Moonlighting Behavior among Migrants: Determinants and Implications for Wellbeing in South Africa

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Abstract

Notwithstanding the wealth of research on migration and subjective wellbeing, the issue of moonlighting and its welfare implication among migrants has not been thoroughly explored in empirical literature. Using rich individual-level panel data from the University of Cape Town's National Income Dynamics Study (NIDS), this study established a number of interesting findings: (a) there is moonlighting among international migrants; (b) hours spent on the primary job and financial motive, among other socio-demographic factors are key predictors of moonlighting; (c) international migrants are more likely to have more than one job, very often to meet contingencies, but mostly to help smoothen consumption over the life cycle; and (d) individuals who spend more hours on their primary job are less likely to moonlight. Regarding wellbeing and happiness, it is evident that moonlighting and hours spent on primary jobs negatively influence self-reported wellbeing and happiness. Given the ravaging effects of the COVID-19 pandemic, and the potential change in the dynamics of the post-pandemic migration trajectory, job search strategies and economic activities, gaining a deeper appreciation of moonlighting and its implication on the wellbeing of migrants is essential to national and international policy rethinking in order to achieve a triple win for the migrant, the host and origin countries.

Keywords: migration, happiness, labor supply, COVID-19

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INTRODUCTION

Within the scope of migration research, empirical evidence shows positive self-selection among migrants (Orrenius and Zavodny, 2005; Bertoli, 2010; Ibarraran and Lubotsky, 2011; Andersson, 2012; Aguilar Esteva, 2013; Kollamparambil, 2017; Nontenja and Kollamparambil, 2018). Undoubtedly, this partly explains why productivity levels are higher among migrants than their non-migrant counterparts. Migrants are motivated to work more in order to increase their returns on migration as a human capital investment. To realize this goal of higher human capital returns, some migrants engage in moonlighting. Moonlighting, as defined by labor economists, refers to a situation where an individual maintains primary employment and engages in additional work for pay (Shishko and Rostker, 1976; Sussman, 1998; Kimmel and Powell, 1999; Averett, 2001; Dickey et al., 2011; Baah-Boateng et al., 2013). Despite the extra earnings that migrant workers may have accrued through their economic engagements abroad, a study by Mulcahy and Kollamparambil (2016) unveiled a decline in their subjective wellbeing, compared to their households left behind. Given this, it is justifiable to conclude that a positive correlation between earnings and subjective wellbeing is not always guaranteed. A key consideration for such conclusion could be traced to low social capital (Ryan et al., 2008), and the lack of frequent engagement with migrants' families left behind (Asis, 2006). Leisure has also been identified as a determining factor for the wellbeing of employees, irrespective of their migration status. Macchia and Whillans (2021) also show a clear link between leisure and subjective wellbeing of individuals from 79 countries worldwide. It is therefore inconclusive to ascertain the inextricable link and the ripple effect of intrinsic rewards, job satisfaction and improved welfare, without highlighting leisure.

Given the growing role of migrants within labor market spaces, this paper explores the moonlighting experiences of migrants by capitalizing on the richness of a panel dataset to address the challenge of self-selection bias that may be prevalent in existing studies. Interviewing the same households across waves may have addressed the challenge of upward biases to some extent, thereby inspiring confidence that the information from respondents reflects their prevailing economic conditions over time. Despite the nuances in existing migration theories in terms of conceptualization, there is consensus that migration is a human capital investment (Massey et al., 1993; Constant and Massey, 2002; Kurekova, 2011; Kumpikaite and Zickutė, 2012). Further, theories that are grounded in the neoclassical thought on migration view the phenomenon as a permanent human capital investment. Thus, an indifferent individual is more likely to migrate, if the expected earnings in the host region are higher than the existing earnings in their place of origin (Massey et al., 1993; Constant and Massey, 2002; Kumpikaite and Zickutė, 2012). Holding other factors of migration constant, the contemporary migrant still sees migration as a cost. Hence, it is not surprising that previous studies that explored wage differentials between origin and destination regions revealed that migrants have a higher propensity to move

from regions of lower retribution rates to regions of higher retribution rates (Gaston and Nelson, 2013; Porumbescu, 2018; Libanova, 2019; Duru, 2021).

Similarly, the proponents of the new economics of labor migration view the phenomenon as a temporal household decision to diversify risk, and insure households against the possibility of market failure. In essence, the decision to migrate is a form of risk-diversifying strategy for the entire household, to alleviate any form of economic, socio-political, and environmental risks (Taylor, 1999; De Haas, 2010). Thus, such a decision must be carefully assessed in terms of its cost and expected benefits to the entire household. Also, it is evident that migration is influenced by some confounding factors in both the host and origin countries (Shrestha, 2017; Simpson, 2017), and Lee (1966) presents this as push-pull factors of migration in a simple framework.

While the core decision by prospective labor migrants is deep-rooted in economic motives, understanding the welfare of these migrants in their host nation is very essential. First, it informs the choices made by migrant households left behind in terms of their economic status through consumption, investment and welfare. Also, the motive to migrate serves as a signaling tool to aspiring migrants by providing them with adequate information on their choice of destination when making migration decisions. While some existing studies observe a positive relationship between migration and subjective wellbeing (Kettlewell, 2010), others find a negative link (Knight and Gunatilaka, 2012; Mulcahy and Kollamparambil, 2016), with yet others presenting a neutral scenario (Ackah and Medvedev, 2012). In South Africa, despite the rise in earnings among internal migrants, there is a decline in subjective wellbeing, compared to their non-migrant counterparts (see Mulcahy and Kollamparambil, 2016). In their work, Mulcahy and Kollamparambil suspected that false expectations as well as the emotional cost of staying away from one's family may have caused the decline. We therefore seek to utilize data that captures information on international migrants to broaden the argument and specifically examine if moonlighting impacts the subjective wellbeing of migrants.

Even though moonlighting is common in both developing and developed countries (Sussman, 1998; Kimmel and Powell, 1999; Averett, 2001; Dickey et al., 2011; Baah-Boateng et al., 2013; Timothy and Nkwama, 2017), the phenomenon is diverse, with little room for a Eurocentric outlook in developing countries. In the context of developing countries, moonlighting is more profound in the informal economy and it is usually manifested through business setups among individual migrants. It is noteworthy that irrespective of the wealth of literature that focuses on moonlighting within the African jurisdiction (Rispel, Blaauw, et al., 2014; Rispel, Chirwa, et al., 2014; Rispel, 2015; Rispel and Blaauw, 2015; Mabweazara, 2018; Asravor, 2021) studies that focus on migrants, especially international migrants have not been found.

Within the South African context, Rispel and Blaauw (2015) assess how agencies and moonlighting affect the health of nurses. While they argue that

moonlighting adversely affects the health of nurses and increases the probability of requesting sick leave, their reliance on cross-sectional data and a smaller sample leaves a room for researchers to further explore the phenomenon in light of varied determinants across time.

Extant literature emphasizes economic reasons as a major predictor of migration; hence, it is imperative to examine the dynamics of labor supply among immigrants in order to provide both theoretically robust and empirically relevant explanations. In their study on moonlighting, Conway and Kimmel (1992) provide empirical insight into existing labor supply theories, focusing much attention on how the labor supply is responsive to changes in the wage rate. This offers an understanding of how existing budget and labor supply constraints alter the behavior of individuals in labor supply decision-making.

Labor supply theories also link work-leisure hours and earning (Killingsworth and Heckman, 1986; Pencavel, 1986). This was manifested in both the static and dynamic labor supply models that demonstrate how an individual's time is traded between leisure and work. The leisure component has been found to be strongly correlated to people's wellbeing and improvements in welfare (Moore, 1971; Macchia and Whillans, 2021). However, some works on moonlighting ignore the welfare implications, but provide substantial evidence on the main determinants (Baah-Boateng et al., 2013; Timothy and Nkwama, 2017). A few also examine how motives are influenced by both financial motivation and time spent on the primary job, as well as how moonlighting affects productivity on primary jobs; while some consider the legal aspects of holding multiple jobs (Averett, 2001; Dickey et al., 2011).

This study considers the welfare dimension of moonlighting among migrants who are more susceptible to vulnerabilities in the labor market. Specifically, it examines the key determinants of moonlighting, as well as the differences that exist between migrants and non-migrants.

THEORETICAL PERSPECTIVES ON MOONLIGHTING

Relevant theoretical works underpinning moonlighting behavior can be traced to the seminal work of Shishko and Rostker (1976). They employ microeconomic theories and the demographic profiles of individuals to explain the supply curves of moonlighters. Generally, moonlighting in labor supply is a build-up on already existing static and dynamic labor supply theories (Killingsworth and Heckman, 1986). The static model posits that an individual's wellbeing (utility) is dependent on their taste, the price of consumer goods, and the hours of leisure consumed at a given period. In other words, an individual is constrained between spending time (24 hours) on leisure or work. A quest to increase the consumption of composite market goods therefore necessitates the reduction of hours allotted for leisure since extra income is usually gained through extra work. This perfectly resonates with the assertion of Arrow and Hahn (1971) that economic agents may arrive at a decision upon considering what they want and what they actually get.

Stated differently, individuals maximize their utility subject to a constraint, which illustrates the fundamental problem in economics – scarcity. An individual who particularly values leisure reduces their hours of work and increases hours of leisure. This also means that fewer market goods are consumed, since a reduction in hours of work means less income is earned. Participation in the labor force is therefore dependent on the available reservation wage, and how the rational individual views work and leisure (normal, inferior, or superior good). This trade-off in labor choice decision-making is grouped into both income and substitution effects, which leads to the derivation of a backward bending labor supply curve. The model therefore concludes that, even though the existing relationship between the labor supply of an individual and the predictors which include wages and property income may be statistically significant, there are other unobserved factors that help to explain an individual's decision to work or have more leisure. Even though the simple static labor supply model has played a significant role in providing theoretical backings on the individual's behavior in choice-making between leisure and consumption of market goods, the model also poses empirical complications. These have been summarized as both *discouraged-worker-effect* and *added-worker-effect*, given the existing business cycles and rates of unemployment (Wachter, 1972; McFadyen and Hobart, 1978; Lundberg, 1985).

Critics highlight loopholes in some of the key pointers of the simple static model, which assumes the consumption of single commodity and the fixed nature of time. There is no doubt that these assumptions do not hold in the real world, hence, the issue of discouraged-worker-effect and added-worker-effect. The former posits that the proportion of job seekers generally falls during periods of higher unemployment. Added-worker-effect, on the other hand, indicates that the labor force participation rate among married women whose husbands are unemployed generally increases compared to those whose husbands are employed. This finding is in line with both the family-labor choice and the male-chauvinist models, which assert that men are income-generating assets for their wives. Hence, during periods of unemployment, there is a fall in the non-labor income received by women, thereby increasing the likelihood of women working (Saget, 1999; Vlasblom et al., 2001; Steiner, 2004). The static model of labor supply does not account for long-term effect making labor market decisions.

Following the theoretical and empirical limitations of the simple static labor supply model, there has been a drift to dynamic labor supply models, which are extensions of the fundamental theory. Key among them is the moonlighting model, which is the focus of this paper. The phenomenon has become important in examining what forms part of the decision to hold multiple jobs, and how this affects (in the present study) the wellbeing of the individual migrant. Becker (1965) clearly states that an individual's utility does not necessarily depend on market goods, time allocated for work or leisure, but rather, on commodities or activities. An individual therefore accepts an offer for a second job if the wage of the job is greater than the

marginal rate of substitution of income for leisure for the first job (Shishko and Rostker, 1976). Other moonlighting-related works that took an expansive dimension beyond the static model also attested that though time constraints force individuals to allot their time between multiple work and leisure, the hour constraint motive can be modified into earnings constraint motive (Hirsch et al., 2016). Hence, the reservation wage that is assigned to a secondary job can induce one to take up multiple jobs at the expense of leisure (Averett, 2001; Partridge, 2002; Reilly and Krstić, 2003; Casacuberta and Gandelman, 2012; Klinger and Weber, 2020). This resonates with the dynamics of moonlighting in developing economies, for which Baah-Boateng et al. (2013) provide empirical justification on how individuals who moonlight eventually become self-employed. However, the decision to moonlight is dependent on the relative wage rates of the primary and secondary jobs, the nature of contractual agreement on the primary job, the reservation wage and how the individual perceives leisure (inferior, normal, or superior good). This is depicted in the equations below.

$$Wellbeing = W(C_{it}\, L_{it}) \quad (1)$$

Equation 1 indicates that an individual's utility is a function of the amount of composite market goods (C) and leisure (L) consumed, at a given time. This implies that, in any given period of time, the individual either works, consumes leisure or market goods, depending on their total income from both labor and non-labor sources. In simple terms, an increase in leisure implies a decrease in hours of work, which leads to a fall in income from labor and, thus, a fall in total income. Given the fall in income, an individual would have to reduce their demand for market goods, assuming goods are considered to be normal goods, "all other things being equal".

Equation 2 demonstrates that an individual's consumption is dependent on their non-labor income (V) and wages (w) from all hours of work (H). This concept supports the optimization approach and follows the underlying assumption of insatiable human wants as opposed to limited resources. In effect, at any given point in time, an individual's desire for both market goods and leisure – or either of them – is subject to a budget line that comprises both labor and non-labor income.

$$C_{it} = C(w_1 H_1 + w_2 H_2 + ... + w_n H_n + V) \quad (2)$$

This wellbeing function in Equation 2 is maximized subject to the constraint in Equation 3.

$$PC_{it} \leq V_{it} + \sum_{i=1}^{n} .w_{it}\ H_{it} \quad (3)$$

Thus, we maximize Equation 4, which represents the time for leisure and work, subject

to the constraint in Equation 3, which reads as an individual's total expenditure. PC_{it} is the sum of their earnings from all jobs $(\Sigma_{i=1}\ w_{it})$ and their non-labor income, at a defined time. Given the panel nature of the data, the subscript i represents each individual and t is the time period of the survey.

$$T = L + H_1 + H_2 + ... + H_n \quad (4)$$

It is important to indicate that, as an extension of the simple static labor choice model, the assumption is that an individual's total time available (T) is shared between work and leisure. Therefore, Equation 4 states that an individual moonlighter shares their time between leisure (L) and work (H). While rational economic behavior suggests that individuals only moonlight for non-financial motives, Shishko and Rostker (1976) established that an individual will moonlight if they are constrained in the number of hours to offer on the primary job. This signifies that an individual cannot exceed a certain number of assigned hours (H) and is therefore restricted in earnings (wH). Another motive to moonlight is caused by the presence of heterogeneous jobs. This occurs when the primary and secondary jobs possess different non-pecuniary benefits and costs.

DATA AND DESCRIPTIVE STATISTICS

The study draws on the five waves of the National Income Dynamics Study (NIDS) dataset compiled in 2008, 2010, 2012, 2014, and 2016. Despite the high attrition recorded in some of the survey years, all five waves have been used, due to the unique nature of the moonlighting variable. This survey, the first national panel study that captures migrant labor market engagements in South Africa, was carried out by the Southern Africa Labour and Development Research Unit (SALDRU) at the University of Cape Town. The first survey began in 2008 with a nationally representative sample of over 28,000 individuals in 7,300 households. Given the repeated nature of the survey (every two years with the same units of households interviewed), the dataset is reliable, valid and representative to achieve rigor in the present panel analysis. As captured in Table 1, migrant status, where migrants were broadly classified into internal, international, and non-migrants offered a layer of opportunity for this study to thoroughly investigate the tendency to moonlight and its impact on individuals along the constituencies of these three broad players in the South African labor market space.[5] We focused on the entire sample who were engaged in at least one job engagement, across all the waves. We were determined not to restrict our analysis to only internal and international migrants, hence, non-migrants who were actively engaged in the labor force were included to serve as a reference sample. Our all-inclusive sampling approach made it possible for us to present findings that capture

5 International migration involves moving from one country to the other; hence, an international migrant is an individual who changes their country of usual residence. Internal migrants are individuals who migrate within the borders of a country.

the experiences of both internal and international migrants.

As seen in the summary statistics below, the education level of participants was categorized into 3: non-educated, secondary, and tertiary. It was observed that the majority of individuals held at least secondary education, irrespective of their migration status across the five waves of the NIDS dataset. Among the groups, 84.75% of South Africans held secondary education and there is less variation across all five waves, whereas 82.49% and 74.53% are internal and international migrants respectively. A cursory look at the gendered dimension indicates that the majority (59.65%) of internal migrants are females while the majority of the men (54.66%) are international migrants. This resonates with existing theories of migration that highlight that men migrate for relatively longer distances than women. It also indicates that migration among females is mostly temporal, at short distances, and circular in nature, despite the recent wave of feminization of migration.

The significant role of social networks among both migrants and non-migrants in terms of job search strategies has been well documented in the NIDS dataset, as the majority of individuals made use of existing social networks in job searching. Among native South Africans and internal migrants, more than 50% made use of social networks in job searching, while among international migrants, about 48%, representing the highest, made use of social networks; with 42.52% employing a manual approach to job searching – which means physically searching for jobs. It is reasonable to surmise that natives and internal migrants are more likely to have high social capital in terms of relatives and friends across all parts of South Africa, which provides a favorable foundation and useful point of reference in job searching. Beyond the job-search strategy, social networks play a significant role in redefining existing migration patterns, flows and dynamics in both sending and receiving countries.

Table 1: Summary statistics

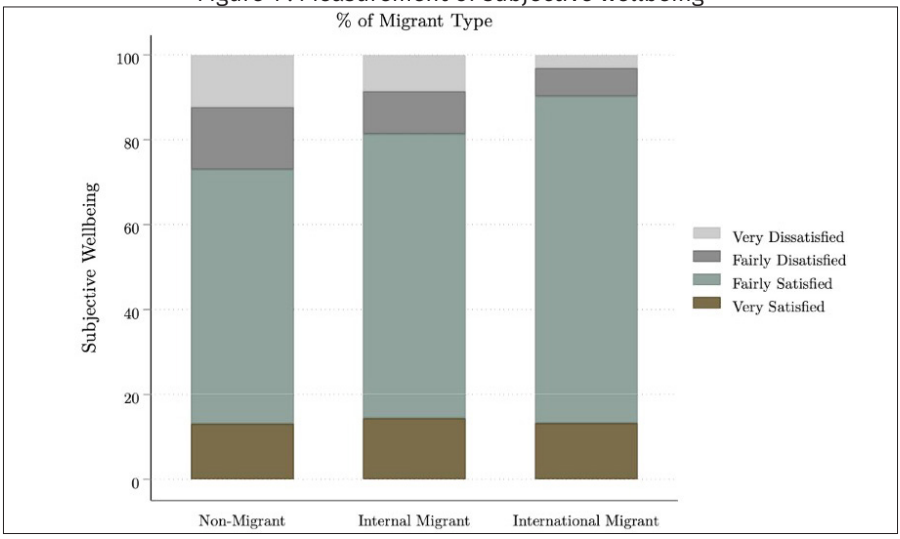
Variables	Observation	Mean	Standard deviation	Min.	Max.
Moonlighting	25 890	0.01	0.099	0	1
Hours of work	25 890	0.496	0.5	0	1
Children per household	10 739	2.557	1.552	1	14
Male	25 886	0.5	0.5	0	1
Age group	25 890	2.554	0.509	1	4
Migrant type	24 539	1.403	0.508	1	3
Education	24 539	2.221	0.415	1	3
Job search	7423	2.022	0.737	1	3
Wellbeing	15 007	2.917	0.708	1	4
Happiness	25 530	2.988.	1.081	1	4
Household monthly income	4 091	3320.582	7033.178	0	230 000
Marital status	25 852	3.221	1.824	1	5

Source: authors' own compilation

Subjective wellbeing and happiness, which happen to be key outcome variables that measure labour welfare were captured as categorical variables (see Table 1). A significant number of individuals reported improved subjective wellbeing. A comparative assessment across the various groups based on migration status showed that 77.04% of international migrants reported improved wellbeing, compared to 66.95% and 59.91% for internal migrants and non-migrant South Africans respectively (see Figure 1). While this provides a useful point of departure to further assess what accounts for the improved wellbeing, earlier research reported low wellbeing among migrants (Mulcahy and Kollamparambil, 2016). This notwithstanding, it is important to highlight that this finding does not reflect causal relation, instead, a relationship which only provides a spectrum of distribution among both migrant and non-migrant groups.

With reference to moonlighting, we captured it as a dummy variable which takes on a value of 1 if an individual holds more than one job and 0 otherwise (see Table 1). The data clearly shows that moonlighting is prevalent among individuals with only secondary education, 71.76% of whom moonlight, compared with 28.24% with post-secondary education. Females are more likely to have more than one job than males. Key reasons for this could be that the majority of females are engaged in household work and informal sector engagements. The majority of moonlighters and single-job-holders reported the use of social networks as a job search strategy, and both categories reported improved wellbeing. The average monthly household income was calculated as ZAR 3,320.582. Each household had an average of three children, which reflects the modern drift towards nuclear household systems in urban South Africa, compared to elsewhere in Africa where households are larger.

Figure 1 : Measurement of subjective wellbeing



Source: authors' own compilation

EMPIRICAL STRATEGY AND VARIABLES OF INTEREST

This study does not only provide empirical insight and theoretical underpinning to the pressing social and policy needs among migrants and the labor market, but it also contributes to rigorous methodological inputs in understanding labor moonlighting and wellbeing. This research contributes to the methodology in three major ways. Firstly, it established the claim of labor moonlighting among migrants and non-migrants in their country of residence. Secondly, it ascertained the implication of moonlighting on wellbeing. Thirdly, this is the first study to employ panel data including five repeated waves to establish the above findings. These observations make the study seminal and also offer a good background for further inquiry that will be subject-focused.

Despite the theoretical intuitiveness of labor moonlighting, the empirical investigation of its determinant is faced with challenges. The main source of concern is the problem of self-selection. There is positive selection among workers who take up more than one job. In effect, it becomes difficult to delineate the effect of migration status on moonlighting decisions, as indicated in the theoretical literature. Another problem relates to whether the observed determinants correlate significantly with unobserved factors that influence moonlighting.

To overcome these challenges, this study employed a nationally representative panel dataset, which offered an opportunity to investigate the dynamic effect of migrants' behavior on moonlighting. The panel dataset enriched this study, given that it offered the opportunity to undertake the analysis of the same units over a repeated period of time (five waves in this case). In addition, the methodology used accounts for both observed and unobserved heterogeneity. Another strength of the dataset is its richness and detailed information provision on both immigrants and non-immigrants who reported both their labor and non-labor income, as well as job-specific information for up to two jobs. Information was also available on whether an individual was self-employed or personally engaged in agricultural activities, with corresponding earnings from all respective jobs, which allows for rich specification.

This study achieved two main objectives. The first part estimated the determinants of moonlighting among individuals (both immigrants and non-immigrants) in South Africa, using a Logit regression model. The second part of the paper addresses the implication of moonlighting on the subjective wellbeing of migrants. In the former case, we assume dichotomous dependent variable "moonlight" coded as 0/1 to reflect the probability to moonlight or not given migration status and other covariates. The reduced-form model is estimated as in Equation 5.

$$\Pr(\vec{x}) = \Pr(Y = 1|\vec{x}) = \begin{cases} 1 \; if \; moonlight \\ 0 \; if \; otherwise \end{cases} \quad (5)$$

A more formal estimate is given in Equation 6:

$$\Pr\left(Y_{it}\neq 0 \middle| X_{it}\right)=P(X_{it}\beta+ \nu_{it}+ \epsilon_{it}) \quad (6)$$

The equation represents the probability of moonlighting or not, given the covariates x_{it} – which consist of vector of predictor values such as socio-demographic and economic indicators for individual i at survey year t. These socio-demographic factors include age, sex, marital status, family size, household expenditure, and education levels of prospective moonlighters. The job strategy adopted by individuals and the number of hours spent on their primary job were also considered. Thus, *b* captures the intensive margin estimates of the extent to which the above-mentioned factors explain the likelihood to moonlight. That is, the logistic regression model basically estimates the likelihood that a migrant moonlights, given the independent variables. The composite error term $u_{it} = n_i + e_{it}$ captures other unobserved characteristics that are both time-fixed and time-changing.

The estimate is analytically done via a maximum likelihood estimation technique. If we assume a normal distribution $N(0,s_n)$, for the random effects, the likelihood is given in Equation 7.

$$l_i = \int_{-\infty}^{\infty} \frac{e^{-v_i^2/2\partial_v^2}}{\sqrt{2\pi_v}} \left\{ \prod_{t=1}^{n_i} F(Y_{it,} X_{it} + \nu_{it}) \right\} dv_i \quad (7)$$

where

$$F(y,x) = \begin{cases} \dfrac{1}{1+\exp(-z)} \; if \; \neq 0 \\ \dfrac{1}{1+\exp(-z)} \; if \; otherwise \end{cases} \quad (8)$$

The maximum likelihood (ML) estimator of Equation 7 is a consistent asymptotically normal estimator of the coefficient vector *b* (Woodridge, 2010, 473–481). However, by assuming random effect, we invoke strong assumptions about the error term u_{it}. A unit homogeneity of individuals is assumed. That is, there is no unobserved heterogeneity that affects migration status and other covariates. In simple terms, the within-variation among migrants is null. It is also assumed that errors that change over time are statistically orthogonal to the regressors. These assumptions are likely to fail when there is self-selection and errors are not completely random. Though the assumptions seem untenable, we argue that the random effect is still efficient and consistent for our model and context.

The nature of our data is suitable for random effect and simple Pooled Ordinary Least Square (POLS) analysis. We find that covariates do not show enough

within variation to apply fixed effect model (see Figure 2 and Table 13 in Appendix). Sex, marital status and job-search strategy are near-time-constant regressors. As the within-variation among migrants for these regressors is null, the fixed effect drops all observation without within-effect on moonlighting. As the number of observations in the panel setting is large compared to the time dimension, we are likely to run into incidental parameter problems when considering interactions of variables. That is, directly estimating the individual fixed effect n_i will generate a large number of parameters, which leads to inconsistent estimators.

However, with additional assumptions[6] it is possible to consistently estimate the coefficient vector *b*.[7] We therefore employ the random effect due to its greater flexibility and generalizability, and its ability to model the context, including time-constant variables. To confirm the suitability of random effect, we run the Hausman test.

The second part of the paper addresses the implication of moonlighting on the subjective wellbeing of migrants. Since subjective wellbeing is a categorical variable, the appropriate identification strategy is a multinomial logistic regression model. The model helps predict the likelihood of being happy, given a migrant's moonlighting status while controlling for other confounding factors. Unlike discriminant function analysis, this model does not assume normality, linearity, or homoscedasticity. It is seen as an attractive approach (Kwak and Clayton-Matthews, 2002; Hedeker, 2003).

The relationship between the propensities of subjective wellbeing, moonlighting status, and other covariates is expressed in Equation 9:

$$Y_{it} = P(\propto_{it} + x_{it}\beta_j + \epsilon_{itj}) \quad (9)$$

where y_{it} is the latent propensity for each individual i at time t to experience subjective wellbeing category j. In Equation 9, b_j denotes the coefficient vector, with X_{it} being independent variables including but not limited to moonlighting dummy. Similarly, the error term e_{itj} is assumed to be independent and identically distributed across all outcomes j, and a_{ij} is a random variable. With these assumptions, the probabilities of each outcome are estimated, given our determinants of subjective wellbeing.

RESULTS AND DISCUSSION

This section discusses the results of multivariate regressions presented below. There are two main estimations: to comprehend the key determinants of moonlighting, and to assess how moonlighting behavior affects the wellbeing of individuals in the labor market, with a focus on migrants in South Africa.

6 The observed covariates are strictly exogenous, conditional on the unobserved heterogeneity, and the error terms are independent across time.

7 Beck and Katz (2007) show that, with respect to time-series-cross-section (TSCS) data, random effect models perform well, even when the normality assumptions are violated.

Main results

The main empirical results are shown in Table 2, showing the POLS, fixed effect and random effect estimates. We find that the fixed effects are not suitable, as some of the observations are dropped due to many time-constant regressors and too little within-variation among migrants. The credibility of the results crucially relies on the assumption that the observed covariates are strictly exogenous, conditional on the unobserved heterogeneity, and the error terms are independent across time. This was confirmed by the Hausman test. We find that random effect is appropriate for the context and nature of variables. Specifically, the Hausman test failed to reject the null that the difference in coefficients is not systematic, implying that the issue of unobserved heterogeneity is unproblematic.

Table 2: Determinants of moonlighting

Variables	**(1) Random effect**	**(2) OLS**	**(3) Fixed effect**
Hours of work	-0.005**	-0.575**	-0.743*
	(0.002)	(0.232)	(0.439)
Children	0.0004	0.035	-0.162
	(0.001)	(0.072)	(0.226)
Level of education	0.005*	0.498**	0.810
	(0.003)	(0.248)	(1.205)
Household expenditure	0.0001***	0.0001***	0.0002
	(0.000)	(0.000)	(0.0003)
Migration status			
Internal migrant*	-0.001	-0.072	0.491
	(0.002)	(0.221)	(0.397)
International migrant	0.039***	1.646**	15.987
	(0.015)	(0.755)	(1,651)
Marital status			
Living together	0.005	0.475	1.309
	(0.004)	(0.406)	(1.067)
Widow/widower	0.005	0.432	-14.468
	(0.004)	(0.385)	(963.178)
Divorced/separated	0.012***	0.953**	-1.253
	(0.005)	(0.383)	(1.333)
Never married	0.003	0.309	0.491
	(0.002)	(0.283)	(0.860)
Job search strategy			
Social network	0.005*	0.518*	0.186
	(0.003)	(0.298)	(0.566)
Manual	0.004	0.392	0.121
s	(0.003)	(0.334)	(0.564)
Constant	-0.001	-5.636***	
	(0.004)	(0.438)	
Observations	25,890	25,890	1186

Note: *,**,**,*denotes significant at the 10%, 5% and 1% level respectively. Robust standard errors are presented in parenthesis.

The general results align with both the "hours constraint" and financial motive models of moonlighting. Specifically, after controlling for other covariates, individuals working beyond the stipulated 40-hours per week in South Africa are less likely to moonlight and this is statistically significant at a 5% level of significance in columns 1 and 2 respectively. More specifically, people working above the normal working hours are estimated to have a lower likelihood of moonlighting.

In terms of the likelihood to moonlight based on migration status, the researchers realized that international migrants have a higher propensity to moonlight than internal migrants or South African non-migrants. It is important to note that this is significant at a 99% and 95% confidence interval in columns 1 and 2 respectively. This may be attributed to the positive selection nature of individual migrants with the edge for higher returns on migration as a human capital investment. Though this finding has no confirmation from any existing literature, due to the newness of the field, it is logically consistent, empirically verifiable and policy relevant, given the needs of migrants and the overarching motive for their migration trajectory.

The results further highlighted another interesting finding among individuals within different marital groups. The evidence indicates that people who are divorced or separated have a higher likelihood of holding multiple jobs compared to those with another marital status, controlling for other co-variates. While this has no direct theoretical underpinning, it deepens our understanding of how marriage plays a significant role in the livelihoods of people through resource mobilization and sharing of responsibilities. It is important to mention that the case of single and widowed individuals is not similar. Divorce appears in the form of a shock that disrupts an individual's income stream and other socioeconomic responsibilities.

The above-mentioned finding has varied theoretical and policy implications, but this paper focuses on two extremes by providing explanations that may attract further scientific inquiry, especially in a post-COVID-19 political economy in South Africa and beyond. There is heterogeneity in response to divorce by individuals and this is likely to have a positive impact and lead to less or more moonlighting depending on one's position. The paper outlines two main positions that are dependent on the psychological states and income scales of individuals. The same result can be given two major considerations (negative and positive) following the conventional concept of elasticity of demand for income and psychological needs. In effect, a person's degree of responsiveness to divorce based on their income levels at the period of the divorce as well as their psychological fit and degree of responsiveness to divorce as a shock will influence their propensity to hold multiple jobs. Divorce can be a negative shock, especially for couples who might have suffered asset loss, income, wealth and economic securities of survival, among others. This is important in economic, theoretical and policy research designs to avoid any form of (un)foreseen disequilibrium that succeeds divorce. The theoretical concern by the male chauvinist

model[8] presents a significant evidential undertone, as divorcees are more likely to lose their non-labor income during periods of unemployment and divorce, which has a direct relationship with their total income. This, therefore, signifies and partly explains why divorcees are more likely to moonlight compared to those who are not divorced, given other co-variates.

Another important determinant of moonlighting that is highlighted in both empirical and theoretical literature is income level. Household expenditure is used as a proxy to determine an individual's likelihood to hold multiple jobs in South Africa. Individuals with higher household monthly expenditure have a higher propensity to hold multiple jobs. This is statistically significant at a 99% confidence interval. Having a higher household monthly income implies a higher financial burden, which means hours of work must be increased in order to increase income to meet the rising expenditure. Therefore, instead of including the household income variable, we made use of the household expenditure to better explain its influence on the likelihood to moonlight.

There is also a relationship between mode of job search and the likelihood of moonlighting. Individuals reported to have used social networks, advertisements, or a mechanical approach in searching for jobs. The multivariate approach indicates that people who use social networks in job search have a higher propensity to hold multiple jobs than their counterparts who used advertisements or a manual approach. This evidence is statistically significant at a 10% level of significance with a 57-percentage point higher likelihood. It is also imperative to underscore that social networks have played a significant role in the migration trajectory, pre-departure preparation as well as recruitment processes of both internal and international migrants (Awumbila et al., 2017; Vermaak and Muller, 2019). This finding accords with both social network and human capital theories (see Curran and Saguy, 2001) in migration that conclude that migrants are more likely to migrate to locations dominated by their ethnic groups.

In summary, the random effect model predicts that hours spent on a primary job, migration status, marital status, income levels, and mode of job search have statistically significant explanatory powers in moonlighting behavior. While it is surprising that the number of children does have a significant explanatory role in the propensity of holding multiple jobs, there is a positive relationship which explains that individuals with many children are likely to moonlight, all other things being equal. This is in line with previous findings that revealed that having more children increases one's likelihood of moonlighting (Abdukadir 1992; Kimmel and Conway, 2001). This is consistent with the notion that having more children means more responsibilities, which increases household expenditure. In effect, an individual

8 According to this, the wife views her husband's earnings as a kind of property income when she makes labor supply decisions, whereas the husband decides on his labor supply without reference to his wife's labor supply decisions, solely on the basis of his own wage and the family's actual property income. The model predicts that in an advent of any rising unemployment rate or a suspicion of divorce by married people, there is a higher likelihood of devoting additional time to the labor market.

constrained by income will be motivated financially to moonlight.

Our results indicate that international migrant women have a higher propensity to hold multiple jobs than their male cohorts. This is statistically significant at a 95% confidence interval. Similarly, divorced women are more likely to moonlight than divorced men. This is a strong affirmation of the main thesis of the male chauvinist model, which predicts that in a situation of rising unemployment or a suspicion of divorce, there is a higher likelihood that women will devote additional time to the labor market. Another reason to prioritize this thought is deeply rooted in the current pandemic time, which heightens the vulnerability levels of women in terms of gender-based violence, sexual reproductive health, and exploitation at workplaces in South Africa, since women are the majority and front-liners in the most affected sectors.

Women therefore play a significant role in the labor market, yet their remuneration does not always match their level of productivity. While this is not one of the objectives of this paper, it is important to highlight that moonlighting is likely to persist in the labor market and more likely to be common among women, given the current structure of the labor market and the gendered nature of treatment. A key pointer within the policy landscape should be geared towards leveraging the existing platform to achieve a common ground for both men and women within the labor market through a more tailored gender-sensitive policy framework, with workable action plans in order to achieve equality.

Predictors of subjective wellbeing

This section assesses the main predictors of individuals' wellbeing, with a focus on moonlighting. The study made use of the self-reported wellbeing and happiness variables by respondents during the survey years for all the five panels. There are five numbered categorizations for both wellbeing and happiness, with 1 representing very poor wellbeing or very unhappy and 5 representing highly improved wellbeing or extremely happy respectively. While the wellbeing and happiness variables may seemingly explain almost similar concepts, wellbeing basically reports respondents' overall welfare while happiness reports respondents' mood during the survey period. It is important to clarify that these are self-reported and widely accepted in welfare economics and the economics of happiness. It is important to also point out that the subjective indicator for wellbeing has the tendency to be biased as it does not apply any objective indicators. Two separate models have therefore been estimated, with wellbeing and happiness as the dependent variables to assess one's likelihood to have improved wellbeing or to be happy, given that one moonlights or not while controlling for other relevant covariates.

Table 3 (see Appendix) demonstrates an interesting relationship between wellbeing and moonlighting. This is the overarching hypothesis in this paper. It affirms previous studies that revealed that the returns of migrants do not necessarily translate into improved wellbeing. Our quest to understand why this is the case has

remained the main motivation for this research, aside from other important issues. In this paper, the finding indicates that individuals who moonlight reported very poor wellbeing, which is statistically significant at a 5% level of significance.

Specifically, multiple job holders are 22.3 percentage points more likely to report very poor wellbeing than their non-moonlighting counterparts. While explaining this in isolation from other covariates could attribute the outcome to reduction in leisure hours, as underscored by the labor moonlighting theories, this perfectly confirms our earlier findings that hours spent on primary jobs impact on moonlighting. There is evidence that individuals who spent hours above the normal 40 hours per week on the job also reported very poor wellbeing, with a 99% confidence interval (see Table 3, random effect model). The drudgery and daily toil, with little breathing space to relax and indulge in other activities will definitely impact the wellbeing of migrants negatively. It is therefore correct to deduce that the time spent on the job and the number of job holdings among individuals explain an individual's wellbeing.

In addition to the above, individuals paying medical aid reported having poorly improved wellbeing, at a 99% confidence interval. This is also the case for the number of children that individuals have. A higher number of children corresponds to very low wellbeing, also statistically significant at a 1% level of significance. Another interesting finding here is the relationship between marital status and subjective wellbeing. Divorcees expressed a higher propensity to improved wellbeing, while those who were married, single, widowed, or living with partners reported higher propensities of very poor wellbeing, with a 99% confidence interval. One can argue that a divorcee from a toxic relationship is likely to report higher subjective wellbeing, as it is "freedom from bondage". This assertion does not necessarily mean married individuals are with the wrong partners, given the several unobserved factors the study must take into account before concluding on this. However, it relates to the current situation of gender-based violence, leading to divorce, in South Africa. The finding from the current study contradicts several findings that observe a positive relationship between marriage and subjective wellbeing (Larson, 1978; Mastekaasa, 1994; Kim and Moen, 2001; De la Rochefoucauld et al., 2006). This has a significant policy implication.

People with higher levels of education also reported very poor wellbeing, at a 90% confidence interval. This is a policy concern that can be explored further for a different perspective, because it contradicts the findings of mainstream literature from economic, sociological and wellbeing perspectives (Zepke, 2013). Income plays a significant role in determining people's wellbeing. However, due to issues of multicollinearity, other variables like payment of medical bills, and the number of children represent responsibilities to some extent. While anecdotal evidence points to a positive relationship between education and subjective wellbeing, it is imperative to note that the contribution of education to subjective wellbeing is unclear, limited, inexplicit, and fragmented, according to various accounts in the empirical literature.

For instance, a systematic literature study found no significant relationship between education and subjective wellbeing (Kahneman et al., 2004) while others noted a positive relationship (White, 2007; Michalos, 2013).

In order to concretize the above results, the model 2 in Table 3 provides the results of a multivariate regression model with happiness as the dependent variable, given the remaining covariates. Moonlighting has no significant explanatory power in explaining an individual's likelihood to be happy or not. However, there is a negative relationship between moonlighting and staying happy, which suggests that holding multiple jobs has a higher tendency to make an individual unhappy, given other covariates. Supporting this claim, are the hours spent by individuals on primary jobs. The result shows that spending above the normal weekly 40 hours is more likely to make one very unhappy. This is statistically significant, at a 99% confidence interval. This corresponds with the wellbeing results, which also highlight the fact that having more than one job or spending more hours above the usual weekly 40 hours on a primary job negatively affects an individual's wellbeing. A key element to underpin this claim is the role of leisure in defining wellbeing and happiness, which is logically consistent, empirically robust and policy driven (Shishko and Rostker, 1976; Conway and Kimmel, 1992; Averett, 2001).

The more children one has, the lower the probability of being happy. This is statistically significant at a 1% level of significance, and is in line with the findings on the wellbeing of individuals presented above. People who pay their own medical aid also reported being very unhappy, at a 95% confidence interval. A variable that did not show any significance, and even with a negative relationship turned out to be positive and even statistically significant at a 5% level of significance, is government housing. People residing in government houses under the state housing programme reported being very unhappy. Presenting this result in isolation may have policy implications, so it is important to disentangle the combined features that may help explain this particular covariate. This is because the likelihood of being poor when residing in government housing is high. This scheme is meant for the poor black population, as a social protection policy to provide a safety net due to the high poverty and inequality rates in South Africa.

Unlike the wellbeing indicator, marital status showed different dynamics in explaining the likelihood of being happy or not. Although it is not statistically significant, people who are living with their partners and those separated or divorced did not report being unhappy, instead, they are more likely to be happy compared to their counterparts. The wave effects for these results have been controlled for all five waves.

Robustness check

In this section, we report the results of a number of further robustness exercises and extensions. Robustness along the line of education (see Table 10), confirms a negative relationship between spending many hours on the primary job and the likelihood of

one to moonlight. Further, we found a significant relationship for individuals with post-secondary education. A plausible reason for this is that such individuals are more likely to qualify for job opportunities that fully engage them, unlike unskilled laborers, who may be underemployed, hence, desire to engage in more moonlighting activities. Also, we found a statistically significant relationship for post-secondary international migrants and divorcees. The results for our primary variable of interest which happens to be hours spent on primary work seem to be significant across our regressions which were estimated along the lines of wave and interaction of variables.

CONCLUSION

Moonlighting and migration have been hypothesized independently in both theoretical and empirical literature. However, the relationship between migrants' likelihood to moonlight, and how this affects their wellbeing, and its implication for policy rethinking have not received the needed attention in both research and policy design. The present work employed an individual level panel dataset from South Africa to estimate the key determinants of moonlighting and its implication on wellbeing. The key variables of interest are moonlighting and self-reported wellbeing among individuals, with moonlighting as the main covariate. A model of determinants of happiness was also estimated, to draw synergies or nuances in the estimated self-reported wellbeing model.

Evidence was found that international migrants are more likely to moonlight. Individuals who spent more hours above the normal (40 hours per week) on their primary job have a lower tendency to moonlight. The paper established a strong incidence of moonlighting among divorcees, individuals with higher monthly household expenditure, and people who made use of social networks in their job searches. Divorced or separated people are solely responsible for their daily upkeep, payment of bills, among other expenses, and therefore their lack of financial support increases their propensity to hold multiple jobs in order to earn more. Higher household expenditure translates into a need for greater household income, which therefore means reduction in leisure hours and a rise in working hours in order to achieve this. Individuals who use social networks in job-seeking are more likely to operate in the informal and private household sectors. This means that returns will be lower than for individuals in formal work. It is therefore reasonable that such individuals hold more than one job to increase their earnings. In effect, it can be concluded that moonlighting among individuals is a rational decision based on sociodemographic and economic factors.

The analysis suggests that there is a significant relationship between moonlighting and self-reported wellbeing. Specifically, moonlighting tends to negatively affect an individual's wellbeing. This conclusion is also deep-seated in the theoretical perspectives of moonlighting, which posit two main constraints – hours and income. Trading off leisure hours will lead to a corresponding rise in labor income. However, the individual is subjected to a constraint from low or no leisure

hours, which affects wellbeing. This partly explains the conclusion drawn in the work of Mulcahy and Kollamparambil (2016), that notwithstanding a rise in income from extra labor, migrants reported lower wellbeing. In order to verify this claim further, another model was estimated, with self-reported happiness as the dependent variable. Although there are slight variations, the general result confirms the wellbeing model, that holding more than one job or working beyond the stipulated hours of work adversely affect one's wellbeing, keeping other covariates constant.

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APPENDIX

Table 3: Moonlighting and self-reported wellbeing and happiness

Variables	**(1) Subjective Wellbeing**	**(2) Happiness**
Moonlighting	0.223**	0.075
	(0.113)	(0.130)
Hours of primary work	0.076***	0.093***
	(0.023)	(0.025)
Number of children	0.048***	0.052***
	(0.008)	(0.009)
Post-secondary education	0.050*	0.037
	((0.029)	(0.033)
Self-paid medical aid	0.142***	0.073**
	(0.032)	(0.036)
Government housing	-0.003	0.068**
	(0.030)	(0.032)
Migration status		
Internal migrant	-1.517***	-0.565
	(0.583)	(0.387)
International migrant	-13.634	-0.686
	(616.276))	((1.270)
Marital status		
Living together	0.127***	-0.072
	(0.046)	(0.048)
Widow/widower	0.136***	0.169***
	(0.046)	(0.049)
Divorced/separated	-0.104**	-0.070
	(0.052)	(0.059)
Never married	0.221***	0.184***
	(0.028)	(0.031)
Constant	2.711***	2.872***
	(0.078)	(0.087)
Observations	4,382	7,548

Note: *,**,***denotes significant at the 10%, 5% and 1% levels respectively. Robust standard errors are presented in parenthesis.

All tables and figures in the appendix are based on data calculated by the authors

Table 4: Migrant type

	Freq.	Percent	Cum.
Non-migrant	62244	69.08	69.08
Internal migrant	27372	30.38	99.46
International migrant	483	0.54	100.00

Table 5: Job Search strategy

	Freq.	Percent	Cum.
Adverts	5732	22.27	22.27
Social Network	13259	51.51	73.77
Manual Search	6708	26.06	99.83

Table 6: Highest education

	Freq.	Percent	Cum.
Secondary education	148180	78.20	78.20
Post-Secondary education	41302	21.80	100.00

Table 7: Moonlighter

	Freq.	Percent	Cum.
No	25635	99.02	99.02
Yes	255	0.98	100.00

Table 8: Age group

	Freq.	Percent	Cum.
Children (below 15)	62410	20.92	20.92
Youth (15-34)	66829	22.40	43.31
Adults (35-65)	49653	16.64	59.95
Elderly (above 65)	119493	40.05	100.00

Table 9: Robustness check using individual waves for random effect model

Variables	**(1) All wave**	**(2) wave>1**	**(3) wave>2**	**(4) wave>3**	**(5) wave>4**
Hours on primary work	-0.003	-0.005***	-0.006***	-0.006***	-0.006***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Number of children	-0.001	0.001	0.001	0.002**	0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Internal migrant	-0.001	-0.001	-0.001	0.000	0.000
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
International migrant	0.056***	-0.010	-0.010	-0.007	-0.007
	(0.018)	(0.020)	(0.024)	(0.023)	(0.023)
Living together	0.009**	0.005	0.006	0.002	0.002
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Widow/widower	0.008*	0.006*	0.007*	0.003	0.003
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)
Divorced/separated	0.018***	0.011**	0.012**	0.003	0.003
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
Never married	0.004	0.004*	0.004	0.003	0.003
	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Highest level of education	0.003	0.004*	0.006**	0.006*	0.006*
	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Household expenditure	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Social network	0.007**	0.004*	0.004	0.005*	0.005*
	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)
Manual	0.003	0.003	0.003	0.004	0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
wave	-0.003***				
	(0.001)				
Constant	0.010*	-0.002	-0.003	-0.007	-0.007
	(0.005)	(0.004)	(0.004)	(0.005)	(0.005)
Observations	7,264	9,673	8,129	6,040	6,040
R-squared	0.008	0.004	0.006	0.006	0.006

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 10: Robustness check using education for random effect model

Variables	**(1)** **Secondary Education**	**(2)** **Post-Secondary Education**
Hours on primary work	-0.001	-0.011**
	(0.002)	(0.006)
Number of children	-0.001	-0.001
	(0.001)	(0.002)
Internal migrant	-0.002	0.001
	(0.003)	(0.006)
International migrant	0.032	0.125***
	(0.020)	(0.041)
Living together	0.008*	0.019
	(0.005)	(0.012)
Widow/widower	0.012**	-0.005
	(0.005)	(0.010)
Divorced/separated	0.003	0.046***
	(0.006)	(0.010)
Never married	0.004	0.004
	(0.003)	(0.007)
Household expenditure	0.000**	0.000
	(0.000)	(0.000)
Social Network	0.008**	0.006
	(0.003)	(0.006)
Advert	0.005	-0.004
	(0.004)	(0.007)
Manual	-0.012	-0.003
	(0.064)	(0.063)
wave	-0.003***	-0.001
	(0.001)	(0.002)
Constant	0.010*	0.007
	(0.006)	(0.012)
Observations	5,656	1,608
R-squared	0.006	0.026

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 11: Interactions of variables for robustness check

Variables	(1) RE	(2) RE	(3) RE	(4) RE
Hours on primary work	-0.626**	-0.636**	-0.642**	-0.379
	(0.260)	(0.262)	(0.260)	(0.315)
Internal migrant	-0.253	0.076	-0.302	0.152
	(0.486)	(0.459)	(0.303)	(0.290)
International migrant	4.905**	2.586*	1.474	1.843
	(2.416)	(1.434)	(1.238)	(1.288)
Living together	0.411	0.765	0.507	0.456
	(0.471)	(0.583)	(0.467)	(0.467)
Widow/widower	0.488	0.970*	0.508	0.497
	(0.448)	(0.517)	(0.447)	(0.449)
Divorced/separated	0.950**	1.100*	0.916*	0.927*
	(0.474)	(0.608)	(0.472)	(0.474)
Never married	0.294	0.218	0.308	0.295
	(0.327)	(0.413)	(0.327)	(0.327)
Married Internal migrant		-1.054		
		(1.015)		
Widowed Internal Migrant		-1.945		
		(1.218)		
Divorced Internal Migrant		-0.246		
		(0.889)		
Never married Internal Migrant		0.281		
		(0.593)		
Married International migrant		0.000		
		(0.000)		
Widowed International Migrant		0.335		
		(2.068)		
Divorced International Migrant		0.000		
		(0.000)		
Never married International Migrant		0.000		
Highest education	0.483	0.475	0.149	0.487
	(0.301)	(0.303)	(0.384)	(0.301)
Number of children	0.020	0.033	0.036	0.029
	(0.102)	(0.087)	(0.086)	(0.086)
Household expenditure	0.000***	0.000***	0.000***	0.000**
	(0.000)	(0.000)	(0.000)	(0.000)
Social network	0.555	0.565	0.553	0.578*
	(0.341)	(0.344)	(0.339)	(0.341)
Manual	0.409	0.425	0.397	0.430
	(0.376)	(0.378)	(0.375)	(0.376)
Non-Migrant and Number of children	0.000			
	(0.000)			
Internal migrant and Number of children	0.065			
	(0.152)			
International migrant and Number of children	-1.453			
	(1.356)			
Non-Migrant and Secondary Education			0.000	
			(0.000)	
Non-Migrant and Post-Secondary Education			0.000	
			(0.000)	
Internal migrant and Secondary Education			0.000	
			(0.000)	
Internal migrant and Post-Secondary Education			0.733	
			(0.535)	
International migrant and Secondary Education			0.000	
			(0.000)	
International migrant and Post-Secondary Education			2.279	
			(2.061)	
Constant	-7.372***	-7.525***	-7.305***	-7.498***
	(0.711)	(0.724)	(0.691)	(0.709)
Observations	10,081	10,068	10,081	10,081

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 12: Summary statistics

Variables		**Mean**	**Std.Dev.**	**Min.**	**Max.**	**Observation**
Moonlighting	overall	0.009	0.099	0	1	N= 25890
	between		0.0811	0	1	n= 13583
	within		0.0674	-0.740	0.810	T-bar = 1.906
Hours of Work	overall	0.496	0.500	0	1	N= 25890
	between		0.435	0	1	n= 13583
	within		0.313	-0.304	1.296	T-bar = 1.906
Kids	overall	2.557	1.552	1	14	N= 10739
	between		1.527	1	14	n= 5802
	within		0.446	-4.643	6.057	T-bar = 1.851
Male	overall	0.500	0.500	0	1	N = 25886
	between		0.500	0	1	n = 13579
	within		0	0.500	0.500	T-bar = 1.906
Age Group	overall	2.554	0.509	1	4	N = 25890
	between		0.498	1	4	n = 13583
	within		0.171	1.754	3.354	T-bar = 1.906
Migrant Type	overall	1.403	0.508	1	3	N = 24539
	between		0.454	1	3	n = 13212
	within		0.310	-0.097	3.003	T-bar = 1.857
Education	overall	2.194	0.395	2	3	N = 25887
	between		0.372	2	3	n = 13582
	within		0.119	1.394	2.993	T-bar = 1.906
Job search	overall	4.075	2.124	1	11	N = 25710
	between		1.827	1	11	n = 13526
	within		1.331	-2.175	11.275	T-bar = 1.901
Wellbeing	overall	2.917	0.708	1	4	N = 15007
	between		0.650	1	4	n = 9713
	within		0.389	0.917	4.917	T-bar = 1.545
Happiness	overall	2.988	1.081	1	4	N = 25530
	between		0.914	1	4	n = 13510
	within		0.725	0.588	5.388	T-bar = 1.889
HH monthly Inc	overall	3320.582	7033.178	0	230000	N= 4091
	between		7112.908	0	230000	n = 3771
	within		1402.208	0	230000	T-bar = 1.085
Marital status	overall	3.221	1.824	1	5	N = 25852
	between		1.739	1	5	n = 13571
	within		0.616	0.0208	6.421	T-bar = 1.905

Figure 2: Descriptive statistics

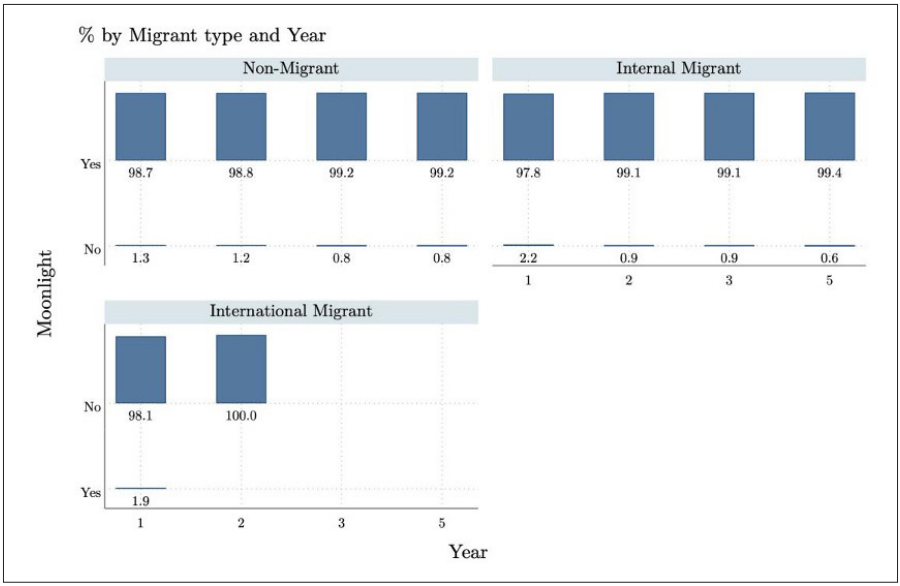

Figure 3a: Change in moonlighting over time per migrant type Moonlight% per migrant type

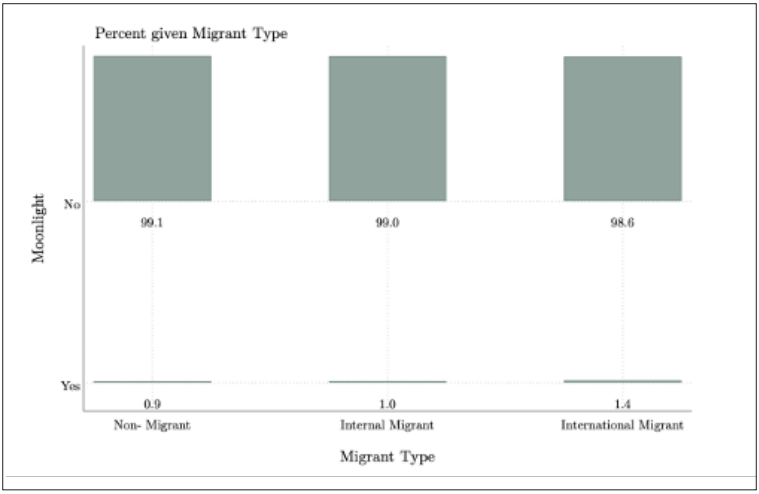

Figure 3b: Change in moonlighting over time per migrant type. Subjective Wellbeing% per migrant type