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Constructing an Ecology of Foster Care: An Analysis of the Entry and Exit Patterns of Foster Homes

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This paper aims to illustrate the viability of using concepts and theoretical arguments from organization ecology to analyze dynamic change processes in foster care. The general topic is the relationship between foster homes and their environments. The specific focus is the effects of the environment on the entry and exit patterns of new foster homes. Drawing on our earlier studies of the 23 year history of a population of foster homes, various hypotheses shown to have validity in accounting for the processes underlying the founding and disbanding of formal organizations, also apply in the case of the entry and exit processes of foster homes. One important contribution of this paper is in re-asserting the role of theory in studying foster care, and in helping organize existing knowledge. A second contribution is in reminding us that foster homes should be conceptualized and studied as existing in relation to their social context. They are embedded in social and organizational communities, and the nature of this embeddedness has important implications not only for understanding their behavior but also for how they should be approached in policy terms.

INTRODUCTION

Recent literature in the field of child welfare leaves little doubt that the system of foster care is under severe stress. Yet foster care is seen as having too much value to simply abandon in favor of other forms of care. The need, experts argue, is for new ways to attract foster families, along with new ways to support and

strengthen their capacity to persist in the difficult task of caring for others' children (Child Welfare League of America, 1991; Ontario Association of Children's Aid Societies, 1988).

The system's problems, though perhaps increasingly critical, are not new. Since the 1960's, the literature has been replete with articles documenting the decline in the numbers of foster homes, and identifying factors affecting the willingness of families to become and remain foster homes. A review of the literature reveals a problem-oriented approach with two dominant foci. In one approach, the individual foster home is selected as the unit of analysis, with researchers studying the social, economic and psychological factors which affect any given family's reasons for becoming and remaining, or ceasing to remain a foster home (e.g. Boyd and Remy, 1979; Poulos, 1972; Jones, 1975; Whiehe, 1982). The second type of study focuses on the activities of child welfare agencies and government in their efforts to recruit and retain foster families (e.g. Smith and Gutheil, 1988; Moreland, Reid and Chamberlain, 1992; Titterington, 1990). Implicit in both approaches is the belief that the behavior of major actors best explains and addresses occurrences and problems in the field of fostering.

These problem/solution foci on the individual foster family and on the actions of agencies and governments have flourished, overshadowing earlier calls (Fanshell, 1966) for the development of theories of fostering that would seek to understand the dynamics of foster care itself. Only recently have researchers begun to pursue this avenue, expanding their focus to ask questions about how broader environmental conditions affect the patterns of foster home entries and exits, thereby influencing the overall supply of foster homes and the stability within the foster care system (Campbell and Downs, 1987; Market Facts of Canada, 1981; Simon, 1975; Tucker and Hurl, 1992).

This paper reports research developed along the lines of this more recent orientation. Using concepts and theories drawn from organization science we attempt to construct a framework in which micro-level analysis of the behavior of individual social actors is complemented by macro-level analysis of the overall dynamics of population change. In this paper, we integrate and expand analysis and findings from our earlier work on the cir-

cumstances surrounding the entry and exit processes of foster homes in a child welfare system (Tucker and Hurl, 1992; Tucker, Hurl and Ford, forthcoming). In addition, we comment on the implications of our findings for policy and practice in foster care as well as for future research directions.

THE STUDY POPULATION

The study population comprises all new foster homes associated with the Children's Aid Society of Hamilton-Wentworth, Ontario, Canada, in the period January 1968 to June 1990. We define a foster home as a family that is paid to provide continuous substitute care for children in a natural family setting. Population size is 629. Similar to other populations of foster homes, this population is quite diverse. It includes single parent as well as two parent families from a wide variety of religious and ethnic backgrounds. Approximately 20 percent had formed as families 5 years or less before becoming foster homes and nearly 50 percent had formed more than 10 years before entry. Finally, at the time of entry, over 70 percent of the foster mothers were not working outside the home.

DEFINITIONS OF KEY CONCEPTS

Like other types of social actors, foster homes can be studied at different levels of analysis. To date, they have been mainly studied at either the social-psychological or structural level, meaning that the focus has been on explaining individual behavior within foster homes or on explaining features and processes that characterize individual foster homes. Here we focus on foster homes at a population level of analysis. A *population* is an aggregate of social actors that share some common characteristic, for example, all foster homes associated with the public child welfare system in the Regional Municipality of Hamilton-Wentworth. Our basic objective is to explain the population-level attributes of patterns of entries and exits. An *entry* is defined as the point at which a home, after a successful application, is officially available to take children requiring care. An *exit* is said to have occurred when a foster home is formally closed and is no longer eligible to receive pay for caring for children. Our use of the terms entry and exit,

and not the more conventional terms of recruitment and retention is deliberate. Recruitment and retention describe the activities of child welfare agencies whereas entries and exits are activities of foster homes. Failing to distinguish between the meanings of recruitment and retention and entry and exit obscures the significant empirical question of how factors additional to the recruitment and retention activities of child welfare agencies affect the patterns of entry and exit of foster homes.

Key concepts used to analyze patterns of entries and exits mainly refer to institutional and ecological components of the environment in which foster homes are embedded. *Institutional components* refer to socially created conceptions of appropriate fostering practices, competencies, and behaviors that are supported and reinforced by significant institutional actors such as governments, child welfare agencies, and relevant professional bodies and associations. *Ecological components* define foster home environments in terms of the availability and distribution of resources. Important ecological variables include *density*, the numbers of foster homes operating at a given time in the population, *demand*, the difference between the numbers of children coming into care and the number leaving care in a given unit of time, and *economic incentives*, adjustment in payment schedules aimed at making fostering an economically viable career option.

FOSTER HOME ENTRIES

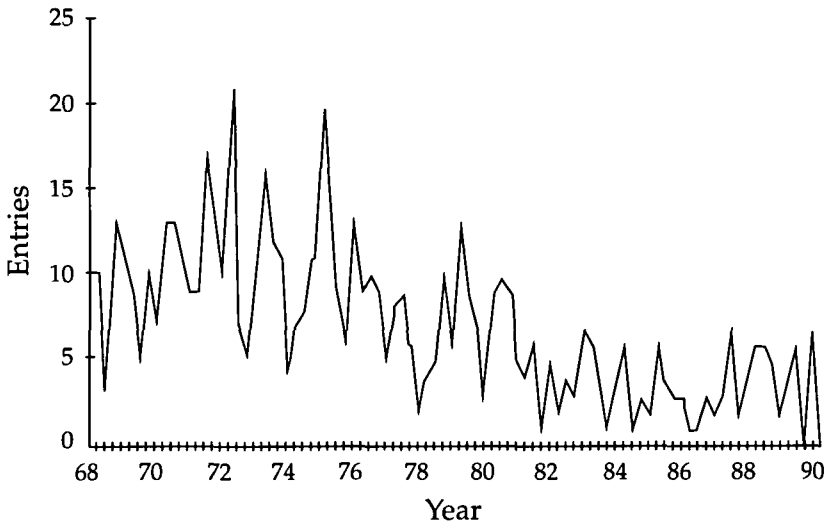
Figure 1 shows the pattern of foster home entries by quarter for the period January 1968–June 1990. The overall pattern is one of increasing entries until the mid 1970s, followed by a period of decline until the early 1980s, at which point entry rates tend to stabilize. Within this general pattern, the data show frequent alterations of peaks and valleys, indicating the possible existence of cyclical processes at work within the population of foster homes.

In looking to the foster care literature to explain these findings, we found there has been little direct study of factors influencing the entry of new foster homes into the child welfare system. Instead, researchers have tended to deal with the topic of foster home entries on a more indirect basis, using findings from research on other aspects of foster care to suggest hypotheses;

about what might explain changes in numbers of entries. There has been little emphasis on testing such hypotheses directly.

Figure 1:

Foster Home Entries by Quarter, 1978–1990



Significantly, researchers who do use empirical findings to derive hypotheses about foster home entries emphasize the importance of external or environmental factors, such as low pay rates, competition from other public services, and legislative changes that impose increasing demands on foster homes (Campbell and Downs, 1987; Ontario Association of Children’s Aid Societies, 1988; Simon, 1975). We build on this earlier research, incorporating such factors into our examination of how selected institutional and ecological components of the environment affect the entry rates of foster home. We conceive of the environment as comprised of superordinate as well as intrapopulation dimensions. The superordinate dimension of the environment refers to aspects of the general environment in which the overall population of foster homes is embedded. It encompasses broad social and

economic conditions, as well as such factors as significant institutional actors, e.g., relevant departments of government and/or regulatory agencies, and relational networks of other types of social actors. The intra-population dimension refers to interdependencies among population members. It encompasses considerations of factors like levels of intra-population competition, cooperation, and information exchange. We examine four arguments concerning the effects of foster home entries of superordinate environmental variables, and two arguments concerning the effect of intra-population variables.

Our arguments concerning superordinate environmental variables include both ecological and institutional components. In the ecological category, we deal with the possible effects on entry rates of economic incentives, changes in the role of women and in the nature of child welfare caseloads. Regarding institutional aspects, we consider how the actions of government in changing child welfare legislation may have affected the entry rates of foster homes. We study the effect on entry rates of economic incentives to determine whether earlier findings based on cross sectional data indicating a positive relationship hold up when longitudinal data are used in the analysis. An important reason for studying changes in the role of women and changes in the nature of caseloads is that, in both cases, it is generally believed that changes are responsible for declines in the numbers of foster home entries. However, to our knowledge, these claims have not been demonstrated empirically. We study the role of government because other research has established that the actions of various agencies and programs of government have important implications for understanding the occurrence of change in the human service sector (Hurl and Tucker, 1986; Tucker, Singh and Meinhard, 1990; Baum and Oliver, 1992).

Our ecological argument concerning intra-population processes deals with the possible effects of change in the overall size of the foster home population (density) and change in numbers of children coming into care (demand). We study density because research on other populations of social actors has shown it has having important explanatory power in relation to the rate new entrants join such populations. We study demand because it seems logical that changes in the numbers of children in care would have a bearing on foster home entries.

Our general approach to modelling the effects on entries of superordinate and intra-population variables is outlined in the appendix. More detailed discussion can be found in our earlier published work (Tucker and Hurl, 1992).

Superordinate Environmental Factors

Economic Incentives – The argument around increased rates of pay to foster homes suggests that foster parents, like others, are interested in self-advancement and want to be paid adequately for their work. Hence, higher pay will make the work more attractive, thereby attracting others to become foster parents (Campbell and Downs, 1987; Moreland, Reid and Chamberlain, 1992; Simon, 1975). This was a relatively simple argument for us to test because in the case of our population of foster homes a major increase in pay rates was initiated in September of 1973. The overall average rate increase for taking one foster child was in excess of 50 percent, with increases for different age-groups ranging from 30 to 65 percent. The rate for taking two children aged 12 or over was increased by approximately 110 percent. These increases were followed by routine reviews and regular increases over the remainder of the study period. Surprisingly our analysis found that economic incentives had no effect on entry rates.

We think there are two plausible explanations for this finding. First, foster parents might be a unique population who, when it comes to caring for the children of others, are not motivated by self-interest. A second possible explanation is what we call a "threshold of payment" view. This view posits that, though the rates were increased substantially relative to the existing baseline, they were not raised enough to attract families from outside the usual pool of potential homes. This implies that if agencies are to expand the pool of potential homes and increase entry rates, they must raise their rates sufficiently high to attract families who are currently exposed to more financially rewarding vocational preferences.

Women in the paid laborforce – The second hypothesis we explored concerned the argument that increased participation of women in the paid labor force resulted in fewer families being available to become foster families. Given the significance of the role of the mother in the decision to provide foster care (Fanshell, 1966) we expected our data to confirm this hypothesis. An ex-

amination of reports of Statistics Canada on the 1968–1990 local labor force participation rates of women ages 15–65 years showed a substantial increase, from approximately 34 percent in 1968 to over 60 percent by 1985, coinciding, it appears, with the decrease in entry rates over the same period. However, when we subjected the data to rigorous statistical analysis, we found no relationship.

Reflecting on this surprising finding, we have come up with two possible explanations. First, as suggested above, it may be that the pool of families from which foster homes come is a unique subpopulation. For whatever reason, the women from the families in this pool may be unlikely to enter the paid labor force. Thus, though increasing numbers of other women are entering the paid labor force, women from this group are not. Second, it may be that the measures we used (based upon estimates as opposed to direct survey results), and the age categories they covered, were too imprecise to provide the findings we expected. We would note, however, that even if the measures were more precise, they still may not provide the expected results. It is quite possible, we believe, that the experience for many women of being in the paid labor force may engender the motivation to contribute economically to the family even once they return home to raise and care for their own children. One possible way to do this is to provide in-home care for the children of others, including foster children. This implies, that in the long run, increases in the labor force participation rates of women may lead to increased as opposed to decreased foster home entry rates. Generally speaking, our findings and our reflections on this issue lead us to conclude only that it is a highly complex issue that requires study in its own right.

Change in Care Requirements – The basis of the third argument we tested is the observation that families are discouraged from becoming foster homes because children coming into care are more difficult to manage. To test this argument, we examined how change in the average monthly entry age of children coming into care for the first time affects foster home entry rates. The underlying assumption is that a higher average age at entry implies that the children coming into care will have relatively more problems, resulting in fostering being more demanding and intrinsically less rewarding. Our data showed that although the pattern is cyclical,

with average age at entry going through several cycles of increase and decrease, overall the average age at first entry did increase over time. When we tested this increase against the corresponding decrease of foster home entries, we found a statistically significant relationship, thereby supporting the argument that change in the nature of the child welfare caseload affects the propensity of families to become foster homes.

Institutional Change – This argument is based on the idea that institutional change in child welfare, as reflected in changes in rules, regulations, and expectations pertaining to fostering, has produced a set of assumptions about how families are supposed to behave as functioning foster families that does not fit how many actually behave before becoming foster families. This discourages families from entering because it implies they will have to undergo some level of internal change.

The traditional theory of fostering argued that the main task of the family was to provide the foster child with the experience and benefits of normal family life. The foster child was to be regarded as any other child in the family, subject to the authority of the foster parents, and expected to conform to existing family rules and processes. The child welfare agency accepted this view and worked to support the foster family as a natural unit in its relationship with the foster child.

More recently, this theory has been adjusted to one that conceives of foster care as a means to an end as opposed to an end in itself. No longer are foster homes to behave as autonomous, selfdirecting family units. Instead they are now viewed more as partners, cooperating with child welfare staff in setting goals and implementing plans for the children in care. Moreover, the relationship between foster child and foster home is different from that of natural children. The home is monitored by the agency to ensure that the family's behavior conforms with predefined formal rules.

This change in the theory of fostering carries with it a change in the conception of family as applied to foster homes. Generally families are treated as natural systems, with their formation and functioning construed as reflecting the needs and interests of family members. In contrast, families seeking to become foster homes now confront the expectation of functioning more as

rational systems (Scott, 1991). That is, they can anticipate being required to adjust at least some elements of internal structures and processes so as satisfy the requirements of pursuing specific goals and following formal rules not necessarily related to the needs and interests of natural members. Because families can be expected to prefer not to threaten their own stability by entertaining the possibility of changing processes and procedures they have evolved to deal with the problems of family life, it is plausible that the internal changes in family life implied by changes in rules and regulations around fostering might actually discourage families from entering the child welfare system as foster homes.

We tested this argument by including in our analysis a variable measuring institutional change in the context in which our population of foster homes was embedded. This change was instituted in 1978 when the Child Welfare Act was amended by the Ontario government in a manner that gave foster children certain additional rights and protections. By setting in motion actions where the rights and needs of the individual foster child formally achieved increased priority against the collective rights and needs of the foster home, this amendment created conditions supportive of a fundamental realignment in the relationships between and among foster parents, foster children, and the agency in the manner described above. If our theory is correct, the effect of this amendment should be lower foster home entry rates. The statistical analysis strongly supports this prediction. This raises the paradoxical question of whether our attempts to expand the individual rights of children are also helping to restrict options with regard to the conditions under which they are being asked to live.

Intrapopulation Factors

Although environmental factors investigated above help us understand the overall decline in entry rates, they do not explain the cyclical pattern of peaks and valleys. To account for these, we turned to the work of organization theorists. Currently, organizational researchers mainly rely on an ecological theory of organization to explain cyclical patterns of growth and decline in populations in resource-limited environments (Hannan and Freeman, 1989). In particular, ecological researchers propose that

patterns of Soundings are regulated by population density, that is, the numbers of organizations in existence at a particular time. We also believe that demand, the pressure in the environment supporting the creation of additional organizations, will have an effect on entry rates.

Density – In organizational ecology, density is conceptualized as influencing Soundings by setting in place legitimization and competitive processes that initially encourage and subsequently discourage new organizational Soundings. In the case of foster care we think the idea of density has importance as a way of recognizing that there is an upper limit on the level of resources available to support foster homes. In addition, we think the processes regulating these cycles are likely to involve the actions of the agency with which the foster homes are associated and the circulation of information about the opportunities and benefits of becoming a foster home. When overall numbers of foster homes are low relative to the agency's needs, we think it is likely that the agency will try to increase entries. Fostering will be publicized as an important task for which one can receive tangible and intangible rewards. Selection criteria may be relaxed. New foster homes will find that children are placed with them with little or no delay. Under these conditions, it can be predicted that entries will increase.

Building on this, we believe there are incentives for child welfare agencies to have available more homes than they can actually use. A surplus of homes means that more emphasis can be placed on matching child and home. Moreover, because opening a home places less demand on an agency's resources than using it, the availability of a surplus of homes has limited implications for resource outlays by the agency. However, having a surplus of homes may bring with it certain other consequences. Recruitment efforts are likely to decline in intensity. Selection procedures may stiffen, and workers may begin to filter inquiries on the basis of what they understand the agency's more pressing needs to be. These conditions may result in a decrease in numbers of subsequent entries. Overall, therefore, these arguments suggest that the effects of changes in the total numbers of foster homes on entry rates will be curvilinear, with lower numbers operating

to increase entries but increasing numbers operating to decrease them.

Demand – The argument that demand, or the difference between numbers of children coming into care and those leaving care at any given time, effects entry rates complements the density dependence argument. When there is little or no increase in demand, there is limited pressure on the agency to recruit new homes. Indeed, selection criteria might tighten, and word will get around that opportunities to foster are restricted. Under these conditions, it is possible that rates of entry will decrease. Moreover, initial increases in demand are unlikely to change the pattern of decreasing entries. The agency will first draw on whatever surplus capacity it has and work to increase its existing capacity—for example, by appealing to existing foster homes to take additional children. However, these options lose their viability as demand continues to rise. Under these conditions, it is likely that additional effort will be diverted into recruiting new homes. Subsequently, the pattern of foster home entries will increase. Based upon these arguments, we suggest that, like density, change over time in demand will also have a curvilinear effect on foster home entries. However, the effect will be reversed—low levels of demand will be associated with decreasing rates of entry, but increasing levels of demand will result in increasing rates of entry.

When we tested our data to ascertain the validity of both the density and demand arguments, we found that both were significant factors in explaining the observed pattern of entry rates. Entries increased when density was low and demand was high; they decreased when density was high and demand was low. Overall, therefore, it is clear that there are forces at work within the population of foster homes, as well as in the context in which it is embedded, that have significant effects on patterns of entry.

FOSTER HOME EXITS

Of our population of 629 foster homes, 509, or nearly 81 percent, exited during the period of observation. Figure 2 presents a plot of the instantaneous exit rates of the foster homes in our study population.¹ I Note that the hazard, or the exit rate, is plotted as

a function of age, and not as a function of chronological time as is the case for entries. Two foster homes may be dissimilar in the sense that one entered the system in 1980 and the other in 1985, but similar in the sense that both exit the system at age four. This is not to say that chronologically specific events such as institutional change or adjustment in the rate structure do not influence foster home exits. We have treated such events as historical happenings in the life cycle of foster homes and have analyzed their effects on exits rates by entering them into statistical models as covariates. By combining in the analysis the effects of both age and historical events, it is possible, for example, to explore whether a change in government regulations affects all foster homes equally, or whether older homes are better able than younger homes to survive such change.

Figure 2:
Plots of Empirical Hazard for Foster Homes



Examination of figure 2 shows that the propensity to exit is not random, but depends upon the age of a foster home. Overall, older homes have a lower propensity to exit than younger ones. On a more specific basis, propensity to exit is initially low, increasing to a maximum at about age three years, declining to age six, increasing again to age nine, and subsequently declining.

To explain our findings, we began by turning to the foster care literature. While a number of studies suggests that new foster homes are more likely to leave than older ones, explanations tend to be inferential, positing a link between exits and such factors as changing legislation, increasingly difficult children to care for, and women in the work force (Campbell and Downs, 1987; Ontario Association of Children's Aid Societies, 1988). To our knowledge, prior to our earlier work (Tucker, Hurl and Ford, forthcoming), none of these hypotheses has been tested empirically. Moreover, references to such factors relate to points in historic time when individual relies might cease fostering; none have been used to explain the apparently age dependent pattern of exits that we found in our data.

Foster Homes and the Liability of Adolescence

One framework that may help explain the pattern of exits described in figure 2 has been called by its originators the "liability of adolescence". This hypothesis holds that whether you are dealing with organizations, relationships between people, or foster homes, the relevant survivorship curve is nonmonotonic in nature—initially it increases until it peaks, and then begins to decrease. This is due to three considerations—conditions extant at entry, a sorting process, and development of relation-specific assets. With these in mind, we begin with the question of why older homes would have a lower risk of exit. We propose two answers, one dealing with the institutionalized nature of family life and its bearing on the sorting process, and the second dealing with the role of relationship-specific assets. Considering first the nature of family life, much family behavior is habitualized action in the sense that patterns of behavior used in solving the common problems of family life are accepted as typical and appropriate by family members and are most frequently automatically invoked (Cherlin, 1978; Reiss, 1981). While such institutionalized behav-

ioral patterns enhance family unity and stability, they also invoke inertial pressures (Zucker, 1977) thereby making families resistant to change. This would not be a particular problem for foster families if caring for foster children were the same as caring for one's own children. But it is not. Caring for others' children moves caring into the realm of emotional labor (England and Farkas, 1986; Hochschild, 1979 and 1983; Lynch 1989 Nelson, 1990) meaning that caring adopts a purpose that is more instrumental than merely the development of social bonds, and involves considerations of material or symbolic gain. As such, emotional labor requires the differentiation of one's own feelings from those that go with the job, and subsequently the determination of how to govern and present them in a manner that other relevant parties agree is right for the circumstances.

In the context of foster care, this is a particularly difficult task. Involvement with young and perhaps troubled children evokes strong emotions. Moreover, because this work is done in the privacy of the home where external guidance and supervision tend not to be available, care-providing families themselves need to create relevant "feeling rules" governing the appropriate range, intensity and duration of emotions.

Because of what they bring to the task by way of pre-existing patterns of habitualized behavior, families will vary in their capacities to make this transition to providing emotional labor. Some families, perhaps because they have broader repertoires of problem-solving routines, will persist. Other families, with perhaps narrower and more rigid repertoires, will exit. In either case, we think that few families are likely to have awareness of whether they possess the capacity to deal with the requirements of providing emotional labor before actually undertaking the task. Because mismatches are likely to be detected earlier than later in a family's care-providing tenure, risk of exit for any given family will be negatively correlated with the length of its tenure. Thus, what eventuates is a sorting process in which families that persist in providing care for longer periods will have lower risks of exit because poor fits will have been sorted out.

The second explanation of why risk of exit declines with age, that of the presence of relationship-specific assets, is drawn from both organization theory and economics (England and Farkas,

1986; Fichman and Levinthal, 1991; Levinthal and Fichman, 1988; Williamson Williamson, 1975). Relation-specific assets, developed in the context of exchange relationships, entail learning how to get along with a partner. They are specialized to the immediate context, with limited utility outside it. In the case of foster care, we construe these assets to include the development of communication patterns with other relevant social actors (e.g. child welfare agency, other foster homes, community services) and the development of interpersonal trust, as well as the development of idiosyncratic knowledge, skills and understandings (Nelson, 1990). Because these assets accrue over time and have diminished value in other contexts, the probability of exit should decrease with the passage of time.

Alone, the two foregoing theoretical arguments help us understand why older homes have a lower risk of exit. However, they do not account fully for the pattern of exits described in Figure 2 as they imply a steadily declining pattern of age dependence for exits. The "liability of adolescence" theory, it must be remembered, predicts an initial pattern of increasing exits before decline sets in. This period, called the 'honeymoon' period, results from conditions extant at founding that buffer the new endeavor from the onset of age dependence effects. Applying this to foster care, we believe that some of these conditions are particular to the families, themselves, and constitute a stock of initial assets they bring to the task of fostering; other conditions are external to the families, and are realized as the particular environmental conditions under which the families enter the foster care system. The argument follows that the more assets a family has, or the more conducive the environmental conditions at founding, the longer the honeymoon period and the later the point of maximum risk of exit. We test these predictions by identifying what we believe are relevant family assets and environmental conditions, and examining their effects on the duration of time lapsed prior to the point of maximum risk.

Family Characteristics as Initial Assets

The potential assets we identify are drawn from the child welfare literature, and from our study on entries. To understand the importance of these factors, we devised a means for measuring

each, and tested for the significance of their effects on exit rates. For more detailed discussion of methodology and methodological issues, refer to the Appendix and to our earlier works (Tucker, Hurl and Ford, forthcoming). Our findings on the significance of selected family characteristics are reported under model 1 in Table 1.

Commitment – Our focus on commitment, defined as the pledging of oneself to behavioral acts such that they become less changeable (Keisler, 1971; Fichman and Levinthal, 1991) is suggested by the reality of the circumstances surrounding the care of children. Caring for children means taking on special and sometimes legally enforced responsibilities. At the same time, because child care is not regarded as requiring special talents, it is not an economically rewarding job. These observations suggest first, that the decision to care for others' children reflects at least some emphasis on doing the job for its own sake. Second, because caring for children is thought to be a relatively simple task, it will be difficult to accept that you cannot do it. These two factors, a willingness to do the job, as well as a desire to avoid the stigma of failing in the 'natural' task of caring for children, are conditions appropriate for inferring commitment (Salancik, 1977). Following from this, we expect a positive relationship between level of commitment and initial propensity to exit.

To measure commitment, we used the family's initial orientation to caring for others' children. The families in our population differed in how restrictive they were in establishing conditions for caring for children. 20 percent of our families proposed very specific conditions, stating they would only care for a certain child or a certain type of child; the other 80 percent of families were less restrictive, agreeing to care for a broad range of children. We assume that a less restrictive orientation indicates a higher level of pre-entry commitment. A care-provider who asserts, "I am prepared to care for children" is behaving less equivocally than one who says, "I am prepared to care for children if . . ." Testing for the significance of commitment in our population, we found that it had a significant positive effect on the length of the honeymoon period. All families demonstrated an increasing rate of exit over the initial 2–3 year period of fostering but families

Table 1

*Maximum-likelihood estimates of two-time period models of age dependence in foster home exit rates, 1968–1990
(Standard errors in parentheses)*

Variable	Model 1	Model 2
Time Interval 1		
Constant	0.029 (0.242)	1.161 (0.618)
Commitment	-0.354*** (0.080)	-0.299*** (0.079)
Family Age	-0.021 (0.049)	-0.025 (0.062)
Mother Employed	-0.063 (0.101)	-0.118 (0.094)
Training	-0.875*** (0.191)	-1.753*** (0.202)
Density		-0.005*** (0.001)
Demand		0.008 (0.008)
Economic Incentives		-0.535*** (0.148)
Institutional Change		-0.466*** (0.134)
Care Requirements		0.047 (0.079)
Scale parameter	0.451*** (0.056)	0.343*** (0.041)
Shape parameter	2.307*** (0.519)	3.753*** (0.684)
Log-likelihood Ratio	-775.52	-756.63
G ² vs. Baseline		38.58
Time Interval 2		
Constant	1.387*** (0.237)	1.387*** (0.237)
Scale parameter	0.525*** (0.112)	0.525*** (0.112)
Shape parameter	2.090** (1.017)	2.090** (1.017)
Log-likelihood Ratio	-170.05	-170.05

*p < .05 **p < .01 ***p < .001

with higher levels of initial commitment reached the peak exit rate at a later point in their tenure.

Training – For some time, child welfare agencies have stressed the importance of adaptive problem-solving behaviors to successful fostering. To this end, many have instituted formal periods of training for foster parents. This may take a variety of forms, including formal instruction, support group sessions with experienced care providers, and observation and practice opportunities. We have two reasons for proposing training as an initial endowment that will help buffer a family against quick exit. First, training helps establish problems not only as expected, but also as solvable. This creates an incentive for persisting in an effort that might otherwise be abandoned (Nelson and Winter, 1982: 124). Second, training alerts the family that caring for others' children is not the same as caring for one's own. While this will not cause a fundamental shift in a family's existing repertoire of problem-solving routines, it is likely to result in more deliberate decision-making about their use, thereby engendering potential for increased flexibility and adaptability (Nelson and Winter, 1982: 85). Overall, therefore, we predicted that receiving training as an initial condition of caring for others' children will stave off the decision to exit.

The Hamilton-Wentworth CAS initiated a program of formal training and on-going support services for foster parents in 1985. Intended to lower the risk of exit for new foster homes, this program allowed us to gauge the effects of training on our population of foster homes. As we predicted, the training was a significant factor in extending the initial honeymoon period. The combined effect of introductory training and commitment was to extend the honeymoon period by slightly over 10 percent, from 24.84 months to 27.36 months.

Experience – Associated with the notion of training as broadening the flexibility or range of problem solving skills is that of life experience. Because it takes time for families to develop their routines and character, we believe it is reasonable to expect that the family's longevity at time of entry will affect propensity to exit. It is not immediately clear, however, what the effect might be. Experience could serve to broaden one's repertoire, thereby aiding the transition to emotional labor; alternately, it might serve

to rigidify caring and coping patterns, thereby hindering the transition. With no clear basis for prediction, we looked to our data in exploratory fashion.

To indicate family life experience, we used the measure of the time elapsed from family formation (marriage) to date of entry as a foster home. Approximately 80 percent of our families had been constituted as families for 6 or more years before becoming foster families. Upon testing for the significance of this in exit patterns, we found it had none. In explaining this, it is possible that older more experienced families were given more troubled children to care for, thereby increasing the demands upon them and the likelihood of an earlier exit. Concomitantly, less experienced families might have been given less troubled children to care for, thereby decreasing their exit rates. The net result of such actions might have been offsetting. Or perhaps our use of family age was not a good indicator of experience. Better indications might be number and age of a family's own children. Clearly, more research is warranted in this area.

Mother working outside the home – We found in our study of entries that women's employment opportunities outside the home did not decrease entry rates as expected. Nevertheless, it is plausible that whether the mother works outside the home will have some effect on a foster home's longevity. The rationale for this has both philosophical and instrumental aspects. Mothers who remain at home to care for children are often thought to receive more pleasure from and to be more committed to raising children. In addition, at-home mothers can direct more time and energy towards involvement with the child and its problems; at the same time, they have fewer stresses and diversions caused by outside employment. All of these factors led to the prediction that the mother at home will have a negative effect on foster home exits.

Looking at our data, we found that 70 percent of the mothers were not employed outside the home at time of entry. When we examined the effect of this on initial propensity to exit, again we found no significant effect. Overall it made little difference, in terms of propensity to exit, if the foster mother was employed inside or outside the home at the time of entry. Given the presumed significance of the mother in the provision of foster care, this is an interesting finding. By way of explanation, it could be

that less troubled children were placed in homes where mothers were otherwise employed, thereby avoiding many problems and obligations, and reducing what otherwise might be a high risk of exit. Or, it could be that foster fathers play a more significant role than has been previously assumed. Clearly, this too, requires further study.

External Environmental Conditions at Entry

In the same way that the assets a family brings to the task of fostering may affect its initial propensity to exit, so might the external conditions under which entry occurs. Some conditions may lead to increased longevity and others may work against it. In testing this argument against our data, we explored the effects on exit rates of the following five factors: institutional change, numbers of existing homes, i.e., population density, care requirements, demand for homes, and economic incentives.

The findings for the effects on exit rates of external environmental variables are reported under model 2 in table 1. Before commenting on the effects of specific variables, one general point needs be made from this analysis. The difference between models 1 and 2 in table 1 is that model 2 contains the effects of the external environmental variables as well as the effects of selected family characteristics (model 1). Thus, the null hypothesis of the external environmental variables having no effect on exit rates can be tested using the likelihood ratio test. The resulting G^2 value is 38.58, which is statistically significant. This means that adding the effects of the external environmental variables to the model significantly enhances its explanatory power. This supports our general assertion that initial risk of exit for a foster homes is determined not only by its initial assets but also by external conditions extant at the time it entered the child welfare system.

Institutional environment – We earlier defined the institutional environment of foster homes in terms of rules, regulations, and expectations that govern the functioning of foster homes. Also, we pointed out that over the period of our study there was change in the institutional environment in the sense that government enacted legislation requiring foster homes to behave more as rational as opposed to natural systems. Earlier we noted that the change resulted in decreased entry rates. The question here is how

this institutional change affects foster homes' initial propensity to exit. The "threshold of talent" argument from organizational ecology suggests an answer.

As developed in organizational ecology (Tucker, Singh and Meinhard, 1989), the "threshold of talent" hypothesis posits that for every configuration of environmental conditions, there is a minimum amount of talent and energy required for organizations to be founded. Whereas favorable institutional environmental conditions lower this threshold, making it easier for organizations to get founded, unfavorable environmental conditions raise it, making founding more difficult. Because it is easier to found organizations when institutional conditions are favorable, more organizations will come into existence that do not have the talent to survive in the long run. Thus, when environmental conditions change and become more demanding, these organizations are more likely to be selected out, causing an increasing disbanding rate. Conversely, under unfavorable environmental conditions when it is more difficult to found organizations, fewer 'low talent' organizations will be founded, and will subsequently demonstrate a lower propensity to disband.

Applied to foster homes, and considered in the context of our liability of adolescence arguments, the threshold of talent argument suggests that when institutional conditions are less demanding, meaning that families enter without the expectation of internal change because they are treated more as natural than as rational systems, more relies not suited to the requirements of fostering will enter the child welfare system. Subsequently, however, these families are more likely to be sorted out. Hence, favorable institutional conditions at entry will be associated with a shorter honeymoon period. By the same token, under unfavorable institutional conditions when becoming a foster home is more difficult, fewer "poorly fitting" families will enter, meaning that the length of the honeymoon period will be extended because fewer homes will be sorted out. Hence, families coming in prepared to care for children on a more instrumental basis are less likely to exit quickly.

The findings under Model 2 in Table 1 support this argument. The coefficient for institutional change is negative and statistically significant. This implies that the more demanding institu-

tional conditions signifying the more rational approach to fostering lower a home's initial propensity to exit and, thus, lengthen its honeymoon period.

Density – It will be recalled from above that density refers to the numbers of foster homes extant at a given time. It indicates that there is an upper limit on the availability of resources to support foster homes (Tucker and Jurl, 1992:624). Based on this, it is reasonable to expect that variation in density at founding will affect foster homes exit rates. However, different views can be identified regarding the nature of this effect. One view is that the lower density at entry, the better the survival prospects of the foster home and, thus, the longer the honeymoon period. The rationale is that under conditions of low density (i.e. when there are fewer foster homes already in existence), new homes are more likely to have children placed with them. Also, the agency will have more capacity to provide supportive services (e.g., fewer homes assigned to each worker). Thus, new homes are more likely to persist as they will be receiving income for caring for children as well as support in dealing with transition problems. A competing view is that when density is low, entry will be easier, resulting in higher numbers of “poorly fitting” homes being sorted out of the population. Following from this is the implication of a shorter honeymoon period due to higher initial exit rates.

The findings under Model 2 in table 1 show the coefficient for density as negative and statistically significant. This supports the first argument that lower density at founding contributes to a longer honeymoon period because it implies higher levels of support to new foster homes in dealing with transition problems.

Demand – While it is reasonable to presume that differences in demand at the time of entry will affect initial propensity to exit, it is not clear *a priori* whether such difference will improve or diminish survival prospects. Entry under conditions of low demand, i.e., when there is limited or no change per unit of time in the numbers of children coming into care, could mean delayed or limited utilization, leading to higher initial exit rates due to lowered motivation to continue. Alternatively, it could result in lower initial exit rates because the fact of entry at a time of low demand suggests the presence of some unique and perhaps sought

after capability that the agency subsequently works to retain. The findings show demand as not having a statistically significant effect on initial risk of exit, thereby supporting neither of these arguments. We think this is an area of our research requiring additional investigation.

Financial Incentives – Our findings on entries revealed that the increased boarding rates instituted by the agency did not encourage more homes to enter the foster care system. Interestingly, however, our data reveal that they did have a significant effect on delaying the risk of exit. This suggests that economic incentives do not play a role in explaining why families took on the task of caring for others' children, but do play a role in explaining their persistence. A plausible explanation of this is that the increased pay helped offset some of the hardships involved and affirmed fostering as having some status, factors logically associated with lowering exit rates. This finding points to the not unreasonable conclusion that in and of itself, altruism is not enough to have people stick at hard work even though intrinsically they value it.

Care Requirements – We expected change over time in nature of foster care required, indicated by variation in the average age of children entering care for the first time, would have a positive affect on initial risk of exit, thus contributing to a shorter honeymoon period. The rationale is straight forward. Older children impose more demanding care requirements, thereby making fostering intrinsically less rewarding. In addition, it is more acceptable to admit that caring for older, troubled children is too demanding.

The findings under Model 2 in Table 1 do not support this argument as the coefficient for care requirements is not statistically significant. This suggests that the nature of children cared for does not effect initial willingness to persist. Upon reflection, this finding makes sense. Recall our finding that families' willingness to enter is negatively effected by the changing nature of care requirements. Here we find age of children requiring care as having no effect. The implication is that families whose persistence is influenced by the kind of child they care for are selecting themselves out and not entering the foster care system. Hence, the factors influencing the longevity of homes that are founded are items such as a family's initial commitment and the type and

amount of support provided by the agency. Generally, it seems that fostering is a task like many others. People persist in doing it because they value it in and of itself, and because of external support and incentives.

DISCUSSION AND CONCLUSION

Our study found that theory from organization ecology could be used to organize and justify observations previously made in the foster care literature regarding the effects of selected variables on entry and exit rates of foster homes. In addition, it suggested other avenues for research, notably selected environmental conditions and intrapopulation dynamics. In relation to entries, we found support for our theoretical arguments that the changing nature of the caseload and the changing role of foster parents would negatively effect entry rates. We also found support for our arguments that intrapopulation processes would effect entries. Specifically, foster home density and demand had significant curvilinear effects on entry rates, explaining the cyclical patterns in our data.

In regard to exits, we found support for the liability of adolescence hypothesis that exit rates would show a curvilinear pattern of age dependence, initially increasing and then decreasing. We also found support for our arguments regarding the buffering effect of initial assets. Both commitment and training had the effect of extending the honeymoon period. Our arguments that selected founding conditions would effect exits received mixed support. Specifically, homes entering under conditions of higher remuneration were significantly more likely to remain in the system longer. Also, density and the nature of the institutional environment were found to have a significant effect on exit rates.

There were predictions, however, from both foster care literature and organizational theory which were not borne out. For example, the movement of women into paid labor outside the home did not have the expected positive effects on entries or exits; increases in remuneration rates did not have a positive effect on entries though it did on exits. These unexpected findings and others (e.g., the second period of high risk of exit from 6 to 9 years into tenure; the failure of the changing nature of the child welfare

caseload and increased demand for homes to lower exit rates) point to the complexity of foster care and the need to conduct further studies to aid in our understanding of particular aspects of it and in our development of theories concerning its underlying dynamics.

The notion of theory development, of course, raises the question of the generalizability of ecological organization theory to other, dimensions of child welfare/foster care systems. We suspect that it can be used to guide research in other areas. However, this carries with it the implication of additional methodological work. For example, our use of increasing age as a measure of "harder to care for children" might be changed to one of decreasing age and/or the presence of physical disabilities in agencies dealing with increasing numbers of crack addicted babies; our measure of commitment might be modified to include blood relationships, etc. Despite our suspicions of general ability, however, the question is an empirical one which can only be answered by the results of further studies.

Before closing, we would like to address some issues raised by our research for policy, practice, and future research. First, we believe that our research has direct policy implications. One of these pertains to the provision of support and training for foster parents. Our finding of a liability of adolescence suggests the possibility of dealing with foster homes in different ways, depending upon where they are in the aging process. Pressures to exit are greatest not on new or older foster homes, but on foster homes in their "adolescence," after they pass through their honeymoon phase, and begin to decide about their suitability to fostering. A possible implication is that training programs for foster parents should take on different primary foci, depending upon stage of the foster home life cycle. Relatedly, it would seem appropriate that these training programs be designed with the aid of adult educators, who emphasize the relevance of imparting knowledge appropriate to the context in which people find themselves.

Secondly, we need to pay more attention to the issue of foster home reimbursement and its implications. Our studies suggests that if agencies want to expand the numbers of foster homes and attract a more career oriented foster parent, they will have to consider raising payment schedules to levels that make them

competitive with other forms of professional care giving. This alternative has not only financial implications for agencies, but also philosophical ones—do they want to move closer to a system that emphasizes the career and financial aspirations of foster parents as opposed to their commitment to caring for children. Our studies suggests that it would take a significant outlay of resources to make this change. Moreover, even if higher pay is successful in drawing on an enlarged pool of foster parents, our study suggests that a shift away from the primary commitment to child care as an end in itself might well have negative implications on the longevity of newly attracted homes. As we note below, it might also have consequences for the kind of care children receive. Clearly, the issue of remuneration is highly complex.

Our studies also raises questions about current practices and policies in relation to the placement and care of children. These questions result not only from changes in the nature of fostering, but from the pattern of exits from the foster care system. We have posited that the orientation to the role of fostering is changing, with the traditional natural systems view being replaced by a rational systems perspective. Indeed, recent developments in professionalizing fostering imply the acceptability and perhaps the superiority of caring for foster children under rational as opposed to natural systems conditions. To our knowledge, however, there is no research supporting this shift, or investigating its implications for children. Our research indicates one possible outcome of this shift—a decrease in the number of homes from which to choose in placing children. No doubt some would argue that these fewer more professional homes provide better care, yet we know of no research investigating the consequences for children of being cared for under rational as opposed to natural conditions.

In a similar vein, questions might also be asked about the consequence for children of the liabilities of adolescence found in foster homes. Does being placed in a newer home as opposed to an older home have implications for children in terms of their mental health, prospects for being returned to their natural family, and/or for subsequent propensities to five multiple placements? Again, research is lacking in this area.

We have not attempted to address such questions in our study, but we do believe we have highlighted their significance. Hope-

fully, too, we have provided a framework that future researchers might find useful in conducting additional studies at multiple levels of analysis to investigate these and other pressing issues in foster care.

APPENDIX

Methods of Analysis

This research tracks the time paths of change in a population of foster homes, and assesses how changes over time in various external and internal factors influence the shape of the time paths. Consequently, we used dynamic forms of analysis to test the empirical implications of our arguments. We modeled foster home entries as event count data resulting from a Poisson process. The basic formulation is the Poisson regression model;

$$\Pr(B = b_t) = \frac{e^{-\lambda} \lambda^{b_t}}{b_t!}$$

where b_t is the number of Soundings that occur in time interval t , $\lambda = e^{b^8 x_i}$ and x_i are measured covariates.

We used a gamma distribution as a model for patterns of foster home exits. It has been used extensively across a variety of research domains and has the advantage of allowing for the description and estimation of both monotonic and nonmonotonic patterns of exit. It also controls for unobserved heterogeneity, or the effect on the exit rate of unmeasured differences among foster homes.

For the gamma distribution, we model the hazard function using a Weibull model with gamma heterogeneity. This model has a hazard function, $h(t)_{\text{gamma}}$, which breaks into two multiplicative components:

$$\begin{aligned} h(t)_{\text{gamma}} &= S(t) \cdot h(t)_{\text{weibull}}, \\ s(t) &= [1 + \theta(\lambda t)^\rho]^{-1/\theta}, \\ h(t)_{\text{weibull}} &= \lambda \rho (\lambda t)^{\rho-1}, \end{aligned}$$

where ρ is the shape parameter of the gamma distribution, λ is a transformation of the intercept and covariates, such that $\lambda = \exp(\sigma + \beta X)$, and ρ defines the scale parameter σ , such that $\rho = 1/\sigma$. When $\theta > 0$, the gamma distribution provides an estimate of a nonmonotonic hazard rate, first rising, then declining.

A gamma distribution with $\theta = 0$ collapses to a monotonically declining Weibull distribution. In turn, a Weibull model with $\rho = 1$ ($\sigma = 1$) collapses to a constant rate exponential model, with $h(t) = \lambda$. The further the shape parameter θ deviates from 0, the greater the effect of heterogeneity. If heterogeneity were not controlled, the estimations could produce either inconsistent parameter estimates or inappropriate standard errors, with the latter being the most common problem. All analyses were implemented using the statistical package LIMDEP (Greene, 1992).

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Notes

1. The hazard rate can be thought of as “approximately” the probability of an organization disbanding at a particular time, given that it has survived until that time. Strictly speaking, however, it is not a probability but the instantaneous rate of disbanding at each instant of an organization’s life. It is given by:

$$h(t) = \lim_{\Delta t \rightarrow 0} \frac{\Pr(t, t + \Delta t | \text{alive at } t)}{\Delta t}$$

where $\Pr(t, t + \Delta t | \text{alive at } t)$ is the probability of disbanding between t and $t + \Delta t$, given that the organization is alive at age t .

