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FROM ASSORTATIVE TO ASHORTATIVE COUPLING: MEN'S HEIGHT, HEIGHT HETEROGAMY, AND RELATIONSHIP DYNAMICS IN THE UNITED STATES

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ABSTRACT

Studies of online dating suggest that physical attraction is a key factor in early relationship formation, but say little about the role of attractiveness in longer-term relationships. Meanwhile, assortative coupling and exchange models widely employed in demographic research overlook the powerful sorting function of initial and sustained physical attraction. This article observes the effects of one physical characteristic of men—height—on various relationship outcomes in longer-term relationships, including spouses' attributes, marriage entry and stability, and the division of household labor. Drawing on two different cohorts from the Panel Study of Income Dynamics, the authors show that (1) height-coupling norms have changed little over the last three decades, (2) short, average, and tall men's spouses are qualitatively different from one another (3) short men marry and divorce at lower rates than others and (4) both men's height relative to other men and their height relative to their spouse are related to the within-couple distribution of household labor and earnings. These findings depict an enduring height hierarchy among men on in the spousal marriage market. Further, they indicate that at least one physical characteristic commonly associated with physical attraction influences the formation, functioning, and stability of longer-term relationships.

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From Assortative to A*shorta*tive Coupling:
Men's Height, Height Heterogamy, and Relationship Dynamics in the United States

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Introduction

A large body of literature indicates that people sort themselves in systematic ways on the marriage market, from education to political ideology, and even genetics (Breen and Andersen 2012; Domingue et al. 2014; Dribe and Nystedt 2013; Gullickson and Torche 2014; Lichter et al. 1992). Emerging evidence from studies of online dating and relationship formation among young adults suggests that physical attractiveness is often used as a form of capital on the dating market and is therefore an important element of *initial* sorting among couples (Alterovitz and Mendelsohn 2009; Hitsch, Hortaçsu and Ariely 2010; Toma and Hancock 2010). These newer studies emphasize the preliminary stages of the sorting process, while studies of racial and economic exchange tend to focus on married and cohabiting couples. It thus remains largely unclear what role physical attributes play beyond dating, and whether attractiveness ultimately contributes to marriage formation and stability. In this study, we address this missing link, focusing on the effects of one particular characteristic of men—height.

A recent emergence of economic scholarship on men's height reveals a high degree of similarity in women's preferences for tall men across distinct racial and socioeconomic groups (Belot and Fidrmuc 2010; Pierce 1996; Swami et al. 2008). Calling on these new findings, we highlight how men's height affects other types of spousal sorting, relationship exchange, and marriage entry and stability. In this article, we advance an alternative approach to studying assortative coupling in longer-term relationships in which we emphasize the importance of the status assigned to physical characteristics. We argue that heterosexual couples typically pursue male-taller arrangements because height differences between spouses are symbolic of traditional power differentials and because gender ideals are linked to stature such that tallness is associated with dominance, masculinity, and higher status among men (Bogaert and McCreary 2011). This

relationship between men's height and perceived social status should relegate short men to a comparatively less desirable position on the spousal market; or conversely, bolster the position of tall men.

To document the pervasiveness of height coupling norms in the United States, and their relationship to assortative coupling and status exchange, we draw on two mutually exclusive cohorts from the Panel Study of Income Dynamics. We observe whether height coupling norms have changed in recent years and investigate differences in relationship dynamics and formation patterns between short, average, and tall men, and between men who are in normative and non-normative height-coupling arrangements. Our results indicate that men's individual height affects the qualities of the partners they attract; has a particularly large effect on the likelihood of entering an atypical height homogamous or hypogamous relationship (where the man is the same height or shorter than his spouse); influences the timing of first-marriage and separation (net of the effects of relative spousal height); and further impacts men's relative share of combined housework and income. We also find that the men's height relative to their spouse impacts relationship dynamics net of an effect of their individual height. Together, these results portray a pattern of height-assortative coupling and height-based relationship exchange in which characteristics granting one status outside of a relationship spillover to affect status and status negotiation within a relationship. In this way, models of height-based sorting, and physical-attribute sorting more broadly, appear similar to economic and racial sorting and exchange models that have received far greater attention from scholars.

Height, Attractiveness, and Masculine Status

Social psychological research suggests that attractive people are favored in numerous situations. These range from teachers' favoritism of attractive students (Algozzine 1977; Ritts, Patterson and Tubbs 1992), to a perception of attractive people, especially men, as more competent (Jackson, Hunter and Hodge 1995; Langlois et al. 2000), and further, to employers' favorable treatment of more attractive employees, including the offering of higher wages (Beehr and Gilmore 1982; Hamermesh and Biddle 1994; Mobius and Rosenblat 2006).

If physical attractiveness confers a premium even when it is not especially relevant to the situation at hand, then it should result in a particularly pronounced advantage on the dating and marriage market, where initial and sustained attraction are both important. In accordance with this idea, attractive and physically fit men report going on more dates and having sex more frequently than others (Bogaert and Fisher 1995; Brody 2004; Nettle 2002). Because of the advantages afforded attractive individuals, many people manipulate photos of themselves on online dating sites—evidence that they are aware of the benefits and bargaining power of being attractive (Toma and Hancock 2010).

Although some debate exists about scholars' ability to accurately measure attractiveness across distinct groups (Langlois and Stephan 1977; Ritts, Patterson and Tubbs 1992), one attribute remains consistent across racial and socioeconomic groups—height. That is, most heterosexual women prefer tall men, and men and women both generally prefer to be in relationships where the man is taller (Belot and Fidrmuc 2010; Fink et al. 2007; Pawlowski 2003; Pierce 1996). We take advantage of generalizable height preferences and coupling norms to conceptualize men's height as an aspect of their attractiveness in the U.S.

One potential explanation for pervasive height preferences and height coupling norms can be found in the evolutionary psychology literature, some of which argues that physical

attraction is rooted in primal instincts (Barber 1995; Fink and Penton-Voak 2002; Grammer et al. 2003). Specifically, if people seek out partners who they believe are healthy and will provide for or protect them, then tall men should make particularly attractive candidates. This is because tallness has historically been related to early-childhood health and has therefore also been a symbol of class (Steckel 2009).[3] Thus, according to evolutionary psychology, male tallness may further signal one's ability to dominate or intimidate rivals and thus to protect one's kin (Barber 1995).

Another plausible explanation for height hypergamy is that gendered height ideals are socially inscribed such that people commonly associate tallness with masculinity, athleticism, and dominance (Bogaert and McCreary 2011; Jackson and Ervin 1992; Melamed 1992). By contrast, short men are often perceived as less masculine and less dominant (Jackson and Ervin 1992). Women who possess some semblance of a traditional gender ideology may therefore prefer to be with tall men, or at the very least, with men who are relatively taller than them (Salska et al. 2008; Shepperd and Strathman 1989). To overcome perceptions of them as relatively less masculine, short men may bolster other normative displays of masculinity, such as performing less housework. This type of compensation, often referred to as compensatory gender display, has been found for example among men who violate other gender norms like earning less than their spouse (Brines 1994).

Even among women who do not adhere to pervasive gender ideologies, greater male stature may be seen as desirable because of its association with higher status. That is, perceptions of tall men as more masculine, competent, or physically able should lead them to be privileged (Steckel 2009; Szklarska et al. 2007). Indeed, several studies have found that tall men are paid

[3] In some developing countries where stunting is still prevalent, height continues to be an indicator of childhood disparities. However, this is less true in the United States, where wasting and stunting are rare.

more than shorter men, in part because they are seen as better leaders (Judge and Cable 2004). Moreover, because most women tend to prefer tall men, and because sexual prowess is associated with higher masculine status (Connell 1995), men's tallness should engender higher status among other men. In turn, men's high status among both men and women may operate cyclically to reinforce one another.

Assortative Coupling and Relationship Exchange

Theories of long-term assortative coupling assume that most people seek out those who are similar to them, forming homogamous relationships. An abundance of evidence supports this notion. In 2010, 93 percent of married couples in the United States were racially homogamous (Lofquist et al. 2012).[4] People also tend to match themselves on education (Breen and Andersen 2012; Dribe and Nystedt 2013; Gullickson and Torche 2014; Torche 2010), parental wealth and economic status (Charles, Hurst and Killewald 2013; Kalmijn 1994), and genetics (Domingue et al. 2014).

Sometimes, however, one partner may have implicitly higher status than the other, usually with regard to race or class. Exchange theory suggests that in order for such a relationship to still benefit both partners, a tacit negotiation must occur in which each partner interchanges his or her distinct status advantages in ways that compensates for their status disadvantages (Davis 1941; Merton 1941). Such exchanges are manifestations of extra-relationship hierarchies, in that what provides one with status outside the relationship is also assumed to provide them with status within the relationship.

[4] A similar paucity of racial heterogamy is echoed in studies on dating, although slightly less rare among cohabiting and non-residing couples (Joyner and Kao 2005; Lin and Lundquist 2013).

The most commonly studied version of status exchange has been racial-educational. Starting in the 1940s, Davis (1941) and Merton (1941) argued that interracial marriages would be most prevalent among couples where the black or lower-caste spouse was highly educated and the white or upper-caste spouse less educated. The partner with lower racial status would be able to use his relatively higher educational status to marry a woman of a higher racial status. Further, they argued that the use of education as an exchange for racial status would be more prevalent among couples in which the male spouse was black or lower-caste. Their rationale reflected the division of labor at that time—education was believed to be more valuable among the spouse who would presumably work outside the home. Although Davis (1941) and Merton (1941) argued that potential female partners would be able to exchange their race *or beauty* for a highly educated or economically productive spouse, most recent studies have emphasized only the former (Lewis and Oppenheimer 2000; Lin and Lundquist 2013; Qian and Lichter 2007; Torche 2010). Moreover, only one study considers whether *men* may exchange their beauty for a better educated or higher earning spouse (McClintock 2014).

Several studies of online dating markets, however, do consider the role of attractiveness in initial sorting processes. These studies suggest that physical attractiveness is the strongest determinant in online daters' perceptions of one another and of solicitations for dates (Fiore et al. 2005; Fiore et al. 2010). The premium conferred to attractive online daters likely explains why so many people manipulate their profile pictures and even lie about their personal characteristics like height (Toma and Hancock 2010; Toma, Hancock and Ellison 2008).

Like audit studies in employment with respect to race (Bertrand 2004), criminality (Pager, Western and Bonikowski 2009), or educational credentials (Gaddis 2012), the above mentioned research on dating markets only details the first step of a multistep process (dating).

Individuals who are disadvantaged in the initial screening process may nonetheless ultimately achieve the same status through repeated efforts or alternate pathways. For example in the case of employment, studies of long-term effects of racialized names (Fryer and Levitt 2004) show no ultimate economic cost to a "blacker" name in contrast to the steep penalties in terms of call-backs revealed by audit studies (Bertrand 2004). Perhaps a similar dynamic occurs in dating and marriage markets, where less physically attractive (or shorter) men do not end up disadvantaged because they discover other ways to meet and attract partners and/or become better skilled and more desired at later stages of the courtship process.

In this article, we move from the study of attractiveness as a form of capital in dating markets to the study of its relevance for longer-term relationships including marriages. In so doing, we highlight how physical attributes confer status advantages and disadvantages among heterosexual men in ways that reflect an extra-relationship attractiveness hierarchy depicted by earlier literature.

Data and Methods

Sample. We take advantage of one of the few datasets that measures both height and a wide range of relationship outcomes—the Panel Study of Income Dynamics (PSID). Since 1968, the PSID has collected panel data among the same 4,500 families, including information on households, parents, children, and other individuals who enter into the family through marriage. Height was first measured in the PSID in 1986 and then at every wave starting in 1999. To maximize our number of observations, we create two mutually exclusive cohorts of coupled heads of household who were between the ages of 23 and 45 in 1986 or 2009 and whose partners were within the same age range (N= 3,033 observations).

From this base sample, we create two additional samples. The first is used to observe the hazard of marriage. In this sample we add *uncoupled* heads of household of the same age and cohort criteria to our base sample (n=144). Using calendar data on the timing of marriage, we then create a sample of person-years in which every year from birth until first-marriage or 2011 (the last year available) is observed (N=77,361). 232 respondents (7.3%) have not married by 2011 and are censored at their age at that time.

The second additional sample is used to observe the hazard of separation. This sample is limited to respondents from the base sample who were married at least once before 2011. Again using calendar data, we transform individual-level data into a sample of married person-years in which every year from first-marriage until separation or until 2011 is observed (N=41,130). The 2,054 respondents (75.1%) who have not separated by 2011 are censored at the number of years since their first-marriage began.

Predictors. Our first measure of men's height is categorical, indicating whether men are *short, average,* or *tall,* in comparison to other men. 'Short' is defined as one or more standard deviations below the mean (<66" in 1986; <67" in 2009); 'tall' as one or more standard deviations above it (>73" in 1986; >74" in 2009); and 'average' as within one standard deviation of the mean.[5] As a supplement we observe men's height measured continuously in inches (from 54" - 84").

Our second predictor combines information on heads' and spouses' height to create a measure of *relative spousal height* indicating whether the head is shorter, the same height, or taller than his spouse.[6] In 1986, 92.7% of men were taller than their spouses; in 2009, 92.2% were taller (Figure 1). This decrease of 0.5 percentage points in height hypergamy is not

[5] Because height is measured in inches, the division of short, average, and tall men based on the within-year height distribution does not produce categories containing exactly 17.5%, 65%, and 17.5% of the sample.
[6] Women's height is measured in inches, the same as men's.

statistically significant. The only evidence of a shift in height preferences we find is that the modal difference between men and women decreased from 6" in 1986 to 5" in 2009 (Figure 2). To put the power of this height-based sorting in perspective, the observed 7.5 percent of heads that are the same height or shorter than their spouse (across cohorts), is only half the percentage of heads we would expect to be in homogamous or height hypogamous relationships (15%) if spousal height were randomly determined.[7]

Again as a supplement we rerun our analysis using a continuous measure of spousal height differences (ranging from when the head is 9" shorter than his spouse to 24" taller than her) (Figure 2). The results from models employing this alternative measure are discussed after the main findings.

[Figures 1 and 2]

Outcomes. We divide our outcomes into three groups: partner selection, marriage entry and stability, and relationship dynamics.

Partner selection. To observe partner selection, we measure spouses' height and educational background, as well as their relative height, relative age, and relative racial status. In the PSID, women's height is measured in inches, ranging from 48" to 77". Women's *educational background* is defined as their highest level completed—less than high school, high school, or college. *Relative spousal height* is the same variable as described above. *Relative age* is categorized as the female spouse is within three years of her spouse (55% of couples), more than three years younger (36%) and more than three years older (9%). *Relative racial status* is a dummy indicating whether both the head and his spouse are the same race. A full explanation of racial categories is provided in the description of controls (below).

[7] We calculate this estimate by randomly reassigning spouse's height in the PSID, using the same distribution we observe in the data.

Marriage entry and stability. In our analyses of marriage entry and exit we include all person-years until 2011 (the most recent year available) because this produces the most precise estimates. However, this decision means that we include a longer window of observations among the 1986 cohort than among the 2009 cohort. To test if this decision biases our results, we rerun our analyses separately for both cohorts and find similar estimates to our main models (Appendix B). We discuss this more fully after a presentation of the main findings.

We observe men's hazard of marriage by combining a dummy for 'ever married' with calendar data measuring the number of years from the head's year of birth to his first marriage. [8] Heads who have not married by 2011 are right-censored at their age in 2011 (n=208; 7%.). Of those who marry, 90% do so by the age of thirty.

Among heads who have ever been married (n=2,825), we observe the hazard of separation by combining a dummy for 'ever separated' with yearly calendar data on the timing of marriage and divorce or separation. If a head has not separated by 2011 then he is right-censored at the number of years he has been married. We focus on the timing and likelihood of a first separation only.

Relationship dynamics. We measure relationship dynamics through housework and earnings. Head's and spouse's *absolute housework* are measured in hours. Head's *relative housework* is divided into three categories: head does more; both do the same; and spouse does more. As an alternative, we test a continuous measure of relative housework, defined as head's proportion of combined housework hours.

[8] Although measuring time in months would be more precise, a substantially higher number of observations are missing information on the month of marriage. Year of marriage is therefore a more accurate indicator. The same applies for separation.

Absolute earnings, for both heads and spouses, are measured as the log of weekly income (in dollars).[9] Because we pool observations from two cohorts we adjust 1986 earnings to reflect their value in 2009. *Relative earnings* are also divided into three categories indicating whether the head earns less, both earn the same, or the head earns more. We also measure *relative earnings* continuously by dividing a head's absolute earnings by his and his spouse's combined earnings.

Controls. In our analysis, we control for characteristics that others have shown to be related to relationship formation and functioning. When observing partner selection and marriage entry, we only control for heads' demographic characteristics. These include his *age; race*—white, black, Asian or Pacific, Native American, or other*; educational background*—less than high school, high school, or at least some college*;* and his *mother's education* (defined in the same way as his education).[10]

We include these same controls when observing marriage exit and relationship dynamics. In these latter models, we also adjust for our aforementioned partner selection variables and for *spouse's mother's education* (measured in the same way as *head's mother's education),* and the *number of children* born to or adopted by the couple (0-10). In the analysis of marriage exit, we further control for head's age at first marriage (14-43 years). Descriptive statistics of all measures are provided in Table 1.

[Table 1]

Analytic Strategy

Our analysis begins with an investigation into whether the characteristics of female partners systematically differ across men who are *short, tall,* or *average* height (Table 2). We use

[9] We calculate income by multiplying the hourly wage by the average number of hours worked.

[10] We substitute missing information on head's mother's education with head's father's education whenever possible (n=75).

Ordinary Least Squares (OLS) to estimate the effect of men's height on spouses' height; multinomial logistic regressions to estimate an effect on spouses' education, relative height, and relative age; and logistic regression to estimate an effect on relative racial status. In this set of models, we cluster our standard errors by survey year and control only for heads' background characteristics (age, race, education, and mother's education) and cohort year.

We then move on to observe the effects of men's height on their entry and exit from first-marriage (Table 3). Here we use discrete-time hazard models. In the analysis of marriage entry, men who have not married by 2011 are right-censored at their age (in 2011). In the analysis of marriage exit, married men who have not separated or divorced by 2011 are right-censored at the number of years since their first marriage began. In both analyses, standard errors are clustered by respondent. Discrete-time hazard models of marriage entry are first run observing the effects of men's height relative to other men while controlling for their age, race, highest level of education, mother's education, and cohort. We then rerun our analysis of marriage entry including an interaction term between men's height relative to other men and a dummy for whether the person-year is before or after year (age) 30. We test this interaction because plotted Kaplan Meier curves depict differently shaped hazards of marriage for short, average, and tall men after this year (Figure 3).

In the analysis of marriage exit, we again begin by observing the effects of men's height relative to other men (Model I). This is followed by a second model in which we add a categorical indicator of relative spousal height (Model II).[11] Because we observe similar hazard curves of separation across men, we do not test any interactions with time. In all models of

[11] Because a man's height, defined as *short, average,* or *tall* may be correlated with whether his spouse is *shorter, the same height,* or *taller* than him, we use the variance inflation factor (VIF) to test for multicollinearity. We find that no variable has a VIF higher than 2, suggesting that our inclusion of both variables in the same model does not present a problem.

marriage exit, we include the same controls as in our analysis of marriage entry, and further adjust for spouses' attributes; number of children; and heads' age at first marriage.

The last component of our analysis observes the effects of height on relationship dynamics (Tables 4 and 5). These models cluster standard errors by survey year, include the same controls as our analysis of marriage exit (except for heads' age at first marriage, which we do not control for here) and follow the same organizational strategy: Model (I) tests the effects of men's categorical height (relative to other men); Model (II) the effects of men's height relative to other men and relative to their spouse. In this block of regressions, we estimate heads' and spouses' absolute housework hours and logged earnings using OLS. Head's relative share of housework and relative share of earnings are estimated with multinomial logistic regression.[12] We then graph the predicted probabilities of men's proportion of combined housework and proportion of combined earnings (using the continuous measures of these outcomes) at every inch, using lowess smoothing. In these graphs we group heads by whether they are *shorter,* the *same height,* or *taller* than their spouse.

Multivariate Results

Men's Height Relative to Other Men and Spousal Characteristics

Table 2 presents the results of models observing the average partner attributes of short and tall men, relative to average men. As the first row indicates, we find that short men have partners who are an average of 1.58" shorter than average men, have 269% higher relative odds of partnering with a woman who is their same height, and 1,450% higher relative odds of partnering with a woman who is taller than them. Short men also have 43% higher odds of

[12] Multinomial logistic regressions are preferred to ordered logistic regressions because post-estimations likelihood ratios tests indicate that the outcome violates the proportional odds assumption.

partnering with a woman who did not graduate high school relative to partnering with a high school graduate, and 3% higher odds of partnering with a woman who is more than three years their junior than of partnering with a woman who is within three years of their age. In sum, the qualities of short and average men's spouse are quite different.

As can be seen in the second row of Table 2, the effects of tallness contrast sharply with those of shortness. Specifically, we find that tall men have 95% lower relative odds of partnering with a woman who is their same height and almost 100% lower odds of partnering with a woman who is taller than them. Tall men also have 29% lower odds of partnering with a woman who did not complete high school, compared to partnering with one who did. Additionally, they have 35% higher relative odds of coupling with a woman who is more than three years their senior and 30% higher odds of coupling with a woman of the same race. Thus, the attributes of tall and average men's spouses also differ substantially.

[Table 2]

Men's Height, Height Coupling, and Marriage Entry and Stability

Given that we find an effect of men's height on the qualities of their partners, we suspect men's height should also affect the timing of first marriage. Table 3 provides the hazard ratios of discrete-time hazard models examining this possibility. In these models, time is measured as years from birth. The results of this analysis reveal that the hazards of marriage for short and tall men are 18% and 9% lower, respectively, than the hazard of marriage for average men (Table 3, Model I, column 1). Figure 3 depicts these disparities with the Kaplan-Meier hazard curve of first-marriage risk, holding all other covariates at their mean. In this figure it can be seen that before age 30, short men's risk of marriage is lower than average men's. After age 30, short men's risk of marriage sharply decreases, tall men's risk continues to increase, and average

men's risk levels off. Because of this observed divergence, we rerun our analysis of marriage entry including an interaction between a dummy for 'after 30' and men's height relative to other men (Table 3, column 2). This confirms what is depicted in Figure 3—after age 30, tall men recoup the losses incurred before their thirties and their hazard of marriage becomes 45% higher than among average men after this age.

[Figure 3]

In light of the fact that we find significant effects of men's height relative to other men on the hazard of marriage, we believe men's height should also affect the hazard of separation. This hypothesis is confirmed by the hazard ratios presented in Table 3. Specifically, we find the hazard of separation to be 32% lower among short men than among average men (Model I), which is robust to the inclusion of relative spousal height (Table 3, Model II). This can also be seen in Figure 4, which graphs the smoothed Kaplan Meier hazard curve of first separation. Together, the lower rate of separation and the lower rate of marriage among short men suggests that these men and their spouses are more likely to select out of marriage before it begins. Resultantly, married couples where the man is short appear more stable. Our results do not suggest that relative spousal height has an effect on the hazard of separation (Models II).

[Table 3 and Figure 4]

Men's Height, Height Coupling, and Relationship Dynamics

The results of the earlier components of this study give rise to the question; does men's height also affect their relationship dynamics? In Table 4, we provide a partial answer to this question, offering the estimated effects of men's height relative to other men and the effects of relative spousal height on the amount and share of housework performed by each spouse. We find no differences in the number of absolute housework hours performed by short, average, or

tall men, nor by their spouses (columns 1 and 2). However, compared to average men, tall men have 23% lower odds of performing more housework than their spouse, relative to performing less (Model I). This effect of male tallness on relative housework is robust to controlling for relative spousal height (Model II). We also find that, compared to men who are taller than their spouses, men who are shorter have 32% lower odds of performing more housework relative to performing less*;* while men who are the same height have 43% lower odds of performing the same amount of housework relative to performing less.

[Table 4]

Figure 5 presents the predicted probabilities of men's relative share of housework at every inch, grouping men by whether they are *shorter, the same height,* or *taller* than their spouse. At every inch, the predicted proportion of combined housework is lower among men who are shorter than their spouse than among men who are taller. Moreover, the predicted proportion of head-performed housework is between 25% and 30% greater among the tallest heads than among the shortest. If it is true that at least some couples tacitly associate men's height with their perceived masculinity, then the observed differences between short and tall men may indicate that tall men feel less threatened by housework. Alternatively, tall men may do a greater share of housework because the nature of their housework is different (i.e. larger undertakings that require more strength). This would most likely be true among couples who specifically view tall men as stronger and more physically fit.

[Figure 5]

Table 5 presents the results of models observing a different type of relationship dynamic—earnings. As can be seen in this table, we find the income of tall men to be 4% higher than average men, but this effect is weak ($p<.10$) and only when controlling for relative spousal

height (Model II). We find no effects of head's height on their spouse's income, and no effects of relative spousal height on the income of either spouse (Model II).

With regard to relative earnings, however, we find that compared to average-height men, short and tall men respectively have 48% and 25% lower odds of earning the same as their spouse. Short men also have 24% lower odds of earning less than her (relative to earning more) (Table 5, Model I). These effects of shortness and tallness are not mediated by men's height relative to their spouse (Model II).

Model II also indicates that men who are shorter than their spouse have 39% lower odds of being an equal earner (relative to being a breadwinner) than men who are taller. Both the effects of men's height in relation to other men and in relation to their spouse provide evidence of height-based exchange. That is, some men appear to compensate for their relative shortness with higher relative earnings.

[Table 5]

Figure 6 plots head's predicted proportion of combined earnings at every inch of height. On the left side of the graph, it can be seen that short men consistently have the highest share of income. Among men who are average height (in the middle of the graph), being *shorter* than one's spouse demonstrates a curvilinear relationship such that the proportion of income earned by men increases with each additional inch after 69". Likewise, each inch of individual height is associated with higher proportional earnings among men who are the same height as their spouse. For men who are taller than their spouses, height is negatively associated with relative earnings. This further confirms an existence of height-based status exchange in which short men compensate for their lower physical status with higher proportional earnings, while tall men appear more likely to use their status to attract women with higher relative earnings.

[Figure 6]

Results of Supplementary Analyses

As a supplement to our main inquiry, we test continuous measures of head's height and relative spousal height (Appendix A). This reveals a qualitatively similar story to our analysis presented above, though the effects of both predictors become statistically weaker and smaller in magnitude. This weakening confirms our theory of a height-based hierarchy in which the effects of male height are concentrated among short men with low height status and among men who are in atypical relationships where they are shorter than their spouse.

We also supplement our analyses by rerunning our models in the 1986 and 2009 cohorts separately (Appendix B). This is to ensure that neither cohort dominates our final results. This supplement again leads to qualitatively similar conclusions with weaker statistical strength. In this case, we attribute the weaker statistical strength to a smaller number of observations in each model. We do find one exception, however—the effect of being short on coupling with a woman who went to college reverses direction between 1986 and 2009. Because the effect is neither significant in our main analysis nor in this supplement, we do not derive any substantive interpretation from this reversal.

As a last supplement, we rerun our analysis among black and white heads separately (Appendix C1). This is also to check that neither group dominates the results observed in our main models. Here the results indicate similar effects of men's height among black and white men, with two exceptions. The first is that short black men have significantly lower odds than average black men of partnering with women who are more than three years their junior, while the effect is nonsignificant and negative among white respondents. This finding is unexpected and highlights the need for future research on how height affects various types of relationship

sorting. The second racial difference we observe is in the effect of head's height on the relative odds of performing the same amount of housework as one's spouse. However, a plot of the predicted proportion of combined housework hours by heads' height and race suggests that for both black and white men, the effect of height is similar—positively correlated with heads' share of housework (Appendix C2).

Discussion

This study seeks to elucidate the effects of men's height—a physical attribute that contributes to their perceived attractiveness—on the formation, stability, and functioning of committed relationships. Motivated by studies of the status value assigned to physical attractiveness and male height, and by a dearth of contemporary demographic research on the role of physical attractiveness in spousal markets, we propose a height-hierarchy among men seeking long-term spouses. Results from our analysis confirm that short men disproportionately marry lower-educated and substantially younger women, get married at lower rates than average and tall men, and once in relationships, compensate for their shortness by earning a higher relative share of income. Together these findings expand theoretical models of spousal sorting and exchange by demonstrating that the extra-relationship status value of male height, and potentially other characteristics associated with physical desirability, confers a similar status within relationships.

This investigation makes contributions to the sociological literature on attractiveness, stratification, status, and family formation and stability, and has direct implications for the future study of assortative coupling and relationship exchange. Our demonstration that a single physical attribute such as height has large consequences for family formation and stability is particularly

important given that cohabitation, marriage, and divorce are some of the most widely recognized ways in which inequality is perpetuated within and across generations.

In this study, we test numerous potential effects of men's height on relationship outcomes and find that male stature significantly affects nearly all of them. First, the qualities of short, average, and tall men's spouses are dissimilar. For example, tall men have the highest odds of coupling with a high school graduate, while short men have the lowest odds. From the perspective of relationship exchange models, this indicates that the tallest men exchange their attractive attribute (height) for better-educated spouses, while short men are unable to do so. From this finding it can even be inferred that tall men may be better able to use intimate partnerships as a form of social mobility than short or average height men.

Another spousal characteristic that differs by male height is relative age—tall men appear more likely to couple with older women, while shorter men couple with younger women. A nuanced interpretation of this finding is that women's perception of men's maturity may be related to men's height such that short men are perceived to be comparatively less mature than tall men. If this interpretation is correct, then short men may seek younger partners to evade this perception of them. Regardless, the hypergamous age difference we observe between short men and their spouses may further contribute to the less egalitarian division of household labor we observe among them.

Our findings also reveal that short men are also substantially more likely to enter height homogamous and hypogamous relationships in which they are the same height or shorter than their spouse. These types of relationships are rare—constituting less than 8 percent of cohabiting and married couples. They are also distinctive. In relationships where the man is shorter than his spouse, the division of household labor and earnings is less gender egalitarian. This may be

because short men exchange their breadwinner status for less housework, or as theories of compensatory gender display would suggest, because a lower share of housework or a higher share of relative earnings allow short men to enact traditional gender ideals, thereby performing their masculinity in the absence of symbolic anthropomorphic differences.

Short men also tend to be in more stable marriages than average and tall men. This is likely a function of the marriage entry process, as we additionally find that short men marry at the lowest rates. Acknowledging that marriage and divorce have implications for socioeconomic stratification and asset accumulation, our observed effects suggest that men's height may indirectly affect their economic status and socioeconomic mobility through these demographic processes.

Our findings demonstrate the persistence of similar height differentials across two generations of men and their spouses. This hypergamous pattern of height-coupling reflects historical gender power imbalances, and also perpetuates a longstanding height-hierarchy among men. This, coupled with our findings on the myriad effects of men's height relative to other men on relationship functioning and stability, highlights how predetermined physical attributes can be mobilized as a form of capital on the spousal market and then bargained with or compensated for within relationships.

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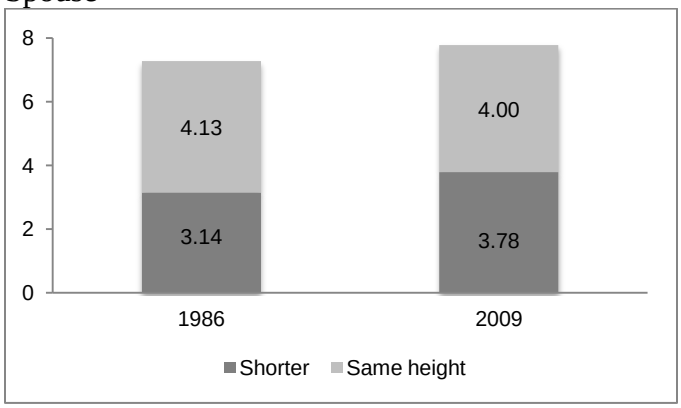
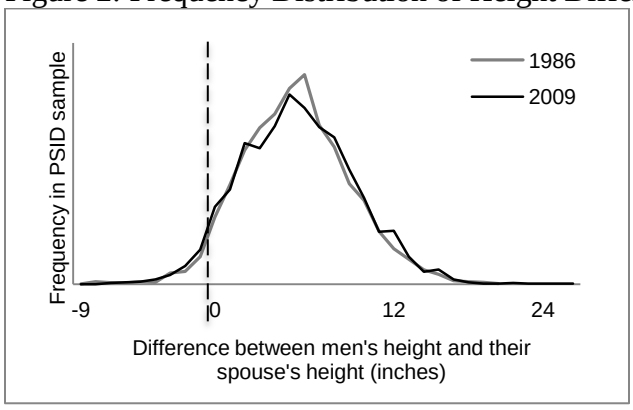
Figure 1: Percentage of Heads of Household Who Are Shorter or the Same Height as Their Spouse



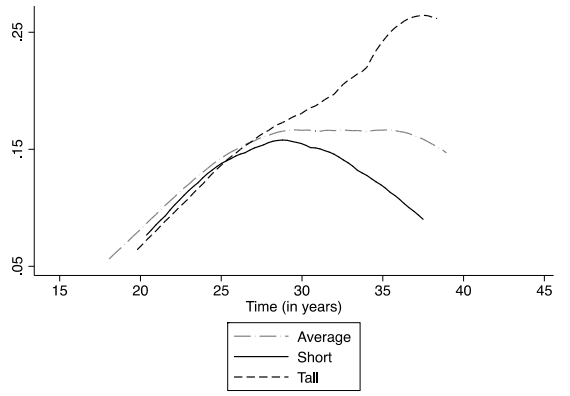
Note: The percent of men who are *shorter or the same height* as their spouses was not significantly different in 2009 than in 1986.

Figure 2: Frequency Distribution of Height Differences Between Heads and Spouses, in Inches



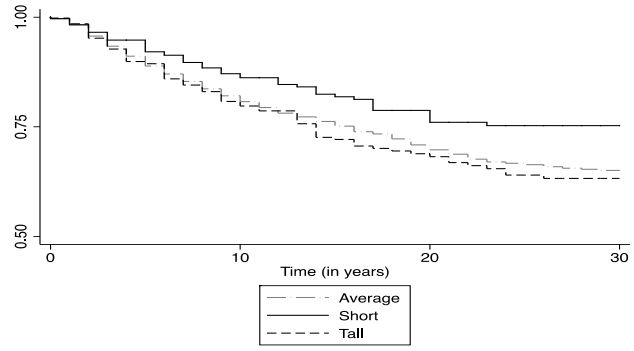
Note: The mean difference between men and their wives in 1986 was 5.55", which is not significantly different from the mean difference of 5.63" in 2009.

Figure 3: Smoothed Kaplan-Meier Hazard Estimates of First-Marriage by Head's Height Relative to Other Heads



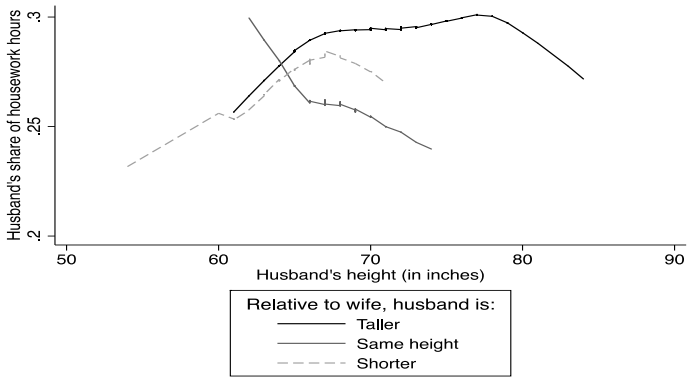
Note: N=77,361 person-years across 3,177 respondents

Figure 4: Smoothed Kaplan-Meier Hazard Estimates of First-Separation by Head's Height Relative to Other Heads



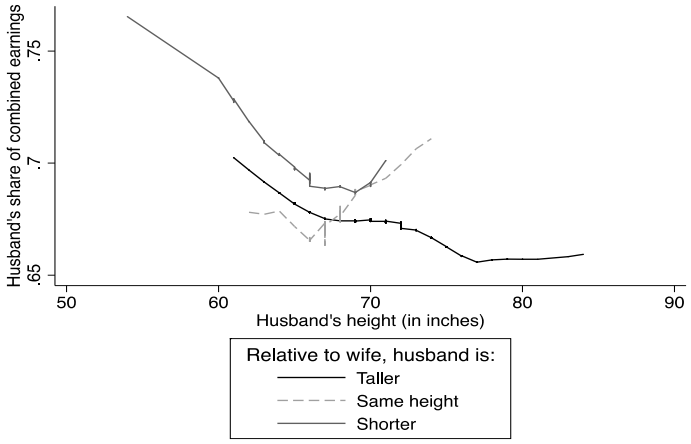
Note: N=41,130 married-years across 2,825 ever-married respondents

Figure 5: Smoothed Lowess Plots of Head's Proportion of Combined Housework Hours, by Head's Individual Height and Height Relative to Spouse



Note: N=2,990.

Figure 6: Smoothed Lowess Plots of Head's Proportion of Combined Annual Earnings, by Head's Individual Height and Height Relative to Spouse



Note: N=2,876.

Table 1: Descriptive Statistics for the Pooled Sample and by Survey Cohort

	Pooled		1986		2009	
	Mean	SD	Mean	SD	Mean	SD
Main Predictors						
Men's height						
Short	.10		.10		.09	
Average	.74		.78		.72	
Tall	.16		.12		.19	
Men's relative height						
Shorter than spouse	.04		.03		.92	
Same height as spouse	.04		.04		.04	
Taller than spouse	.92		.93		.04	
Supplementary predictors						
Men's absolute height (inches)	70.55	3.09	70.17	3.03	70.81	3.10
Men's height compared to spouse (inches)	5.63	3.80	5.55	3.77	5.67	3.82
Partner selection						
Spouse's height	64.93	2.95	64.61	2.95	65.14	2.93
Spouse's education						
Less than H.S.	.16		.28		.08	
H.S.	.31		.44		.21	
College	.53		.28		.71	
Age heterogamy						
Spouse is within three years	.55		.53		.56	
Spouse >3 years older	.09		.07		.10	
Spouse >3 years younger	.35		.40		.34	
Racial homogamy	.93		.95		.91	
Marriage Entry						
Ever married	.92		.97		.90	
Years from birth to first marriage	24.85	4.70	22.93	4.07	26.13	4.66
Relationship Exit						
Ever separated	.25		.36		.17	
Years from first marriage to separation	16.45	12.70	26.09	13.41	9.56	.37
Relationship dynamics						
Head's housework hours	7.82	8.49	7.46	8.47	7.91	7.78
Spouse's housework hours	19.21	14.49	22.60	15.11	17.05	13.63
Head's proportion of combined housework	.29	.20	.25	.20	.32	.20
Head less	.76		.82		.71	
Head same	.16		.12		.19	
Head more	.08		.06		.10	
Ln (head's earnings)	10.33	.91	9.84	.77	10.66	.84
Ln (spouse's earnings)	9.63	1.23	8.95	1.14	10.08	1.07
Men's proportion of combined earnings	.67	.27	.71	.25	.65	.27
Head less	.13		.10		.15	.36
Head same	.16		.13		.18	.38
Head	.71		.77		.67	.47
Controls						

Respondent's age (23-45 years)	33.98	5.66	33.50	5.61	34.23	5.67
Respondent's race						
White	.71		.64		.74	
Black	.24		.33		.19	
Native American	.01		.01		.01	
Asian or Pacific Islander	.01		.003		.01	
Other	.03		.02		.05	
Head's highest education						
Less than H.S.	.16		.22		.12	
H.S.	.33		.43		.26	
College	.51		.35		.62	
Head's mother's highest education						
Less than H.S.	.31		.22		.23	
H.S.	.40		.43		.40	
College	.29		.35		.37	
Spouse's mother's highest education						
Less than H.S.	.33		.47		.24	
H.S.	.35		.36		.35	
College	.32		.17		.41	
Number of children in household	1.82	1.34	1.92	1.37	1.75	1.33

Table 2: The Results of OLS, Multinomial, and Logistic Regressions Observing the Effects of Men's Height Relative to Other Men on Spousal Characteristics

	Height and relative height			Education		Relative age		Relative race
	I	II		III		IV		V
	Inches	Spouse same height	Spouse taller	<H.S.	College	>3 years younger	>3 years older	Spouse is same race
Short	-1.58*	3.69***	15.50***	1.43*	0.88	1.03***	0.73	1.04
	(0.09)	(0.63)	(2.59)	(0.24)	(0.15)	(0.01)	(0.26)	(0.07)
Tall	0.42†	0.05*	1.21e-07***	0.71**	1.08	1.12	1.35***	1.30***
	(0.06)	(0.07)	(1.47e-07)	(0.08)	(0.05)	(0.12)	(0.02)	(0.06)
Constant	64.49**	0.04***	0.005***	2.39*	0.18***	0.48	0.02***	21.55***
	(0.47)	(0.02)	(0.0003)	(1.04)	(0.05)	(0.31)	(0.00)	(10.03)

Note: In all models, N=3,033. Model I is estimated with OLS; models II-IV are estimated with multinomial logistic regression; and model V is estimated with logistic regression. The results of multinomial and logistic regressions are presented as (relative) odds-ratios. All models control for the survey cohort, and head's age, education, race, and mother's education. Coefficients for all controls are omitted from this table (available upon request).
Robust standard errors, clustered by survey cohort, in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Table 3: Hazard Ratios from Discrete Time Hazard Models Observing the Effects of Men's Height on the Transition Into and Out of First-Marriage

		First marriage	First marriage	First separation
MI	*Men's height* (ref: average)			
	Short	0.82***	0.85***	0.68*
		(0.03)	(0.04)	(0.11)
	Tall	0.91**	0.89**	1.22†
		(0.03)	(0.03)	(0.14)
	Peron-years:			
	30 years or greater		9.58***	
			(0.65)	
	Time and Height Interaction:			
	Short * 30 years or greater		0.89	
			(0.21)	
	Tall * 30 years or greater		1.56**	
			(0.22)	
MII	*Men's height* (ref: average)			
	Short			0.69*
				(0.12)
	Tall			1.22†
				(0.14)
	Men's height relative to spouse's (ref: taller)			
	Shorter			0.96
				(0.21)
	Same height			0.97
				(0.24)

Note: In the *marriage* models, N=77,361 person-years across 3,177 heads of household. In the *separation* models, N=41,130 person-years across 2,825 heads of household who were married at least once. All models control for the survey cohort, and head's race, education, and mother's education. *Separation* models also include controls for the head's age at first marriage, the couple's number of children, spouses' mother's education, spouse's relative age, spouse's education, and a dummy for whether or not the spouse is the same race as the head. Coefficients for all controls have been omitted from this table (available upon request).
Robust standard errors, clustered by person, in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Table 4: The Results of OLS and Multinomial Logistic Regressions Observing the Effects of Men's Height Relative to Other Men and the Effects of Men's Height Relative to Spouses' on the Amount and Share of Housework Performed

		Men's housework	Women's housework	Men's share of housework hours relative to spouse's	
		hours	hours	Same	More
MI	*Men's height* (ref: average)				
	Short	0.70	1.97	0.90	1.29
		(0.18)	(1.41)	(0.26)	(0.51)
	Tall	-0.23	0.99	1.12	0.77***
		(0.33)	(0.32)	(0.21)	(0.04)
	Constant	8.99†	24.32**	0.27***	0.07***
		(1.07)	(0.05)	(0.03)	(0.02)
MII	*Men's height* (ref: average)				
	Short	0.98	1.59	1.00	1.39
		(0.31)	(1.14)	(0.28)	(0.59)
	Tall	-0.32	1.04	1.10	0.76***
		(0.35)	(0.39)	(0.21)	(0.04)
	Men's height relative to spouse's (ref: taller)				
	Shorter	-1.68	-0.03	0.86	0.68***
		(0.77)	(0.80)	(0.28)	(0.05)
	Same height	-0.85	2.03	0.57*	0.79
		(0.52)	(1.07)	(0.14)	(0.19)
	Constant	9.05†	24.34***	0.27***	0.07***
		(1.05)	(0.01)	(0.03)	(0.02)

Note: In all models, N=2,990. Models in the first two columns are estimated with OLS; in the last column with multinomial logistic regression. All models control for the survey cohort; head's age, race, education, and mother's education; spouse's education, mother's education, relative age, and whether the spouse is the same race as the head; and the couple's number of children. Coefficients for all controls have been omitted from this table (available upon request).
Robust standard errors, clustered by survey cohort, in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Table 5: The Results of Log-Linear and Multinomial Logistic Regressions Observing the Effects of Men's Height Relative to Other Men and the Effects of Men's Height Relative to Spouses' on the Amount and Share of Weekly Earnings

		Men's logged earnings	Women's logged earnings	Men's share of combined earnings relative to spouse's	
				Same	Less
MI	*Men's height* (ref: average)				
	Short	-0.07	-0.26	0.52***	0.75***
		(0.05)	(0.09)	(0.03)	(0.03)
	Tall	0.04	-0.13	0.76***	0.98
		(0.003)	(0.08)	(0.06)	(0.12)
	Constant	9.17*	8.37**	0.20***	0.13*
		(0.34)	(0.07)	(0.03)	(0.13)
	Observations				
MII	*Men's height* (ref: average)				
	Short	-0.07	-0.25	0.52***	0.74***
		(0.07)	(0.08)	(0.01)	(0.05)
	Tall	0.04†	-0.13	0.75**	0.98
		(0.00)	(0.09)	(0.07)	(0.10)
	Men's height relative to spouse's (ref: taller)				
	Shorter	-0.001	-0.06	0.61***	1.04
		(0.11)	(0.16)	(0.02)	(0.32)
	Same height	0.004	0.003	1.15	1.02
		(0.04)	(0.003)	(0.26)	(0.09)
	Constant	9.17*	8.37**	0.20***	0.13*
		(0.33)	(0.07)	(0.02)	(0.12)

Note: In the first column, N=2,884; in the second N=2,417; in the third N=2,876. Non-earning individuals are excluded from the analysis of heads' and spouses' logged earnings. The models in the first two columns are estimated with log-linear models. In the last column, models are estimated with multinomial logistic regression. All models control for the survey cohort; head's age, race, education, and mother's education; spouse's education, mother's education, relative age, and whether the spouse is the same race as the head; and the couple's number of children. Coefficients for all controls have been omitted from this table (available upon request).
Robust standard errors, clustered by survey year, in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Appendix A: The Results of Main Models Observing the Linear Effects of Heads' Individual Height and Relative Spousal Height

	Partner Selection								Marriage Entry/Exit		Relationship Dynamics			
	Height (Inches)	Spouse same height	Spouse taller	<H.S.	Coll.	>3 years older	>3 years younger	Spouse is same race	Marriage	Separa-tion	Relative share of housework		Rel. share of earnings	
											Same	More	Same	More
Height	0.17†	0.66***	0.49***	0.96	1.02***	1.04	1.00	1.00	0.96***	0.99*	1.03**	0.97*	1.01*	1.00
	(0.01)	(0.05)	(0.001)	(0.04)	(0.004)	(0.06)	(0.01)	(0.002)	(0.001)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Constant	52.31**	1.12e+11***	1.10e+19***	51.46†	0.06***	0.03	0.02***	20.36***			0.05***	0.59	0.07***	0.13
	(0.54)	(4.75e+11)	(3.79e+18)	(120.56)	(0.03)	(0.10)	(0.01)	(12.97)			(0.03)	(0.44)	(0.04)	(0.25)
Height dif.	--	--	--	--	--	--	--	--	--	0.99	1.01	1.02	1.00	0.98
										(0.01)	(0.001)	(0.03)	(0.03)	(0.03)
Constant	--	--	--	--	--	--	--	--	--		0.26***	0.06***	0.20***	0.15†
											(0.02)	(0.03)	(0.06)	(0.17)

Note: Models estimating the effects of respondents' height (in inches) include the same controls as in the main analyses and are estimated without controlling for height-coupling behavior. Models estimating the effects of the continuous height difference between respondents and their spouses (in inches) include the same controls as in the main analyses and are estimated net of the effects of men's height relative to other men (short, tall, average). All models are specified in the same way as the main analyses.
Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Appendix B: The Results of Main Models Run Separately by Survey Cohort

	Partner Selection								Marriage Entry/Exit		Relationship Dynamics			
	Height (Inches)	Spouse same height	Spouse taller	<H.S.	College	>3 years older	>3 years younger	Spouse is same race	Marriage	Separa-tion	Relative share of housework		Rel. share of earnings	
1986											Same	More	Same	More
Short	-1.69***	3.17**	20.45***	1.23	1.15	0.44†	1.03	0.87	0.82***	0.62*	1.21	2.12*	0.51†	0.84
	(0.27)	(1.12)	(7.77)	(0.27)	(0.31)	(0.21)	(0.21)	(0.37)	(0.05)	(0.13)	(0.35)	(0.73)	(0.18)	(0.29)
Tall	0.28	0.19†	6.86-07	0.79	1.14	1.47	0.93	1.20	0.94	0.99	0.64	0.94	0.59†	1.28
	(0.26)	(0.19)	(0.001)	(0.19)	(0.26)	(0.48)	(0.19)	(0.59)	(0.05)	(0.17)	(0.22)	(0.40)	(0.19)	(0.39)
Constant	65.03***	0.07**	0.004***	1.38	0.02***	3.33*	0.11***	8.73*			0.32	0.04**	0.14**	0.02***
	(0.56)	(0.06)	(0.01)	(1.59)	(0.06)	(1.10)	(0.01)	(8.15)			(0.24)	(0.04)	(0.11)	(0.02)
N	1,210	1,210	1,210	1,210	1,210	1,210	1,210	1,210	28,389	25,704	1,193	1,193	1,155	1,155
2009														
Short	0.22***	4.44***	13.88***	1.72†	0.79	0.97	1.04	1.09	0.79***	0.79	0.69	0.91	0.56*	0.73
	(0.06)	(1.39)	(3.97)	(0.48)	(0.18)	(0.30)	(0.20)	(0.33)	(0.05)	(0.22)	(0.18)	(0.26)	(0.17)	(0.20)
Tall	1.57**	7.022e-08	1.07e-07	0.62	1.04	1.35	1.21	1.35	0.87***	1.47*	1.26	0.75	0.79	0.91
	(0.27)	(0.0001)	(0.0001)	(0.20)	(0.17)	(0.27)	(0.17)	(0.34)	(0.03)	(0.23)	(0.19)	(0.17)	(0.13)	(0.16)
Constant	8.9e+27***	0.03***	0.01***	0.80	0.95	0.46	0.02***	15.75***			0.41	0.19*	0.22*	0.49
	(0.49)	(0.02)	(0.001)	(0.53)	(0.42)	(0.26)	(0.01)	(10.20)			(0.23)	(0.13)	(0.14)	(0.30)
N	1,823	1,823	1,823	1,823	1,823	1,823	1,823	1,823	48,972	15,310	1,797	1,797	1,721	1,721

Note: All models are specified in the same way as the main analyses. Because of a lack of variance within Asian and Pacific Islanders in 1986, the number of respondents in this supplementary analysis of separation is four smaller than in our main analysis (n=16 person-years). Coefficients for all controls have been omitted from this table (available upon request).
Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Appendix C1: The Results of Main Models Run Separately Among White and Black Heads of Household

	Partner Selection								Marriage Entry/Exit		Relationship Dynamics			
	Height (Inches)	Spouse same height	Spouse taller	<H.S.	College	>3 years older	>3 years younger	Spouse is same race	Marriage	Separa-tion	Relative share of housework		Rel. share of earnings	
White											Same	More	Same	More
Short	-1.49*	5.62***	22.94***	1.47	0.91	1.03	1.25†	0.74	0.76***	0.66*	0.70**	1.16	0.55***	0.73
	(0.06)	(0.79)	(0.52)	(0.43)	(0.27)	(0.41)	(0.14)	(0.28)	(0.04)	(0.14)	(0.10)	(0.88)	(0.02)	(0.20)
Tall	0.42	0.07	2.58e-07***	0.64*	1.05	1.32***	1.13	1.34	0.88***	1.20	1.30†	0.81***	0.73***	0.99
	(0.25)	(0.11)	(3.17e-07)	(0.11)	(0.17)	(0.01)	(0.18)	(0.45)	(0.03)	(0.16)	(0.20)	(0.05)	(0.04)	(0.07)
Constant	64.11**	0.02***	0.001***	1.74***	0.10**	0.30***	0.02***	8.62**			0.34***	0.05***	0.27***	0.08
	(0.58)	(0.01)	(0.001)	(0.07)	(0.07)	(0.02)	(0.01)	(6.78)			(0.004)	(0.03)	(0.05)	(0.14)
N	2,140	2,140	2,140	2,140	2,140	2,140	2,140	2,140	53,215	28,697	2,118	2,118	2,047	2,047
Black														
Short	-1.95*	2.05	9.72***	1.33***	0.85**	0.23	0.88***	1.33	0.83*	0.55†	1.47	1.30	0.37***	0.76†
	(0.05)	(1.64)	(6.57)	(0.02)	(0.05)	(0.21)	(0.03)	(0.83)	(0.07)	(0.18)	(0.36)	(0.45)	(0.001)	(0.11)
Tall	0.26	7.98-e08***	1.47e-07***	0.90	1.16	1.53***	1.29	1.42***	0.99	1.31	0.74	0.72**	0.76***	1.16
	(0.53)	(8.08e-08)	(1.70e-07)	(0.12)	(0.19)	(0.05)	(0.24)	(0.02)	(0.07)	(0.30)	(0.21)	(0.09)	(0.03)	(0.59)
Constant	65.79**	0.13†	0.02***	6.38†	0.70	2.07	0.02***	6.20***			0.27***	0.17*	0.13***	0.41**
	(0.28)	(0.11)	(0.02)	(6.65)	(0.57)	(4.55)	(0.005)	(2.57)			(0.001)	(0.14)	(0.03)	(0.12)
N	742	742	742	742	742	742	742	742	20,372	10,436	722	722	690	690

Note: The number of white observations and the number of black observations does not sum to the total number of observations in our main analysis because our main models also include observations of additional races. There is not a powerful enough number of observations among other races to conduct an independent analysis of height effects within them. All models are specified in the same way as the main analyses. Coefficients for all controls have been omitted from this table (available upon request).
Robust standard errors in parentheses
*** p<0.001, ** p<0.01, * p<0.05, † p<0.1

Appendix C2: Smoothed Lowess Plots of Head's Predicted Proportion of Housework Hours by Height and Race