The Effect of Sexual Activity on Wages

Nick Drydakis

DISCUSSION PAPER SERIES

I Z A

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

The Effect of Sexual Activity on Wages

Nick Drydakis
Anglia Ruskin University,
IZA and Scientific Centre for the Study of Discrimination, Athens

ABSTRACT

The Effect of Sexual Activity on Wages

The purpose of this study is to estimate whether sexual activity is associated with wages, and also to estimate potential interactions between individuals' characteristics, wages and sexual activity. The central hypothesis behind this research is that sexual activity, like health indicators and mental well-being, may be thought of as part of an individual's set of productive traits that affect wages. Using two stage estimations we examine the relationship between adult sexual activity and wages. We estimate that there is a monotonic relationship between the frequency of sexual activity and wage returns, whilst the returns to sexual activity are higher for those between 26 and 50 years of age. In addition, heterosexuals' sexual activity does not seem to provide higher or lower wage returns than that of homosexuals, but wages are higher for those health-impaired employees who are sexually active. Over-identification tests, robustness checks, falsification tests, as well as, decomposition analysis and sample selection modelling enhance the study's strength. Contemporary social analysis suggests that health, cognitive and non-cognitive skills and personality are important factors that affect the wage level. Sexual activity may also be of interest to social scientists, since sexual activity is considered to be a barometer for health, quality of life, well-being and happiness. The paper adds to the literature on the importance of unobserved characteristics in determining labour market outcomes.

Corresponding author:

Nick Drydakis
Lord Ashcroft International Business School
Anglia Ruskin University
East Road
Cambridge, CB1 1PT
United Kingdom
E-mail: nick.drydakis@anglia.ac.uk

1. Introduction and conceptual considerations

The purpose of this study is to examine whether sexual activity is associated with wages. The literature exchange perspective provides a lens through which we can examine this hypothesis. The central hypothesis behind this research is that sexual activity, alike health indicators and mental well-being, may be thought of as part of an individual's set of productive traits that affect wages. The vast medical and psychological literature concludes that sexual activity is associated with good health and improved physical and mental capacities, psychological well-being, and dietary habits. Scholarly studies suggest that there is a positive relationship between sexual intercourse, well-being and longevity (Palmore, 1982; Onder et al., 2003; Planned Parenthood Federation of America, 2003; Lindau and Gavrilova, 2010). In addition, several studies suggest that mental health, personal happiness, satisfaction, self-esteem, conscientiousness, cognitive functioning and reasoning ability are positively related to the frequency of sexual activity, and that sexual activity is negatively associated with the risks and incidences of depression and stress (Shulman and Horne, 2003; Lykins et al., 2006; Lindau et al., 2007; Witting et al., 2008; Brody, 2010; Hooghe, 2011; Vrangalova and Savin-Williams, 2011). Furthermore, there are suggestions that people with active sex lives tend to exercise more frequently, have more strength and endurance, and have better dietary habits than those who are less sexually active (Ellison, 2000; Planned Parenthood Federation of America, 2003).

Sexual activity allows distinct predictions to be made regarding labour market success, since economists consider health status, mental health, and dietary

habits/obesity to be crucial variables that influence employees' wages [1]. Economic studies indicate that individuals with health problems earn less due to limited productivity, unobserved preferences and/or discrimination (Acemoglu and Angrist, 2001; Campolieti, 2002; Jones et al., 2006). For the same reasons, the research suggests that obese people receive lower wages (Cawley, 2004; Norton et al., 2008; Han et al., 2009). In addition, economists increasingly view mental health, behaviour and personality traits as non-cognitive skills that can have important consequences for the economic decisions that individuals make and the outcomes they achieve. Indeed, adverse mental health symptoms (depression, anxiety, and neuroticism) have been proven to negatively influence earnings (Mueller and Plug, 2006; Heineck and Anger, 2010).

The bulk of the economic literature on the determination of wages has, for a long time, primarily concentrated on traditional human capital variables (skills), such as education and actual work experience (Mincer, 1958; Becker, 1975). Human capital is one of the most important factors that affects labour productivity. More recently, studies that focus on cognition and earnings find that returns to cognitive ability, measured by standardised IQ test scores, are positive and significant and affect an employee's wages (Mueller and Plug, 2006). A growing literature also incorporates non-cognitive traits, mainly behaviour and personality characteristics, arguing that differences in these traits may result in differences in job performance that may then lead to better promotion

---

[1] Consider however that wage determination remains mainly a labour market outcome (strictly associated with macroeconomic fundamentals, market structure, trade unions etc.).

prospects or increased earnings potential (Cawley, et. al. 2001; Heineck and Anger; 2010).

The above-noted conceptual considerations and findings from previous research on the benefits of sexual activity and the knowledge of the determinants of labour market outcomes enable us to set expectations for the analyses in the present study. In line with prior research, since good health, mental health, and well-being are closely related to the economist's notion of productive output, and these characteristic are correlated with sexual activity, we may expect/hypothesise that sexual activity is also a well-being indicator related to higher wages.

The reasoning just described, and the consideration of all these parameters, suggest that sexual activity can be associated with many economic measurements and phenomena, and it is thus surprising that only two economics-based studies have been carried out. In an influential study using US data, Blanchflower and Oswald (2004) explore the association between income, sex and happiness and estimate that "sexual activity enters strongly positive in happiness equation", that is, the more sex a person has, the happier the person is. The authors also predict that increased income does not buy greater happiness, nor does it translate to more sex and sexual partners. The authors emphasise, however, the possibility of endogeneity problems, and the lack of instrumental variables drives the authors to provide single-equation estimates. In addition, Loureiro et al. (2009) show positive correlations between sexual frequency and wages for Brazilian employees. However, they did not discuss endogeneity problems.

The studies of Blanchflower and Oswald (2004) and Loureiro et al. (2009) provide incentives for a conceptual consideration of the link between sexual activity and

[4]

wages, based on economic theory. Unfortunately, however, it is unclear whether these associations represent a causal relationship or can be explained by unmeasured heterogeneity. Indeed, if unobserved factors are correlated with both sexual activity and wages then the relationship between these variables is potentially spurious. In the current paper, using the 2008 Greek Behavioural Study of females and males 18 through 65 years of age, this study contributes to the literature by using two-stage estimations to examine the relationship between adult sexual activity and wages, after considering various characteristics. In addition, we are interested in documenting potential interactions between individuals' characteristics and wages and sexual activity. A range of over-identification tests, robustness checks, and falsification tests bolster the case for a causal interpretation of the relation under consideration. We will conclude that there is a monotonic relationship between the frequency of sexual activity and wage returns. Moreover, the returns to sexual activity are higher for those between 26 and 50 years of age. In addition, heterosexuals' sexual activity does not seem to provide higher or lower wage returns than that of homosexuals. Whilst, wages are higher for those health-impaired employees who are sexually active. Finally, decomposition analysis and sample selection modelling will enhance study's strength.

The rest of the paper is organised as follows: Section 2 describes the dataset, analyses the variables used in this study, and presents the descriptive statistics. Section 3 introduces the empirical model. Section 4 analyses the two-stage regression outcomes. The last section concludes the study.

2. Data set and descriptive statistics

2.a Definition of variables

The data were gathered from January 2008 through December 2008 in the Greek Behavioural Study (GBS), conducted by the University of Piraeus, the University of Central Greece, and the Panteion University of Social and Political Sciences. The 2008 GBS is one component of the Multi-country Study of the Scientific Centre for the Study of Discrimination (SCSD), which has collected information on Greek citizens. The 2008 GBS consisted of random telephone-based surveys to approximately 7,500 households. Individuals in each household were randomly selected to provide information on a variety of demographic characteristics. Respondents in the GBS were asked how many times they engaged in sexual activity (SA). This question was the same as the US General Social Survey (GSS) question. Although this was a sensitive area about which to question individuals, there is a body of knowledge on how it can best be done (Michael et al., 1994; Gribble et al., 1999), and we conducted the study in keeping with this knowledge. Respondents were asked to choose among seven options: no sex (code 0); sex once or twice a year (code 1); sex once a month (code 2); sex two to three times a month (code 3); sex weekly (code 4); sex two to three times a week (code 5); and sex more than four times a week (code 6).

Respondents were asked to fill in two separate questions: whether they were employed (EMPL), and whether they were participants (LAFOR) in the labour force (i.e employed and unemployed). Wages were measured as a continuous variable. The GBS constructed an hourly wage measure by dividing the last month's wages by self-reported working hours per month. Surveyors asked, "What is your best estimate of your wage last month before taxes and other deductions?". In addition, the variable

[6]

EXPER measured the individual's years of work experience. To allow for the possibility of a non-linear relationship between wage and work experience, the square of age (EXPERDQ) was included in the regression. Two dummy variables for occupational categories were included in the analysis. The variable WHITE was set to 1 if the individual's occupation was considered white-collar and 0 otherwise. The variable PUBL was set to 1 if the worker was employed in the public sector and 0 otherwise.

In addition, the variable AGE measured the individual's age in years. For reasons discussed above, we also included the square of age (AGESQ) was included in the regression. To account for the possibility that the influence of sexual activity may differ by gender (men vs. women), a dummy variable for gender is included (GEN). The variable MARR was set to 1 if the respondent was married and 0 otherwise. Moreover, the GBS included a direct question about an individual's sexual orientation (see, Carpenter, 2005). To investigate sexual orientation, employees were asked: "The next question is about sexual orientation: Do you consider yourself to be: (1) Heterosexual? (2) Homosexual?". In addition, the variable IMM was set to 1 if the individual was an immigrant (non-Greek) and 0 otherwise. The variable UNIV was set to 1 if the respondent had a university or technical-school diploma and 0 otherwise.

To be comparable to previous research, we defined disability status (DS) using the self-reported response to a question regarding whether an individual is limited in a kind or amount of work, has a mobility limitation, or has a personal care limitation (see, Baldwin and Johnson, 2000). Additional health indicators are defined separately for whether the respondent reported that she/he takes daily medications (DM), and she/he has been diagnosed with the following illnesses: diabetes (DIA); heart disease (HEA); arthritis (ART); cancer (CAN); and psychiatric/psychological symptoms (PSY).

To deal with unobserved heterogeneity the Big Five Personality Traits index (Digman, 1990; McCrae and John, 1992) was employed. The Big Five Personality Traits measures individuals' personality traits, such as: extraversion, agreeableness, conscientiousness, emotional stability, and openness. It is easy to imagine that difficult-to-measure factors at individuals' personality (i.e. extraversion, openness) could influence both sexual activity and wages. For example if one is sociable, or shy or irritable may this pattern influence her/his sexual activity and wage (Digman, 1990; McCrae and John, 1992; Heineck and Anger 2010). The Big Five Personality Traits index controls various critical heterogeneities such as social recognition, commitment, popularity, energy level, self-esteem, physical attractiveness based on 40 behaviour criteria (Paunonen and Ashton, 2001).

Two additional variables were considered to address endogeneity (*see section 3*). The variable G measured whether the individual believes in a God, and the variable RS measured an individual's attendance of religious services. Whilst, three variables were considered for the falsification tests (*see section 3*). The variable WCS measured whether the individual is working in the capital city (Athens), the variable WOT measured whether the individual is working over-time, and the variable WPT measured whether the individual is working part-time. Finally, to deal with sample selection bias (*see section 4.e*) three additional variables were considered. The variable NINC measured the non-labour income, and the variables MUNI, FUNI measured highest education attainment (i.e. university or technical-school diploma) of the respondent mother and father. For convenience, variable definitions are summarised in the Appendix A.

[8]

Table 1 shows the descriptive statistics, stratified by gender, and this section offers a brief discussion. The sample consists of 7,500 respondents, however 1,183 respondents with missing information were dropped from the analyses (i.e. 15.7%). What is of interest, however, is that the mean and standard deviation are the same for (i) those individuals who did not answer the sexual activity question (i.e 6.3% or 479 cases) and (ii) those individuals who answered the sexual activity question (i.e. 93.7% or 7,021 cases). Chi-squared tests were employed, and none of the attempts concurred with the null hypothesis of a significant difference between groups (i) and (ii). Tables are available on request. A plausible explanation for this issue is that individuals might have felt bothered by the sexual activity question and declined to provide an answer, regardless of their demographic characteristics. However, difficult-to-measure patterns, such as family background characteristics, could be correlated with the decision to respond to the sexual activity question. Thus, it is not possible to exclude the presence of unobservable individual characteristics affecting the probability of (not) answering.

[Table 1]

As shown in Panel I, the measurement suggests that adult individuals approximately have weekly sex. The psychological and medical literature reviewed in the introductory section addresses this pattern (Ellison, 2000; Lykins et al., 2006; Hooghe, 2011). Sex activity shows a great variability in responses, which accredits why the measure is scientifically correct. Whilst, the reliability of the scale is considered to be satisfactory (Sex activity Cronbach's α = 0.86). Note also that, as with other variables (e.g., age, education), measurement errors in this sexual activity data are likely. One bias might stem from people who may wish to represent themselves to the

survey interviewer as enjoying more sex than they do. However, another might stem from modesty or a wish to conceal extra-marital affairs. In this paper, as in most other studies, we take the numbers at face value and study the implied patterns in Greek society.

To continue with, the average age is 34.3 years, 47.4% of the subjects are men, and 5.5% are gay men/lesbian women. Moreover, the results indicate that 58.3% are married and 15.4% are immigrants, and 7.7% have health-limitations. Regarding education levels, 47.9% have a university or technical school degree, 93.1% are labour force participants, and 78.1% are employed. In addition, 39.1% are white collar employees, and 52.1% are public employees. Moreover, individuals have 13.2 years of work experience and the hourly wage rate is 7.9 Euros. In Panels II and III, we offer descriptive statistics by gender. The outcomes are as expected for the Greek case. Notably, given the absence of census data, it is virtually impossible to test whether this sample is truly representative. However, this issue has been addressed by comparing the 2008 Greek Behavioural Study's descriptive statistics with those of the most recent Greek Household Budget Survey from 2005. A comparison of the two data sets reveals similar average ages for the respondents, as well as gender composition, and proportion of immigrants. This comparison suggests that the 2008 Greek Behavioural Study is, to a large extent, representative of individuals in Greece.

In this stage, we investigate also the inter-correlation matrix which will show whether sexual activity, as well as, wages are correlated with the variables used in this study. In Appendix B, we present a sub-correlation matrix (31x2). The whole inter-correlation matrix (31x31) is available on request. The outcomes suggest that there is positive and statistically significant correlation between sexual activity and wages,

males, married people, and those people characterized by extraversion traits. In addition, there is a negative and statistically significant correlation between sexual activity and migrants, disability, daily medication, health indicators (diabetes, heart diseases, arthritis, cancer, psychiatric/psychological symptoms), believe in God, and religious services attendance. On the other hand, there is a positive and statistically significant correlation between wages and age, male employees, married people, those having upper education, actual working experience, white collar jobs, public jobs, working in the capital city, working over-time and extraversion traits. Whilst, there is a negative and statistically significant correlation between wages and immigrant people, homosexuals, disability status, daily medication, health indicators and part-time work. An endless interpretation analysis of each correlation's coefficient rank could take place in this stage. On average, however, all these patterns are comparable and in line with the studies' outcomes discussed in the literature review section (see also, Myeller and Plug, 2006; Lykins et al., 2006; Bodenmann and Ledermann, 2007; Witting et al., 2008; Bancroft, 2009; Loureiro et al., 2009; Carvalho and Nobre, 2011; Hooghe, 2011).

3. Estimation framework

Sexual activity may not casually impact wages. That is, one could suggest that the strength of an individual's sexual activity may in fact be endogenous; higher wages may encourage some to adopt more sexually active lives. For instance, higher wages may increase the value and attractiveness of a person on the dating market; higher wages may increase purchase of gifts that are thanked for via sex. Unfortunately, there are no references with which to address these claims, other than Blanchflower and

Oswald (2004), who suggest that increased income does not translate into additional sex.

A standard approach to address endogeneity is to undertake a two-stage estimation, as in Davidson and MacKinnon (2004), Cameron and Pravin (2005), and Sabia and Rees (2008) where we estimate a sexual activity equation with the appropriate instruments in the first stage. In the second stage, we insert the predicted values into the wage equation. The preference equation is identified using appropriate instruments that capture the influence of prior experiences or preferences, and the credibility of this strategy rests on our ability to identify a set of valid instruments, which are excluded from the second stage.

The structure of the two-stage variable estimation is of the typical form (Wooldridge, 2006):

$$W_i = a + \boldsymbol{\gamma}\hat{S}_i + \boldsymbol{\beta}Y_i + \varepsilon_i \qquad \text{\textit{Equation 1: Wage equation}}$$

$$S_i = a + \boldsymbol{\varphi}X_i + \boldsymbol{\beta}Y_i + e_i \qquad \text{\textit{Equation 2: Preference - sexual activity equation}}$$

where W_i denotes the outcome variable of interest; Y_i denotes the observed control variables; S_i denotes the treatment variable; X_i denotes the preference equation's instruments; β, γ and φ are the corresponding parameter vectors to be estimated; ε_i and e_i are error terms that represent additional unobserved effects, measurement effects, etc. The coefficient of interest is γ. A statistically significant positive coefficient of γ would result in higher wages.

The instruments evaluated in this study include the following: whether individuals believe in God (any) and attend religious services at least 2 times per month.

Academic studies suggest that sexual activity is affected by religious affiliation. Premarital sex, sexual activity, sexual experience, divorce, marital and extramarital sexual relationships are negatively affected by religious affiliation and religious attendance (Billy, 1994; Blinn-Pike, 1999; Wade, 2002; Rostosky et al., 2003). If the appropriate instruments are validated after empirical evaluation they can distinguish the effect of sexual activity on wages from any effect of wages on the decision to have sexual activities (see also, Sabia and Ress, 2008).

Following Wooldridge (2006), in theory, the suitable instruments in the current study must not affect wages other than through the effects of these variables on sexual activity. Furthermore, the instruments must avoid the possibility of reverse causality; they must not be determined by either sexual activity or wages. To be precise, in the current data set, wages should not be affected by an individual's belief in God or attendance of religious services. In addition, belief in God and attendance of religious services should not be affected by sexual activity or wages[2].

In the current study, we use four methods to test the validity of our instruments (see also, Wooldridge, 2006; Sabia and Rees, 2008).

---

[2] Note that if lower wages were determined by lower religious affiliation, we would then expect that only the well-paid employees would be strongly religiously affiliated. In general, this is not true. In addition, if lower religious affiliation was determined by higher sexual activity, we would then expect that only a small fraction of employees would have religious affiliations, as the employment period (18-65) is the most sexually active period in peoples' lives. In general, this is not true. Moreover, if lower religious affiliation was determined by lower wages, we would then expect that only employees with strong religious affiliations would be well-paid. In general, this is not true.

[1] First, we examine whether the instruments; believe in God and religious services attendance, are individually or jointly significant predictors of sexual activity (Table 2).

[2] Second, we examine whether wages are individually or jointly affected by the instruments (Table 3), and whether each instrument is affected by sexual activity status (Table 4).

[3] Third, because the preference equation's instruments X_i, contains multiple instruments, we are able to conduct over-identification tests that examine whether the instruments are correlated with the residual of the wage equation (Table 5).

 [4] Fourth, we provide a set of falsification tests that focus on several outcomes correlated with wages but that, in theory, should not be impacted by sexual activity (Table 8).

The final structure of the instrumental variable model is of the form (see, Sabia and Rees, 2008):

$$W_i = a + \gamma S_i + \beta Y_i + \hat{\delta} e_i + \varepsilon_i \qquad\qquad \textit{Equation 3: two-stage equation}$$

if $\hat{\delta}$ is statistically significant different from zero, S_{it} would be endogenous.

4. Outcomes and discussion

4.a First stage estimations; The formation of sexual activity

Estimates of sexual activity equation are presented in Table 2. For both sexes, believe in God and attend religious services appear to be good predictors of sexual activity. The estimated coefficients of the variables in X_i are uniformly significant at

conventional levels, and also jointly significant predictors of sexual activity. There is a negative and statistically significant correlation at the 1% level between belief in God and sexual activity, as well as between attendance of religious services and sexual activity. The significance of these outcomes verifies the conclusions of the literature discussed above (Billy, 1994; Blinn-Pike, 1999; Wade, 2002; Rostosky et al., 2003) and the validity of the instrumental variables selected.

Moreover, an individuals' age seems to have an insignificant effect. However, if we consider a set of dummy variables, we can estimate that individuals between 26 and 50 years old exhibit statistically significantly higher sexual activity at the 1% level. Furthermore, men seem to have statistically significantly more sexual activities than women, other things being equal, at the 5% level. In addition, marital status shows a positive and statistically significant effect on sexual activity at the 1% level. These two patterns are standard outcomes in the literature reviewed. Furthermore, homosexuality does not entail different levels of sexual activity. Immigrants' sexual activity, however, is statistically significantly lower than that of natives, at the 10% level. In addition, people having health limitations (i.e. disabilities, daily medications etc) have statistically significant lower levels of sexual activity. Furthermore, higher education (university or technical college degree) and employment status do not seem to affect employees' sexual activity. In addition, extraversion (i.e. sociable, outgoing, energetic etc) has a statistically significant effect on sexual activity. Additionally, if we consider separate regression results for each sex, shown in Panels II and III, some interesting results are found. Women's religious affiliation has a more negative effect on their sexual activity than men's does. The age coefficient for women between 26 and 50 years of age is lower than that of men; that is, with respect to age, returns to sexual

[15]

activity are lower for women than for men. All of these relationships are observed in the medical and psychological literature reviewed in this study. Finally, migrant women's sexual activity is higher than that of migrant men.

[Table 2]

4.b Over-identification tests, and second stage estimations

To continue with, in Table 3 we observe that the selected instruments (believe in God and religious services attendance) are unrelated to wages individually and jointly. In addition, in Table 4 we observe that each instrument is not affected by wages. The robustness tests show that the instruments are valid since the theoretical criteria are fulfilled.

[Table 3] - [Table 4]

In Table 5 the Sargan (1958) - Hansen (1982) over-identification test provides support for excluding the instruments from the second-stage equation, and we ultimately find that sexual activity is not endogenous under the current sample and framework. Regarding the estimations, the regression outcomes suggest that wages are positively affected by sexual activity, at the 1% significance level. For both sexes, in Panel I, we observe that a one standard deviation increase in sexual activity increases hourly wages by 3.2%, other things being equal. For men (women), in Panel II (III), we observe that a one standard deviation increase in sexual activity increases hourly wages by 3.8% (3.0%), other things being equal. Similarly, the studies of Blanchflower and Oswald (2004) and Loureiro et al. (2009) suggest that sexual activity positively affects economic outcomes.

With respect to the other variables of interest, the results in the wage regression stage are as expected. Age and marital status both have positive and statistically significant effects on wages. Men receive statistically significant higher wages than women. Additionally, heterosexual employees receive statistically significant higher wages than homosexuals. Health impaired people face statistically significant lower wages. The same holds for immigrants. Work experience has a positive and statistically significant correlation with wages, and those employees with a university or technical school diploma also receive statistically significant higher wages. Concerning the occupational covariates, those in white-collar jobs receive statistically significant higher wages, and the effect on wages of having a public sector job is also positive and statistically significant. Finally, regarding personality traits, if individuals are characterised by extraversion face statistically significant higher wages. Moreover, the ranking of the parameter coefficients is also interesting. Using Wald tests we can observe that wages are highly positively affected by years of work experience and by higher education, followed by employee age and marital status. Occupations and sectors are of crucial importance. Sexual activity has the lowest positive impact on wage determination, but it is still a statistically significant variable. The importance of the sexual activity variable can also be assessed by the fact that if we regress a single wage equation without the sexual activity variable, the R^2 is 0.821, while if we consider the sexual activity variable (as in Table 5), the R^2 is 0.842. In other words, the wage estimation becomes more precise if we consider the sexual activity variable.

[Table 5]

In Table 6, we perform additional regressions using sexual activity's interaction effects (see, Braumoeller, 2004; Brambor et al., 2006). The returns to sexual activity are

[17]

higher for those between 26 and 50 years of age. To be specific, for both sexes (Panel I) we observe that a one standard deviation increase in sexual activity increases hourly wages by 5.4%, other things being equal. This is the only age range where the interaction effects' coefficients are statistically significant at the 10% level. This pattern holds for both genders. In addition, heterosexuals' sexual activity does not seem to provide higher or lower wage returns than that of homosexuals. Moreover, wages are higher for those health-impaired employees who are sexually active. Furthermore, wages are higher for those with extraversion and openness traits who are sexually active. Finally, the wage returns to sexual activity are not affected by whether individuals have a university or technical school degree, are white-collar employees or work in public sector jobs.

[Table 6]

In Table 7, we examine the returns to sexual activity based on the frequency of sexual activity. We employ six dummy variables to capture the impact on wages of no sex, sex once or twice a year, sex once a month, sex two to three times a month, sex two to three times a week and sex more than four times a week. The reference category is sex weekly. In general, there is a monotonic relationship between the frequency of sexual activity and wage returns. Those having sex once a month have positive and statistically significant wage returns at the 5% level. While those engaging in sexual activity two to three times a month or more have positive and statistically significant returns to wages at the 1% level. The coefficient is higher for those having sex more than four times a week. That is, in Panel I, for both sexes we observe that an increase from sex weekly (reference reference) to sexual activity more than four times a week increases wages by 3.2%. In addition, Table 7 shows that men having no sex receive

lower wages by 1.0%. Furthermore, married men having no sex receive lower wages by 1.3%. Both results are statistically significant.

[Table 7]

4.c Falsification tests

The estimates discussed above are informative only if the instruments are appropriately excluded from the wage equation. In order to further explore the validity of the instruments, we conduct a series of falsification tests. To be specific, we examine the estimated relationship between sexual activity and three outcomes that are positively and statistically significant correlated with wages[3] but should be immune from any direct influence of sexual activity. These outcomes are as follows: (1) Living in the capital city (Athens) (2) Working over-time, (3) Working part-time. If estimates indicate that sexual activity is related to one or all of these outcomes, this would be evidence that the instruments are correlated with the unmeasured determinants of wages. Table 8 presents the results of these tests. In no case do we find evidence that sexual activity is related to the outcome in question. This pattern of results adds to our confidence that the instruments are valid and support a causal interpretation of the two-stage result in Tables 5, 6 and 7.

[Table 8]

4.d Wage Decompositions

In addition, we are interested in examining the role that sexual activity plays with respect to wage gaps between demographic groups. In Table 9, we present the

---

[3] Tables are available on request. See also the sub-correlation matrix (Appendix B).

results of five wage decompositions: men-women, natives-immigrants, heterosexual men-gay men, heterosexual women-lesbian women, healthy employees – disabled employees. As in Yun (2007), we calculate Equation's 3 post-estimations. In Panel I, we present the raw differences. In Panel II, we present the explained differential, and in Panel III, we present the unexplained differential. In Panel IV, we present the residuals effects and in Panel V we present the per cent-wise contribution of sexual activity to the explained wage gap. There are significant wage differences between the majority and minority groups in all cases that cannot be explained by the exogenous variables, and residuals effects. However, in all cases, sexual activity plays a statistically insignificant role in determining the wage gap between the majority and minority groups.

[Table 9]

4.e Sample selection issues

Finally, *Equation 3*, is observed only for those who are employed. Concerns about sample selection biases might be raised. Failing to apply selection correction methods may result in inconsistent estimation. However, given the debate in the econometric literature over the value of sample selection modelling only in this stage do we offer estimates considering selection and endogeneity. As we observe in Table 10, either way, with or without Inverse Mills Ration (IMR), the results from the wage equation do not change qualitatively. Methodologically, as in Jäckle and Himmler (2010) and Semykina and Wooldridge (2010) we can calculate the IMR estimating a probit model for the employment participation individuals[4]. Semykina and Wooldridge (2010) enhance Wooldridge's (1995) estimator and demonstrate how to test and control

---

[4] Tables are available on request.

for sample selection in a model with endogeneity. The exclusion restrictions we propose are: (1) Non labour income, (2) Dummies for the highest educational attainment of the respondent's mother and father. Specification approaches and over-identification tests as in Tables 2, 3, 4 and 5 accept the null hypothesis of no correlation between the instruments and the error of the wage equation[5]. Indeed, while it is plausible to assume that non labour income, and parents' education is associated to a respondent's employment probability it is not likely that it will affect the respondent's wage itself. However, it should be kept in mind that the effects we measure in our sample of employed individuals cannot be fully generalized to the total population without reservation.

[Table 10]

5. Conclusive remarks

The purpose of the analysis was to examine whether sexual activity is associated with wages. The estimations suggested that there is a monotonic relationship between the frequency of sexual activity and wage returns. Those employees having sex more than four times a week receive statistically significant highest wages. Moreover, the outcomes suggested that wage returns to sexual activity are statistically significant higher for those between 26 and 50 years of age. In addition, heterosexuals' sexual activity does not seem to provide higher or lower wage returns than that of homosexuals. Whilst, wages are higher for those health-impaired employees who are sexually active. Conversely, wage returns to sexual activity are not affected by higher education status, occupation or sector of employment.

---

[5] Tables are available on request.

[21]

In this study, we hypothesised that because the medical and psychological literature suggest that sexual activity is associated with good health, endurance, mental well-being, mental capacities and dietary habits, it could be perceived as a health indicator, which might influence returns to labour market activity. The rationale was that the economics literature suggests that physical and mental health, as well as personality characteristics, are important factors that affect wages. The patterns found in this study strengthen this reasoning. Indeed, based on the Maslow's (1954) Need Hierarchy Theory individuals are born with a set of needs. There are five needs: physiological, safety, belongingness, esteem and self-actualization. Maslow (1954) theorised that basic needs such as food, water, and sexual activity must be met before any other motivations occur. If basic needs are not satisfied, human beings cannot function. That is, other successively influential needs for esteem and self-actualisation follow with increasing levels of motivations after basic needs are met. Maslow's (1954) Need Hierarchy Theory claims that the happier and more fulfilled individuals are in their lives, the more productive and successful they will be in their work, translating to higher wages. The theory concludes that people need to love and be loved (sexually and non-sexually) by others. In the absence of these elements, many people become susceptible to loneliness, social anxiety, and depression that affect their working life. As we discussed, sexual activity is a key aspect of personal health and social welfare that influences individuals across their life span. In terms of policy implications, access to effective, broadly-based sexual health education could be an important contributing factor to the health and well-being of people.

The current study advances the literature. Although, few studies suggest that the frequency sexual activity is positively related to wages it is unclear whether this

correlation represents a causal relationship or can be explained by unmeasured heterogeneity. Using two stage estimations the outcomes suggest that there is a positive relation between sexual activity and wages. Importantly, instrumental variables estimates are robust across instrument choice, a range of robustness checks, and a number of falsification tests. Whilst, selection issues are also considered. However, since the current findings are strictly applicable only to the time, place, individual characteristics from which the sample was drawn, we should highlight that the reported results are simply an indication of the relationship between sexual activity and wages but are by no means the final word.

To conclude this study, sexual activity may be of interest to economists, and it may serve as a framework for integrating the existing evidence, as well as for structuring future research efforts. Indeed, contemporary social analysis suggests that health, cognitive and non-cognitive skills and personality are important factors that affect wage level, life and job satisfaction, cognitive functioning and reasoning ability. Sexual activity may also be of interest to social scientists, since sexual activity is considered to be a barometer for health, quality of life, well-being and happiness. Social scientists can take advantage of this parameter in order to shed light on individuals' needs.

References

Acemoglu, D. Angrist, J. D. (2001). Consequence of Employment Protection? The Case of Americans with Disabilities Act. *Journal of Political Economy* 19(5): 915–950.

Baldwin, L. M. and Johnson, W. G. (2000). Labour Market Discrimination Against Men with Disabilities in the Year of the ADA. Southern Economic Journal, 66(3): 548-566.

Bancroft, J. (2009). Human Sexuality and its Problems. Edinburgh: Elsevier.

Becker, G. S. (1975). *Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education.* New York: Columbia University Press.

Billy, J. O. G. (1994). Contextual Effects on the Sexual Behavior of Adolescent Women. *Journal of Marriage and Family*, 56(2): 387-404.

Blanchflower, D. G. and Oswald, A. J. (2004). Money, Sex and Happiness: An Empirical Study. *Scandinavian Journal of Economics*, 106(3): 393-414.

Blinn-Pike, L. (1999). Why Abstinent Adolescents Report They Have Not Had Sex: Understanding Sexually Resilient Youth. *Family Relations*, 48(3): 295-301.

Bodenmann, G. and Ledermann, T. (2007). Depressed Mood and Sexual Functioning. International Journal of Sexual Health, 19(4): 63-74.

Brambor, T. Clark, W. R. and Golder, M. (2006). Understanding Interaction Models: Improving Empirical Analyses. Political Analysis, 14(1): 63-82.

Braumoeller, B. (2004). Hypothesis Testing and Multiplicative Interaction Terms. International Organization, 58(4): 807-820.

Brody, S. (2010). The Relative Health Benefits of Different Sexual Activities. *The Journal of Sexual Medicine*, 7(4): 1336-1361.

Cameron, A. C. and Pravin K. T. (2005). *Microeconometrics: Methods and Applications*. Cambridge University Press, Cambridge.

Campolieti, M. (2002). Disability and the Labour Force Participation of Older Men in Canada. *Labour Economics*, 9(3): 405–433.

Carpenter, C. S. (2005). Self-Reported Sexual Orientation and Earnings: Evidence from California. *Industrial and Labour Relations Review*, 58(2): 258-273.

Carvalho, J. and Nobre, P. (2011). Predictors of Men's Sexual Desire: The Role of Psychological, Cognitive-Emotional, Relational, and Medical Factors. Journal of Sex Research, 48(2-3): 254-262.

Cawley, J. Heckman, J. and Vytlacil, E. (2001). Three Observations on Wages and Measured Cognitive Ability. *Labour Economics*, 8(4): 419-442.

Cawley, J. (2004). The Impact of Obesity on Wages. *Journal of Human Resources*, 39(2): 451-474.

Costa, R. M. and Brody, S. (2007). Women's Relationship Quality is Associated with Specifically Penile-Vaginal Intercourse Orgasm and Frequency. Journal of Sex and Marital Therapy, 33(4): 319-327.

Davidson, R. and MacKinnon, G. J. (2004). *Econometric Theory and Methods*. Oxford University Press, Oxford.

Digman, J. M. (1990). Personality Structure: Emergence of the Five-Factor Model. Annual Review of Psychology, 41: 417-40.

Ellison, C. R. (2000). *Women's Sexualities*. Oakland: New Harbinger Publications, Inc.

Gribble, J. N. Miller, G. H. Rogers, S. H. and Turner, F. C. (1999). Interview Mode and Measurement of Sexual Behaviors: Methodological Issues. *Journal of Sex Research*, 36(1): 16-24.

Han, E. Norton, E. C. and Stearns, S. C. (2009). Weight and Wages: Fat Versus Lean Paychecks. *Health Economics*, 18(5): 535-548.

Hansen, L.P. (1982). Large Sample Properties of Generalized Method of Moments Estimators. *Econometrica*, 50(4): 1029-1054.

Heineck, G. and Anger, S. (2010). The Returns to Cognitive Abilities and Personality Traits in Germany. *Labour Economics*, 17(3): 535-546.

Heineck, S. and Anger, G. (2010). The Returns to Cognitive Abilities and Personality Traits in Germany. *Labour Economics*, 17(3): 535-546.

Hooghe, M. (2011). Is Sexual Well-Being Part of Subjective Well-Being? An Empirical Analysis of Belgian (Flemish) Survey Data Using an Extended Well-Being Scale. *Journal of Sex Research*, DOI: 10.1080/00224499.2010.551791.

Jäckle, R. and Himmler, O. (2010). Health and Wage: Panel Data Estimates Considering Selection and Endogeneity. *Journal of Human Resources*, 45(2): 364-406.

Jones, K. M. Latreille, P. L. Sloane, P. J. (2006). Disability, Gender, and the British Labour Market. *Oxford Economic Papers*, 58(3): 407–449.

Lindau, S. T. Schumm, P. Laumann, E. O. Levinson, W. O'Muircheartaigh, C. Waite, L. (2007). A Study of Sexuality and Health Among Older Adults in the US. *New England Journal of Medicine*, 357(8): 762-774.

Lindau, S. T. and Gavrilova, N. (2010). Sex, Health, and Years of Sexually Active Life Gained Due to Good Health: Evidence from Two US Population Based Cross Sectional Surveys of Ageing. *British Medical Journal*, 340:c810.

Loureiro, P. R. A. Orrillo, J. de Mendonca, M. J. C. and Moreira, T. B. S. (2009). Impact of Sexual Activity on Wage: An Empirical Investigation. *Economia e Desenvolvimento*, Recife (PE), 8(2): 239-251.

Lykins, A. M. Janssen, E. Graham, A. C. (2006). The Relationship Between Negative Mood and Sexuality In Heterosexual College Women and Men. *The Journal of Sex Research*, 43(2): 136-143.

Maslow, A. (1954). *Motivation and Personality*. New York: Harper and Row New York.

McCrae, R. R. and John, O. P. (1992). An Introduction to the Five-Factor Model and its Applications. Journal of Personality, 60(2): 175-215.

Michael, R. T. Gagnon, J. H. Laumann, E. O. and Kolata, G. (1994). *Sex in America: A Definitive Survey*. Little, Brown, Boston, MA.

Mincer, J. (1958). Investment in Human Capital and Personal Income Distribution. *Journal of Political Economy,* 66(4): 281–302.

Mueller, G. and Plug, E. J. S. (2006). Estimating the Effect of Personality on Male and Female Earnings. *Industrial and Labor Relations Review*, 60(1): 3-22.

Norton, E. C. and Han, E. (2008). Genetic Information, Obesity, and Labor Market Outcomes. *Health Economics*, 17(9): 1089–1104.

Onder, G. Penninx, B. Guralnik, J. M. Jones , H. Fried, L. P. Pahor, M. Williamson, J. D. (2003). Sexual Satisfaction and Risk of Disability in Older Women. *Journal of Clinical Psychiatry*, 64(10): 1177-1182.

Palmore, E. (1982). Predictors of the Longevity Difference: A Twenty-Five Year Follow-Up. The Gerontologist, 22(6): 513-518.

Paunonen, S. V. and Ashton, M. C. (2001). Big Five Factors and Facets and the Prediction of Behavior. Journal of Personality and Social Psychology, 81(3): 524-539.

Planned Parenthood Federation of America. (2003). The Health Benefits of Sexual Expression. New York.

Rostosky, S. S. Regnerus, M. D. and Wright, M. L. C. (2003). Coital Debut: The Role of Religiosity and Sex Attitudes in the Add Health Survey. *Journal of Sex Research*, 40(4): 358-367

Sabia, J. J. and Rees, D. I. (2008). The Effect of Adolescent Virginity Status on Psychological Well-Being. *Journal of Health Economics*, 27(5): 1368-1381.

Sargan, J.D. (1958). The Estimation of Economic Relationships Using Instrumental Variables. *Econometrica*, 26(3): 393-415.

Semykina, A. and Wooldridge, J. M. (2010). Estimating Panel Data Models in the Presence of Endogeneity and Selection. Journal of Econometrics, 157(2): 375-380.

Vrangalova, Z. and Savin-Williams, R. C. (2011). Adolescent Sexuality and Positive Well-Being: A Group-Norms Approach. Journal of Youth and Adolescence, 40(8):931-944.

Wade, L. D. (2002). Relationship Dissolution as a Life Stage Transition: Effects on Sexual Attitudes and Behaviors. Journal of Marriage and Family, 64(4): 898-914.

Witting, K. Santtila, P. Varjonen, M. Jern, P. Johansson, A. and Von Der Pahlen, B. Kenneth Sandnabba, K. (2008). Couples' Sexual Dysfunctions: Female Sexual Dysfunction, Sexual Distress, and Compatibility with Partner. *The Journal of Sexual Medicine*, 5(11): 2587-2599.

Wooldridge, J. M. (1995). Selection Correction for Panel Data Models under Conditional Mean Independence Assumption. Journal of Econometrics, 68(1): 115132.

Wooldridge, J. M. (2006). *Introductory Econometrics: a Modern Approach*. Florence, Thomson, South-Western.

Yun, M.-S. (2007). An Extension of the Oaxaca Decomposition Using Generalized Residuals. *Journal of Economic and Social Measurement*, 32(1), 15-22.

Table 1. Descriptive Statistics

Variable name	Panel I		Panel II		Panel III	
	Total sample Men and Women	Standard deviation	Men	Standard deviation	Women	Standard Deviation
Observations	6,317	-	2,997	-	3,320	-
Sexual activity	3.98	1.11	4.07	1.11	3.89	1.11
Hourly wages (€)	7.97	3.49	8.20	3.95	7.76	2.98
Age	34.33	11.58	33.32	11.55	35.29	11.54
Men	47.44%	0.49	-	-	-	-
Homosexuality	5.57%	0.29	5.89%	0.29	5.26%	0.29
Married	58.33%	0.49	52.15%	0.49	64.21%	0.47
Migrants	15.41%	0.30	12.55%	0.31	18.12%	0.36
Employed	78.10%	0.41	80.24%	0.39	74.17%	0.42
Labour force participants	93.16%	0.25	97.26%	0.16	89.45%	0.30
Actual working experience	13.22	10.54	12.84%	10.74	13.58	10.33
White collar jobs	39.12%	0.48	36.83%	0.48	42.05%	0.49
Public jobs	52.17%	0.49	37.75%	0.48	66.66%	0.47
University or technical school degree	47.90%	0.49	49.85%	0.50	49.22%	0.50
Disability status	7.72%	0.26	7.72%	0.26	7.09%	0.30
Daily medication	29.13%	0.15	27.22%	0.15	33.12%	0.16
Diabetes	15.76%	0.11	15.16%	0.12	17.28%	0.11
Heart diseases	6.11%	0.25	6.05%	0.23	5.38%	0.25
Arthritis	2.32%	0.15	2.28%	0.14	3.18%	0.18
Cancer	0.48%	0.08	0.41%	0.06	0.62%	0.06
Believe in God	85.12%	0.73	82.66%	0.72	87.33%	0.76
Religious services attendance	23.43%	0.30	21.44%	0.31	25.13%	0.21
Extraversion	4.27	1.08	4.36	1.08	4.14	1.07
Agreeableness	5.18	1.08	5.10	0.99	5.23	1.04
Conscientiousness	5.21	1.00	5.21	1.54	5.60	1.64
Emotional stability	5.12	0.96	5.11	0.95	5.44	1.00
Openness	4.12	0.94	4.39	1.07	4.07	1.03
Non-labour income (monthly) (€)	234.46	28.46	237.83	36.30	242.48	20.23
Mother university or technical school degree	16.70%	0.25	17.36%	0.29	16.40%	0.28
Father university or technical school degree	20.58%	0.31	20.49%	0.35	21.04%	0.25

Notes: Data set; 2008 Greek Behavioural Study

2. Sexual activity regression results (first stage)

	Panel I	Panel II	Panel III
	Total Sample Men and Women	Men	Women
Age	0.029 (0.020)	0.031 (0.021)	0.029 (0.020)
18-25 years of age	0.021 (0.013)	0.025 (0.014)	0.020 (0.014)
26-50 years of age	0.026 (0.012)***	0.034 (0.009)***	0.026 (0.010)***
52-65 years of age	0.017 (0.015)	0.015 (0.011)	0.009 (0.019)
Men	0.116 (0.068)**	-	-
Homosexuality	0.037 (0.020)	0.039 (0.021)	0.030 (0.024)
Married	0.204 (0.041)***	0.216 (0.039)***	0.206 (0.050)***
Migrants	-0.052 (0.030)**	-0.064 (0.038)**	-0.024 (0.015)*
Disability status	-0.130 (0.045)***	-0.127 (0.036)***	-0.174 (0.044)***
Daily medication	-0.054 (0.008)***	-0.052 (0.012)***	-0.064 (0.007)***
Diabetes	-0.024 (0.011)***	-0.021 (0.010)***	-0.031 (0.010)***
Heart diseases	-0.114 (0.025)***	-0.104 (0.033)***	-0.168 (0.041)***
Arthritis	-0.039 (0.013)***	-0.034 (0.014)***	-0.042 (0.012)***
Cancer	-0.149 (0.021)***	-0.120 (0.019)***	-0.188 (0.018)***
Psychiatric / psychological symptoms	-0.037 (0.013)***	-0.039 (0.010)***	-0.037 (0.010)***
University or technical school degree	0.043 (0.037)	0.045 (0.030)	0.040 (0.038)
Actual working experience	0.025 (0.018)	0.029 (0.019)	0.029 (0.021)
White collar	0.031 (0.027)	0.035 (0.027)	0.033 (0.027)
Public jobs	0.028 (0.020)	0.026 (0.021)	0.028 (0.020)
God belief	-0.086 (0.027)***	-0.072 (0.030)***	-0.091 (0.036)***
Religious service attendance	-0.042 (0.019)***	-0.040 (0.016)***	-0.051 (0.008)***
Extraversion	0.010 (0.003)***	0.012 (0.005)***	0.009 (0.004)***
Agreeableness	0.005 (0.010)	0.007 (0.006)	0.010 (0.010)
Conscientiously	0.008 (0.010)	0.005 (0.004)	0.011 (0.009)
Emotional stability	0.012 (0.009)	0.010 (0.008)	0.013 (0.010)
Openness	0.004 (0.006)	0.005 (0.005)	0.013 (0.011)
F-statistic on joint significance of instrument	12.011 (1.203)***	9.101 (1.921)***	13.992 (1.661)***
R^2	0.734	0.716	0.720
Observations	6,317	2,997	3,320

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level.*

Table 3. Robustness checks

| | Wages | | |
	Panel I	Panel II	Panel III
	Total Sample Men and Women	Men	Women
Age	0.304 (0.058)***	0.316 (0.044)***	0.300 (0.051)***
Age^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
Men	0.078 (0.021)***	-	-
Homosexuality	-0.087 (0.030)***	-0.085 (0.035)***	-0.092 (0.041)***
Married	0.106 (0.040)***	0.105 (0.041)***	0.100 (0.042)***
Migrants	-0.117 (0.022)***	-0.110 (0.024)***	-0.186 (0.025)***
Disability status	-0.183 (0.050)***	-0.163 (0.053)***	-0.203 (0.068)***
Daily medication	-0.090 (0.037)***	-0.084 (0.045)**	-0.125 (0.054)***
Diabetes	-0.094 (0.047)*	-0.093 (0.047)*	-0.116 (0.061)*
Heart diseases	-0.087 (0.045)**	-0.078 (0.040)*	-0.120 (0.064)**
Arthritis	-0.043 (0.025)*	-0.040 (0.022)*	-0.044 (0.025)*
Cancer	-0.097 (0.048)**	-0.095 (0.049)**	-0.096 (0.048)**
Psychiatric / psychological symptoms	-0.043 (0.022)*	-0.043 (0.024)*	-0.045 (0.024)**
University or technical school degree	0.350 (0.106)***	0.378 (0.086)***	0.345 (0.087)***
Actual working experience	0.364 (0.052)***	0.378 (0.086)***	0.345 (0.087)***
Actual working experience^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
White collar	0.218 (0.061)***	0.221 (0.064)***	0.215 (0.057)***
Public jobs	0.254 (0.103)***	0.268 (0.119)***	0.245 (0.107)***
Sexual activity	0.032 (0.015)***	0.039 (0.015)***	0.030 (0.012)***
God belief	0.024 (0.072)	0.024 (0.020)	0.023 (0.019)
Religious service attendance	0.020 (0.019)	0.021 (0.018)	0.020 (0.018)
Extraversion	0.012 (0.004)***	0.017 (0.005)***	0.009 (0.005)**
Agreeableness	0.010 (0.010)	0.010 (0.009)	0.012 (0.011)
Conscientiously	0.005 (0.009)	0.005 (0.010)	0.008 (0.008)
Emotional stability	0.010 (0.009)	0.010 (0.008)	0.009 (0.007)
Openness	0.007 (0.005)	0.008 (0.007)	0.010 (0.008)
F-statistic on joint significance of instrument	0.491 (0.346)	0.405 (0.316)	0.457 (0.433)
R^2	0.839	0.841	0.819
Observations	4,932	2,405	2,527

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level.*

Table 4. Robustness checks

	Belief in God			Religious services attendance		
	Panel I	Panel II	Panel III	Panel IV	Panel V	Panel IV
	Total Sample Men and Women	Men	Women	Total Sample Men and Women	Men	Women
Sexual activity	0.032 (0.029)	0.037 (0.029)	0.028 (0.026)	-0.007 (0.006)	0.010 (0.008)	-0.008 (0.006)
Age	0.463 (0.130)***	0.404 (0.104)***	0.512 (0.098)***	0.273 (0.047)***	0.252 (0.036)***	0.316 (0.057)***
Men	-0.147 (0.030)***	-	-	-0.155 (0.058)***	-	-
Homosexuality	0.004 (0.012)	-0.006 (0.009)	0.005 (0.005)	0.012 (0.012)	0.010 (0.008)	0.012 (0.009)
Married	0.069 (0.031)***	0.063 (0.028)***	0.094 (0.031)***	0.056 (0.040)	0.056 (0.032)	0.086 (0.058)
Migrants	0.064 (0.034)**	0.065 (0.015)**	0.112 (0.032)***	0.064 (0.037)**	0.065 (0.032)**	0.072 (0.025)***
Disability status	0.059 (0.023)***	0.062 (0.026)***	0.067 (0.028)***	0.032 (0.019)***	0.030 (0.013)***	0.037 (0.014)***
Daily medication	0.044 (0.010)***	0.045 (0.010)***	0.052 (0.011)***	0.024 (0.009)***	0.025 (0.011)***	0.020 (0.014)***
Diabetes	0.032 (0.014)***	0.031 (0.013)***	0.036 (0.013)***	0.012 (0.005)***	0.011 (0.005)***	0.014 (0.006)***
Heart diseases	0.064 (0.025)***	0.065 (0.024)***	0.067 (0.023)***	0.022 (0.008)***	0.023 (0.006)***	0.025 (0.008)***
Arthritis	0.030 (0.012)***	0.031 (0.015)***	0.030 (0.016)***	0.006 (0.003)***	0.006 (0.003)***	0.008 (0.002)***
Cancer	0.166 (0.036)***	0.159 (0.032)***	0.188 (0.035)***	0.147 (0.028)***	0.139 (0.031)***	0.156 (0.029)***
Psychiatric / psychological symptoms	0.064 (0.054)	0.061 (0.048)	0.067 (0.054)	0.013 (0.010)	0.010 (0.010)	0.014 (0.010)
University or technical school degree	0.006 (0.006)	0.006 (0.005)	0.004 (0.003)	0.009 (0.008)	0.007 (0.005)	0.006 (0.004)
Actual working experience	0.039 (0.027)	0.038 (0.030)	0.039 (0.031)	0.027 (0.021)	0.025 (0.024)	0.027 (0.022)
White collar	0.016 (0.010)	0.018 (0.013)	0.016 (0.013)	-0.005 (0.004)	-0.004 (0.004)	-0.005 (0.004)
Public jobs	-0.048 (0.043)	-0.043 (0.031)	-0.050 (0.042)	-0.036 (0.027)	-0.036 (0.031)	-0.039 (0.032)
Extraversion	0.027 (0.025)	0.018 (0.017)	0.019 (0.017)	0.006 (0.005)	0.003 (0.004)	0.013 (0.018)

Agreeableness	0.004	0.004	0.006	0.012	0.010	0.011
	(0.005)	(0.004)	(0.005)	(0.015)	(0.016)	(0.009)
Conscientiously	0.016	0.016	0.015	0.006	0.006	0.007
	(0.013)	(0.015)	(0.014)	(0.007)	(0.006)	(0.006)
Emotional stability	-0.016	-0.015	-0.016	-0.014	-0.012	-0.015
	(0.014)	(0.013)	(0.015)	(0.015)	(0.008)	(0.010)
Openness	0.018	0.021	0.018	0.013	0.010	0.014
	(0.015)	(0.019)	(0.016)	(0.010)	(0.009)	(0.010)
R^2	0.655	0.663	0.689	0.705	0.645	0.759
Observations	6,317	2,997	3,320	6,317	2,997	3,320

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level.*
*** Significant at the 5% level. *** Significant at the 1% level.*

Table 5. Wage regression (second stage)

	Panel I	Panel II	Panel III
	Total Sample Men and Women	Men	Women
Sexual activity	0.032 (0.013)***	0.038 (0.014)***	0.030 (0.011)***
Age	0.300 (0.058)***	0.310 (0.044)***	0.300 (0.051)***
Age^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
Men	0.078 (0.021)***	-	-
Homosexuality	-0.087 (0.030)***	-0.085 (0.035)***	-0.092 (0.041)***
Married	0.106 (0.040)***	0.105 (0.040)***	0.100 (0.040)***
Migrants	-0.117 (0.022)***	-0.110 (0.024)***	-0.186 (0.025)***
Disability status	-0.183 (0.050)***	-0.160 (0.053)***	-0.203 (0.065)***
Daily medication	-0.090 (0.037)***	-0.084 (0.045)**	-0.125 (0.054)***
Diabetes	-0.094 (0.047)*	-0.090 (0.047)*	-0.116 (0.061)*
Heart diseases	-0.087 (0.045)**	-0.078 (0.040)*	-0.120 (0.064)**
Arthritis	-0.043 (0.025)*	-0.040 (0.022)*	-0.044 (0.025)*
Cancer	-0.097 (0.048)**	-0.095 (0.049)**	-0.096 (0.048)**
Psychiatric / psychological symptoms	-0.043 (0.022)*	-0.043 (0.024)*	-0.045 (0.024)**
University or technical school degree	0.350 (0.100)***	0.378 (0.086)***	0.345 (0.087)***
Actual working experience	0.364 (0.050)***	0.378 (0.086)***	0.343 (0.087)***
Actual working experience^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
White collar	0.218 (0.061)***	0.221 (0.062)***	0.215 (0.057)***
Public jobs	0.254 (0.103)***	0.268 (0.119)***	0.245 (0.105)***
Extraversion	0.012 (0.004)***	0.018 (0.006)***	0.009 (0.005)**
Agreeableness	0.010 (0.010)	0.012 (0.009)	0.013 (0.008)
Conscientiously	0.005 (0.010)	0.005 (0.009)	0.008 (0.007)
Emotional stability	0.010 (0.009)	0.010 (0.009)	0.009 (0.007)
Openness	0.007 (0.006)	0.008 (0.007)	0.010 (0.008)
Sargan-Hansen over-identification test	0.362 (0.260)	0.219 (0.195)	0.424 (0.306)
F-statistic on instrument	0.486 (0.340)	0.404 (0.315)	0.447 (0.430)
R^2	0.842	0.847	0.829
δ coefficient	0.016 (0.013)	0.022 (0.017)	0.015 (0.013)
Observations	4,932	2,405	2,527

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level.*

Table 6. Wage regression (second stage)

	Panel I Total Sample Men and Women	Panel II Men	Panel III Women
Sexual activity	0.032 (0.013)***	0.038 (0.014)***	0.030 (0.011)***
- 18-25 years of age	0.217 (0.045)***	0.225 (0.043)*	0.118 (0.035)*
-18-25 years of age x Sexual activity	0.039 (0.025)	0.042 (0.036)	0.039 (0.026)
-26-50 years of age	0.324 (0.036)***	0.331 (0.016)***	0.321 (0.098)***
-26-50 years of age x Sexual activity	0.054 (0.029)*	0.054 (0.028)*	0.049 (0.026)*
-52-65 years of age	0.337 (0.109)***	0.340 (0.097)***	0.330 (0.105)***
-52-65 years of age x Sexual activity	0.028 (0.020)	0.028 (0.019)	0.029 (0.024)
Men	0.078 (0.021)***	-	-
Homosexuality	-0.087 (0.030)***	-0.085 (0.035)***	-0.092 (0.041)***
Homosexuality x Sexual activity	0.007 (0.006)	0.009 (0.010)	0.011 (0.008)
Married	0.106 (0.040)***	0.105 (0.040)***	0.100 (0.040)***
Married x Sexual activity	0.076 (0.018)*	0.079 (0.023)*	0.074 (0.029)*
Migrants	-0.117 (0.022)***	-0.110 (0.024)***	-0.186 (0.025)***
Migrants x Sexual activity	0.016 (0.010)	0.010 (0.009)	0.018 (0.010)
Disability status	-0.183 (0.050)***	-0.163 (0.053)***	-0.203 (0.068)***
Disability status x Sexual activity	0.012 (0.007)**	0.014 (0.008)**	0.018 (0.010)*
Daily medication	-0.090 (0.037)***	-0.084 (0.045)**	-0.125 (0.054)***
Daily medication x Sexual activity	0.010 (0.006)**	0.011 (0.006)**	0.013 (0.007)**
Diabetes	-0.094 (0.047)*	-0.090 (0.047)*	-0.116 (0.061)*
Diabetes x Sexual activity	0.015 (0.008)*	0.015 (0.003)	0.013 (0.007)*
Heart diseases	-0.087 (0.045)**	-0.078 (0.040)*	-0.120 (0.064)**
Heart diseases x Sexual activity	0.013 (0.006)**	0.012 (0.007)**	0.013 (0.007)**
Arthritis	-0.043 (0.025)*	-0.040 (0.022)*	-0.044 (0.025)*
Arthritis x Sexual activity	0.013 (0.008)*	0.012 (0.007)**	0.012 (0.010)
Cancer	-0.097 (0.048)**	-0.095 (0.049)**	-0.096 (0.048)**
Cancer x Sexual activity	0.010 (0.006)*	0.014 (0.008)**	0.015 (0.008)*
Psychiatric / psychological symptoms	-0.043 (0.022)*	-0.043 (0.024)*	-0.045 (0.024)**
Psychiatric / psychological symptoms x Sexual activity	0.005 (0.004)	0.006 (0.006)	0.005 (0.005)
University or technical school degree	0.350 (0.100)***	0.378 (0.086)***	0.345 (0.087)***
University or technical school degree x Sexual activity	0.107 (0.097)	0.098 (0.065)	0.119 (0.097)
Actual working experience	0.364 (0.050)***	0.378 (0.086)***	0.343 (0.087)***
Actual working experience x Sexual activity	0.053 (0.017)***	0.065 (0.017)***	0.050 (0.027)**
Actual working experience^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
White collar	0.218 (0.061)***	0.221 (0.062)***	0.215 (0.057)***
White collar x Sexual activity	0.016 (0.015)	0.026 (0.020)	0.014 (0.010)
Public jobs	0.254 (0.103)***	0.268 (0.119)***	0.245 (0.105)***
Public jobs x Sexual activity	0.015 (0.014)	0.016 (0.014)	0.014 (0.010)
Extraversion	0.012 (0.004)***	0.018 (0.006)***	0.009 (0.005)**
Extraversion x Sexual activity	0.020 (0.005)***	0.021 (0.010)***	0.020 (0.010)***
Agreeableness	0.010 (0.010)	0.012 (0.009)	0.013 (0.008)

Agreeableness x Sexual activity	0.013 (0.012)	0.009 (0.009)	0.013 (0.011)
Conscientiously	0.005 (0.010)	0.005 (0.009)	0.008 (0.007)
Conscientiously x Sexual activity	0.010 (0.011)	0.007 (0.006)	0.011 (0.009)
Emotional stability	0.010 (0.009)	0.010 (0.009)	0.009 (0.007)
Emotional stability x Sexual activity	0.010 (0.010)	0.006 (0.008)	0.012 (0.011)
Openness	0.007 (0.006)	0.008 (0.007)	0.010 (0.008)
Openness x Sexual activity	0.015 (0.008)*	0.017 (0.005)***	0.015 (0.009)*
Sargan-Hansen over-identification test	0.362 (0.260)	0.219 (0.195)	0.424 (0.306)
F-statistic on instrument	0.486 (0.340)	0.404 (0.315)	0.447 (0.430)
R^2	0.842	0.847	0.829
δ coefficient	0.016 (0.013)	0.022 (0.017)	0.015 (0.013)
Observations	4,932	2,405	2,527

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level.*
*** Significant at the 5% level. *** Significant at the 1% level.*

Table 7. Wage regression (second stage)

	Panel I Total Sample Men and Women	Panel II Men	Panel III Women
- No sexual activity	-0.032 (0.013)***	-0.038 (0.014)***	-0.030 (0.011)***
- Sexual activity: once or twice a year	-0.016 (0.006)***	-0.042 (0.020)***	-0.007 (0.004)*
- Sexual activity: once a month	0.040 (0.020)***	0.045 (0.015)***	0.036 (0.015)***
- Sexual activity: two to three times a month	0.043 (0.020)***	0.049 (0.021)***	0.040 (0.012)***
- Sexual activity: two to three times a week	0.045 (0.018)***	0.045 (0.020)***	0.042 (0.020)***
- Sexual activity: more than four times a week	0.047 (0.020)***	0.047 (0.021)***	0.044 (0.014)***
Age	0.300 (0.058)***	0.310 (0.044)***	0.300 (0.051)***
Age x No sex	-0.019 (0.013)	-0.018 (0.012)	-0.019 (0.014)
Age^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
Men	0.078 (0.021)***	-	-
Men x No sex	-0.010 (0.003)*		
Homosexuality	-0.087 (0.030)***	-0.085 (0.035)***	-0.092 (0.041)***
Homosexuality x No sex	-0.014 (0.012)	-0.014 (0.020)	-0.011 (0.015)
Married	0.106 (0.040)***	0.105 (0.040)***	0.100 (0.040)***
Married x No sex	-0.012 (0.010)	-0.013 (0.007)**	-0.012 (0.011)
Migrants	-0.117 (0.022)***	-0.110 (0.024)***	-0.186 (0.025)***
Migrants x No sex	-0.011 (0.010)	-0.013 (0.016)	-0.009 (0.011)
Disability status	-0.183 (0.050)***	-0.163 (0.053)***	-0.203 (0.068)***
Disability status x No sex	-0.012 (0.012)	-0.015 (0.017)	-0.009 (0.011)
Daily medication	-0.090 (0.037)***	-0.084 (0.045)**	-0.125 (0.054)***
Daily medication x No sex	-0.012 (0.012)	-0.012 (0.010)	-0.011 (0.010)
Diabetes	-0.094 (0.047)*	-0.090 (0.047)*	-0.116 (0.061)*
Diabetes x No sex	-0.009 (0.009)	-0.013 (0.011)	-0.014 (0.012)
Heart diseases	-0.087 (0.045)**	-0.078 (0.040)*	-0.120 (0.064)**
Heart diseases x No sex	-0.010 (0.007)	-0.010 (0.010)	-0.012 (0.010)
Arthritis	-0.043 (0.025)*	-0.040 (0.022)*	-0.044 (0.025)*
Arthritis x No sex	-0.010 (0.021)	-0.010 (0.018)	-0.011 (0.016)
Cancer	-0.097 (0.048)**	-0.095 (0.049)**	-0.096 (0.048)**
Cancer x No sex	-0.013 (0.010)	-0.013 (0.011)	-0.012 (0.011)
Psychiatric / psychological symptoms	-0.043 (0.022)*	-0.043 (0.024)*	-0.045 (0.024)**
Psychiatric / psychological symptoms x No sex	-0.015 (0.011)	-0.015 (0.010)	-0.014 (0.012)
University or technical school degree	0.350 (0.100)***	0.378 (0.086)***	0.345 (0.087)***
University or technical school degree x No sex	-0.027 (0.020)	-0.021 (0.030)	-0.028 (0.031)
Actual working experience	0.364 (0.050)***	0.378 (0.086)***	0.343 (0.087)***
Actual working experience x No sex	0.006 (0.010)	0.006 (0.006)	0.006 (0.007)
Actual working experience^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
White collar	0.218 (0.061)***	0.221 (0.062)***	0.215 (0.057)***
White collar x No sex	-0.054 (0.042)	-0.052 (0.039)	-0.041 (0.032)
Public	0.254 (0.103)***	0.268 (0.119)***	0.245 (0.105)***
Public jobs x No sex	-0.023 (0.018)	-0.027 (0.020)	-0.028 (0.023)
Extraversion	0.012 (0.004)***	0.018 (0.006)***	0.009 (0.005)**

Extraversion x No sex	0.010 (0.006)	0.016 (0.020)	0.013 (0.012)
Agreeableness	0.010 (0.010)	0.012 (0.009)	0.013 (0.008)
Agreeableness x No sex	0.008 (0.007)	0.005 (0.005)	0.007 (0.006)
Conscientiously	0.005 (0.010)	0.005 (0.009)	0.008 (0.007)
Conscientiously x No sex	0.012 (0.013)	0.010 (0.007)	0.013 (0.013)
Emotional stability	0.010 (0.009)	0.010 (0.009)	0.009 (0.007)
Emotional stability x No sex	0.012 (0.012)	0.004 (0.004)	0.005 (0.006)
Openness	0.007 (0.006)	0.008 (0.007)	0.010 (0.008)
Openness x No sex	0.005 (0.004)	0.010 (0.008)	0.012 (0.010)
Sargan-Hansen over-identification test	0.362 (0.260)	0.219 (0.195)	0.424 (0.306)
F-statistic on instrument	0.486 (0.340)	0.404 (0.315)	0.447 (0.430)
R^2	0.876	0.856	0.834
δ coefficient	0.016 (0.011)	0.022 (0.020)	0.013 (0.012)
Observations	4,932	2,405	2,527

Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level.
** Significant at the 5% level. *** Significant at the 1% level.

Table 8. Falsification tests

| | Capital city | | |
	Panel I	Panel II	Panel III
	Total Sample Men and Women	Men	Women
Sexual activity	0.054 (0.043)	0.049 (0.038)	0.053 (0.045)
F-statistic on instrument	0.645 (0.589)	0.656 (0.578)	0.656 (0.568)
Sargan-Hansen over-identification test	0.634 (0.647)	0.634 (0.534)	0.708 (0.643)
R^2	0.587	0.504	0.598
Observations	4,932	2,405	2,527

| | Working overtime | | |
	Panel IV	Panel V	Panel VI
	Total Sample Men and Women	Men	Women
Sexual activity	0.674	0.642	0.634
F-statistic on instrument	0.297 (0.309)	0.289 (0.214)	0.286 (0.256)
Sargan-Hansen over-identification test	0.567 (0.532)	0.584 (0.425)	0.545 (0.423)
R^2	0.569	0.597	0.587
Observations	4,932	2,405	2,527

| | Part-time work | | |
	Panel VI	Panel VII	Panel VIII
	Total Sample Men and Women	Men	Women
Sexual activity	0.325	0.326	0.320
F-statistic on instrument	0.646 (0.476)	0.643 (0.465)	0.654 (0.565)
Sargan-Hansen over-identification test	0.549 (0.548)	0.518 (0.567)	0.534 (0.567)
R^2	0.679	0.605	0.643
Observations	4,932	2,405	2,527

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level. All specifications include the full set of controls in Table 5.*

Table 9. Oaxaca-Blinder Decomposition outcomes per group

Groups	Panel I Raw Differential	Panel II Explained Differential	Panel III Unexplained Differential	Panel IV Residuals Effects	Panel V Explained Differential due to sexual activity
Men – Women	0.442 (0.038)***	0.919 (0.018)***	0.077 (0.006)***	0.003 (0.002)	0.043 (0.026)
Natives - Immigrants	0.703 (0.109)***	0.870 (0.024)***	0.118 (0.010)***	0.012 (0.010)	0.027 (0.021)
Heterosexual men - Gay men	0.624 (0.092)***	0.909 (0.038)***	0.084 (0.003)***	0.006 (0.007)	0.031 (0.028)
Heterosexual women – Lesbian women	0.639 (0.035)***	0.889 (0.025)***	0.093 (0.009)***	0.017 (0.094)	0.029 (0.025)
Healthy employees – Disabled employees	0.679 (0.008)***	0.840 (0.020)***	0.158 (0.016)***	0.010 (0.075)	0.011 (0.010)

Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *** Significant at the 1% level. All specifications include the full set of controls in Table 5.

Table 10. Wage regression

	Panel I	Panel II	Panel III
	Total Sample Men and Women	Men	Women
Sexual activity	0.032 (0.010)***	0.038 (0.015)***	0.030 (0.011)***
Age	0.300 (0.058)***	0.310 (0.038)***	0.300 (0.051)***
Age^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
Men	0.078 (0.021)***	-	-
Homosexuality	-0.087 (0.027)***	-0.085 (0.035)***	-0.092 (0.041)***
Married	0.106 (0.037)***	0.105 (0.040)***	0.100 (0.040)***
Migrants	-0.117 (0.022)***	-0.110 (0.023)***	-0.184 (0.025)***
Disability status	-0.183 (0.050)***	-0.160 (0.053)***	-0.203 (0.063)***
Daily medication	-0.090 (0.037)***	-0.084 (0.045)**	-0.125 (0.053)***
Diabetes	-0.093 (0.046)*	-0.090 (0.046)*	-0.116 (0.059)*
Heart diseases	-0.084 (0.045)**	-0.078 (0.040)*	-0.120 (0.063)**
Arthritis	-0.043 (0.025)*	-0.040 (0.022)*	-0.044 (0.025)*
Cancer	-0.097 (0.046)**	-0.095 (0.046)**	-0.096 (0.048)**
Psychiatric / psychological symptoms	-0.043 (0.020)*	-0.043 (0.024)*	-0.045 (0.024)**
University or technical school degree	0.350 (0.100)***	0.378 (0.086)***	0.345 (0.085)***
Actual working experience	0.365 (0.050)***	0.378 (0.086)***	0.343 (0.087)***
Actual working experience^2	-0.000 (0.000)***	-0.000 (0.000)***	-0.000 (0.000)***
White collar	0.218 (0.057)***	0.221 (0.062)***	0.210 (0.056)***
Extraversion	0.012 (0.004)***	0.017 (0.006)***	0.009 (0.005)**
Agreeableness	0.010 (0.009)	0.012 (0.009)	0.012 (0.008)
Conscientiously	0.005 (0.010)	0.005 (0.009)	0.007 (0.007)
Emotional stability	0.010 (0.009)	0.010 (0.009)	0.009 (0.007)
Openness	0.007 (0.006)	0.008 (0.007)	0.010 (0.008)
Sargan-Hansen over-identification test	0.360 (0.260)	0.219 (0.195)	0.424 (0.306)
F-statistic on instrument	0.486 (0.340)	0.402 (0.325)	0.447 (0.407)
R^2	0.839	0.853	0.835
Inverse Mills Ratio	1.360 (0.911)	1.253 (0.947)	1.354 (0.901)
δ coefficient	0.016 (0.013)	0.022 (0.017)	0.015 (0.012)
Observations	4,932	2,405	2,527

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. *Significant at the 10% level.*
** Significant at the 5% level. *** Significant at the 1% level.

Appendix A. Definitions of variables

Variable Name	Definition
SA	Sexual activity: 0: no; 1: once or twice a year; 2: once a month; 3: two to three times a month; 4: weekly; 5: two to three times a week; 6: more than four times a week
HW	Natural logarithm of hourly wages
AGE	Years of age
AGES	Years of age squared
GEN	1 if individual is male; 0 otherwise
HOMO	1 if individual is homosexual (gay man or lesbian woman); 0 otherwise
MARR	1 if individual is married; 0 otherwise
IMM	1 if individual is an immigrant; 0 otherwise
DS	1 if individual is limited in kind or amount of work, has a mobility limitation, or has a personal care limitation; 0 otherwise
DM	1 if the respondent takes daily medications; 0 otherwise
DIA	1 if the respondent has ever been told by a doctor's diagnosis that she/he had diabetes; 0 otherwise
HEA	1 if the respondent has ever been told by a doctor that she/he had a heart attack, coronary heart disease, angina, congestive heart failure, or other heart problems; 0 otherwise
ART	1 if the respondent has ever been told by a doctor that she/he had arthritis or rheumatism;
CAN	1 if the respondent has ever been told by a doctor that she/he had cancer; 0 otherwise
PSY	1 if the respondent has ever been told by a doctor that she/he had otherwise Psychiatric / psychological symptoms ; 0
UNIV	1 if individual has university or a technical school diploma; 0 otherwise
EMPL	1 if individual is employed; 0 otherwise
LAFOR	1 if individual is in the labour force (employed and unemployed); 0 otherwise
EXPER	Years of actual working experience
EXPERS	Years of actual working experience squared
WHITE	1 if individual's occupation is among managerial or professional specialties, or the individual works in a technical, sales, or administrative support position; 0 otherwise
PUBL	1 if individual is employed in the public sector; 0 if individual is employed in the private sector (PRIV; reference group)
G	Believe in God:1 if individual believes in God; 0 otherwise
RS	Attendance of religious services: 1 if individual attends religious services at least 2 times per month; 0 otherwise
EXT	1 if individual is characterised by extraversion (Big Five Personality Traits index); 0 otherwise
AGR	1 if individual is characterised by agreeableness (Big Five Personality Traits index); 0 otherwise
CON	1 if individual is characterised by conscientiousness (Big Five Personality Traits

	index); 0 otherwise
NEU	1 if individual is characterised by emotional stability (Big Five Personality Traits index); 0 otherwise
OPE	1 if individual is characterised by openness (Big Five Personality Traits index); 0 otherwise
WCS	1 if individual is working in the capital city; 0 otherwise
WOT	1 if individual is working over-time; 0 otherwise
WPT	1 if individual is working part-time; 0 otherwise
NINC	Natural logarithm of non-labour income (monthly)
MUNIV	1 if individual's mother has university or a technical school diploma; 0 otherwise
FUNIV	1 if individual's father has university or a technical school diploma; 0 otherwise

Appendix B. Sub-correlation matrix (31x2)

	1. Sexual activity	2. Wage (hourly)
1. Sexual activity	1.000	0.774***
2. Wage (hourly)	0.774***	1.000
3. Age	-0.769***	0.758***
4. Men	0.845***	0.865***
5. Homosexuality	0.535	-0.705
6. Married	0.864***	0.678***
7. Migrants	-0.648*	-0.856***
8. University or technical school degree	0.658	0.905***
9. Actual working experience	0.483	0.839***
10. White collar employee	0.574	0.749***
11. Public employee	0.648	0.739***
12. Disability status	-0.875***	-0.807***
13. Daily medication	-0.756***	-0.764***
14. Diabetes	-0.634*	-0.667**
15. Heart diseases	-0.865***	-0.590*
16. Arthritis	-0.658***	-0.560*
17. Cancer	-0.846***	-0.608***
18. Psychiatric / psychological symptoms	-0.637**	-0.635*
19. Believe in God	-0.878***	0.361
20. Religious services attendance	-0.846***	0.294
21. Extraversion	0.765**	0.687**
22. Agreeableness	0.456	0.536
23. Conscientiousness	0.665	0.434
24. Emotional stability	0.637	0.565
25. Openness	0.653	0.535
26. Working in the capital city	0.369	0.776**
27. Working over-time	0.456	0.845***
28. Working part-time	0.535	-0.765***
29. Non-labour income (monthly)	0.524	0.374
30. Mother's university or technical school degree	0.389	0.340
31. Father's university or technical school degree	0.305	0.418

*Notes: Data set; 2008 Greek Behavioural Study. Standard errors are in parenthesis. We use Spearman correlation coefficient to estimate correlations for both scales ordinal. We use Biserial correlation coefficient to estimate correlations between ordinal quantitative variables. We use Rank-Biserial correlation coefficient to estimate correlations between ordinal and nominal variables. *Significant at the 10% level. ** Significant at the 5% level. *** Significant at the 1% level.*