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Literature on Job Mobility in the United States

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IX. Literature on Job Mobility in the United States

This paper will describe the state of research on spatial mobility in the United States, focusing on research published roughly between 1995 and 2006, drawing on earlier research as space allows. I¹ organise the text into three main sections. First, I describe the mobility requirements and phenomenon of mobility in the United States (Main Research Area 1). Second, I describe research that reveals individual's mobility decisions and the barriers and triggers to mobility (Main Research Area 2). This is research that focuses on the antecedents or predictors of both commuting and relocation. This work is subdivided into research that focuses on employment-related antecedents, on family or household predictors, and on community or neighborhood predictors. Within each type, I describe what is known about commuting and then relocation. The third section focuses on consequences of commuting or relocation for family and individual well-being and quality of life (Main Research Area 3).

1. Mobility requirements, phenomenology of realised spatial job mobility

A century ago, the journey to work in the United States typically happened on public transportation or on foot. With the invention of the combustion engine, automation of manufacturing, and the removal of train and trolley lines in cities by the oil, tire, and automobile companies in the 1920s and 1930s, private conveyance to work has changed the way Americans commute and the options surrounding it. What was once a public activity is now largely a private one. The household average commuting time in the U.S. has been increasing over the past quarter century, partly caused by increased suburbanisation and partly by the rise in dual-earner families. By 1990 American workers spent, on average, 20 minutes traveling each way to and from work every day, which amounts to nearly a week of 24-hour days per year per worker (Howell and Bronson 1996; Levinson and Kumar 1997). This average has increased to 23 minutes each way by 2000.

Increasingly, two workers commute from each household (Green 1997; Rouwendal and Rietveld 1994). But the existing literature on commuting views the journey to work patterns of American workers as phenomena of *individuals*, varying by gender, geographic location, and social class as well as structural limitations in the community and job market (but see Hofmeister 2002; Hofmeister 2003). This research viewpoint is lacking because

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commutes are very likely to be influenced by the needs of others in the household, especially the needs of children and spouses. And yet the individual level perception of commuting is strong in the United States literature. Worksites, employee relocation policies, school locations, road-building, and community infrastructure tend to assume a single (male) earner per household, despite the emergence of women as workers for a longer duration of their adult lives and the emergence of dual-earner couples as the most prevalent family type.

As described by Zax (1991), workers whose workplace is relocating have three options: they can quit, they can move to follow their old jobs, or they can quit their old jobs but also move to find new jobs. The utility of each decision depends on the relative costs of housing, commuting, finding a new job; gasoline costs, the availability of inexpensive automobiles or subways, and other transit options together with housing price differences across a metropolitan area all have an influence on the decisions to commute or to quit. Zax's study uses data from the 1970s at one particular company to estimate the relative costs and advantages of each option (Zax 1991).

One phenomenon that deeply affects commuting in the United States and has been the focus of a sizeable body of research is the shift of people and businesses from inner cities to suburbs. Research shows that, in the course of this shift in the 1980s, workers with less education had not been able to relocate to keep up with these shifts, a problem disproportionately carried by racial minorities and resulting in lower wages for minorities (Dworak-Fisher 2004). Another study of a plant relocation from the central city to the suburbs showed racial differences in the ability of the plant's existing workers to keep their jobs afterwards – white workers who had longer commutes after the relocation did not quit their jobs compared to those who had shorter commutes, but black workers with newly lengthened commutes were more likely to quit compared to black workers who had shorter commutes. Both groups had members who relocated, but the racial disadvantage resulting from the move was unmistakable (Zax and Kain 1996). Similarly, relocation intentions of blacks, regardless of income, were harder to realise than relocation intentions of whites (Crowder 2001). Contrary evidence comes from a study of low-income welfare (TANF) recipients (Sanchez et al. 2004). They find “virtually no association” between the employment rates of welfare recipients in six different metropolitan areas and either the job concentrations or their access to reliable public transit. Note that employees and welfare recipients have different starting-point relationships to the labour market.

In conclusion, research evidence from the United States indicates that geographic location matters for mobility patterns, and that the available resources of individuals mediate its significance. Geographic factors of relevance include presence of public transit, population density, and jobs-housing mixes.

I now turn to the theories and results of studies about American spatial mobility.

2. Mobility decisions of individuals and families

The existing literature on commuting time² typically focuses on the commutes of individuals and how their commutes are likely to vary by gender or socioeconomic status, with the primary question being between whether job characteristics or household characteristics are the primary determinants of commuting times. Patterns of commuting between husbands and wives, though less often studied, are primarily assumed to be due to gender differences in work preferences, abilities, or human capital investments, not household-level factors such as timing or spouses' relative income. Even recently published articles about couples' commuting patterns use data that were collected largely in the 1970s and 1980s (Assadian and Ondrich 1993; Green 1997; Howell and Bronson 1996; Johnston-Anumonwo 1992; Madden 1981; Preston et al. 1993; Rouwendal and Rietveld 1994; van Ommeren 1998; van Ommeren et al. 1997). Considering the rapid changes in the extent and quality of women's labour force participation, such data may not be as useful in understanding current-day patterns and future trends. This section summarises existing research on spatial mobility for individuals and for the differences between spouses into the following divisions:

1. Literature on external mobility demands such as the links between geographic structure and spatial mobility.

2. Explanations for spatial mobility that stem from external demands related to employment, such as job hours, prestige, income, or the qualities that are linked to these

² There is some question in the literature and in common sense as to what length is the ideal commute. A shorter commute seems the obvious preference and is the perspective that economic models take for commuting preferences. Few people seek to live in New York City and commute to Wyoming; many people move to be closer to work, whether in the same town or across state or national boundaries. A short commute saves time, money, and the stress of transit. Commuting can be tiresome and expensive in terms of actual time, fuel and transportation costs. But some individuals prefer a longer commute, either to avoid housework or home responsibilities, to relax at the end of a workday, to switch gears from home to work or vice versa, or to give an excuse for being unable to stay later at work. Many public transit commuters use the journey to and from work to read the paper, nap, have a cup of coffee, or catch up with friends. Typically, long commutes indicate a preference for a certain kind of residence that makes the hassles of the commute worthwhile.

factors such as education.

3. Explanations for spatial mobility that are linked with household issues, such as the presence of children, spousal role relationships, and life stage issues.

2.1. External Demands: Neighborhood and Community contexts

There is a great deal of macro-level research on the linkage between neighborhood or community and spatial mobility, such as census information comparing commute times in various metropolitan areas or looking at changes in commuting or relocation over time (FHA 1994; Fulton 1983; Giuliano and Small 1993; Levinson and Kumar 1997; Lowe 1998; McLafferty and Preston 1997).

Geography and Rational Action

Several studies in the United States examine the expansion of work-related travel time. Levinson and Wu (2005) test the “rational locator” thesis: that the possibility of faster travel times via high-speed motorways will encourage people to live farther from work. By this logic, workers attempt to keep travel time consistent. If a relocation does not change the travel time, even if it changes the distance, the rational locator handles the two alternatives as equivalent. Whether suburban expansion in the United States increases commuting times in Washington DC and Minneapolis, Minnesota was tested and the “rational locator” thesis was supported. The authors conclude, based on the differences between the two locations, that geography and urban planning have a significant effect on the commuting times of residents (Levinson and Wu 2005).

The length of spouses’ commutes relative to each other may be a strategy couples use to maximise the family’s utility” function (Becker 1981). If each spouse is a rational actor and both are employed, both will want their preferred commute, the most ideal place to live, and the best job. But couples’ desires will often come into conflict. When a higher value is placed on keeping the relationship together over getting their individual preferences, spouses may seek the family’s best interest and choose to stay together by making personal sacrifices and constraining their own behavior, rather than risking the relationship. The locale of home is chosen to maximise utility to both spouses’ jobs within the constraints of finding a neighborhood that meets family and children’s needs (affordable, quality schools, safety, and moderately centrally located between the two jobs). In an imperfect decision-making situation, such as the housing market, sometimes couples will make housing decisions based

on limited information, including not knowing where both jobs will be in the future, whether and how many children will be in the household, whether school quality will decline or improve over time, and whether caregiving for elderly relatives will be part of the equation, any of which could affect the housing decision. Lives change over time, with needs changing over time as well. The commutes resulting from earlier housing decisions are a function of the imperfect decision-making process (choice within constraints) at the time of the move and home acquisition and may bear no reflection on the relative job values for each spouse. In fact, research indicates that couples try to minimise their collective commutes, not their individual ones, showing that the best models of commuting will consider the commutes of both spouses, not of individuals (Badoe 2002). It is also likely that the timing of job attainment relative to the current home attainment will matter for commute times. Specifically, the spouse whose job was obtained after the current home will work closer to home and therefore will have a shorter commute than the spouse whose job has been in place longer (Hofmeister 2002).

Geographic Placement of Jobs

Another relationship exists between the geographic location and the commuting options of individuals. In a study comparing Chicago, Los Angeles, and San Francisco, researchers determined that low residential density and few public transit options (in addition to higher household income and bigger family size) increased the likelihood of individual automobile ownership (Holtzclaw et al. 2002). One can conclude that geographic factors of density and transit options are likely to have a strong effect on an individual's choices to commute or to relocate for jobs.

Homes and workplaces are not equally scattered across the landscape, nor does everyone have perfect decision-making information when they select jobs and homes to minimise the distance between them. Several studies in the United States focus on the "jobs-housing" mismatch (Arnott 1998). One study of Los Angeles' geographic placement of homes and workplaces (using 1980 CMSA data on 10.6 million people and 4.6 million jobs) found that, if people selected their residences to be as close to work as possible, the average commute in Los Angeles should be 8.4 minutes (Giuliano and Small 1993). In reality, the average commute time in Los Angeles was 23 minutes in 1980, nearly three times the distance that would be explained by a purely rational job-to-housing selection based solely on commute time. Recent efforts to model jobs-housing imbalance using Atlanta data shows that

the redistribution of homes, rather than of jobs, would be a better strategy to rectify the imbalance and resulting inequalities of the spread of homes and jobs (Horner and Murray 2003). While Los Angeles and Atlanta may be extreme cases of inefficient jobs-housing balance, with their sprawling highways and expensive real estate, most cities' residents don't select their jobs and homes only to minimise the distance between the two. Rather, couples select housing with only some regard for the job locations of both individuals. In fact, jobs may be chosen or changed after the residential location is established, although no research to date has systematically examined the timing of jobs and moves to determine which came first (although scholars have called for such research; (see Madden 1981). Thus couples do not necessarily try to minimise commute times to the exclusion of other factors. Often journey to work distance will be unequal between spouses for the following reasons (Giuliano and Small 1993):

- 1) Job turnover and moving costs may cause people to live near or far from a variety of jobs, rather than select their housing based on only one job.
- 2) Dual earner couples have difficulty finding housing perfectly equidistant from both jobs: one of the partners will have a job farther from home than the other out of sheer practical spatial and housing availability limitations.
- 3) Non-work factors account for some choice of housing location: people choose to live closer to other desirable amenities, such as parks, shopping, and quality schools.
- 4) Transportation may be less important than housing to some families, who are more willing to make a long commute in exchange for their ideal (or affordable) home.
- 5) Racial discrimination may limit the ability of some people to choose their housing freely.

Another factor, which hasn't often been considered as a cause of commute distances, is that longer commutes may actually be desirable and preferred to create a psychological buffer between home and work (Nippert-Eng 1995; Schneider 1999).

In fact, residential location has been linked to household type. An early study using 1977 Baltimore Travel Demand research on 787 people indicates that dual-earner households are much less likely to live in the central city than are single-earner households (54.6 percent versus 69.1 percent; from Baltimore Travel Demand research on 484 men and 303 women ages 16 and older collected in 1977) (Johnston-Anumonwo 1992). Despite the age of the data,

such a finding points to one strategy of dual-earner households for balancing residential location between two jobs. But their residence outside the central city may not actually be closer to either or both workplaces.

Person-environment Fit

Some theoretical models have suggested the concept of a person-environment fit (Caplan and Harrison 1993; French et al. 1974). This concept suggests that people will seek an environment that matches resources with their particular needs, or else suffer poor adjustment. When families have a good person-environment fit, their life quality will be higher, they will stay in the job or residence longer, and their overall effectiveness will be higher. The literature mostly applies the P-E fit to the workplace, though the concept can certainly be applied outside the workplace, to the neighborhood, or even the marriage. The concept suggests that couples will actually seek to live among those who are like themselves (the same way people seek friends who are similar to them), or among those who have complementary qualities: for example, young families living among older, retired couples in order to have neighbors with more experience and free time to help educate and supervise their children. Most evidence indicates that people tend to live near those more similar to themselves, rather than near people who are different, even if complementary. A literature on reference groups supports this contention (Merton 1968).

Going beyond the residence and the family, several questions related to commuting can also be addressed at the firm level. Companies are increasingly aware of the impact of their location on their current and prospective workforce (Kleiman 2001). And, given that workers at the same firm in the same financial strata are likely to be attracted to the same sort of housing (based on price range and proximity), workers at the same company should tend to have similar commutes, particularly if the firm is located in an area with only selective residential options nearby. Specifically, firms located in metropolitan areas will have workforces that locate in specific places in the metro area; firms located in non-metropolitan areas will have workforces more diversely residing in small adjacent cities, towns, and in the rural areas.

Couples' choice of housing and route from home to work is somewhat predictable, in that workers are likely to prefer to live closer to work if doing so does not compromise any amenities, and workers are also likely to want to travel the shortest, fastest, or most reliable routes to work. Consequently, a firm with desirable housing nearby or with a rapid transit

interstate highway linking residential areas to the workplace is likely to have a shorter-commuting workforce than other firms.

2.2. External Demands: Employment contexts

Work hours, income, job prestige, career commitment, and education are part of the employment contexts of commuting that appear in existing literature. Though much of the empirical research on commuting is atheoretical, I organise the existing findings by framing the existing evidence in terms of what are (usually implicit) theoretical orientations underlying extant studies.

Rational Action: Time, Income, and Job Prestige

Local travel takes place primarily in relation to the activity being traveled for, rather than as an end in itself. Commuting is the very definition of the relationship between space and time in physical activities: “space must be traversed in time to engage in activities” (Levinson 1999: 141).

As part of the relationship between activity duration and the travel to get to the activity, one general principle is that the longer an activity lasts, the longer people are willing to travel to get there. Not only is the longer trip an indication that the activity is more valuable, but also people have an interest in doing multiple activities while they are in a place to make it worth the drive. Levinson’s data are from the 1990-91 National Personal Transportation Survey (NPTS) of 22,000 household interviews randomly selected by telephone of people age 18 to 65 (Levinson 1999). Thus a long commute is most rational when the workday is long.

Another aspect of the rationality of a long commute, aside from the duration of the workday, is the amount of money or job prestige that the commute yields (Glenn et al. 2004). Wages and status affect individuals’ willingness to tolerate a long commute: more pay or status per working hour means that a longer commute is justified because of the additional money it brings in (Levinson 1999; McLafferty and Preston 1997). But a job that pays more also affords workers more housing options. Wealthier earners may have longer commutes in part because they can afford nicer, larger homes that are farther away from work. Conversely, those with more income can also afford to buy housing closer to work if they want to, because price is less of an obstacle. These families may populate the wealthy inner-ring neighborhoods of cities and inhabit high-price condos and apartments closer to their

workplaces. Workers in less affluent families must drive great distances from work to arrive at housing in their price range or else settle for sub-standard inner city housing (MacDonald and Peters 1994). Therefore, theoretically, income could operate to reduce or extend the commute.

Human Capital Theory and spatial mobility

Human capital theory suggests that earnings inequities are due to differential investments in human capital (such as education and job experience) and the resultant differences in individuals' abilities to produce (Howell and Bronson 1996). Beyond income alone as a factor in predicting commuting distances, human capital theory would suggest that, as job rewards, including income, are linked to human capital investment, and if a shorter commute is a job reward, it too should be linked to human capital investment. But, if more human capital means a better job that is worth traveling longer to get to, then greater human capital should be linked to a longer commute, not a shorter one. This latter explanation has the most support in the literature (Hanson and Pratt 1988a; Hanson and Pratt 1992; Madden 1981; McLafferty and Preston 1997; Turner and Niemeier 1997). Men tend to invest more heavily in human capital that will increase their earnings (through education and lucrative social networks) than women do (Camstra 1996). Therefore, commute length should vary by gender because of the differential investments in human capital of men and women. As women invest more in their human capital, their commutes should look more and more like men's commutes.

Howell and Bronson (1996), in their study of nearly 10,000 young employed men and women (ages 23-30) in the NLSY (National Longitudinal Study of Youth) in 1988, attempt to explain the gender difference in wages through differences in commuting time, but found only modest linkage between the journey to work and annual earnings. Howell and Bronson (1996) use the 1988 wave of the NLSY of young employed respondents (age 23 to 30; n= 9956). Their dependent variable is earnings, with commutes longer than 20 minutes as a dummy variable. Other controls include region, hours at work, age, married, Black, Hispanic, Duncan SEI index, education, number of children, and city size: rural, small urban, suburban, central city. When controls for other determinants are added (such as gender, age, race, and city size), the relationship between wages and commuting time is reduced among all but women in small urban settings (for whom the shorter journey to work is linked to substantively lower earnings). Gender and place of residence interact, with women in rural and suburban areas

commuting the longest. They found that commuting and earnings relationships operate the same way for men and for women: within each type of residential location, men and women who commute longer received more earnings (Howell and Bronson 1996). Howell and Bronson's study has limitations: older age groups or those getting additional education at the time of the interview are not represented in their sample. In addition, they had no measures of job prestige, which may compensate for lower income in providing incentive to travel longer to work.

Human capital theory usually overlooks structural factors in the labour market that bar access to human capital resources for some, especially women and racial and ethnic minorities (Granovetter 1981). Some of these structural factors appear as assumptions in the literature on gender differences in commute length; for example, that women have less access to private transportation and fewer desirable job opportunities that extend beyond their neighborhoods than men do.

Jobs that don't pay very well or are not prestigious do not provide as much incentive for workers to travel as far to get to them as jobs that pay very well or bring with them significant prestige (Levinson 1999).

Nearly 10 percent of job changes involve relocation in the United States (Yankow 2003). Research by Yankow (2003) provides evidence that the reasons for relocation for a job, and the financial consequences of a relocation, vary by the education level of the mover. Those with low levels of human capital who do move for another job tend to do so to restore previous wage levels because of a loss in their current position or area (and they benefit from long-range moves). Those with higher human capital tend to move because of good incentives in the new job. Their salary tends to show much higher returns after about 2 years.

Myers (1999) finds that past experience influences likelihood to relocate. Those whose families were relocated when they were children are more likely to consider relocation as a response to life course transitions in adulthood (Myers 1999).

Another set of predictors of relocation willingness involves ties to the local community. Workers with strong ties are less likely to be willing to relocate within their job positions (Stilwell et al. 1998).

Career Commitment, Gender, and spatial mobility

Regardless of gender, the spouse whose career is more personally salient or higher-earning may get the first choice of job and the “best” commute, with the other spouse arranging employment around that first spouse’s job. But according to Bielby and Bielby’s data (collected in 1977) on individuals in dual-earner couples, even between men and women of equal job investments, earnings, occupational status, and family circumstances, women are far less likely than men are to say they would maximise their job prospects by relocating their families. Bielby and Bielby’s 1977 study uses interviews with 162 wives and 197 husbands in dual-earner families taken from the Quality of Employment Survey (representative multistage probability sample of adults 16 years or older, working 20 or more hours a week) (Bielby and Bielby 1992). Another study answers a slightly different question. Using 1967-1972 data from the National Longitudinal Study of Mature Women, with a sample size of 3353 women married continuously between 1967 and 1972, Lichter found that wives’ career commitment did not affect families’ relocation rates, though wives’ employment had a strong negative effect on relocation, even controlling for husbands’ income, education, and professional status, the presence of children, and wives’ education and age (Lichter 1982). Career commitment was measured by asking whether the respondent would continue to work even if money were not needed. This second study assumes that relocation would be due to husbands’ career prospects, and not at all due to wives’ careers, an indicator of the social climate of the time in which it was conducted (with few women having career commitments or egalitarian marriages). By extension, wives may also be less likely to inconvenience their families by taking long commutes themselves or requiring them of their husbands. On the other hand, the commute arrangement may be a concession of one spouse to the other as a trade off for the ideal job: the spouse with the better (higher earning, more personally salient) career may compromise for getting job priority by taking on the more arduous commute and allowing the job-compromising spouse the first choice of residential location.

Two-Earner Couples: Rational Action and Human Capital

Note that 40 minutes a day is spent in transit for the average worker, which is over three hours per week (Howell and Bronson 1996; Levinson and Kumar 1997). This time is not a trivial amount: morning commute time is traded for sleep time or time getting children prepared for their days; evening commute time is exchanged for “family” time around dinner preparation, time spent with a spouse, time spent with children, and leisure. Individuals and

families must weigh this time relative to the sacrifices and benefits of long commutes to arrive at a livable solution. Time is a scarce and finite resource, especially in dual-earner couples where no one is necessarily specializing in domestic labour. Rationally acting couples make tradeoffs with each other, with their time, and with the location of work and home to maximise benefit to the household. Extrapolating from Becker (1981), the worker who is earning the most should be “specializing” in the work domain and is best able to “afford” a longer commute. This earner’s overall investment in work, even considering the commute time, makes it worthwhile to the household to lose that worker to the road for those hours a day.

Some aspects of the incentive to commute longer have yet to be directly examined in research, such as attitudes toward work or home responsibilities. No published research to date models commute time by any measures of beliefs or attitudes about these conceptual constraints. Intangible rewards of work, like job satisfaction or supervisor support, may be better predictors of some kinds of commuting behavior, because some may be willing to travel longer for jobs that provide high satisfaction or have a supportive supervisor. This kind of tradeoff may be particularly true for women or others less likely to enjoy other kinds of job rewards (such as income) or for whom certain benefits are more salient. Job importance relative to other spheres of life may replace earnings as a meaningful explanation for gender differences in commute length, in that the intrinsic value of a job may be at least as important as earnings in predicting a willingness to travel for a job. The relationships of job importance or income to commute length may be moderated by gender or simply correlated with gender. Essentially, a lifestyle dominated by labour market aspirations can justify a longer commute, but men are more likely than women to have high labour market aspirations (Camstra 1996).

2.3. Individual Features: Family and household contexts

Some may argue that women don’t really have limitless choices regarding human capital acquisitions that lead to job and housing locations and household responsibility levels. Feminism, as a branch of conflict theory, points to women’s systematic and long-term oppression and subjugation in the power structure (Bem 1993; England 1993; Johnson 1993). Feminist theory illustrates how the structure of the residential and job locations, and the allocation of household resources within couples (such as the use of the automobile to get to work), perpetuate the inequality between men and women in earnings and job prestige (Hanson 1992). Feminist theory implies that until these structural obstacles are abolished, women will continue to have less power and control over their lives, and, by extension, over

the length and quality of their commutes.

A number of studies have confirmed the “common knowledge” that men have longer commutes than women (Giuliano and Small 1993; Johnston-Anumonwo 1992; Johnston-Anumonwo et al. 1995; McLafferty and Preston 1997). Explanations for the gender difference fall into two categories: those that focus on differences between men and women who are unaffiliated with each other, called ‘individual level differences,’ and those that account for within-couple gender differences. There are two individual-level explanations for gender differences. One is that women’s lower wages make a long commute impractical for them (Madden 1981), assuming that housing near work is, in fact, affordable. Another is that women’s occupationally segregated work tends to be service work in suburban areas, nearer to housing, rather than in downtown business districts (Johnston-Anumonwo et al. 1995; Wyly 1999).

Within-couple differences in commute times are explained in two ways. Wives have more limited access to transportation than their husbands because husbands’ transportation needs are prioritised. Thus wives seek out closer workplaces that are accessible via public transportation or on foot. Or (the most prevalent explanation), wives’ domestic responsibilities compel them to shorten their commutes (Preston et al. 1993). The direction of causality for the latter explanation can go two ways. Do wives choose shorter commutes because it’s in their families’ best interest that they spend that time at home instead of on the road, given their smaller contribution to household income? Or, do women have fewer job choices because their household responsibilities limit the time they can spend going to work (Preston et al. 1993)? The wage gap between men and women is at least partially explained by the geographic constraints of women who seek employment closer to home so as to minimise the conflict between their employment and family responsibilities (Howell and Bronson 1996). The literature avoids the issue of how couples negotiate their residential location to their workplaces and vice versa, assuming that husbands’ job location determines the home location, with wives finding jobs somewhere near their homes (Camstra 1996; Madden 1981; Wyly 1999).

Couples do sometimes decide to live apart. Gross (1980) conducted one of the first studies of couples who live apart because of career reasons. Couples who have been married longer when the residential separation occurred had fewer conflicts between their family loyalty and work pursuits than couples who were more newly married. Others with better

adjustment were women (because these live-apart relationships recognise the legitimacy of the women's careers, which the women appreciate), non-parents, older couples, and couples where one spouse has an established career (Gross 1980). Gerstel and Gross completed an in-depth study of "commuter marriages" where spouses live apart during the week with an elaboration of these results (Gerstel and Gross 1984).

Household responsibility and spatial mobility

Differences in human capital investment are often related to women's additional responsibilities for childcare. This latter explanation is where the Household Responsibility Hypothesis begins. The last section posed a variant of these questions: do women have limited access to, or limit their own, career-boosting human capital? If so, then are their time and energy resources more efficiently applied to household responsibilities than are their husbands' resources? Or do women assume they'll absorb a greater share of household responsibility and thus develop less human capital for their jobs? The causal direction here is a chicken-and-egg dilemma: which comes first? Not only are most studies of the journey to work unable to test the causal direction, but also traditional measures in most journey-to-work research don't even capture actual time obligations related to household responsibilities. Instead, inadequate proxies for household responsibility and differential human capital are used, including "household responsibility" as simply the presence of children and husband, and human capital measured with income (whether over or under \$10,000 a year) and occupation (whether in an occupation that was 70 percent female or more in 1980) (Johnston-Anumonwo 1992). Better, but seldom used, measures would include actual hours spent on household labour, or attitudes about who should do household labour and how the labour is divided in the home (as suggested by Turner and Niemeier 1997).

Despite the lack of clear causal direction or accurate operationalisation, the primary explanation for gender differences in commuting length in the journey to work literature has been women's differential investments in their own human capital, "caused by" women's conflict between work and home (For examples of the ways in which women's conflict between home and work has been used as a reason for women's shorter commutes, see Johnston-Anumonwo 1992; Madden 1981; McLafferty and Preston 1997; Odland and Ellis 1998; Preston et al. 1993; Wyly 1998). This conflict, often called the Household Responsibility Hypothesis (HRH) (Blumen 1994; Johnston-Anumonwo 1992; Wyly 1998), says that women work closer to home because of their need to take care of household and

child care issues. The HRH introduces a new set of explanations for commuting length – that of family and gender – in explaining an individual's choices regarding job and housing locations and the resultant commuting times. Implicit is a couple-level trade-off between home and work, and the relative investments and responsibilities in each sphere. Although commuting patterns have not traditionally been viewed as part of the division of household labour, there are clear gender differences in commute patterns and explanations for these differences that point directly to the household division of labour. The HRH may predict either the differential investments in capital which produce the gender difference in commute time, or it may directly predict the commute length (with women, no matter their level of human capital, tending to work closer to home to maintain those responsibilities).

Turner and Niemeier (1997) evaluate the literature on the household responsibility hypothesis (HRH) and test it with additional data, drawn from the 1990 National Personal Transportation Survey. The 1990 National Personal Transportation Survey data from the U.S. Department of Transportation, used by Turner and Niemeier, includes 22,000 household interviews randomly selected by telephone of people age 18 to 65. These data contained information on 13,074 work trips, with 7352 being made by men and 5722 made by women. In 1990, ninety-five percent of trips were made in private vehicles. Turner and Niemeier constructed reduced-form equations to model commute distance and time, using separate models for men and women. Control variables included marital status, education level, age, household income, the number of adults in the household, whether the household is in urban area (as a proxy for home prices), and whether the household head is black or Hispanic. Higher household income and suburban households, markers of greater human capital, are factors thought to be correlated with longer commutes (Turner and Niemeier 1997). Other factors that contribute to commute distance are women's parenthood and marital status, education, income, and other labour force characteristics. They predict that age could operate either direction: more age is linked to more experience and wages, so the commute could be longer, or older workers could prefer a shorter commute and have the resources to facilitate such and so age could be negatively related to commute length. They predict that more education and higher wages will lead to a longer commute. Results of the regression equation on distance and time suggest that parenthood and marital status, their proxies for household responsibility, have only small effects on reducing women's trip distance. Turner and Niemeier assert that human capital theory applies to commuting distances in the sense that women accept greater household responsibility when their employment provides less potential advancement or income than their spouses' employment provides, suggesting that what comes

first is the human capital investment and reward acquisition. But their measures of household responsibility, like most studies of household responsibility, are people (husband and children), not actual time investments.

Role Theory: Strain, Accumulation, and Salience

Roles are the routinised relationships we hold relative to others (Goode 1960; Sieber 1974). In most roles there are sets of activities that are expected and others that are inappropriate. Gender differences in human capital investments and acquisition, in the levels of responsibility for household tasks and child care, and in commute length are all linked to husbands and wives' roles. Spouses act in tandem, if not always in cooperation, because husbands and wives fill roles in relation to, and sometimes in conflict with, each other.

Research on the willingness of American top managers to take an overseas position finds that characteristics of the spouse, in particular the amount of investment the spouse has in a career and the spouses' level of adventurousness were strong predictors in the ability of a manager to accept an international relocation (Konopaske et al. 2005).

Couples' role expectations are often bundled together, especially in married couples' households where role sets come with (often gendered) meanings about identity and contributions to the household (Brines 1994; Hochschild 1989; Komarovsky 1964; Potuchek 1997; Stanfield 1996; Ward 1993; Wilkie et al. 1998). For example, a spouse who is working part time may take on more of household responsibility to "make up for" the lack of income and to compensate for the lack of labour force time, thus forming a bundle of roles from both the work and home spheres. In this example, that role bundle is typically a female-gendered pattern, and it's unclear what comes first: the part time job or the majority of housework. Each facilitates the other. In some role schemas, both partners may see a long commute as a normal part of the requirements of the (male) breadwinner role. Thus, whether or not it makes rational sense for one or the other spouse to bear an extra long or short commute, the commuting structure is established because of gender-role expectations, not logic. A long commute may be a defining aspect of what it means to be "a good breadwinner," and a short commute that facilitates access to children's needs may be part of the definition of "a good mother." Turner and Niemeier (1997) found that among women working close to home

(within 10 minutes), those in female-type occupations³ were twice as likely (32 percent) to say they wanted to be able to get home quickly for children or emergencies compared to women in non-female type occupations who lived equally close to home (15 percent). If a shorter commute is viewed as a feminine role marker, wives with longer commutes may feel role dissonance because of the inconsistency between their actions and cultural expectations, in addition to bearing the physical and psychological stress of being in transit for a long period each day. For example, if a wife and mother thinks her long commute and investment in work are inappropriate because her values are on her household responsibilities, or if her household responsibilities exceed her time available, then she is likely to experience role dissonance. The degree of stress associated with a longer commute may vary by life stage, with long-commuting mothers of younger children feeling greater stress than women without children or with grown children. Indeed, Levinson (1999) finds that life stage predicts 10 percent of the variation in the duration of time spent at home, at work, and in “other” activities; people do vary their time investment in these spheres when they can, as a way of coping with the demands of young children⁴. I turn to life stage factors more explicitly in the next section.

Gender Bargaining: a Cultural Explanation

A gender bargaining approach would consider both household roles and rational action as both operating to create couples’ commuting patterns. Couples “do gender” in their homes through the ways in which they choose to divide work, avoid work, and create work from among their available options (Bellah et al. 1985; Brines 1994; Hochschild 1989; West and Fenstermaker 1993; West and Fenstermaker 1995). Most household tasks carry with them a specific culturally-imposed gender label. Couples can either default to these gender divisions or forge their own. But couples are engaging in gender work, whether actively opposing traditional gender divisions or following traditional paths. Whichever way couples divide their labour, they can think about it as either in the household’s rational best interest, or as part of “what we do here.”

³ A female-type occupation, according to Turner and Niemeier (1997), is one where 70 percent or more of workers in that occupation are female.

⁴ The age of the oldest child and the number of adults in the household indicate life stage in Levinson’s study. Logit models are employed to explain proportion of minutes in each day spent in different domains: work, home, shopping, and other (Levinson 1999). Gender was entered as a control variable. Given that time spent in different domains has long been gendered, models would have been better estimated separately for men and women, or else interactions between gender and most other variables should have been added.

Parenting Stage and spatial mobility

The life course is a moving picture of a life over time. Parenting stage, as one variety of life stage, captures the current configuration of one's structural location in relationship to reproduction: age, partnership status, and childbearing, the momentary snapshot that the life course has created up to that point.

I have already identified a few areas of research that have found life stage predictive of commuting decisions and patterns. Recall Levinson's (1999) findings, from the 1990 National Personal Transportation Survey of 22,000 households, that life stage predicts ten percent of the variation in the duration of time spent at home, at work, and in "other" activities. Recall, also, how household responsibility (broadly defined as marriage and parenthood) relates to more time commuting for men and less time commuting for women. Some additional research focuses on life stage more explicitly. I turn to this body of work now.

Some "life stage" work is really just testing marital or parenting status. In this literature, findings conclude that married men commute longer than single men, but the findings are mixed on the effect of marriage for women's commute times. Some research, using a panel study, finds that it's the presence of children, and not marriage, that decreases women's commute times (McLafferty and Preston 1997)⁵. Two other studies, using cross-sectional data, find that married women commute shorter distances than unmarried women, regardless of the presence of children (Johnston-Anumonwo 1992; Preston et al. 1993)⁶. A partial explanation for the difference between married and unmarried women's commutes is that married couples often prioritise the husband's career in relocation decisions, leaving the wife to find work closer to home once they move to a new area for his job (McLafferty and Preston 1997).

Some of the life stage differences in commuting are structural; others can be seen as deliberate strategies. Married men's commutes are longer than single men's commutes even when income is the same, which suggests that the long commute of married men implies a

⁵ McLafferty and Preston (1997) create path models predicting commute length using 1980 and 1990 PUMS data of the New York City Census population.

⁶ Johnston-Anumonwo uses 1977 Baltimore data on 787 people and uses actual distance to work rather than time traveled. Preston, McLafferty, and Hamilton use data use 1980 New York City Central Metropolitan Statistical Area (CSMA) Census data on four populations: married women with and without children, and unmarried women with and without children.

choice to commute longer in exchange for better residential options, perhaps as a family lifestyle strategy (McLafferty and Preston 1997). Mothers may handle their work-family responsibilities, particularly when children are school-aged, by limiting their commutes. Mothers of preschool children do not limit their commutes as much as mothers of school aged children, probably because of the structural constraints of the school day, compared to preschool childcare arrangements, which often can encompass a larger portion of the work day (Preston et al. 1993). Preston, McLafferty, and Hamilton (1993) suspect that one finding is unique to New York City: that children reduce the commute more than marriage does. Another study using two years of in-depth, participant observation with 25 suburban mothers finds that women attach personal and family importance to their neighborhood only after their children are born, at which point the neighborhood itself becomes important for meeting needs of the family and for safety (Dyck 1989), suggesting a valuing of neighborhood over work convenience.⁷

Most of these studies tiptoe around life stage factors and couple-level considerations on commuting, with few addressing it head-on. For example, “life stage” studies on the journey to work often use marriage or the presence of children as variables that may influence the journey to work for men and women, but do not consider these effects as bundles that are associated with each other and with respondents’ chronological age (Johnston-Anumonwo 1992; McLafferty and Preston 1997; Preston et al. 1993). The exception is research from the Netherlands.⁸

⁷ Unaddressed, however, are the changes in the meaning and use of the neighborhood as children and parents age, in other words, considering these dynamics over the life course rather than just life stage. Such a study could have yielded vast implications for the meaning of physical space for families over time.

⁸ One of the most extensive couple-level commuting studies to date comes from the Netherlands, by Rouwendal and Rietveld (1994), but is limited in its couple-level qualities because it uses only the householder (usually the male) as an informant on the other spouse. Rouwendal and Rietveld’s research uses the Dutch Housing Demand Survey, a random sample of 1551 people collected in 1985 and 1988 weighted toward low income households, especially unemployed households: half the households had unemployed “householders” (breadwinners, male if male is present or female if a single household with no male). Respondents were interviewed about their own and their spouses’ commuting distances (Rouwendal and Rietveld 1994). Rouwendal and Rietveld find that the commute distance of the head of the household is longer when the partner is employed, compared to households where the partner is not employed. For their part, partners (wives) have shorter distances when the husband is employed. Weekly work hours are related to more commuting, but children under age 18 are related to short commutes for partners (wives). Age has a decreasing effect on commute distance, with people less likely to commute long distances as they age. Rouwendal and Rietveld’s study finds that job search costs include commute length. Often when someone obtains a new job, their commute increases, rather than their relocating is closer to work.

In another study from the Netherlands, Camstra’s (1996) research uses the 1992-93 Dutch Telepanel dataset with over 2300 women and men, a retrospective life-course focused survey collected in 1992-93 in the Netherlands. He takes a life course perspective from one respondent per couple to examine the links between family formation timing patterns (timing of marriage and first child) and later-life commuting distances, but it does not look at the

Commuting strategies most likely vary by current life stage as well as the prior sequencing of life events. In addition, reports of commute length are undoubtedly influenced by who is doing the reporting: the commuter or the spouse of the commuter.

However, age reflects cohort as well as life stage. Older wives who began their employment careers in an earlier era may still work near home because they fulfilled the expectation of women to work near home when their careers began or when their children were young, and their occupational choice or actual job still reflects earlier life stage adjustments.

Young non-parent wives are as likely as their husbands to have long commutes. By contrast, older wives are more at risk of having had a home and work location designed according to previous gendered life stage considerations (such as having had young children). Even if children are out of the house, there is an inertia to the home and workplace left over from an earlier time in the life course of the family, and in the patterns of society, where women readily took on the second shift of caring for home and children (Hochschild 1989).

3. Consequences of Mobile Living: Quality of Life and Family Outcomes

There are a variety of consequences examined in the literature. These fall into the following categories:

1. Conflicts or strains between spheres of work and home;
2. Children's psychological development; and
3. Life satisfaction.

couple as a unit. He uses data on 1113 women and 1217 men 29 years or older with no missing data on timing and geographical location of the labor force, housing, and family dimensions of respondents, including individuals' past timing of children's births, their date of marriage, and the length and duration of their work careers (Camstra 1996). Camstra also considers the role of residential moves and job changes on commuting distances. Camstra creates a typology of "family life-styles" that group people by whether they married and had children right away when they were in their early 20s, waited for both marriage and children, or married but waited before having children. Past family patterns don't predict the probability of moving by gender, although he finds that current life stage factors do play a role. Younger women are more likely to commute longer than older women, but women in general are more likely than men to move or change jobs than face a long commute. According to Camstra, family patterns do predict whether wives quit work after a residential move, with family-centered women more likely to quit working, but career-centered women more likely to just commute longer distances after a move. The probability of quitting a job increases with more traditional family styles for women, decreases for men with more traditional family styles. Modern women commute over larger distances, traditional women quit work, but moves favor men's careers. The moves a family makes tend to shorten men's commute, not women's, for all lifestyle groups. The length of the move moderates this effect. Short moves correspond to moving near the job of the wife; long moves correspond to working near the job of the husband. These data are retrospective, and thus the memory of the events may be biased by the ideology of the respondent. One major weakness of Camstra's study is that he does not have husbands and wives' reports. Instead, he can only talk about aggregated women and men who are in couples and are implicitly being influenced by the events in their households. With his data nothing can be said about the simultaneous motivations of both spouses.

3.1. Conflicts or strains between spheres of work and home

Regarding conflicts or strains stemming from job-related mobility, Voydanoff (2005) studied what she terms “boundary-spanning demands” including commuting time, taking work home, working from home, and an unsupportive work culture. Commuting time creates work-to-family conflict, but not family-to-work conflict, according to her research using the National Survey of the Changing Workforce 1997 (Voydanoff 2005).

Research on the journey to work has focused on the stress resulting from transit. Comparing train commuters and those driving themselves in the New Jersey-New York area and using self-reports and neuroendocrinological measures of stress, Evans, Wener, and Phillips (2002) affirm the hypothesis that the predictability of the commute is an important determinant of its stressfulness to the individual. The more predictable commutes were associated with lower stress levels. (Evans et al. 2002)

Reasons for relocating influence outcomes. Eby and Dematteo (2000) find that those who relocate for lateral or worse quality jobs than the ones they had before perceive less employer support and have higher job turnover. Those with downward moves or who were moved involuntarily had greater intentions to quit (Eby and Dematteo 2000).

3.2. Children’s psychological development

In a review of studies of family instability done by Adam (2004), the conclusion is that residential instability and long or frequent separations from parent figures have negative consequences for children’s development in a variety of domains (Adam 2004). Adolescents whose families move frequently are more likely to be involved in violent behavior than those whose families remain stable (Haynie and South 2005). But research by Pettit (2004) indicates that not all family instability leads only to negative outcomes. She describes the conditions under which relocation is healthy for children: moving to more well-off or safer neighborhoods is helpful for teenagers’ social connections. Disruptions to social ties are typically short-lived and do not lead to long-term negative consequences. Age of the child matters in the consequences of a move: younger children cannot be as involved in extra-curricular activities after moving to a middle-class neighborhood from a low-income one because of the higher costs of the activities (Pettit 2004). Studies of military families also show evidence that moves are not necessarily bad for children and that age of child matters for the effect of the move (Weber 2005). Myers (2005) finds that children who moved frequently have less close relationships with their fathers later in life, and sons also have less

close relationships to their mothers (Myers 2005).

3.3. Life Satisfaction

Bunker et al (1992) examined the quality of life in couples, comparing those in single-residence households and those where one lived away during the week. The researchers found that commuters (shuttles/LDRs) were more satisfied with their work lives and with time for themselves than single-residence couples, but less satisfied with life overall, with their family life, and with their partnerships. Overload was reduced for the couples in commuter relationships, making the researchers conclude that there are tradeoffs, and that the mobile lifestyle is not purely one of disadvantage. They also found no difference in satisfaction and stress reports of the mobile couples between those who traveled and those who stayed at home (Bunker et al. 1992). By contrast, a study of involuntarily mobile clergy and their wives showed that the wives experienced many more negative consequences from relocation than the clergy husbands did (Frame and Shehan 1994).

A study by Rindfuss and Stephen (1990) on marital non-cohabitation, one of the few studies of this in the United States, shows that marriages where couples do not cohabit are much more likely to dissolve within three years than those that stay together. In the U.S., married non-cohabiters are likely to be separated due to imprisonment or military service rather than “normal” job demands. Results come from the National Longitudinal Survey between 1972 and 1976. Being married and the quality of the marriage are strong predictors of (un)willingness to have a long distance relationship or live in a shuttle-style marriage in the United States (Rindfuss and Stephen 1990).

4. Conclusions

The United States has a good deal of research on gender differences in commute times, but less about relocation decision-making (Pixley and Moen 2003). Furthermore, the effects of mobile living on family life and marital quality are only minimally understood, and those studies that do exist are typically done using older data or special populations. Future research should focus on the decision-making process within families for choosing relocation or long commuting/shuttling, the effects of life stage, infrastructure availability, and human capital on these decisions, and the consequences for family formation and family life.