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The Beginnings of Social Marginalization:
An Arizona Example

by

Harry Ayer, Edwin Carpenter, Dana Deeds,
and William E. Martin

WRDC Discussion Paper No. 6

May, 1975

A Regional Center for Applied Social Science Research
and Community Resource Development Cooperating with
Land Grant Universities in:

***Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana
Nevada, New Mexico, Oregon, Utah, Washington and Wyoming;***

and located at
Oregon State University
Corvallis, Oregon

A C K N O W L E D G E M E N T S

Research for this article was supported by the Agriculture Experiment Station at The University of Arizona and by Grant Nos. 216-15-98 and 316-15-95 from the Cooperative State Research Service, USDA, and Grant No. GA SS 7404 from the Rockefeller Foundation. The research reported is part of Arizona's contribution to Regional Research Project W-115.

Harry Ayer is Associate Professor of Agricultural Economics, Edwin Carpenter is Assistant Rural Sociologist, Dana Deeds is Research Associate and William Martin is Professor of Agricultural Economics, all in the Department of Agricultural Economics, The University of Arizona.

The authors wish to express appreciation to Jan Newton and Harland Padfield for reviewing the paper and offering suggestions. The authors are, of course, responsible for remaining faults.

An earlier draft of this paper was presented at the 1974 American Anthropological Association meetings. The manuscript is Paper No. 127 of the Agricultural Experiment Station, The University of Arizona.

These papers are preliminary draft documents containing tentative results, thoughts, concepts, etc. They are intended for circulation among administrators and working scientists in the region to keep them informed of the Center's work and to stimulate discussion and meaningful exchange, one purpose of which is to assist the authors in developing a more finished manuscript for formal publication in an appropriate journal at some future date.

Responsibility for the views and the editing in this paper is that of the authors only.

THE BEGINNINGS OF SOCIAL MARGINALIZATION:

AN ARIZONA EXAMPLE

Various forces from a person's environment cause him to act as he does. When economic forces in rural communities produce unemployment, the social, political, and economic environment surrounding some unemployed render the person "set-up" for marginalization. That is, some unemployed have greater incentives to invest their time and other resources in the type of human capital utilized in the marginal society of welfare and quasi-legal and illegal activities, rather than to invest their resources in human capital for mainstream society. Once marginalized, a person stands little chance of reentering mainstream society. This paper is a preliminary report on intensive, in-depth research into the forces surrounding unemployed families in two rural Arizona communities. An investigation of these forces indicates why the families make the type of human capital investments--those for mainstream or those for marginal society--which they are making.

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Introduction

The continuing failure of government and the private sector to resolve problems of poverty is exemplified by the data on the proportion of U.S. families with incomes less than one-half the median family income.^{1/}

	<u>Percent of Families With Less Than One-Half Median Income</u>
1947	18.9
1950	20.0
1955	20.0
1960	20.3
1965	20.0
1970	18.9
1973	19.3

As shown, the proportion has remained virtually unchanged for at least the last 25 years and nearly one out of every five families remains poor. This failure has occurred in spite of numerous government programs and substantial research into the causes, effects, and possible remedies to the poverty problem. A significant share of those in poverty, we hypothesize, are permanently expelled from mainstream society--they have been marginalized. Not only is the socially marginalized person likely to be poor, but he has given up attempts to interact with mainstream institutions including the mainstream job market. Rather, he derives social and psychological support from a social system composed of marginalized persons and income is derived from the system of welfare or from quasi-legal and illegal activities. Before policy to ameliorate marginalization can be effectuated, the process of marginalization must be known. It is a maintained hypothesis of our research that previous work has not adequately

dealt with the causes, effects, or the remedies of poverty and marginalization. Many variables which influence a person or family to "drop out" of mainstream society--i.e. become marginalized--have been omitted from much of the received doctrine, or at least have not been dealt with in the appropriate systems framework. This view of past research is supported by the low R^2 obtained in most previous empirical studies of poverty and human capital.^{2/}

The objective of this paper is to report on research into the "set-up" stage of social marginalization. The "set-up" refers to the circumstances causing a depreciation of a person's human capital from that desired by mainstream society to that more useful in marginal society. Our study attempts to focus a microscope on the roots, effects, and especially the processes of marginalization in two rural mining towns in Arizona by studying in-depth, over a period of time, a limited number of families who appear to have a high probability of becoming marginalized. Preliminary results suggest why the unemployed act as they do, and hence why they may be "set-up" for social marginalization. Ultimately, of course, our research should suggest ways to interrupt the set-up for marginalization.

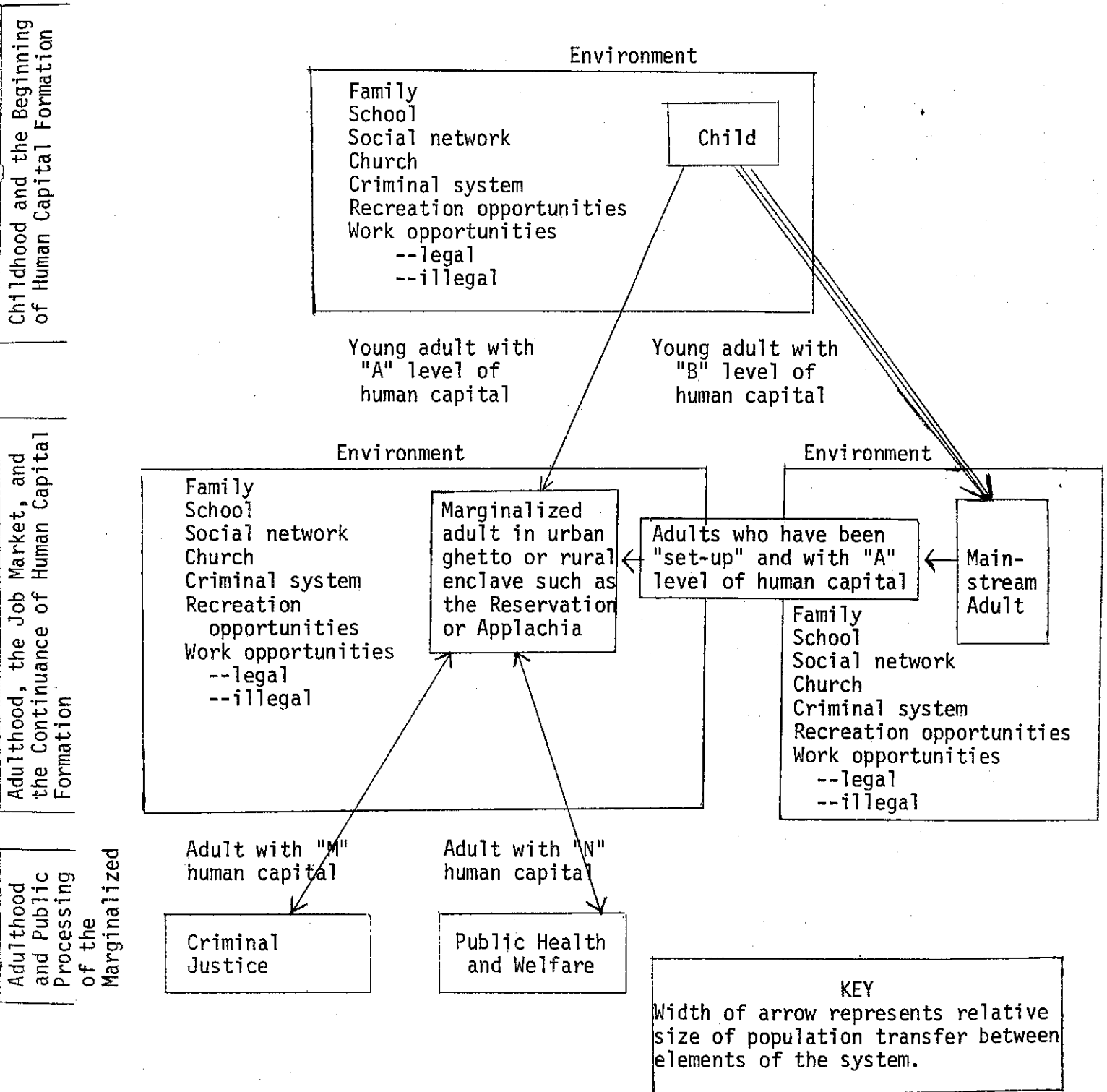
The paper is in three parts. The first part summarizes and interprets the current theory of social marginalization as developed by Padfield and Young.^{3/} The second part describes the site from which we have selected potentially marginalized families and presents a brief description of the in-depth interviews with these families. The final part relates our family interviews and other observations to the theoretical framework, and suggests why the recently unemployed do what they do and hence why they may be set-up to become socially marginalized.

A Summary of the WRDC Theory of Social Marginalization:
An Economic Interpretation

In their schematic of the "human resource processing system," Padfield and Young present a triad depicting the principal components of the system within which people become socially marginalized. The triad they present, of course, is a simplification of reality. Here we diagram and briefly explain a somewhat more complete model of social marginalization--also a simplification. Our formulation is in many respects similar to that of other human capital theorists, though we take a much more microscopic view of the process than others. It is part of the maintained hypothesis of our research that such a microscopic view will unveil factors and interactions for which adequate account has not previously been taken.

People acquire human capital and are able to obtain employment through their interaction with various components of their culture and environment--the human resource processing system. We view all components of the human resource processing system as parts of a simultaneous system of supply and demand equations. The principal actors of the system are depicted in Figure 1. Following Padfield and Young (and other human capital theorists), a person (child or adult) is seen as a firm which supplies a set of goods and services and in turn demands factors of production and final goods and services. These demands and supplies are influenced by various factors: for example, the supply of a person's particular type of labor (crime labor for example) is influenced by the price of that kind of labor relative to the price of other labor he might supply (factory work), the price of leisure and other factors.

FIGURE 1. HUMAN RESOURCE PROCESSING SYSTEM



Each person lives within an environment composed of various components (family, job market, etc.). Each of these components also acts as a "firm" and demands certain inputs and/or final products, and supplies certain inputs and/or final products to people in the human resource processing system. Families, for example, supply the child with love, food, medicine, and other elements to build the child's human capital. The family's supply of these elements is influenced by the price (or expected returns) of these elements relative to the price of other products (for example, factory labor) which might be supplied, the family's stock of human capital, and a variety of other variables. The family also demands various goods and services; the demand for any one good or service being influenced by another set of variables.

The "human resource processing system" has time dimensions. Investments in children come to fruition as the child ages and begins to supply his human capital to a market. Correspondingly, a young adult undergoes a change in his human capital over time, and may be continually employed in mainstream society, or may pass into a job market and environment dominated by the marginalized. Once marginalized, people often run afoul of the law and their environment is greatly influenced by the system of criminal justice. Other marginalized people have high involvement with public health and welfare institutions. Since many participants in both the system of criminal justice and welfare are permanently marginalized from mainstream society, they are in effect simply processed without acquiring the type of human capital necessary for entry (or reentry) into the mainstream.

Our brief discussion of time has touched upon human capital transformation as a child ages to adulthood, the positive transformation of human

capital of mainstream jobholders, and failures of the criminal and health and welfare systems to positively change the human capital of marginalized people. A fourth transformation of human capital is referred to as the "set-up". The set-up is the preparation of certain mainstream jobholders for marginal society. Sometimes preparation begins with job displacement and continued underemployment or unemployment as the job applicant is rejected by potential employers. Set-up continues as the elements of a person's environment (family, social network, church, etc.) make human capital investments in the person which suite him more for the demand of job markets in marginal society (such as crime or welfare) than for a job in mainstream society.

Job displacement has been common in rural America. Large numbers of cotton pickers and sharecroppers in the South^{4/} and tomato harvesters^{5/} in other areas were left unemployed as mechanization predominated these industries. Rural Appalachians were left unemployed as coal mines closed.^{6/} Many of those displaced found new mainstream employment, but many--those who were "set-up" by their environment--did not. A large proportion of those who were set-up eventually migrated to city or rural ghettos--locations of high concentrations of marginalized people.^{7/} In the West, faltering mine^{8/}, timber^{9/}, sugar^{10/}, and farming^{11/} industries have displaced mainstream workers. Current studies^{12/} of displaced workers from these Western industries focus on the "set-up" stage of social marginalization in rural communities--that is they investigate those supply-demand forces of the unemployed person-firm and his environment which condition his human capital more for marginal than mainstream employment.

Those factors which influence the supply of a person's human capital to mainstream or marginal society, once he has become unemployed, are of particular interest in the present study. An investigation of such factors will help suggest why the unemployed may become marginalized--how it is that he is "set-up" and subsequently unlikely to regain a place in mainstream society. A listing of the factors which influence his supply of labor to mainstream society is given below. Exactly the same factors influence his decision to offer his services to "marginal" activities. The supply equation is not fully specified. Some variables may be missing, and these we hope to "pick up" in part through our in-depth case study approach to the research. No time and location subscripts are attached to each variable, though they need to be before the system is made operational in an empirical sense. Also, to be made empirically operational, the variables need to be defined in a more measurable way.

Supply: the quantity of labor supplied to mainstream society (Q) = a function of the following:

- a. price of (fees, tuition, transportation) public adult education
- b. price of private adult education
- c. price of subsidized on-the-job training
- d. price of informal on-the-job training
- e. price of knowledge of educational opportunities
- f. psychic costs of education
- g. expected returns to investments in adult education
- h. language
- i. ambition
- j. ability to participate with others

- k. fear of the unknown or of failure
- l. price of knowledge of job opportunities
- m. price of moving
- n. benefits of extended family
- o. price of consumption goods and services
- p. price of psychic reinforcement from family, friends, religious groups
- q. years of education
- r. income
- s. wealth
- t. expected returns to investments in other human capital inputs, such as those demanded by non-mainstream jobs
- u. monetary benefits from unemployment such as from ADC, food stamps, unemployment compensation
- v. number and age of dependents

A more complete specification of the human resource processing system, including the demand equations of mainstream and marginal employers and supply and demand equations for private and public adult education is given in Appendix A. Our research is still proceeding toward an investigation of these components of the system.

Observations to Build and "Test" the Model of Social Marginalization

Arizona observations to build and test part of the model of social marginalization are taken from the mining communities of Bisbee and Douglas. Data have been gathered through in-depth interviews of recently unemployed people and from secondary information concerning the institutions of the communities. The following two sections present a brief history and description of the sites and a short description of the interview process.

Setting and History

The Bisbee/Douglas area lies in the far southeastern portion of Arizona. Bisbee and Douglas are 20 miles apart and share a great dependence on copper mining and smelting. The population of Bisbee in 1970 was 8,329 and had declined 14 percent since 1960. The Douglas population, however, has grown slowly from 11,925 to 12,462, or by 4.5 percent, during the same period. The mining town of Bisbee has 1,480 people on the Phelps Dodge payroll, and Phelps Dodge hires 800 people in Douglas where its smelter is located. Over half of the population in Bisbee are people of Mexican heritage. In Douglas--a border town--over three-quarters are of Mexican descent. Per capita income in Bisbee was relatively high in 1970--\$2,877. In Douglas per capita income was relatively low--only \$2,160. Both towns have relatively high rates of unemployment, 6 percent or greater.^{13/}

Bisbee is one of the oldest mining centers in Arizona, beginning in 1878 as a typical rough camp spread down Tombstone Canyon in the Mule Mountains. After several failures and roller-coaster hopes, a large body of ore was discovered. The main mine shaft to the ore was called The Copper Queen. This so-called "glory hole" was for 40 years the mainstay of the Phelps Dodge Corporation. It yielded 2 billion pounds of copper and a hundred million dollars in profits for the company. A second and highly successful competitor with Phelps Dodge was the Calumet-Arizona Company which made a rich strike in the 1890's. The town thrived on the inter-company rivalry.

In 20 short years after its founding in 1878, Bisbee was thought of as "the most important town between El Paso and San Francisco," and the men

who guided her destiny planned and built in grandiose terms. Numerous large brick structures were built--symbolized by the Pythian Castle and the Copper Queen Hotel--and the town even boasted a large opera house with seasons including companies from as far away as Europe. The famous Brewery Gulch ran 24 hours a day as men and women put on their own sort of opera--drinking, carousing, and fighting--a strange mixture of the frontier and the metropolitan. By 1910, Bisbee reached its peak population of 18,000. But the town was destined to follow the primordial laws of all such "camps". The fortunes of the town went up and down according to the price of copper and the ore quality--down during the depression and up again during the Second World War. Improved technology and open pit mining has extended the Bisbee operation past projected shut-downs numerous times. In 1952 the Lavender Pit opened and provided jobs for 600 new workers. Since approximately 1960, the cloud of a serious phase-down has hung over the town with projections that the Lavender Pit would soon exhaust its ore supply. And during the winter of 1974-75 the combination of depressed copper prices and depleted high grade ore caused Phelps Dodge to dismiss several hundred miners at Bisbee. Some were transferred to other mines, but over 300 joined the ranks of the unemployed and filed for unemployment compensation with the Department of Economic Security.

Some new signs of diversification centering around Bisbee's striking landscape, historical importance, and tourist potential are appearing. But it is generally understood that the core industry is of enormous importance to the town and provides vital support to virtually all of its institutions.

Parts of Bisbee appear practically abandoned, although many of the older buildings exhibit architectural strength. Only a few structures have been built in the last several decades and the town seems to be in a stage of suspended animation if not decline. Its inhabitants appear to be in the throes of a "psychology of uncertainty."

The history of Douglas also is steeped in the importance of copper. By 1900, space and water problems in Bisbee stimulated the industry's leaders to found a new city and smelter site on the plains 20 miles to the southeast. The new town, named after James Douglas, the brilliant head of the Phelps Dodge operation in Bisbee, was well planned and by 1910 had grown to a population of nearly 12,000. This incredible growth in 8 years encouraged its visionaries to think of Douglas as potentially a "second Denver". It did provide a labor force to man the smelters for ore arriving from Bisbee and another mining operation in Nacozari, Mexico. Though Douglas also has suffered the vagaries endemic to the mining industry, Douglas' citizens have seemed determined to diversify its economic base and have succeeded to a degree. The border industries program, local agricultural production, and trade with Sonora all contribute to lessen dependence on the smelter. Also, the smelter itself services several mines--not only the Phelps Dodge mine at Bisbee. Given a sharp mining curtailment, this town's future, though far from certain, seems somewhat more optimistic than that of its parent Bisbee.

Mining is a highly specialized activity and few options remain to workers beyond the traditional option of striking tents and moving elsewhere when job cutbacks become reality. This climate of uncertainty and limited options face the families participating in the study. A decision to remain where fathers and grandfathers worked is fateful. It is within this setting that

our research group is attempting to follow the adaptation of human resources to their economic and institutional environment, and to learn about the beginnings of social marginalization.

Family Observations and the Interview Technique

In-depth interviews were conducted with selected families in the Bisbee-Douglas communities. Selection focused on families in which the main income earner, in the age bracket 22 through 55, had become unemployed for any reason within the previous six months.

The initial questionnaire administered to participants was extensive and took an average of three hours to complete--usually in two separate sessions. Topics surveyed included a very detailed job history with hard data on wages, benefits, and periods of unemployment; a residence history; a list of activities and memberships; a detailed list of assets, liabilities, and income; and a detailed budget of monthly expenditures. After the initial interview and completion of the questionnaire, the interviewer returned to the informants' homes at two to four week intervals to learn of new activities in the household. Field notes were recorded after each interview and these notes, plus debriefing sessions between the interviewer and the other members of the research group, provide key data and insights into the process of marginalization.

The interviewer is, of course, a key link in retrieving the type of personal data needed for the study. His job is full-time. Personality, rapport, and the ability to communicate in both Spanish and English, have been important traits in the success of the interview process. In addition, his perception of previously unforeseen factors which influence the formation of human capital has been crucial.

What Has Been Learned: Factors Affecting the Supply
of a Person's Human Capital to Mainstream Job Markets

The in-depth interviews of recently unemployed families relate directly to the equation for the supply of human capital to mainstream and marginal society. This equation, which was based upon economic theory and the WRDC framework of social marginalization, coupled with the Bisbee-Douglas observations, helps in understanding why people act as they do and hence why some people are "set-up" for marginalization. Our observations have not provided data on all the variables of the supply equation, but many of the most important factors were observed in our case studies, and the relationship between these factors and the deployment of human capital in the set-up is discussed here.

One important set of factors which affect the supply of a person's labor, skill, or intellect are the various costs of acquiring talents which can then be offered for sale. That is, the price of public and private adult education and formal and informal on-the-job training, including the price of acquiring knowledge about such opportunities, will affect the amount and type of talents supplied. We emphasize that "price" is a general concept, and includes much more than costs simply in terms of market prices.

Observations from Bisbee-Douglas suggest that the dollar costs of education-training programs are not particularly high. Cochise College, for example, is located on the outskirts of Douglas and offers courses, in response to demand, to train nurses' aides, cashiers and sales persons, and people for the needle trade. The programs for nurses' aides and cashiers and sales persons are work study programs. One-half their time is spent in training at the College

and one-half time is on-the-job. Over 80 percent of the participants have obtained employment before or upon completion of the course. The course is offered in 13 week periods and costs \$30.

Periodically, when job openings in the industry merit, a needle trades program is offered by the College and is designed to train participants for occupations in border-industry garment firms. Jobs are guaranteed upon completion of the course. The course duration is geared to a student's rate of learning (the average is one month) and classes meet for eight hours five times per week. The cost of the course is subsidized by the N.E.T.A. program.

The Douglas Community School System also offers a limited number of vocational courses for adults including typing, shorthand, and English. The time of courses vary, but run for an average of 13 weeks and usually meet twice per week for two hours each time. The course cost varies considerably according to subject.

The Cochise County Career Education Program offers opportunities for training in carpentry, welding, typing, shorthand, English, auto mechanics, and electricity. The program is subsidized by a government grant and costs participants only \$10 for a six-week class which, in most cases, meets three times a week. The night classes are offered in Bisbee, and are well advertised on posters, in newspapers, and on the radio in both Spanish and English. Some 500 people participate in the courses.

Other skill training opportunities are available through non-formal educational institutions. For example, Bernie, one of our study participants, has recently acquired trainee status with an independent contractor who specializes in office equipment repair. Bernie receives \$4.17 per hour--two dollars

of which is paid by the state government as part of a manpower training program for veterans. A similar incentive program is offered to non-veterans, though few openings exist.

Other opportunities include an ongoing adult English class offered at night in Douglas, where Spanish-Americans, including those in our sample, have ready access. There is a special rehabilitation program for the disabled offered by the Department of Economic Security in Douglas, and there is the opportunity for those who haven't received a high school diploma to obtain free study books and prepare for and pass the G.E.D. examinations.

With the possible exception of psychic costs, none of the costs--including the opportunity costs of spending time taking courses instead of participating in an alternative activity, the costs of learning about the educational opportunity, the cost of travel, and the fees--appear to be a major obstacle for participation in education-skill programs. In spite of the apparently low costs, only one of the informants in our study has participated. We hypothesize these costs are being outweighed by other factors including the possible psychic cost associated with a feeling of inferiority and a fear of inability to cope in a "classroom" situation but particularly a person's expected returns to education given his decision to stay in the Bisbee-Douglas area. For example, Fred, an interviewee, feels the quality of the training facilities and programs are inferior to the services offered at Casa Grande (more than 100 miles away) and jokes that he should become a drunk since he's heard more money is spent on alcoholic rehabilitation than on training facilities.

Four of the families in the study are first generation migrants from Mexico, and have poor English skills. Even in construction work, the language

barrier is detrimental, and Manuel comments, "I always say I can do any god-damn job when the boss asks even though I'm not sure what he is saying. Usually I get it done although sometimes it gets me into trouble." In spite of the language problem and course offerings in their community, none of the families participate in the courses. Again, their perception of the quality of the course, and hence the eventual benefits, is one of pessimism. Manuel argues that friends have told him the courses are not effective and he's observed their discouragement.

Perhaps a very significant determinant of expected returns to investments in education and training is the lack of job opportunities in the area, coupled with an unwillingness of our participants to move. A previous section has indicated that the official rate of unemployment in Bisbee and Douglas is relatively high--6 percent or greater. Some knowledgeable people estimate the true rate of unemployment in Douglas to be 10 percent. Half of the participants were engaged in the construction industry and in Bisbee-Douglas, as well as in the nation, this industry is undergoing severe stress. Even if interest rates would drop and spur the industry nationally, it is doubtful that building in these stable or declining towns would be greatly affected. Thus, given a decision to "stay" in the community, there is little incentive to tool up for jobs which are not perceived to exist.

Pessimism concerning job opportunities is not the result of difficulties (high cost) of obtaining knowledge of job openings. Indeed, our informants can, and several do, canvas the job market openings in a half day or less. Several formal channels exist, and appear to work well, to funnel news of job openings to anyone exerting the slightest effort to learn. The Department of Economic Security offers an elaborate service whereby current job openings

throughout the state are listed on a scanning machine in the Douglas and Bisbee offices. Thus, without enduring lines or possible hassles of person-to-person communications, new job openings can be readily discerned. If the candidate wishes, personnel at the D.E.S. are ready to visit personally with him, and when a person registers for food stamps or unemployment compensation, they are directed to the employment services of the D.E.S. (located in the same building). The D.E.S. also establishes close contact with local employers to be kept particularly informed on job openings in the local community. In addition, literature and counseling are available on how to interview and on different types of occupations. Participants have surprisingly little criticism of the employment service given the situation.

The union is another source of job information. Three of our respondents were union members, and by registering their names at the union hall, they are placed on the list to be notified of openings. The only "cost" to the participant is that he must present himself once a week for roll call, and if he misses more than three consecutive roll calls his name drops to the bottom of the queuing order.

Finally, job information via word-of-mouth is effective within our sample network. Past work histories of the families indicate that they have learned of job openings in this way.

The price of moving also affects a person's decision to offer human capital to the labor market. Thus, even if there are job opportunities in other places, high moving costs will inhibit a supply response. The cost of moving appears to be a very significant factor in our study. Not only must a family bear the monetary costs of the physical move but, perhaps more importantly, it must incur the non-monetary cost of foregone benefits of the extended family system. Seven of ten families have parents or siblings in

their community, and in each instance the extended family significantly aids in the provision of daily needs. Eric's parents frequently supply a meal-time dish, the parents of Fred and Jenny provided living quarters, the Vargas family receives the use of a car from his parents, and Fred reports his father gives him a "few dollars, now and then." The ready availability of these necessities from parents or siblings reduces the risks of unemployment in the short run, and such risks, which may be translated into costs, would surely increase in the family were to move. Some would argue that, in the long run, the subsidization of these unemployed by their extended families may be counter productive.

The low price of housing in Bisbee also makes the cost of moving high. Many houses are vacant and rents are very low. One family, for example, pays \$20 per month in housing rent.

In addition to the social and economic costs of moving, there are psychic costs of giving up family and friends and the environment of the local communities. Perhaps the most striking example is the statement by Bernie and Carrie, "We are needed here in a religious sense." The family is a member of the struggling Bahai faith in Bisbee.

Thus, it appears that for several reasons, these communities are a relatively comfortable place to live on private and public welfare. In only two of the ten cases has moving even been considered. In fact, there are some indications that some families are moving to the area simply to subsist on public welfare. Many of these people are perceived as "hippie" families and have resulted in considerable community controversy and concern on the part of local officials.

The psychic reinforcement of family, friends, and institutions such as the church also may affect a person's offering of his human capital. In approximately half of our families the spouse is passive in the family's decision making process. This is especially true in Mexican-American families in which the husband and/or wife has recently come from Mexico. In other families, again approximately half, unemployment is causing serious interpersonal family conflicts, and the wife does pressure the husband to "get a job." The influence of the church is also noticed in the attitudes of most of the participants. Families tend to be regular in church attendance-- even the husbands attend two to three times a month. The influence of the traditional Catholic Church is reflected in their statements such as "today is today and tomorrow God may provide." This sense of fatalism may well impact on a person's desire to seek employment or, at the least, help the family rationalize their difficult economic status.

The level of education, income, and wealth are commonly suggested as factors influencing the amount and quality of talent supplied. Most of the former wage earners in our sample have a high school or lower level of education, and some obviously regret not having "finished". Recent immigrants from Mexico, on the other hand, don't regret their low level of education-- they are simply glad to have made it "across the border". The income and wealth position of the families is also very low. The most wealth which has been accumulated is an old car, some meager household furnishings, and in two cases, a ramshackle house. Most of the families lead a somewhat hand-to-mouth existence, i.e. when they have money they spent it, when they don't they don't. There are indications that some have experienced credit difficulties and now no formal credit is available. Were it not for the low cost of educational opportunities, their income and wealth positions would likely preclude formal investments in human capital.

The expected returns to investments in human capital (including the investment of time to be used in non-mainstream jobs is also hypothesized to influence a person's supply of human capital to mainstream society. Thus, Tod and Fred view the potential returns from pool and cards as being relatively high, and they spend considerable time as pool hall hustlers, and setting up and playing high-stake poker.^{14/} And although there is not evidence of participation by those in our sample, the returns to drug running in these Mexican border communities is high. A brick (kilo) of marijuana, for instance, sells for \$50 in Agua Prieta. A few feet across the border in Douglas the price becomes \$70. In Tucson the price is \$90. The traffic of harder drugs is also of considerable importance in these and other areas of Arizona. Of course, the potential costs may also be high, since the police and courts have a great deal of latitude in the type and severity of punishment.

Conclusions

Our conclusions are tentative, of course, because what is concluded is in part dependent on how the researchers view the observations, and because much data remains to be collected. For example, our discussion has focused on current events and circumstances which promote set-up. However, it is quite possible that the set-up began years ago for the unemployed. Accordingly, the level of schooling attained in earlier years is likely affecting our respondents ability to reenter the mainstream today. On average, the heads of households in the sample families had but 8.2 years of formal education. Psychic and social characteristics of the respondents, acquired in earlier years, may also influence their ability to pursue mainstream employment as

well as influence potential employers demand for their services. In Eric's case, his employability is hindered by a drinking problem which began when his brother was killed in a car accident after the two had been drinking. Other elements of health, largely determined at an earlier time, may have an effect. Thus it may be that the visually distracting facial characteristics of Mona, caused by poor teeth, have hindered her ability to obtain work.

The extent to which businesses, schools, the system of law and other institutions are "causes" of the set-up have also not been fully explored here. Some students of poverty hypothesize that the dominant industry in a rural town will promote the retention of people to support its labor force needs. Should the dominant industry stagnate, the work force may be unprepared for new jobs in new places. The advancement of particular kinds of educational programs is one possible method to help entrench the labor force. Or wage discrimination, based on race, may prevent a worker from acquiring the financial resources to improve his human capital and move. We don't know how our particular families were affected. However, at least today, these concerns do not appear to apply to Bisbee. Phelps Dodge quietly relinquished its historic "control" of two of five school board seats several years ago, and today the average reading skills of Bisbee schoolchildren are above national and state averages. The promotion policy of Phelps Dodge, from our limited information, has not been race discriminatory. Mexican-Americans customarily reach the highest level of blue-collar job assignments.

These caveats and additions aside, our study to date appears to bear out several important factors which may promote rather than rebuff the set-up for marginalization. First, governmental agencies which are supposed to improve the development and use of human capital, including unemployed people,

are not touching most of our participants. This is true in spite of the fact that by many measures the governmental agencies are indeed performing well: training-education agencies offer a variety of programs, many people participate in the programs, and the cost to participants is low. Certainly this observation raises questions about which people are being served, why those who are unemployed (at least those in our sample) are not being significantly aided, and what institutional changes might be enacted to better reach the unemployed.

Benefits received by the unemployed from the extended family are substantial. These help sustain the family; but simply being sustained in a community faced with economic uncertainty and possible decline does more to set a person up for marginalization than to help him reenter mainstream society. The lack of credit to move out of the community and the rationalization for unemployment provided by church doctrine also contribute to the set-up.

Thus, we find that while both governmental and nongovernmental institutions in this rural setting appear to be providing needed economic and psychic support to the people of the area, the probable long-run effects of both sets of institutions will be to support the process of marginalization of the people who need the help the most.

NOTES AND REFERENCES

1/ There are two important reasons for defining families in poverty as those with incomes less than one-half (or some other fraction) the median family income: (1) this method accounts for our ever-changing concept of poverty, and (2) the method begins to grapple with the income distribution question. A good discussion of this measure of poverty and its advantages over other measures is given in the chapter by Victor Fuchs, "An Alternative Income-oriented Definition," in the edited book by Robert Will and H. Valtes, Poverty in Affluence, Harcourt, Brace and World, New York, 1970, pp. 14-18. Statistics on the proportion of families with less than one-half the median level of income are computed from data in the U.S. Bureau of the Census, Current Population Reports.

2/ For example, in an important empirical study by B. Harrison, "Education and Underemployment in the Urban Ghetto," American Economic Review, December 1972, pp. 796-812, none of the eight equations used to determine the impact of education and other factors on the incomes of people in central city poverty areas account for more than 43% of the variations in income--and five of the eight equations have an R^2 of less than .30.

3/ Harland Padfield and John Young, "The Institutional Processing of Human Resources: A Theory of Social Marginalization," Western Regional Development Center Discussion Paper No. 1, Oregon State University, October 1974.

4/ John Martin, "The Income Distribution Impacts of the Adoption of Mechanical Harvesting of Cotton in the United States," unpublished M.S. Thesis, Department of Agricultural Economics, Purdue University, 1972.

5/ Andrew Schmitz and D. Seckler, "Mechanized Agriculture and Social Welfare: The Case of the Tomato Harvester," American Journal of Agricultural Economics, November 1970, pp. 569-570.

6/ Niles Hansen, Rural Poverty and the Urban Process, Indiana University Press, 1971, pp. 59-105.

7/ This "proposition" was made as a result of the inductive nature of the research project. Originally, we had expected to find marginalized people in rural areas. They were not found at our sites in spite of the fact that job displacement had occurred at the site. We hypothesize that marginalized people can and do exist only in particular environments--those of high concentrations of similarly marginalized people.

8/ Harry W. Ayer and M. Ross Layton, "Meeting the Economic Impact of Mine-Smelter Phase-Down in Bisbee-Douglas," Arizona Review, December 1972, pp. 1-5.

9/ Joe Stevens, "The Rationing of Diminishing Job Opportunities in the Oregon Wood Products Industry," paper presented at the annual meeting of the American Anthropological Association, Mexico City, November 21, 1974.

10/ Robert Anderson and Rebecca Pestano, "Social Impacts of the Abrupt Phaseout of the Pineapple Industry on the Island of Molokai," paper presented at the annual meetings of the American Anthropological Association, Mexico City, November 21, 1974.

11/ Jerry Moles, "The Decision to Leave Farming: A Northern California Example," paper presented at the annual meeting of the American Anthropological Association, Mexico City, November 21, 1974.

12/ The current studies are those supported by the Western Regional Development Center at Oregon State University at Corvallis. The research reported here is part of that work.

13/ Economic and demographic data are from the U.S. Censuses of 1960 and 1970, U.S. Department of Commerce, and from the Arizona Department of Economic Security.

14/ Fred, for example, estimates that he plays poker ten hours each week and earns, on average, \$150 per week.

APPENDIX A

A THEORETICAL SYSTEM OF SUPPLY AND DEMAND EQUATIONS
DEPICTING THE HUMAN RESOURCE PROCESSING SYSTEM

1. Supply and demand of human capital for mainstream society.

Supply: the quantity supplied (Q) = a function of (f) the following:

- a. price of (fees, tuition, transportation) public adult education
- b. price of private adult education
- c. price of subsidized on-the-job training
- d. price of informal on-the-job training
- e. price of knowledge of educational opportunities
- f. psychic costs of education
- g. expected returns to investments in adult education
- h. language
- i. ambition
- j. ability to participate with others
- k. fear of the unknown or of failure
- l. price of knowledge of job opportunities
- m. price of moving
- n. benefits of extended family
- o. price of consumption goods and services
- p. price of psychic reinforcement from family, friends, religious groups
- q. years of education
- r. income
- s. wealth

- t. expected returns to investments in other human capital inputs, such as those demanded by non-mainstream jobs
- u. monetary benefits from unemployment such as from ADC, food stamps, unemployment compensation
- v. number and age of dependents

Demand: $Q = f$

- a. price (wage) of human capital
- b. price of other inputs
- c. price (expected returns) of products produced
- d. age of candidate
- e. race of candidate
- f. sex of candidate
- g. language of candidate
- h. attitude of candidate
- i. education of candidate
- j. length of unemployment of candidate
- k. type of position held by candidate in past
- l. health and physical appearance of candidate
- m. technology of the firm

2. Supply and demand of human capital for marginal society

Supply: $Q = f$

- a. all factors which influence the supply of human capital to mainstream society

Demand: $Q = f$

- a. all factors which influence demand for human capital for mainstream society

3. Supply and demand of public adult education

Supply: $Q = f$

- a. price of teachers
- b. price of capital
- c. expected growth rate of region's population
- d. private costs and benefits to those with power of supplying different amounts of public adult education

Demand: $Q = f$

- a. all factors which influence the supply of human capital

4. Supply and demand of private adult education

Supply: $Q = f$

- a. price of private adult education
- b. price of teachers
- c. price of capital
- d. expected growth rate of population of community

Demand: $Q = f$

- a. all factors which influence the supply of human capital

5. Supply and demand of subsidized on-the-job training

Supply: $Q = f$

- a. all factors which influence the demand for human capital by businesses
- b. amount and type of government subsidy for on-the-job training programs

Demand: $Q = f$

- a. all factors which influence the demand for adult education

6. Supply and demand of non-subsidized on-the-job training

Supply: $Q = f$

- a. all factors which influence the demand for human capital by businesses

Demand: $Q = f$

- a. all factors which influence the demand for adult education

7. Supply and demand of consumption goods

Supply: $Q = f$

- a. all factors which influence the demand for human capital

Demand: $Q = f$

- a. all factors which influence the demand for adult education