

# ***ECONOMIC DEPENDENCE IN MARRIAGE AND HUSBANDS' MIDLIFE HEALTH***

## ***Testing Three Possible Mechanisms***

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*Prior research suggests that midlife husbands have worse health when they earn less than their wives; however, the mechanism(s) for this relationship have not been evaluated. In this study, the author analyzes 1,319 heterosexual married couples from the Health and Retirement Study to explore three theoretically grounded mechanisms. The author begins by assessing two well-established family relations theories (economic resource and marital dissatisfaction) to explore the mediating effect of marital power and relationship quality. The author then draws from gender relations theory, multiple masculinities literature, and cognitive dissonance research to test the possibility of a male breadwinner mechanism. The results demonstrate that family relations theories are insufficient explanations but provide strong support for the male breadwinner mechanism. Specifically, being the secondary earner is harmful for the health of highest-income men—who historically have the strongest expectation of male breadwinning. These findings suggest that stereotypes about male breadwinning can be dangerous for men's health.*

**Keywords:** *family; health/medical; men/masculinity*

**W**ives' contributions to household income have risen dramatically over the past four decades, with an almost 300 percent increase in the number of wives who provided at least half of the marital income between 1970 and 2001 (Raley, Mattingly, and Bianchi 2006). A recent Pew Research Report on the "New Economics of Marriage" found that "among all married couples, wives contribute a growing share of the household income, and a rising share of those couples include a wife who earns more than her

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*AUTHOR'S NOTE: I would like to thank Molly Carnes, Deborah Carr, Jeremy Freese, Myra Marx Ferree, Robert M. Hauser, Dawne Mouzon, Patricia Roos, and Elizabeth Thomson for their insightful comments; the Gender & Society anonymous reviewers and editor Dana Britton for their excellent constructive feedback; and the Robert Wood Johnson Foundation Health & Society Scholars program for its financial support.*

GENDER & SOCIETY, Vol. 24 No. 3, June 2010 378-401

DOI: 10.1177/0891243210371621

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husband” (Fry and Cohn 2010). Men’s unemployment has recently outpaced women’s unemployment by the largest gap since data have been collected, and economists predict this gap will continue to widen (Filion 2010; Wall 2009). Public and academic interest in these new economics of heterosexual marriage is not only about money but also about the possible personal and relationship consequences of “gender role reversals” in marriage associated with wives’ higher earnings (Fry and Cohn 2010).

In this project, I examine one such consequence of these new economics of marriage: how a midlife husband’s health may be affected by earning less than his wife. Studying the health effects of husbands’ economic dependence in marriage is important because (1) health is a basic and critical dimension of well-being; (2) income has strong, persistent effects on health outcomes (Marmot 2002); and (3) prior research shows that husbands’ health and mortality risk are affected differently depending on whether income is contributed by the husband or the wife (McDonough et al. 1999; Rosenfield 1992).

Prior research not only shows that husbands’ health is differentially affected by the source of marital income but also that midlife husbands who earn less than one-half of the marital income have poorer physical health than similar husbands who are not secondary earners (McDonough et al. 1999; Rosenfield 1992; Springer 2006, 2010). However, the reasons for the link between a husband’s economic dependence in marriage and his midlife health have not been evaluated empirically. The lack of research exploring plausible mechanisms is surprising given the rapid increase in wives’ earnings and the implications for gender scholarship. Specifically, understanding *how* economic dependence in marriage affects husbands’ midlife health can illuminate ways that gendered economic structures shape health within the gendered institution of marriage.

I draw from gender relations, social psychological, and family relations theories to develop and test possible mechanisms linking husbands’ economic dependence with husbands’ self-reported midlife health. Testing a range of perspectives allows me to explore whether marital power (the economic resource mechanism), relationship quality (the marital dissatisfaction mechanism), and/or gendered social psychological/cultural pathways (the male breadwinner mechanism) account for the adverse health effect of husbands’ economic dependence (Blood and Wolf 1960; Booth et al. 1984; Connell and Messerschmidt 2005; Courtenay 2000). Documenting the mechanisms linking husbands’ and wives’ marital income contributions to husbands’ midlife health can provide insights into future research and interventions designed to improve men’s health while also improving women’s social status.

## POTENTIAL MECHANISMS

### Economic Resource Mechanism

According to the economic resource theory, the money a spouse contributes to the marital income pool is directly related to the power a spouse can exert in marriage (Blood and Wolf 1960); the person who earns more of the marital income has more “say” in how money is spent and who spends it (Ferree 1990; Pahl 1990). Power over economic resources can be used directly to purchase goods or services—or to restrict the expenditures of other family members. In addition, income can also be “traded” for help with housework or child care. This original formulation of the economic resource mechanism is implicitly “gender-neutral,” with the expectation that spouses will use income-based power in the same way and that a given amount of income translates directly into a corresponding amount of marital power. However, even while phrased in gender-neutral terms, this economic resource mechanism still assumes an effect mediated by the gendered division of labor and leisure (Ferree 1991).

In this article, I extend the original formulation of the economic resource theory beyond its usual scope to assess whether it explains the relationship between husbands’ economic dependency and husbands’ midlife health. Research demonstrates that when husbands are in charge of marital income, they spend more money on their leisure activities and individual pursuits (Ferree 1990; Nyman 2003). Engaging in leisure activities and having free time for individual pursuits predicts improved health (Bird and Fremont 1991). Therefore, if wives use their greater economic resources (and presumably greater marital power) to restrict husbands’ relaxation and leisure pursuits—and perhaps also shift some of the burden of the “second shift” to their husbands—this may negatively affect husbands’ midlife health. This economic resource mechanism can be tested by examining whether wives’ power (“final say”) in marriage accounts for some, or all, of the relationship between husbands’ economic dependence and husbands’ midlife health.

However, it is important to note that this original formulation of the economic resource theory has been criticized by scholars who highlight gendered meanings of money in marriage (Bittman et al. 2003; Brines 1994; Gupta 2006; Tichenor 2005). Scholars have documented that when women earn more than their husbands, the women do more domestic labor, exercise less power, and use their money for domestic expenses rather than personal purchases (Ferree 1991; Tichenor 2005). It is therefore possible that the original formulation of the economic resource mechanism will not hold if

higher-earning women do not exercise marital power in a way that shifts more responsibility to their husbands and/or reduces their husbands' health-enhancing leisure pursuits.

### **Marital Dissatisfaction Mechanism**

The marital dissatisfaction mechanism posits that husbands are less satisfied in a marriage where they earn less than one-half of the marital income and that this marital dissatisfaction harms their health. Prior research provides mixed support for the thesis that husbands' economic dependence predicts lower levels of marital satisfaction. For example, in a longitudinal analysis of dual-earner couples, Brennan, Barnett, and Gareis (2001) found that husbands' economic dependence was associated with lower levels of husbands' perceived marital quality. However, in contrast to this finding, cross-sectional analyses of three population-based studies found no relationship between a husband's economic dependence and his reports of marital satisfaction (Pappenheim and Graves 2005).

There is strong evidence that marital dissatisfaction predicts poorer physical health, with risky behaviors and poorer mental health serving as the primary mechanisms connecting the two (Ren 1997; Wickrama et al. 1997). Furthermore, recent research has demonstrated that the link between marital dissatisfaction and poorer physical health strengthens over time and is greatest at older ages (Umberson et al. 2006). Therefore, it is possible that husbands' marital dissatisfaction is one mechanism linking husbands' economic dependence to husbands' health—at least for midlife and older men. As with the economic resource mechanism, if marital dissatisfaction is a mechanism depressing husbands' physical health, the relationship between husbands' economic dependence and husbands' midlife health should lessen and/or become nonsignificant when marital satisfaction measures are included.

### **Male Breadwinner Mechanism**

A third possible mechanism linking husbands' economic dependence to physical health outcomes draws from gender relations theory, specifically from literature on masculinity and breadwinning (Connell 1987). According to gender relations theory, gender is a primary frame for organizing social relationships, with gendered cultural norms—such as those tying masculinity to the responsibility for breadwinning—strongly shaping and constraining gendered expectations, feelings, and behaviors (Ferree and Hess 1987; Ridgeway 2009; Ridgeway and Correll 2004). However, gender as a cultural

frame is also shaped by, and intersects with, other social structural factors and dimensions of inequality. Ideals and performance of masculinity vary by social contexts—with socioeconomic status being a central stratifier of masculinity. Connell has offered the concept of multiple masculinities to theorize men's different social locations and to understand gender inequality *between* men (Connell 1987; Connell and Messerschmidt 2005).

Importantly, although masculinities can vary, masculinities are all understood and negotiated in relation to “hegemonic masculinity.” Hegemonic masculinity is the “most honored way of a being a man” and corresponds to the ideal masculinity of dominant groups (Connell and Messerschmidt 2005, 832). In the contemporary U.S. context, breadwinning is one of the central components of hegemonic masculinity. Therefore, failure to achieve the breadwinning ideal can be emasculating for men, can cause stress, and can prompt compensatory masculinity enactments—such as engaging in unhealthy behavior (Thompson and Walker 1989). For example, research has established that men engage in health risk behaviors such as smoking, drinking, extreme sports, and avoiding health care to enact masculinity, especially when their masculinity has been threatened (Connell and Messerschmidt 2005; Courtenay 2000). The adverse health consequences of these compensating behaviors can be viewed as translating the social and cultural masculinity insult of not being the primary breadwinner onto the male body (Connell and Messerschmidt 2005).

The adverse health effect of not being the male breadwinner could vary by social location, with theory providing compelling rationale for the strongest effects among men in the lowest-income *or* highest-income marriages. Lowest-income men are the furthest from achieving the economic success that defines hegemonic masculinity and may therefore be the most threatened by wives' higher earnings (Connell and Messerschmidt 2005; Kimmel 2005). Furthermore, it is possible that economic dependence among lower-income men is particularly harmful because this dependence is compounded within the more general dishonor that comes from lower economic status. Unable to achieve the prevailing normative standard of masculinity through male breadwinning, lower-income men may strive to achieve and enact masculinity through overt and physical means such as drinking, smoking, and other health-harming behaviors (Connell and Messerschmidt 2005; Courtenay 2000; Pyke 1996).

In contrast, it is possible that highest-income men are most adversely affected by being secondary earners. Extensive research has documented that the male breadwinner/female homemaker family was realistically only

a financial possibility for upper-income families (Pyke 1996; Zuo 2004). Higher-income men who are not primary breadwinners must contend with the inconsistency of their ideals/expectations (male breadwinning) and their reality (economic dependence). Extensive social psychological research on self-discrepancy and cognitive dissonance documents the detrimental effects of discrepant ideals and reality, providing a theoretical explanation for why higher-income men may experience poorer health if they are not the primary earner (Higgins 1987; Ridgeway 2009; Ridgeway and Correll 2004).

There is some empirical evidence that higher-income men may be more likely to see wives' earnings as a personal affront (Ferree 1984; Spade 1994; Zelizer 1989). For example, Spade (1994) found that wives' work had no effect on husbands' depression or anxiety when husbands or wives reported that wives were working to pay bills. In contrast, husbands had higher levels of anxiety when they reported that their wife worked "to use her training" or "to keep busy."

In sum, male breadwinning is a central component of hegemonic masculinity. Evidence for a pronounced health effect among men in the lowest-income marriages suggests a toll of being removed from hegemonic masculinity both at home and in relation to other men. Evidence for a more pronounced effect among men in the highest-income marriages suggests that the discordance of expecting to be the breadwinner with the lived reality of being the secondary earner can harm men's health. Importantly, the empirical tests of the male breadwinner mechanism rely solely on marital income differences and therefore can only infer the underlying potential causes. To summarize, the following are hypotheses for each mechanism.

1. *Economic Resource Mechanism*: "Final say" measures of household power account for some or all of the relationship between husbands' economic dependence and husband's midlife health.
2. *Marital Dissatisfaction Mechanism*: Husbands' marital dissatisfaction explains some or all of the relationship between husbands' economic dependence and husbands' midlife health.
3. *Male Breadwinner Mechanism*:
  - a. The health of midlife men in lower-income marriages will be most affected by economic dependence, perhaps because earning less than their wives adds to their stress of earning less than other men.  
*Or:*
  - b. The health of midlife men in higher-income marriages will be most affected by economic dependence, perhaps because it reflects a discrepancy between the ideal of male breadwinning and the reality of wives' breadwinning.

## DATA AND METHODS

I use the Health and Retirement Study (HRS) for these analyses. The HRS is a nationally representative sample of members of the U.S. population born between 1931 and 1941 and their spouses of any age. Data were first collected in 1992, with subsequent data collection every two years up to 2004. I examine data from 1992 to 1994 with all independent variables measured in 1992. Restricting the time frame from 1992 to 1994 allows me to best rule out the potential competing effect of retirement on health.

Primary HRS respondents and their spouses were asked detailed questions about their family life, occupation, and health status. I create a “constructed pair” data set where all men (either respondents or spouses) are labeled as *husbands* and all women (either respondents or spouses) are labeled as *wives*. I also limit my sample to husbands and wives who remained married between 1992 and 1994, to people who report not being completely retired in 1992 and 1994, and to people who worked in 1992 and 1994—leaving a total sample of 1,319 couples.

The HRS is an excellent study for analyzing relationships between spousal income and midlife health for several reasons. First, these data contain detailed longitudinal health and economic information from a nationally representative sample of midlife couples. Second, the HRS is one of a very few data sets to collect couple information from *both* spouses. Third, the HRS includes information on a wide array of sociodemographic, occupational, and health characteristics, which allows me to control for potential confounding factors. Finally, these couples grew up during the peak of the breadwinner/homemaker family structure and are among the first to experience large numbers of wives entering the labor market. In other words, men from the HRS generation were socialized into 1950s ideas about gender but then underwent a major social shift to a more dual-earner society at the precise age (in their 30s) when they were establishing their own households. This unique historical transition may make this cohort of men particularly sensitive to being secondary earners—thereby creating an ideal analytic sample for this project. Furthermore, during the time period studied here, most of the HRS couples are in their 50s—old enough that health problems are becoming common, thereby providing analytic leverage to identify relationships between economic dependence in marriage and health.

### Dependent Variable

The dependent variable is a 1994 indicator of self-reported health measured on a five-point scale from “poor health” (1) to “excellent health” (5).

This measure of health is a well-accepted, highly recommended, and extensively validated indicator of physical health. Meta-analyses show that self-reported health robustly predicts mortality across an array of samples, across different countries, measured in a variety of ways, and controlling for extensive confounding variables (Ferraro and Farmer 1999; Idler and Benyamini 1997). Furthermore, recent research finds that income-based differences in self-reported health mirror income-based differences in mortality—underscoring the validity of using self-reported health for comparisons across income groups (Singh-Manoux et al. 2008; Subramanian and Ertel 2008).

### **Independent Variables**

*Income measures.* Income is reported by only one person—the self-identified, best-informed financial respondent. Income includes wages, salaries, bonuses, overtime pay, commissions, tips, military earnings, and professional or trade income in 1991. Based on Sorensen and McLanahan's (1987) economic dependency research, I created a dichotomous indicator coded 1 for husbands who earn less than one-half of the marital income. This operationalization is identical to coding economic dependence as 1 for husbands who earn less than their wives. All models also include a control for total marital income to account for the fact that women generally contribute a larger percentage of income in lower-income families. When analyzing the male breadwinner mechanism, I include quartiles of marital income to examine the health effect of economic dependence in the lowest-earning and highest-earning marriages.

*Control variables.* I include control variables that are related to economic dependence in marriage, for husbands' health, or both. Specifically, I include age, education, race, and four measures of prior health for *each spouse*, as well as one measure for the number of children. Age is measured in years. Educational attainment is measured in years, top-coded at 17 years. Number of children is measured with an ordinal indicator of living children in 1992, top-coded at five.<sup>1</sup> Given the limited variation of race within the HRS, race of each spouse is coded as white/not white. It is critical to include controls for race because the expectations, experience, and history of male breadwinning varies by race—suggesting that the relationship between economic dependence and husbands' health may differ by race (Glauber 2008; hooks 2004; Schrock and Schwalbe 2009).<sup>2</sup>

To reduce the possibility of reverse causation, it is necessary to account for health prior to the outcome. Therefore, I include a 1992 self-reported

general health measure and three other physical health measures for both spouses.<sup>3</sup> Including self-reported health at 1992 also helps minimize any potential stable SES or gender bias in the outcome (1994 self-reported health), because these potential biases would affect both 1992 and 1994 reports—therefore, these potential biases are essentially controlled for with the inclusion of 1992 health. The three additional baseline health measures include health-related work limitations, body mass index (BMI), and current smoking. The work limitation variable is a dichotomous measure where 1 indicates that respondents have a work-limiting health problem. BMI is a measure of appropriate body weight for a given body size, measured as kilograms divided by meters squared. I operationalized BMI as a continuous measure as well as dummy variables cut at the CDC-recommended cut points indicating underweight, normal weight, overweight, and obese. The results were essentially identical regardless of how BMI was operationalized, and I therefore retain the continuous measure. Smoking is a dichotomous measure of current smoking in 1992 where smoking is coded as 1.

### Potential Mediators

*Economic resource mechanism.* Marital power is measured using items corresponding to the conceptualization of the economic resource mechanism (Blood and Wolf 1960). Specifically, the HRS item is, “When it comes to making major family decisions, who has the final say—you or your (husband/wife)?” and is asked separately of both spouses in 1992. The HRS defines “major family decisions” as “things like when to retire, where to live, or how much money to spend on a major purchase.” Respondents who reported that they or their spouses have the final say on major family decisions were then asked whether they or their spouses have “a lot more,” “somewhat more,” or “only a little more” of the final say. I created two 7-point variables of wives having the final say based on husbands’ and wives’ reports separately. Both the husbands’ and the wives’ scales were coded so that higher numbers indicate greater final say of wives. For example, the ordinal scale for wives is coded in the following manner:

1. wife reports that her husband has a lot more of the final say,
2. wife reports that her husband has somewhat more of the final say,
3. wife reports that her husband has only a little more of the final say,
4. wife reports about equal say,
5. wife reports that she has only a little more of the final say,

6. wife reports that she has somewhat more of the final say, and
7. wife reports that she has a lot more of the final say.

*Marital dissatisfaction mechanism.* I measured husbands' marital dissatisfaction with two items from the 1992 survey. The first item reads, "Are you very satisfied, somewhat satisfied, about evenly satisfied and dissatisfied, somewhat dissatisfied, or very dissatisfied with your marriage?" The second question addresses how much husbands enjoy spending time with their wives. Specifically, the second question reads, "Generally speaking, would you say that the time you spend together with your wife is extremely enjoyable, very enjoyable, somewhat enjoyable, or not too enjoyable?"

There is little variation in either item. Therefore, to assess a husband's marital satisfaction, but also to obtain enough variability for model estimation, I create a dichotomous variable where a 1 indicates that a husband is "very satisfied" or "somewhat satisfied" with his marriage; and a 0 indicates he is "about evenly satisfied and dissatisfied," "somewhat dissatisfied," or "very dissatisfied" with his marriage. This variable is coded such that 1 indicates marital satisfaction and 0 indicates lack of marital satisfaction. The "enjoying time together" item is also highly skewed toward positive responses. However, a sizable minority of husbands (10 percent) report that spending time with their wives is only "somewhat enjoyable" or "not too enjoyable." Therefore, I create a dummy variable where 1 indicates that husbands report time with their wives as "very enjoyable" or "extremely enjoyable" and 0 indicates "somewhat enjoyable" or "not too enjoyable." Finally, I create a combination variable such that 1 indicates that a husband reports positive marital satisfaction and enjoying time with his wife. Note that for ease of exposition, I have operationalized the indicators to show satisfaction and enjoyment—although the mechanism proposed is through dissatisfaction or displeasure.

## ANALYTIC STRATEGY

To test the economic resource and marital dissatisfaction mechanisms, I conduct mediation analyses to evaluate whether the relationship between husbands' economic dependence and husbands' midlife health is attenuated by marital power and/or marital dissatisfaction (Baron and Kenny 1986). I assess the male breadwinner mechanism by examining the interaction of economic dependence and quartiles of marital income. I employ ordered logit analyses using Stata's survey and subpopulation functions with household weights. Ordered logit analyses are used because the outcome is an ordinal variable.<sup>4</sup>

**TABLE 1: Descriptive Statistics (N = 1,319)**

	<i>H</i>	<i>W</i>
Health in 1994	3.76 (0.02)	3.84 (0.03)
Income measures		
Marital income	58,995.69 (1,244.74)	
Financial dependence (%)	20	75
Mediators		
Wife's report of her final say		3.72 (0.04)
Husband's report of wife's final say		3.70 (0.04)
Husband is satisfied with marriage (%)		98
Husband enjoys time with wife (%)		90
Husband is satisfied and enjoys wife (%)		89
Controls		
Age	55.14 (0.12)	51.31 (0.16)
Education	13.23 (0.10)	13.07 (0.07)
White (%)	91	92
Health in 1992	3.83 (0.03)	3.99 (0.03)
Work limitation (%)	8	8
Currently smokes (%)	23	22
BMI	27.23 (0.10)	25.76 (0.13)
Number of children (one to five)		3.02 (0.03)

NOTE: All variables are measured in 1992 except husbands' health in 1994. Linearized standard errors are in parentheses. H and W at the top of the columns indicate husbands' and wives' values.

## RESULTS

### Descriptive Statistics

Table 1 presents the means and standard errors or percentages of variables used in this project. The mean level of husbands' self-reported health in 1994 (the outcome variable) fell just below "very good" (4). The average marital income is \$58,996, with 20 percent of men earning less than half of the marital income, 75 percent earning more than half of the marital income, and 5 percent reporting earnings equal to their wives. The mean

score for the final say scale was approximately 3.7, indicating that for both men and women the average response to the final say items was very close to “about equal say” (4) with a slight tendency toward reporting that husbands have “a little more of the final say” (3). The marital satisfaction measures overwhelmingly indicate that husbands report they are somewhat or very satisfied with their marriage. Specifically, 98 percent of husbands report they are somewhat or very satisfied with their marriage. Almost 90 percent of husbands report that time with their wives is very enjoyable or extremely enjoyable. Finally, 89 percent of husbands report that they are somewhat/very satisfied with their marriages *and* that they find time with their wives very/extremely enjoyable.

The mean age is 55 for men and 51 for women, respondents had an average of 13 years of education, and most (92 percent) were white. Wives report better health than husbands, and respondents report better general health in 1992 compared to 1994. On average, husbands’ health decreased slightly from 1992 to 1994 ( $3.83 - 3.76 = 0.07$  on a five-point scale)—as expected given that aging is associated with decreasing health status. It is important to note that husbands’ 1994 health value of 3.76 is still close to *very good* health. Approximately 8 percent of respondents report having a work-restricting health limitation, 23 percent of male respondents report smoking in 1992, 22 percent of female respondents report smoking in 1992, and on average respondents are slightly overweight with a BMI of 27 for men and 26 for women (normal BMI = 18.5–24.9). On average, couples have three children.

### **Economic Resource Mechanism**

Table 2 reports the results for the economic resource mechanism. Specifically, column 1 in Table 2 presents the baseline model of husbands’ economic dependence predicting husbands’ self-reported midlife health controlling for all other variables. The odds ratio below 1.0 (OR = 0.723) for economic dependence shows that economic dependence is associated with a decreased likelihood of being in a higher health category in 1994. In other words, controlling for all other variables, husbands who are economically dependent are 28 percent ( $1 - 0.723$ ) less likely to be in a higher health category in 1994 compared to non-economically dependent men (i.e., economically dependent men have a 28 percent lower chance of being in “excellent” vs. “very good” health). Columns 2 through 4 include reports of final say by wives, husbands, and both respectively. None of the reports of marital power completely attenuate the relationship between husbands’ economic dependence and husbands’ health. There is a slight attenuation in the effect of

**TABLE 2: Economic Resource Mechanism: Predicting Husbands' Self-Reported Health (N = 1,319)**

	1. Baseline	2. Wife Report	3. Husband Report	4. Wife and Husband Report
Husband is financially dependent	0.723* (0.092)	0.732* (0.094)	0.724* (0.091)	0.731* (0.094)
Wife's report of her final say	—	0.968 (0.043)	—	0.966 (0.049)
Husband's report of wife's final say	—	—	0.993 (0.051)	1.007 (0.058)

NOTE: Values presented are odds ratios with linearized standard errors in parentheses. Models control for husbands' and wives' age, race, education, prior self-reported health, BMI, current smoking, and work limitations of each spouse, as well as logged marital income and number of children.

\* $p < .10$ . \* $p < .05$ .

economic dependence when including wives' reports of final say. However, additional analyses following Baron and Kenney's (1986) tests for mediation indicate that this slight truncation does not constitute significant mediation. Furthermore, additional analyses show that husbands' economic dependence is associated with more marital power for wives—but that this power does not translate into poorer health for men. Therefore, there is no support for the original formulation of the economic resource mechanism and no evidence that wives' power over economic resources is the link between husbands' economic dependence and husbands' poorer health.

### Marital Dissatisfaction Mechanism

Table 3 provides results for the marital dissatisfaction mechanism. The first column is the baseline model to more easily compare the attenuating effect of marital satisfaction. Columns 2 through 4 include the measure of husbands' marital satisfaction (column 2), measures of both husbands' enjoyment of marital time and husbands' marital satisfaction (column 3), and the combination measure of satisfaction and enjoyment (column 4). None of the measures of marital satisfaction substantially attenuate the relationship between husbands' economic dependence and husbands' health. As with the economic resource mechanism, the main finding is that the

**TABLE 3: Marital Satisfaction: Predicting Husbands' Self-Reported Health (N = 1,319)**

	1. Baseline	2. Marital Satisfaction	3. Marital Satisfaction/ Marital Enjoyment	4. Combo
Husband is financially dependent	0.723* (0.092)	0.717* (0.092)	0.716* (0.093)	0.723* (0.092)
Husband is satisfied with marriage	—	0.697 (0.260)	0.656 (0.247)	—
Husband enjoys time with wife	—	—	1.100 (0.208)	—
Husband is satisfied and enjoys wife	—	—	—	0.975 (0.186)

NOTE: Values presented are odds ratios with linearized standard errors in parentheses. Models control for husbands' and wives' age, race, education, prior self-reported health, BMI, current smoking, and work limitations of each spouse, as well as logged marital income and number of children.

\* $p < .10$ . \*\* $p < .05$ .

marital dissatisfaction mechanism does not account for the adverse relationship between husbands' economic dependency and husbands' health controlling for all confounding variables.

### Male Breadwinner Mechanism

Table 4 provides the key results for the male breadwinner mechanism controlling for confounding variables. Specifically, the table presents the main and interactive effects of husbands' economic dependence and quartiles of marital income. Men in the highest-earning marriages (in the top quartile of marital income) who are not economically dependent are the omitted group (OR = 1). The results in Table 4 show a significant interaction between the lowest-income category and husbands' economic dependence (OR = 2.735;  $p < .05$ ), indicating that the effect of economic dependence on men's physical health varies significantly between men in lowest-income and highest-income marriages. However, the odds ratio for the interaction is not sufficient to determine whether men in lower-income or upper-income marriages are most adversely affected by economic dependence. To determine this, it is

**TABLE 4: Ordered Logistic Regression Models of Economic Dependency and Marital Income Quartiles Predicting Husbands' Health ( $N = 1,319$ )**

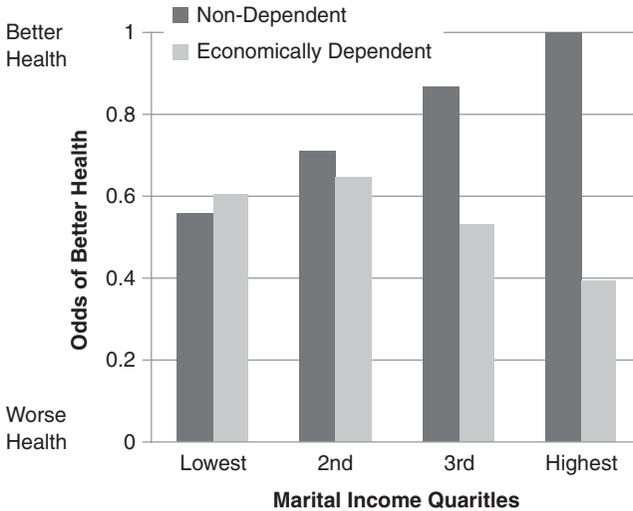
Husband is financially dependent	0.395* (0.145)
Third marital income quartile (51%-75%)	0.871 (0.142)
Second marital income quartile (26%-50%)	0.710+ (0.138)
First marital income quartile (0%-25%)	0.560* (0.127)
Third Quartile $\times$ Dependency	1.540 (0.740)
Second Quartile $\times$ Dependency	2.319+ (1.034)
First Quartile $\times$ Dependency	2.735* (1.134)

NOTE: Values presented are odds ratios with linearized standard errors in parentheses. Models control for husbands' and wives' age, race, education, self-reported health, BMI, current smoking, and work limitations of each spouse, as well as logged marital income and number of children.

+ $p < .10$ . \* $p < .05$ .

necessary to multiply each odds ratio component. For example, economically dependent men in the lowest-earning quartile experience a 39% reduction in the likelihood of being in a better health category compared to non-dependent men in the highest-earning marriages (39 percent results from  $1 - OR$ , where  $OR = 0.605$ ;  $OR = 0.395 \times 0.560 \times 2.735 = 0.605$ ). In other words, economically dependent lower-income men are less likely to report higher levels of health in 1994, compared to higher-income non-economically dependent men. These values are presented in Figure 1.

As shown in Figure 1, nondependent men in the highest-income quartile are the reference group, and therefore the odds ratio for this group is equal to 1. The outcome is coded such that higher values mean better health; therefore an odds ratio *below* 1 indicates poorer health. Figure 1 shows that being economically dependent and/or being in an income category below the highest-income marriage is associated with poorer health ( $OR < 1$ ) compared to nondependent men in the highest-income marriage group. Several relevant patterns are shown in Figure 1. First, among nondependent men (dark gray bars), each additional increase in marital income is associated with better health—as expected given the well-established literature on the health promoting effects of income (Marmot 2002).



**Figure 1: Health Effects of Husbands' Economic Dependence by Marital Income Quartiles**

NOTE: Ordered logistic regression results controlling for all confounding variables (Table 4).

Second, the trend for marital income quartiles and health among economically dependent men (light gray bars) is *opposite* that of nondependent men. In other words, economic dependence combined with higher marital income ( $OR = 0.395$ ) is *worse* for men's health than economic dependence combined with lower marital income ( $OR = 0.605$ ). This cross-income quartile difference provides evidence that the health of men in higher-income marriages (compared to men in other marital income categories) is most adversely affected by not being the male breadwinner. Third, further suggestive support for a pronounced male breadwinning effect among men in highest-earning marriages can be found by comparing the dependent and nondependent men *within* each income quartile. Among the lowest-income group, economic dependence does not significantly affect husbands' health. In contrast, among the highest-income group, there is a substantial and significant effect of being economically dependent ( $OR = 0.395$  compared to  $OR = 1$ )—further indicating that men in higher-earning marriages are most affected by economic dependence.

To provide further insight into the magnitude of the effect of economic dependence on husbands' midlife health, I conducted sensitivity tests using ordinary least squares regression. I found that economic dependence among

men in the highest-income group is associated with a 0.37 decrease in self-reported health (on the original five-point scale) compared to nondependent men in the highest-income group, controlling for all other variables. This is not a trivial effect, as evidenced by comparing the 0.37 decline with the more modest 0.035/year average decline in men's health associated with aging ( $3.83 - 3.76 = 0.07$  from 1992 to 1994, as shown in Table 1). Consistent with the ordered logistic regression findings, economic dependence had no significant effect on the midlife health of the lowest-income men.

## DISCUSSION

It is very different from 30 or 40 years ago. Men are frequently becoming anxious because they are dependent on their wife's salary. . . . Breadwinning for males is . . . associated with prowess, with sexuality, with dominance. It is not simply a financial or economic matter. (Alan D. Feiger, MD, "Breadwinner Anxiety: Man's New Worry," WebMD 2001)

These remarks published on WebMD nicely capture the essence of the current empirical findings—at least for the highest-income group of men studied here. Though I have no direct measures of men's ideas about breadwinning, the current findings indicate that the financial benefit of wives' increased earnings do not counterbalance the symbolic blow of being secondary breadwinners when marital income is sufficiently high. Rather, the results suggest that the health insult of being a secondary earner among upper-income marriages could be due to the stress of expecting to be the breadwinner but not living up to this ideal.

Other key findings in this project are indicated by the absence of statistical significance. Specifically, I found no evidence for the economic resource mechanism or the marital dissatisfaction mechanism as explanations for the adverse health effects of midlife husbands' economic dependency. In terms of the economic resource mechanism, the results indicate that even though women with greater earnings report that they have more say in family decisions, there is no evidence that they use this power to the detriment of husbands' health. These findings are consistent with feminist critiques of the economic resource models and provide further indirect evidence that women do not utilize their financial power to maximize their own gains at the expense of other family members—at least when women earn more than their husbands (Ferree 1990, 1991; Tichenor 2005).

I also found no support for the marital dissatisfaction mechanism. Based on the equivocal findings of past research, one likely cause of these null

results is that husbands' economic dependence in marriage does not cause more marital dissatisfaction (Brennan, Barnet, and Gareis 2001; Pappenheim and Graves 2005). However, it is possible that the null findings resulted because the marital quality measures assessed positive aspects of the marriage. Prior research has found stronger health effects of personal relationships when items ask about negative aspects of relationships rather than positive aspects (Shaw and Krause 2002). Finally, it is also possible that couples who were seriously distressed by wives' higher earnings dissolved their marriages. This selection effect would mean that those couples who had higher levels of marital dissatisfaction were no longer in the study.

The results also do not support the hypothesis that the health of men in lower-income marriages is most affected by being economically dependent. Although extensive prior research suggests that lower-income men may be most affected by failing to be breadwinners, the results here indicate that failing to achieve this ideal does not create poorer health for lower-income men. This finding could be because men in lower-income families view wives' earnings as a critical component of family income, not as a threat to their masculinity.

The main findings in this project indicate that economic dependence has a stronger negative effect on the health of upper-income men—however, the exact mechanism(s) for this relationship are conjecture. The intersection of gender scholarship on male breadwinning and social psychological research provide a rich conceptual frame to theorize why upper-income men's health may be most affected by economic dependence. Specifically, male breadwinning is an important and salient aspect of some men's masculinity—particularly for upper-income men who were socialized to expect they would be male breadwinners. The discrepancy between the expectation of male breadwinning and the reality of being a secondary earner could cause distress that translates into poorer health. This possibility of cognitive dissonance may be pronounced for the men in the cohort studied here. Specifically, the men in the HRS grew up in the 1950s during the peak era of male breadwinner/female homemaker families, and they presumably expected their marriages to mirror their parents' gendered marriages.

However, there are no direct measures of masculine attitudes, male breadwinning ideals, or distress possibly associated with not meeting these ideals—future research should directly assess these plausible mechanisms. It would also be useful for future research to assess what aspects of the male breadwinner ideal may be causing distress for secondary earners. For example, male breadwinning is not only a personally significant masculinity ideal but has been linked with feelings of entitlement to wives' homemaking

services (Pyke 1996). It is possible that distress associated with being a secondary earner could be, at least partly, from the disappointment of not having a "housewife."

Cognitive dissonance is not the only reasonable explanation for the pronounced association between economic dependence and health among midlife men in upper-income marriages. It is also possible that marital dissatisfaction and/or marital power mediate the adverse effect of economic dependence among upper-income men but not among the whole sample of men. However, additional sensitivity tests provide no evidence for this possibility. It is also possible that upper-income, economically dependent men are more willing to express frustration with being secondary breadwinners and therefore report poorer health. While it is not possible to directly discern the psychosocial reasoning for specific scores of self-reported health, extensive literature on self-reported health show that these are robust measures, regardless of psychosocial reporting motivation.

An additional limitation is the focus on one time point of husbands' economic dependence. Recent research shows that wives' income contributions vary over time and that husbands' economic dependence is a transient phenomenon (Raley, Mattingly, and Bianchi 2006; Winslow-Bowe 2006). Future research should build from the current findings to examine how husbands' midlife health is influenced by the stability, length, and timing of dependency.

Although the HRS is an excellent data set for this project, there are several weaknesses that limit the generalizability of the findings. The HRS respondents almost all grew up during the 1950s era of breadwinner/homemaker families, and the findings may therefore not apply to younger cohorts. Scholars should examine the generalizability of the current findings to younger cohorts, because it is conceivable that younger generations will feel less breadwinner anxiety, thereby attenuating—or eliminating—the relationship between economic dependence and husbands' health established in this project. Prior research provides some evidence for the waning significance of the male breadwinner ideal (Bolzendahl and Meyers 2004; Brewster and Padavic 2000). For example, Brewster and Padavic (2000) found that endorsement of the male breadwinner/female homemaker dichotomy decreased from the 1970s to the 1990s. However, belief in the breadwinner ideal has held approximately steady since the early 1990s—with a slight increase in the mid- to late 1990s—foreshadowing the persistence of breadwinner beliefs (Brewster and Padavic 2000). These results suggest that adverse health effects of income dependence may persist for men who still believe in the male provider role.

The HRS is also limited because it is almost exclusively white. Therefore, it is essential to explore whether the results hold among race/ethnic minority men, who have historically not been male breadwinners due to wage discrimination and higher levels of work among race/ethnic minority women (Collins 1990; Glauber 2008). Although I conducted sensitivity tests and found no evidence for race differences in the effect of economic dependence on husbands' breadwinning, data limitations prevented me from comparing effects across nonwhite race/ethnic minorities (i.e., Asian, Latino, and Black men) and prevented me from assessing the hypothesized mechanisms even within a combined sample of nonwhites. Further research should further investigate these crucial race/ethnic differences.

Despite these limitations, this project helps illuminate how economic dependence in marriage may affect husbands' midlife health. The findings point to the conflict between the culturally pervasive, rigid idea of the male breadwinner and a dual-earner reality as hazardous for men's health. In other words, these results suggest that rigid views of men and breadwinning are harmful for men. One implication is to explore how men's health can be improved while continuing to support women's economic gains. For example, supporting social policies designed to decrease the gender wage gap and provide paid leave for male and female caregivers could deconstruct the ideal of the male breadwinner/female homemaker family, thereby improving the health and income of both spouses.

## NOTES

1. I also assessed the possibility that economic dependence had a significantly different effect on husband's health based on the number of children. The results provided no evidence for a fatherhood effect; the interaction between economic dependence and number of children was nonsignificant ( $p = .58$ ). It was not possible to look at a simple measure of having no children versus some children because so few couples were childless (3 percent).

2. I also conducted sensitivity tests to assess whether economic dependence affects husbands' health differently by race. I found that an interaction of economic dependence and race did not significantly predict husbands health ( $p = .22$ ).

3. As an additional test of reverse causation, I compared the effect of 1992 health on 1994 economic dependence (controlling for 1994 health) with the effect of 1992 economic dependence on 1994 health (controlling for 1994 economic dependence). The effect of economic dependence in 1992 strongly and significantly predicted health in 1994. However, the effect of health in 1992 did not significantly predict economic dependence in 1994, thereby providing further evidence for the direction of causation purported in this article.

4. To assess the robustness of the findings, I conducted an array of sensitivity tests exploring different operationalizations of variables, including additional control variables, and conducting alternative statistical analyses. All of the results supported the findings and conclusions presented in the article. Some specific sensitivity tests included examining (1) income measures calculated from self-reports of wages and hours worked instead of the income proxy reports, (2) marital earnings in quintiles and as a continuous indicator instead of quartiles, (3) quartiles of husbands' income rather than quartiles of marital income, and (4) a simple dichotomous measure of wife/husband having the final say rather than ordinal measures. In terms of additional controls, I included measures for wives' and husbands' hours worked and found that the results cannot be explained by the thesis that wives' hours worked harm husbands' health (Springer 2010; Stolzenberg 2001). Analytically, I also ran bivariate probit models to statistically account for correlated spousal residuals and found results similar to those using ordered logit.

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