fostering children's positive development, especially through strengthening individual protective factors.

One of the most active areas of study in psychological research today focuses on how and why children develop differently in stressful situations. The term "resilience" (or "resiliency") has been used to refer to some children's ability to grow up physically and psychologically healthy, despite such adversities as poverty, parents' marital conflict or family alcoholism. Researchers are particularly interested in understanding how a variety of factors can either sustain or undermine resilience. In this article we review some of the major concepts of resilience research, and ways in which nonformal programs for school-age youth might be able to promote positive development. By nonformal programs, we mean out-of-school, community-based programs



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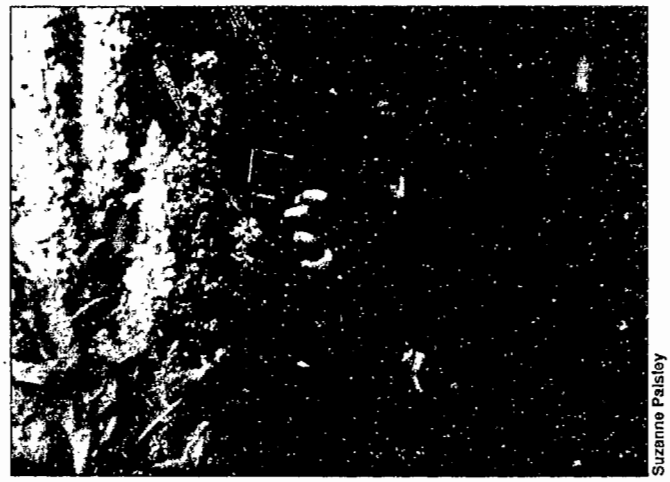

Suzanne Paisley

***Above*, children at Fetzer Garden Center in Hopland learn how to identify flowers and, *at left*, use plants to create artwork. Such activities promote interactions with peers, adults and the community.**

that bring adults and youth into contact, typically over extended periods of time.

Several factors have led to the current focus on resilience. First, over the past 20 years human development researchers, inspired especially by the work of Urie Bronfenbrenner, have come to favor "ecological" models of development that view the child as embedded in a complex social network which must itself be understood in order to understand individual development. A second factor is the high interest in designing social interventions that might help prevent behavioral and health problems. Developing resilience — to the extent that it may be amenable to intervention — quite naturally becomes a focus for many of these programs. Third, a number of longitudinal studies have appeared, several ongoing, which have followed young people over a significant portion of their lives. One of the best known is that of Emmy Werner at UC Davis, whose study sample consists of children born on the island of Kauai in 1955. Other important longitudinal investigations have been conducted with samples in the San Francisco Bay area (by Jack Block at UC Berkeley), and Boston (originally by Sheldon and Eleanor Glueck at Harvard), among other locales. Having documented children's environments and experiences as they grew, these researchers have been able to relate that information to the individuals' later adult lives, and have identified early developmental factors that seem to be related to long-term adjustment and health.

Risk and protective factors

"Risk factors" are circumstances which increase a child's likelihood of experiencing problems in areas such as physical health (including cancer, AIDS, drug addiction or alcoholism), mental health (including depression and schizophrenia), academic and vocational functioning (such as school failure or drop out, illiteracy, or chronic unemployment), and social adjustment (such as criminality or so-

TABLE 1. Promoting resilience: Protective factors within the child, family and community

Protective factors within the child

- Positive temperament: active, affectionate, good-natured, responsive to other people
- Social competence; high orientation to social environment
- Problem-solving skills; flexible coping strategies; ability to use available resources effectively
- Autonomy and self-reliance, but with the ability to obtain assistance from adults when it is needed
- High sense of initiative: strong involvement in play, tendency to initiate activities, desire for novelty
- Self-regulation skills: planning, goal-setting
- Sense of purpose and future

Protective factors within the family

- Nurturing relationship and strong attachment to a parent, grandparent, older sibling, or alternate caregiver
- High parental expectations for children's success
- Households that stress independence, risk-taking, and an absence of overprotection (especially for girls)
- Households that stress structure, rules and supervision (especially for boys)
- Home responsibilities and household chores
- Sense of faith; a belief that adversity can be overcome

Protective factors within the community

- Nurturant and responsive school atmosphere; effective feedback and praise
- Strong relationship with a favorite teacher or other adult
- Strong social networks
- Opportunities for youth to participate in socially and/or economically useful tasks (e.g., in youth service)
- Presence of resources in health care, child care, housing, job training, recreation and employment
- Community norms valuing and supporting children
- Community norms discouraging abuse of alcohol and other drugs

Sources:

Werner, E. (1990). Protective factors and individual resilience. In S.J. Meisels and J.P. Shonkoff (eds.) *Handbook of early childhood intervention.* Cambridge University Press.

Benard, B. (1991). *Fostering resiliency in kids: Protective factors in the family, school, and community.* Portland, OR: Western Center for Drug-Free Schools and Communities, Northwest Regional Educational Laboratory.

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Suzanne Palsley

At-risk kids can benefit from programs that encourage working together with adult supervision. Here, schoolchildren identify herbs by smell, taste and touch.

cial isolation). Identified risk factors for a particular outcome range from the general to the specific. The most important single risk factor for developmental problems is growing up in poverty, which actually encompasses a host of more specific risks such as limited access to health care, stresses on the family, increased exposure to lead and other environmental hazards, limited opportunities for employment and so on.

Other examples of risk factors for impaired psychosocial development are these:

- *Individual-level factors:* Medical complications such as prenatal or perinatal trauma, antisocial behavior, rebelliousness, hyperactivity, poor self-control.
- *Family-level factors:* Parental mental illness, poor parenting skills, abuse or neglect, domestic violence, divorce, death or other forms of separation and loss.
- *Community-level factors:* Frequent moves, unsafe or disorganized school environments, frequent between-school transitions, limited opportunity for youth involvement or employment.

In a parallel sense, researchers have identified variables that, when present, appear to help a child withstand environmental stresses and risks. These variables, known as *protective factors*, have been found to characterize children with successful coping styles and healthy development. Table 1 presents some of the major protective factors for psychosocial development that researchers have thus far identified as existing within the individual, the family and the community.

Protective factors include qualities of individual temperament, observable even during the infant and toddler years. For example, Werner found that children who were later determined to be resilient were active, sociable, and easy to care for as infants. From a very early age, they were able to elicit attention and positive responses from parents, siblings and others. During their preschool years the resilient children tended to be independent and self-reliant, with cheerful temperaments. When faced with novel situations they displayed curiosity rather than withdrawal. These findings of sociability, autonomy, and attraction to novelty suggest that resilience may be in part a product of innate constitutional factors.

However, a review of table 1 shows that most protective factors reside in the environment, and it is likely that many can be suitable targets for program intervention. Certainly at the family and community levels, opportunities exist for programs to support healthy development. Even at the individual level, many of the protective factors constitute skills that need to be taught and nurtured. Social competence, problem-solving abilities, and self-regulation skills such as planning and goal-setting are typically the products of successful relationships with parents, siblings, caring adults and peers.

Youth program developers have been hampered by a lack of clarity with regard to the concept of "risk." Strictly speaking, the term implies a statistical relationship between a specific prior condition or event and a later outcome. For example, much of the pioneering research on resilience has been concerned with children's risk for developing schizophrenia or other psychiatric disorders. Therefore, the common use of the expression "at-risk youth," although understood in a generalized way to refer to children living in poverty or in stressful home situations, is incomplete. We would venture that many who use this expression would not be able to agree if asked: At risk for what? Answers might encompass a wide range of poor developmental outcomes, including academic failure, unemployment, social maladjustment, drug and alcohol dependence, psychopathology, or a general failure to develop one's potential. This vagueness in terminology is problematic for youth program developers because it impairs their ability to identify a target audience, develop program objectives, and identify standards for evaluating their programs.

The influence of protective factors

Risk factors and protective factors are present to varying degrees in all social environments and interact in complex ways to influence the course of children's lives as they grow. Psychologist Michael Rutter, University of London (for example, in 1990) and others have argued that researchers need to move beyond simple identification of these factors, and try to explain the mechanisms through which they operate. For example, there is good evidence that strong parent-child bonds serve a protective function against adolescent drug use, but why is this so? Several specific mechanisms have been proposed, some or all of which may be true, including:
(a) Strong parent-child ties encourage children to identify with parents, leading them to stronger internalization of parental values; (b) Parental warmth increases children's self-esteem, enabling children to act autonomously when they encounter drug use by peers; (c) Involved parents monitor their children's relationships and activities away from home more closely, thus decreasing the children's exposure and access to illegal drugs. Exploring hypotheses such as these can help us learn why particular risk factors operate with more or less force in the presence of other conditions, whether there are crucial developmen-

Students learn by doing in science program

It began deceptively as a gentle roll but by the time it was over, just seconds later, the violent force of the motion had caused buildings to topple. "Uh oh, earthquake damage here," cried one student, examining a corner of a hastily constructed high rise, where the paper clip had come loose from the plastic straw.

The students, tenth graders at Skyline High School in Oakland, were participating in SERIES, an informal teen-led science education program. Over two days, they practiced scientific thinking processes such as observation and inference by constructing high rises out of straws and paper clips, or Jell-O and marshmallows, to observe which structures held best in an earthquake and infer why. "The Jell-O foundation was just like the coastal area," observed student Donna Cho.

The SERIES program has two aims — to teach science the fun way and prepare students to present the program to others, said SERIES Director Richard Ponzio.

"People say the best way to learn something is to teach it. I want them to learn by experience. That's how scientists build their own knowledge," Ponzio said.

SERIES — the acronym for Science Experiences and Resources for Informal Educational Settings — began in 1987 as a joint project of the UC 4-H Youth Development Program, the Lawrence Hall of Science and UC Berkeley's Graduate School of Education. It has grown phenomenally since its California 4-H beginnings, and is now offered nationwide.

In fact, after seeing a SERIES workshop, the scientist Jane Goodall was so impressed with what teenagers can do that she wants to collaborate with SERIES to improve her international program for teens, Ponzio said. A team from the Jane Goodall Institute in Tanzania was expected to attend SERIES training workshops this fall.

The popularity has surprised Ponzio who said the original goal was simply to get students interested in science through a "hands-on approach." That kind of teaching generally ends after kindergarten, he noted.

No sense reading about it when you can observe live what a snail likes to do and eat.

"As you go up in grades, there's less and less of it and science becomes another reading lesson," he said.

The curriculum is designed to start kids thinking about such issues as recycling and hazardous waste through units entitled "It Came from Planted Earth" and "Chemicals Are Us." Teenagers not only learn about science; they then go out and teach the science to 9- to 12-year-olds, Ponzio said.

"We know that cross-age teaching is a very effective model. It's like teens coming in and saying, 'Hey, let's have fun with science,' " he said.

Last year, the program expanded into public classrooms, training high school students enrolled in teaching magnet schools to lead elementary school students in the SERIES activities.

At Skyline High, for instance, SERIES participants were members of the Future Teacher's Academy. "I like kids and I like to teach," said student Jean-Paul Holeman, who also goes by the name of "Snarled Rat" because of his green Mohawk haircut. "When they finally get it, I feel like I've accomplished something."

Holeman was one of those attending the session on earthquakes, called "Beyond Duck, Cover and Hold." In another session, this one involving chemistry, students dutifully followed directions, using salt and vinegar to wash residue off pennies. Then they discussed what worked best — a combination of salt and vinegar or one or the other alone. After the lesson, SERIES instructor Linda McFall pulled a surprise punch: what to do with the leftover waste from the experiment. "We've made a waste product and we need to figure out what to do with it," she said. "Have we created hazardous waste?" she asked the class.

It is just this spirit of scientific inquiry the program hopes to encourage, said Ponzio and Richard Enfield, a 4-H Youth Development Advisor. "Science is an everyday occurrence," said Enfield. "It's all around us but kids don't think of it like that."

Teenagers who are part of SERIES also become valuable members of their communities. SERIES participants use their newly acquired scientific understanding and skills to build community gardens with seniors, make comparison beach cleanups, or organize community recycling projects, Enfield said.

Most important of all, they learn about science in a new and exciting way. "If they're inspired, who cares if they go into science?" Ponzio asked. "I just want them to know science is there for them." —*Editor*

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Building resilience can bring a lifetime of results.

tal periods in a child's life when risk or protective factors have particular influence, and how to strengthen the influence of protective factors. By exploring these concepts, our power to intervene effectively should be enhanced.

Interventions and resilience

In recent years, many researchers and educators have become interested in designing programs to build resilience in youth. Most of the literature has focused on two kinds of programs, both involving children under age 5. The first includes Head Start and other early childhood education programs, aimed primarily at increasing the probability of later school success. Edward Zigler of Yale University (for example, in 1994) and others have reported that these programs can provide substantial boosts in children's school readiness, and in some cases may have positive effects on school attendance and discipline that last through the elementary school years. Successful programs are characterized by developmentally appropriate curricula, well-trained teaching teams, small class sizes and commitment to family involvement. Insofar as the goals of these programs tend to focus on academic success, they are relevant to, but do not completely address, the broader-based questions of resilience.

The second major category of interventions includes intensive family support programs that provide enrichment activities for the children along with long-term, ongoing support for their parents. The most well known of these is the Perry Preschool Project, which worked with low-income black families in Ypsilanti, Michigan (described by Lawrence Schweinhart and David Weikart in 1988). Begun when the youths were 3 and 4, the 2-year intervention included preschool activities, teacher home visits, and parent meetings. Measured later at age 19, participants showed a number of positive outcomes when compared to a control group, including higher academic performance, fewer grade retentions, higher literacy, lower incidence of teenage pregnancy, higher employment and reduced delinquency. By most standards the Perry project must be considered highly successful with respect to fostering resilience. Several other interventions have also shown success over 5- to 10-year follow-ups (though not to the same degree), including the Yale Child Welfare Research Project and the Houston Parent-Child Development Center (both reviewed by Victoria Seitz of Yale University in 1990).

Two factors set these projects apart: (1) They were highly intensive, multiyear, multifaceted programs and, (2) they incorporated extensive, costly evaluations that spanned up to a decade or longer. Less research attention has been paid to the question of whether programs for school-age youth also can build resilience. Resilience research typically addresses such youth programs not as planned interventions but as a naturally occurring part of the child's social environment. Thus, for example, Werner and Smith (1992) found that involvement in community programs such as 4-H was one of the distinguishing characteristics of the resilient children in her study.

Why aren't there more research studies directly testing whether nonformal programs for school-age youth can develop resilience? When considering children's overall adaptation to their life circumstances, one must be realistic about the limited potential of programs to counteract the effects of such powerful factors as individual temperament and family functioning. Development of resilience, in the sense of overall adaptation to developmental challenges, is probably beyond the scope of all but the most comprehensive long-term programs, such as the Perry project. Rather than focusing on resilience as a short-term program goal, a more practical approach for youth programs is to focus on variables that have proven to be strong protective factors, including academic preparation and social competence at the individual level, and parent-child relationships and other adult-child bonds at the interpersonal level. The ultimate translation of these strengths into successful life adaptation — that is, resilience — will depend on the interplay of all the factors in the child's life.

Nonformal programming

Our interpretation of the resilience literature suggests that youth programmers should target individual protective factors, rather than resilience per se, as program goals. Community-based programs such as 4-H, Scouts, after-school centers, and soccer leagues are well positioned to address such issues, though emphases may vary depending on specific program characteristics. For example, with reference to table 1 we can see how several kinds of protective factors might be incorporated into the activities of youth programs:

Building attachments to adults and others. By bringing youth and their families together on a continuing basis, nonformal programs, almost by definition, will produce growth in social networks, adult and peer contact time, and available resources for youth. Extension of their social network through meaningful interactions with adults helps youth become part of their community and accept community values. This process in turn can be expected to have a deterrent effect on antisocial and problem behaviors such as substance use, drinking, and sexual precocity. Interestingly, in a 1991 study, Richard Jessor and colleagues at the University of Colorado also found consistent relationships between young people's identification

with social values and their practice of health-enhancing behaviors such as regular physical activity, getting enough sleep, and attention to a healthy diet.

Social competence. "Social competence" refers to many skills, including but not limited to communication, empathy and sensitivity to others, assertiveness, impulse control, negotiation and conflict resolution, accurate perception of group dynamics, the ability to form friendships, and a sense of humor. Research has shown that social competence skills serve protective functions against such risk-related behaviors as using alcohol, tobacco and other drugs, or becoming involved in gangs. Research also suggests a link between social difficulties in youth and later problems in adulthood, such as criminality and suicidal behavior. In addition, a healthy sense of humor has been found to help children cope successfully with stressful home situations.

Nonformal programs, by bringing children into contact with their peers, provide a setting that allows social competence skills to develop. The groupings are generally smaller than those found at school. The presence of adults provides a degree of structure which can be particularly valuable in high-risk neighborhoods that offer relatively few structured alternatives. Some youth programs also incorporate the delivery of formal skills training curricula. For example, Gilbert Botvin's "life skills training" program (e.g., 1991) is aimed at preventing substance abuse by teaching youth how to interact with others, make decisions, and exercise self-control and assertiveness. Other programs exist with more limited aims, such as a negotiation skills curriculum developed by researchers at the Harvard Negotiation Project.

Meaningful participation in community activities. Many programs take an experiential approach to the growth of leadership skills. 4-H, for example, provides numerous opportunities for youth to take on community projects in areas such as health promotion, recycling and gardening. Many nonformal programs also encourage youth to take on responsibility for teaching younger or less experienced peers. Participation in these activities provides children and adolescents with an opportunity for self-exploration and for developing self-worth, as well as practice in planning, problem-solving, and other important areas of competence.

Jack Kelly Clark

Nurturing relationships with parents, grandparents or older siblings have been shown to promote resiliency in children.

The need to be specific

Youth program planners seeking to apply this body of research should carefully specify the developmental processes they aim to promote. Rather than identifying their target audience simply as "at-risk youth," they need to identify their risk populations and the outcomes with which they are concerned. This planning process will help to avoid an unrealistic match between program goals and program activities, such as might occur, for example, when an after-school drop-in program identifies its goal as improved school performance and yet provides little or no academic support in its on-site activities. Developmental goals may involve such areas as academic achievement, physical or psychological health or improved family relationships. Targeted protective factors could include individual-level variables such as social competence and academic skills, family-level variables such as effective parent-child communications, or community-level variables such as strong social networks. As we have seen, long-term research studies have demonstrated the overall importance of these factors in children's lives.

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Further reading:

Benard, B. (1991). "Fostering resiliency in kids: Protective factors in the family, school, and community." Portland, OR: Western Center for Drug-Free Schools and Communities, Northwest Regional Educational Laboratory.

Garmezy, N., & Rutter, M. (Eds.) (1983). *Stress, coping and development in children*. NY: McGraw-Hill.

Luthar, S.S., & Zigler, E. (1993). "Vulnerability and competence: A review of research on resilience in childhood." In M.E. Hertzig & E.A. Farber (Eds.) *Annual progress in child psychiatry and child development 1992*. NY: Brunner/Mazel.

Werner, E.E., & Smith, R.S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca, NY: Cornell University Press.

For other references noted in this article, please contact the first author at (916) 752-7003.

In-home treatment of child abuse . . .

Healing at home can be effective and cost-effective

Keith Barton

Child abuse is an enormous and complex problem, affecting almost 3 million children in the United States. Research has shown that abused children often become abusive parents. It is therefore imperative that we treat both the abused and the abuser, to stop the cycle before it repeats itself. It is ideal to keep the child in the family, if his or her safety can be assured. But this is not always possible. This research focuses on efforts to use intensive in-home therapy in an effort to treat both the child and the abusing family, and so prevent placement in foster care, usually the next step in abusive situations.

As newspaper accounts and statistics make clear, the number of reported child abuse cases in the United States is on the rise. In 1992 alone, 2.7 million children were referred to Child Protective Services as suspected cases of abuse and neglect, according to the 1992 Children's Defense Fund Report. Although one can argue that there are problems with the way statistics are collected and interpreted, there is no doubt that America faces an enormous problem with child abuse.

The problem does not stop with the abused child. Research has shown that child abuse is cyclical: the abused child often becomes an abusing parent, as reported by John Van deKamp in 1991, when he was the state's attorney general. Because of the magnitude of the problem, much effort has been directed at treating both the abused and the abuser. The central hope behind these efforts is to break the cycle.

In this study, we have used a relatively new approach to treating child abuse through an intensive in-home treatment program that concentrates on reducing stress and increasing communication skills. The following is a short description of the program, the families involved and a summary of our findings.

The families

The target population was children in Sacramento, Yolo and Solano counties who had been referred to Child Protective Services for abuse or neglect. We selected 150 of these families and their children: half were part of the contrast group and half became part of the treatment/experimental groups. Both groups were similar in need, consisting of families in which the imminent removal of the abused child was halted only by their agreement to participate in the program. Families in the experimental group were referred to Families First, an organization structured after the Homebuilders model developed by Kinney et al. in 1976, which provides intensive in-home therapy along with traditional social services.

The contrast group, which also had been referred by Child Protective Services, agreed to receive traditional county services instead of in-home therapy. These services ideally include counseling, special tutoring as needed, and referrals to other agencies. But because of large caseloads, social workers were not always able to provide complete services to each family.

Procedure

Treatment description. Therapists were trained by Families First in family systems therapy, which addresses not just the abused child, but all family members and the family structure presumed to enable the situation to continue. The program lasted 11 months. Each therapist was assigned two families per month, working intensively with each child and his/her family from 4 to 6 weeks. Therapists were available to the families day and night, 7 days a week. Treatment was tailored to the needs of the individual child and other family members. A first step was to structure the family home situation to preclude further abuse. To do this, the therapist used a variety of methods to assess family strengths and weaknesses, provide advocacy and support in meeting basic needs, and coordinate other eligible services, such as supplemental food or income programs. As the meetings progressed, the therapist also provided training in parenting skills, mood management, and communication skills; family and individual counseling were also provided, and therapists referred clients for follow-up care as needed.

Evaluation description. Families were administered two self-report measures in an effort to evaluate whether their communication skills did improve, and stress did decrease more in the in-home therapy group than the control group.

The first — called FACES II, or the Family Adaptability and Cohesion Evaluation Scales — is used to measure the dynamics of family interactions. These dynamics can include critical areas of family interaction such as Togetherness, Child Input, Family Chaos vs. Unity, Shared Responsibilities, Difficulty in Rule Changing, and Assertiveness. The FACES II scale was administered to mothers in both groups three times: during the first week of treatment, 3 months after the therapy had ended, and at a 1-year follow-up.

Another questionnaire — called FILE or Family Inventory of Life Events — was given simultaneously. This scale is used to measure 10 dimensions of stress (McCubbin, et al., 1980). These measures include: (1) trouble with teenagers; (2) separation involving violence; (3) legal violations, such as family members in trouble with the law ; (4) work; (5) family loss, through death or divorce; (6) financial strain; (7) illness and family care

strain; (8) public assistance; (9) other major changes in family situation; and (10) young child management focus.

In addition to the psychological aspects of stress and communication, we examined two other variables related to the cost-effectiveness of in-home therapy: 1) Was the child still with the family at the end of the year; and 2) What was the cost of any out-of-the home placement?

Summary of findings

Stress reduction. Both the experimental and contrast groups showed reduction in stress over time. Analyses showed that overall stress could be reduced significantly in abusive families but the reduction was not associated exclusively with in-home family therapy.

Some kinds of stress were reduced more than others. Areas showing the most improvement included: trouble with teenagers, violence and separation, legal violations, work, financial strains and family illness and care strains. These results justified performing analyses on both global and specific measures of stress (main reference: Barton, Baglio & Braverman, 1994).

Improvements in communication. In this case, the experimental group showed greater improvement than the contrast group, as well as improvement over earlier scores. Families receiving the in-home therapy, as opposed to usual social services, improved more in the following areas:

- Chaos versus Unity. This dimension is intended to reflect how clear rules are and how, and if, family decisions are carried out by all family members. The in-home therapy group showed improvement in its scores and over the control group at both 3-month and 1-year intervals. This improvement may be attributed to the emphasis in family systems therapy on immediate crisis reduction by opening up communication channels between family members, and teaching effective communication skills such as non-hostile speech, empathic listening, and so on.
- Shared responsibility and opinions. Here the treatment group improved significantly over the comparison group at 3 months, but no significant difference was observed between the two groups at 1 year.
- Difficulty in rule-changing. Here, the treatment group demonstrated less difficulty in rule-changing than did the contrast group at the 1-year mark. This may reflect a newfound flexibility in dealing with problems and rules in a family.
- Assertiveness. The treatment group showed improvement in both its initial scores and when measured against the control group at 3 months and 1 year. This improvement reflects one of the therapist's key goals in in-home therapy, which is to create an environment in which it is safe to express oneself. Verbal communication was stressed over physical expression as an appropriate way to release emotions.
- Total family dynamics. Total family dynamics include all six factors and reflects an overall improvement in general communication skills, as reported by the author and J.L. Mullin in 1993.

Cost effectiveness. An analysis of costs to the State of California indicated that in-home therapy is highly cost-effective when compared to the costs of out-of-home foster placement, which is often the end result for abu-

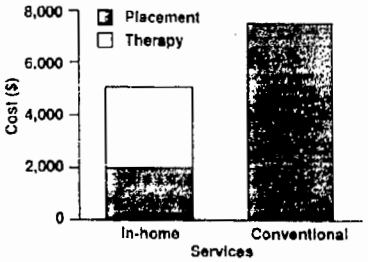

Fig. 1. The cost per family of in-home versus conventional services is depicted above. It cost the state $2,200 less to provide successful intensive in-home therapy than it did to provide traditional therapy which ended in placement of the child in a foster home. Placement costs for in-home therapy were also significantly lower.

Past research regarding the treatment of abused children and their families:

- Success is maximized when treatment is given at as young an age as possible and is given in the most homelike environment. The best prognosis for a healthy future for abused infants is adoption at an early age rather than an extended stay in foster care or return to their biological families. Cautious optimism characterizes the research literature: results are best when the child is young and placement is with a family experiencing minimal stress and having the capacity to provide satisfactory parenting.
- Treating older children is often more difficult because the abuse has continued for a longer period of time. However, the most positive treatment outcomes can be found when the treatment period has a duration of between 7 and 18 months and treatment is provided by volunteers and lay service providers. Overall, in about 20% of cases treatment will fail (i.e., child cannot be returned to the abusing home); in 40% of cases, parents will change their parenting behavior; and in 40% of cases, parents may curtail their physical abuse, but they will continue to be emotional maltreators.
- Poor communication skills and high family stress levels have been found to be key factors in an abusive parent/child relationship. Some stressors associated with abusive episodes include intensified parent-child or parent-parent relationships, job stress, illness, financial problems and housing problems. Other related factors are gender, years married, family relationships and numbers of children. Parental history, attitudes toward child rearing, psychosis and personality variables have also been related to abuse.
- More information can be found in studies by the following authors: Larsen, et al (1986), Elmer (1986), Cohn & Daro (1987), Acton & During, (1990), Christopoulos, et al. (1988), Coster, et al. (1989), Crittenden (1988), Harvey, et al. (1991), Kavanagh, et al. (1988), Pearl (1988), Silber (1990), Justice & Duncan (1976), Straus (1979), Gil (1969) and Spinetta & Rigler (1972).

sive families. The cost of placing a child in foster care was estimated at $7,200 per child. In-home therapy treatment, including the cost of the therapy for the 4- to 6-week period, on the other hand, was $5,000 per child (fig. 1, page 37). A significantly greater number of children from the experimental group were still in their homes at the 1-year follow-up (fig. 2.). The rate of foster care placement for children in the experimental group was 30% compared to 65% for the contrast group. (Main reference: Wood, Barton & Schoeder).

Stress levels and family dynamics. Analyses indicate there is a significant and large interaction between stress levels and family dynamic variables. For example, when families are divided into groups with high, medium and low stress, the family dynamics variables were most healthy in the low-stress families and most dysfunctional in the high-stress families.

Directions for future research

Given the possibilities for success, it is important to ask whether the same positive effects could be achieved using less highly trained, and consequently less expensive, therapists to reach a larger number of families? Could a group of well-trained "lay" workers or regular social workers be trained in stress reduction and family systems therapy to achieve comparable results? The idea is attractive. As the population of abusing families increases, it is increasingly hard to find adequate funding to treat the families. While in-home therapy may be cost effective, the fact is there still is not enough money in the state to make it available to the whole population of abusing families.

However, before we can conclude that lay therapists can be used as effectively, it is necessary to demonstrate the degree to which these workers can measure up and under what circumstances. We have proposed a new study to explore the potential for using lay therapists successfully and to examine the concomitant cost effectiveness.

Future researchers should be guided by several key lessons learned through past research. They include the following:

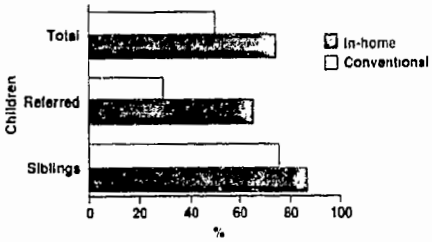

Fig. 2. Children still at home one year later as a function of in-home therapy vs. conventional treatment. Children whose families received intensive in-home therapy did not require outside placement at the rate of those in the conventional group, who received only traditional counseling services.

1. Treatment should be applied as soon as possible and involve the whole family rather than individual members.

2. Treatment should be long enough (7 to 18 months for traditional therapy, or 6 to 8 weeks for intensive in-home therapy). But there seems to be no benefit to extensions over this time.

3. Treatment should be in-home, with the therapist visiting the family rather than expecting the family to come to an office. Such a set-up results in far fewer cancellations, a much better assessment of the home environment, a greater appreciation of the help received, and a much more real-life, naturalistic approach than that obtained in the therapist's office.

4. Stress reduction should be an integral part of any treatment.

5. As with stress measures, family dynamic dimensions may be useful indicators of the efficacy of treatment. The Family Adaptation and Cohesion Scales (FACES) have already been demonstrated as useful for an abusing population, and have been adapted to measure some six family dynamics dimensions as well as the traditional Adaptation and Cohesion descriptions.

6. Retention of the abused child in the family is an important goal if the safety of the child is not compromised. Our research has shown that high stress levels and poor showing on several of the family dynamics variables have been shown to predict failure to retain the child in home.

7. To ensure its future use, it is vital to examine the cost-effectiveness of any treatment. To do so, it is necessary to collect actual costs of placing children outside the home. In the past, these estimates have often been of doubtful validity. Recent research has shown that actual costs can be obtained to give studies greater credibility.

8. There is evidence that lay therapists (i.e., groups of trained volunteers) can be used effectively with child-abusing families. The next step is to design a project to assess the efficiency of such a model and provide an operational definition of the curriculum to be used in training volunteers.

9. The outcome of any treatment design cannot be assessed without considering attributes of the target population involved. People with different personalities, motivation, and ethnic backgrounds, for instance, will react differently to different types of treatment.

In conclusion, in-home treatment of child-abusing families has been shown to be more effective in retaining children in their own homes, but this goal should only be considered when the child's safety can be assured. If the cost of in-home therapy can be reduced while retaining its effectiveness, this might be a more effective way to use the limited funding available to serve a greater number of people. We must continue to try reaching abusing families with effective programs, if society is ever to address the human blight of child abuse and its consequences for future generations.

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Further reading:

Barton, K. & Baglio, C. (1993) The nature of stress in child abusing families: A factor analytic study. *Psychological Reports*, 73, 1047–1055.

Barton, K., & Wood, S. (1993) Psychological assessment from clinical and research perspectives: Some empirical evidence for stereotypes. *Journal of Social Behavior and Personality*, 8(1), 27–42.

Barton, K., Baglio, C., & Braverman, M. (1994) Stress reduction in child abusing families: Global and specific measures. *Psychological Reports*. In press.

Wollert, R. (1988) An evaluation of a communications training program within a self-help group for sexually abusive families. *Community Mental Health Journal*, 24(3), 229–235.

This article chronicles the research and curriculum development activities of Project 4-Health, the California 4-H program's tobacco prevention project. Studies of the social context of tobacco use, a survey of 4-H members, a randomized field trial of the prevention curriculum, and subsequent dissemination activities are described. Major findings from each phase are presented and discussed.

Teens learn about the dangers of cigarettes and smokeless tobacco in "Project California 4-Health," which examined both personal and social factors leading teens to smoke, then delivered educational materials designed to prevent such decisions.

Project 4-Health develops program to curb youth tobacco use

Marc T. Braverman ❑ Joel M. Moskowitz ❑ Carol N. D'Onofrio ❑ Valodi Foster

American society is undergoing a transformation in the way it views tobacco. Longstanding assumptions about smoking are being reexamined in areas such as health, law, public policy and advertising. Probably the most extensive public debate has focused on restrictions of public smoking, as numerous cities and counties enact tough local ordinances based on concerns about environmental tobacco smoke. Another area of controversy concerns advertising — specifically whether the Camel campaign and other cigarette ads utilizing cartoons or sports themes attract, or even were designed to target, underage youth. Another focus is the highly addictive nature of nicotine, underscored through scientific reports and debates about legal implications.

Amid these developments, prevention programs targeting tobacco have also evolved to incorporate our growing understanding of adolescent substance use within the contexts of family, peer group and society. The UC Cooperative Extension (UCCE) 4-H Program and the Davis and Berkeley campuses have played leading roles in tobacco education in California through a program begun in 1985 called "Project 4-Health." In this article, we will review the major accomplishments of the project through phases of preliminary research, curriculum development and evaluation and statewide dissemination.

The original funding for Project 4-Health came from the National Cancer Institute which, in 1985, awarded a 5-year grant to UC Berkeley's School of Public Health, working in conjunction with the UCCE 4-H Program, to develop an educational program aimed at preventing the use of smokeless tobacco among youth. After preliminary investigations, it was decided the new program should deal comprehensively with both cigarettes and smokeless tobacco. Over the course of the project, we developed and evaluated a curriculum that included activity plans for six educational sessions, a *Member's Book* for youth, a 12-minute videotape, and a section describing a set of supplemental community activities for youth.

Dissemination of the program and further curriculum development were supported through two subsequent grants in 1991 and 1993 from the California Department of Health Services (DHS) to UC Cooperative Extension and the Davis campus. In this project, which we named "Project California 4-Health," we created a program delivery structure through which teens were recruited and trained to teach the program to 9- to 12-year-old youth. Over the course of the DHS grants we trained 719 teens, who in turn taught

the curriculum to 5,433 youth. We also developed new curriculum materials, including a more sophisticated prevention videotape, a program delivery manual, and an adaptation of the written curriculum into Spanish.

Several specific features distinguished our project's approach: (1) it gave strong attention to smokeless tobacco as well as cigarettes; (2) it focused educational activities primarily on out-of-school community settings rather than in schools; and (3) it placed a high priority on encouraging family communications regarding tobacco.

Preliminary research

Smokeless tobacco availability. We first needed to understand the ecological context in which adolescents experimented with and used tobacco, especially smokeless tobacco (ST), about which relatively little had been published. National surveys had confirmed ST's traditional reputation as a substance most prevalent in rural communities. But by the mid-1980s, the tobacco industry had begun aggressively promoting ST to an unprecedented degree; surveys showed that its use had increased sharply among urban and suburban adolescents. To reach an informed decision about our projected target population within this changing environment, we needed to know how strongly the product's availability and promotion was linked to urban-suburban-rural geographical distinctions. Therefore we conducted an observational study of stores in the vicinity of a random sample of high schools across California to see how ST was packaged, sold, marketed, and promoted. We found that smokeless products were universally available and heavily promoted across all kinds of California communities, with only slight dropoffs in nonrural areas. These findings confirmed our belief that the curriculum would have relevance in all geographic regions of the state.

Community perceptions of smokeless tobacco. In a second study, 4-H advisors conducted up to 25 interviews with key informants in

their counties, including health care professionals (such as dentists, doctors and nurses), school administrators, youth program staff, smokeless tobacco users, and kids who didn't use ST. The interviews were designed to identify terminology, determine perceptions of health problems and explore other issues associated with youngsters' ST use. We found smokeless tobacco was almost universally referred to as "chew," which therefore became our primary term of reference in the curriculum. In rural communities, our respondents reported particularly heavy spot advertising and free distribution at rodeos and car shows. We also found that there were wide variations in the concerns educators and health professionals expressed about smokeless tobacco use by youth, to a degree far greater than cigarettes. Therefore, one particularly important factor regarding the program's acceptance in local communities would be the support of its aims by local youth leaders.

Substance use patterns among 4-H youth. In a third study, we sought to determine the extent and nature of substance use within our specific target populations. We administered a one-time, anonymous survey in fall 1986 to California 4-H members, who were to be our initial audience. Altogether 2,459 youth, representing 77 clubs in 25 counties, participated in the survey. In addition to determining overall tobacco use levels, we aimed to identify factors that might be associated with tobacco use, such as age, family tobacco use, attitudes, friendship patterns, 4-H involvement, or use of alcohol and marijuana. Past developmental research, particularly Richard Jessor's problem behavior theory, asserted that all drugs — both controlled and illicit — are strongly linked for adolescents. We wanted to determine the extent to which this was true for 4-H members.

The survey results for overall use of cigarettes, ST, alcohol and marijuana, separated by age and sex, are presented in table 1. As one would expect, use of all substances was higher in the older age bracket. We found that roughly half the respondents aged 12 and older had at least experimented with cigarette smoking, and that 14.8% overall — about 1 in 7 — had smoked in the past month. As expected, a

TABLE 1. Overall substance use patterns in 1986 4-H population

	Cigarettes	Smokeless tobacco	Alcohol	Marijuana
	%			
Boys, 8–11 years old (*N=441*)				
Never used	78	77	66	96
Used, but not in past month	19	16	24	2
Used in past month	4	7	11	2
Boys, 12–19 years old (*N=521*)				
Never used	47	41	32	75
Used, but not in past month	37	39	28	15
Used in past month	16	20	40	10
Girls, 8–11 years old (*N=734*)				
Never used	86	95	85	99
Used, but not in past month	12	5	12	1
Used in past month	2	0	3	1
Girls, 12–19 years old (*N=763*)				
Never used	53	83	39	80
Used, but not in past month	33	14	30	12
Used in past month	14	3	31	8

N = number in sample

sharp gender difference emerged regarding smokeless tobacco: among boys, ST use was even more prevalent than cigarettes. Alcohol was by far the most widely used of the four drugs we examined, which is consistent with other adolescent populations. Among youth 12 and older, 40% of boys and 31% of girls had used alcohol within the past month. Overall, the prevalence of cigarette, alcohol and marijuana use in this 4-H population was roughly comparable to that found in other adolescent surveys, such as the National Institute on Drug Abuse's National Household Survey and the school-based California Attorney General's Survey of Substance Use. (Precise comparisons cannot be made due to differences among surveys in age range, site of administration, and year conducted.) On the other hand, the use of smokeless tobacco appeared to be higher in our population, since most other surveys reported past-month usage levels of about 3% to 6% for both genders combined, whereas we found 20% among boys and 3% among girls aged 12 to 19 years old.

This survey also enabled us to determine which personal factors predicted cigarette and ST use in our 4-H population. Highlights of the results are presented in table 2. In computing these figures we needed to remove the influence of age, since age, being related to many activities that begin in adolescence, can create a false impression that activities are strongly related to each other in a direct way. For example, before age is statistically removed, the relationship of "Has begun dating" with cigarette use is very strong ($r = .67$). When age is controlled, the relationship is seen to be much weaker, although still significant for girls (r between .17 and .25). Table 2 shows that the strongest predictors of tobacco use were respondent's use of alcohol and marijuana, and tobacco use by one's friends. Use by family members, especially older siblings, were also predictors, though somewhat weaker.

From this study we learned several important things that helped us with implementation of our tobacco project. First, we confirmed that smokeless tobacco use was far more prevalent among boys than girls. This was an important consideration in our decision to develop a comprehensive program that went beyond ST alone, since we wanted our program to be relevant for our total youth audience. Second, we were able to determine that our 4-H population is roughly similar to other adolescent populations in substance use patterns with the exception of ST, which is particularly prevalent in 4-H, probably because of the high representation of rural youth among 4-H members.

A third important finding was that peers and older siblings seem to pose an even more potent influence on tobacco use than parents. This suggested that the dynamics of peer relationships need to be carefully addressed in the curriculum. Fourth, as table 2 makes clear, our survey confirmed past research which found that adolescent use of all drugs — tobacco, alcohol, and marijuana — is interrelated. Many researchers consider tobacco to be a gateway drug for marijuana and other illegal drugs (National Research Council, 1993). To the extent that preventing tobacco use might help to prevent or delay the use of illicit substances, tobacco prevention objectives gain an added dimension of importance beyond even the health considerations.

Curriculum development, evaluation

Most current tobacco prevention programs can be distinguished according to their general theoretical approach. "Social influence" approaches presume that tobacco use depends in large part upon the adolescent's perceptions of peer values and expectations, and that social skills can be developed to help the adolescent resist peer influences to use tobacco. Although programs based on this approach have shown some positive results, it has been criticized for not giving enough attention to the adolescent's own values, desires and decision-making capabilities. In contrast, "cognitive developmental" approaches focus on influencing the social benefits adolescents themselves might attribute to tobacco; helping them understand the psychological effects of advertising and adult models; and helping them make thoughtful decisions about tobacco use that can carry over into social situations with peers. Our approach is most consistent with the cognitive developmental model. The initial development of the curriculum entailed well over a year of

TABLE 2. Correlates of tobacco use, controlled for age

	Boys		Girls	
Characteristics	Cigarettes	Smokeless tobacco	Cigarettes	Smokeless tobacco
Activities:				
Football	a	b		
Future Farmers of America				a
(Not) Music		a		
(Not) Church Groups		a		
Started dating:	b	c	b	a
Poor school grades:	b	a	b	a
Substance use in lifetime:				
Alcohol	d	d	d	d
Marijuana	d	c	d	c
Family members who use this product:				
Father	a	b	a	a
Mother	a	a	a	
Older brother	b	b	a	b
Older sister	a	a	b	a
Number of friends who use this product:	d	d	d	c
Belief that one's friends approve of one's use:	d	d	d	b

Note: The tabled entries represent partial correlation (controlling for respondent's age) between each correlate and the group's use of the specified type of tobacco, according to this 3-part scale: 1 = Never used, 2 = Used but not in past month, 3 = Used in past month. The presence of "(Not)" implies that the relationship was negative in direction. a = $.10 \le r < .17$, b = $.17 \le r < .25$, c = $.25 \le r < .30$, d = $.30 \le r < .51$

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discussion, writing, consultation, pilot testing and revision.

Each of the six educational sessions has a theme tied to a particular educational objective. For example, in Activity One, participants work in teams to produce life-size drawings of young tobacco users. Typically, those drawings depict the unattractive elements of tobacco use such as bad breath, diminished physical capacity, yellow fingers, stained clothes, and so on. The educational intent of this activity is to focus on norm group perceptions, visibly demonstrating to youth that their own peer group considers tobacco use highly unappealing. Themes for the other five activity sessions are: (a) exploring the developmental needs that tobacco is sometimes thought to serve but which can be achieved more successfully through other means (e.g., the need to demonstrate maturity); (b) understanding tobacco's effects on health; (c) analyzing the content of tobacco advertisements; (d) developing social communication skills; and, (e) reflecting on future actions regarding tobacco. In addition to these basic activities, an *Action Team Guide* provides ideas for participants to become involved in tobacco prevention projects in their communities.

In fall 1987, we submitted the curriculum to a formal evaluation. Using a matched-pairs experimental design, we delivered the program to youth in 37 4-H clubs, using 37 other matched clubs as a control group that did not receive the program. We pretested 10- to 14-year-old youth in these 74 clubs through a telephone survey prior to program implementation. After the program was delivered in spring 1988, we posttested these same youth in fall 1988 (3 months after program completion), and again in spring 1990 (2 years after program completion).

Results showed that the program produced changes in a number of beliefs and attitudes related to tobacco. Among girls, the immediate posttest revealed that in comparison to the control group, girls who participated in the program (a) attributed fewer social benefits to using cigarettes and ST; (b) had more accurate perceptions of the prevalence of cigarette use and ST use; (c) believed more strongly that first use of tobacco is harmful; and (d) believed more strongly that ST use is not safer than cigarette use. No significant effects were found for girls at the 2-year followup. Little program effect was found for boys at the immediate posttest but the 2-year followup revealed significant program effects: (a) greater opposition to trying ST and cigarettes; (b) stronger belief that the community discourages ST use; and (c) stronger belief that tobacco companies try to encourage youth to use tobacco.

From this evaluation, we learned that the program was reasonably effective in producing desired change in certain knowledge and attitude variables related to tobacco. From our process evaluation, we also learned a substantial amount about delivering our program. In particular, there was a wide range in the fidelity with which our volunteers followed the curriculum's lesson plans. We examined differences across program sites in room set-up, youth audience size, age distribution within a club, teacher characteristics, and other potentially important program implementation characteristics. From this information, we were able to strengthen our recommendations for teacher preparation and program delivery. We also observed the level of involvement of parents at each club site, and found that parent participation did not seem to have a negative effect on youth participation and attention. If anything, it may have been slightly beneficial.

TABLE 3. Paired t-tests for pre- and post-program scores during 1993 program dissemination: Items showing (A) significant change in desired direction and (B) current tobacco use

		Boys			Girls		
Questionnaire item*	**D†**	**Pre**	**Post**	**Sig‡**	**Pre**	**Post**	**Sig**
A. Items showing significant change:							
1. People who smoke a lot can quit smoking any time they want.	H	3.18	3.57	0.000	3.08	3.49	0.000
2. Using chew is safer than smoking cigarettes.	H	3.84	4.14	0.000	4.01	4.32	0.000
3. You can get hooked on chew.	L	1.88	1.55	0.000	1.85	1.52	0.000
4. Tobacco hurts your body the first time you use it.	L	2.49	2.19	0.000	2.17	2.03	0.002
5. Do you think you will smoke cigarettes when you get older?	L	1.51	1.43	0.007	1.33	1.33	ns
6. Do you think you will use chew when you get older?	L	1.32	1.25	0.011	1.10	1.11	ns
B. Current tobacco use:							
7. In the last 30 days, how many times have you tried or smoked cigarettes, even a puff?	L	1.05	1.05	ns	1.03	1.05	ns
8. In the last 30 days, how many times have you used chew?	L	1.05	1.02	ns	1.01	1.01	ns

Notes:

*Items 1-4 were answered on a five-point scale, from 1 = *YES!* to 5 = *NO!* Items 5-6 were answered on a five-point scale, from 1 = *Definitely no* to 5 = *Definitely yes.* Items 7-8 were answered on a four-point scale, from 1 = *Never* to 4 = *More than 10 times.*

†D = Desirable direction of response.
L = Low (scores should decrease from pretest to posttest).
H = High (scores should increase from pretest to posttest).

‡Sig = Significance level.
ns = Not significant. Significance levels of .050 and less are shown.

Program dissemination

Under the DHS dissemination grants that began in 1991, we worked in 19 counties to deliver the program on a large scale. County 4-H youth advisors and locally based program assistants supervised implementation by recruiting youth participants and teen teachers and scheduling sessions at local sites. Project staff based at UC Davis traveled to program counties to train volunteer teens. During this phase, due to limited resources and DHS priorities, our evaluation activities were less extensive than they had been during the randomized field trial. Using pre- and postprogram questionnaires, we assessed participants' knowledge, attitudes and values both before and after the program. This pretest-posttest design, without a control group, can reflect whether changes occurred over the course of the program but it does not permit definitive conclusions regarding whether

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the program was the cause of those changes. Table 3 presents scores for the questionnaire items on which program participants demonstrated statistically significant changes consistent with the program's educational goals. The strongest observed effects concerned knowledge of addiction and the health hazards of smokeless tobacco. In addition, there was a significant downward trend among boys in their expectations of using cigarettes and smokeless tobacco.

Conclusions

Our project's experience sheds light on several critical issues in tobacco prevention programming. First, the use of peers to deliver the program can be very effective educationally but requires careful management, and, in fact, adds considerably to program staff workload in comparison to delivering the program themselves. Extra staff time was needed to monitor, coach, counsel and, occasionally, transport high school students to elementary schools where the training occurred. There were large variations in the skill with which our teens took on their teaching tasks and we also experienced considerable attrition among teachers.

One way we addressed these challenges was to group teens into teams of at least three for each class. They were then able to provide mutual support and complement each other's strengths. In general our program confirmed the views of other researchers who believe effective peer leadership can add immeasurably to the relevance of the educational experience. Furthermore, the teen teachers themselves constitute a critical target group for educational intervention, and come away with an even richer educational experience than the children they teach. Followup interviews found that many teen teachers remained active in prevention-related activities among their peers after the program ended. Therefore, we strongly recommend using teens, but only if program time and resources permit.

A second issue to note is the differential effects for males and females, which is partly attributable to preexisting group differences. For example, table 3 shows that from pretest to posttest, boys displayed a significant drop in intentions to use both cigarettes and chew, while girls displayed no change in intentions for either substance. Nevertheless it would be incorrect to conclude the program simply did not work for girls; further inspection shows that girls had lower intentions to use each substance to begin with, and in fact the postprogram intentions of boys, though lowered significantly, still did not reach the levels for girls (1.43 boys vs. 1.33 girls for cigarettes and 1.25 boys vs. 1.11 girls for chew).

Table 3 also illustrates in dramatic fashion why it is often difficult for prevention programs to produce documentable changes in young audiences' actual behavior. Items 7 and 8 both involve tobacco use during the past 30 days. On a four-point scale where "1" represents the response "Never," the average preprogram scores ranged from 1.03 to 1.05. In other words, actual usage was close to nonexistent even before the program started. Thus, it is not feasible to expect the program to produce a further reduction. However, this should not be taken to mean that these ages are too early to deliver prevention education. On the contrary, this is a critical period in which youth are rapidly developing knowledge structures, attitudes, values and expectations that will determine later tobacco-related behaviors. In evaluating early prevention programs, researchers pay careful attention to these precursor variables rather than to actual use.

A final issue of importance concerns the structural integrity of the educational program. Now that the curriculum has been widely disseminated we find many educators use pieces of it (such as certain activities or the videotape alone) rather than using the entire program. This is usually done to accommodate time restrictions in a busy school or program schedule. It is not possible, nor, perhaps, is it desirable to control this process once curricula become widely circulated, but since the curriculum was conceived and evaluated as a unit, one must question how effective the curriculum pieces are when presented alone. Answers to this question will vary by site, and locally based evaluations are critically important to ensure that program activities remain effective.

In conclusion, we wish to emphasize that prevention education programs should constitute only one part of a community's comprehensive prevention strategy. Educational experiences must be combined with supportive family interactions, prudent public policy decisions, consistent media messages, and nurturance of other aspects of children's lives. These are the avenues through which young people learn to value their own health and act responsibly to preserve it.

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Further reading:

National Cancer Institute (1991). *Strategies to control tobacco use in the United States: A blueprint for public health action in the 1990s*. Washington, DC: NIH Publication No. 92-3316.

National Research Council (1993). *Drug abuse: What do we know?* Washington, DC: National Academy Press.

Pierce, JP, et al. (1993). *Tobacco use in California 1992: A focus on preventing uptake in adolescents*. Sacramento: California Dept. of Health Services.

Gang identity or self-expression?

Researchers look beyond the surface of "gang clothing" and appearance

Janet Hethorn

Baggy pants, a red bandana, a long belt hanging from the waist: Signs of gang identity or merely expressions of emerging identity? As problems of gang behavior escalate and spread, the need to understand gang identity through clothing and appearance becomes critical. Do dress codes alleviate gang-related problems? Or do they create other problems? The way we present ourselves is a silent form of communication that is as often creatively benign as it is potentially dangerous.

As problems of gang behavior escalate in urban settings and spread to suburban and rural areas, the need to understand gang identity through clothing and appearance becomes critical. Whether an appearance represents gang identity or simply an adolescent expression of style has become a central question in the search for safe solutions to gang violence. The "meaning" of clothing choices has recently become a hot issue for public discussion, not just as it relates to gang identity but as it otherwise defines an individual in society. What we look like and how we choose to present ourselves is a silent form of communication.

The looks and clothing choices that teenagers use to express themselves are often considered outrageous by others. This pattern can be seen throughout recent history; those who are adults today may recall adolescents of the 1960s whose granny glasses, bellbottoms, and other clothing choices were deprecated by adults of that time. Today, however, it might be argued that the stakes are higher. Clothing has been closely linked to violent and sometimes deadly situations. Kids may be at risk because of their clothing choices.

This connection between clothing and violence expresses itself in several ways:

- Gang members may start a fight, or shooting, by signaling their readiness through clothing and appearance cues.
- Kids who are not gang members are at risk of being hurt or becoming unwilling participants in gang violence if their clothing or body actions are visually mistaken to be those of a gang member.
- Clothing or accessories, such as expensive athletic shoes, have become the targets of robbery and violence. In some cases, the person wearing the item has been hurt or even killed.

All of these are real situations that occur with increasing frequency. This strong connection between clothing and violence is unprecedented. The public reaction has been one of fear, alarm, and desperation. This has caused considerable interest in wanting to know how to recognize the visual indicators of gang identity.

In reponse to this concern, one solution has been to control clothing and appearance choices. Schools around the country have begun to impose dress codes in an attempt to provide safer environments for their students. Legislation passed the California Assembly and was signed into law making it possible for schools, beginning January 1994, to impose dress codes specifically for the purpose of eliminating gang-related clothing. The assembly bill allows individual school

▲ Clothing companies have capitalized on new fashion trends such as the work jacket, *above*, which is reminiscent of prison style. *At right*, students express themselves with individualized graffiti on their backpacks.

◀ Styles that once were a symbol of potential danger and violence have crossed over into the mainstream. An example, *at left*, is the ripped pants hem, which once was a sign of gang identify but now is a benign fashion statement.

districts to determine what clothing and appearance practices constitute "gang identity" at their location. However, no training or materials exist on how to determine this or how to maintain a broad range of self-esteem issues in the process. In an even more drastic step, California lawmakers in 1994 passed a bill giving public school districts the power to require that their students wear uniforms.

On the surface, these may seem like positive solutions to the potentially explosive problems of gang violence and gang identity. However, many hidden issues are ignored in a strategy that seeks simply to control appearance. In fact, there may be side effects from these decisions that create even further dangers. The desire to define self through clothing and appearance is basic to social and psychological needs, such as self-esteem, personal expression and group identification. Are there risks involved in limiting opportunities to explore identity and creative expression at a time when the self is emerging? When a dress code or uniform is chosen, whose aesthetic rules? The danger of discrimination in this situation is real. With the many ethnicities and wide racial mix in California's public schools, clothing is a natural vehicle for the expression of cultural diversity. Do dress codes eliminate clothing practices that are common only among minority groups? In the rush to provide solutions to problems, the need for informed decisions must take precedence over "knee-jerk" reactions.

Gaining perspective

This research began as a response to the need to explore the issue of gang identity and adolescent style. The main objective was to document and understand the changing nature of gang identity within the broader context of street style and adolescent expression. This approach included observations and interviews in street and school settings throughout California and in selected cities nationwide. By working with law enforcement agencies, access was provided through "ride-alongs" to locations that would otherwise be unavailable. Schools cooperated by allowing access for interviews with students from a wide variety of backgrounds. Urban, rural and suburban areas were included. Attempts were made to include a broad ethnic mix of students. We also tried to include a sampling of different schools, ranging from one Los Angeles County school with a student population of 2,200, of which approximately 80% were gang members, to a much smaller school in rural northern California, where the gang phenomenon is just beginning to manifest itself.

Photographs were taken to document clothing and appearance choices.

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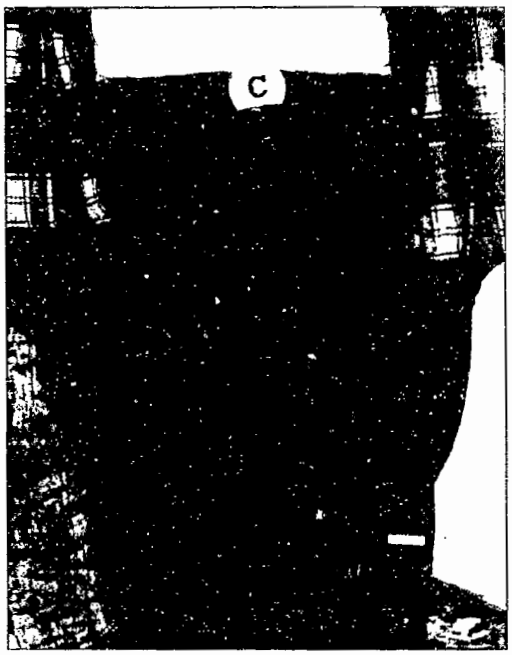
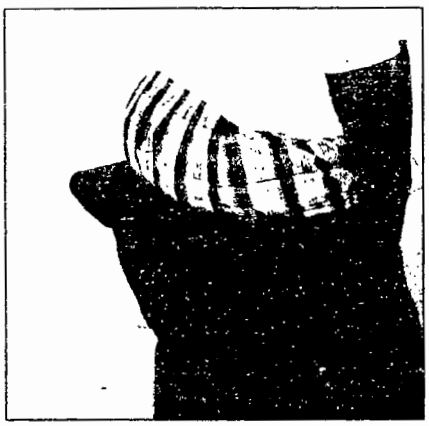




Another former symbol of gang identity which has become popular with mainstream teens is the long hanging belt, *at left*. At one time, the belt was considered a gang identifier, especially when coupled with a particular buckle. Many schools have banned the "bagging and sagging" look, *above*, because of its gang-related image. But for many, it's simply a matter of style.

Below, **a teenager expresses herself through her clothes.**

At times, students were given cameras to assist in the data collection. Focus group interviews were held to learn more about the visuals collected. An image database is being developed that includes approximately 500 slides depicting adolescent expressions of style and examples of gang identity.

Throughout the study, the focus has been on understanding the clothing choices and expressive nature of gang members, as well as adolescents who are not in gangs. The purpose is to develop an awareness of the issues affecting our ability to identify the visual cues of gang identity. We also hope to provide a problem-solving framework to aid in understanding the bigger picture.

The picture of a gang member

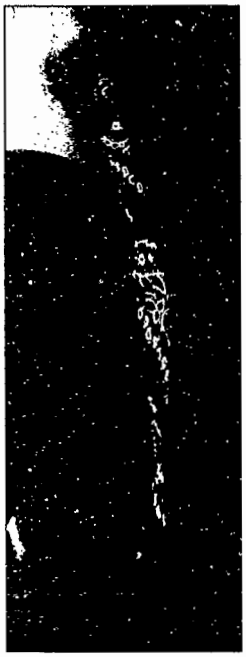
As with all adolescents, gang members tend to arrange their appearances in ways that express who they are. However, often embedded in their appearance are cues that signal their specific gang identity. The key is to be able to identify what is gang specific and what is simply representative of current adolescent fashion trends. This is not easy. Simply providing a list of visual factors that contribute to gang identity does not necessarily help in describing what a gang member looks like. It is erroneous to assume that just knowing these factors will lead to a clear identification of gang members. Identity is not a static event and it is more complex than just reading the signs.

The boundaries between gang style and street style are blurred, the more so as gang identifiers are quickly absorbed into fashion. What was once a clear expression of gang membership may now be a popular style worn by many, dulling the original meaning. For example, in some areas, wearing a long belt end that hangs to the knee is a benign fashion statement. But at one time it was a gang identifier, especially when coupled with a belt buckle signifying a specific set or individual name.

Fashion used to look to the runways of Europe for direction. Today the streets of Los Angeles are a much hotter source. Just as the "grunge" look made its way from the garage music scene in Seattle to the showrooms in New York, work jackets that were once prison issue are now advertised by smiling models wearing nothing else. The apparel industry has capitalized on the popularity of these new products, as is exemplified by the phenomenon of wearing pants belted low on the hip with the crotch at knee level (called "bagging and sagging"). This style leaves the boxer shorts clearly exposed above the pant waistband, which has spawned a colorful market trend.

One need only to look at fashion magazines to see images that were once owned only by the toughest of gangsters. Young people say they refer to such fashion magazines, rap music and television to help develop their style. As one subject noted about her peers, "They see a style that everybody else sees and they bring it to school. Most of the time, I think it is just a fashion show at school. Everyone has their own styles."

In the search for style and identity, many non-gang members may choose to emulate friends who are gang members. Even among gangs, levels of affiliation can differ. Someone who hangs out with a group may not necessarily participate in the group's business. Symbols and styles can be shared, making it difficult for an outsider to understand the intent of what is being communicated. One subject was asked "where she was from" (meaning, what gang do you belong to) because she was wearing a red rag that, given the location, could be interpreted to signify she was a member of the Bloods. Her response was, "I am from nowhere," (meaning that she was not a gang member). As she continued, "I am not a Blood, but I am down for the colors. I wear my flag every once in a while. But you would never find me wearing a blue rag. I don't like that color . . . I do not bang (get involved in gang violence). My dad would beat my butt. And plus, I don't want to die early, you know?"



Examples of styles that have crossed over into mainstream are pagers and creased pants, *above.* Other symbols have meaning depending on where or how they're worn. The red bandana, *at right,* can mean "showing the colors," or it can just be another way of covering the head.

Shifts in meaning

Nuances of style and image change quickly in form as well as meaning. By the time our perceptions are in line with the styles, the meaning has changed for the kids wearing them. For example, pagers used to be worn primarily by drug dealers and others who needed to be reached on the street. To carry one was often an indicator of gang membership. But the use of pagers became such a trend that it was sufficient just to have one clipped to a pocket, regardless of whether it was connected to a paging service. At one high school, it was estimated that half the kids carrying pagers did so for looks only. The popularity of pagers has become so mainstream that mothers carry them so that their children's babysitters can reach them during the day. Clearly, having a pager is no longer a symbol of gang identity. However, there are still schools that ban them for that reason.

Another example of styles that have changed in meaning is the fashion of "creasing your pants," as one subject put it. "We still do that. But now it doesn't mean anything," he said. In his neighborhood, pressing deep creases into pants had been an indicator of gang identity but now it was simply a matter of style.

An expression of gang identity in one city may not mean the same thing in another. In the Midwest, for example, a gang member may show affiliation by "representing" to the right or to the left. This is done by tilting a hat or by hanging a rag from a pocket on one side or the other, each meaning a different connection. However, in Los Angeles, this kind of representation is not seen as a factor in gang identity. The most common symbol of gang identity that the general public has a familiarity with is "colors" — blue meaning Crips and red meaning Bloods. But even colors come and go, and are relevant only in the context of the situation. To wear a red "rag" in one neighborhood may be a clear symbol of gang affiliation, but in a different area, the same item holds no meaning except as a head covering.

We make decisions about identity based on how we "read" the total form — including clothing details, combinations and ways of wearing clothes, as well as the body and how it is held and moves. Appearance symbols are not intrinsically meaningful; whatever meaning is assigned to an appearance is socially constructed. To take an item out of context and assign it meaning leads to an inaccurate reading. Meaning may shift dramatically based on such simple visual clues as which button is buttoned, how the shoelaces are done up, or how a shirt is creased.

Sometimes the clearest indicators and expressions of gang identity come through body language. How a person stands or poses may signify an attitude or threat. The "mad dog stare" or flash of a gang hand sign may be all that is needed to ignite violence. In fact, a hand sign is often a more reliable indicator of gang membership than an item of clothing. The body, like clothing, can be manipulated to augment gang identity. Gang-specific tattoos leave little doubt about gang identity. Ways of styling hair, such as shaving gang symbols into hair or even eyebrows, are another part of the gestalt.

The quick shifts in fashion create a time lag in understanding. It is difficult to keep up with, and know, what is being expressed. Media portrayals of gang images contribute to this confusion. The public's perceptions about gang identity are often inaccurate or exaggerated due to media representation. General knowledge of gang identity and the reality of gang identity are often far apart.

Searching for solutions

Clearly, there are dangers present in both the presentation and interpretation of gang identity. But in addressing these dangers, should the answer be to control the way that adolescents look, or to begin searching for a new way to think about style? As stated earlier, the potential side effects of limiting options are great. The possibility

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of creating more problems as a result of half-baked solutions is another danger. We need to find ways to provide safe environments and avert potentially violent situations while providing supportive situations for positive youth development.

We believe what is needed is a multidisciplinary approach that brings in many perspectives and sheds light on the complexities involved.

A seminar was held at UC Davis in April 1994 on issues relating to gang identity. Called "Gang Identity and Clothing Style — Sharing Perspectives, Seeking Solutions," the seminar addressed issues of gang violence and the role of identity in gang violence. The meeting drew representatives of law enforcement, schools, community-based organizations and research institutions. All had been impacted by gangs, some on a daily basis.

Several themes emerged that bear consideration:

- We need to target behavior, not appearance. Although clothing and appearance can help define a situation, there is no evidence to suggest it makes a difference in how people behave.
- We need to find ways for kids to begin taking responsibility for their environment and to help structure safe solutions.
- We need to link positive learning experiences to what kids already enjoy and do well. Communities need to create attractive alternatives to gang membership.
- Kids need to feel respect and power, and not have their autonomy blocked through inappropriate administrative control. We need to find ways to encourage positive development of self-esteem.
- Solutions to gang violence will come through addressing the root causes of gangs: poverty, family disinvolvement, lack of positive role models, etc. Simply controlling clothing options is only a Band-Aid solution.
- We need to proceed in interdisciplinary ways. This is a complex situation and it will take a multifaceted effort to turn kids away from gangs.

The gang identity seminar may serve as a model for ways in which the University and others can set the pace for addressing complex, real-world problems. The critical nature of problems facing society today, including those of gangs and violence, requires a shift in approach. What is the nature of the solution? Is it a quick fix? Or should we go beyond the surface and find new ways of thinking about the problem?

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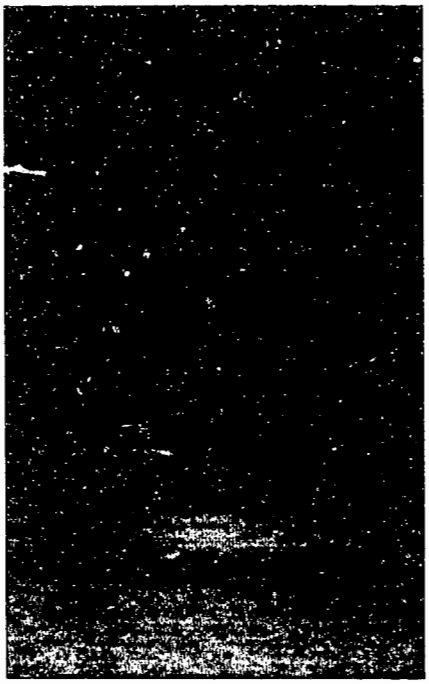

Gang-specific tatoos, *above*, leave little doubt about gang identity. *Below*, a "mad dog" stare, or flash of a gang hand sign may be all that is needed to ignite violence.

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