# Criminalising clients: some evidence from the UK

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## Abstract

We discuss the role of stigma in the sale of sexual services and the effect that policies increasing stigma have on sex markets and the welfare of the actors therein, presenting the different sides to the debate and the evidence in their support. We then examine changes in legislation in the United Kingdom, which ended the relatively permissive regime established with the Wolfenden Report of 1960, to a much harder line aiming to crack down on prostitution with the Prostitution (Public Places) Scotland Act 2007 and the Policing and Crime Act of 2009 in England and Wales. We make use of two waves of the British National Survey of Sexual Attitudes and Lifestyles, a representative sample of the British population (Natsal2, conducted in 2000-2001 and Natsal3, conducted in 2010-2012) to investigate changes in both the amount and composition of demand for paid sexual services between the two waves, and draw some implications on the likely welfare effects of considering prostitution a form of crime.

**JEL Codes:** C35, J16, J22, K42.

## 1. Introduction

The sale of sexual services is an activity carried out by women, men, and transgender individuals mostly, although not exclusively, to cater for male demand (Cunningham and Shah, 2016). It has been widely studied in the social sciences along a variety of dimensions including violence, immigration, and sex tourism (Thorbek and Pattanaik 2002; Sánchez Taylor and O'Connell Davidson 2010), identity and rights (Pheterson 1995 Brewis and Linstead 2000), drug abuse, HIV risks, and regulatory concerns (Della Giusta and Munro 2008; Scoular 2010). Many social scientists have also taken a critical approach to the rhetoric around trafficking and slavery (Agustín 2007; Kempadoo et al. 2011; O'Connell Davidson 2014; Weitzer 2014, 2015a, 2015b), and the significant dangers stemming from debates equating all forms of female migration to work in the sex industry with trafficking, and all trafficking with slavery.

The question of how to regulate prostitution and whether it is or not a criminal activity has long been debated and diverse agendas about gender equality, the regulation of sexuality,

personal self-determination, state protectionism, public nuisance and socio-economic disparity are all reflected in legal and policy responses at national state level, as well as the very name the activity takes. The language of 'prostitute' and 'prostitution' is typically aligned with abolitionist perspectives that see the sale of sex as entailing women's exploitation and objectification, both by those who manage and create the opportunity for the sexual transaction as well as by those clients who make the purchase and maintain the demand. The language of 'sex workers' and 'sex work' has typically been preferred by those who emphasise women's agency in entering into commercial sex transactions (albeit under conditions of constraint) and who call for the regulation of the sale of sex as akin to the sale of non-sexual labour or services. We deliberately use the two terms interchangeably in our work, as taking positions in the ideological debate is not our scope (Weitzer, 2005, presents an excellent summary of the arguments of both sides). In the remainder of the paper we firstly discuss the regulation of prostitution, then we present economic models of paid sex (section 3) and show to what extent they help understand this activity, and the central roles of stigma and agency (which we argue provides the ability to resist stigma). We then discuss how these models can be used to analyse policyand to what extent they predict what is observed empirically. In part 4 we present our analysis of the changes in demand that have taken place in the UK over the period 2000-2012, during which prostitution was progressively criminalised.

## 2.      Evidence on the regulation of prostitution

Euchner and Knill (2015) have attempted to characterise the evolution of regulation of prostitution in Western Europe since the 1960s, and noted that whilst until the late 1990s national rules converged on the paradigm that they define of 'permission without recognition' (prohibition of brothels and profit oriented third party activity but allowing activity in flats and on streets), a marked change has since occurred with countries diverging substantially. Germany, the Netherlands and Greece have moved towards acknowledging prostitution as a regular job on one side, and Sweden, Norway and Finland have hardened their stance instead moving to abolitionism, the aim to eradicate prostitution which is considered tantamount to a form of violence. In the first group of countries, the consideration of sex work as legitimate labour has led to shifting bans on outdoor and indoor prostitution subject to compliance with regulations (Netherlands since 2000, Germany since 2002). Sex workers are entitled to a number of employment related protections under the law, and local authorities required to ensure that brothels are suitably licensed and operating in accordance with relevant health and

safety requirements. The abolitionist model, conversely, seeks to prohibit prostitution, facilitate exit and punish clients and has applied in varying degrees in the United States and, more recently, Sweden, Norway and Finland. In Sweden it is an offence, punishable by a fine or imprisonment for up to six months, to obtain a casual sexual relationship for payment. Both outdoor and indoor prostitution are prohibited, although only the clients will be criminalised. As a result, the spotlight shines squarely on the purchaser of commercial sex, and on criminalising his role (it is thought to be always a he, though both women and couples purchase sex) in creating demand for the sex industry. A key rationale behind this is that prostitution is a central manifestation of male violence against women, which in turn means that those who sell sex should not themselves be punished, since they are victims rather than criminals. True gender equality, it is argued, is attainable only when men are no longer permitted to buy, sell and exploit women in prostitution, and the Swedish government has coupled this legislative initiative with a number of outreach programmes designed to assist women who wish to leave the industry. Intermediate options continue to exists, as exemplified by the approach of decriminalisation adopted for example in New Zealand, which since 2003 has decriminalised a range of offences that were related to selling sex such as soliciting, brothel-keeping, procuring intercourse. Brothels in NZ are not subjected to any specific state licensing system, but are governed by the usual employment and health regulations that apply to other businesses. Soliciting has been decriminalised and there are no legal impediments to recruiting clients in public bars or hotels. In passing these reforms, the New Zealand Government emphasised that its aim was not to legitimise prostitution but to offer to those who worked in the industry an improved level of protection and eradicate the barriers to exiting prostitution, such as may be created by a criminal conviction.

The effects of the different regulatory regimes on the extent of the market and the welfare of those involved have been widely studied, although the lack of reliable data is often mentioned as a significant obstacle. It has for example been argued that women working in toleration zones or regulated brothels (in the Netherlands or Germany, for example) are less marginalised and better off (both personally and financially) than outside (Euchner and Knill, 2015). However, it has also been observed that many sex workers in Germany remain unregistered - often for tax reasons – and that experience in the Netherlands suggests that the transition to a license-based regime has had negative side-effects: in particular, establishing regulatory systems and policing toleration zones has imposed hefty demands on state agencies and it has been suggested that the most vulnerable women (e.g. those with irregular migration

status or drug addictions) have been pushed into illegal sectors where there is no protection. There have been problems in finding a suitable location for toleration zones, and it has been argued that many clients – preferring to remain anonymous - will be reluctant to frequent more visible areas, creating inevitable demand for unregulated arenas. While offering the benefits associated with the reduction of sex work stigma and the greater visibility of sex workers (which is thought to render them less vulnerable to abuse), it has been argued that decriminalisation may offer the added advantage of limiting state intrusion into the private lives of sex workers, and permitting them greater flexibility in their working practices (Della Giusta, 2010).

No agreement exists on the consequences of decriminalisation on demand (New Zealand Ministry of Justice, 2008 suggests demand has fallen; Farley, 2010 suggests it has increased but cannot provide supporting evidence). Similarly, supporters of the abolitionist approach cite its impact on demand, arguing that there has been a marked decline in the number of prostitutes working on Swedish streets, but there is also evidence that online prostitution has increased enormously and that there has been cross-border displacement too. One of the risks of abolitionism is that it may simply force relocation to less visible sites in which sex workers may be at increased risk of abuse, or drawn into a more competitive market in which they have to cut prices or offer riskier services to secure the business of a decreasing client base, and controversy rages over which effect has been prevalent in Sweden and neighbouring countries, as reported in The Home Affairs Committee Prostitution Enquiry Report published in July 2016[1].

The UK has moved from a relatively permissive regime under the Wolfenden Committee Report in the late 1950s, according to which prostitution itself was not illegal, although many of the activities that facilitate or flow from both its street and off-street manifestations

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[1] http://www.publications.parliament.uk/pa/cm201617/cmselect/cmhaff/26/2607.htm#footnote-046

The Swedish Sex Purchase Act: Where Does it Stand? Charlotta Holmström og May-Len Skilbreihttps://www.idunn.no/oslo_law_review/2017/02/the_swedish_sex_purchase_act_where_does_it_stand

(including soliciting, kerb-crawling, controlling prostitution for gain, etc.) were criminalised, to a much harder line of aiming to crack down on prostitution with the Policing and Crime Act of 2009. As discussed in Della Giusta and Munro (2008) and Della Giusta (2009), the regulatory framework within which prostitution takes place in England and Wales has undergone significant changes in recent years and taken a decisively abolitionist turn, as the Swedish approach became popular with British policy makers. In 2004 the government conducted the Paying the Price consultation and the resulting legislation sought to introduce a markedly more negative stance towards the industry and clients in particular, and a view of sex workers as essentially victims. The Home Office prostitution Strategy for England and Wales (2006) contained as a key element 'tackling demand', which was seen alongside 'reducing supply' as crucial to eradicating street prostitution and challenging the view that street prostitution is inevitable. The Strategy formally endorsed measures such as prosecutions under the kerb crawling legislation, local media campaigns including 'naming and shaming' and 'kerb crawler re-education programs'. The Strategy also gave room to the implementation, in several parts of the country, of a raft of prosecution for kerb crawling offences, under the Sexual Offences Act 1985. The Criminal Justice and Police Act 2001 strengthened the previous regulation and made the offence arrest able, giving the courts have the power to disqualify drivers. Similarly, in October 2007, the policing Minister in Northern Ireland announced that kerb crawling would be introduced into law as a specific offence. In Scotland, the Prostitution (Public Places) Scotland Act 2007 came into force in October 2007; it criminalised 'loitering or soliciting in any public place for the purpose of obtaining the services of someone engaged in prostitution.' (Sanders and Campbell, 2008). Finally, the Policing and Crime Act of 2009 includes a number of provisions including criminalization of soliciting and making it illegal to pay for services from a prostitute whom a third person has subjected to force, threats, coercion or deception to perform those services, irrespective of whether the customer knew or could have known about this exploitation and of the country where the sexual services are provided. Campaigning is now calling for paying for sex to be made a crime. The policy emphasises the harms that are deemed to be inherent in prostitution and insists that those who sell sex should be seen primarily as victims – unless and until they fall foul of this categorisation by refusing assistance to 'exit' and opting instead (whether by choice or circumstance) to continue to sell sex. In addition, it is based on the abolitionist conviction that reduction of women's involvement in sex work can be achieved by stricter enforcement of kerb-crawling laws that target clients.

The effects on sex workers have been very significant: Sanders and Campbell (2008) illustrate the implications of this shift for the rights, safety and working conditions of sex workers and the increase in their stigmatization. Here we want to see what has happened to the officially intended target of the policy that is demand. We exploit two waves of the nationally representative British National Survey of Sexual Attitudes and Lifestyles based on interviews in the period 2000-2001 (Natsal 2) and 2010–2012 (Natsal 3) and look for any changes in the extent and composition of demand that can be detected.

## 3. Economic models of prostitution

Whilst moral philosophers and sociologists regularly engage in debates on commodification (see e.g. Sandel, 2012), economists have traditionally kept to their consequentialist moral stance and focused on finding the best way to make 'morally repugnant' transactions that have a benefit happen without eliciting such repugnance (Healy and Krawiec, 2017). Historical examples are the debates on blood donations (Titmuss, 1971; Arrow, 1972; Singer, 1973) and more recently on incentives to donate human organs (Cohen 1989; Hansmann 1989; Blair and Kaserman 1991; Kaserman and Barnett 2002), all of which, Healy and Krawiec point out, have stalled in the face of the difficulty of attributing moral costs against the benefits flowing from the trade, so that the more recent literature has instead focused on reducing the repugnance itself through adequate institutional design (e.g. Roth's in kind kidney exchange system; Roth, 2007), or reframing (Fiske and Tetlock 1997), management of negative effects through "relational work" (Zelizer 2005), or outright obfuscation (Rossman 2014). When it comes to the regulation of prostitution, a recent contribution by Lacetera et al (2017) focussing on the link between levels of economic development and the regulation of morally contentious activities (including abortion, surrogacy and prostitution) find that for prostitution there is an association between higher income per capita and legalisation, but it is actually not a very strong relationship and historical cultural and political factors play an important role (for example, countries with a majority of Catholics legislate less often on markets for sex, but are also more likely to allow non-organized forms of prostitution, democratic countries and countries with more gender political equality allow more prostitution but not if it is perceived as a form of exploitation). Unsurprisingly, the economic literature has focused on more standard economic issues related to both selling and buying sex: prices and supply characteristics (Samuel Cameron, Alan Collins and Neill Thew et al 1999; Peter Moffatt and Simon Peters 2001; Lena Edlund and Evelyn Korn 2002; Samuel Cameron, 2002), demand

determinants (Samuel Cameron and Alan Collins 2003), health risks and the effect of condom use on sex workers' earnings (Vijayendra Rao, Indrani Gupta, Michael Lokshin and Smarajit Jana 2001; Paul Gertler, Manisha Shah and Stefano Bertozzi 2003), the evolution of paid sex markets and the ways in which urban spaces favour sexual transactions (Alan Collins 2004), the effect of men in transit on the demand for paid sex (Scott Cunningham and Todd Kendall, 2011), the connections with trafficking (Maura Laura Di Tommaso, Isilda Shima, Steinar Strøm and Francesca Bettio, 2009), the role of asymmetric information and transaction costs in bargaining over price and working conditions (Debra Satz, 2010; Neha Hui 2012; Amy Farmer and Andrew Horowitz, 2013). Compensation has been linked to compensation for social exclusion, risk (violence, disease, arrest, punishment), front loading in wage profile (informal pension scheme or insurance), boredom and physical effort, distaste (potential psychological and physical costs), loss of recreational sex pleasure, and anti-social and inconvenient hours, and, more controversially, the wages of sex workers have been described as 'high' for a 'low skill' occupation and explained by the loss of position in the marriage market (Edlund and Korn, 2002).

Not many studies have focussed on the demand side in great detail. However, existing studies of clients suggest that personal characteristics (personal and family background, self-perception, perceptions of women, sexual preferences), economic factors (education, income, work), as well as attitudes towards risk (health hazard and risk of being caught where sex work is illegal), lack of interest in conventional relationships, desire for variety in sexual acts or sexual partners, and viewing sex as a commodity, are all likely in different ways to affect demand. The connection between the effort and costs associated with finding a sexual partner who would readily satisfy their sexual preferences, and the straightforward and readily accessible option of sex work features in motivations of male sex workers' clients in the UK (Coy, Horvath and Kelly, 2007; Campbell, 1998 and Sanders 2008), and in men and women clients in Australia (Pitts et al, 2004). Clients differ widely in their views: Monto (2004) finds that clients of street sex workers in the US are not particularly sexist, whereas conservative views and viewing sex workers as socially inferior feature in accounts of sex tourists, both female and male sex (Thorbek and Pattanaik, 2002; Sanchez Taylor, 2001; Marttila; 2003). The phenomenon is obviously not limited to paid sex exchanges and widely documented across a range of personal services (see e.g. Ehrenreich and Hochschild, 2003) in which inequality appears to be at the core of the relationship: prejudices that allow the stigmatisation of another person as fundamentally "different" and inferior to oneself appear again and again in customers' accounts (Ben-Israel et al. 2005; Pitts et al 2004; Kern 2000; Blanchard 1994).

Significantly, neither this research on Australia, nor our work on the US (Della Giusta et al., 2007) found significant differences between men who had paid for sex and those who had not, but these were selected samples. When analysing representative samples of the population which contain both clients and non-clients differences begin to emerge (Della Giusta et al., 2016a and 2016b), and one can see clearly that sociodemographic, degree of conservativism and risk attitudes all play an important role in identifying different types of demand.

Interestingly, some of the central tenets of theories of crime do not hold with respect to prostitution: for example, whilst the effect of other risky behaviours on demand for paid sex is the one expected from the crime literature (that is they are positively correlated), the effect of education is often irrelevant or even opposite to what the crime literature typically finds: criminals tend to be less educated than the rest of the population (Harlow, 2003, Machin *et al.*, 2011; Buonanno and Leonida, 2006; Hjalmarsson, et al. 2015) and, following Becker's model (1996) education should increase the opportunity cost of paying for sex and improve self-control (as well as increase the availability of other opportunities for sex, and the awareness of health risks), but this is not found empirically.

The general economic model of the market for prostitution we developed (see Della Giusta et al, 2009) attempts to take these stylised fact into account, hypothesises that paid sex and freely exchanged sex are not perfect substitutes, and gives stigma and the capacity to resist it a central role. This resistance to stigma (which we called reputational capacity in our original model and discussed as a parameter) can be easily linked to agency, since the latter is what on the one hand mitigates the effects of stigmatisation and on the other allows to clearly identify the role of individual factors in determining the conditions of the transaction. The role of agency and resistance to stigma for sex workers has been extensively discussed in terms of both the characteristics of the workers themselves (gender, age, ethnicity, appearance, drug addiction, family status, etc.) and the segments and locations in which they operate (Della Giusta, 2010; Weitzer, 2005) Clients' agency, which in respect to consumption of paid sex refers specifically to their ability to deploy strategies to consume paid sex when this is stigmatised and how they change if stigmatisation increases or decreases, has been less the focus of discussion, although there are papers discussing the effects of criminalization on clients (Sanders and Campbell, 2008). In our model all agents care about their reputations because they derive direct material and immaterial utility (it is desired *per se* and can be used to access other earning opportunities) from a positive evaluation by others in the social groups they belong to (Granovetter 1985; Mansky 2000), and secondly, because they are aware of the costs that social sanctions may impose on their material progress (Akerlof 1980; Arnott and

Stiglitz 1991). The model considers both the case in which reputational endowments are exogenous (that is not affected by behaviour within the sex industry) and the situation when those endowments are endogenous, that is a situation in which if a higher quantity of prostitution is sold or bought in the economy the stigma effect decreases, following Akerlof's theory of social custom (Akerlof 1980). Our model predicts that client will participate in the 'market' for paid sex if their marginal willingness to pay for exceeds the price of paid sex, plus the marginal costs of a worsened reputation. The higher their ability to resists stigma (R), which in turn depends on both the level of stigma associated with the activity and their own agency, the lower is the marginal cost from reputation effects of consuming prostitution, and the more likely it is that prostitution is consumed. On the supply side, an individual will start to sell sex if the price of paid sex exceeds its opportunity cost, again in terms of reputation and alternative uses of one's time: the higher the price of paid sex, the more likely it is that an individual will supply prostitution; the lower the availability of alternative income, the more likely it is that the individual will take part in the prostitution industry; and the lower the effect of stigma on sex workers (again depending on the level of stigma associated with the activity and their agency), the more likely it is that prostitution will be sold. The equilibrium amount of prostitution sold and bought in the market ($S^*$) is a function of the exogenous parameters: ability to resist stigma of sex workers ($R_p$) and clients ($R_c$) and other sources of income for sex workers ($H_p$). The table below describes the changes in both quantity and price (w) of prostitution that result from increases in reputations and alternative earnings, the key policy parameters that regulation typically aims to address.

Table 1. Changes in supply and wages of sex workers resulting from increases in reputation capacities and other earning options

|  | $R_c$ | $R_p$ | $H_p$ |
|---|---|---|---|
| $S^*$ | + | + | + |
| W | + | - | - |

Column 2 shows that clients with high resistance to stigma buy more sex and are also prepared to pay more for it (wealthy clients of expensive escort agencies are a case in point as the agencies ensure less stigmatization but this is only accessible through high prices). Column 3 suggests that if sex workers have high resistance to stigma they will sell more sex but for lower prices (temporary immigrant sex workers in Europe who aim to work in prostitution only

for a limited amount of time to accumulate savings and then return to their country as in Thorbeke and Pattanaik 2002; and Corso and Trifirò 2003). Column 4 states that the fewer the alternative earning opportunities ($H_P$ high), the more sex is sold at a lower price.

Following abolitionists line of reasoning, keeping constant the individual resistance to stigma, and the rate of substitution in demand between paid and unpaid sex, our model predicts that policies that increase the stigma associated with prostitution decrease the marginal net gain of supplying prostitution, and the marginal willingness to pay for prostitution. This should, in a closed economy, have the effect of decreasing the price of prostitution and, given the same availability of alternative earning opportunities (if there are constant intermediation margins), also the quantity supplied. Of course, in an open economy, immigration of illegal workers and out-migration of clients (sex tourism), might mitigate some of these effects.

Stigmatisation though is mediated by clients' ability to resist it: less risk averse clients may be less deterred by the hardened consequences of being caught and crowd out more risk averse clients who might be displaced to other less risky forms of sex consumption. Similarly, sex workers might respond to increased stigmatisation by either finding other less risky ways of supplying their clients (moving indoors, using internet and using client profiling) whilst those less able to resist stigma (and more vulnerable) might find themselves exposed to much worse working conditions (heightened risks from operating the selection of clients). Cunnigham and Shah (2017) have exploited the fact that a Rhode Island District Court judge unexpectedly decriminalized indoor sex work to provide causal estimates of the impact of decriminalization on the composition of the sex market, reported rape offenses, and sexually transmitted infections, and found that, in line with our model predictions, decriminalization increases the size of the indoor sex market, and, again in line with our model predictions, there is a fall in both reported rape offenses and a decline in female gonorrhoea incidence. We are not able to conduct a similar causa exercise here, but we have conversely the benefit of representative data, which we believe illustrates the same effect (in the opposite direction of course) for the United Kingdom and lends further support to both our theory, and the idea that stigmatization is a dangerous route to pursue.

## 4. Criminalising prostitution in the UK: changes in demand.
### 4.1 The data

The National Surveys of Sexual Attitudes and Lifestyles ('Natsal') are stratified probability sample surveys of the general population, resident in Britain[2]. There have been three Natsal in 1990, 2000, and 2010, conducted by UCL in partnership the National Centre for Social Research and the London School of Hygiene and Tropical Medicine. The first Natsal survey, conducted 1990-1991, was one of the largest of its kind internationally. 18,876 men and women aged 16-59 years were interviewed for 'Natsal-1', with results published in 'Sexual Attitudes and Lifestyles' (Johnson et al., 1994). A second Natsal survey was conducted in 1999-2001 ('Natsal-2'). 11,161 people aged 16-44 years were interviewed as a 'core' sample, and an additional 949 people of Black African, Black Caribbean, Indian, and Pakistani ethnicity interviewed as part of an ethnic minority boost sample. The third Natsal survey ('Natsal-3') was conducted in 2010-2012. More than 15,000 people aged 16-74 years were interviewed.

Ward et al. (2005) found using Natsal 1 and 2 that there had been an increase in sexually transmitted infections and risky sexual behaviours, and found an increase in the number of men reporting paying for heterosexual sex, with the typical client being between 25 years and 34 years, never or previously married, and living in London, and no association with ethnicity, social class, homosexual contact, or injecting drug use. They also found that men who paid for sex were more likely to report 10 or more sexual partners in the previous 5 years and that only a minority of their lifetime sexual partners (19.3%) were commercial, with only 15% reported having had an HIV test. Jones et al (2014) focused on the role of men who pay for sex in Natsal3 in the diffusion of sexually transmitted infections (STI) and found that men who pay for sex also report high numbers of partners more generally and thus are an important core group in STI transmission, thus potentially posing a public health hazard.

Here we focus instead on Natsal 2 and 3, and exploit the change in regulation which came into effect with the Policing and Crime Act of 2009, which criminalized soliciting, and made it illegal to pay for services from a prostitute whom a third person has subjected to force, threats, coercion or deception to perform those services, irrespective of whether the customer knew or could have known about this exploitation and of the country where the sexual services are provided. The act[3] also included a number of provisions aimed at sex workers which have sought to differentiate between those willing to exit the industry and those who continued to be involved, regardless of alternative earning opportunities available for them with an increase

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[2] http://www.ucl.ac.uk/iph/research/sexualhealthandhiv/tabs01/tab01
[3] http://www.legislation.gov.uk/ukpga/2009/26/contents

in stigmatisation for those remaining in the trade that has been documented by Sanders and Campbell (2008).

As already discussed, Scotland has been pursuing an independent prostitution policy which punishes kerb crawling, soliciting and loitering for the purposes of prostitution, and in the Prostitution (Public Places) Scotland Act 2007 has introduced criminalisation of 'loitering or soliciting in any public place for the purpose of obtaining the services of someone engaged in prostitution.' Scotland has since attempted to pursue both the introduction of Prostitution Tolerance Zones, as well as criminalise clients, but both have failed to become law. In practice, as both policy changes occur in the period intervening the two waves of Natsal, we cannot make use of the two years in which difference in difference methods would have been appropriate as there is no data on clients for that time.

As the focus here is on demand, in what follows we make use of the sample aged 25-44 for both Natsal2 and Natsal3, given Natsal2 had an upper age limit of 44. We focus on respondents aged 25+ as they should have finished their education. Respondents are asked if they have ever paid for sex (homosexual or heterosexual) and asked when they last paid for sex, grouped into: the last year, in the last five years, and longer than 5 years ago. Since only a few men report paying for sex in the last year (91 in Natsal2 and 71 in Natsal3), we focus on the last five years as a more recent demand for sex. We also divide those who have ever paid sex into experimenters (only ever paid for sex with 1 partner) and regulars (paid for sex with more than 1 partner). For the age range we have sample size of 3,523 for Natsal2 and 2,149 for Natsal3. The sample size is larger for Natsal2 due to the fact only those aged 16-44 were interviewed, whilst Natsal 3 asked those aged 16-74. Weights are provided for unequal selection probability, and we make use of these where possible as robustness checks. We run separate models for Natsal2 and Natsal3 as the sampling methods were different and the sample age ranges were different (although we do restrict the sample age range for Natsal3). We want to exploit the policy change in 2009 – however since the policy change was universal we do not have a control group who did not experience the policy change and hence cannot use a difference-in-differences approach. We therefore compare models before and after the policy change using Natsal2 prior to the policy change, and Natsal3 after the policy change. We also in some cases compare the 25-44 Natsal2 sample with a sample of men aged 35-54 (so the same age cohort from 2000-2001) in Natsal3 (sample size 1,478).

Adjusting means for the sample weights (so our estimates are representative of the UK population), the proportion of men (aged 25-44) reporting having ever paid for sex in Natsal 2 was 10.91% (unweighted 12.44) in Natsal2 and 13.05% (unweighted 13.37%) in Natsal3. 4.64% (unweighted 6.04%) of men aged 25-44 had paid in the last 5 years in Natsal2 and 4.57% (unweighted 5.24%) in Natsal3. If we concentrate on men aged 35-54 in Natsal 3 this is 3.57% (unweighted 4.41%), so the recent demand for this cohort has decreased, but it is not possible to say if this is due to the policy or an ageing effect. **Overall the proportion having ever paid for sex has increased.**

As for the type of client, in Natsal2 4.92% (unweighted 5.31%) were experimenters and 6.00% (unweighted 7.29%) regulars compared to 4.43% (unweighted 4.89%) experimenters and 8.58% (unweighted 8.85%) regulars in Natsal3. This suggest that **the proportion of experimenters has fallen between Natsal2 and Natsal3 but the proportion of regulars has increased slightly.**

**SARAH PLEASE CAN YOU DO THESE 4 TABLES**

**Table 2 EVER PAID in Natsal 2 and 3: percentages and numbers ever paid for sex for the different samples (weighted and unweighted) with significant differences highlighted (test)**

**Table 3 EVER PAID by Client type in Natsal 2 and 3: percentages and numbers ever paid for sex for the paid for one partner and paid for many partners in the different samples (weighted and unweighted) with significant differences highlighted (test)**

**Table 4 PAID IN LAST 5 YEARS in Natsal 2 and 3: percentages and numbers paid for sex in last 5 years for the paid for one partner and paid for many partners in the different samples (weighted and unweighted) with significant differences highlighted (test)**

**Table 6 PAID IN LAST 5 YEARS by Client type in Natsal 2 and 3: percentages and numbers paid for sex in last five years for the paid for one partner and paid for many partners in the different samples (weighted and unweighted) with significant differences highlighted (test)**

### 4.2 Results

We run two models of the demand for sex, to see how the probability of paying for sex is related to different respondents' characteristics:

1) Paid for sex within the last five years (probit model)

2) Multinomial probit model of client types (never paid, experimenter and regular)

We report the marginal effects and the standard errors. While one can interpret the sign and significance of the coefficients of a (multinomial) probit model, the magnitude of the raw coefficients are not intuitive, therefore we report average marginal effects (an average across marginal effects for each individual), which provide the effect of a change in an explanatory variable on the probability of demanding for sex (and each of the categories for the MNP).

We now concentrate on **demand in the last five years** (Table 1) in the two samples, including sociodemographic controls to investigate the roles of education and stigma, the substitution between paid and unpaid sex, and the effect of attitudes and risky behaviours on demand. In particular we include: age dummies, current marital status (currently married, currently cohabiting, previously married/cohabiting), number of natural children (including stillborn and children who have died), ethnicity (white versus non-white), education (degree, A-level, O-level or none), socio-economic background (using the 2000 occupational definition for consistency between Natsal2 and Natsal3), whether religious, whether have conservative views (sex between two men is always/mostly wrong; one-night stands are always/mostly wrong; adultery whilst married is always/mostly wrong), alcohol consumption (none, low, moderate/high), smoking (non-smoker, ex-smoker, light smoker, heavy smoker), whether had unsafe sex in last year, whether ever inject drugs, age first had intercourse (those who have never had sex are omitted- 126 in Natsal2 and 74 in Natsal3), region (North East and North West combined with Yorkshire, West and East Midlands combined). Table A1 in the appendix presents the means of our variables by client type (unweighted) to assess changes in relative proportions within each wave. Table 1 reports models of demand measured by 'whether paid for sex in last 5 years', comparing Natsal2 and 3 for the age range 25-44 and also Natsal3 restricted to the 25+, Natsal3 with income (which was sadly not included in Natsal2) and Natsal3 for the 34-54 sample (those who were therefore 25-44 at the time of Natsal2). We report weighted results in the appendix for robustness (results are not altered).

**Table : Paid for sex in last 5 years (unweighted)  THIS TABLE COULD GO IN APPENDIX**

|  | Natsal2 25-44 | Natsal3 25-44 | Natsal3 25-44 - income | Natsal3 25+ | Natsal3 35-54 |
|---|---|---|---|---|---|
| **Age group (ref: 25-34)** |  |  |  |  |  |
| Aged 35-44 | -0.000 | 0.001 | 0.003 | 0.002 |  |
|  | [0.009] | [0.011] | [0.011] | [0.009] |  |

| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| Aged 45-54 | | | | -0.001 | -0.002 |
| | | | | [0.010] | [0.011] |
| Aged 55-64 | | | | 0.001 | |
| | | | | [0.011] | |
| aged 65-74 | | | | -0.020 | |
| | | | | [0.015] | |
| **Marital status (single and never married/cohabiting)** | | | | | |
| Currently married | -0.051*** | -0.061*** | -0.066*** | -0.054*** | -0.045** |
| | [0.012] | [0.015] | [0.016] | [0.010] | [0.020] |
| Currently cohabiting | -0.058*** | -0.068*** | -0.073*** | -0.067*** | -0.071** |
| | [0.014] | [0.017] | [0.018] | [0.013] | [0.029] |
| Previously married/cohabiting | -0.013 | 0.007 | 0.007 | -0.011 | -0.013 |
| | [0.011] | [0.013] | [0.013] | [0.009] | [0.020] |
| **Number of natural children (incl. stillborn and died)** | -0.009** | -0.009 | -0.008 | -0.006** | -0.006 |
| | [0.004] | [0.006] | [0.006] | [0.003] | [0.004] |
| **White** | -0.004 | -0.024 | -0.027* | -0.028*** | -0.021 |
| | [0.012] | [0.015] | [0.015] | [0.011] | [0.018] |
| **Highest Qualification (ref: None)** | | | | | |
| Degree | 0.021 | 0.011 | 0.007 | 0.013 | 0.032 |
| | [0.015] | [0.019] | [0.019] | [0.012] | [0.020] |
| A-level or equiv. | 0.022 | 0.009 | 0.006 | 0.021* | 0.051** |
| | [0.015] | [0.020] | [0.020] | [0.012] | [0.021] |
| O-level or equivalent | 0.012 | 0.008 | 0.007 | 0.018* | 0.023 |
| | [0.012] | [0.017] | [0.017] | [0.010] | [0.017] |
| **Socio-economic class (ref: elementary, process, service and never worked)** | | | | | |
| Managers and senior officials | 0.009 | 0.021 | 0.018 | 0.018* | 0.033** |
| | [0.012] | [0.016] | [0.016] | [0.010] | [0.015] |
| Professional | -0.016 | 0.005 | 0.001 | 0.012 | -0.022 |
| | [0.016] | [0.018] | [0.019] | [0.012] | [0.023] |
| Associate professional/administration | 0.003 | 0.020 | 0.017 | 0.007 | 0.006 |
| | [0.012] | [0.014] | [0.014] | [0.009] | [0.016] |
| Skilled trade | -0.007 | 0.018 | 0.018 | 0.004 | 0.008 |
| | [0.012] | [0.014] | [0.014] | [0.010] | [0.016] |
| **Conservative Opinions** | | | | | |
| Religious | 0.002 | 0.023** | 0.025** | 0.012* | 0.018 |
| | [0.008] | [0.010] | [0.010] | [0.007] | [0.011] |
| Sex between two men mostly/always wrong | 0.008 | 0.028*** | 0.028*** | 0.012* | 0.029** |
| | [0.008] | [0.010] | [0.010] | [0.007] | [0.012] |
| One-night stands mostly/always wrong | -0.035*** | -0.002 | -0.001 | -0.007 | -0.011 |
| | [0.010] | [0.011] | [0.011] | [0.007] | [0.011] |
| Adultery whilst married mostly/always wrong | -0.014 | -0.026** | -0.029** | -0.024*** | -0.030** |
| | [0.009] | [0.012] | [0.012] | [0.007] | [0.012] |
| **Risky Behaviour** | | | | | |
| **Average weekly alcohol consumption (ref: none)]** | | | | | |
| Low | -0.024* | 0.020 | 0.018 | 0.018* | 0.017 |
| | [0.012] | [0.014] | [0.014] | [0.009] | [0.014] |

| | | | | | |
|---|---|---|---|---|---|
| Moderate/high | -0.011 | 0.026 | 0.023 | 0.030** | 0.016 |
| | [0.015] | [0.019] | [0.019] | [0.012] | [0.019] |
| **Smoking (ref: never smoked)** | | | | | |
| Ex-smoker | -0.004 | -0.023 | -0.021 | -0.003 | -0.013 |
| | [0.012] | [0.015] | [0.015] | [0.008] | [0.014] |
| Light smoker | 0.006 | 0.006 | 0.009 | 0.005 | 0.008 |
| | [0.011] | [0.012] | [0.012] | [0.009] | [0.015] |
| Heavy smoker | 0.014 | 0.013 | 0.017 | 0.002 | 0.008 |
| | [0.011] | [0.015] | [0.015] | [0.010] | [0.016] |
| **Unsafe sex in last year=1** | 0.066*** | 0.031** | 0.036** | 0.039*** | 0.015 |
| | [0.010] | [0.015] | [0.015] | [0.009] | [0.016] |
| **Ever injected drugs==1** | 0.035** | 0.002 | 0.002 | 0.002 | 0.030 |
| | [0.017] | [0.027] | [0.027] | [0.021] | [0.030] |
| **Age first had intercourse (ref: 16-17)** | | | | | |
| Aged 13-15 | 0.008 | 0.027** | 0.026** | 0.023*** | 0.023* |
| | [0.010] | [0.012] | [0.012] | [0.008] | [0.013] |
| Aged 18-19 | 0.001 | -0.007 | -0.006 | 0.005 | 0.006 |
| | [0.011] | [0.014] | [0.014] | [0.009] | [0.015] |
| Aged 20+ | 0.016 | -0.008 | -0.007 | -0.008 | -0.010 |
| | [0.012] | [0.016] | [0.016] | [0.011] | [0.018] |
| **Region (ref: North and Yorkshire)** | | | | | |
| Midlands | 0.013 | -0.032* | -0.033* | -0.009 | -0.010 |
| | [0.013] | [0.018] | [0.018] | [0.010] | [0.016] |
| East | 0.012 | 0.010 | 0.007 | 0.008 | 0.002 |
| | [0.017] | [0.017] | [0.017] | [0.011] | [0.017] |
| London | 0.027** | 0.009 | 0.007 | 0.009 | 0.012 |
| | [0.012] | [0.016] | [0.016] | [0.011] | [0.019] |
| South East | -0.014 | 0.020 | 0.018 | 0.021** | -0.004 |
| | [0.016] | [0.015] | [0.015] | [0.010] | [0.017] |
| South West | 0.000 | 0.007 | 0.002 | -0.003 | -0.018 |
| | [0.018] | [0.020] | [0.020] | [0.013] | [0.023] |
| Wales | -0.029 | 0.020 | 0.020 | -0.005 | -0.053 |
| | [0.026] | [0.022] | [0.022] | [0.016] | [0.036] |
| Scotland | -0.032 | 0.017 | 0.016 | 0.010 | -0.014 |
| | [0.021] | [0.017] | [0.017] | [0.012] | [0.022] |
| **Income group (ref: <10,000)** | | | | | |
| 10,000-19,999 | | | | -0.014 | |
| | | | | [0.020] | |
| 20,000-29,999 | | | | 0.003 | |
| | | | | [0.019] | |
| 30,000-39,999 | | | | 0.035* | |
| | | | | [0.019] | |
| 40,000-49,000 | | | | 0.034* | |
| | | | | [0.021] | |
| 50,000+ | | | | 0.014 | |
| | | | | [0.020] | |

| | | | | | |
|---|---|---|---|---|---|
| Not answered | | 0.029 | | | |
| | | [0.019] | | | |
| Observations | 3,523 | 2,149 | 2,149 | 4,119 | 1478 |
| Log likelihood | -699.6 | -383.6 | -377.9 | -660.1 | -228.2 |
| LR Chi2 | 214.5 | 130 | 141.4 | 189.6 | 70.65 |
| pseudo r-squared | 0.133 | 0.145 | 0.158 | 0.126 | 0.134 |

Standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1

In addition to changes in the quantity demanded, at least by our measures, there is also a change in its composition: we find that having partners and children is inversely related to having paid for sex in both samples, but clients are likely to be older in Natsal3. Socio-economic status is not significant in Natsal2 and becomes significant for managers and senior officials in Natsal 3, and we find a weak effect of ethnicity, a significant and positive effect of religion and holding conservative views (except for adultery), no effect of risky sex or drug use and no London or regional effects (apart from a weak negative association with the Midlands) on demand after the policy changes.

Although demand overall has not changed much, clients have. To delve a little more into this, we also separate clients in the three groups of those who have never paid for sex, those who have had just one paid partner (whom we label), and those who have had several paid partners (whom we label). Table 4 presents a Multinomial probit model of client types, with average marginal effects (an average across marginal effects for each individual), which provide the effect of a change in an explanatory variable on each of the categories.

## Table 4: Non clients, one paid partner,many paid partners(Unweighted)

| | Natsal 2 | | | Natsal3 | | |
|---|---|---|---|---|---|---|
| | never paid | | | | | |
| **Age group (ref: 25-34)** | | | | | | |
| Aged 35-44 | -0.044*** | 0.004 | 0.040*** | -0.019 | -0.019* | 0.039*** |
| | [0.012] | [0.008] | [0.009] | [0.017] | [0.011] | [0.014] |
| **Marital status (single and never married/cohabiting)** | | | | | | |
| Currently married | 0.022 | 0.003 | -0.025* | 0.022 | -0.013 | -0.009 |
| | [0.018] | [0.013] | [0.014] | [0.023] | [0.015] | [0.020] |
| Currently cohabiting | 0.058*** | -0.003 | -0.055*** | 0.084*** | -0.050*** | -0.034 |
| | [0.021] | [0.014] | [0.017] | [0.026] | [0.017] | [0.021] |
| Previously married/cohabiting | 0.006 | 0.010 | -0.015 | -0.003 | 0.001 | 0.002 |
| | [0.017] | [0.012] | [0.013] | [0.023] | [0.014] | [0.019] |
| **Number of natural children (incl. stillborn and died)** | 0.017*** | -0.008* | -0.009** | 0.014* | -0.005 | -0.009 |
| | [0.006] | [0.004] | [0.004] | [0.008] | [0.005] | [0.007] |
| **White** | 0.015 | 0.009 | -0.024* | 0.051** | -0.006 | -0.045** |
| | [0.017] | [0.012] | [0.013] | [0.024] | [0.015] | [0.020] |
| **Highest Qualification (ref: None)** | | | | | | |
| Degree | -0.054*** | 0.021 | 0.033** | 0.020 | 0.000 | -0.020 |
| | [0.021] | [0.014] | [0.016] | [0.029] | [0.019] | [0.024] |
| A-level or equiv. | -0.072*** | 0.033** | 0.039** | 0.000 | 0.005 | -0.005 |
| | [0.021] | [0.014] | [0.017] | [0.030] | [0.020] | [0.025] |
| O-level or equivalent | -0.033* | 0.011 | 0.022 | 0.002 | 0.006 | -0.008 |
| | [0.017] | [0.012] | [0.013] | [0.025] | [0.016] | [0.020] |
| **Socio-economic class (ref: elementary, process, service and never worked)** | | | | | | |
| Managers and senior officials | 0.002 | -0.004 | 0.003 | -0.024 | 0.001 | 0.022 |
| | [0.017] | [0.012] | [0.013] | [0.024] | [0.016] | [0.020] |
| Professional | 0.027 | -0.018 | -0.009 | 0.016 | -0.009 | -0.007 |
| | [0.022] | [0.016] | [0.017] | [0.029] | [0.019] | [0.025] |

| | | | | | | |
|---|---|---|---|---|---|---|
| Associate professional/administration | -0.005 | 0.010 | -0.004 | -0.032 | 0.015 | 0.017 |
| | [0.017] | [0.011] | [0.013] | [0.021] | [0.013] | [0.018] |
| Skilled trade | 0.000 | 0.007 | -0.007 | -0.035 | 0.017 | 0.018 |
| | [0.016] | [0.011] | [0.013] | [0.021] | [0.013] | [0.018] |
| **Conservative Opinions** | | | | | | |
| Religious | -0.020* | 0.016** | 0.003 | -0.035** | 0.007 | 0.028** |
| | [0.012] | [0.008] | [0.009] | [0.016] | [0.010] | [0.013] |
| Sex between two men mostly/always wrong | -0.019 | 0.007 | 0.012 | -0.001 | -0.010 | 0.011 |
| | [0.012] | [0.008] | [0.009] | [0.016] | [0.011] | [0.013] |
| One-night stands mostly/always wrong | 0.078*** | -0.027*** | -0.051*** | 0.034** | -0.002 | -0.033** |
| | [0.013] | [0.009] | [0.011] | [0.017] | [0.011] | [0.014] |
| Adultery whilst married mostly/always wrong | 0.009 | -0.006 | -0.003 | 0.071*** | -0.018 | -0.053*** |
| | [0.013] | [0.009] | [0.010] | [0.019] | [0.012] | [0.015] |
| **Risky Behaviour** | | | | | | |
| **Average weekly alcohol consumption (ref: none)]** | | | | | | |
| Low | 0.024 | -0.015 | -0.009 | -0.043** | 0.004 | 0.040** |
| | [0.018] | [0.012] | [0.014] | [0.020] | [0.013] | [0.017] |
| Moderate/high | -0.006 | -0.012 | 0.018 | -0.081*** | 0.004 | 0.077*** |
| | [0.022] | [0.015] | [0.017] | [0.029] | [0.019] | [0.024] |
| **Smoking (ref: never smoked)** | | | | | | |
| Ex-smoker | -0.009 | -0.017 | 0.026** | -0.018 | 0.031** | -0.013 |
| | [0.016] | [0.012] | [0.012] | [0.020] | [0.012] | [0.017] |
| Light smoker | -0.018 | 0.016 | 0.002 | -0.036* | 0.020 | 0.016 |
| | [0.015] | [0.010] | [0.012] | [0.019] | [0.012] | [0.016] |
| Heavy smoker | -0.031** | 0.025** | 0.006 | -0.048** | 0.011 | 0.037** |
| | [0.015] | [0.010] | [0.012] | [0.024] | [0.016] | [0.019] |
| **Unsafe sex in last year** | -0.095*** | 0.030*** | 0.065*** | -0.013 | -0.009 | 0.022 |
| | [0.015] | [0.010] | [0.011] | [0.027] | [0.019] | [0.021] |
| **Ever injected drugs** | -0.044* | 0.000 | 0.044** | -0.064 | 0.037* | 0.026 |
| | [0.026] | [0.019] | [0.019] | [0.039] | [0.023] | [0.033] |

**Age first had intercourse (ref: 16-17)**

| | | | | | | |
|---|---|---|---|---|---|---|
| Aged 13-15 | -0.051*** | 0.007 | 0.044*** | -0.050*** | 0.007 | 0.043*** |
| | [0.014] | [0.009] | [0.011] | [0.018] | [0.011] | [0.015] |
| Aged 18-19 | -0.005 | -0.013 | 0.018 | 0.006 | -0.008 | 0.002 |
| | [0.016] | [0.011] | [0.012] | [0.021] | [0.013] | [0.017] |
| Aged 20+ | -0.010 | -0.016 | 0.027* | 0.066** | -0.037** | -0.029 |
| | [0.018] | [0.013] | [0.014] | [0.027] | [0.018] | [0.023] |
| **Region (ref: North and Yorkshire)** | | | | | | |
| Midlands | 0.000 | 0.004 | -0.004 | 0.030 | 0.000 | -0.031 |
| | [0.019] | [0.013] | [0.015] | [0.024] | [0.016] | [0.020] |
| East | 0.011 | 0.003 | -0.014 | -0.001 | 0.021 | -0.020 |
| | [0.025] | [0.017] | [0.020] | [0.027] | [0.017] | [0.023] |
| London | -0.030* | 0.013 | 0.017 | -0.055** | 0.039** | 0.016 |
| | [0.016] | [0.011] | [0.013] | [0.025] | [0.016] | [0.021] |
| South East | 0.028 | -0.001 | -0.027 | -0.038 | 0.027* | 0.011 |
| | [0.021] | [0.014] | [0.017] | [0.024] | [0.015] | [0.020] |
| South West | -0.003 | -0.020 | 0.023 | 0.007 | 0.018 | -0.024 |
| | [0.024] | [0.018] | [0.018] | [0.030] | [0.019] | [0.026] |
| Wales | 0.049 | -0.009 | -0.040 | -0.027 | -0.004 | 0.031 |
| | [0.033] | [0.022] | [0.028] | [0.036] | [0.027] | [0.028] |
| Scotland | 0.047* | -0.018 | -0.029 | -0.039 | 0.023 | 0.016 |
| | [0.026] | [0.018] | [0.021] | [0.028] | [0.018] | [0.023] |
| Observations | 3,523 | 3,523 | 3,523 | 2,147 | 2,147 | 2,147 |
| Log likelihood | -1499 | -1499 | -1499 | -965.3 | -965.3 | -965.3 |
| LR Chi2 | 249.1 | 249.1 | 249.1 | 157.3 | 157.3 | 157.3 |

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

Clients after the policy change are more likely (as compared to Natsal2) to have many partners, be older, religious, consume alcohol and to have had intercourse at a younger age. Those who have just paid for one partner are fewer, not cohabiting, more likely to be ex-smokers and more likely to be in London.

All in all, although of course we cannot establish causal links we can certainly observe that after the policy change in 2009 demand has, if anything, slightly increased and the profile of clients has changed to one who paid for many partners, that also have a risky profile that raises concerns (alcohol use and intercourse at early age), and has been discussed in the context of public health in Jones et al (2014).

**Conclusions**

As economists, we believe that public policy ought to be based on relative welfare considerations. In other words, under which arrangements are the actors, and the public, better off? From this point of view, prostitution does not lend itself easily to being classed as a crime. Regulation exists on a wide spectrum, with different modes and degrees of criminalisation, decriminalisation and legalisation, and debates about its appropriateness are not necessarily based on reliable evidence. Criminalisation typically hopes to quash demand, but the evidence is mixed, and ours contradictory.

Criminalisation affects also risk, though. Sex workers, or prostitutes, face risks to their health, risks of violent assault, and risk of fraud (not getting paid for their services). Clients face also health risks, reputational risks and, where prostitution occurs in criminal environments, risks of violence too. These risks are going to be higher where prostitution is criminalised, partly because criminalisation makes collaboration with both medical personnel and law enforcement more difficult. Criminalisation of sex work also makes the detection of under-age or trafficked people more difficult. Perhaps surprisingly, research on sexually exploited trafficked women (Di Tommaso et al., 2009) shows that women who work in the streets are in some ways better off than sex workers in parlours, clubs or hotels. Street workers enjoy more freedom of movement, suffer less physical and sexual abuse, and are more likely to have access to health services than women who work in parlours, clubs or hotels. For both clients and for sex workers, demand-side and supply-side, criminalisation pushes the market into secluded and, for the workers, isolating places. Flats, clubs and massage parlours are more

separate from the rest of society. The welfare of sexually trafficked women decreases in these dangerous environments.

Our analysis of the move towards criminalisation in the UK suggests that this has not decreased demand and possibly changed the profile of clients in ways that may worry those who are concerned about the welfare of prostitutes as well as public health. By and large, clients of sex workers tend to be risk-takers. There is a high correlation between paying for sex and engaging in other risky behaviours. To many men, criminalised prostitution is actually more attractive than decriminalised or legal sex work. From what we can see, pushing prostitution into the shadows not only makes sex work more dangerous, it actually increases demand. As more countries follow the model of criminalisation it will become possible to have a more careful assessment of its effects on welfare, but the case for it is certainly not clear cut.

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**Table a1: Descriptives of demand in Natsal2 and Natsal3**

| Variable | Natsal2 | | | Natsal3 | | |
|---|---|---|---|---|---|---|
| | Never paid | Experim enters | Regu lars | Never paid | Experim enters | Regu lars |
| Age group | | | | | | |
| 25-34 | 0.51 | 0.55 | 0.45 | 0.65 | 0.75 | 0.59 |
| 35-44 | 0.49 | 0.45 | 0.55 | 0.35 | 0.25 | 0.41 |
| Marital status | | | | | | |
| Currently married | 0.48 | 0.37 | 0.37 | 0.42 | 0.35 | 0.37 |
| Currently cohabiting | 0.16 | 0.14 | 0.09 | 0.22 | 0.10 | 0.15 |
| Previously married/cohabiting | 0.23 | 0.33 | 0.33 | 0.21 | 0.32 | 0.31 |
| Single and never married | 0.14 | 0.16 | 0.22 | 0.16 | 0.22 | 0.18 |
| number of natural children (incl. stillborn and died) | 1.20 | 0.87 | 0.87 | 0.91 | 0.70 | 0.87 |
| White | 0.85 | 0.84 | 0.79 | 0.87 | 0.85 | 0.83 |
| exams2 | | | | | | |
| Degree | 0.27 | 0.28 | 0.33 | 0.35 | 0.31 | 0.28 |
| A level | 0.11 | 0.17 | 0.15 | 0.14 | 0.16 | 0.15 |
| O-level | 0.43 | 0.40 | 0.39 | 0.41 | 0.42 | 0.43 |
| none | 0.18 | 0.15 | 0.13 | 0.10 | 0.10 | 0.14 |
| Social economic background | | | | | | |
| Managers and senior officials | 0.19 | 0.18 | 0.21 | 0.15 | 0.14 | 0.16 |
| Professional | 0.12 | 0.07 | 0.12 | 0.14 | 0.08 | 0.08 |
| Associate professional/administration | 0.19 | 0.24 | 0.21 | 0.21 | 0.27 | 0.23 |
| Skilled trade | 0.20 | 0.21 | 0.17 | 0.17 | 0.22 | 0.20 |
| elementary, process, service and never worked | 0.31 | 0.29 | 0.30 | 0.33 | 0.30 | 0.33 |
| Religious | 0.44 | 0.48 | 0.45 | 0.38 | 0.41 | 0.44 |
| Sex between two men mostly/always wrong | 0.54 | 0.53 | 0.53 | 0.54 | 0.34 | 0.39 |
| One-night stands mostly/always wrong | 0.38 | 0.23 | 0.20 | 0.35 | 0.27 | 0.23 |
| Adultery whilst married mostly/always wrong | 0.81 | 0.76 | 0.75 | 0.88 | 0.80 | 0.75 |
| Alcohol | | | | | | |
| None | 0.12 | 0.13 | 0.12 | 0.20 | 0.17 | 0.14 |
| Low | 0.74 | 0.70 | 0.67 | 0.72 | 0.73 | 0.71 |
| Moderate/high | 0.13 | 0.18 | 0.21 | 0.08 | 0.10 | 0.15 |
| smoking | | | | | | |
| non-smoker | 0.46 | 0.37 | 0.39 | 0.50 | 0.33 | 0.39 |
| ex-smoker | 0.17 | 0.11 | 0.23 | 0.19 | 0.27 | 0.16 |
| light smoker | 0.18 | 0.24 | 0.19 | 0.21 | 0.29 | 0.26 |

| | | | | | | |
|---|---|---|---|---|---|---|
| heavy smoker | 0.20 | 0.28 | 0.20 | 0.11 | 0.11 | 0.18 |
| Unsafe sex in last year | 0.10 | 0.21 | 0.27 | 0.06 | 0.07 | 0.11 |
| Ever injected drugs | 0.03 | 0.04 | 0.07 | 0.02 | 0.06 | 0.04 |
| Age first had intercourse | | | | | | |
| 13-15 | 0.25 | 0.33 | 0.35 | 0.27 | 0.34 | 0.43 |
| 16-17 | 0.39 | 0.39 | 0.28 | 0.36 | 0.40 | 0.31 |
| 18-19 | 0.20 | 0.17 | 0.21 | 0.21 | 0.19 | 0.18 |
| 20+ | 0.16 | 0.11 | 0.16 | 0.16 | 0.07 | 0.08 |
| Region | | | | | | |
| North and. | 0.21 | 0.20 | 0.19 | 0.28 | 0.21 | 0.29 |
| Midlands | 0.15 | 0.15 | 0.13 | 0.18 | 0.11 | 0.12 |
| Eastern | 0.07 | 0.06 | 0.05 | 0.10 | 0.11 | 0.08 |
| London | 0.26 | 0.36 | 0.41 | 0.10 | 0.21 | 0.15 |
| South East | 0.12 | 0.11 | 0.07 | 0.12 | 0.15 | 0.14 |
| South West | 0.07 | 0.04 | 0.09 | 0.09 | 0.08 | 0.06 |
| Wales | 0.04 | 0.03 | 0.02 | 0.04 | 0.03 | 0.06 |
| Scotland | 0.08 | 0.05 | 0.04 | 0.08 | 0.10 | 0.10 |
| No of obs. | 3,079 | 187 | 257 | 1,852 | 105 | 190 |

**Table a2: Paid for sex in last 5 years** (Weighted Version)

| | Natsal2 25-44 | Natsal3 25-44 | Natsal3 25-44 - income | Natsal3 25+ | Natsal3 35-54 |
|---|---|---|---|---|---|
| **Age group (ref: 25-34)** | | | | | |
| Aged 35-44 | 0.001 | -0.003 | -0.002 | -0.000 | |
| | [0.007] | [0.011] | [0.011] | [0.009] | |
| Aged 45-54 | | | | 0.022 | -0.001 |
| | | | | [0.017] | [0.018] |
| Aged 55-64 | | | | 0.041** | |
| | | | | [0.019] | |
| aged 65-74 | | | | 0.016 | |
| | | | | [0.023] | |
| **Marital status (single and never married/cohabiting)** | | | | | |
| Currently married | -0.032*** | -0.053*** | -0.056*** | -0.045*** | -0.031* |
| | [0.010] | [0.014] | [0.014] | [0.009] | [0.017] |
| Currently cohabiting | -0.038*** | -0.061*** | -0.064*** | -0.059*** | -0.052** |
| | [0.012] | [0.015] | [0.015] | [0.012] | [0.021] |
| Previously married/cohabiting | -0.002 | 0.003 | 0.004 | -0.010 | -0.005 |
| | [0.011] | [0.012] | [0.012] | [0.009] | [0.017] |
| **Number of natural children (incl. stillborn and died)** | -0.009** | -0.006 | -0.005 | -0.006** | -0.007* |
| | [0.004] | [0.005] | [0.005] | [0.002] | [0.004] |
| **White** | 0.008 | -0.024* | -0.026* | -0.030*** | -0.031** |
| | [0.010] | [0.014] | [0.014] | [0.010] | [0.015] |
| **Highest Qualification (ref: None)** | | | | | |
| Degree | 0.021 | 0.020 | 0.017 | 0.010 | 0.025 |

|  | [0.013] | [0.017] | [0.017] | [0.011] | [0.018] |
|---|---|---|---|---|---|
| A-level or equiv. | 0.021 | 0.024 | 0.022 | 0.023* | 0.039** |
|  | [0.014] | [0.019] | [0.018] | [0.012] | [0.019] |
| O-level or equivalent | 0.011 | 0.017 | 0.017 | 0.015 | 0.022 |
|  | [0.010] | [0.016] | [0.016] | [0.009] | [0.016] |
| **Socio-economic class (ref: elementary, process, service and never worked)** | | | | | |
| Managers and senior officials | 0.004 | 0.008 | 0.004 | 0.016* | 0.031** |
|  | [0.011] | [0.014] | [0.015] | [0.010] | [0.014] |
| Professional | -0.020 | 0.003 | -0.002 | 0.010 | -0.016 |
|  | [0.015] | [0.017] | [0.017] | [0.011] | [0.018] |
| Associate professional/administration | -0.003 | 0.015 | 0.011 | 0.004 | 0.008 |
|  | [0.010] | [0.013] | [0.013] | [0.009] | [0.013] |
| Skilled trade | -0.004 | 0.001 | 0.000 | -0.002 | -0.001 |
|  | [0.010] | [0.014] | [0.014] | [0.009] | [0.014] |
| **Conservative Opinions** | | | | | |
| Religious | 0.009 | 0.016* | 0.018** | 0.009 | 0.014 |
|  | [0.008] | [0.009] | [0.009] | [0.006] | [0.009] |
| Sex between two men mostly/always wrong | 0.005 | 0.030*** | 0.030*** | 0.010 | 0.025*** |
|  | [0.008] | [0.010] | [0.010] | [0.006] | [0.009] |
| One-night stands mostly/always wrong | -0.024*** | -0.006 | -0.006 | -0.009 | -0.011 |
|  | [0.009] | [0.010] | [0.010] | [0.007] | [0.010] |
| Adultery whilst married mostly/always wrong | -0.011 | -0.025** | -0.027** | -0.021*** | -0.021** |
|  | [0.008] | [0.012] | [0.012] | [0.007] | [0.011] |
| **Risky Behaviour** | | | | | |
| **Average weekly alcohol consumption (ref: none)]** | | | | | |
| Low | -0.023** | 0.014 | 0.012 | 0.012 | 0.015 |
|  | [0.011] | [0.012] | [0.012] | [0.008] | [0.011] |
| Moderate/high | -0.008 | 0.010 | 0.007 | 0.020* | 0.015 |
|  | [0.013] | [0.017] | [0.017] | [0.011] | [0.016] |
| **Smoking (ref: never smoked)** | | | | | |
| Ex-smoker | -0.004 | -0.023 | -0.022 | -0.005 | -0.012 |
|  | [0.012] | [0.015] | [0.015] | [0.008] | [0.013] |
| Light smoker | 0.010 | 0.003 | 0.004 | -0.000 | -0.002 |
|  | [0.010] | [0.011] | [0.011] | [0.008] | [0.012] |
| Heavy smoker | 0.010 | 0.021 | 0.024 | 0.002 | 0.008 |
|  | [0.009] | [0.016] | [0.016] | [0.011] | [0.015] |
| **Unsafe sex in last year=1** | 0.065*** | 0.019 | 0.021 | 0.043*** | 0.022 |
|  | [0.010] | [0.014] | [0.014] | [0.010] | [0.016] |
| **Ever injected drugs==1** | 0.025 | -0.003 | -0.003 | -0.002 | 0.023 |
|  | [0.017] | [0.025] | [0.025] | [0.018] | [0.021] |
| **Age first had intercourse (ref: 16-17)** | | | | | |
| Aged 13-15 | 0.002 | 0.027** | 0.026** | 0.024*** | 0.026** |
|  | [0.009] | [0.011] | [0.011] | [0.008] | [0.011] |
| Aged 18-19 | -0.009 | 0.000 | 0.002 | 0.008 | 0.007 |
|  | [0.010] | [0.013] | [0.013] | [0.008] | [0.012] |
| Aged 20+ | 0.017 | -0.017 | -0.016 | -0.007 | -0.012 |

|  | [0.011] | [0.015] | [0.015] | [0.010] | [0.015] |
|---|---|---|---|---|---|
| **Region (ref: North and Yorkshire)** | | | | | |
| Midlands | 0.012 | -0.038** | -0.039** | -0.007 | -0.012 |
|  | [0.011] | [0.016] | [0.016] | [0.009] | [0.014] |
| East | 0.009 | 0.004 | 0.000 | 0.001 | -0.004 |
|  | [0.016] | [0.016] | [0.016] | [0.010] | [0.015] |
| London | 0.026*** | 0.002 | 0.000 | 0.005 | 0.007 |
|  | [0.010] | [0.016] | [0.015] | [0.011] | [0.017] |
| South East | -0.009 | 0.011 | 0.010 | 0.019** | -0.000 |
|  | [0.013] | [0.015] | [0.014] | [0.009] | [0.015] |
| South West | 0.004 | 0.001 | -0.002 | -0.006 | -0.024 |
|  | [0.016] | [0.017] | [0.017] | [0.012] | [0.018] |
| Wales | -0.014 | -0.010 | -0.009 | -0.021 | -0.056* |
|  | [0.021] | [0.019] | [0.019] | [0.015] | [0.030] |
| Scotland | -0.018 | 0.012 | 0.012 | 0.011 | -0.002 |
|  | [0.018] | [0.017] | [0.017] | [0.012] | [0.017] |
| **Income group (ref: <10,000)** | | | | | |
| 10,000-19,999 |  |  | -0.014 |  |  |
|  |  |  | [0.020] |  |  |
| 20,000-29,999 |  |  | -0.005 |  |  |
|  |  |  | [0.018] |  |  |
| 30,000-39,999 |  |  | 0.017 |  |  |
|  |  |  | [0.018] |  |  |
| 40,000-49,000 |  |  | 0.011 |  |  |
|  |  |  | [0.020] |  |  |
| 50,000+ |  |  | 0.013 |  |  |
|  |  |  | [0.021] |  |  |
| Not answered |  |  | 0.014 |  |  |
|  |  |  | [0.018] |  |  |
| Observations | 3,523 | 2,149 | 2,149 | 4,119 | 1478 |
| Log likelihood | -682.1 | -407.9 | -405.1 | -790.6 | -344.8 |
| LR Chi2 | 226.4 | 172.7 | 191.6 | 214.3 | 90.7 |
| pseudo r-squared | 0.147 | 0.151 | 0.157 | 0.14 | 0.147 |

Standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1

**Table a3: Regulars and Experimenters**  (Weighted Version)

| | Natsal 2 | | | Natsal3 | | |
|---|---|---|---|---|---|---|
| | never paid | experimenter | regular | never paid | experimenter | regular |
| **Age group (ref: 25-34)** | | | | | | |
| Aged 35-44 | -0.041*** | 0.001 | 0.040*** | -0.022 | -0.014 | 0.036** |
| | [0.012] | [0.009] | [0.009] | [0.018] | [0.010] | [0.016] |
| **Marital status (single and never married/cohabiting)** | | | | | | |
| Currently married | 0.011 | 0.002 | -0.013 | 0.030 | -0.011 | -0.019 |
| | [0.018] | [0.013] | [0.013] | [0.024] | [0.014] | [0.021] |
| Currently cohabiting | 0.039* | -0.003 | -0.036** | 0.086*** | -0.051*** | -0.036 |
| | [0.020] | [0.014] | [0.016] | [0.026] | [0.016] | [0.022] |
| Previously married/cohabiting | -0.005 | 0.010 | -0.005 | -0.002 | 0.008 | -0.006 |
| | [0.018] | [0.013] | [0.013] | [0.024] | [0.014] | [0.021] |
| **Number of natural children (incl. stillborn and died)** | 0.017*** | -0.010** | -0.007* | 0.015** | -0.004 | -0.011 |
| | [0.006] | [0.004] | [0.004] | [0.007] | [0.004] | [0.007] |
| **White** | 0.005 | 0.007 | -0.012 | 0.069*** | -0.022 | -0.048** |
| | [0.017] | [0.012] | [0.012] | [0.025] | [0.015] | [0.021] |
| **Highest Qualification (ref: None)** | | | | | | |
| Degree | -0.034 | 0.009 | 0.025 | 0.002 | -0.006 | 0.004 |
| | [0.021] | [0.015] | [0.017] | [0.030] | [0.016] | [0.026] |
| A-level or equiv. | -0.057** | 0.026* | 0.031* | -0.016 | 0.011 | 0.005 |
| | [0.022] | [0.015] | [0.017] | [0.031] | [0.018] | [0.026] |
| O-level or equivalent | -0.027 | 0.012 | 0.015 | -0.010 | 0.003 | 0.007 |
| | [0.017] | [0.012] | [0.013] | [0.025] | [0.014] | [0.022] |
| **Socio-economic class (ref: elementary, process, service and never worked)** | | | | | | |
| Managers and senior officials | -0.006 | 0.004 | 0.001 | 0.010 | -0.002 | -0.008 |
| | [0.017] | [0.013] | [0.013] | [0.025] | [0.015] | [0.021] |
| Professional | 0.019 | -0.012 | -0.007 | 0.003 | 0.004 | -0.008 |
| | [0.023] | [0.016] | [0.018] | [0.031] | [0.019] | [0.027] |
| Associate professional/administration | 0.001 | 0.005 | -0.005 | -0.027 | 0.023* | 0.004 |

|  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
|  | [0.017] | [0.012] | [0.013] | [0.022] | [0.013] | [0.019] |
| Skilled trade | -0.008 | 0.010 | -0.002 | -0.011 | 0.007 | 0.005 |
|  | [0.016] | [0.011] | [0.012] | [0.022] | [0.012] | [0.019] |
| **Conservative Opinions** |  |  |  |  |  |  |
| Religious | -0.032*** | 0.022** | 0.010 | -0.022 | -0.004 | 0.026* |
|  | [0.012] | [0.009] | [0.009] | [0.016] | [0.009] | [0.013] |
| Sex between two men mostly/always wrong | -0.009 | 0.003 | 0.006 | -0.005 | -0.012 | 0.017 |
|  | [0.012] | [0.008] | [0.008] | [0.017] | [0.010] | [0.014] |
| One-night stands mostly/always wrong | 0.075*** | -0.033*** | -0.042*** | 0.044** | -0.003 | -0.041** |
|  | [0.013] | [0.009] | [0.010] | [0.018] | [0.010] | [0.016] |
| Adultery whilst married mostly/always wrong | 0.006 | -0.001 | -0.005 | 0.070*** | -0.013 | -0.056*** |
|  | [0.013] | [0.009] | [0.010] | [0.020] | [0.012] | [0.017] |
| **Risky Behaviour** |  |  |  |  |  |  |
| **Average weekly alcohol consumption (ref: none)]** |  |  |  |  |  |  |
| Low | 0.021 | -0.012 | -0.009 | -0.050** | 0.010 | 0.040** |
|  | [0.018] | [0.013] | [0.014] | [0.021] | [0.012] | [0.018] |
| Moderate/high | -0.006 | -0.008 | 0.014 | -0.074** | 0.008 | 0.066*** |
|  | [0.022] | [0.016] | [0.017] | [0.030] | [0.018] | [0.025] |
| **Smoking (ref: never smoked)** |  |  |  |  |  |  |
| Ex-smoker | -0.006 | -0.012 | 0.019* | -0.036* | 0.028** | 0.008 |
|  | [0.017] | [0.013] | [0.011] | [0.022] | [0.012] | [0.019] |
| Light smoker | -0.014 | 0.009 | 0.006 | -0.023 | 0.015 | 0.008 |
|  | [0.016] | [0.011] | [0.012] | [0.020] | [0.012] | [0.016] |
| Heavy smoker | -0.021 | 0.022** | -0.001 | -0.060** | 0.009 | 0.051** |
|  | [0.016] | [0.011] | [0.012] | [0.026] | [0.015] | [0.022] |
| **Unsafe sex in last year** | -0.098*** | 0.036*** | 0.062*** | -0.001 | -0.011 | 0.013 |
|  | [0.016] | [0.011] | [0.012] | [0.030] | [0.020] | [0.023] |
| **Ever injected drugs** | -0.048* | -0.008 | 0.056*** | -0.058 | 0.051** | 0.007 |
|  | [0.028] | [0.019] | [0.020] | [0.041] | [0.023] | [0.035] |
| **Age first had intercourse (ref: 16-17)** |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
|---|---|---|---|---|---|---|
| Aged 13-15 | -0.043*** | 0.005 | 0.038*** | -0.053*** | 0.012 | 0.041*** |
|  | [0.014] | [0.009] | [0.011] | [0.018] | [0.011] | [0.016] |
| Aged 18-19 | 0.005 | -0.009 | 0.005 | 0.018 | -0.016 | -0.002 |
|  | [0.016] | [0.012] | [0.012] | [0.021] | [0.012] | [0.018] |
| Aged 20+ | -0.010 | -0.013 | 0.023* | 0.108*** | -0.055*** | -0.054** |
|  | [0.017] | [0.012] | [0.013] | [0.028] | [0.018] | [0.024] |
| **Region (ref: North and Yorkshire)** |  |  |  |  |  |  |
| Midlands | 0.001 | 0.003 | -0.004 | 0.032 | -0.004 | -0.028 |
|  | [0.018] | [0.012] | [0.014] | [0.024] | [0.014] | [0.021] |
| East | 0.016 | -0.001 | -0.015 | -0.006 | 0.028* | -0.022 |
|  | [0.024] | [0.017] | [0.018] | [0.027] | [0.015] | [0.024] |
| London | -0.029* | 0.015 | 0.014 | -0.040 | 0.039** | 0.002 |
|  | [0.015] | [0.011] | [0.011] | [0.026] | [0.015] | [0.023] |
| South East | 0.022 | 0.006 | -0.028* | -0.044* | 0.035** | 0.009 |
|  | [0.019] | [0.014] | [0.015] | [0.026] | [0.015] | [0.022] |
| South West | -0.007 | -0.013 | 0.020 | 0.017 | 0.022 | -0.038 |
|  | [0.023] | [0.018] | [0.015] | [0.031] | [0.018] | [0.026] |
| Wales | 0.046 | -0.016 | -0.030 | 0.009 | -0.008 | -0.000 |
|  | [0.031] | [0.021] | [0.025] | [0.038] | [0.023] | [0.031] |
| Scotland | 0.047** | -0.023 | -0.024 | -0.036 | 0.036** | -0.000 |
|  | [0.024] | [0.017] | [0.018] | [0.029] | [0.018] | [0.024] |
| Observations | 3,523 | 3,523 | 3,523 | 2,147 | 2,147 | 2,147 |
| Log likelihood | -1628 | -1628 | -1628 | -1092 | -1092 | -1092 |
| LR Chi2 | 272.2 | 272.2 | 272.2 | 205.9 | 205.9 | 205.9 |

Standard errors in brackets

*** p<0.01, ** p<0.05, * p<0.1