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Mirror, mirror on the wall: The effect of time spent grooming on wages

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Abstract

It is well understood that personal grooming provides an important source of communication about individuals, their values and personalities. From an economic point of view, grooming is a non-market activity. The standard view is that time spent in non-market activities is counterproductive as it reduces work effort and job commitment. But grooming is different. There is reason to believe that certain productive personality traits may be inferred on the basis of personal grooming. Using data from the American Time Use survey, we investigate whether workers who spend more time grooming earn higher wages. The evidence shows that while higher levels of grooming time increases wages for men, there is no significant effect on womens wages. We also find evidence that the returns to grooming are even larger for minority males.

JEL Codes: J3, J7
Keywords:

1. Introduction

Every day workers take time to shower, do their hair, select their clothes and get dressed - some more than others. Such personal grooming is both time consuming and socially valuable. Sociologists and anthropologists tell us that the way we groom communicates a significant amount of information about our desires, ambitions and place in society (Wax 1957). These non-verbal cues contribute to others' perceptions of our values and form the basis for expectations about our behavior. While this may lead to efficient social stratification at the cultural level, it is unclear whether such time-consuming activities are valuable in the labor market.

On one level, personal grooming can simply be thought of as another category of non-market activity workers engage in on a daily basis. With the exception of schooling, time spent on typical non-market activities such as housework and child rearing is expected to decrease productivity and wages (Becker 1965). The assumption is that these activities reduce work effort and create disruptions in employment status. In this sense, time spent on non-market activities is either a proxy for, or cause of, lower levels of job commitment. Recent evidence appears to support this interpretation. Controlling for standard Mincerian labor market characteristics, a number of studies have shown a negative relationship between non-market activities and wages (Hersch 1991, Hersch and Stratton 1996, Hersch and Stratton 2002). But what about the non-market time workers spend on personal grooming?

In many ways, time spent grooming may be better thought of as an investment. There are two alternative explanations to consider. First, grooming may offer a way for workers to augment their physical appearance to mitigate the well-known beauty effect.[1] According to the standard beauty premium argument, beautiful workers may be relatively productive because customers prefer to deal with attractive representatives (Hamermesh and Biddle 1994). Alternatively,

Mobius and Rosenblat (2006) suggest that attractive workers are likely to be more confident and possess better communication skills.

Rather than merely augmenting physical appearance, grooming itself may provide important market signals about the individual. It might signal non-beauty-related characteristics that employers find valuable. For example, a well-groomed worker may be more likely to be organized, pay attention to detail, or dedicated to the job. As a result, time spent grooming could be interpreted as a rational investment in one's reputation in the same way that professional certifications signal quality. Thus, unlike the traditional view of non-market activities, increased time spent on grooming may be associated with higher, not lower wages.

The purpose of this paper is to examine the relationship between wages and the amount of time workers spend grooming. We also investigate whether grooming has quantitatively similar effects across gender and across race. In Section 2, we begin by reviewing the social science literature on the importance of grooming. This leads directly to the formulation of our econometrics model (Section 3) that is then estimated in Section 5.

2. Why Do We Groom?

While the economics literature has focused almost exclusively on the effect of innate (exogenous) beauty on market outcomes, other disciplines have long considered the grooming (endogenous) aspect of physical appearance to be important to all manners of social and economic life.

Wax (1957) defines grooming as the "manipulation of one's superficial physical structure so as to make a desired impression upon others." (Wax, 1957, p. 588) These manipulations include bathing, shaving, plucking, styling hair, deodorizing, painting nails, applying makeup, etc. Such

practices are common among all human beings, though the exact nature differs across countries based on culture and custom.

In today's world both men and women invest both time and money in "looking good." To sociologists, appearance is symbolic and contextual. It reveals one's age, gender, power, sexuality, and religion. It is at the very heart of understanding identity in society. Wax (1957) argues that grooming should not just be viewed as a service of sexuality, but rather it should be viewed primarily as a means to denote the status and role of the person in relationship to their intended audience. Bloch and Richins (1992) add that adornments like makeup, hairstyle, and facial hair all alter one's own perceptions of physical attractiveness as well as the perceptions of others.

Appearance pervades all social interactions, including work. Businesses have long recognized the importance of what the literature refers to as "personal branding." In the absence of complete information, a more attractive, well-groomed employee provides information about the product or service they represent. In this sense, appearance is a legitimate evaluative criterion for customers and employers, alike. For example, in the case of services that are intangible, quality is often difficult to evaluate. This is especially true for complex technical, legal and financial services. In such cases, a seller's appearance allows buyers to make inferences about the ultimate quality of the service (Zeithaml, Perasurman and Berry 1985).

The literature in social psychology is more specific about why appearance may be so highly valued in the market. In general, one's appearance plays a key role in the interpersonal communication process through perception and image formation. These signals are indicative of personality traits and personal motivation. One widely accepted model of personality categorizes individual differences in social and emotional spheres into the following five factors: extraversion,

agreeableness, conscientiousness, neuroticism, and openness (Goldberg 1981). The most important of these for the workplace are arguably conscientiousness and agreeableness. Conscientiousness encompasses factors such as competence, orderliness, and self-discipline, while agreeableness is associated with trust, straightforwardness, and compliance. Langlois, Kalakanis, Rubenstein, Larson, Hallam, and Smoot (2000) find that attractive people are generally rated more favorably in terms of interpersonal and occupational competence (conscientiousness). According to Peak (1986), well-dressed people are perceived to be relatively mature, sincere and dependable (agreeable).

It is clear from the literature that grooming is important, perhaps even more than inherent beauty itself. While beauty is largely determined by predetermined genetic mappings, grooming is behavioral. This is precisely why grooming may provide such powerful labor market signals. Not surprisingly, then, there is reason to believe that workers who spend more effort grooming will enjoy more favorable labor market outcomes.

3. Structural Model

To the put all this into the context of labor economics we have to think about grooming as a proxy for unobservable human capital characteristics not commonly found in standard models of wage determination. Typically, wages are a direct function of the standard human capital characteristics (X_1), and occupation and industry controls (X_2), $W = f(X_1, X_2)$. In addition to human capital (e.g., education and experience), wages are also affected by personality traits such as conscientiousness and agreeableness. To the extent which grooming signals productive personality traits, we can write $W = f(X_1, X_2, G)$.

The wage regression for an individual i of gender type j is given by:

(1) $$\ln W_{ji} = X_{1ji}\Gamma_{1j} + X_{2ji}\Gamma_{2j} + \beta_j \ln G_{ji} + U_{ji},\ j = male,\ female$$

Here, $\ln W$ is the log of weekly wages for both males and females working full-time (35 hours or more per week at all jobs combined, thus excluding part-time workers). X_1 is the matrix of the standard Mincerian human capital determinants, like age and education levels as well as demographic characteristics such as race and marital status. X_2 represents the matrix of controls for location, industry and occupation. G represents the time spent on personal grooming. In general, this represents the time (minutes) spent by workers washing, dressing and grooming oneself. Thus, β represents the marginal returns in weekly wages to time spent grooming. Note that by introducing grooming time in its log form, we are allowing for diminishing returns, though we will also test for decreasing returns in subsequent variants of the model.

As discussed in the previous section, time spent grooming may affect wages in one of two ways: first, it could directly enhance one's physical appearance and affect wages *a la* Hamermesh, et. al (2002), thus proxying the beauty effect; alternatively, grooming may signal personal behaviors or traits that employers are likely to find productive, such as conscientiousness, etc. Thus, we expect $\beta > 0$. However, if grooming is endogenous, then it is not solely a function of one's exogenous personality traits.

Not surprisingly, the time one allocates to personal grooming is likely to be endogenous to wages. As suggested in the literature, grooming habits are determined within the context of the culture. For example, in the workplace, culture varies from job to job, and industry to industry. Obviously, part of this relates to the level of authority, and as a result, wages. It is easy to imagine that some workers, like executives or other managers, might spend more time grooming simply because of the professional expectations associated with their positions. Thus, there is good

reason to expect that individuals with higher wages would, all else equal, groom more. On the other hand, a highly paid executive also has high opportunity costs of her time. It is also possible that highly-paid workers need not spend as much time grooming as their peers. In either case, the estimate of β will be biased. If higher wages lead to more grooming, then β will be biased upward. But if increases in wages cause less grooming, then β will be biased towards zero.

In order to account for the possibility that grooming is endogenous, it is necessary to specify a grooming equation. This equation is specified as follows:

(2) $$\ln G_{ji} = I_{ji}\Gamma_{3j} + \alpha_j \ln W_{ji} + E_{ji}, \; j = male, \, female$$

I represents the matrix of exogenous variables that determine the amount of time one spends grooming. As the social science literature suggests, these could be thought of as personal traits or activities that reflects one's motivation to groom. There are two types of factors we consider. These are (1) household characteristics and (2) other activities associated with one's social life. For example, the more time one spends with children, the less time available for personal grooming. This is analogous to traditional arguments for the effect of non-market time on wages (Hersch 1991, Hersch and Stratton 1996, Hersch and Stratton 2002). Likewise, individuals who choose to spend more time relaxing at home are less likely to be concerned with their appearances. On the other hand, we expect "social butterflies" that spend more time going out to dinner, clubs, etc., to invest considerably more time in grooming.

4. Data

The data come from the American Time Use Survey (ATUS) questionnaire and the Current Population Survey (CPS) for 2005. The ATUS interview takes place between 2 to 5 months after the last CPS interview and individuals in the ATUS can be matched to their CPS reports on certain

labor market characteristics and demographics. The ATUS micro data files from which our data come include the Respondent, Roster and Activity files.

The dependent variable in the wage equation is drawn from the ATUS Respondent file. The construction of this series is somewhat complicated since respondents can report earnings on an hourly, weekly, bi-weekly, monthly, or annual basis. The Bureau of Labor Statistics recommends the use of weekly earnings (TRERNWA) rather than hourly earnings (TRERNHLY) since hourly earnings are available only for respondents who are paid by the hour. We use the log of weekly wages for full time workers (LNWAGE) as the dependent variable in wage equation (1).

The standard labor market characteristics ($X_{1,} X_2$) in the wage equation (1) are found in the ATUS Respondent file and corresponding CPS file. These include age (AGE), age-squared (AGE^2), race (WHITE), and marital status (MARRIED). The level of education (NOHIGH, HIGHONLY, SOMECOLL, COLLEGE) is created from the variable PEEDUCA found in the CPS. Controls for occupation (10 one-digit-level occupation classifications based on TRMJOCC1 variable) and industry (13 one-digit-level industry classifications based on TRMJIND1 variable) come directly from the CPS.

Time use data used to estimate the grooming equation (2) are constructed from series found in the ATUS Activity files and from the CPS. The ATUS collects data on what activities people engage in and how much time they spend in each activity during the day surveyed. These data about daily activities are collected from all segments of the population over 15 years of age, residing in the United States, who are employed, unemployed, or not in the labor force; it excludes active military personnel and people residing in institutions such as nursing homes and prisons. The ATUS 2005 is based on interviews of about 13,000 individuals from a subset of households that make up the nationally representative CPS. Respondents are interviewed only once and report

their activities for the 24-hour period from 4 a.m. on the day before the interview until 4 a.m. on the day of the interview (their diary day). The key question pertaining to all time activities is as follows:

> "Now I'd like to find out how you spent your time yesterday, [yesterday's day and date], from 4:00 in the morning until 4:00 am this morning. I'll need to know where you were and who else was with you. If an activity is too personal, there's no need to mention it. So let's begin. Yesterday [previous weekday] at 4:00 AM, what were you doing? What did you do next? and so on."

Respondents are then asked how long they spent on each activity, noting duration (minutes) as well as the start and stop time for the activity. Note only an individual's *primary* activities are reported. The ATUS also collects information on who was in the room/who accompanied the respondent during each activity (except for sleeping, grooming or working at one's job). This is important for our purposes since one's grooming habits are likely to differ depending on the extent and type of daily social activities, as these reflect both personality traits and personal commitments. Activities are assigned a six-digit code. The first two digits represented the major activity category (e.g., personal care), the next two digits denote the second-level of detail (e.g., grooming), and the last two digits denote the third-tier level of detail (e.g., washing).

Time spent grooming (GROOMING) is constructed from the ATUS Activity file. It includes how much time is spent washing and dressing oneself, including brushing, shaving, getting dressed, laying and changing clothes, combing hair, gargling, applying moisturizers, etc. The exact construction of GROOMING is defined in Table 1 in terms of its ATUS codes.[2]

In addition to the ATUS activity files, there also exists a limited set of time use variables in the CPS. Unlike the ATUS, however, these data do not provide information on the specific activity, but only the amount of time the respondent spent with others. For our purposes, these

data provide valuable information about the extent and type of daily socialization of the respondent. Theoretically, grooming patterns are likely to differ depending on whom they plan to interact with during the day. The largest area of social activity of interest to us as a possible instrument for grooming is the time respondents spend with their family (FAMILY). All else equal, the more time one devotes to their families, the less important time spent on grooming becomes. The other activity of interest is the time people spend eating and drinking (EATDRINK).[3] Eating habits are most often done with others. Conceivably, the more time one spends eating and drinking, the more one may be socializing. For example, if it is done publicly, then "eating out" would certainly lead to more grooming. But even in the home, families often sit at the table for semi-formal meals, all of which is precipitated by some grooming time (e.g., washing). It is likely that eating and drinking time could be positively correlated with personal grooming time. Table 1 summarizes these activities in relation to their respective ATUS and CPS codes.

Table 2 shows the summary statistics for the constructed variables.[4] There are some interesting differences between men and women. Women spend far more time grooming than do men; on average more than 15 minutes a day. Women also spend nearly 20 minutes more per day with their families than men. On the other hand, men spend more time eating and drinking. If we think about the stereotypical family mealtime, it is not entirely surprising that women spend less time at the table than men.

There is reason to believe that measurement error exists in the grooming variable. First, there are a number of respondents reporting zero minutes grooming. In the final sample, 22.7 and 14.7 percent of men and women, respectively, reported zero time spent grooming. Given that grooming includes such activities as getting dressed and brushing ones teeth, it is difficult to

imagine that full time workers really do no grooming whatsoever. While part of this is likely to be classic measurement error, this under-reporting of grooming may also be related to the day of the week respondents are surveyed. Not surprisingly, the grooming habits of full-time workers are likely to be considerably different on the weekends than on weekdays. The consequence of ignoring these sources of measurement error is substantial. In the presence of measurement error, the coefficient on grooming in the wage regression will be biased towards zero. Fortunately, the use of instrumental variables estimation is a valid remedy for just such a problem. Thus, unlike ordinary least squares, two-staged least squares (instrumental variables) estimation will be robust to such problems.

5. Econometric Estimation

The structural model (equations 1 and 2) is estimated using both two-stage least squares (2SLS) and generalized method of moments (GMM).[5] In general we follow the econometric procedures outlined in Baum, Schaffer and Stillman (2003). Of course, there are two issues related to the instrumental variables (IV) that determine the validity of the inferences from the structural model. One is the problem of weak instruments and the second is validity of the instruments themselves. In particular, it is vital that the IVs be uncorrelated with wages.

To measure the relative strength of the IVs, we calculate the Partial R^2 and associated F-statistic suggested by Bound, Jaeger and Baker (1995). Note that for large sample sizes, Staiger and Stock (1997) suggest that any F-statistic below 10 should be considered weak. In addition, for the IVs to be valid instruments, they must not affect wages directly. While there are a number of alternative tests for this, most are not robust to heteroscedasticity. It is for this reason that we choose to report Hansen's (1982) J-statistic (distributed χ^2) to test the validity of the

IVs.[6]

The final problem to consider is heteroscedasticity. We report Pagan and Hall's (1983) χ^2 test for heteroscedasticity since it is robust to the location of the heteroscedasticity. For the 2SLS results, we report White's robust standard errors. Unfortunately, this is a valid correction for heteroscedasticity only if the heteroscedasticity is confined to the first stage. Otherwise, GMM must be used. While Hansen's GMM is robust in the presence of heteroscedasticity, it is inefficient otherwise. Thus, in the section the follows, we report either the 2SLS or the GMM estimates, depending on which is most efficient.

5.1. 2SLS and GMM Estimates

Regardless of whether 2SLS or GMM is used to estimate the second stage, the first stage is estimated via OLS. As noted above, it is important to be parsimonious with our instrumental variables. The final set of IVs that meet all the criteria explained above are summarized in Table 3.[7] Note that since people are interviewed on different days of the week, we have also controlled for whether or not the respondent was reporting grooming time on a weekend (SATURDAY or SUNDAY). Since the diary day is determined by the ATUS, it is clearly exogenous.

The IVs appear to be satisfactory. The partial R^2 for each is low, but both sets are statistically significant and meet Staiger and Stock's (1997) criteria based on the F-test. Moreover, according to J-statistic, the over-identifying restrictions in the final version of the model are valid.[8] That is, all IVs in the final model directly affect grooming time, but do not directly affect wages. The results from the grooming equation are consistent with expectations. The amount of time spent dedicated to family life negatively affects grooming. On the other hand, time spent eating and drinking is positively related to grooming time. Not surprisingly,

grooming on the weekends is significantly lower than on weekdays. Men decrease their weekend grooming time relatively more than women. Men spend nearly 60 percent less time on Saturdays than they do during the week (women spend nearly 50 percent less time themselves).

Using the IVs given in Table 3, the second stage is estimated using 2SLS and GMM. These results are summarized in Tables 4-5. For ease of presentation, estimates for all occupation and industry controls are not reported. Since there is evidence of heteroscedasticity in the women's model, the GMM estimates are more efficient. However, the opposite is true for men; there is no significant evidence of heteroscedasticity, so the 2SLS estimates are efficient.

We report two variants of equation 1: (1) using the log of grooming as an explanatory variable; and (2) adding a dummy interaction to account for possible racial disparities regarding the returns to grooming (LnGROOMING*WHITE).[9]

Before analyzing the grooming effect, it is important to verify the appropriateness of the model in general. As we see from Tables 4-5, the standard theoretical predictions are confirmed. The returns to age, which proxy labor market experience, are significantly positive in the early years, but negative in later years. Whites earn more than their minority counterparts and education contributes positively to earnings. Consistent with previous studies (Korenman and Neumark 1991), marriage positively affects men's wages but has no significant effect on those of women.

With respect to time spent grooming, the results are strong and enlightening. Interestingly, grooming has different effects depending on sex. Extra time spent grooming has a positive effect on men's and women's earnings, but it is only significant for the men. Men who spend twice as much time grooming as the average man earn nearly 5 percent higher wages. There is also weak evidence that the returns to grooming differ by race (model 2). At the .10

level, it appears that the returns to grooming are significantly larger for minority men than for whites.

At first blush it may seem surprising that grooming time has such a large effect on the wages of men relative to women. There are a number of potential reasons that could account for this disparity. First, as the summary data show, American women already spend on average over 15 minutes more per day grooming than men. Thus, the difference in the marginal effects may simply be a manifestation of the diminishing returns to grooming. Second, though counter-intuitive, there is other evidence to suggest that men's appearance matters more than women's in the workplace. In their seminal study, Hamermesh and Biddle (1994) find that the beauty premium is substantially larger for men. More recently, Hamermesh and Parker (2005) find that university instructors who are rated more attractive by their students received higher ratings on end-of-term student evaluations. This effect is largest for male instructors. Lastly, the grooming effect may work against popular stereotypes of men in the workplace.

We have argued that grooming behavior serves as a signal for unobservable personality traits such as agreeableness and conscientiousness. So what are the prior expectations regarding the presence of these traits in male and female workers? Suppose that women are assumed to be more likely to be agreeable and conscientious than their male counterparts. Copious amounts of grooming by women, then, would do little to signal these traits at the margin. On the other hand, men, who are not assumed to have these traits to begin with, could provide a strong signal to the contrary if they appear to be relatively better-groomed than their cohort. The same argument is capable of accounting for the relatively large effect found for minority men.

Even more than their white peers, minority men are commonly stereotyped by their dress and physical appearance. Some have referred derogatorily to such behavior as “acting white.”

But it may be economically rational. If minority men believe they are scrutinized more for their appearance than white men, they may be willing to invest more time in grooming to counter that perception. As they do, they are likely to counteract the pre-existing cultural biases that contribute to the large wage discrepancy based on race.

5.2. Is grooming a Proxy for Beauty?

One shortcoming of this study stems from the lack of data on beauty. The implicit assumption we have made in our econometric model is that grooming and beauty are uncorrelated. If this assumption is untrue, then our estimates of the effect of grooming on wages will be biased. The question then becomes: is this bias likely to over- or under-estimate the grooming effect?

The main concern is whether the omission of beauty results in a spurious, positive correlation between grooming and wages. This would be the case if beauty and grooming are positively correlated. Would a beautiful worker really be expected to spend more time grooming than their less fortunate co-workers? Actually, if we think about the economic incentives for grooming, beauty and grooming are likely to be negatively correlated.

According to the literature, appearance acts as a signal for personality traits valued in the workplace. If this is true, it is conceivable that the relationship between grooming and innate physical beauty could be negative. For example, suppose that workers rationally choose to invest in time spent grooming in an effort to obtain the preferred market signal. Furthermore, assume that attractiveness does not affect the actual productivity of the worker. In such a case, workers exogenously endowed with high levels of beauty would actually require less grooming time to obtain the signal than their less-beautiful counterparts. Alternatively, Mobius and Rosenblat (2006) argue that beautiful workers are more confident, and that this confidence translates to

higher wages. Again, this would seem to imply that beautiful workers need not spend as much time grooming as their peers since they are more confident to begin with. Both of these arguments suggest that the magnitude of the grooming effect estimated in this study could be *under*-estimated.

However, given the results from the first-stage regressions, it is most likely that beauty is uncorrelated with grooming – at least predicted grooming. Table 3 shows that time spent grooming is negatively related to time spent with family and positively related to the time spent eating and drinking. It is difficult to conjecture a reason why beauty would be strongly correlated with these instruments. If not, then the omission of beauty in the wage equation cannot account for the positive effect of grooming on wages in the male regressions.

6. Conclusion

The fact that grooming matters is not surprising. Nevertheless, this is the first paper to quantify the returns to such an important personal time investment. This paper also contributes both to our general understanding about the relationship between physical appearance and wages and to the importance of how workers use their non-market time. Rather than merely proxying the well-known beauty effect, there appears to be strong evidence of an independent grooming effect that significantly affects labor market outcomes.

The literature suggests that the reason grooming matters is because of the underlying personality traits and values that it signals. Of all the ways in which workers spend their non-market time, grooming may be one of the best ways to signal such traits to employers. This is because grooming is always directly observable. Unlike a well-groomed worker signaling their commitment to an employer, workers who are unable to maintain their appearance may be

inadvertently signaling the use of their non-market time, and consequently, their priorities.

Finally, the differential returns to grooming are particularly interesting. Grooming is important for men, especially minority men. There are a couple of reasons for this. First, it may simply be because men groom so much less than women and there are diminishing returns to grooming. Alternatively, it may be that grooming helps to counter negative stereotypes regarding men's agreeableness and conscientiousness. Whatever the reason, these results clearly show that men have a strong wage incentive to think more about their grooming and the underlying skills and traits it signals. Perhaps popular culture's increasing suspicion about the existence of just such an effect helps to explain advent of the recent "metrosexual" phenomenon.

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Table 1: Time Activity Variables

Total Time Respondent Spent:	***ATUS Codes***	***Variable Name***
grooming	010201, 010299	GROOMING
eating and/or drinking	110101	EATDRINK
Total Time Respondent Spent:	***CPS Code***	
with family members	trtfamily	FAMILY

Table 2: Summary Statistics for Instrument Variables (minutes)

	Men		***Women***	
Variable	***Mean***	***Stdev***	***Mean***	***Stdev***
GROOMING	32.83	28.19	48.76	34.48
EATDRINK	73.53	51.71	62.13	45.86
FAMILY	292.57	280.80	312.36	281.63

Table 3: Instrumental Variables Regressions in Baseline Model

	Men	***Women***
Method	***OLS***	***OLS***
Instruments	***Coeff.***	***Coeff***
	(Std. error)	***(Std. error)***
EATDRINK/100	0.205**	0.2223*
	(0.057)	(0.063)
FAMILY/100	-0.086**	-0.073**
	(0.010)	(0.013)
SATURDAY	-0.592**	-0.474**
	(0.078)	(0.073)
SUNDAY	-0.461**	-0.373**
	(0.078)	(0.076)
F	49.59**	36.81**
Bound, *et al's* Partial R^2	0.0625	0.0520
Hansen's J	2.392 (p=.50)	3.195 (p=.36)

Notes:
Dependent variable is the log of grooming (lnGROOMING)
All controls in equation 2 are included, but not reported.
** and ** represent statistical significance at the 0.05 and 0.01 levels, respectively.*

Table 4: Male Wage Regressions (n=3068)

Method:	***2SLS***	***2SLS***
Variables	***Coeff***	***Coeff***
	(Std. Error)	***(Std. Error)***
LnGROOMING	0.047*	0.188*
	(0.023)	(0.082)
LnGROOMING*WHITE	-	-0.161
		(0.085)
AGE	0.065**	0.066**
	(0.007)	(0.007)
$AGE^2/100$	-0.067**	-0.067**
	(0.008)	(0.007)
WHITE	0.140**	0.603*
	(0.033)	(0.260)
NOHIGH	-0.304**	-0.320**
	(0.035)	(0.036)
SOMECOLL	0.097**	0.078**
	(0.025)	(0.028)
COLLEGE	0.399**	0.384**
	(0.031)	(0.031)
MARRIED	0.150**	0.146**
	(0.020)	(0.021)
Pagan-Hall's $\chi^2(32)$	30.845	49.961
Centered R^2	0.3915	0.3796

Notes:
All the controls included, but not reported.
** and ** represent statistical significance at the 0.05 and 0.01 levels, respectively.*
Numbers in parentheses are robust standard errors

Table 5: Female Wage Regressions (n=2837)

Method:	***GMM***	***GMM***
Variables	***Coeff***	***Coeff***
	(Std. Error)	***(Std. Error)***
LnGROOMING	0.023	0.066
	(0.027)	(0.070)
LnGROOMING*WHITE	-	-0.054
		(0.075)
AGE	0.059**	0.058**
	(0.006)	(0.006)
$AGE^2/100$	-0.059**	-0.059**
	(0.007)	(0.007)
WHITE	0.051*	0.236
	(0.024)	(0.256)
NOHIGH	-0.281**	-0.285**
	(0.045)	(0.046)
SOMECOLL	0.128**	0.126**
	(0.027)	(0.027)
COLLEGE	0.477**	0.476**
	(0.031)	(0.030)
MARRIED	-0.017	-0.008
	(0.019)	(0.019)
Pagan-Hall's $\chi^2(32)$	50.367**	53.434**
Centered R^2	0.3689	0.3649

Notes:
All the controls included, but not reported.
** and ** represent statistical significance at the 0.05 and 0.01 levels, respectively.*
Numbers in parentheses are robust standard errors

Appendix

OLS Wage Regressions

	Men		***Women***	
Method:	***OLS***	***OLS***	***OLS***	***OLS***
Variables	***Coeff***	***Coeff***	***Coeff***	***Coeff***
	(Std. Error)	***(Std. Error)***	***(Std. Error)***	***(Std. Error)***
LnGROOMING	0.003	0.033	0.007	-0.011
	(0.007)	(0.025)	(0.006)	(0.015)
LnGROOMING*WHITE	-	-0.035	-	0.022
		(0.026)		(0.017)
AGE	0.065**	0.065**	0.058**	0.058**
	(0.007)	(0.007)	(0.006)	(0.006)
$AGE^2/100$	-0.066**	-0.066**	-0.059**	-0.059**
	(0.008)	(0.008)	(0.007)	(0.007)
WHITE	0.134**	0.236*	0.048*	0.029
	(0.033)	(0.096)	(0.024)	(0.065)
NOHIGH	-0.314**	-0.318**	-0.285**	-0.283**
	(0.035)	(0.035)	(0.046)	(0.046)
SOMECOLL	0.096**	0.092**	0.132**	0.133**
	(0.025)	(0.025)	(0.026)	(0.026)
COLLEGE	0.403**	0.400**	0.484**	0.484**
	(0.030)	(0.030)	(0.031)	(0.031)
MARRIED	0.146**	0.145**	-0.012	-0.013
	(0.020)	(0.020)	(0.020)	(0.019)
R^2	0.403	0.404	0.370	0.371

Notes:
All the controls included, but not reported.
** and ** represent statistical significance at the 0.05 and 0.01 levels, respectively.*
Numbers in parentheses are robust standard errors

Notes

[1] While it is clear that physical attractiveness matters, it is not clear how much control workers have over how they look. Using data from the Institute of Population Studies of the Shanghai Academy of Social Sciences, Hamermesh, Meng and Zhang (2002) focus on whether beauty-enhancing investments positively affect wages. Using data from a 1996 survey of Chinese workers in Shanghai, they find that spending on beauty related products such as clothing and cosmetics have a small but positive effect on workers' earnings, while the rest of the spending is pure consumption rather than investments in beauty.

[2] See http://www.bls.gov/tus/lexicons.htm for more information on the ATUS definitions.

[3] Additional time use variables were considered as possible instruments for grooming (e.g., time spent with friends, going out, etc…) but were ultimately found to be unsatisfactory.

[4] The standard labor market statistics reveal nothing surprising. On average men and women are 41 years old and overwhelmingly white. Considerably more men than women in this sample are married; 66 percent of the men but only 49 percent of the women are married. Of men, 9 percent have not graduated high school, 26 percent have only a high school diploma, 27 percent have some college education and 38 percent have graduated college. Of women, only about 6 percent have not finished high school, roughly 26 percent finished high school, 32 percent have only some college and about 35 percent are college graduates. The gender wage difference in this sample is roughly consistent with existing literature (approximately 30 percent).

[5] To account for possible cross-equation correlations in the errors, we also estimated the model using 3SLS. These results are virtually identical to the 2SLS and GMM results. Also, though biased, the ordinary least-squares (OLS) estimates of equation 1 have been included in the appendix for comparison purposes.

[6] Though not reported, Hansen's C-test (differences in Hansen's J) was calculated to test individual IVs for exogeneity.

[7] Numerous other ATUS and CPS variables were considered as possible IVs for time spent grooming. These included time spent commuting, with friends, clients and co-workers or alone. Each was discarded either because they were only weakly correlated with grooming or to avoid over-identification.

[8] Hansen's C-statistic was used to test for exogeneity (with respect to wages) of all potential instruments.

[9] We also estimated a model with grooming and grooming squared. There was no evidence of a curvilinear slope in either the male or female models, for either whites or non-whites.