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The Prostitute's Allure: The Return to Beauty in Commercial Sex Work

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The Prostitute's Allure: The Return to Beauty in Commercial Sex Work*

Raj Arunachalam and Manisha Shah

Abstract

We estimate the earnings premium for beauty in an occupation where returns to physical attractiveness are likely to be important: commercial sex work. Using data from sex workers in Ecuador and Mexico, we find that a one standard deviation increase in attractiveness yields 10-15 percent higher earnings. Including controls for personal characteristics (communication ability and desirability of personality) cuts the beauty premium by up to one-half. Beautiful sex workers earn higher wages, have more clients, and enjoy a larger compensating differential for disease risk.

KEYWORDS: beauty premium

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1 Introduction

Since Hamermesh and Biddle (1994) first estimated the labor market returns to physical attractiveness, economists have discovered that a "beauty premium" exists in a variety of settings. From peers' strategy in game shows (Belot et al., 2012) and laboratory experiments (Mobius and Rosenblat, 2006, Andreoni and Petrie, 2008); electoral success in professional organizations (Hamermesh, 2006) and politics (King and Leigh, 2009, Berggren et al., 2010, 2012); university students' evaluations of their instructors' performance (Hamermesh and Parker, 2005) and vice versa (Cipriani and Zago, 2011); soliciting charitable donations (Landry et al., 2006), generating firm revenues (Pfann et al., 2000), and securing job callbacks (Bóo et al., 2012); to the likelihood of happiness (Hamermesh and Abrevaya, 2012) and avoiding a life of crime (Mocan and Tekin, 2010), being beautiful has measurable rewards.

This paper builds upon a subset of the growing beauty premium literature that quantifies the reward for attractiveness as a wage premium in the labor market. Such studies include the seminal article by Hamermesh and Biddle (1994), as well as recent work by Harper (2000), Hamermesh et al. (2002), and Leigh and Borland (2007).[1] More specifically, we estimate the beauty premium for one occupation: commercial sex work. As such, our paper resembles Biddle and Hamermesh (1998) (studying the beauty premium for lawyers), Sanhueza et al. (2007) (commercial engineers), and Sachsida et al. (2003) (salespeople).

We make three contributions to the existing literature. First, we estimate the beauty premium in an occupation which requires intimate interpersonal contact, and therefore we might expect would be at the extreme. Yet occupational sorting into the sex sector based on beauty might reasonably strip the earnings premium driven by differences in beauty. Our estimated premium for above average beauty is only slightly larger than that estimated for women elsewhere, and the penalty for below average looks lies comfortably within the range of existing findings. This result is consistent with Hamermesh and Biddle (1994), who find no increase in the beauty premium for occupations requiring interpersonal contact with customers, although this comparison should be interpreted with caution as workers were scored on an occupation specific scale.

Second, our data allow us to separate attractiveness from other worker characteristics which are often unobserved by researchers. Our data include enumerators' assessments of sex workers' communication ability and personality, in addi-

[1] For a comprehensive survey of the beauty premium literature, see Hamermesh (2011). Also, several papers examine the earnings effect of specific aspects of physical appearance, such as height (Persico et al., 2004, Case and Paxson, 2008); weight (Averett and Korenman, 1996, Cawley, 2004); oral health (Glied and Neidell, 2010); and hair color (Johnston, 2010).

tion to measures typically available in labor surveys. Controlling for these characteristics, which like beauty were assessed by interviewers "from the perspective of a potential client," substantially reduces the premium for attractiveness and almost eliminates the penalty for below average looks. While previous studies find no substantial reduction in the beauty premium when controlling for self-reported measures of self-esteem and self-confidence (Hamermesh and Biddle, 1994, Leigh and Borland, 2007),[2] our data arguably more directly capture factors which are renumerated in the labor market.

Third, we exploit features of the commercial sex sector and our unique data to explore the channels through which attractiveness increases earnings. Focusing on the brothel sector, where a sex worker's hours are fixed but her pay derives solely from transactions with clients, we find that beauty does not simply generate a higher price per transaction. Here, we find that a standard deviation increase in beauty increases the price of a sex act by four percent, which is insufficient to explain the overall effect on earnings of approximately ten to fifteen percent. Part of their higher earnings, we find, is from beautiful women spending less idle time on the job—that is, they spend a greater fraction of their shift "productively" with clients. We then examine sorting across sectors within the sex industry. We find that brothel and nightclub sex workers are more beautiful than self-employed workers who secure clients on the street or from their homes, but that the premium for beauty is substantially higher for these latter workers. Sorting of clients, based on sex workers' reports of their customers' characteristics for each of three previous transactions, seems to explain only a part of the beauty premium. Controlling for these characteristics reduces our point estimates somewhat, but we find little evidence that beautiful workers are systematically able to attract richer or more regular clients. Finally, we find that beautiful sex workers are overall less likely to engage in risky sex, but benefit more when they do, in the form of a compensating differential for disease risk.

2 Data

As in many parts of the world, such as much of Latin America, Australia, New Zealand, and parts of Europe, the commercial sex sector is legal and regulated in Mexico and Ecuador. However, large-scale, representative surveys of sex workers are relatively rare as the population is often hard to reach. In light of the size of the labor force and the financial turnover of the sex sector in many developing

[2] A recent exception is Doran and Hersch (2009), who implement alternative definitions of covariates and find, in various specifications, a smaller and less precisely measured beauty premium.

countries,[3] and the integral role the sector plays in the spread of sexually transmitted infections, there is a relative dearth of representative micro level data.

We draw data from two representative surveys of female sex workers: the first in 2001 in the Mexican states of Morelos and Michoacan, and the second in 2003 in eight major cities in Ecuador (Quito, Guayaquil, Machala, Esmeraldas, Santo Domingo, Quevedo, Milagro, and Daule). The Mexican survey was conducted as part of a behavioral surveillance of sex workers, and the Ecuador survey was the baseline survey for an HIV/AIDS prevention project targeting high-risk groups. In each city (in both countries), the universe of sex worker sites was first mapped to develop a sample frame. Potential worksites were identified in interviews with key informants, including sex workers, public health experts, non-governmental organizations, taxi drivers, police, and brothel and nightclub owners. The survey was a random sample from this universe of sex worker sites. While the surveys were designed to maximize representativeness of the sex worker population, the study probably undersamples women who occasionally engage in commercial sex transactions solely from their homes.

In each country, a multidisciplinary team including local researchers developed the survey questionnaire. The surveys include personal characteristics of the sex workers and detailed earnings and labor supply information. In particular, we collected information on each worker's last three sexual transactions, including price as well as characteristics of each client. In both countries, the labor supply modules were modeled after their respective national labor and employment surveys, so we use standard measures from labor force surveys.[4] Interviews took place at sex worker workplaces and meeting points; response rates in both surveys were high (in Ecuador over 95 percent).

Summary statistics are reported in Table 1. In both Mexico and Ecuador, the mean age is 28, and sex workers have completed six to seven years of schooling on average. Most sex workers have children (86% in Ecuador and 74% in Mexico) and spend approximately 40 hours per week on the job. Sex workers in Ecuador earn $5 US per hour, compared to approximately $12 US (110 pesos) in Mexico. Sex workers in both countries earn more than their counterparts in the rest of the

[3]For example, in Busia, Kenya 7% of working women were estimated to be sex workers in 1999; 0.5% in Mumbai, India in 2001; 1.8% in the Dominican Republic in 2001; and 7.4% of working women in Belize were estimated to be sex workers in 2001 (Vandepitte et al., 2006). For turnover: the Indonesian financial turnover of sex sector was estimated at between U.S 1.2 and 3.3 billion, or between 0.8 and 2.4% of the country's GDP. In Thailand, close to US 300 million is remitted annually from urban sex workers to rural areas (Lim, 1998).

[4]Further details about the data, sampling methods, and the market for commercial sex in Mexico and Ecuador are given in Gertler et al. (2005) and Gertler and Shah (2011).

Table 1: Descriptive Statistics

	Ecuador	**Mexico**
A. Appearance (percent)		
Most Attractive (=5)	28.4	6.5
(=4)	49.8	13.1
(=3)[a]	18.6	48.6
(=2)	2.85	25.0
Least Attractive (=1)	0.30	6.9
B. Collapsed categories (percent)		
Above average beauty	28.4	19.1
Below average beauty	21.8	32.3
Above average communication	32.7	35.5
Below average communication	21.0	16.1
Above average personality	29.8	22.6
Below average personality	19.7	30.6
Fat	3.9	
Skinny	28.0	
Above average weight		26.6
Below average weight		29.3
C. Continuous measures(mean)		
Beauty	4.0	2.9
	(.78)	(.95)
Communication skills	4.1	3.2
	(.86)	(.96)
Personality	4.1	3.0
	(.765)	(1.0)
Weight	3.8	3.0
	(1.1)	(1.0)
D. Other control variables (mean)		
Married/Civil Union (=1)	.49	.22
Has children (=1)	.86	.74
Has STI (=1)	.08	.16
Age (years)	27.9	27.7
	(8.1)	(7.9)
Education (years)	7.4	6.4
	(3.4)	(3.5)
Sex work experience (years)	4.3	6.7
	(5.1)	(7.1)
Hourly wages last week	5.2 US$	110 pesos
	(8.95)	(241.6)
Average transaction price	7.1 US$	438 pesos
	(7.10)	(428)
Hours worked last week	39.8	43.5
	(22.5)	(18.5)
Hours spent with client last week	12.9	N/A
	(88.4)	
Observations	1960	923

Notes: Standard deviation of continuous variables given in parentheses.

[a] In the Mexico survey, (=3) was defined as "average."

labor market, even after controlling for age, education, and location (Arunachalam and Shah, 2008).

2.1 Measuring Beauty and Other Characteristics

In part to improve the survey's reliability by minimizing biases in reporting, in Ecuador sex workers were hired and trained as enumerators. Each enumerator was asked to assess a number of personal characteristics (beauty, weight, personality and communication skills), all from the perspective of a potential client. Since the enumerators themselves were experienced in the sex sector we believe their assessments are likely to reliably proxy for clients' judgement of the desirability of ascriptive characteristics. All measures were scored from 1 to 5 with 1 being the "worst" score and 5 being the "best" score. For example, beauty was scored from 1 to 5, with 1 being the least attractive, and 5 being the most attractive. In Mexico, enumerators were additionally cued to score "average" sex workers with a rating of 3. Part A of Table 1 reports the breakdown of responses. Roughly 30% of the sex workers in Ecuador were rated as "most attractive" (with a mean score of 4.0); and roughly 7% in Mexico were rated as "most attractive" (mean score is 2.9). To facilitate comparison across countries, we construct a collapsed measure of beauty, coding "average" as scoring a 4 in Ecuador or a 3 in Mexico. Using this definition in panel B of Table 1, 28.4% of sex workers in Ecuador and 19.1% in Mexico are coded as being above average beauty, while 21.8% in Ecuador and 32.3% in Mexico are coded as below average.

Since the rating scale adopted by the enumerators was explicitly designed to correspond to the sex sector, we cannot compare average scores directly to other studies in the beauty premium literature. For sake of illustration, however, we examine the distribution of scores in our sample with that of Canadian and American non-sex workers given in Hamermesh and Biddle (1994).[5] Figure 1 reveals far more "most attractive" scores in our sample, but also shows that our enumerators score proportionally more individuals as 1 or 2 (relatively unattractive).

In order to ascribe a premium to beauty, it is important to conceptually separate other personal characteristics that may be correlates. In contrast to most studies, in which such measures either do not exist or rely on self-reports (e.g., Leigh and Borland 2007), our data allow us to focus on physique as apart from other personal features that also draw returns in the labor market. Enumerators were asked to rate the sex worker's communication skills and personality from the point of view of a prospective client, using the same 1-5 scale as for beauty. As with beauty, we report

[5] Unfortunately we are unaware of any datasets containing beauty measures of non-sex workers in Mexico or Ecuador.

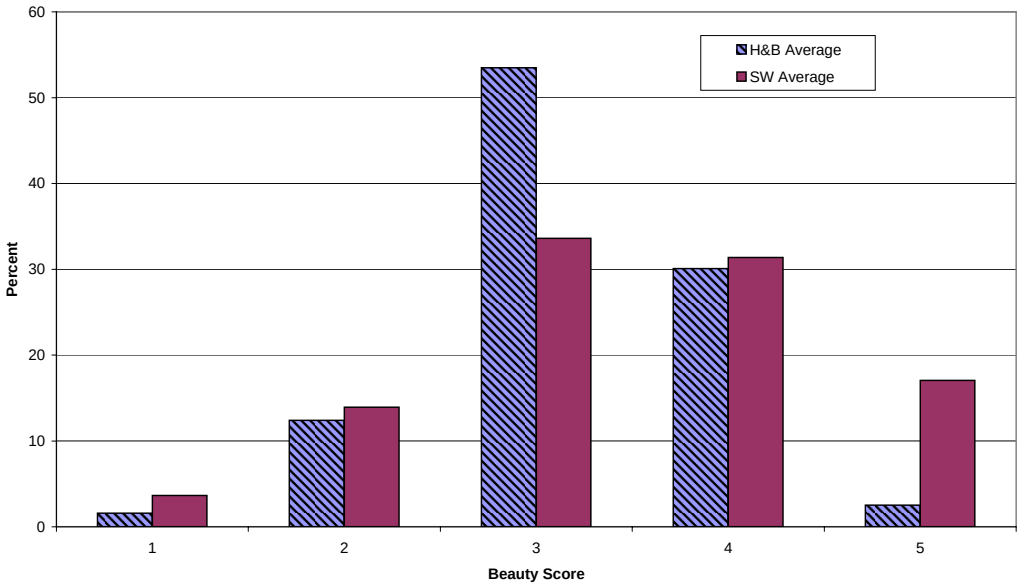

Figure 1: Comparing Beauty Distributions

both the continuous measure and collapse these measures into "above" and "below" average in Panel B of Table 1. Panel C reports the mean and standard deviation of the continuous measures.

The enumerators were also asked to qualitatively assess the sex worker's weight from a client's perspective. In the Mexico survey, the responses were coded in the same manner as the other personal characteristics; 27% are above average and 29% are below average weight. In Ecuador, the question was scaled differently, with 1 being "fat" and 5 being "skinny". For the Ecuador sample, our collapsed categories are "fat"(=1), "skinny"(=5), and "other weight"(=2, 3, or 4). In Ecuador, 4% of sex workers are rated as fat and 28% as skinny. While studies have established an effect of weight on wages (Averett and Korenman, 1996, Cawley, 2004), the literature on the beauty premium has not established a prior as to whether weight should be conceptually distinguished from beauty, so we perform all analysis including and excluding weight as a control, with no noticeable change in the results.

Finally, following many studies of the beauty premium which control for health status, we construct a measure of the sex worker's health. In the commercial sex sector, the most important marker of good health is sexually transmitted infection (STI) status. In Mexico, sex workers were not tested for disease outcomes; and we rely on self-reports. However, biologicals (blood and urine samples) were collected from every sex worker at the time of the survey in the Ecuador sample. Eight

percent of sex workers in Ecuador tested positive for an STI (chlamydia, gonorrhea, and/or syphilis).

3 Estimating the Beauty Premium

Our estimation strategy draws from that of previous studies of the beauty premium (see for example Hamermesh and Biddle (1994) and Hamermesh et al. (2002)). Following the literature, we use hourly wages as our dependent variable and continuous as well as collapsed beauty categories. While we make no attempt to estimate a structural model, we follow previous studies in employing a large number of control variables to account for determinants of earnings. We use two sets of controls. The first, C_1, includes linear and quadratic terms for age, and years of schooling; as well as dummies for marital status, children, and city. The second, C_2, includes place of birth, health, weight, years of experience as a sex worker, and indicators referring to sector of work (employed or self-employed).[6] To control for the fact that interviewers may use different scales in assessing characteristics of their respondents, we include enumerator fixed effects in all specifications.

In Table 2, we report results from OLS regressions of log hourly wages on our beauty measures. In this section, hourly wages are computed simply by dividing earnings by hours worked. Column 1 of Panel A reports results for the Ecuador sample, where log hourly wages are regressed on the continuous measure of attractiveness with controls C_1; column 2 adds to C_1 the additional control variables in C_2. The estimated coefficient on beauty declines slightly when the additional controls are added, but in both specifications remains statistically and economically significant. The coefficient of .13 in Column 2 corresponds to a one standard deviation increase in beauty yielding a ten percent increase in hourly wages. Columns 5 and 6 reproduce the estimation for the Mexico sample. There, the estimated coefficient drops substantially when the controls in C_2 are added. The resulting beauty premium in Column 6 is very similar to that in Ecuador; the coefficient of .16 corresponds to a one standard deviation increase in beauty yielding a fifteen percent increase in hourly wages.

Panel B reproduces the same specifications using the collapsed beauty categories. In Column 1, the coefficient on the above average beauty dummy controlling for C_1 is .20, which declines slightly to .17 when controls C_2 are added (Column 2). Given the semilog specification, these translate to a 22% and a 19% premium for above average beauty, respectively. The penalty for below average beauty in Ecuador is fourteen percent using C_1 controls and nine percent using the full set of

[6] Weight may be a component of beauty and sector of work is an endogenous choice; all results remain qualitatively similar when excluding these controls.

Table 2: The Beauty Premium for Sex Work

	Ecuador				**Mexico**			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
A. Continuous								
Beauty	.15 (.03)***	.13 (.03)***	.08 (.04)**	.06 (.04)	.26 (.04)***	.16 (.05)***	.16 (.05)***	.11 (.06)*
Communication			.08 (.03)**	.05 (.04)			-.01 (.06)	-.05 (.06)
Personality				.06 (.04)				.13 (.05)***
F statistic	30.0	17.5	5.9	2.4	39.0	10.9	9.4	3.7
$\overline{R^2}$	.17	.19	.19	.19	.29	.35	.35	.35
B. Collapsed								
Above avg beauty	.20 (.05)***	.17 (.05)***	.11 (.06)*	.13 (.07)**	.44 (.1)***	.30 (.11)***	.26 (.11)**	.15 (.12)
Below avg beauty	-.13 (.06)**	-.09 (.06)*	-.05 (.06)	.04 (.07)	-.21 (.09)**	-.10 (.09)	-.12 (.1)	-.04 (.1)
Above avg communication			.09 (.05)*	.12 (.06)**			.12 (.1)	.10 (.1)
Below avg communication			-.08 (.06)	.01 (.07)			.13 (.12)	.22 (.12)*
Above avg personality				-.07 (.07)				.22 (.12)*
Below avg personality				-.25 (.07)***				-.26 (.1)***
F statistic	14.1	8.1	2.4	2.1	16.7	5.7	4.7	1.1
$\overline{R^2}$	.17	.19	.19	.20	.29	.35	.35	.36
C_1	Y	Y	Y	Y	Y	Y	Y	Y
C_2	N	Y	Y	Y	N	Y	Y	Y
Observations	1960	1960	1960	1960	923	923	923	923

Notes: OLS regressions; dependent variable is log hourly wages (mean 1.13 log US$ in Ecuador and 3.95 log pesos in Mexico). C_1 includes controls for linear and quadratic terms in age, schooling, as well as dummies for marital status, children, city, and interviewer fixed effects. C_2 includes place of birth, health status, weight, indicators for sector of work, and years of experience as a sex worker. The F statistic tests that the beauty coefficients are jointly zero. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

controls. As with the results from panel A, the beauty premium is larger in Mexico; the estimated coefficients using C_1 and C_2 translate to a 55% and 35% premium, respectively. Similarly, the penalty for below average beauty in Mexico is slightly higher than in Ecuador; the estimate in Column 5 translates to a 23% penalty. Once C_2 controls are added (Column 6), the estimated penalty is eleven percent, although the coefficient is no longer statistically significant.

How should we think about these results? A priori, it is not evident whether we should suspect a very large or a very small premium for beauty in the sex industry. As an occupation requiring close interpersonal contact, we might reasonably expect that beauty should generate immense returns—yet precisely for this reason, if there is substantial sorting into the occupation based on beauty, then differences in attractiveness may draw only small returns. Comparing our findings to those of other studies is difficult for two reasons. First, all studies of the economic returns to ascriptive characteristics are in some sense local—we are not aware of papers that attempt to define a universal scale for beauty to estimate beauty premia that are valid across populations. Second, our enumerators were specifically asked to produce within-occupation assessments, from the perspective of customers in the market for commercial sex. Given these caveats, we think it is useful to consider findings from other papers to assess whether our estimates are reasonable. Our estimated premium for above average beauty in sex work is, as we might expect, larger than that estimated for women elsewhere. However, somewhat surprisingly, our estimates are not that much larger.[7] For example, the premium for a sample of women in China is under ten percent (Hamermesh et al., 2002), while estimates from the United States and Canada range from four to seven percent (Hamermesh and Biddle, 1994, Mocan and Tekin, 2010). However, our estimated penalties for plainness lie comfortably within estimates elsewhere, which range from above thirty percent in China to approximately five percent in North America.

4 Beauty and Other Personal Characteristics

Does beauty directly affect earnings, or is attractiveness effectively serving as researchers' proxy for self-confidence or other characteristics that command a premium in the labor market? Attempts to control for such characteristics have failed to eliminate or substantially reduce the estimated beauty premium. Hamermesh and Biddle (1994) employ a psychometric measure of self-esteem, and Leigh and Borland (2007) use self-reported beauty to proxy for self-confidence; neither study finds a decline in the beauty premium once these controls are added. Importantly,

[7] See `https://webspace.utexas.edu/hamermes/www/BeautyStudiesSummary.htm` for a summary of findings from a number of studies.

however, both measures derive from respondents' self-reports, while the labor market may respond to personal characteristics that individuals systematically misreport when describing themselves. An appealing feature of our data is that we are able to control for communication skills and desirability of personality; in focus groups, sex workers identified both characteristics as important assets. An additional attraction of our data is that enumerators were asked to rate sex workers' from the point of view of potential clients, providing us with an external measure of typically unobserved characteristics.

Turning back to Panel A of Table 2, controlling for the sex worker's score for communication skills (in addition to the controls in C_1 and C_2) reduces the estimated beauty premium in Ecuador but not in Mexico. The coefficient on the beauty score in Ecuador reduces to .08 (Column 3); a one standard deviation increase in beauty yields a six percent increase in hourly wages. Once the score for desirability of personality is added to the set of controls, the point estimate on beauty declines further. In Ecuador, the coefficient on beauty falls to .06 and is no longer statistically significant (Column 4), while in Mexico the coefficient on beauty in Column 8 remains weakly significant but declines in magnitude, so that a one standard deviation increase in beauty yields a ten percent increase in wages. Using the collapsed categories for the personal characteristics produces qualitatively similar results.

Insofar as our findings extend to other settings, they suggest that beauty's earnings premium may typically be overestimated, since attractiveness may be correlated with typically unobserved characteristics—such as intelligence—that draw a premium in the labor market.[8] Our findings are similar to Doran and Hersch (2009) who also find the beauty premium decreases (and even disappears in some cases) once other ascriptive characteristics are included in their regressions. Furthermore, while our data do not allow us to explore this channel, beauty may determine aspects of human capital formation which in turn affect labor market returns (Mocan and Tekin, 2010, Persico et al., 2004).

One might worry that these results are an artifact of multicollinearity between personality, communication skills, and beauty. In fact, the correlation coefficients between beauty and the other ascriptive characteristics (personality and communication skills) range from 0.4 to 0.7. However, in our regression results the magnitudes of beauty coefficients decrease substantially once we include the other ascriptive characteristics—it is not simply that the standard errors blow up as multicollinearity would suggest.

[8]The evidence for a positive relationship between beauty and intelligence is thin, as discussed in Hamermesh (2011).

5 Channels: How Beauty Affects Returns

One of the central questions in the literature on returns to ascriptive characteristics is how beauty affects returns. While our data do not permit a causal interpretation, we provide suggestive evidence that beauty simultaneously operates in a number of ways. Beauty increases a sex worker's rate of client arrival as well as price per transaction, and increases the compensating differential she draws from risky sex.

5.1 Beauty: Transactions and Wages

As respondents report the number of transactions as well as the price for each transaction, we can produce a simple decomposition of beauty's effect on earnings. We approximate a worker's weekly earnings Y as: $Y = \frac{1}{3}(\sum_{j=1}^{3} p_j)T$ where j indexes transactions; T is the number of transactions per week; and p is the price per transaction. Expanding this expression to account for hours worked, we have: $Y = \frac{1}{3}(\sum_{j=1}^{3} p_j)\frac{T}{h_C}\frac{h_C}{h}h$, where h is the number of hours worked per week and h_C is the number of hours spent with clients per week.

For this analysis, we restrict attention to brothel workers in Ecuador, as we did not collect information on time spent with clients in Mexico. We do this because focus group interviews indicate that unlike the street or other sectors of the commercial sex market, brothel workers are typically assigned fixed schedules in eight or ten hour shifts, mitigating the simultaneity problem wherein hours worked is partly determined by earnings. While they are assigned shifts, brothel sex workers are paid by transaction price rather than by wage—that is, they typically draw no income while waiting for a solicitation. Similarly, for brothel workers the length of a transaction is typically regulated by the manager (most brothel workers report transactions of 20-25 minutes, with little variation), so that we may consider transactions per hour, $\frac{T}{h_C}$, as a fixed parameter given by the nature of work.

The main variables of interest are weekly earnings, $\frac{h_C}{h}$ which measures the rate of client arrival, and average transaction price. In Table 3 we report results from regressing these variables on beauty and our set of control variables. These regressions are estimated at the sex worker level since earnings are measured at the sex worker level. The control variables C_1 and C_2 remain the same as before; and we also include controls for communication skills and personality (C_3) in the last column for each dependent variable. Columns 1-3 of Table 3 report the beauty premium on weekly earnings for brothel workers using the continuous measure (Panel A) and collapsed measure (Panel B) of beauty. The estimates are similar if slightly larger than the hourly wage premium reported in Table 2. The coefficient of .19 in Column 2 of Table 3 indicates that a one standard deviation increase in beauty

Table 3: Decomposing the Premium for Brothel Workers in Ecuador

	log Y			log $\frac{\text{client hours}}{\text{hours worked}}$			log average P		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
A. Continuous									
Beauty	.2	.19	.12	.14	.12	.007	.04	.05	.05
	(.04)***	(.04)***	(.05)**	(.05)***	(.06)**	(.07)	(.02)**	(.02)***	(.02)**
F statistic	10.4	9.36	9.11	4.19	3.91	3.95	8.78	8.29	7.86
$\overline{R^2}$	.24	.23	.24	.12	.12	.13	.22	.23	.23
B. Collapsed									
Above avg beauty	.2	.21	.17	.21	.19	.14	.03	.05	.05
	(.06)***	(.06)***	(.07)**	(.08)**	(.09)**	(.11)	(.03)	(.03)*	(.04)
Below avg beauty	-.22	-.21	-.11	-.05	-.04	.17	-.07	-.07	-.06
	(.07)***	(.07)***	(.08)	(.11)	(.11)	(.13)	(.03)*	(.03)**	(.04)
F statistic	14.89	13.44	4.22	3.82	2.75	1.5	3.01	5.02	2.38
$\overline{R^2}$	.24	.23	.24	.12	.12	.13	.22	.23	.23
C_1	Y	Y	Y	Y	Y	Y	Y	Y	Y
C_2	N	Y	Y	N	Y	Y	N	Y	Y
C_3	N	N	Y	N	N	Y	N	N	Y
Observations	1180	1178	1178	1091	1090	1090	1089	1089	1089

Notes: OLS regressions at the sex worker level; dependent variable is log weekly earnings (US$) in columns 1-3 (mean 4.74 log US$), log productive hours/total hours worked in columns 4-6 (mean -2.0), and log average transaction price in columns 7-9. C_1 includes controls for linear and quadratic terms in age, schooling, as well as dummies for marital status, children, city, and interviewer fixed effects. C_2 includes health status, weight, and years of experience as a sex worker. C_3 is the communication skills score and the desirability of personality score. The F statistic tests that the beauty coefficients are jointly zero. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

increases sex worker earnings by approximately fifteen percent. The magnitudes of the beauty premium and plainness penalty using the collapsed measure of beauty in Panel B are also larger than before; sex workers with above average beauty draw a 23% premium and sex workers with below average beauty are penalized by 23%.

Columns 4-6 of Table 3 regress our measure of rate of client arrival on the beauty measures. We generate the dependent variable, $\log \frac{h_C}{h}$, by dividing "average hours spent with clients last week" by the "total hours worked last week" and then taking the log of that ratio. Controlling for C_1 and C_2 in Panel A, Column 5, a one standard deviation increase in beauty increases the ratio of client hours to hours worked by approximately fifteen percent. Using the collapsed beauty measures in Panel B, the premium for above average beauty is approximately 19% in column 5; while the penalty for below average beauty is approximately 4 percent with a large standard error. The magnitude of both the continuous and collapsed category beauty measures decreases significantly in column 6 when we include the measure of sex worker communication and personality skills, and beauty becomes statistically insignificant.

In columns 7-9 of Table 3, we regress the log average transaction price on beauty. We find that for a one standard deviation increase in beauty, there is a 4 percent increase in average price. This effect holds even when we control for personality and communication skills (column 9). Similarly, there is both a beauty premium and plainness penalty (panel B).[9] The results from Table 3 indicate that the beauty premium operates both through the price of each sex transaction as well as increasing the fraction of time spent productively on the job (i.e., engaged with clients).

So far in this section we have focused on a sex worker's weekly reports, using the average price from her transaction-level reports. However, we can exploit the information reported for each transaction to further probe the channels through which beauty may operate. For each of the previous three transactions, the sex worker was asked to describe whether the client was rich, handsome, clean, and whether he is a regular customer. In Table 4 we regress log transaction price on beauty, clustering standard errors at the sex worker level. In columns 1-3 of Panel A, the estimated beauty premium remains around three percent, until we add controls for client characteristics. These controls slightly reduce the premium and increase the standard error, so that the coefficient on the continuous beauty score is no longer statistically significant. Using the collapsed beauty categories in Panel B, the estimated premium for beauty is small and remains statistically insignificant,

[9]For robustness, we test whether the beauty premium results change once we control for hours worked in the price regressions in Table 3 (results available upon request from authors). The beauty premium results remain unchanged. Similarly, we control for average price in the rate of client arrival regressions in columns 4-6 and again the beauty premium results remain unchanged.

Table 4: Tracing out Beauty Channels

						Client characteristics					
	Log price			Regular		Clean		Handsome		Rich	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. Continuous											
Beauty	.03	.03	.02	-.01	.00	.02	.03	.01	.02	.01	.00
	(.01)**	(.01)**	(.02)	(.01)	(.02)	(.01)*	(.02)*	(.01)**	(.01)	(.01)	(.01)
F statistic	6.11	5.21	1.78	0.28	0.01	2.73	2.95	3.88	2.18	1.87	0.17
$\overline{R^2}$	.23	.25	.25	.14	.14	.02	.02	.03	.04	.03	.03
B. Collapsed											
Above avg beauty	.03	.03	.02	.01	.05	.01	.01	.01	.02	.02	.00
	(.02)*	(.02)	(.02)	(.02)	(.03)	(.02)	(.02)	(.01)	(.02)	(.01)	(.01)
Below avg beauty	-.05	-.05	-.04	.01	.03	-.02	-.03	-.02	-.01	-.00	-.01
	(.02)**	(.02)**	(.02)*	(.03)	(.03)	(.02)	(.03)	(.01)	(.02)	(.01)	(.01)
F statistic	5.93	5.41	3.06	0.15	1.53	1.09	0.72	2.44	0.74	1.15	0.14
$\overline{R^2}$	.23	.25	.25	.14	.14	.02	.03	.04	.04	.03	.04
G_1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
G_2	N	N	Y	N	Y	N	Y	N	Y	N	Y
G_3	N	Y	Y	N	N	N	N	N	N	N	N
Observations	4951	4951	4951	4951	4951	4951	4951	4951	4951	4951	4951

Notes: OLS regressions at the transaction level clustered at sex worker level; dependent variable is log transaction price (US$) in columns 1-3 (mean 1.6 log US$); regular client(=1) in columns 4-5 (mean .50), clean client(=1) in columns 6-7 (mean .88), handsome client(=1) in columns 8-9 (mean .12), and rich client(=1) in columns 10-11 (mean .06). G_1 includes controls for linear and quadratic terms in age, schooling, health status, weight, years of experience as a sex worker, as well as dummies for marital status, children, city, and interviewer fixed effects. G_2 is the communication skills score and the desirability of personality. G_3 includes client characteristics such as rich client, clean client, handsome client, and regular client. The F statistic tests that the beauty coefficients are jointly zero. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

but the penalty for unattractiveness remains statistically significant at around five percent across specifications.

Since including client characteristics as controls reduces coefficient estimates in all specifications, we suspect that sorting by clients may explain part of the beauty premium. We directly investigate whether beauty increases a sex worker's ability to attract desirable clients by running linear probability models in Columns 4-11; results are qualitatively similar under probit models (not displayed). We find some evidence that beauty directly relates to client characteristics. For example, a one standard deviation increase in beauty increases the probability of pairing with a clean client by approximately two percent. However, at least as far as these particular measures go, they seem to be minor factors driving the beauty premium, as the estimates are substantively small and lose statistical significance when additional controls are added.[10]

Put together, the results from the brothel workers indicate that the beauty premium operates both through the price of each sex transaction as well as increasing the fraction of time spent productively on the job (i.e., engaged with clients). There is weaker evidence that sorting of clients drives the beauty premium. For a given sex worker, including client characteristics as controls in transaction-level regressions reduces the beauty premium, but there is little evidence that beautiful sex workers systemically draw richer, cleaner, or more handsome clients.

5.2 Evidence from Sectoral Returns

Focusing on the brothel sector allows us to cleanly separate a sex worker's hours worked (fixed by the employer) from her time spent with clients. Yet previous studies have found that an important aspect of beauty's labor market effects is through sorting (Hamermesh, 2011). We therefore turn to examining the beauty premium across sectors. As in other industries often characterized as "informal," a substantial fraction of sex workers in Ecuador and Mexico are self-employed. Most self-employed sex workers engage in street transactions, but others arrange to meet clients at home. Possibly because sex work is legal in the two countries, self-employed sex workers do not report to pimps or other principals, and in most cases make arrangements with clients without intermediaries. Sex workers may also work at establishments such as brothels or nightclubs; we define such workers as non-self-employed. While some may enjoy considerable flexibility in choice of

[10]We cannot rule out client sorting that is not captured by the sex worker reports. An ideal dataset would identify clients and sex workers, allowing us to assess whether controlling for client fixed effects eliminates the beauty premium.

Table 5: Summary Statistics of Beauty by Sector

	Non-Self-Employed	Self-Employed	Difference
Ecuador			
Beauty Score(1-5)	4.11	3.66	0.45***
	(0.74)	(0.87)	
Above average beauty(=1)	0.31	0.16	0.15***
	(0.46)	(0.38)	
Below average beauty(=1)	0.17	0.42	-0.24***
	(0.38)	(0.49)	
Observations	6431	1613	
Mexico			
Beauty Score(1-5)	2.90	2.68	0.22***
	(0.92)	(0.95)	
Above average beauty(=1)	0.20	0.12	0.09***
	(0.40)	(0.33)	
Below average beauty(=1)	.30	.39	-.09***
	(0.46)	(0.49)	
Observations	3205	667	

Notes: We report the means and standard deviations of beauty by sector at the transaction level. ***indicates difference is statistically significant at 1% level, ** at 5% level, * at 10% level.

client, most non-self-employed sex workers are hired by the brothel or club owner and, in the case of brothels, are typically assigned fixed hours of work.

In the previous sections we examined wages and earnings, following the literature on the beauty premium. However, like taxi drivers, sex workers receive renumeration for "working" but not while waiting for customers. In this section, we therefore turn attention to price per transaction. Also, substantial evidence indicates that transaction price responds to client characteristics and transaction type (Gertler et al., 2005, Arunachalam and Shah, forthcoming), so an additional advantage of using transaction price as the dependent variable is that we can include client as well as transaction characteristics as controls. For example, sex workers may engage in different types of transactions in brothels vs. street, which may independently generate an earnings premium.

Summary statistics reveal that there is evidence of sorting by beauty in the sex sector. Table 5 presents summary statistics of beauty by sector at the transaction level. In both Mexico and Ecuador, self-employed sex workers score lower on attractiveness, both for the continuous measure as well as the collapsed categories. In itself, one might conclude that managers or owners of brothels and nightclubs

may select against less attractive sex workers and not offering them employment.[11]

Tables 6 and 7 display the results of OLS regressions of transaction price on the worker's beauty score, with standard errors clustered at the sex worker level. Specification C_1 includes controls for linear and quadratic terms in age, schooling, as well as dummies for marital status, children, city, and interviewer fixed effects; C_2 adds place of birth, health status, weight, and years of experience as a sex worker; C_3 adds the communication skills score and the desirability of personality; and C_4 includes transaction characteristics (anal, oral, vaginal, and non-sex services) and client characteristics (regular, clean, handsome, rich, foreign, and risky). The findings suggest that a one standard deviation increase in beauty translates to a six percent additional beauty premium in Ecuador's self-employed sector; the equivalent figure in Mexico is a nine percent additional premium (Table 7). Panel B of Table 6 reveals the same pattern of an additional plainness penalty in Ecuador and an additional attractiveness premium in Mexico for self-employed sex workers (Panel B Table 7).

Since workers select into sectors, the OLS results presented in Tables 6 and 7 may partly be driven by heterogeneity in unobserved characteristics. Therefore, we consider specifications that include worker fixed effects to control for selection into sector. We are able to do this because a small percentage of our sex workers (approximately 3%) switched sectors (brothel to street and street to brothel) in their last three transactions.[12] Columns 5-6 of Table 6 report the results for Ecuador and columns 5-6 of Table 7 for Mexico. In Ecuador, controlling for sectoral sorting in the fixed effects model yields a substantially larger estimate of the additional beauty premium in the self-employed sector. In Mexico, the fixed effects results are inconclusive as the estimated coefficients are substantively small and not significantly different from zero.

Combined, our findings are consistent with sectoral sorting by beauty. However, the fact that we observe a beauty premium in each sector is evidence that sorting is at least partly based on other factors, allowing differences in beauty to generate returns.[13] Furthermore, the fact that the premium is actually larger in the self-employed sector, suggesting that—as in the market for lawyers (Biddle and Hamermesh, 1998)—the beauty premium cannot simply be characterized by employer discrimination.

[11]We also find that self-employed sex workers score lower in their communication skills and personality (results available upon request).

[12]Switching sectors is a choice, so we cannot rule out bias due to selection—hence we view the fixed effects specification as complementary to the OLS.

[13]See Hamermesh (2011) for a nice discussion of this point, based in part on our findings in this paper.

Table 6: Differential Returns to Beauty by Sector in Ecuador?

	Ecuador OLS				**Ecuador FE**	
	(1)	(2)	(3)	(4)	(5)	(6)
A. Continuous						
Beauty	.02	.02	-.007	-.002		
	(.01)	(.01)	(.02)	(.02)		
Self-Employed	-.12	-.1	-.1	-.11	-.56	-.62
	(.11)	(.11)	(.11)	(.11)	(.19)***	(.18)***
Beauty x Self-Employed	.07	.07	.07	.07	.2	.21
	(.03)**	(.03)**	(.03)**	(.03)**	(.05)***	(.05)***
Communication			-.01	-.02		
			(.01)	(.01)		
Personality			.05	.05		
			(.02)***	(.02)***		
Constant	1.62	1.73	1.69	1.33	1.72	1.67
	(.12)***	(.14)***	(.14)***	(.15)***	(.008)***	(.01)***
$\overline{R^2}$	.2	.22	.23	.29	.02	.07
B. Collapsed appearance category						
Above average beauty	.03	.04	.01	.02		
	(.02)	(.02)	(.03)	(.03)		
Below average beauty	-.02	-.02	.01	.007		
	(.03)	(.03)	(.03)	(.03)		
Self-Employed	.18	.19	.19	.19	.26	.27
	(.03)***	(.03)***	(.03)***	(.03)***	(.05)***	(.05)***
Above average beauty x Self-Employed	-.009	-.005	-.005	-.02	.13	.11
	(.07)	(.07)	(.07)	(.07)	(.08)*	(.08)
Below average beauty x Self-Employed	-.12	-.12	-.12	-.12	-.26	-.31
	(.05)**	(.05)**	(.05)**	(.05)**	(.08)***	(.08)***
Above average communication			-.01	-.03		
			(.02)	(.02)		
Below average communication			.004	-.001		
			(.03)	(.02)		
Above average personality			.04	.05		
			(.03)	(.03)		
Below average personality			-.06	-.05		
			(.03)**	(.03)*		
Constant	1.69	1.83	1.85	1.49	1.71	1.67
	(.1)***	(.13)***	(.13)***	(.13)***	(.007)***	(.01)***
$\overline{R^2}$	.2	.22	.23	.29	.01	.06
C_1	Y	Y	Y	Y		
C_2	N	Y	Y	Y		
C_3	N	N	Y	Y		
C_4	N	N	N	Y	N	Y
Observations	8044	8044	8044	8044	8044	8044

Notes: OLS regressions at the transaction level clustered at sex worker level (columns 1-4); and sex worker fixed effects regressions (columns 5-6); dependent variable is log price (US$). C_1 includes controls for linear and quadratic terms in age, schooling, as well as dummies for marital status, children, city, and interviewer fixed effects. C_2 includes place of birth, health status, weight, and years of experience as a sex worker. C_3 is the communication skills score and the desirability of personality. C_4 includes transaction characteristics (anal, oral, vaginal, and non-sex services) and client characteristics (regular, clean, handsome, rich, foreign, and risky). Non-self-employed is the omitted sector. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

Table 7: Differential Returns to Beauty by Sector in Mexico?

	Mexico OLS				Mexico FE	
	(1)	(2)	(3)	(4)	(5)	(6)
A. Continuous						
Beauty	.18 (.03)***	.11 (.03)***	.07 (.03)**	.05 (.03)*		
Self-Employed	-.88 (.18)***	-.83 (.17)***	-.81 (.17)***	-.81 (.16)***	.17 (.31)	.25 (.31)
Beauty x Self-Employed	.12 (.07)*	.1 (.07)	.1 (.07)	.09 (.06)	.001 (.09)	-.03 (.09)
Communication			.02 (.03)	.03 (.03)		
Personality			.06 (.03)**	.05 (.03)*		
Constant	5.32 (.25)***	5.05 (.55)***	4.97 (.57)***	5.06 (.61)***	5.76 (.02)***	5.72 (.02)***
$\overline{R^2}$	.3	.35	.35	.4	.1	.02
B. Collapsed appearance category						
Above average beauty	.33 (.06)***	.24 (.06)***	.19 (.07)***	.18 (.07)***		
Below average beauty	-.12 (.05)**	-.05 (.05)	.001 (.05)	.03 (.05)		
Self-Employed	-.65 (.08)***	-.63 (.07)***	-.63 (.07)***	-.62 (.07)***	.14 (.09)*	.15 (.09)*
Above average beauty x Self-Employed	.64 (.23)***	.56 (.21)***	.54 (.21)**	.48 (.2)**	.07 (.2)	-.004 (.2)
Below average beauty x Self-Employed	.03 (.11)	.03 (.11)	.04 (.11)	.03 (.1)	.21 (.3)	.2 (.29)
Above average communication			.05 (.05)	.04 (.05)		
Below average communication			-.08 (.06)	-.1 (.06)		
Above average personality			.06 (.07)	.04 (.07)		
Below average personality			-.1 (.05)**	-.09 (.05)*		
Constant	5.92 (.24)***	5.81 (.53)***	5.82 (.56)***	5.83 (.61)***	5.75 (.02)***	5.71 (.02)***
$\overline{R^2}$	.31	.35	.36	.40	.10	.01
C_1	Y	Y	Y	Y		
C_2	N	Y	Y	Y		
C_3	N	N	Y	Y		
C_4	N	N	N	Y	N	Y
Observations	3872	3872	3872	3872	3872	3872

Notes: OLS regressions at the transaction level clustered at sex worker level (columns 1-4); and sex worker fixed effects regressions (columns 5-6); dependent variable is log price (Mexican pesos). C_1 includes controls for linear and quadratic terms in age, schooling, as well as dummies for marital status, children, city, and interviewer fixed effects. C_2 includes place of birth, health status, weight, and years of experience as a sex worker. C_3 is the communication skills score and the desirability of personality. C_4 includes transaction characteristics (anal, oral, vaginal, and non-sex services) and client characteristics (regular, clean, handsome, rich, foreign, and risky). Non-self-employed is the omitted sector. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

Table 8: No Condom Premium by Beauty Status

	DV: log Price			
	Attractive		**Not Attractive**	
	(1)	(2)	(3)	(4)
No condom	.36	.34	.07	.07
	(.05)***	(.05)***	(.02)***	(.02)***
Constant	1.75	1.66	1.73	1.71
	(.005)***	(.03)***	(.004)***	(.01)***
F statistic	59.29	23.65	9.66	13.89
Client characteristics	N	Y	N	Y
Observations	2375	2375	6114	6114

Notes: Transaction-level regressions with sex worker fixed effects. Dependent variable is log transaction price (mean 1.76 US$). Column 1-2 are sex workers who are beautiful and and columns 3-4 are sex workers who are not beautiful. Client characteristics include regular, clean, handsome, rich, foreign. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

5.3 Beauty and Risk Compensation

One of the salient and unusual features of the sex sector is that workers may choose to engage in risky behavior—engaging in unprotected sex or performing risky sex acts—on a transaction basis. While some sex workers report always using condoms (and some report never using them), a substantial number of sex workers in both Ecuador and Mexico report sometimes using condoms, even within the previous three transactions. This fact allows us to probe a channel through which beauty may affect returns that—as far as we are aware—has not been previously studied.[14] In this part of the analysis, we examine the extent to which beautiful sex workers draw an additional compensating differential for undertaking risky sex in Ecuador. To do this, we adopt the strategy developed in Arunachalam and Shah (forthcoming), which demonstrates that in order to identify the presence of a compensating differential in a setting where both clients and workers may derive disutility from risk, we should examine how the premium for unprotected sex moves with the disease rate. Unfortunately we do not have disease rates for Mexico so this analysis involves only the Ecuador data.

We first estimate the premium for non-condom sex employing sex worker fixed effects to control for unobservable sex worker heterogeneity. The results of

[14] We are grateful for a referee's suggestion to examine beauty's relationship with risk-taking.

Table 9: Disease Risk Premium by Beauty Status

	DV: log Price			
	Attractive		**Not Attractive**	
	(1)	(2)	(3)	(4)
No condom	.09	.08	.02	.02
	(.09)	(.09)	(.03)	(.03)
Local STI rate	-2.83	-2.73	-2.29	-2.28
	(.81)***	(.8)***	(.62)***	(.61)***
No condom×Local STI rate	2.79	2.9	.56	.59
	(1.23)**	(1.21)**	(.45)	(.44)
Constant	1.91	1.81	1.85	1.83
	(.04)***	(.05)***	(.03)***	(.04)***
F statistic	18.57	14.97	6.62	12.08
Client characteristics	N	Y	N	Y
Observations	2341	2341	6041	6041

Note: Transaction-level regressions with sex worker fixed effects. Dependent variable is log transaction price (mean 1.76 US$). Column 1-2 are sex workers who are beautiful and and columns 3-4 are sex workers who are not beautiful. Client characteristics include regular, clean, handsome, rich, foreign. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

this exercise are presented in Table 8. We estimate the premium for attractive and unattractive sex workers defining attractive sex workers as those who were above average beauty in the analysis above. Beautiful sex workers are able to command a much higher premium for non-condom use: 40 percent vs. 7 percent for unattractive sex workers. In Table 9, we follow Arunachalam and Shah (forthcoming) to test if this premium for non-condom use is a compensating differential for disease risk. We interact the local STI prevalence with non-condom and once again estimate sex worker fixed effects regressions by beauty status. Attractive sex workers command a much higher compensating differential. A one percentage point increase in local STI prevalence results in a 37 percent increase in the premium for non-condom use. The coefficient on the interaction term while positive, is smaller and not statistically significant for unattractive sex workers. Interestingly, Table 10 also indicates that attractive sex workers are less likely to engage in risky sex acts such as anal sex and non-condom use, and are less likely to test positive for an STI.

In sum, by analyzing the returns to unprotected sex by transaction, we find that beautiful sex workers not only engage in less risky sex, but they are rewarded more amply when they do so.

Table 10: Do Attractive Sex Workers Experience Less Risk on the Job?

	DV:Anal Sex		**DV:Has STI**		**DV:Non-condom Use**	
	(1)	(2)	(3)	(4)	(5)	(6)
Attractive	-.01	-.02	-.01	-.02	-.08	-.05
	(.004)***	(.004)***	(.009)*	(.009)*	(.01)***	(.01)***
Constant	.03	.02	.06	.08	.15	.22
	(.003)***	(.01)	(.005)***	(.02)***	(.007)***	(.03)***
F Statistic	11.1	2.95	2.91	4.45	53.21	20.42
Client characteristics	N	Y	N	Y	N	Y
Sex worker characteristics	N	Y	N	Y	N	Y
Observations	8772	8673	8772	8673	8550	8473

Note: OLS regressions clustered at the sex worker level. Dependent variable in columns 1-2 is has anal sex (mean .02), has an STI (mean .05) in columns 3-4, and non-condom use (mean .12) in columns 5-6. Client characteristics include regular, clean, handsome, rich, foreign. Sex worker characteristics include years of schooling, experience in sex industry, children, and marital status. ***indicates significance at 1% level, ** at 5% level, * at 10% level.

6 Conclusion

Perhaps more so than any other profession, commercial sex work inherently involves interpersonal contact with clients. A priori, we might expect a high beauty premium in occupations where attractiveness is productive. On the other hand, precisely since beauty is a crucial determinant of a sex worker's success, occupational sorting on beauty might render the beauty premium fairly small. Interestingly, we find that the beauty premium for sex work in Mexico and Ecuador is only slightly larger than that found in other studies, and the penalty for below average looks lies comfortably within the range of existing estimates. We discuss an important caveat in interpreting this result, since it derives from variation on a measure which was intentionally scaled to apply within the occupation of commercial sex work. Controlling for correlates of beauty measured by enumerators "from the perspective of a client" that are likely determinants of income cuts our estimate of the beauty premium by up to one-half, suggesting that studies which do not adequately control for such characteristics may overestimate the magnitude of beauty's rewards.

We also investigate the channels through which beauty affects earnings. We find that beautiful sex workers enjoy higher earnings, whether measured by week or an hourly wage. They tend to spend less idle time on the job, as we find for brothel workers who work in fixed shifts yet only receive compensation when they engage in transactions with clients. They earn more per transaction than others. There is evidence of sorting by beauty within the sex sector; brothel workers tend to be more beautiful, but the premium for beauty is higher for the self-employed. These results suggest that even in this industry, sectoral selection is not solely based on

beauty—nor can the premium be explained away as an artifact of brothel owners' tastes. Some part of the returns to beauty can be attributed to variation in the types of clients they attract, since controlling for sex workers' reports of client characteristics for each transaction reduces the estimated premium. However, we fail to find strong evidence that beautiful sex workers are able to attract richer clients. Finally, we find that beauty may have implications for public health as well as labor market returns—while beautiful women engage in less risky sex, they are compensated more richly for such risk.

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