

- Wells, M., Stokols, D., McMahan, S., & Clitheroe, C. (in press). Evaluation of a worksite injury and illness prevention program: Do the effects of the REACH OUT training program reach the employees? *Journal of Occupational Health Psychology*.
- Williams, A. F. (1982). Passive and active measures for controlling disease and injury: The role of health psychologists. *Health Psychology, 1*, 399-409.
- World Health Organization (WHO). (1948). *Constitution of the World Health Organization*. Geneva, Switzerland: WHO Basic Documents.
- Zalman, G., Duncan, R., & Holbek, J. (1984). *Innovations and organizations*. Malabar, FL: Krieger.
- Zelman, W. N., McLaughlin, C. P., Gelb, N., & Miller, E. (1985). Survival strategies for community mental health organizations: A conceptual framework. *Community Mental Health Journal, 21*, 228-236.

8

Job-Loss and Work Transitions in a Time of Global Economic Change

RICHARD H. PRICE
DANIEL S. FRIEDLAND
JIN NAM CHOI
ROBERT D. CAPLAN

We live in an era of dramatic economic, political, and technological change. In the United States, manufacturing industries are rapidly shrinking, and the service economy is growing. At the same time, in other parts of the world, planned economies are giving way to market economies (Porter, 1990). Technology is changing rapidly, and jobs that used to be done with strong backs are now being taken over by automated systems (Reich, 1990). All of these changes are producing economic restructuring on a global scale (see Figure 8.1), which in turn is producing dramatic transformations in the nature of jobs and work (Thurow, 1992).

AUTHORS' NOTE: Work on this chapter was supported by NIMH grants 5P30MH138330 and R10MH52913 to the Michigan Prevention Research Center, as well as by the California Wellness Foundation through Manpower Demonstration Research Corporation (96-90).

with these work transitions will depend heavily on where they are located in the social structure in terms of education, ethnicity, and gender. Individual differences in psychological resilience and in levels of social support will have an important impact as well (Dew, Penkower, & Bromet, 1991).

How individuals and families respond to these work transitions will depend heavily on the organized support systems available to them (Price, 1992). In most Western industrialized nations, some form of economic support and training is available to workers facing work transitions. Nevertheless, we believe that carefully designed programs to aid individuals and families in successfully coping with the transitions they face continue to be an important unmet need—not only in the United States but also in many other countries. Individuals and families will face continued periods of stress and coping in the process of negotiating work transitions. Many of these transitions will require new forms of family adaptation, including changes in family roles and responsibilities. Finally, work transitions such as job-loss and reemployment will also have important impacts on communities—in some cases, stimulating migration patterns and local efforts at economic development, and in others, changing patterns of friendship and work-family relationships in communities.

Necessity, Invention, and Reinvention

We believe that these myriad work transitions and their often deleterious effects present a compelling necessity for the invention of more effective organized support systems for individuals and families. In this chapter, we describe one important dimension of that compelling necessity—the impact of job-loss and economic hardship on individuals, families, and communities. We then describe one such *invention*—the JOBS program, developed by the Michigan Prevention Research Center—and we document the program's impact on reemployment, psychological well-being, and other outcomes. Even proven programs of organized support, however, are not automatically adopted and implemented where they are needed. Therefore, we examine three paradigms for the diffusion of innovations and conclude that innovations such as JOBS will, necessarily, require *reinvention*—mutual adaptation between the host

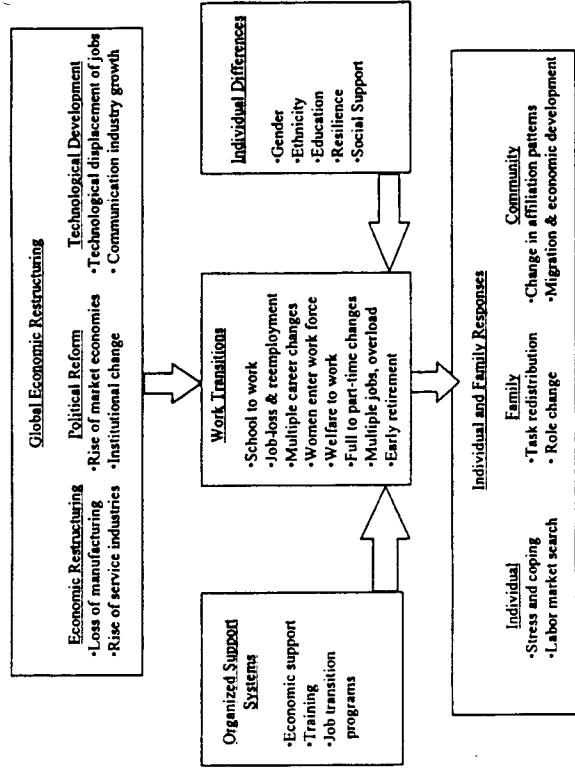


Figure 8.1. Global Economic Change, Work Transitions, and Individual and Family Response

Traditional jobs, involving a mutual commitment between worker and employer for full-time work in exchange for pay over the course of a working life, are rapidly disappearing. Downsizing, job displacement, the rise of a temporary workforce (Belous, 1989), and demographic changes, both in the United States and elsewhere, are producing job-loss and work transitions of unprecedented scope and variety. These work transitions not only involve job-loss and reemployment but also reflect changes in the nature of work and careers as women enter the workforce and as students strive to make the transition from school to work. At the same time, welfare support to families now involves a work requirement, which is producing new transitions from welfare to work (Bane & Ellwood, 1994). Many workers faced with low pay rates in the service economy (Danziger & Gottschalk, 1995) are taking on multiple jobs and are experiencing substantial work overload as a consequence. Finally, workers who have lost their jobs toward the end of their working life are facing the possibility of early retirement, often with the prospect of continuing economic insecurity. How individuals and families cope

organization or community and the innovation itself. Finally, we argue that a theory of the intervention is an essential guide to the process of mutual adaptation and for the accumulation of new knowledge.

Necessity: Job-Loss Impact on Individuals, Families, and Communities

Since the pioneering work of Jahoda, Lazarsfeld, and Zeisel (1933), job-loss has been a topic of research in social science. Research findings have documented the psychological and social costs of job-loss for the unemployed person, for individual members of the person's family, and for the family as a whole (Dew et al., 1991). In what follows, we review that research, with special emphasis on how job-loss and economic hardship have effects that influence individual, family, and community well-being.¹

Impact of Job-Loss on Mental Health. Job-loss has adverse effects on social and psychological functioning (Vinokur, Caplan, & Williams, 1987). Research indicates that job-loss leads to increased depressive symptoms (Catalano, 1991; Catalano & Dooley, 1977; Kessler, Turner, & House, 1988, 1989), increased anxiety (Catalano, 1991), decreased subjective perceptions of competence (Warr, Jackson, & Banks, 1988), and decreased self-esteem (Jackson & Warr, 1984). Job-loss is also associated with increased risk of suicide attempts (Platt & Kreitman, 1985), increased risk of alcohol abuse (Catalano, Dooley, Wilson, & Hough, 1993), and increased propensity for violent behavior (Catalano, Dooley, Novaco, Wilson, & Hough, 1993). Several studies have demonstrated that job-loss produces mental health problems that are significantly more extensive than any prior problems (Dooley, Catalano, & Wilson, 1994; Kessler, Turner, & House, 1987).

The Role of Economic Hardship. Studies have identified economic hardship as a key mediating influence between job-loss and depressive symptomatology (e.g., Kessler et al., 1987; Price, van Ryn, & Vinokur, 1992; Vinokur, Price, & Schul, 1995). Furthermore, substantial evidence suggests a relationship between economic hardship and health outcomes more generally (Umberson, Wortman, & Kessler, 1992).

Impact of Job-Loss on Family Members. Job-loss also affects members of the job-seeker's family (Dew et al., 1991; Elder & Caspi, 1988). The job-seeker's increased propensity for aggressive and sometimes violent behavior often manifests itself in the context of the family. Positive correlations have been found between job-loss and both spousal abuse (Windschuttle, 1980) and child abuse (Gil, 1970; Parke & Collmer, 1975). Research also indicates that the wives of job-losers have a higher prevalence of psychiatric disorders than wives of people who remain employed (Bebbington, Hurry, Tennant, Stuart, & Wing, 1981). Finally, job-loss has been linked with marital and family dissolution (Liem & Liem, 1988). The deprivation associated with economic hardship may affect physical health and general well-being of family members, both because of negative effects on nutrition and because of loss of access to health care. Poor nutrition because of economic hardship has its own radiating set of consequences on well-being. Poor nutrition can make both children and adults more susceptible to physical illness (Beasley, 1991). Malnourished children show lower levels of school achievement (Pollitt, 1994), increasing the likelihood of continued downward social mobility in later generations.

Because, in the United States, health insurance is frequently tied directly to paid employment, one of the most immediate consequences of job-loss is diminished access to health care for family members of the job-loser. Price (1990) has observed that families will often reallocate limited benefits among family members. For example, a family may seek treatment for children while neglecting acute conditions among adults. Individuals may fail to seek either preventive services or care for acute and chronic conditions. In these circumstances, acute conditions can become chronic, and chronic conditions may deteriorate still further (Price, 1990). These health effects, of course, also influence the capacity of unemployed persons to seek new employment that might reverse the flow of negative health and unemployment effects.

Impact of Job-Loss on Family Relationships. Still another set of findings implicates economic hardship and family dynamics in increasing the risk of poor mental health. Several studies suggest that the distress displayed by job-losers affects the well-being of their spouses (Liem & Liem, 1988; Penkower, Bromet, & Dew, 1988), as well as their children (Elder & Caspi, 1988; Justice & Duncan, 1977; Steinberg, Catalano, & Dooley, 1981). Recent results reported by Vinokur, Price, and Caplan (1996) implicate additional couple dynamics in influencing

the mental health of the unemployed person. Their analyses suggest that economic hardship increases depressive symptoms in both the job-loser and the spouse. The depressed spouse or partner then withdraws social support from, and increases undermining behaviors toward, the unemployed person. Both reduced support and increased undermining by the spouse then increase the depression and reduce the marital satisfaction of the unemployed person. These findings suggest that economic hardship associated with job-loss in a family has direct effects on the spouse or partner, which in turn erodes her or his capacity to support the job-loser, with predictable effects on the job-loser's mental health.

Finally, job-loss disrupts one's sense of identity, mastery, and competence in valued social roles as provider, spouse, and parent (Thoits, 1991). This role disruption takes several forms. Job-loss introduces new and pressing agendas into the family, including coping with financial hardship and mobilizing to find reemployment, and these can disrupt previously stable household role allocations and relationships (Conger et al., 1990; Menaghan, 1991). When role reallocation involves shifts in authority and status in the family, the resulting shift in power dynamics can lead to conflicts that threaten the short-term stability of the couple relationship (Atkinson, Liem, & Liem, 1986). Such a realignment can undermine the self-confidence of the job-seeker and partner in coping with job-loss, both individually and as a couple (Howe, Caplan, Foster, Lockshin, & McGrath, 1995; Vinokur et al., 1987).

Job-Loss and Community Processes. The impact of job-loss on community processes has been well documented in numerous studies, beginning with the classic study of Marienthal by Marie Jahoda et al. (1933) during the Great Depression. Jahoda and her colleagues found that unemployment influenced a wide variety of aspects of community life, including friendship patterns, how people structured their time, and their sense of identity and well-being. Job-loss may also alter an individual's network of friendships and social support. Loss of a job may result in loss of a primary source of contact with friends (Bolton & Oatley, 1987). Because friendships often arise and are maintained by proximity (Whyte, 1956), bonds of friendship are more difficult to maintain when people are no longer employed by the same organization. Over time, the frequency of contact with friends from the previous job decreases (Atkinson et al., 1986). Loss of friendship networks can erode mental health. Kessler et al. (1988) found that being integrated into an affiliative network reduced the impact of unemployment on anxiety,

depression, somatization, and physical illness of job-lovers. Their findings underline the importance of supportive friendships for identity and well-being.

Invention: The JOBS Program of Research on the Psychology of Job-Search

In 1982, researchers at the Institute for Social Research at the University of Michigan began a new program of research on the problems facing unemployed persons and their families. This continuous program of research conducted over the last 15 years has produced detailed information on the problems facing unemployed persons and their families, particularly those associated with job-search (Caplan, Vinokur, Price, & van Ryn, 1989), economic hardship (Vinokur et al., 1996), and family difficulties (Howe et al., 1995; Price, 1992). After a series of studies documenting these problems and analyzing the needs of unemployed workers and their families, the Michigan Prevention Research Center (MPRC) developed and evaluated the JOBS program to aid unemployed workers in effectively seeking reemployment and coping with the multiple challenges and stresses of unemployment and job-search (Caplan, Vinokur, & Price, 1997; Price & Vinokur, 1995).

The positive impact of the JOBS program has been documented and replicated in randomized trials (Caplan et al., 1989; Vinokur et al., 1995). New related programs have been developed for helping couples cope with job-loss and job-search (Howe et al., 1995) and with economic hardship (Vinokur et al., 1995). In a promising new development, private and public agencies in California, Finland, Israel, and China are investing in research and development and are adopting and replicating the JOBS program to respond to their own unique problems and needs in the area of job-loss and reemployment.

What Is the JOBS Program?

JOBS is a program for recruitment into, delivery of, and evaluation of a job-search, skill-enhancement workshop for unemployed job-seekers. The JOBS model has the dual goals of promoting reemployment and enhancing coping capacities for the unemployed and their families. The intervention workshop itself consists of five intensive half-day sessions held over a 1- to 2-week period. These sessions focus on identifying

effective job-search strategies, improving participant job-search skills, and increasing the self-esteem, confidence, and motivation of participants to engage in and persist in job-search activities until they become reemployed. JOBS is delivered by two trainers to groups of job-seekers consisting of 12 to 20 participants.

The program has five essential components:

1. *Job-search skills training.* Participants are invited to acquire and rehearse job-search skills in a safe and supportive learning environment, which is crucial for effective learning of new skills (Caplan et al., 1989).
2. *Active teaching and learning methods.* Trainers use nondidactic, active-learning methods to engage participants in job-search training. These methods use the knowledge and skills of the participants themselves as part of the learning process—elicited through small- and large-group discussions, role-playing exercises, and other activities (Caplan et al., 1997).
3. *Skilled trainers.* Workshop trainers are carefully chosen and rigorously trained to build trust and to work together in pairs to facilitate group processes that promote the learning of skills and the ability to cope with job-search tasks.
4. *Supportive learning environment.* In the workshops, trainers model and reinforce supportive behavior and work to create a positive learning environment through exercises that provide opportunities for participants to learn from and support each other. Social support is a key ingredient for new learning and facing challenges in the job market (Price & Vinokur, 1995).
5. *Inoculation against setbacks.* Program participants are provided with a problem-solving process to help them cope with the stress related to unemployment and the job-search process and the inevitable setbacks they will encounter. Part of the group problem-solving process involves identifying or anticipating possible barriers to success and advance preparation of solutions to overcome them. Inoculation against setbacks is fundamental to effective coping with an inherently stressful job-search process (Vinokur & Schul, in press).

What Is the Impact of JOBS?

A summary of studies on the impact of JOBS is presented in Table 8.1. The JOBS program has been evaluated and replicated in randomized

Table 8.1
Impact of the MPRC JOBS Program:
Major Findings (1989-1997)

<i>Major Findings</i>	<i>Research Report</i>
JOBS I	
- More rapid reemployment	Caplan, Vinokur, Price, & van Ryn (1989). <i>Journal of Applied Psychology</i> .
- Stronger search motivation	
- Better mental health	
- Higher earnings	Vinokur, van Ryn, Gramlich, & Price (1991). <i>Journal of Applied Psychology</i> .
- Favorable benefit-cost ratio	
- Impact greater with more exposure to program	Vinokur, Price, & Caplan (1991). <i>American Journal of Community Psychology</i> .
- Job-search self-efficacy key factor in impact	van Ryn & Vinokur (1992). <i>American Journal of Community Psychology</i> .
- Reduces risk of depressive episodes in high-risk participants	Price, van Ryn, & Vinokur (1992). <i>Journal of Health and Social Behavior</i> .
JOBS II	
- Replicates major JOBS I findings	Vinokur, Price, & Schul (1995). <i>American Journal of Community Psychology</i> .
- Improves mastery for all participants	
- Reduces depression in high-risk participants	
- Reduces depression by reducing economic hardship	Vinokur & Schul (in press). <i>Journal of Consulting and Clinical Psychology</i> .
- Inoculates against depression from second job loss	

trials involving thousands of unemployed workers and their partners (Caplan et al., 1989; Vinokur et al., 1995). The program returns unemployed workers to new jobs more quickly, produces reemployment in jobs that pay more (Vinokur, van Ryn, Gramlich, & Price, 1991), and reduces mental health problems associated with prolonged unemployment (Vinokur et al., 1995), particularly among those most vulnerable to mental health problems (Price et al., 1992). In addition, the program

has been shown to inoculate workers against the adverse effects of subsequent job-loss (Vinokur & Schul, in press). In comparison with control group counterparts, program participants who regained employment and suffered a second job-loss did not experience the same discouragement and increased depressive symptoms that afflicted control group participants who had the same labor market experience. The JOBS program inoculates participants against subsequent job-loss setbacks because they gain an enhanced sense of mastery over the challenges of job-search (Vinokur & Schul, in press).

Reemployment, Improved Mental Health and Cost-Benefit. In the initial series of outcome studies of the JOBS program, Caplan et al. (1989) found that JOBS participants showed higher job-search motivation, were reemployed more rapidly, and showed better mental health outcomes than control participants. These findings suggested that the JOBS program was achieving its goals of enhancing participants' motivation and skill, leading to reemployment and better mental health. In a subsequent study, Vinokur, van Ryn, et al. (1991) also found that participants in the JOBS program had, on average, higher earnings than those who did not participate and that the JOBS program demonstrated substantial cost-benefit effectiveness because higher earnings led on average to higher tax revenues for governments.

Higher Practical Impact. As in all social programs, not all people invited to the JOBS program attended. When analyses were confined only to those people who actually attended the JOBS program, the actual amount of impact of the program was shown to be approximately twice as large as it was for all invitees in the randomized trial (Vinokur, Price, & Caplan, 1991). This finding is particularly important because it suggests that the practical impact of the JOBS program is much larger than the conservative lower-bound estimates provided by strict adherence to the randomized-trial evaluation design.

High-Risk People Benefit Most. MPRC researchers suspected that not all participants benefited equally from the JOBS program, particularly in terms of mental health outcomes. What about those most vulnerable to the effects of job-loss? Were those most at risk able to benefit from the program? Price et al. (1992) conducted a series of analyses to identify those at highest risk for depression and found that elevated depressive symptoms, increased economic hardship, and low social

assertiveness were key risk factors for subsequent episodes of depression. When they later conducted analyses to identify how groups exhibiting these risk factors fared, they found that high-risk participants benefited most from participation in the JOBS program, particularly in terms of reduced risk for episodes of depression.

Enhanced Job-Search Self-Efficacy. The mechanisms by which JOBS had its impact on reemployment also needed to be identified. Van Ryn and Vinokur (1992) conducted a series of analyses to identify those psychological factors, influenced by the JOBS program, that were responsible for positive outcomes. Their analyses indicated that an enhanced sense of job-search self-efficacy was a key factor responsible for positive impacts of the program.

Enhanced Mastery and Inoculation Against Setbacks. A second major replication of the JOBS program was conducted that replicated many of the initial findings and revealed other important outcomes. JOBS II replicated all major JOBS I findings and showed that mastery was enhanced for all participants and that high-risk participants benefited most in terms of reduced risk for later depression (Vinokur et al., 1995). JOBS II also provided an opportunity for further exploration of the mechanisms by which the innovation has its effects. Vinokur and Schul (in press) conducted a series of analyses to uncover the mechanisms by which the JOBS program has its effect on mental health. Their analyses make it clear that the beneficial mental health effects of the JOBS program are consequences of reduced economic hardship associated with reemployment for program participants.

New Focus on Couples and Economic Hardship. Additional studies by researchers in the Michigan Prevention Research Center have demonstrated that economic hardship and strain represent a major stressor for unemployed workers and their spouses (Vinokur et al., 1996). As a result, MPRC scientists have embarked on further research and program development aimed at enhancing family coping with economic stressors. At the same time, a related line of research by MPRC scientists has shown that the stresses of unemployment produce additional stresses in couple and family relationships (Howe et al. 1995; Vinokur et al., 1996). A program of research in collaboration with colleagues at George Washington University has begun another set of large-scale, randomized trials aimed at enhancing the coping resources and skills of couples facing job-loss.

JOBS Implementation in Diverse Settings. As the JOBS program has become more widely known, foundations, state governments, and governments in other countries have begun to invest in the JOBS program and have sought to implement JOBS in their own home settings. Under the sponsorship of the California Wellness Foundation, the Michigan Prevention Research Center is collaborating with the Manpower Demonstration Research Corporation to launch the "Winning New Jobs" project in three communities in California. The program is being implemented for 6,500 Californians who were recently unemployed. The 5-year project uses the JOBS intervention program in three distinctly different communities and service systems. In each case, the program involves existing community organizations, which receive funds, staff training, and technical assistance from the Michigan Prevention Research Center and the Manpower Demonstration Research Corporation to implement the JOBS program. Adoption and implementation of the program will be documented to provide concrete implementation lessons for adoption in other locations.

In addition, in collaboration with the Finnish Institute of Occupational Health, the JOBS program is being implemented and evaluated in Finland. The program is cosponsored by the Finnish Social Security Agency, the Finnish Department of Labor, and other agencies in Finland. Similarly, in collaboration with researchers at Tel Aviv University and with the support of the U.S.-Israel Binational Science Foundation, the MPRC has undertaken a program of research that will result in a randomized field experiment testing the effectiveness of the JOBS program in the existing service system for unemployed workers provided by the Israeli Ministry of Labor and Welfare. Finally, in collaboration with colleagues in China, we have begun a new program of research for implementation of the JOBS program. The MPRC will collaborate actively with Chinese scientists and service system administrators to adapt the JOBS program to the special cultural, social, and economic needs and circumstances of unemployed Chinese workers and their families, for whom the program is being developed.

Reinvention: Three Paradigms

Program models like JOBS that are based on extensive research showing evidence of their efficacy still represent only the first step on

Table 8.2
Implementing Social Innovations:
Three Perspectives

Paradigm	Assumption About Nature of Innovation	Assumption About Organization	Scenario for Implementation	Definition of Success
Technology Transfer	Fixed and constant technology; immutable	Passive recipient of innovation	Technology-dominant process; local and process conditions largely irrelevant	Adoption is sufficient
Perfect Replication	Ideal model is available from previous controlled research	Error-prone; bounded rationality	Strive for match between program as designed and local version	Minimum deviation from original design
Mutual Adaptation	Cannot exist independent of implementing organization	Organization is active shaper of innovation through internal and external exchange	Negotiated reinvention of prototype	Local ownership is valued as much as client impact

the route to establishing effective programs in the community. A large gap exists between developing a promising program model and establishing the model in practice. Embry (1984) has observed that "the field is littered with corpses of proven innovations. Solving a problem is usually not enough to ensure that the solution will be widely implemented" (p. 82). Price and Lorion (1989) have argued that implementation is an organizational process involving the orchestration of both external and internal organizational resources and requiring continuous negotiation with the environment of the organization. The implementing organization must also have the capacity to monitor and adjust aspects of the model program once it has been implemented. Successful implementation of an innovation like JOBS is a substantial organizational achievement.

Research and theory on social innovations reflect an evolution of ideas about the fundamental nature of the implementation. Indeed, the

large literature on diffusion of innovations (Rogers, 1995) offers no single, clear-cut theoretical approach to guide research and action. Instead, several dominant paradigms have evolved (see Table 8.2). Each paradigm makes claims about the essential nature of innovating organizations and offers an implicit scenario for implementation. Furthermore, each paradigm has its own definition of success. These conceptual and operational paradigms influence the thinking of both researchers and practitioners. We believe that making the paradigms and their underlying assumptions explicit can be of great value in advancing scientific understanding, as well as actual practice.

Implementation as Technology Transfer

Perhaps the oldest and still-dominant paradigm involves the idea of *technology transfer*. As researchers worked in such fields as agriculture—where the innovation might be, for example, a new strain of seed corn—the innovation itself was viewed as a fixed and constant technology (Berman, 1981). The technology transfer paradigm also made strong assumptions about the nature of the adopting organization. In this view, the organization was essentially a passive recipient of the innovation and would fairly automatically adjust itself to the new process or product. Implementation was regarded as a mechanical process dominated by the technology itself. Local conditions and local organizational processes were regarded as largely irrelevant. Furthermore, the technology transfer perspective assumed that the implementation process was fairly automatic and error-free. As a consequence, the technology transfer paradigm defines success largely in terms of the adoption of the innovation. Indeed, much of the early research assumed that adoption was largely sufficient for successful implementation, and it paid little attention to the process of implementing the innovation that was adopted (Berman, 1981).

The prescription for implementing JOBS according to the technology transfer paradigm is fairly clear. Effort should be invested in promoting the adoption of JOBS by a wide range of organizations and communities. Conditions that promote adoption, such as credibility, relevance, trialability, and relative advantage (Rogers, 1995), should be enhanced and supported. Once adopted, actual implementation of JOBS would be fairly automatic, and evaluating the success of JOBS would be largely a matter of counting instances of adoption of the program.

Implementation as Perfect Replication

Reports of disquieting and inexplicable failures of innovations began to emerge in the field, and the view slowly emerged that adoption was clearly not enough for successful implementation (McGrew, Bond, Dietzen, & Salyers, 1994). Instead, evidence showed that, once adopted, innovations tended to be implemented quite differently in different organizations or failed to be implemented at all. This observation led some researchers to argue that implementing organizations should strive for *perfect replication* of the innovation as it emerged from the research process (Blakely et al., 1987). The argument was that an ideal model based on previous research was already available and that no deviation from the original model should be allowed. It is worth noting that implicit in the perfect replication paradigm was the idea that previous research had already revealed what was needed for effective implementation. Frequently, however, innovations are developed and tested in a limited range of circumstances, and their range of effectiveness, as well as the conditions necessary for their implementation in the field, are only imperfectly understood.

Nevertheless, the perfect replication paradigm assumes that the implementing organization is error-prone and subject to "bounded rationality" (March, 1981). The scenario for implementation is clear here. Organizations should strive for a match between the program as it was originally designed and the local version. In this paradigm, *success* is defined as a minimum deviation from the original design in implementing JOBS, the plan would focus on creating local versions of the programs that were faithful copies of JOBS in all its original features. Detailed documentation would be established, including manuals and procedures. Training of local practitioners would be intensive and would focus on minimizing deviations from prescribed practices. Program evaluation would focus on detailed observations of the program delivery and would measure deviations from the prescribed standard. Incentives and controls would be created to encourage conformity to the original model.

Implementation as Mutual Adaptation

Both the technology transfer and the perfect replication paradigms minimize the role of the adopting organization as an active agent in the

implementation process. The implementing organization is regarded either as irrelevant, in the technology transfer view, or as a source of errors to be controlled, in the perfect replication paradigm. Increasingly, however, the role of the implementing organization as an active agent began to be recognized, and researchers realized what practitioners had always known—that a social innovation cannot exist independent of the organization implementing it (Sproull & Hofmeister, 1986). Indeed, the innovation is enacted through the organization that adopts and implements it. How it succeeds or fails and, indeed, why it is regarded as a success or a failure depend heavily on the motives, values, organizational arrangements, and exchanges of actors within the organization itself and in its environment. Furthermore, as the innovation is implemented, new demands on the resources and relationships in the adopting organization emerge, requiring changes in the organization. This suggests a third paradigm, involving *mutual adaptation* (Berman, 1981; Price, Friedland, & Choi, 1996).

The mutual adaptation paradigm holds that the organization is both actively shaping and being shaped by the innovation. Consequently, the scenario for implementation involves the negotiated reinvention of the innovation prototype. Because organizational actors are motivated agents, each with its own goals, values, and bases of power, the innovation is “reinvented” during its implementation. The idea of reinvention was first introduced by Rice and Rogers (1980), and it emphasizes that all social innovations must be reinvented by local agents who negotiate various features of the innovation, depending on local conditions.

A largely unexplored aspect of the field of social innovation has to do with the nature and extent of change in the *adopting organization itself* (Price et al., 1996) that occurs as a consequence of implementation. The mutual adaptation perspective also implies that a different definition of success will be adopted. Here, the sense of ownership by the organization itself is a criterion that may supplement whatever other intended outcomes the organization may have had in adopting and implementing the innovation.

The mutual adaptation paradigm's prescription for implementing JOBS would be quite different from either the technology transfer or perfect replication approach. It would recognize that the local organization has strengths and capacities that could be of value in implementing JOBS. The local organization would be seen as an active agent, rather than as a passive recipient or conforming replicator. Considerable attention would be paid to the potential changes required in the imple-

menting organization and their costs and benefits. In addition, changes in JOBS would be seen as inevitable or even as desirable local inventive adaptations. Evaluation of JOBS would focus on the strength of local ownership, as well as on the benefits of the local version for the clients being served.

Theory as a Guide to Reinvention

The Problem With “Black Box” Interventions. Kurt Lewin (1951) noted that there is nothing so useful as a good theory. We argue that, in translating a proven research model into community practice, there is nothing so useful as a theoretically driven intervention model. But, as Koepsell et al. (1992) observed, even proven interventions previously tested in randomized control trials may be “black boxes” whose overall effects may be detectable, but whose contents are obscure” (p. 33). Lipsey (1990) has elaborated on this theme, describing “black box interventions” as ones where the inputs and outputs can be observed but the connecting processes are not readily visible.

The black box issue is a major problem in the implementation of community-based interventions. Substantial resources and effort may have been devoted to testing whether the intervention actually had the anticipated effects. In the absence of a theory about the intervention, however, researchers can do little other than recommend the “perfect replication” strategy to implementers. We have already noted that organizations that adopt a new program model will not replicate it perfectly, preferring to place their own stamps of ownership on the model through selective adoption and modification. Furthermore, lack of a theory about the intervention will reduce the chances of new learning in the process of implementation. As Koepsell et al. (1992) and Lipsey (1990) have observed, intervention theory can play a crucial role in disentangling results that are attributable to inadequate evaluation methods, poor treatment ideas, or inadequate treatment implementation.

Intervention Theories as Blueprints for Successful Implementation. Researchers in the fields of public health (Koepsell et al., 1992), program evaluation (Chen & Rossi, 1983), applied social research (Lipsey, 1990), and prevention (Price, 1987) have all argued that intervention theories can play a crucial role in solving the black box problem. The

minimum elements of an intervention theory would specify (a) the inputs of the intervention in terms of knowledge, skill, training, and resources; (b) the outputs of the program, such as improved client outcomes and improved service systems; and (c) the causal sequence of mediating events or processes that connect the inputs and the outputs. These mediating processes are a crucial part of the causal account of the intervention. In addition, a well-specified treatment theory may state conditions that moderate the strength of the relationship between inputs and mediating processes or outcomes.

The JOBS Program as a Theory of Intervention. Figure 8.2 uses the JOBS program as an example of a theory of intervention. This model incorporates research findings from previous investigations of the JOBS program that were reviewed above. At the same time, the model introduces elements that have not yet been tested explicitly but that represent hypotheses about ingredients necessary for strong impacts of the JOBS program. The program model shown in Figure 8.2 specifies *outcomes* of the program in terms of reemployment, reduced economic hardship, and improved mental health. It is supported by already existing empirical findings (Vinokur & Schul, in press) that show a mediational process by which JOBS increases reemployment rates, which in turn reduce economic hardship for participants, thus improving their mental health. At the same time, the model specifies *inputs* of the JOBS program in terms of job-search skills that are important for its success. These include the capacity for participants to learn perspective taking—that is, to “think like an employer” in order to understand what employers value in making decisions about job candidates. Other skills include networking to identify job openings and anticipatory problem-solving skills that will help inoculate participants against the inevitable setbacks in the job-search process. The model also specifies *mediating processes* that are changed for participants as a consequence of participation in the program. These key mediators have been documented in previous research and include job-search, self-efficacy (van Ryn & Vinokur, 1992), and inoculation against setbacks (Vinokur & Schul, in press).

Finally, the theory of the JOBS intervention presented in Figure 8.2 adds a fourth crucial element to the model. The model specifies an active learning process as a crucial *moderating* condition that strengthens the relationship between teaching job skills and job-search self-efficacy for participants. Caplan et al. (1997) have described the active learning process and its hypothesized role in the JOBS program in considerable

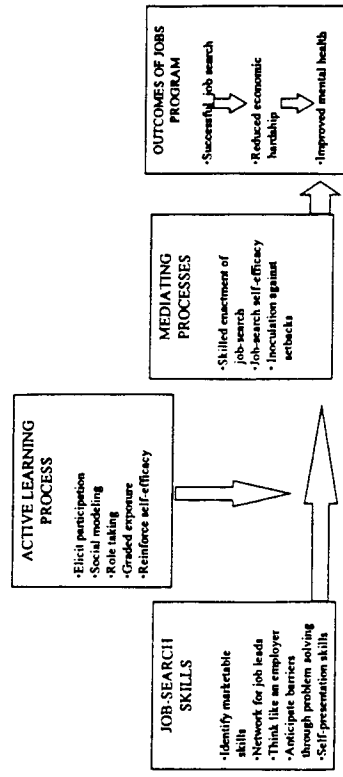


Figure 8.2. Theory of Intervention for the JOBS Program

detail. The model incorporates already-established research findings that provide a more reliable guide to implementation. At the same time, it incorporates elements, such as the active learning component, that represent working hypotheses to be tested in future studies of the JOBS program. Program models like the JOBS model represent an intermediate level of theoretical abstraction that readily allows translation from theory to practice and vice versa. As Koepsell et al. (1992) have observed, the model should be specified at a level that is not so abstract as general frameworks such as exchange theory but also that is not a rigidly specified set of concrete procedures with little capacity for generalization.

Advantages of a Theory-Driven Approach. The theory-driven approach has some advantages over black box approaches or rigid attempts at perfect replication. First, a working program theory provides a “common language” with the potential to bridge diverse groups of practitioners, researchers, policymakers, and community groups, all of whom may be engaged in reinventing a program model. This is no small advantage; each of these groups represents stakeholders with different needs, values, and goals in the implementation process. Second, the theory-driven approach provides a “cognitive blueprint” for action and a focus for coordinated activity. Third, a theory of the program establishes theoretically and empirically based priorities among those elements of a program that are important for effective implementation. These “core elements” (Price & Lorion, 1989) must be specified in the process of

reinvention. Finally, theory-driven models, measured appropriately, can contribute to the development of theory and organizational learning, as well as to improved practice in the community.

Conducting Research on the Mutual Adaptation Model

Successful adoption and adaptation of a program such as JOBS will require involvement of stakeholders who are drawn from multiple levels. Those levels range from interorganizational to individual. Although a significant literature on the impacts of these different levels already exists (e.g., Damanpour, 1991; Goes & Park, 1997; Kanter, 1990; Klein & Sorra, 1966; Price & Lorion, 1989), much remains to be discovered about the roles that different stakeholders should play to promote successful program implementation. In addition, little is known about how the process of implementing innovations affects the influence of the organizations involved. What follows are some illustrations of the array of questions that might be considered at different levels of analysis and some research designs that might help answer those questions.

Interorganizational Processes: Linkages and Mutual Benefits. The processes of dissemination and implementation invariably involve multiple organizations playing roles as sponsor, broker, and implementer. Once two or more organizations are embarked on the process of mutual adaptation, what characteristics of interorganizational linkages are likely to promote continued and successful adaptation? For example, what effect does the mix of organizations with varying goals have on the success of such linkages when one considers such characteristics as organizational size, public/private or profit/nonprofit status, and whether the organizations are involved in competition for the same resources? It is also interesting to explore hypotheses about the unintended collateral effects on organizational relationships that emerge as a result of collaborating in the implementation process. Under what conditions do mutual benefits emerge?

Case studies can be valuable in suggesting hypotheses regarding these effects. Designs that study clusters of organizations longitudinally can test such hypotheses by comparing the effects of such linkages as they vary among multiple networks or organizations involved in the

implementation of programs such as JOBS. Koepsell et al. (1992) discuss statistical issues in multicommunity designs. Field experiments in which the unit of analysis is the interorganizational network can directly test prescriptive theories of what works best while providing an opportunity to generate theories regarding *how* to initiate and maintain such networks and the circumstances under which they will be mutually beneficial.

The Power of Legitimacy and Sanction. Some organizations, professional and governmental, have the capacity to sanction or certify service programs (D'Aunno & Price, 1986). Such control is carried out either by licensing or by certification that staff members have completed standardized training or that the service provider meets accreditation standards. Contract-awarding organizations may also sanction by specifying the process standards a provider must meet to qualify for funding. In cases where such sanctions are effective, what are the effects on the willingness and success of mutually adaptive partnerships between the host organization and other organizational actors likely to be? Among the research designs that might be considered to answer these questions are quasi-experimental, interrupted time-series designs in which certification is implemented and measurement occurs before and after certification.

Organizational Dynamics: Developmental Processes Over Time. As noted earlier, the process of mutual adaptation is likely to progress in overlapping phases. The process may begin with a period of mutual exploration aimed at reaching a decision about whether to proceed to actual implementation and adaptation. A phase of mutual adaptation may follow, after which a phase involving institutionalization of the adaptive process may occur. In this case, the host organization retains the flexibility to adapt to changing resources, client populations, and the coming and going of other complementary client services.

Research questions at this level have a strong developmental character. For example, what elements of the mutual adaptation process at each phase are most crucial in determining the success of later phases? At the stage of mutual exploration, is it important that the host organization has opportunities to observe the program elsewhere, to try out the innovation in a pilot format, and to make use of a stakeholder-based method for deciding to proceed with implementation (e.g., Heller, 1996)? Do such opportunities have an impact on whether later phases of adaptation and implementation succeed?

To address such questions, the research must use methods of data collection and analysis that generate a developmental understanding of the mutual adaptation process. Research designs should permit longitudinal multivariate modeling. Such models might include predictor terms that represent the implementation of specific processes and the achievement of specific states at a range of times in the history of the collaborative partnership. Such models might also allow for the likelihood that different collaborative partnerships will proceed at different speeds, depending on the resources, skills, and competing agendas that confront the potential host organization and the researcher/consultant. At the same time, the models will need to take into account the amount of time spent in periods of exploration, adaptation, and implementation. Time's main effects and interaction effects with other components of each antecedent period may predict the quality of what is achieved in a particular later period.

Hierarchy and Developmentally Sensitive Timing. To prevent adaptation failure and to promote implementation success during mutual adaptation, what is the optimal role of actors in different levels of the organizational hierarchy? Will the answer depend on the phase of the collaboration between various organizational actors and the host organizations? For example, in early phases of the mutual adaptation process, how crucial is it that the top members of the organization be involved in supporting exploration and loose coupling to allow experimentation to occur in a rapid and flexible manner? Once adaptation has been largely completed, how important is recontact with the top of the hierarchy to tighten the coupling and to ensure some permanence, as well as fidelity to program principles (e.g., Greenwood & Hinings, 1996)? As with the study of time, methods of modeling the dynamics of moving up and down the hierarchy can help extract the dynamic signal that promotes the successful process of mutual adaptation.

Individuals and Teams Within Organizations: Selection for Effectiveness. Through replicated, independent launchings of JOBS, criteria have been identified that make it possible to select effective trainers (Curran, 1992). Each replication of JOBS, in effect, constituted a case study in the use of such selection procedures. Nevertheless, a rigorous scientific determination is needed of which characteristics of job applicants best predict their success as trainers. Consequently, studies are

needed to determine the characteristics of good trainers, including formal training, knowledge skills, and abilities, and also to determine the best methods for selecting for those characteristics. For example, how do observation of "thin slices of behavior" (Ambady & Rosenthal, 1992), role-playing evaluations, and biographical questions (e.g., Mumford & Stokes, 1992) compare as valid methods of selection? Research is needed that includes formal job analysis (e.g., Harvey, 1992) conducted with the use of subject matter experts and followed up with appropriate validation studies.

Such validation studies can be of two types. One type would be the study of incumbent trainers to determine whether potential selection devices can distinguish among them in terms of competency. A second type would involve a prospective study using new applicants for positions as job transition trainers. Follow-up research could be conducted at several stages to monitor the predictive validity of the proposed selection techniques. As a result, a theory of selection could be developed, aimed at predicting the likelihood of future trainer performance at multiple key points in the job tenure of the trainer.

Benefits and Costs of Trainer Teams. An important part of the JOBS program is the human infrastructure of trainer teams and supportive supervisors and reinforcement of that infrastructure. Teams have been used under the untested assumption that a pair of trainers minimizes drift from the principles of JOBS because each trainer (a) serves as a source of social sanction to maintain fidelity to the protocol, (b) can provide support to the other trainer when lapses occur, and (c) can provide feedback so that corrective action can be taken. These assumed benefits have not yet been systematically studied. Benefit-cost research could determine whether the cost of using two trainers, rather than one, to deliver an intervention is outweighed by the benefits that are generated. We know that JOBS has generated substantial economic benefits that cover its costs (Vinokur, van Ryn, et al. 1991). We do not know, however, what the benefit-cost ratio would look like if only single trainers used it. Research might randomly assign trainers to work in teams or alone within organizations. Multiple organizations, which might be selected to vary in staff size, resources, client population, or other contextual parameters that the research hypothesized, could specify the effects of trainer pairing and could also generate practical knowledge regarding the generalizability of the benefit-cost findings for trainer teams.

Conclusion

Continuing turbulence in the world economy will produce an increasing number and variety of work transitions, many of which will influence the well-being of individuals and families. Organized support systems such as the JOBS program are essential to help individuals and families cope with, and adapt to, these changes. Large-scale implementation of such innovations will require theory-guided reinvention of these innovations to ensure both local acceptance and program impact. There is, indeed, nothing so useful as a good theory (Lewin, 1951). Theories not only guide practitioners and researchers in their work but also provide the most useful medium for accumulating, cataloging, and transmitting research knowledge (Price, 1997). In the turbulent world that is currently emerging, that cumulative knowledge may be more valuable than ever before.

Note

1. Earlier versions of the material on job-loss appeared in Price, Friedland, and Vinokur (in press) and Price, Vinokur, and Friedland (in press).

References

- Ambady, N., & Rosenthal, R. (1992). Thin slices of expressive behavior as predictors of interpersonal consequences: A meta-analysis. *Psychological Bulletin, 111*, 256-274.
- Atkinson, T., Liem, R., & Liem, J. (1986). The social costs of unemployment: Implications for social support. *Journal of Health and Social Behavior, 27*, 317-331.
- Bane, M. J., & Ellwood, D. T. (1994). *Welfare realities: From rhetoric to reform*. Cambridge, MA: Harvard University Press.
- Beasley, J. D. (1991). *The betrayal of health: The impact of nutrition, environment, and lifestyle on illness in America*. New York: Times Books.
- Bebbington, P., Hurry, J., Tennant, C., Stuart, E. Y., & Wing, J. K. (1981). Epidemiology of mental disorders in Camberwell. *Psychological Medicine, 11*, 561-579.
- Belous, R. S. (1989). *The comingent economy: The growth of the temporary, part-time, and subcontracted workforce*. Washington, DC: National Planning Association.

- Berman, P. (1981). Educational change: An implementation paradigm. In R. Lehming & M. Kane (Eds.), *Improving schools: Using what we know* (pp. 251-286). Beverly Hills, CA: Sage.
- Blakely, C. H., Mayer, J. P., Gottschalk, R. G., Schmitt, N., Davidson, W. S., Roitman, D. B., & Emshoff, J. G. (1987). The fidelity adaptation debate: Implications for the implementation of public-sector social programs. *American Journal of Community Psychology, 15*, 253-268.
- Bolton, W., & Oatley, K. (1987). A longitudinal study of social support and depression in unemployed men. *Psychological Medicine, 17*, 453-460.
- Caplan, R. D., Vinokur, A. D., & Price, R. H. (1997). From job-loss to reemployment: Field experiments in prevention-focused coping. In G. W. Albee & T. P. Gullotta (Eds.), *Primary prevention works: Issues in children's and families' lives* (Vol. 16, pp. 341-379). Thousand Oaks, CA: Sage.
- Caplan, R. D., Vinokur, A. D., Price, R. H., & van Ryn, M. (1989). Job seeking, reemployment, and mental health: A randomized field experiment in coping with job-loss. *Journal of Applied Psychology, 74*, 759-769.
- Catalano, R. (1991). The health effects of economic insecurity. *American Journal of Public Health, 81*, 1148-1152.
- Catalano, R., & Dooley, D. (1977). Economic predictor of depressed mood and stressful life events in a metropolitan community. *Journal of Health and Social Behavior, 18*, 292-307.
- Catalano, R., Dooley, D., Novaco, R., Wilson, G., & Hough, R. (1993). Using ECA survey data to examine the effect of job layoffs on violent behavior. *Hospital and Community Psychiatry, 44*(9), 874-879.
- Catalano, R., Dooley, D., Wilson, G., & Hough, R. (1993). Job-loss and alcohol abuse: A test using data from the Epidemiologic Catchment Area project. *Journal of Health and Social Behavior, 34*, 215-225.
- Chen, H. T., & Rossi, P. H. (1983). Evaluation with sense: The theory-driven approach. *Evaluation Review, 7*, 283-302.
- Conger, R. D., Elder, G. H., Lorenz, F. O., Conger, K. J., Simons, R. L., Whitbeck, L. B., Huck, S., & Melby, J. N. (1990). Linking economic hardship to marital quality and instability. *Journal of Marriage and the Family, 52*, 643-656.
- Curran, J. (1992). *JOBS. A manual for teaching people successful job-search strategies*. Ann Arbor: University of Michigan, Institute for Social Research, Michigan Prevention Research Center.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal, 34*, 555-590.
- Danziger, S., & Gottschalk, P. (1995). *America unequal*. New York: Russell Sage.
- D'Aunno, T., & Price, R. H. (1986). Linked systems: Drug abuse and mental health services. In W. R. Scott & B. L. Black (Eds.), *The organization of mental health services: Societal and community systems*. Beverly Hills, CA: Sage.
- Dew, M. A., Penkower, L., & Bromet, E. J. (1991). Effects of unemployment on mental health in the contemporary family. *Behavior Modification, 15*, 501-544.
- Dooley, D., Catalano, R., & Wilson, G. (1994). Depression and unemployment: Panel findings from the Epidemiologic Catchment Area Study. *American Journal of Community Psychology, 22*, 745-765.
- Elder, G. H., Jr., & Caspi, A. (1988). Economic stress in lives: Developmental perspectives. *Journal of Social Issues, 44*(4), 25-45.

- Emby, D. D. (1984). The safe-playing kit: A standardized intervention package. In S. C. Paine, G. L. Bellamy, & B. Wilcox (Eds.), *Human services that work: From innovation to standard practice* (pp. 79-92). Baltimore, MD: Brooks.
- Gil, D. G. (1970). *Violence against children: Physical abuse in the United States*. Cambridge, MA: Harvard University Press.
- Goes, J. B., & Park, S. H. (1997). Interorganizational links and innovation: The case of hospice services. *Academy of Management Journal*, 40, 673-696.
- Greenwood, R., & Hinings, C. R. (1996). Understanding radical organizational change: Bringing together the old and new institutionalism. *Academy of Management Journal*, 21, 1022-1054.
- Harvey, R. J. (1992). Job analysis. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 71-163). Palo Alto, CA: Consulting Psychologists Press.
- Heller, K. (1996, May). Models of community adoption in prevention research. In *5th National NIMH Conference on Prevention Research*, Tysons Corner, VA.
- Howe, G. W., Caplan, R., Foster, D., Lockshin, M., & McGrath, C. (1995). When couples cope with job-loss: A research strategy for developing preventive intervention. In L. R. Murphy, J. J. Hurrell, Jr., S. L. Sauter, & G. P. Keita (Eds.), *Job stress interventions* (pp. 139-158). Washington, DC: American Psychological Association.
- Jackson, P. R., & Warr, P. B. (1984). Unemployment and psychological ill-health: The moderating role of duration and age. *Psychological Medicine*, 14, 605-614.
- Jahoda, M., Lazarsfeld, P. F., & Zeisel, H. (1933). *Marienthal: The sociography of an unemployed community* (English translation, 1971). Chicago: Aldine.
- Justice, B., & Duncan, D. F. (1977). Child abuse as a work-related problem. *Corrective and Social Psychiatry and Journal of Behavior Technology, Methods and Therapy*, 23, 53-55.
- Kanter, R. M. (1990). When a thousand flowers bloom: Structural, collective, and social conditions for innovation in organizations. In B. M. Staw & L. L. Cummings (Eds.), *The evolution and adaptation of organizations*. Greenwich, CT: JAI.
- Kessler, R., Turner, J., & House, J. (1987). Intervening processes in the relationship between unemployment and health. *Psychological Medicine*, 17, 949-961.
- Kessler, R. C., Turner, J. B., & House, J. S. (1988). The effects of unemployment on health in a community survey: Main, modifying, and mediating effects. *Journal of Social Issues*, 44(4), 69-86.
- Kessler, R. C., Turner, J. B., & House, J. S. (1989). Unemployment, recidivism, and emotional functioning in a community sample. *American Sociological Review*, 54, 648-657.
- Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *Academy of Management Review*, 21, 1055-1080.
- Koopseil, T. D., Wagner, E. H., Cheadle, A. C., Patrick, D. L., Martin, D. C., Diehr, P. H., Perrin, E. B., Kristal, A. R., Allan-Andrilla, C. H., & Dey, L. J. (1992). Selected methodological issues in evaluating community-based health promotion and disease prevention programs. *Annual Review of Public Health*, 13, 31-57.
- Lewin, K. (1951). *Field theory in social science: Selected theoretical papers*. New York: Harper.
- Liem, R., & Liem, J. H. (1988). The psychological effects of unemployment on workers and their families. *Journal of Social Issues*, 44(4), 87-105.
- Lipsey, M. W. (1990). Theory as method: Small theories of treatment. In L. Sechrest, E. Perrin, & J. Bunker (Eds.), *AHCP Conference Proceedings, Research Methodology: Strengthening causal interpretations of nonexperimental data* (DHHS Publication No. PHS 90-3454, pp. 33-51). Rockville, MD: U.S. Department of Health and Human Services.
- March, J. G. (1981). Footnotes to organizational change. *Administrative Science Quarterly*, 26, 563-577.
- McGrew, J. H., Bond, G. R., Dietzen, L., & Salyers, M. (1994). Measuring the fidelity of implementation of a mental health program model. *Journal of Consulting and Clinical Psychology*, 62, 670-678.
- Menaghan, E. G. (1991). Work experiences and family interaction processes: The long reach of the job. *Annual Review of Sociology*, 17, 419-444.
- Mumford, M. D., & Stokes, G. S. (1992). Developmental determinants of individual action: Theory and practice in applying background measures. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 61-138). Palo Alto, CA: Consulting Psychologists Press.
- Parke, R., & Collmer, C. (1975). *Review of child development research: Child abuse. An interdisciplinary review*. Chicago: University of Chicago Press.
- Penkower, L., Broinet, E., & Dew, M. (1988). Husbands' layoff and wives' mental health: A prospective analysis. *Archives of General Psychiatry*, 45, 994-1000.
- Platt, S., & Kreitman, N. (1985). Parasuicide and unemployment among men in Edinburgh, 1968-1982. *Psychological Medicine*, 15, 113-123.
- Pollitt, E. (1994). Poverty and child development: Relevance of research in developing countries to the United States. Special Issue: Children and poverty. *Child Development*, 65, 283-295.
- Porter, M. E. (1990). *The competitive advantage of nations*. New York: Free Press.
- Price, R. H. (1987). Linking intervention research and risk factor research. In A. Steinberg & M. M. Silverman (Eds.), *Preventing mental disorders: A research perspective* (DHHS Publication No. ADM 87-1492, pp. 48-56). Washington, DC: Government Printing Office.
- Price, R. H. (1990). Strategies for managing plant closings and downsizing. In D. Fishman & C. Cherniss (Eds.), *The human side of corporate competitiveness* (pp. 127-151). Newbury Park, CA: Sage.
- Price, R. H. (1992). Psychosocial impact of job-loss on individuals and families. *Current Directions in Psychological Science*, 1, 9-11.
- Price, R. H. (1997). In praise of a cumulative prevention science. *American Journal of Community Psychology*, 25, 169-176.
- Price, R. H., Friedland, D. S., & Choi, J. (1996). *An approach to evaluating implementation in the Winning New Jobs Project*. Ann Arbor: University of Michigan, Institute for Social Research, Michigan Prevention Research Center.
- Price, R. H., Friedland, D. S., & Vinokur, A. D. (in press). Job-loss: Hard times and eroded identity. In J. Harvey (Ed.), *Perspectives on loss: A source book*. Washington, DC: Taylor & Francis.
- Price, R. H., & Lorton, R. P. (1989). Prevention programming as organizational reinvention: From research to implementation. In D. Shaffer, I. Phillips, & N. B. Enzer (Eds.), *Prevention of mental disorders, alcohol and drug use in children and adolescents* (Prevention Monograph #2, DHHS Publication No. ADM 89-1646, pp. 97-123). Rockville, MD: Office of Substance Abuse Prevention and American Academy of Child and Adolescent Psychiatry.
- Price, R. H., van Ryn, M., & Vinokur, A. (1992). Impact of a preventive job-search intervention on the likelihood of depression among the unemployed. *Journal of Health and Social Behavior*, 33, 158-167.

- Price, R. H., & Vinokur, A. D. (1995). Supporting career transitions in a time of organizational downsizing: The Michigan JOBS program. In M. London (Ed.), *Employees, careers, and job creation: Developing growth-oriented human resource strategies and programs* (pp. 191-209). San Francisco: Jossey-Bass.
- Price, R. H., Vinokur, A. D., & Friedland, D. (in press). The job-seeker role as resource: Achieving reemployment and enhancing mental health. In *NIH workshop on social conditions, stress, resources and health*.
- Reich, R. B. (1990). *The work of nations: Capitalism in the 21st century*. New York: Knopf.
- Rice, R. E., & Rogers, E. M. (1980). Reinvention in the innovation process. *Knowledge*, 1, 499-514.
- Rogers, E. M. (1995). *Diffusion of innovations*. New York: Free Press.
- Sprull, L. S., & Hofmeister, K. R. (1986). Thinking about implementation. *Journal of Management*, 12(1), 43-60.
- Steinberg, L. D., Catalano, R., & Doolley, D. (1981). Economic antecedents of child abuse and neglect. *Child Development*, 52, 975-985.
- Thoits, P. A. (1991). On merging identity theory and stress research. *Social Psychology Quarterly*, 54, 101-112.
- Thurow, L. (1992). *Head to head*. New York: Morrow.
- Umberson, D., Wortman, C., & Kessler, R. (1992). Widowhood and depression: Exploring long-term gender differences in vulnerability. *Journal of Health and Social Behavior*, 33(1), 10-24.
- van Ryn, M., & Vinokur, A. D. (1992). How did it work? An examination of the mechanisms through which an intervention for the unemployed promoted job-search behavior. *American Journal of Community Psychology*, 20, 577-597.
- Vinokur, A., Caplan, R. D., & Williams, C. C. (1987). Attitudes and social support: Determinants of job-seeking behavior and well-being among the unemployed. *Journal of Applied Social Psychology*, 17, 1007-1024.
- Vinokur, A. D., Price, R. H., & Caplan, R. D. (1991). From field experiments to program implementation: Assessing the potential outcomes of an experimental intervention program for unemployed persons. *American Journal of Community Psychology*, 19, 543-562.
- Vinokur, A. D., Price, R. H., & Caplan, R. D. (1996). Hard times and hurtful partners: How financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *Journal of Personality and Social Psychology*, 71, 166-179.
- Vinokur, A. D., Price, R. H., & Schul, Y. (1995). Impact of the JOBS intervention on unemployed workers varying in risk for depression. *American Journal of Community Psychology*, 23, 39-74.
- Vinokur, A. D., & Schul, Y. (in press). Mastery and inoculation against setbacks as active ingredients in the JOBS intervention for the unemployed. *Journal of Consulting and Clinical Psychology*.
- Vinokur, A. D., van Ryn, M., Gramlich, E., & Price, R. H. (1991). Long-term follow-up and benefit-cost analysis of the JOBS program: A preventive intervention for the unemployed. *Journal of Applied Psychology*, 76, 213-219.
- Warr, P. B., Jackson, P. R., & Banks, M. H. (1988). Unemployment and mental health: Some British studies. *Journal of Social Issues*, 44(4), 47-68.
- Whyte, W. H., Jr. (1956). *The organization man*. New York: Simon & Schuster.
- Windschitler, K. (1980). *Unemployment: A social and political analysis of the economic crisis in Australia*. Ringwood, Victoria, Australia: Penguin.