Dynamics of Internal Migration Determinants for American Jews, 1985-1990 and 1995-2000

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Abstract
This paper examines how individual and structural factors have changed in determining Jewish internal migration in the U.S. between 1985-1990 and 1995-2000. Multinomial logistic regression analysis of the 1990 and 2000 National Jewish Population Surveys shows that socio-demographic characteristics have increased their power to explain variation in five-year migration. Over time, the effects of the socio-demographic characteristics have become more similar for intra- and interstate migration. In further analysis, migration status at the beginning-of-period, state context of residence characteristics, and ethnic concentration were added to the explanatory variables. Results from logistics regression analysis, which was limited to interstate mobility, were very much in accordance with the observations of the single-level analysis of the socio-demographic variables. Additional findings suggest that previously experienced mobility increases subsequent interstate migration; that per capita income does not have a meaningful effect on migration; that unemployment encourages migration (yet later this relationship turned negative); and that warm climate deters migration. The importance of ethnic concentration has weakened over time albeit maintained statistically significant. Finally, we integrated the two surveys into one data set; all else being equal, "time" proves to enhance the tendency of Jews to migrate.

Introduction

Internal migration is an important factor in explaining spatial social and cultural variations across the American continent (Bogue, 1959; Frey, 1995; Long, 1988). Classical demographic theories and empirical evidence have suggested that migration is selective with different people responding differently to incentives of migration and to push and pull factors in different areas (Lee, 1966; Long, 1988; Michalos, 1997; Ritchey, 1976). Many demographic characteristics and human capital assets shape the individual's decision whether to migrate or not. Further, ethno-religious belonging, especially of minority groups, involve a wide array of considerations related to group exceptionalism and cohesion versus assimilation, and may also effect migration behavior (Alba and Nee, 2003; Cohen, 1983; Lieberson and Waters, 1988). The role of these factors in determining the tendency and types of individual to move may change over time, among other things because of social and cultural-valuable alterations in the society at large, requiring renewed investigations into these causes from a longitudinal or other time perspective (Cadwallader, 1992, Massey, 1990).

The interplay between different types of variables which jointly create a powerful mechanism that propels people to move from one place to another was recognized as a central concept governing the research on the population redistribution of American Jews. In an earlier study, Rebhun (2003) examined the determinants of interstate

migration among Jews in the United States and how these changed between 1965-70 and 1985-90. A multi-level approach introduced demographic and human capital characteristics, area context of residence, and ethnic bonds for native-born Jewish males aged 25 to 64. He found that that the characteristics most associated with interstate migration in 1965-70 were young age, advanced education, being married, and previous experience in migration. Migrants living at the beginning of the period in a state other than their state of birth were three times as likely to make another move over state boundaries during the next five years as were those who had not migrated between birth and the five years preceding the surveys. Furthermore, self-employment reduced the probability of migration. Structural variables of per capita income, unemployment rate, and climate had no significant effects on migration. All else being equal, the concentration of a large number of ethno-religious compatriots restrains out-migration to another state.

The most meaningful change between 1960 and 1980 was the substantial decline in the ability of the variables to explain variations in interstate migration.[1] For each set of independent variables, or combination of sets, the power to explain interstate migration for 1985-1990 was significantly reduced between 1965-70 and 1985-90. Education and marital status totally lost their role as determinants of interstate migration. Yet, among the individual characteristics, age has remained a useful predictor of migration (see also: Goldstein and Goldstein, 1996), as has early migration, though with a somewhat weaker effect than in the past. Ethnic concentration continued to deter the tendency to migrate. Many of the above conclusions were also found valid in an analysis of longer distance migration as measured by movements between the nine divisions of the country (Rebhun, 2002). Rebhun concluded that the rise in the level of Jewish internal mobility was accompanied by a reduction in socio-demographic selectivity, which, in the more recent period, included people from different social sectors. This suggests that changes in Jewish migration reflect changes among the total American population, mainly non-Hispanic whites, which are associated with increasing industrialization and economic development, as well as better knowledge about opportunities and conditions in alternative areas. The participation of Jews in these overall trends is pertinent to their successful integration into, and acceptance by, the social mainstream, enabling them to engage in migration behavior that is independent of their religio-ethnic identity.

The present study seeks to follow up on how individual and structural factors have changed in determining Jewish migration in the United States. Such an evaluation became possible using data from a new and comprehensive national survey of American Jews in 2000/01 (Kotler-Berkowitz et al., 2003). This analysis makes use of the 2000 data to assess the comparative nature of changes in five-year migration between 1985-1990 and 1995-2000. In doing so, the investigation goes beyond previous studies in at least three different complementary aspects. First, the present study is concerned not only with longer distance migration between states, but also examines intrastate mobility. Second, we have made integrated use of two Jewish surveys, those from 1990 and 2000/01, enabling us to introduce a new independent variable defined as “time”, which distinguishes between the two dates. We are thus able to evaluate the effect f time on the tendency of Jews to migrate net, of individual characteristics and areal context. Third, as compared to earlier analyses (Rebhun, 2003), this examination compares Jewish men and women, thereby providing insights into gender differentials in internal migration, including interaction effects of gender and major familial characteristics.

Jews constitute approximately 2% of all Americans, are very mobile geographically (Rebhun and Goldstein, 2006), and are strongly integrated into American society (Pyle, 2006; Smith and Faris, 2005). The study of such a rare population may allow investigation of how spatial distribution is affected by a set of wider social and cultural trends (largely embodied in the variable "time") and the interplay that operates among different types of individual and structural factors. Continuity in the decline of the socio-demographic exclusivity of migrants will imply intensification of the amalgamation of different types of people in processes of geographic mobility; by contrast, a return to substantial selectivity would point to a shift to stronger social-spatial polarization and the disruption of potential trajectories of personal integration and inter-group relationships. Thus, at least indirectly, this investigation can also be seen as a case study suggesting the role of specific group identity and whether America is developing towards more spatial homogeneity or dissimilarity of its ethno-religious mosaic.

Data, Variables, and Description

Data

The data used in this study were culled from the 1990 and 2000/01 National Jewish Population Surveys (NJPS). The 1990 NJPS used a three-stage data collection process (Kosmin et al. 1991). First, a national sample of households was reached through random digit dialed (RDD) telephone interviews as part of the twice-weekly general market-research surveys conducted by ICR Survey Group of Media, PA in all 50 states of the country. Respondents (adults aged 18 and over) were asked to state any attachment to Judaism for themselves and for each member of their household. In the second inventory stage, attempts were made to re-contact households containing at least one Jewish member to verify the identity of potential respondents and to solicit participation for the final sample. During the inventory procedure, several potential respondents dropped out of the sample pool owing to changes in household composition or disqualification upon further review of their Jewish credentials. The third interview stage of the survey of the identified Jews was conducted from May through July 1990 and yielded a total sample of 2,441 completed interviews.

The 2000/01 study, conducted by RoperASW, was also a random sample of telephone numbers attained using RDD procedure in all 50 states, as well as the District of Columbia (Kotler-Berkowitz, et al. 2003). The U.S. was divided into seven strata according to an earlier estimate of Jewish population distribution. To achieve greater sampling efficiency, strata with higher estimated levels of Jewish density were over-sampled as compared to strata with lower estimated levels of Jewish density, and the differences among strata in the chance of being called were adjusted by a weighting process. A series of screening questions was introduced to verify any current or past connection to Judaism. If only one person qualified as a Jewish adult, that person was assigned the full interview; in households with two or more qualified adult Jews, the interviewed person was randomly selected. The complete sample constituted 5,148 respondents, representing both Jews and non-Jews of Jewish background.

The present analysis focuses on respondents in 1990 and 2000 who at the time of the survey defined themselves as Jewish. This includes respondents who indicated Jewish as their current religion (Jews by 'religion'), as well as respondents who reported no religion but who considered themselves Jewish ('ethnic' Jews). For 1990, these definitions encompass the entire 'core' Jewish population (Schmelz and DellaPergola, 1992); in 2000, however, the 'core' Jewish population includes a third group of 'Jewish connected'[2] which has no parallel in 1990; these have been excluded from our

analysis because they were not asked key demographic and Jewish behavioral questions. This means that our samples from the two surveys are not strictly comparable. The 2000/01 NJPS sample of Jews which we are using thus is defined somewhat more narrowly than the core sample from 1990.

Our samples are restricted to native-born men and women aged 18 and over who resided in the United States five years prior to the specific survey. A Further criterion for inclusion in the analysis was being in the labor force at the time of the survey, since earlier analysis has shown that those no longer in the labor force have distinctively different patterns from persons who are employed (Goldstein and Goldstein, 1996). We focus on one adult from each household, rather than multiple adults, in order to eliminate the potential bias of interdependence of migration behavior (Kritz and Nogle, 1994). Applying these criteria resulted in a sample of 1,278 respondents in 1990 and 2,176 respondents in 2000. Data in both surveys were weighted to account for their differential selection probability. Contextual measures at the state level are drawn from official publications of the United States Bureau of the Census.

Variables

The dependent variable is the respondent's five-year migration status defined in three alternative ways: 1) persons who did not move at all or moved within the same city/town in the respective five-year interval (1985 or 1995, respectively, for the 1990 and 2000 samples); 2) intrastate migrants - those who moved to another city/town within their state of residence; and 3) interstate migrants. Most of our analysis will focus on those who stayed in their beginning-of-period state of residence – the non-migrants, and those who moved to another state. This two-fold approach is aimed primarily at evaluating the additional effects of early migration contextual conditions. We are aware of the economic and environmental heterogeneity within state units; yet the decision to focus on interstate migration, rather than smaller geographic units, was influenced by the nature of the NJPS which asked only interstate migrants for the specific name of place where he/she was living at the time and disregarded the name of city/town for the intrastate migrants. Moreover, states are considered to be coherent units in many forms of location-specific capital including property and income tax, welfare services, school system and support for higher education (Kritz and Nogle, 1994); this turns the crossing of a state boundary into a major mobility process which can be strongly driven by macro push or incentives characteristics. When the dependent variable is decomposed into three categories, multinomial logistic regressions is used; later, when the dependent variable is defined as a dichotomous variable, we use logistic regression.

Explanatory individual characteristics included in our analysis are age, gender, marital status, education, occupation, and the nature f employment. All individual characteristics are measured as dummy variables. Age was represented by the cohorts 18-24, 25-44, 45-64 and 65 and over (the omitted category). Gender was set equal to 1 if the person was female; the males are the reference category. Marital status distinguishes between married persons and persons who are currently not married (the omitted category which included singles, separated or divorced, and widowed). Schooling was decomposed into four dummy variables of up to high school graduation as the reference category and three dummy variables: some college, baccalaureate degree, and advanced academic education. We classified respondents according to four major occupational groups with blue collar workers as the reference category, and three dummy variables: clerical/sale persons, managers and

professionals. Also added as a control socio-demographic variable is the nature of employment, with those working for others coded 1 and the self-employed as the reference category.

We also classified the population according to migration status before the respective five-year periods that constitute the focus of our analysis. Respondents who lived in the beginning-of-the-period (1985 or 1995, respectively) in a state other than state of birth were defined as early migrants and set equal to 1; a non-migrant is a person who five-years before the specific survey lived in the same state as that of birth. As indicated above, our sample is restricted to native-born persons who also resided in the United States five-years prior to the respective survey.

We employed three measures to evaluate the effect of contextual conditions on migration between states: per capita income, unemployment rate, and climate. The data on income are introduced in constants dollars, with 1992 as the reference year. In order to reduce the possible effect of intertemporal fluctuations in rates of unemployment, we used the average of the mean total unemployment rate for each state for each five-year interval (1985-1990 and 1995-2000). Climate is the average percentage of days of sunshine for a major city in the state (for period of record through 1990 and 2000, respectively). Although many American states are physically large in size and varied in shape and climate, Jews are highly concentrated in a limited number of urban centers; we selected the city with the largest proportion of Jews in any given state.[3] All contextual measures were introduced as continuous variables, and were attached to individual records according to their beginning-of-period state of residence.

Data on the extent of Jewish concentration derive from annual reports of the size and distribution of American Jews by states (Chenkin, 1986; Kosmin and Sheckner, 1996). Jews are very highly concentrated in a few numbers of states with approximately 85% living in only 12 states, each of which has a Jewish population of more than 100,000 inhabitants. These states include those most populated by Americans in general, including New York, California, Florida, New Jersey and Pennsylvania. In order to control for the effects of such a skewed numerical distribution (Kritz and Nogel, 1994), which can also bias the estimates of other state contextual coefficients (Miller, 1973), we inverted the absolute estimate of the Jewish population for each state to natural log of the group size at the beginning of the period in the state of residence. All respondents in a given state have the same concentration value.

Descriptive Findings

Many American Jews today are second and third generations in the country. To a large extend they have moved, either as children with their parents or as adults, away from traditional areas of Jewish settlement in gateway cities and metropolitan areas in the Northeast. Their spatial distribution has, as a result, become more similar to that of the population as a whole (Rebhun and Goldstein, 2006). Accordingly, many Jews have experienced long-distance mobility. This pattern is reflected in the high proportion of early migrants, namely, native-born persons who, five-year prior to the given survey, lived in a state other than their state of birth. This tendency has continued over the period under discussion, with the proportion of early migrants growing from 47.9% in 1990 to 50.7% in 2000 (Table 1).

Descriptive analysis of the data further reveals a slight increase in five-year migration among American Jews from 25.3% in 1985-1990 to 27.0% in 1995-2000; most of the change was accounted for by migration across state boundaries. The age distribution

of American Jews point to the aging of the population, especially in the higher proportion of those aged 45-64 (26% in 1990 to 44.5% in 2000), who, to a large extent, belong to the "baby-boomers" generation. As the population becomes older, and in light of gender differences in life expectancy, not surprisingly the gender ratio also changes, with the proportion of women rising slightly. Concomitantly, the percentage of widowed has increased; hence more persons are not married. The percentage not married may also be associated with later age at marriage and increasing levels of marital dissolution.

The educational attainment of the two populations suggest continued decline in the proportion of Jews with high school education or less (the omitted category), while those with advanced academic degree has increased from 33.2% in 1990 to 37.4% in 2000 (Table 1). Even more significantly, American Jews continue their concentration in the upper rank of the occupational ladder, with the 54.6% employed as professionals in 2000 being well above the 43.8% in this occupational category in 1990. Paralleling their educational and occupational dynamics is the continued increase of Jews who work for others.

State characteristics of per capita income are given in constant (1996) dollars. This ensures no effect of inflation on the value of personal income over time. Thus, real annual income in the United States has somewhat increased from $25,034 in 1990 to $30,092 in 2000. Slight decline is revealed in the average unemployment rate from 5.69% to 5.26%. Climate, in terms of average percentage of days of sunshine remained nearly unchanged.

Over the last decade the size of the American Jewish population has declined slightly from 5.5 million in 1990 to 5.2 million in 2000. The relatively large international influx of about 250,000 Jews, mainly from the Former Soviet Union and Israel, did not offset the much stronger internal demographic dynamics of low fertility, aging population, loss of children of inter-faith marriage, and presumably some personal identificational switching whether formal or informal (DellaPergola, 2005). Consequently, the mean of the natural log of the Jewish group size has slightly declined (Table 1).

Analytic Results

Determinants of Five-Year Intra- and Interstate Migration

In order to evaluate the determinants of internal migration, both within and between states, we applied multinomial logistic regression. Separate equations were calculated for each of the periods 1985-1990 and 1995-2000, introducing individual characteristics including interaction effects. A third equation integrates the two data sets of the 1990 and 2000 surveys adding "time" as an explanatory factor. The relationships between the independent variables and migration are presented as odds ratios (exp[b]) which express the relative odds of the event (migration) occurring. A measure of the explanatory power is illustrated by means of a 'Pseudo R^{2}' (*Nagelkerke* R^2).

Most of the covariates of the 1990 Jewish population exerted a statistically significant effect on migration (Table 2). Young age increases the likelihood of migration. For example, Jews aged 18-24 are 10 times more likely to migrate to another state than those aged 65 and over (the reference group), and those aged 25-44 are 7 times more likely to undertake an interstate move. Similar tendencies were observed for intrastate migration, yet with slightly lower odds ratios. Jewish women in the United States are less inclined to relocate geographically than are Jewish men, with odds ratios of .95 for intrastate migration and .82 for migration over state boundaries. The findings also

indicate that married persons are less likely to move than non-married persons. Nevertheless, this seems to be true only for married men; an interaction effect of marital status for married and women shows a positive effect on the tendency to migrate. Overall, whether enhancing or deterring migration, individual characteristics of age, gender and marital status play a much stronger role in determining migration between states than migration within states as reflected in the size of the odds ratios.

With all other variables controlled, educational attainment has a mixed and inconsistent effect on migration. As expected, higher education enhances the probability of making an interstate move, with very similar odds for baccalaureate and advanced academic degrees. As for moves within the same state, only persons with baccalaureate degrees or with some post high school education were more likely to move than were those with education only through high school (the reference group), while having an M.A. or higher degree deterred intrastate migration. This suggests that people with advanced education, some of whom are presumably engaged in private practices or businesses, are strongly attached to a given place; if they decide to move, it will be encouraged mainly by incentives, whether economic or other, that are available in another state. People in all occupational categories, relative to blue-collar workers who served as the reference group, are less likely to move within their state of residence. Different relationships exist for interstate migration; professionals and people in clerical and sales jobs have the highest odds of migration. Being employed, as opposed to self-employed, enhances both types of migration, yet with salient differences in the odds ratios: 1.619 for intrastate migration and only 1.047 for interstate migration. Taken together, the individual characteristics were helpful in explaining 11.1% of the variation in internal migration between 1985 and 1990.

For the 2000 Jewish population, as for the 1990 population, age had a strong relation to predicted mobility than any other variables considered. Over time, age has even strengthened its effect on intrastate migration, largely converging with the odds ratios for interstate migration. Being a woman has further diminished the likelihood of migration; moreover, unlike the evidence for 1985-1990, the interaction term for 1995-2000 suggests that married women exert a negative effect on interstate migration. While this requires more in-depth investigation, it might reflect an increase in dual-career couples for whom relocation is difficult (Sayer, Cohen and Casper, 2005; Lichter, 1982). Perhaps this may also be due in part to some increase in the importance of family ties in the form of assistance to elderly parents, with daughters typically taking more responsibility than do sons.

Another change worth mentioning is the development of a clear and positive relationship between educational attainment and mobility, with advanced degrees of M.A. and higher now also encouraging migration within states. In 2000, occupational level is inversely related to the likelihood of intrastate migration but for each occupational category, the odds of migrating are higher than in 1990. For interstate migration, the patterns in 2000 is not as clear or strong as in 1990. Nonetheless, the employed, as compared to the self-employed, have further strengthened their tendency to migrate. A major conclusion from this comparative examination is that between 1990 and 2000 the direction of the effects within the different sets of individual socio-demographic characteristics on Jewish internal migration became generally more consistent, and the overall effects have become more similar for intra- and interstate mobility. In addition, the explanatory power of the model in 2000 is higher by about one-third than it was in 1990, reaching an R^2 of 16.2%.

We have combined the two data sets of 1990 and 2000 into a single file and introduced “time” as an additional independent variable. Multivariate analysis of the

combined data file (Table 2, last two columns) reveal that, all else being equal, time - 2000 vs. 1990 - had a strong and statistically significant effect on Jewish internal migration. For both intra- and interstate migration, time enhanced the likelihood of migration, with respective odds ratios of 1.264 and 1.514. The indicator of "time" reflects macro changes on the general American scene in which migration has become a cultural phenomenon encouraged by an ideology of individualism and self-fulfillment, and has penetrated into sub-groups such as the Jews, as they attempt to integrate into the societal mainstream.

Multi-Level Analysis of Five-Year Interstate Migration

The effect on migration of education and economic opportunities, and non-monetary incentives that are distributed un-evenly across the country can be evaluated by applying a multi-level approach introducing area context variables. For Jews, as for other minority groups, ethnic bonds can also be an important consideration in whether or not to move. Taking into account individual characteristics, area context variables, and ethnic bonds will thus help us to assess more precisely the contribution of "time" as an independent determinant of migration.

Table 3 presents results from the logistic regression evaluating the effect of these different sets of factors on interstate migration, relative to non-migration, for the 1990 and the 2000 Jewish populations, as well as for a combined sample of the two populations. For each point of time, the first model assesses how the individual characteristics shape migration. Model 2 adds the migration status of the individual at the beginning of the respective period; model 3 incorporates the state socioeconomic and climatic context; and model 4 retains all the independent variables including ethnic (Jewish) concentration. Results for 1990 on the effects of the individual socio-demographic characteristics (Model 1) are largely in accordance with the evidence from the multinomial regression on interstate migration vs. no-migration (Table 2). Previous experience of interstate migration (Model 2) substantially increases the likelihood of a subsequent move: early migrants – those who at the beginning of the period already lived in a state other than their state of birth, were more than twice as likely to make another interstate move over the next five-years, as were those who were still living in their state of birth at the beginning of the period. It should be noted that most of the onward movements of the early migrants constitute a secondary relocation; only a small proportion return to their home state (Rebhun and Goldstein, 2006).

Model 3, which introduced the state context of residence variables, shows a statistically significant yet relatively small rise in the odds ratios. The odds ratio for per capita income suggests that a large change in this independent variable did not lead to a change in the probability of moving between states. In the late 1980s, unemployment increased the likelihood of migration, and with each point increase in the unemployment rate the odds of migration were 5.4% higher. By contrast, it appears that Jews prefer areas with a warm climate; nevertheless, a large change in the average number of days of sunshine produced only a small change in the likelihood of undertaking an interstate move.

All else being equal, ethnic concentration has a negative relationship with migration (Model 4). The odds ratio of 0.860 indicates that Jews, who in 1985 resided in a state with a higher percentage of their compatriots (log group size), were less likely to move to another state than were those living in states with smaller concentrations of Jews. For each point increase in ethnic concentration, the odds of migrating were 14% less.

Over the next ten years most of the individual variables remained meaningful predictors of migration (Table 3, second panel). A few important developments include the positive relationship between some college education and migration, as well as the inclination of Jews in managerial jobs to move to other states (Model 1). By contrast, clerical or sales jobs and the professions, are negatively associated with migration. (In fuller models, the professional category lost its statistically significant effect on migration.) This tendency in the relationship between occupation and migration is very consistent with the findings from multinomial regression analysis. Also similar to earlier observations is the changing relationship of the interaction of married women with migration from positive to negative. While having experienced an interstate move in the past continues to increase the likelihood of subsequent movement, the odds ratio has somewhat declined (Model 2).

Somewhat surprisingly, by the late 1990s unemployment had become negatively associated with migration, although with a small odds ratio (Model 3). One possible explanation is that the difference between states in unemployment rate has diminished: from a difference of 8.1 in 1990 between states with the highest and lowest unemployment rate to only 5.3 in 2000. The smaller the difference, the less attractive is the move from one place to another. Further, a more homogenous national economic structure may increase anticipation for economic improvement and new opportunities in one's own area of residence.

Warm climate continued to deter migration to another state. Similarly, Jews continue to attach significant importance to the spatial proximity of people from their religio-ethnic group. Nevertheless, the odds of migration with each point increase in ethnic concentration declined somewhat to only 8%. This change differs from the observation from 1965-70 to 1985-90 which showed an increase in the importance of critical mass of compatriots at the state level. Since Jews tend to concentrate in a limited, though increasing, number of urban and metropolitan areas (Newman and Halvorson, 1979; Ritterband, 1986), our new results may attest to some erosion in group cohesion and networks, possibly reflecting the effect of strong assimilation.

For each point in time, the full model explained more of the variance than the partial models. More important, over time the explanatory power of the parallel models for 2000 is greater than for 1990, suggesting that the independent variables play a greater role in helping us understand why some people move and others do not within the broader macro-economic, environmental, and ethnic contexts. Finally, the multi-level analysis of the integrated sample clearly shows that, regardless of individual characteristics, migration status, contextual determinants, and ethnic concentration, the passing of time per se had an independent effect on Jewish increasing interstate migration (Table 3, last column). The odds ratio of 1.405 suggests that Jews in 2000 were 40% more likely to have made an interstate move over the last five years than were their counterparts in 1990.

Summary and Discussion

This paper has examined the determinants of Jewish internal migration in the United States, and provided a comparative examination of the changes that took place over the period 1990-2000. This study extends analyses of an earlier investigation of the two decades between 1970 and 1990. It offers a more detailed approach to distinguish between intra- and interstate mobility, as well as a wider coverage of the explanatory variables focused on both men and women, and an evaluation of the net effect of "time" on the tendency of Jews to move geographically.

Multinomial logistic regression analysis of data from the 1990 and 2000 National Jewish Population Surveys shows that individual characteristics have increased their power to explain variation in five-year migration. In this process the relationships between various categories of a given variable and migration have become more consistent, and, over time, the effects of the socio-demographic characteristics have become more similar for intra- and interstate migration. The affinities that encourage migration are young age, high education, professional occupations, and being an employee. Between 1990 and 2000, education and occupation, including managerial employment, increased their ability to predict migration both within and between states. By contrast, being female and being married each deterred both intra- and interstate migration. The effect of the interaction between being female and being married actually turned from positive to negative, possibly resulting from the increase in dual career families and greater use of electronic-communication tools as substitutes for migration. The pattern may also reflect changes in social values which attach more consideration to the location of elderly parents and to the social networks of children, concerns which may be more salient to women than to men.

In further analyses, migration status at the beginning-of-period, state context of residence characteristics, and a measure of ethnic bonds were added to the explanatory variables. For this multi-level analysis, which was limited to interstate mobility (vs. no mobility or intra-state mobility combined), we used logistic regression. The results are very much in accordance with the observations of the single-level analysis of the socio-demographic variables, including the changes over time. Additional findings suggest that previously experienced mobility increases the likelihood of subsequent interstate migration; that living in a warm climate deters migration; and that unemployment encourages migration. A major change between 1990 and 2000 was that the relationship between unemployment and migration turned negative; we hypothesize that this could be attributed to the development of a more homogenous national economic structure as the spatial differences in the unemployment rate have declined during the last decade.

Jews also attach significant importance to living in states with a high presence of other Jews; between 1990 and 2000, this tendency has somewhat weakened, but has nevertheless maintained a statistically significant relationship with migration. Yet, the decline in the ethnic concentration-migration relationship points to the lowered importance assigned to ethno-religious cohesion as well as to parochial services, as opposed to more personal considerations including economic, cultural, and environmental benefits. This tendency accords with empirical evidence on the general decline in ethno-religious identification among American Jews, especially in the public sphere.

By contrast, others emphasize the positive aspects of these migration patterns for group continuity. From such a perspective, migration and the arrival of new settlers can help small Jewish communities to reach a necessary “critical mass” to provide services needed for active Jewish life. Indeed, previous studies have shown that religio-ethnic minorities, including Jews in small viable communities are more involved in religious and sectarian voluntary associations and in formal organizations than when they are members of larger communities (Rabinowitz, Kim, and Lazerwitz, 1992; Rabinowitz, Lazerwitz and Kim, 1995). A fuller assessment of the impact of migration on ethnic and religious identification, however, requires examination of both communities of origin and destination, and the people involved in such geographic mobility both before and after migration.

We integrated the 1990 and 2000 NJPS into one data set in order to distinguish intra- and interstate migrants. After controlling for all the same variables as earlier, time proved to have a positive and strong relation to migration. The findings from the combined analysis of the independent variables illustrate that migration is selective, and that this socio-demographic selectivity has even strengthened during the last decade. However, there are other factors, not indexed by the survey data or the contextual indicators, which are embodied in the variable "time" which reflect wide social and cultural patterns that enhance the tendency of Jews to migrate. That the addition of the variable "time" did not disturb the effects of the other independent variables may suggest that part of the Jewish population whose mobility has been enhanced over time is becoming more diffused, counteracting that segment of the population which is less mobile. To the extent that Jewish migration is directed to a limited number of geographically defined areas, it might foster socio-demographic spatial "balkanization" of American Jews.

This study has focused on one small, successfully integrated religious group in the United States. It is important to expand the examination of the many determinants of internal migration to other religious groups (for example, with data from the General Social Surveys). Such an investigation should shed light on similarities and dissimilarities among different relio-ethnic groups, hence on more general social and cultural issues which are at the center of ongoing scholarly deliberations focusing on ethnic diversity in the United States.

Notes

[1] Five-years interstate migration among American Jews has increased between 1965-70 and 1985-90 from 9.6% to 11.2% , respectively (Rebhun, 1997).

[2] This group includes people with no religion, or a religion theologically compatible with Judaism who also do not consider themselves Jewish, but have a Jewish mother and/or father. This group accounts for approximately one-fifth of the 'core' Jewish population (Kotler-Berkowitz et al., 2003).

[3] Besides a handful of states (e.g. Alasaka, Nevada, New Hampshire, New Jersey) for which data on possible days of sunshine were available for cities other than those with the highest proportion of Jews. Nevertheless, given the size and physical structure of these state the differences in climate between the cities are likely to be very small. Data on the size of Jewish populations by major cities were derived from: Schwartz and Scheckner, 2000, pp. 249-258.

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Table 1. Definitions and summary statistics for analysis variables, 1990 and 2000

		1990		2000	
Variable[a]	Definition	Mean	Standard deviation	Mean	Standard deviation
Dependent variable					
Intrastate	= 1 for five-year intrastate migration between cities/towns	0.136	0.342	0.140	0.346
Interstate	= 1 for five-year interstate migration	0.117	0.321	0.130	0.336
Individual characteristics					
Age 18-24	= 1 for 18-24 years old	0.073	0.260	0.089	0.284
Age 25-44	= 1 for 25-44 years old	0.608	0.488	0.412	0.492
Age 45-64	= 1 for 45-64 years old	0.260	0.438	0.445	0.496
Gender	= 1 for female	0.475	0.499	0.492	0.499
Marital status	= 1 for married persons	0.642	0.479	0.598	0.490
Some college	= 1 for some college	0.195	0.396	0.203	0.402
Baccalaureate degree	= 1 for B.A. diploma	0.300	0.458	0.313	0.463
M.A. degree or higher	= 1 for M.A. or higher, and professional diploma	0.332	0.470	0.374	0.483
Clerical/sales	= 1 for clerical/sale persons	0.281	0.449	0.251	0.433
Managerial	= 1 for managers	0.164	0.370	0.141	0.347
Professional	= 1 for professionals	0.438	0.496	0.546	0.497
Employment status	=1 for employee	0.742	0.437	0.788	0.408
Migration characteristics					
Migration status	= 1 for early migrant	0.479	0.499	0.507	0.499
State context variables					
Per capita income	In constant (1996) dollars	25034.377	2883.542	30092.189	3,507.403
Unemployment rate	In percentage	5.690	1.172	5.2664	0.899
Climate	Average percentage of possible sunshine	61.773	8.024	61.083	8.028
Ethnic bonds					
Ethnic concentration	Natural log of group size	12.728	1.603	12.689	1.530

a) Reference categories are as follow: for age - 65 years and over; for gender - male; for marital status - not-married including single, divorce, widow; for education - through high school graduation; for occupation - blue collar including craft, operative, and service workers; for employment status - self-employed; and for migration status - migrant i.e. living in state other than state of birth.

Table 2. Multinomial logistic regression (odds ratios) of five-year migration within and between states on individual characteristics for American Jews, 1990 and 2000[a]

Independent Variables	1990		2000		Integrated Sample	
	Intrastate/ no migration	Interstate/ no-migration	Intrastate/ no migration	Interstate/ no-migration	Intrastate/ no migration	Interstate/ no-migration
Individual characteristics						
Age 18-24	5.047***	9.988***	8.979***	8.083***	8.265***	8.206***
	(.043)	(.056)	(.019)	(.020)	(.017)	(.019)
Age 25-44	4.169***	7.416***	6.563***	7.266***	6.203***	7.286***
	(.038)	(.052)	(.018)	(.018)	(.016)	(.017)
Age 45-64	1.382***	2.640***	1.979***	1.703***	1.879***	1.782***
	(.040)	(.053)	(0.18)	(.019)	(.016)	(.017)
Female	0.950**	0.822***	0.762***	0.685***	0.794***	0.697***
	(.019)	(.020)	(.007)	(.007)	(.007)	(.007)
Married	0.903***	0.753***	0.778***	0.822***	0.807***	0.809***
	(.018)	(.019)	(.007)	(.007)	(.007)	(.006)
Some college	1.723***	0.974	1.101***	1.413***	1.187***	1.336***
	(.020)	(.025)	(.010)	(.011)	(.009)	(.010)
B.A. Degree	1.778***	1.809***	1.932***	1.936***	1.906***	1.856***
	(.019)	(.021)	(.009)	(.010)	(.008)	(.009)
M.A. degree or higher	0.880	1.752***	1.515***	2.259***	1.387***	2.116***
	(.021)	(.023)	(.010)	(.010)	(.009)	(.009)
Clerical/sales	0.690***	1.693***	2.040***	0.794***	1.592***	0.901***
	(.020)	(.024)	(.012)	(.011)	(.010)	(.010)
Managerial	0.814***	0.791***	1.917***	1.488***	1.518***	1.388***
	(0.21)	(.029)	(.013)	(.012)	(.011)	(.011)
Professional	0.868***	1.512***	1.333***	1.052***	1.146***	1.116***
	(0.19)	(.024)	(.012)	(.011)	(.010)	(.010)
Employee	1.619***	1.047**	1.816***	1.380***	1.739***	1.346***
	(.015)	(.015)	(.007)	(.007)	(.006)	(.006)
Interaction						
Female*Married	1.692***	1.319***	1.500***	0.639***	1.507***	0.725***
	(0.24)	(.026)	(.010)	(.010)	(.009)	(.010)
Time						
Year-2000	-	-	-	-	1.264***	1.514***
					(.006)	(.007)
Total number in the sample	1,278		2,176		3,454	
Pseudo R^2 (Nagelkerke)	11.1%		16.2%		14.7%	

*P<.05; **P<.01; ***P<.001

a) Numbers in parentheses are standard errors.

Table 3. Logistic regression (odds ratios) of five-year interstate migration on individual characteristics, migration status, state context of residence, and ethnic bonds: American Jews, 1990 and 2000[a]

Independent Variables	1990				2000				Integrated sample
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4	
Individual characteristics									
Age 18-24	8.228***	9.048***	9.418***	9.065***	5.896***	6.361***	6.050***	5.827***	6.312***
	(.056)	(.056)	(.057)	(.057)	(.020)	(.020)	(.020)	(.020)	(.019)
Age 25-44	6.459***	6.410***	6.917***	6.720***	5.770***	5.563***	.266***	5.133***	5.562***
	(.052)	(.052)	(.052)	(.052)	(.018)	(.018)	(.018)	(.018)	(.017)
Age 45-64	2.611***	2.508***	2.838***	2.799***	1.639***	1.593***	1.506***	1.451***	1.616***
	(.053)	(.053)	(.054)	(.054)	(0.19)	(0.19)	(.019)	(.019)	(.018)
Female	0.829***	0.786***	0.792***	0.786***	0.728***	0.740***	0.752***	0.756***	0.757***
	(.020)	(.020)	(.020)	(.020)	(.007)	(.007)	(.019)	(.007)	(.007)
Married	0.762***	0.725***	0.699***	0.696***	0.867***	0.910***	0.888***	0.879***	0.852***
	(.019)	(.019)	(.019)	(.019)	(.007)	(.007)	(.007)	(.007)	(.007)
Some college	0.883***	0.849***	0.932**	0.974	1.374***	1.230***	1.281***	1.281***	1.221***
	(.025)	(.025)	(.025)	(.025)	(.011)	(.011)	(.011)	(.011)	(.010)

B.A. Degree	1.621***	1.694***	1.800***	1.813***	1.657***	1.558***	1.644***	1.657***	1.619***
	(.021)	(.021)	(.022)	(.022)	(.010)	(.010)	(.010)	(.010)	(.009)
M.A. degree or higher	1.773***	1.654***	1.686***	1.704***	2.057***	1.824***	1.882***	1.887***	1.812***
	(.022)	(.023)	(.023)	(.023)	(.010)	(.011)	(.011)	(.011)	(.010)
Clerical/sales	1.807***	1.820***	1.951***	2.042***	0.678***	0.606***	0.638***	0.634***	0.782***
	(.024)	(.024)	(.024)	(.025)	(.011)	(.011)	(.012)	(.012)	(.010)
Managerial	0.822***	0.798***	0.840***	0.876***	1.306***	1.178***	1.58***	1.153***	1.147***
	(.029)	(0.29)	(0.29)	(.029)	(.011)	(.012)	(.012)	(.012)	(.011)
Professional	1.545***	1.548***	1.657***	1.726***	0.994	0.965***	0.998	0.992	1.100***
	(.024)	(0.24)	(0.25)	(.025)	(.010)	(.011)	(.011)	(.011)	(.010)
Employee	0.976	1.038*	1.050**	1.057**	1.245***	1.232***	1.240***	1.232***	1.229***
	(.015)	(.015)	(.015)	(.016)	(.007)	(.007)	(.007)	(.007)	(.006)
Female*Married	1.203***	1.272***	1.310***	1.300***	0.588***	0.600***	0.598***	0.603***	0.682***
	(.026)	(0.26)	(0.26)	(.026)	(.010)	(.010)	(.010)	(.010)	(.010)
Migration status									
Early migrant		2.110***	2.072***	1.865***		1.735***	1.601***	1.545***	1.593***
		(.013)	(.014)	(.014)		(.005)	(.005)	(.006)	(.005)
State context of residence									
Per capita income			1.000***	1.000			1.000***	1.000	1.000***
			(.000)	(.000)			(.000)	(.000)	(.000)
Unemployment rate			1.054***	1.107***			0.922***	0.957***	0.990***
			(.006)	(.006)			(.003)	(.003)	(.003)
Climate			0.984***	0.993***			0.971***	0.976***	0.979***
			(.001)	(.001)			(.000)	(.000)	(.000)
Ethnic bonds									
Ethnic concentration				0.860***				0.929***	0.905***
				(.006)				(.002)	(.002)
Time									
Year-2000									1.405***
									(.008)
Total number in the sample	1,232	1,232	1,232	1,232	1,931	1,911	1,911	1,911	3,152
Pseudo R^2 (Nagelkerke)	6.9%	9.2%	10.5%	11.0%	12.2%	13.1%	14.7%	14.8%	13.6%

*P<.05; **P<.01; ***P<.001

a) Numbers in parenthesis are standard errors.