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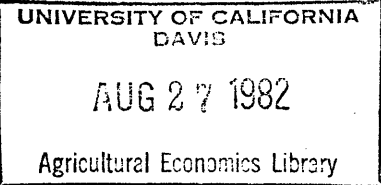
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JOB SEARCH DECISIONS OF WOMEN
AGRICULTURAL ECONOMISTS: ARE THEY LIMITED
BY GEOGRAPHICAL IMMOBILITY?

by

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JOB SEARCH DECISIONS OF WOMEN AGRICULTURAL ECONOMISTS

Christina H. Gladwin

Following the lead of women economists, psychologists, and sociologists, women agricultural economists have recently begun to compare the position of women to men in the field [Lane, Lee, Redman]. In general, their findings concur: women agricultural economists receive lower salary and rank than men [Lee, Reagan, Rosenfeld], are less likely to be tenured [Lee, Rosenfeld], have fewer publications per year and less post-degree experience [Lee], are often located in less prestigious settings [Rosenfeld], and advance more slowly up the academic ladder [Reagan, Rosenfeld]. In addition or as a partial explanation, women face more problems of motivation and lack of a support system. Compared to men agricultural economists, half as many women are married individuals, who are more likely to complete the Ph.D. than single individuals [Redman, Marwell et al.]. Half as many women have ever had children [Redman], who sometimes motivate the major breadwinner in the family [Reagan]. Further, women face "significant barriers to parallel advancement" in the form of lack of appropriate role models, mentors, and supportive attitudes on the part of spouses, relatives, employers, and colleagues [Lane, p. 1029].

However, concludes Lane, "the barriers are falling," since fewer younger female agricultural economists, with degrees received since 1970, report encountering some of the demand- and supply-side barriers perceived by the older women with degrees received on or before 1970 [p. 1030]. Is Lane's optimistic assessment correct? Did the struggle for women's equality in the 70's have a liberalizing effect on the traditionally male-dominated domain of agricultural economics? If so, will the younger women agricultural

economists continue to move up the professional ladder in parallel with the younger men?

Some evidence suggests not. A study of recent postsecondary graduates of agricultural programs (including agricultural economics) in California shows that the gap between men's and women's starting salaries has widened each year, from 1977 to 1979 [Wood et al.]. Other studies that also look at historical rather than cross-sectional data on career paths of individuals from the same institution [Reagon and Maynard] similarly conclude that women advance up the career ladder more slowly than men. Women spend longer, on average, as assistant professors in a given school and slightly longer as associates [Rosenfeld, p. 344]. Why, if the barriers are falling?

One explanation, advanced to explain slower transition rates of women psychologists between academic ranks, is the following [Rosenfeld, Marwell et al.]. The disparity between men and women in academic status and earnings derives not so much from personal characteristics and discrimination, but from the fact that upwards mobility in academia, essentially a national market in specialized positions, requires strategic job shifts and geographic moves. "Job switching is the rule and it pays off in upward mobility" [Marwell et al., p. 1226]. Taking advantage of strategic opportunities to move, and making job shifts when and where they appear, however, is easier for men academics than women, who tend to marry men of higher (or at least not lower) status than their own. As a consequence, almost all married women academics are in two-career marriages; while very few men academics are. Membership in a two-career family affects career development adversely in two ways: one member may be unable to accept a good offer in another city cause the career of the other spouse cannot develop there; or one member may have to relinquish a

good position to move to a less suitable job elsewhere, in order to move with the spouse. In general, these career costs tend to be borne by the wife because couples place the needs of the husband's career first in deciding on geographic moves [p. 1226]. As a result, "job mobility for men, as measured by number of previous jobs, seems related to movements up the tenure track ladder, while for women it seems associated with lack of advancement" [Rosenfeld, p. 356]. In a test of this hypothesis, Rosenfeld regressed explanatory variables including geographical mobility on job transition rates of men and women psychologists, and found geographic mobility to have the strongest and most consistent effect [p. 357].

For this symposium, I decided to do my own kind of test. Following Rosenfeld, the unit of analysis is the job shift, i.e., a change of institution without a change of title or a change of title within an institution. Departing from previous researchers, the method of analysis is the use of personal telephone interviews with women Ph.D.'s in agricultural economics in the United States, in order to test an information processing or "decision tree" model of their job search processes. The methodology, described in previous papers [Gladwin, 1976, 1979, 1980], assumes each job shift requires the individual woman to make one or more job search decisions. By modeling these decisions, a researcher should be able to identify geographical immobility as a factor limiting job search and job acceptance, if in fact it is one. A simple tally of the number of each woman's job shifts limited by geographical immobility, summed over women, should then demonstrate the importance of geographic immobility as a limiting factor. By using historical job shifts of women agricultural economists as "test cases" of the decision model(s), the researcher can avoid use of sometimes misleading hypothetical

questions such as, "Are you willing to move 100 miles away from your present location to a position paying more, with more responsibility?" When push comes to shove and the job offers are in, the willingness to move may evaporate for the woman agricultural economist or her husband, since real-life decisions, including job shift decisions, are made in historical context.

As the psychological literature shows, the context or environment in which decisions are made determines to a great extent the actual alternatives and relevant decision factors considered by the job searcher [Tversky and Kahneman]. What this means is that a decision model, to be 100 percent descriptively adequate, should be formulated for each individual and for each decision process [Quinn]. However, by abstracting from specific information processed to more general criteria (e.g., generalizing terms like "research time, research interests, proximity of research subjects" to labels like "suitability or compatibility of job with long run career plans") and realizing that some decision criteria are "preattentive" or lurking in the background of the actual decision context and not consciously processed [H. Gladwin and Murtaugh], one can formulate a general model which aims to predict most of the historical choices of individuals in a group.

The form of the decision model is hierarchical (i.e., a tree, a list, a set of rules, a decision table, or a flowchart) rather than linear additive because:

... most decisions are made in decomposed fashion using relative comparisons. Evaluations of multi-dimensional alternatives are seldom holistic in the sense of each alternative being assigned a separate level of utility. It is cognitively easier to compare alternatives on a piece-meal basis, i.e., one dimension at a time [Schoemaker, 1982]

The dimensions or "decision criteria" can be read in the diamonds (denoted by

< >) at the "nodes" or branching points of the decision tree. They are either goals motivating the decision, aspects to be "maximized" or ordering on, or constraints that must be passed or satisfied, in this case as the woman agricultural economist makes four interrelated sequential decisions:

1. the decision to search for a job in agricultural economics at time t (Figure 1);
2. the decision to limit or not limit search to a small geographical region; e.g., a city, county, or state, also at time t (Figures 2 and 3);
3. the decision to apply for a job at time $t + 1$, given search at time t (Figure 4); and
4. the decision to accept a job at time $t + 2$, given (an) offer(s) (Figures 5 and 6).

In each decision model, based on a particular woman's answers to a series of questions in the decision criteria, which are arranged in a logical sequence from the top of the tree to the bottom, the tree model deterministically predicts what "outcome" the woman chooses, read in the boxes at the endpoints of the paths. If a woman's responses send her (data) to the outcome, "accept job i " and in fact she accepts job i , the model is correct. If she rejects job i , however, the model has made an error. By asking a number of women the same questions, and putting their responses "down the tree," and counting the number of errors, a researcher can tell how accurate the model is.

Because the model is usually built inductively rather than deductively after interviews with one sample of 25 to 30 decision makers, a proper test of the model can only be had with a separate "test" sample of decision makers [Gladwin, 1979]. Due to the small number of women agricultural economists with Ph.D.'s in the United States, however, this model was built after reading the literature and interviewing four male and two female colleagues at the University of Florida. The models in Figures 1 through 6 were then tested

on 46 job shift decisions made by 24 women, roughly half the total number of women Ph.D.'s. Unfortunately, only two of those women are older women with Ph.D.'s received before 1971. These results are therefore preliminary, as I hope to interview almost all women Ph.D.'s and their male matches.

Since decision models in Figures 1 through 6 are relatively straightforward, with results summarized beneath each outcome, a description of each model will be brief, and the reader is urged to "go down" the tree models as he/she reads along.

The Decision To Search At Time T

The search decision process does not start unless a woman agricultural economist -- or a man for that matter -- has at least one reason to search. These include: her education is completed or almost completed and no job offer has yet appeared; she is losing her present job; she is dissatisfied with some aspect of the job (salary, pay raises, professional isolation, the department chair, political fights or cliches within the department, etc.); her spouse is moving to another job in another location; or someone has searched her out about a possible job opening. In the latter case, women often say "there was no search." If no reason for searching exists, she does not search. Given a reason, she does not search if she cannot pass constraints of good health, a supportive or at least not unsupportive spouse -- if she has a spouse, and access to resources (capital and time) to search. In addition, if she has children, she must feel that she can satisfy her children's needs and her career needs at the same time. Finally, she must not feel so "burned out" by career demands that she considers changing careers altogether.

Results show that half (23) of the job shifts in this sample occur because a woman is completing her Ph.D., as expected since all the women in this sample were currently holding jobs and had completed the educational requirements for a Ph.D. or ABD. After receiving their degree, none of the women had had a work gap of greater than or equal to six months. Thus 46 cases of job shifts proceed on to decision 2, to limit or not limit the search for a job.

The Decision to Limit or Not Limit Search

During the same time period, women make the decision to limit or not limit search to a small geographical area; e.g., a city, county or state (Figures 2 and 3). It is assumed that this decision is made (consciously or preattentively) prior to the decision to apply for a specific job (in Figure 4), although it may be made again, in the job acceptance process. Thus output from this decision enters into the decision to apply for a job and may enter into the decision to accept a job. For brevity, the results of testing the model are presented along with the model.

As postulated by Rosenfeld, Reagan, and others, the first criterion and the one responsible for the biggest "cut" (of the sample into subsamples) is a woman's presence in a two-career family with spouse not perfectly mobile. Single women and older women with spouses who are retired or have easily-movable careers (e.g., high school teachers, consultants) go down the right-hand side of the tree leading to the outcome, "Don't limit search;" while women in two-career families or partnerships go down the left-hand side of the tree. In this sample, 26 of 46 job shifts are made by women currently

in two-career families; 20 are not. Of these 20 shifts, 18 are made by single women; only two shifts are made by married women with perfectly mobile spouses. Further, of these 20 shifts, only 12 shifts proceed to the outcome, "Don't limit search," since "even single women may prefer to limit themselves to larger urban centers for social reasons" [Rosenfeld, p. 348]. If they do, they -- or more accurately their data -- are sent to Figure 3, to decide whether to settle for a less suitable job in order to get an acceptable geographical location or lifestyle.

On the left-hand side of the tree, in 16 of 26 shifts, women are deferring to spouse's career and following him to a given geographical location at the time of the job switch. They therefore also proceed to Figure 3, since their search is also limited. Of the 10 remaining job shifts of married women, six have spouses who agree to a joint or location-interdependent job search. These six women also "feel right" about uprooting the spouse -- itself not an easy task. Some of these women have followed the spouse in earlier stages of the life cycle and feel it's their turn now. Other couples make democratic job search rules right at the start of their careers; e.g., "if you get a good job first, I'll follow; if I'm not happy, we'll move again." Of these couples, however, only three find (joint) jobs in the same location. The other couples have to decide which spouse gets the good job and which spouse follows. In this admittedly small and biased sample -- biased since the sample was taken from a roster of active women agricultural economists -- two women get good job offers and spouse agrees to follow, while one woman proceeds to Figure 3.

To summarize, of the 26 job shifts made by married women, in only three did the woman receive a joint job offer and in only two did the spouse agree

to follow the woman agricultural economist. These data thus support the hypothesis that the tendency for women to marry men of higher status than their own, resulting in two-career marriages for women professionals, also results in geographic immobility for the women.

In all, (data on) 28 cases of job shifts proceed to Figure 3, which first asks if a woman is willing to apply for or stay at a less suitable job (defined as one with less salary or rank, more dissatisfaction, and/or less compatibility with lifetime goals than they are qualified for) in order to get an acceptable geographical location. In this sample, 18 women are willing. Seventeen therefore limit their search, while one woman stops searching. Ten women are not willing to apply for a less suitable job than they are qualified for. Of these, two women are willing to wait a while for a suitable job to open up in their area; two women are willing to commute to work (and spouse); six women are indecisive.

Feedback

Of the 28 job shifts in Figure 3, 24 are limited to a small geographical area. (Two are not limited; two searches are still in progress with results unknown.) At least at this point in the search decision process, feedback (in the form of the presence or absence of job offers) enters [Simon]. The feedback criteria in Figure 3 therefore asks if a suitable job has appeared, even though the woman agricultural economist has limited her search. For 13 cases of job shifts, it has and the woman proceeds to decision 3 to apply for a job. In this sample, eight of the 13 suitable jobs were in government in large metropolitan areas; three were in academia in small and large towns; two were in businesses in a large city. In 11 more cases, a suitable job does not

appear; a less suitable one does, however, and the woman proceeds to decision 3 to apply for it. In this sample, nine of these less suitable jobs are in academia, while one is in business and one in government. These data thus support the hypothesis that women who limit their search are disadvantaged in the national market place of academia.

The Decision To Apply For A Job

Whether or not women have limited their search, they proceed to figure 4 to apply for a job at time $t + 1$, which can be anytime after they have decided to search or someone has searched them out. They will apply for job i if they pass all the constraints in figure 4: they must have access to or be able to build an information network to hear about the job opening; they must be able to get good recommendations from mostly male faculty (or have enough female faculty on their committee); their spouse must not be unsupportive. Again, they must feel they can handle both children's and career needs; they must be open to moving to the geographic location of the job. The salary, if known at the time of the application, must be suitable or "competitive"; the requirements of the job must be suitable or compatible with their career interests and qualifications. Finally, they must hear about the job on time, before they accept another job or before applications are closed. If all these constraints are passed, a woman will apply for a job. If one constraint is failed, the woman will not. After the application is made and the interview had, discriminatory feedback from an employer or institution can also eliminate the job possibility.

Results of asking women about the job applications that resulted in job offers as well as the jobs they heard about but did not apply for produced the results in figure 4. The reader should note that several alternative

jobs can be eliminated at the time of a job shift, and as long as one alternative job possibility passes all the constraints in figure 4, the woman proceeds to figure 5, to decide to accept or reject that job offer. The results show that the main reasons why women in this sample did not apply for more jobs than they did is location (in 12 cases of job shifts), lack of job suitability (in 8 cases), and timeliness (also in 8 cases). Discriminatory feedback from potential employers did not seem to "cut" for this sample. Only in 3 cases was a woman aware that employers' discriminatory attitudes had cost her a job offer. However, other women also might have been excluded from some positions without information of discrimination getting back to them. Thus the methodology used here probably precluded finding employers' discriminatory attitudes as an important limiting factor.

The Decision to Accept a Job

Given one or more job offers at time $t + 2$, any time after an application is made, a woman proceeds to figure 5, either to compare job offers and choose one, or to accept or reject one job offer. If the time between job offers is large enough, the woman may only process one job offer at a time, as in figure 5 "continued", without comparing alternative offers, as in figure 5.

In this sample, 15 women had multiple job offers to choose between at the same time; while 20 had only one job offer to accept or reject. For brevity, however, and because the decision criteria are the same in both cases, I henceforth assume that multiple job offers exist to rank and choose between.

Given job offers i, j , and k , a woman ranks the alternatives that have made it through figures 1-4 on a dimension or aspect of her choice (Gladwin, 1980). Thus the first criterion in figure 5 asks, "What's more important to you, suitability or compatibility of the job to your long run career interests(1),

*of 35
women who
maximize
suitability
below*

salary (2), family income (3), prestige of the department or institution (4), or closeness to someone you love (5)?" In 35 (81%) of the 43 job shifts in figure 5, suitability of the job is chosen or maximized; in 5 (12%) of the cases, closeness to someone you love is chosen. Prestige and salary are maximized in 1 case each. The results seen in figure 5 are limited to the 35 cases where women maximize suitability, again for brevity of presentation.

Given the ordering aspect, other dimensions of the choice become constraints with thresholds to be passed (Gladwin, 1980:pp. 58-60). Thus on the left-hand path of figure 5, the woman must judge that the salary of the most suitable job (e.g., job i) is "competitive" and that the increase in salary she receives over her past job (often as a graduate student) will approximately cover moving expenses, for her to proceed to figure 6, a list of other constraints to be passed. Of the 35 cases of job shifts with job offers ranked on suitability, 30 women do pass these particular constraints and proceed to figure 6. Five women do not. In 2 of these cases, the job will increase family income now or in the future, however, so that these cases also pass to figure 6. In 3 cases, job X has enough prestige so that the advantages of the job outweigh the disadvantages, and these cases also proceed to figure 6.

More constraints on job acceptance are processed in figure 6. First, a risk constraint asks the woman if she is worried about handling risks associated with the job: fear of failure, of not getting tenure, of being labeled a job changer, of having an unhappy spouse. Twenty-six women were either not worried or had a strategy to handle these risks such as: "work harder, find mentors, persistence; do it!" Nine women were worried but the job was

worth taking these risks. Also on the left-hand path of the tree are capital (to cover moving costs), spouse, children, and location constraints. Here again, a bad location constrains 2 women so that they pass to the right-hand side of the tree to the "trade-off" criterion. For these women, the job is not worth their suffering with the location, but they take the job anyway because there's just no other choice.

In summary, the models in figures 1-6 predict 41 of these 46 job shift decisions made by this sample of women agricultural economists. In general, results support the hypothesis that two-career marriages result in geographic immobility for the woman. When job searches are limited to a given geographical area, women are more likely to settle for a "less suitable" job than they are qualified for --- unless they also search for a business or government position in a large metropolitan area. In conclusion, I have the following recommendations for young women agricultural economists:

- 1) If you want the most-upwardly mobile career path, stay single or marry a perfectly-mobile man; and if in academia you must be, be willing to live in small towns.
- 2) If you want a two-career family, then think about business or government jobs in a big city, where you'll have more likelihood of finding -- and keeping -- a career man and a suitable job in agricultural economics.
- 3) If you want an academic job and a two-career family -- if neither scenario (1) or (2) is what you want, then be prepared to face a complex career path with joint job searches which when unsuccessful may lead one spouse or the other to hold a "less than suitable" job. Given the resulting dissatisfaction, expect to move: "women in places where jobs are less likely to exist are more likely to move"(Rosenfeld,p. 358).

Figure 1:

Decision 1
Decision to search for a (new) job as an agricultural economist at time t

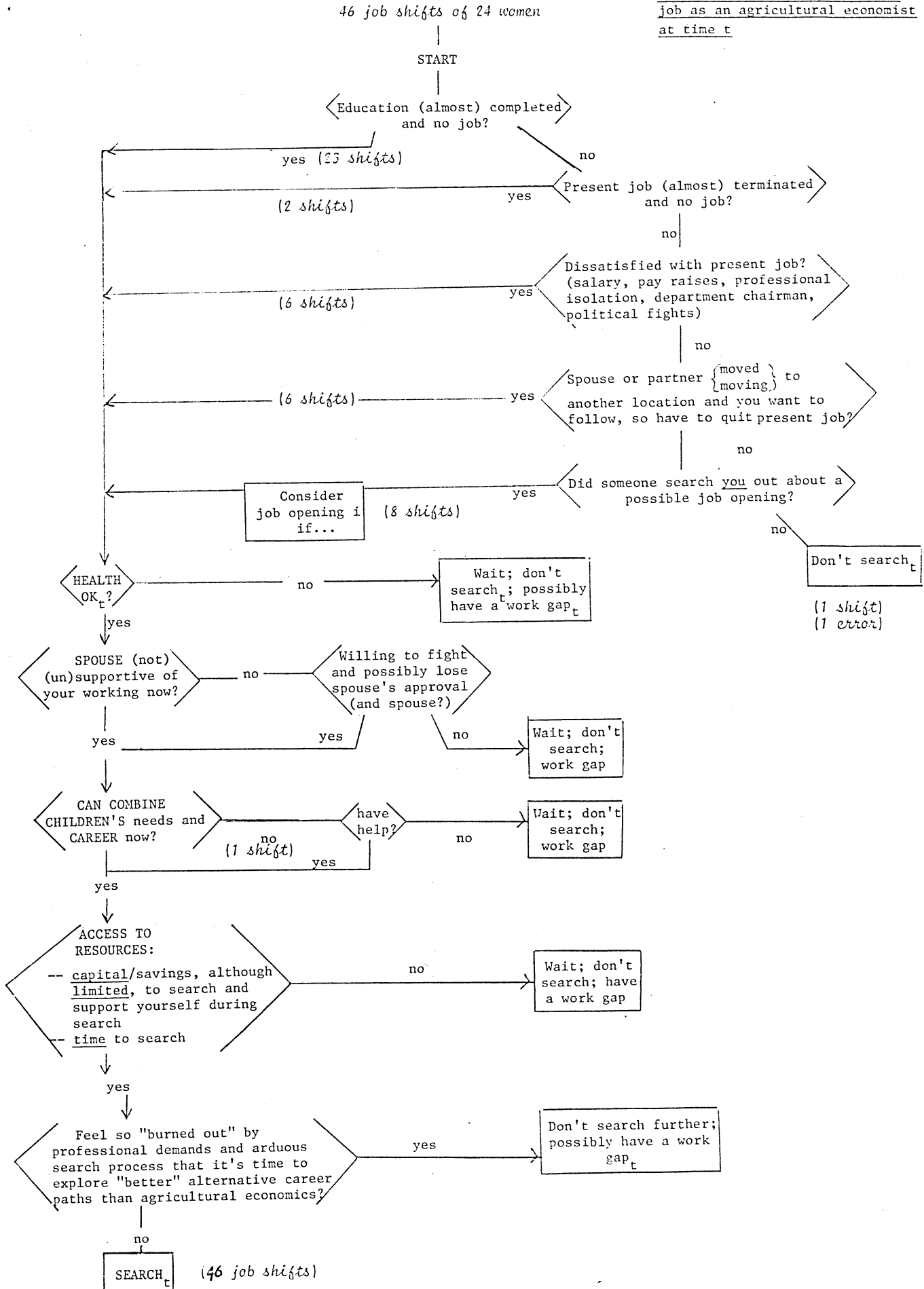


Figure 2:

Decision 2
Decision to limit or not limit search to SMALL geographical region(s), e.g., a city, county, or state at time t

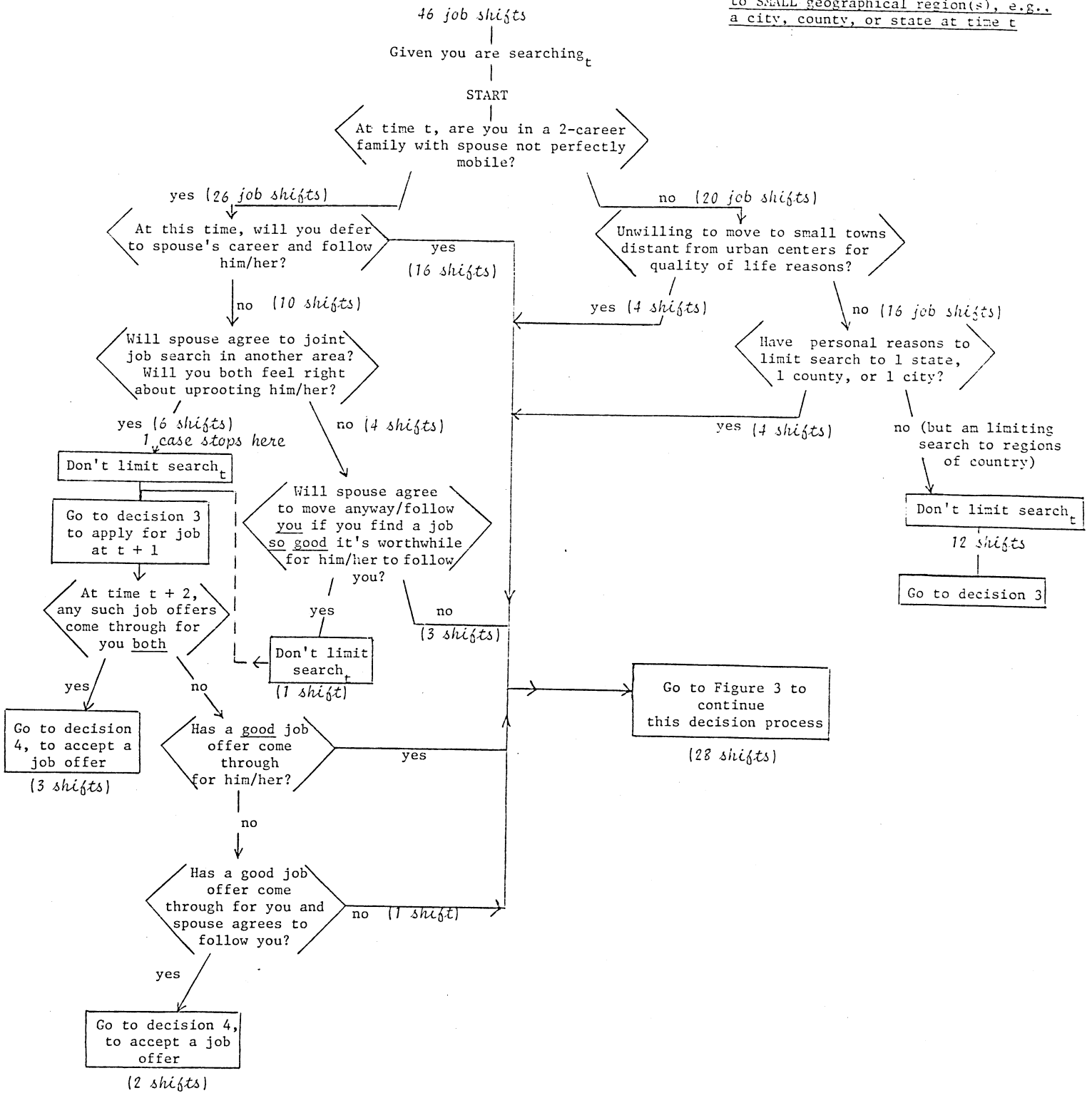


Figure 3:

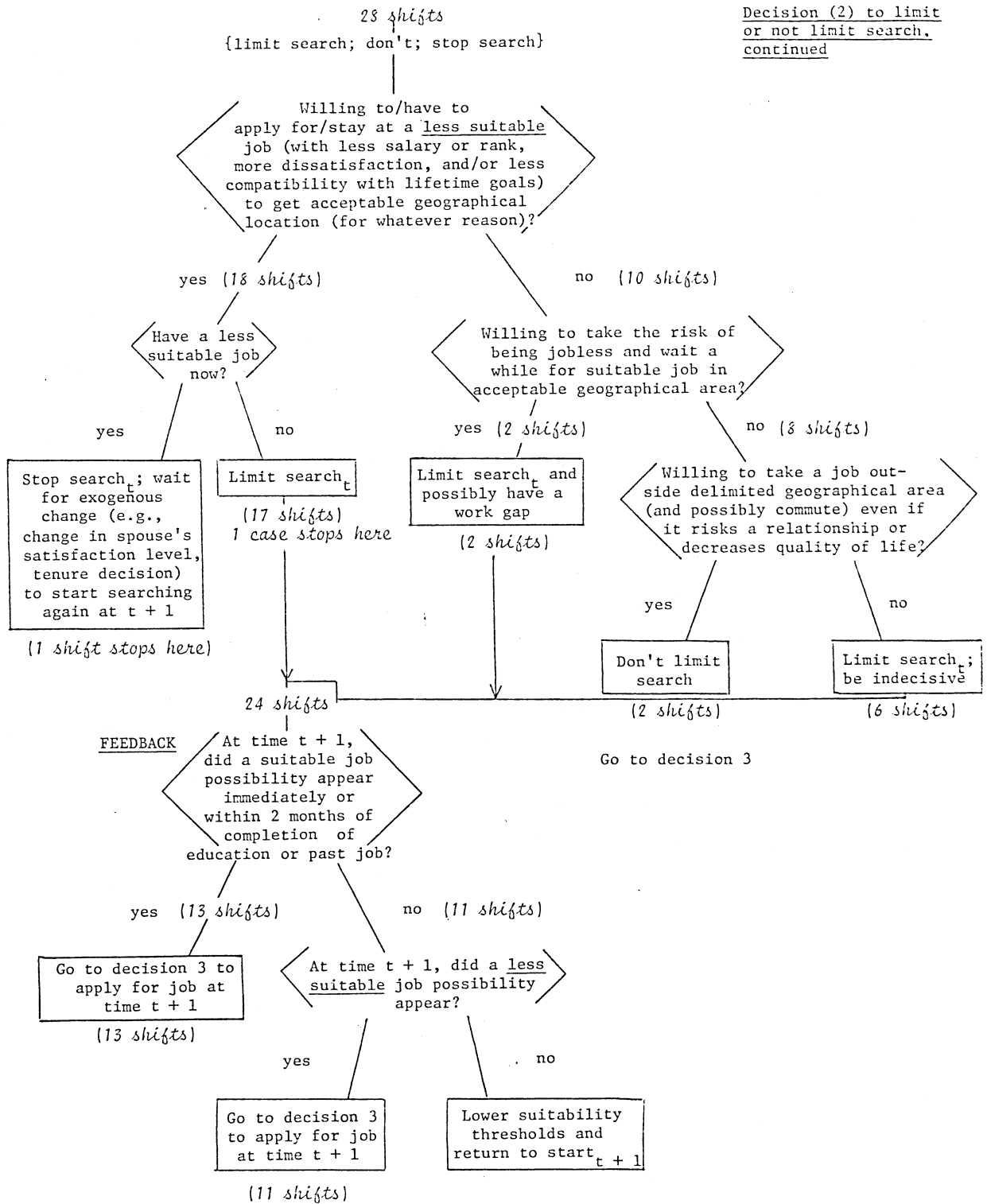


Figure 4:

Decision 3
Decision to apply for job i
at time t + 1

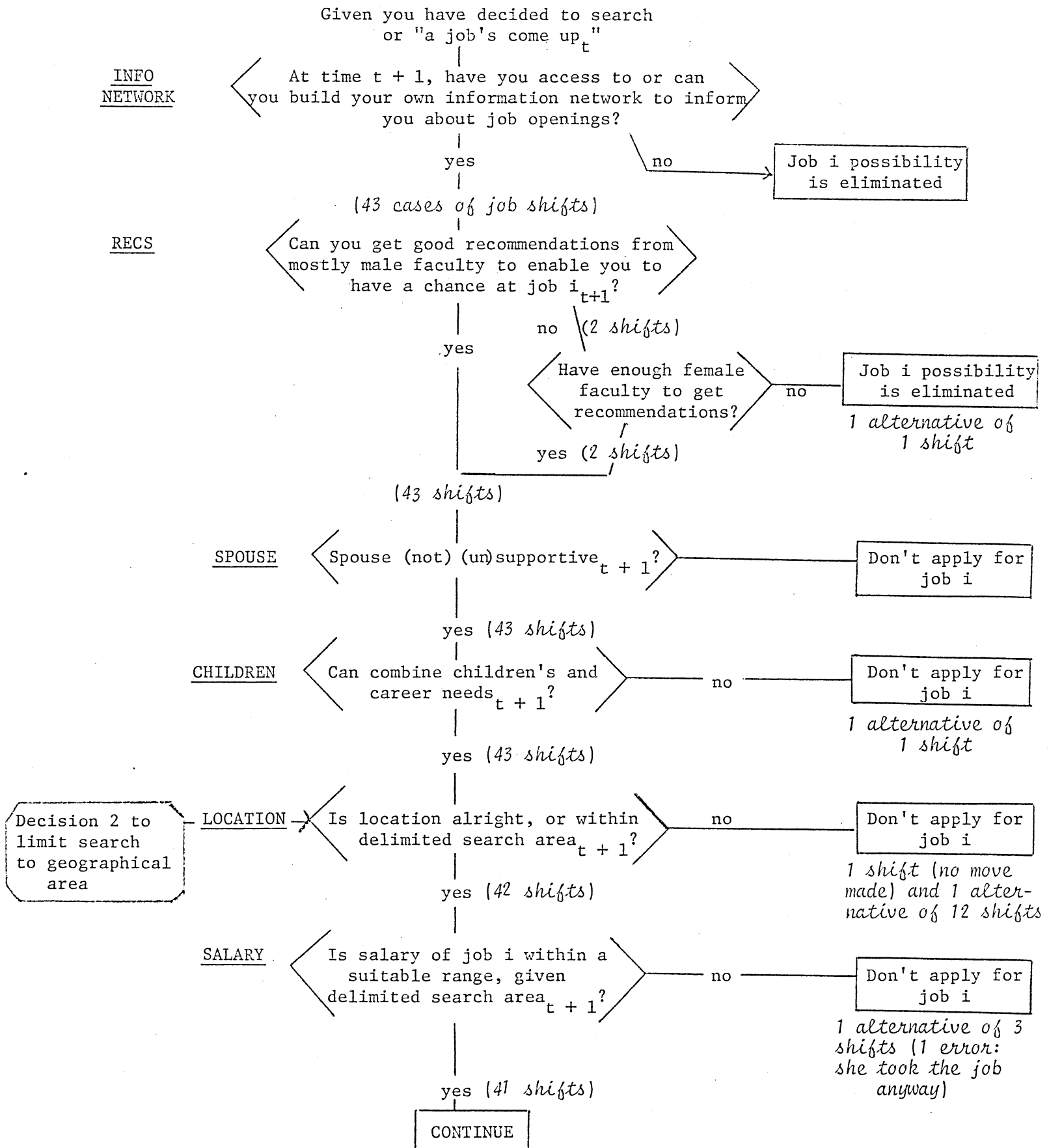


Figure 4: Continued

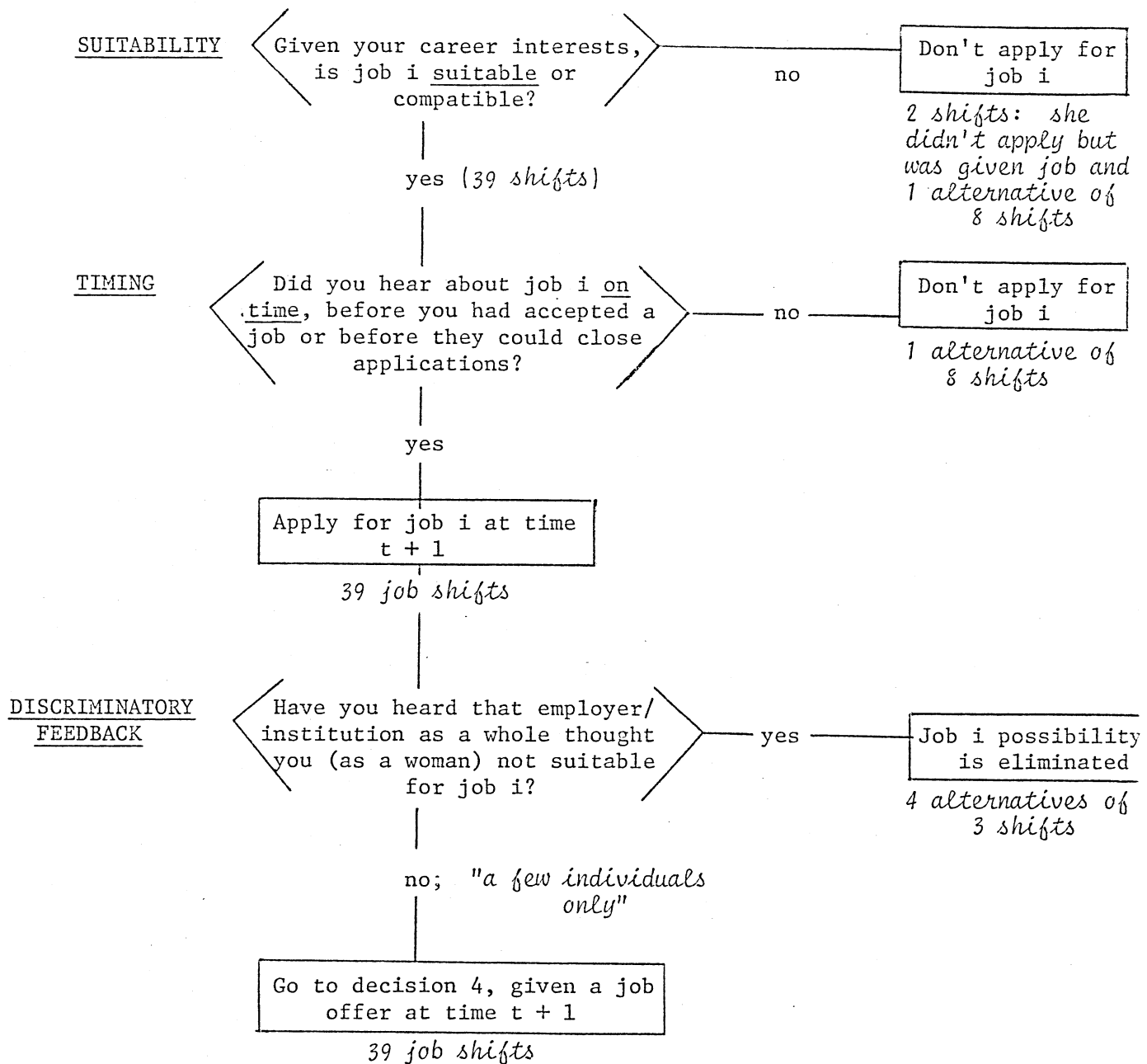


Figure 5:

Decision 4
Decision to accept a job, given more than one job offer at time t + 2

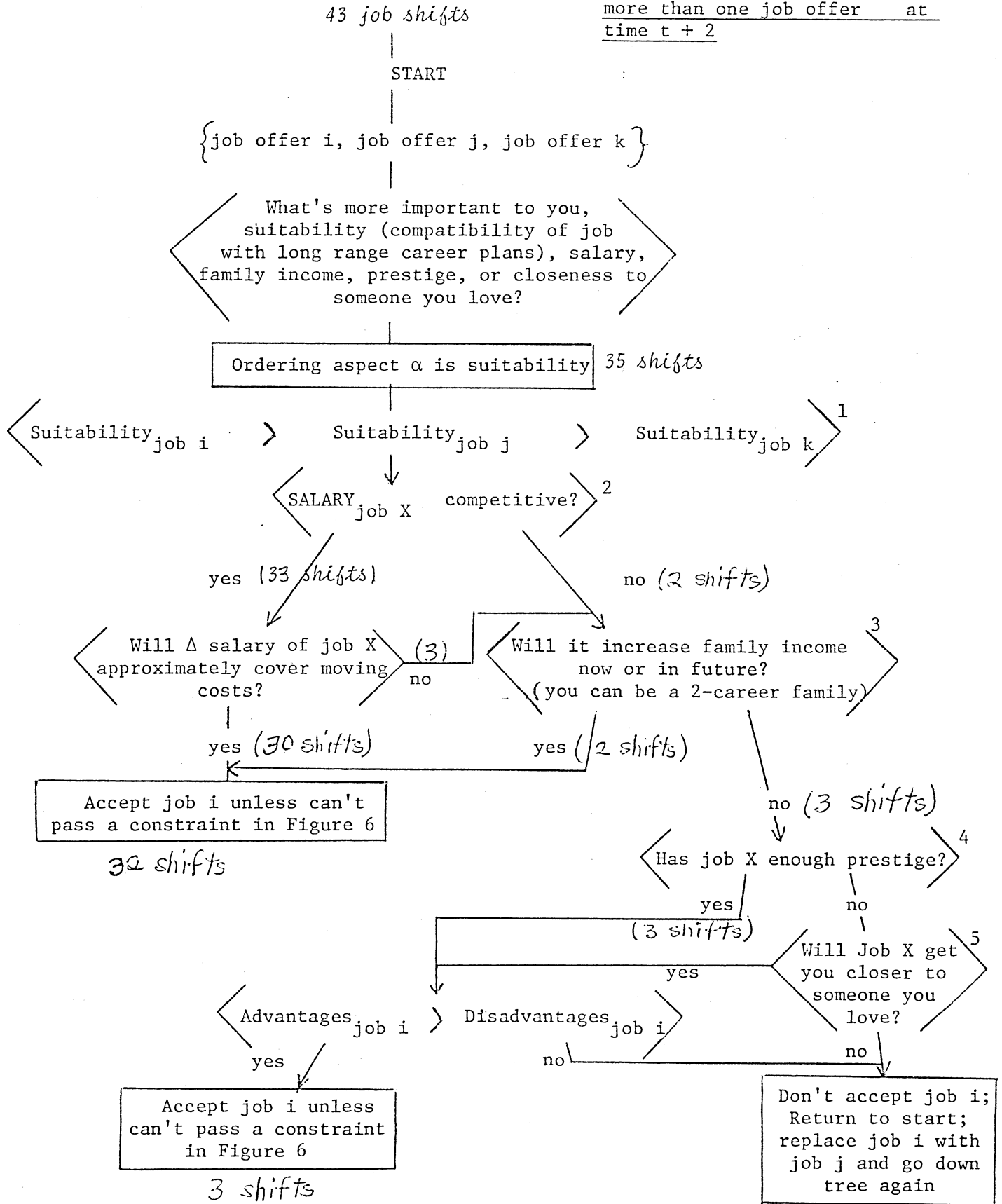


Figure 5: Continued

Decision 4

Decision to accept a job, given one job offer at time $t + 2$

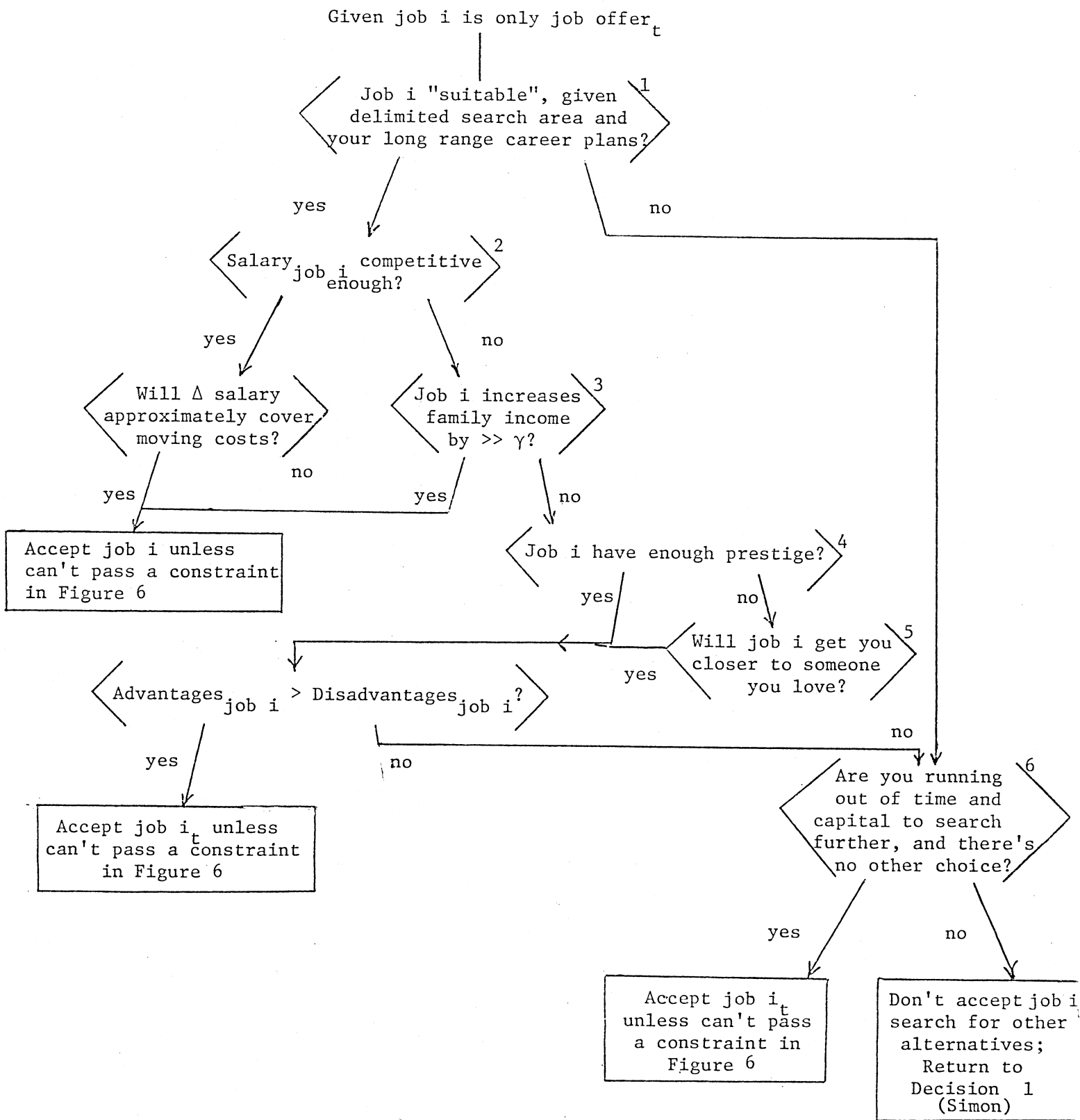
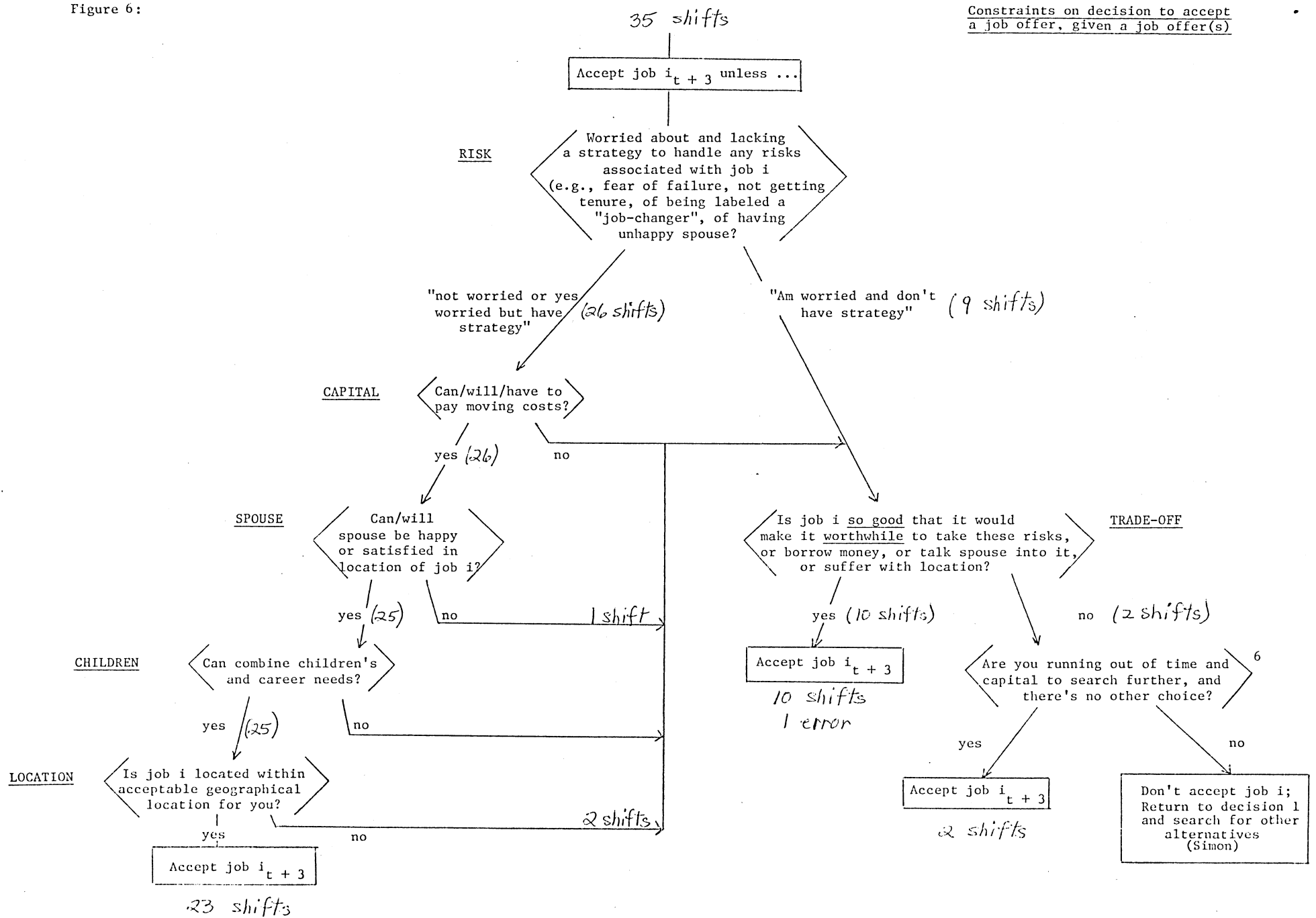


Figure 6:



References

- Gladwin, Christina. 1976. "A View of the Plan Puebla: An Application of Hierarchical Decision Models." American Journal of Agricultural Economics 58(5): pp. 881-887.
- Gladwin, Christina. 1979. "Cognitive Strategies and Adoption Decisions: A Case Study of Nonadoption of an Agronomic Recommendation." Economic Development and Cultural Change 28(1): pp. 155-173 (October). Reprinted in: Indigenous Knowledge Systems and Development, David Brokenshaw, Oswald Werner, and D. Michael Warren, eds., University Press of America.
- Gladwin, Christina. 1980. "A Theory of Real-Life Choice: Applications to Agricultural Decisions." In Agricultural Decision Making: Anthropological Contributions to Rural Development, P. Barlett, ed. New York: Academic Press.
- Gladwin, Hugh, and Michael M. Murtaugh. 1980. "The Attentive/Pre-Attentive Distinction in Agricultural Decisions." In Agricultural Decision Making, P. Barlett, ed. New York: Academic Press, pp. 115-136.
- Lane, Sylvia. 1981. "Evidence on Barriers to the Parallel Advancement of Male and Female Agricultural Economists." American Journal of Agricultural Economics 63(5): pp. 1025-1031.
- Laws, Judith Long. 1976. "Work Aspiration of Women: False Leads and New Starts." In Women and the Workplace, M. Blaxall and B. Reagan, eds. Illinois: The University of Chicago Press, pp. 33-49.
- Lee, Linda K. 1981. "A Comparison of the Rank and Salary of Male and Female Agricultural Economists." American Journal of Agricultural Economics 63(5): pp. 1013-1018.
- Marwell, Gerald, Rachel Rosenfeld, and Seymour Spilerman. 1979. "Geographic Constraints on Women's Careers in Academia." Science, Vol. 205: pp. 1125-1231.
- Quinn, Naomi. 1978. "Do Mfantse Fish Sellers Estimate Probabilities in Their Heads?" American Ethnologist 5(2): pp. 206-226.
- Reagan, Barbara B. 1975. "Two Supply Curves for Economists? Implications of Mobility and Career Attachment of Women." American Economic Review 65(2): pp. 100-107.
- Redman, Barbara J. 1981. "The Women Who Become Agricultural Economists." American Journal of Agricultural Economics 63(5): pp. 1019-1024.
- Rosenfeld, Rachel A. 1981. "Academic Men and Women's Career Mobility." Social Science Research 10: pp. 337-363.

References (Continued)

- Schoemaker, Paul. 1982. "The Expected Utility Model: Its Variants, Purposes, Evidence, and Limitations." Journal of Economic Literature 20: pp. 529-563.
- Simon, Herbert A. 1959. Models of Man, Social and Rational. New York: Wiley.
- Tversky, A., and D. Kahneman. 1981. "The Framing of Decisions and the Psychology of Choice." Science 211: pp. 453-458.
- Wood, Juanita B., David H. Dupre, and Orville E. Thompson. 1981. "Women in the Agricultural Labor Market." California Agriculture 35(9-10): pp. 16-18.