Labour Discrimination a Symptom of HIV

Experimental Evaluation: The Greek Case

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Abstract:
In the spirit of the International Labour Organisation Code (2001) of decent work and respect for the human rights and dignity of persons infected or affected by HIV/AIDS, there should be no discrimination against applicants for work on the basis of real or perceived HIV status. Whilst, the successful implementation of an HIV/AIDS policy requires cooperation and trust between firms and employees, with the active involvement of workers infected and affected by HIV/AIDS (ILO [2007]).

In the current study having considered the fundamental points the first ever correspondence testing was conducted in order to test whether job applicants living with HIV (still) face prejudices in the crucial stage of the selection process in Greece. Resumes differed only in applicants' health status were faxed to advertised job openings. We suggest that a HIV-positive applicant may want to identify whether firms are prone to provide any reasonable adjustments for the recruitment and interview process.

Definitely, the outcomes must imply that employers use health condition as a factor when reviewing resumes, which matches the legal definition of discrimination. The rate of *net discrimination* against male (female) HIV-positives is found to be between 82.6% and 97.8% (81.6%-98.8%) among sectors. Whilst, the degree of discrimination is randomly assigned across occupations disrelated to education level and job status.

The current study initiates a key methodology which can drive world-wide researchers to conduct relevant surveys. As efforts grow up to address HIV discrimination, so does the need for a set of standard tested and validated discrimination indicators. Measurements and discrimination trends are a key tool for identifying effective anti-stigma programming.

Key words: Correspondence Test, Labour Discrimination, ILO, Health, AIDS/HIV.
JEL classification: I10, J15, J28, J71, J70, J81, K31, M54.

For constructive help and feedback, I'd like to thank the staff of the International Labour Organization, the United Nations Programme on HIV/AIDS, and the Court of Justice of the European Community.

I want to express my gratitude to my colleagues: Ms Anagnostaki A., Ms Konsolaki G., Mr Kastelianos M., Ms Bozani V., Ms Fourmouzi V., and Ms Passa C. for beneficiary suggestions. Parallel I want to thank the staff of the B.E.N.E.T.e.c., Ίσον, and the staff of the Department of Economics, Sociology, Political Sciences and Psychology of the University of Crete. This study could not have been made without my family's support.

1. Introduction

AIDS is a global pandemic disease[1], and persons with HIV are stigmatized throughout the world to varying degrees[2] (ILO [2007]). The first AIDS cases were reported in June 1981 and despite efforts to control epidemic, HIV/AIDS continues to spread in most countries [3]. Since the earliest days of the epidemic, people with AIDS and those suspected of being infected with HIV have been subjected to social ostracism and discrimination in employment (Herek and Glunt [1988], Gostin and Webber [1998], ILO [2007]).

The HIV infection fits the profile of a condition that carries a high level of stigmatization, a great perception of danger and fear of contagion [4] (Herek [1990]). Individual cases of emotional isolation and denial of employment on the basis of HIV status have been reported through international observatories, while press accounts and anecdotal reports told stories of people with AIDS fired and discriminated against from their jobs [5] (Herek [1999], UNAIDS [2006]).

A significant feature of the global HIV/AIDS epidemic is its concentration in the working age population and people in the prime of their productive life[6]. The fact that the epidemic disproportionately affects those with critical social and economic roles have serious implications for their lives, and this fact is further compounded by the great stigma and discrimination directed at these persons.

On the other hand, with the introduction of effective HIV treatments (ART-antiretrovic) people living with HIV can remain well, have a normal life-span and lead active, working lives (National Aids Trust [2006]). Now on, it is a misconception to assume that someone living with HIV will require more time off than another member of staff (NAT [2006], UNAIDS [2006], ILO [2007]). People living with HIV can work and enjoy prosperous careers, just anyone else and they can work successfully in a wide variety of occupations, i.e. there are nurses, teachers, chefs, mechanics, and lawyers

[1] A disease is no absolute physical entity but a complex intellectual construct, an amalgam of biological state and social definition (Rosenberg [1987]). Disease's theories of origin, transmission, prevention, and cure are formulated, promulgated, criticized and revised. While, those who contract the disease come to be regarded as victims or patients, guilty or innocent, dangerous or benign, heroic or pitiable (Herek [1990]).

[2] Although AIDS stigma is effectively universal, it takes different forms from one country to another and its specific targets vary considerably (Herek [1999]). This variation is shaped in each society by multiple factors, including the local epidemiology of HIV and pre-existing prejudices within the culture (Herek [1999]).

[3] While the rate of new HIV infection is believed to have peaked globally in the late 1990s and to have since stabilised, the overall numbers of people living with HIV have continued to rise due to population growth and more recently the life-prolonging effects on antiretroviral therapy (UNESCO [2007]). In some regions of the world, the epidemic remains particularly sever. For example, HIV prevalence has reached 40% in some parts of Southern Africa, while in Eastern Europe and Central Asia there are some indications that infection rates have risen by more than 50% since 2004, while in Eastern Africa, Latin America and the Caribbean, there are some signs of progress (UNAIDS [2006]).

[4] A condition tends to be more stigmatize when it actually disrupts a social interaction or it is perceived by others as repellent, ugly, or upsetting (Klitzman [1997]).

[5] Surveys of public opinion revealed widespread fear of the disease, lack of accurate information about its transmission, and willingness to support draconian public policies that would restricts civil liberties in the name of fighting AIDS (Herek [1999]).

[6] It has been observed by the International Labour Organization, that about 40 million persons infected with HIV are workers in formal and informal employment (ILO/AIDS [2004]).

living with HIV[7] (United Kingdom Coalition [2007]).

Despite the fact that HIV is not readily transmitted in the workplace settings [8] (ILO [2007], UNAIDS [2006], UKC [2007]), and one would not normally expect people to have sexual relationship at work or to carry out any of the acts that expose to HIV infection, the supported risk of transmission has been used by numerous employers to terminate or refuse employment (Gostin [1992], Barragan [1992], Omangi [1997], UNESCO [2007]). On the other hand, AIDS/HIV stigma does motivate individuals to attempt to pass as members of the non-stigmatized majority (UNAIDS [2006], UNESCO [2007]). Fearing rejection and mistreatment, many people with HIV keep their health status a secret in employment. The mentioned points have clear negative effect on societies, firms, co-workers and customers toward HIV positive persons. Actually, it has proved that discrimination in the workplace reinforces stigmatization of AIDS (UNAIDS [2006]).

The recognition of the negative consequences of AIDS stigma for individuals and for public health led to enactment of statutory protections. The international communities have continued to demonstrate increasing concerns about HIV/AIDS across sectors. Following International Labour Organization Code of Practice for HIV/AIDS in the Workplace (2001), HIV/AIDS is an employment issue, not only because it affects the workplace, but also because the workforce can play a vital role in limiting the spread and effects of the epidemic. The ILO Code is right-based and sets out fundamental principles, as well as rights and obligations from which concrete responses to HIV/AIDS can be developed at firms, community and national levels. Following the ILO Code, there should be no stigmatization against workers and applicants on the basis of real or perceived HIV status. People living with HIV can not be harassed against in recruitment, in employment terms and conditions, in chances for promotion transfer, training or other benefits, thought unfair dismissal or less favorable treatment than other workers.

The HIV/AIDS epidemic is in its third decade, and much research exists on its immediate impact on the health of individuals, diagnostic and therapeutic approaches, and immediate methods of prevention. However, the broader determinants and consequences of the epidemic on societies and economies make up a relatively newer and less developed science (Chartier [2005]). After these decades of extensive public education about HIV, one could hope that AIDS stigma and discrimination would now be relics of the past. However, this is not the case.

In the current study we are interested to examine whether employer discrimination plays an important role in shaping the labour market of HIV-positive applicants. We address this issue directly with an experimental field that allows direct observations of employer hiring decision. The study employed for the first time the correspondence testing in order to investigate current trends about HIV stigma. By mailing resumes differed only in applicants' health condition we estimated the degree to which HIV considerations shape real hiring decisions to advertised job openings.

Whether it is fear and ignorance about how HIV is transmitted, dislike of

[7] A firm to refuse a job must show that an applicant pose a direct threat carrying out routine job duties, see AIDS Legal Council of Chicago (2006). In some countries, e.g. United Kingdom, there are limitations on certain jobs in the health service that affect people living with HIV. These are jobs that involve specific exposure prone procedures such as surgery, dentistry, or midwifery, see UKC (2007).

[8] Based on the Directive 2000/54/EC of the European Parliament and the Council of 18 September 2000, HIV presents a limited risk of infection for workers as it is not infectious by the airborne route.

groups of people most affected or disapproval of other people's behavior, HIV discrimination is a real issue in the Greek labour market. The rate of *net discrimination* against male HIV-positives is found to be between 82.6% and 97.8% among occupations. On the other hand, the rate of net discrimination against female HIV-positives is found to be between 81.6% and 98.8%.

The current study initiates to serve the growing need for research information on HIV/AIDS and labour market, and to disseminate relevant findings. Unbiased answers are elusive as discrimination is hard to measure without observing actual hiring decisions. What we know about hiring mostly comes from court cases or selected studies of firms, with their attendant uncertain generality. Correspondence testing is a potentially promising method for extending our understanding of hiring discrimination. In our study, we gain important insights into how HIV status colors employers' perceptions of job candidate quality and desirability. To our best knowledge, no attempt has been made by other country to estimate HIV discrimination over a long period using a field experiment.

Our results must imply that employers use health condition as a factor when reviewing resumes which matches the legal definition of discrimination. These dynamics lead to longer search or wait times for HIV-positive applicants. This expression of stigma and discrimination it might be a result of both the assumption that HIV means fear of contagion, the belief that HIV is contracted through inappropriate behavior, as well as that people living with HIV are less productive.

As efforts grow up, to address prejudices, so does the need for a set of standard tested and validated stigma and discrimination indicators. By providing a standardized way of describing and measuring discrimination across different sectors, we offer a means to evaluate programs and identify what works to reduce stigma.

This study discusses, further, issues relating to discrimination in the workplace on the basis of real or perceived HIV status, it highlights the applications of legislative and legal measures and procedures based on relevant ILO instruments, and the strategic role of firms and their tripartite constituents in taking action to address this problem through the promotion of fundamental principles and right at work.

The rest of the paper is organized as follows. In the next section we sketch out the ILO Code. In the third section we evaluate HIV/AIDS stigma. In the fourth section we describe the methodology, the application structure of the investigation, and we present the model encapsulating the relationships. In the fifth section we present and discuss the results. In the sixth section we present legislation models as well as firms' core strategies toward HIV/AIDS. The last section concludes.

2. International Labour Organization Code

According to ILO (2001, 2007), the workplace remains a potentially unsafe environment for people with HIV/AIDS, whether they are currently at work, returning to work, or looking for work for the first time. AIDS discrimination in employment has been widely reported since the days of the epidemic. Based on Chartier (2005), all over the world, there are documents cases of job applicants not recruited, and workers being dismissed, denied promotion, excluded from social benefits and other entitlements, refused entry into foreign territories for employment purpose, on account of their HIV status, while pre-employment screening takes place in many industries particularly in countries where the resources for testing are readily available and affordable (Hunter and Rubenstein [1992], UNESCO [2007]). In effect, these workers are being denied the right to work and earn a living freedom of movement, and earn a living,

and even health care. This in turn, affects the realization of other basic human rights, such as the right to privacy, confidentially, freedom from inhumane treatment, equality and dignity. International experience shows that these prohibitions serve only to increase and reinforce the stigmatization of people with AIDS/HIV and those at greatest risk of contracting the virus [9] (Gruskin, Hendricks and Tomasevski [1996]). The ILO position is that HIV/AIDS legislation should be right-based in accordance with universally recognized human rights instruments, and more specifically the ILO Code.

The ILO Code contains 10 key principles that should guide governments, employees' and employers' organizations in member States on policy and practice in specific areas, including the adoption of legislation to cover HIV/AIDS in the workplace. These include: (i) Recognition of HIV/AIDS as a workplace issue. (ii) Non-discrimination based on real or perceived HIV status. (iii) Gender equality. (iv) Healthy work environment. (v) Social dialogue. (vi) No HIV testing for purposes of exclusion of employment. (vii) Confidentially of HIV data. (viii) Continuation of employment relationship and adaptation of work. (ix) Prevention, and (x) Care and Support. The ILO Code of Practice on HIV/AIDS promotes the development of national legislation that will help address the epidemic discrimination and ensure workplace prevention and social protection. Governments, in consultation with the social partners and experts in the field of HIV/AIDS, should provide the relevant regulatory framework and, where necessary, revise labour laws and other legislation (Chartier [2005]). In general, the legislative framework should address pertinent issues such as prevention, care and support, non-discrimination and impact mitigation. In any given content, the legislation must be consistent with HIV/AIDS policies and standards adopted at national and international levels.

3. Evaluating Discrimination

3.a HIV/AIDS Stigma

Stigma as a term refers to discounting, discrediting, and discrimination directed at people perceived to have AIDS or HIV and the individuals, groups, and communities with which they are associated (Herek and Capitanio [1998], Crawford [1996]). Stigma can lead to prejudicial thoughts, behaviors, and/or actions on the part of governments, communities, employers, healthcare, providers, co-workers, customers, friends and families (Zierler [2000]). Yet, stigmatization is a dynamic process that arises from the perception that there has been a vitiation of a set of shared attitudes, beliefs and values (Brown, Trujillo and Macintyre [2001]). De Bruyn (1999), has identified five contributing factors to HIV/AIDS stigma which includes: (i) The fact that HIV/AIDS is a life threatening disease. (ii) The fact that people are afraid of contracting HIV. (iii) The disease's association with behaviors that are already stigmatized in many societies. (iv) The fact

[9] Discrimination affects many of the choices that people affected with HIV make about being tested and seeking assistance for their physical, psychological, and social needs (UNAIDS [2006]). Fear of AIDS stigma, and its attendant discrimination may deter people at risk for HIV from being tested and seeking information and assistance for risk reduction. Qualitative data suggest fewer people may seek HIV testing because they fear a positive test result, which in their mind is linked to the stigma and social repercussions that they will experience if they test HIV-positive. Following Johnston, Stall and Smith (1995), hiding one's HIV-positive status can lead to isolation at a time when social support is badly needed. Non disclosure reflects an internalizing of societal stigma by people with HIV, which can leads to self-loathing, self blame, and self-destructive behaviors (Klitzman [1997]). On the other hand, stigma increases the stress associated with the illness, it contributes to secondary psychological and social morbidity, and it thereby affects quality of life and physical well-being.

that people with AIDS are often thought of being responsible for having contracted the disease. (v) Religions or moral beliefs that lead some people to conclude that having HIV/AIDS is the result of a moral fault that deserves punishment[10]. Hence, stigma is too tied to culture, too context-specific and too linked to taboo subjects like sex to be effectively addressed[11], whilst a variety of social, psychological, and demographic variables have been found to correlate with HIV/AIDS attitudes. Among the most consistent correlates have been age, education, and personal contact with peoples with HIV/AIDS [12] (Herek and Capitanio [1997]). Moreover, conservativeness of values and fear of contagion both have positive relationships with the stigma manifestation [13], while knowledge level has a significant negative correlation with both conservativeness of value and fear of contagion [14] (Adeyemo and Oyinloye [2007]).

HIV/AIDS stigma and discrimination in communities commonly manifested in the form of blame, shun or gossip about those perceived to have HIV or AIDS (Parker and Aggleton [2002]). In individuals, the way in which HIV/AIDS stigma and discrimination are manifested depends on family and social support, and the degree to which people are able to be open about such issues as their sexuality as their HIV status. It has been suggested that the identification of AIDS with persons and groups already stigmatized prior to the epidemic increases hostility toward the disease and people with the disease (Caldwell [1991], Ross and Rosser [1996]). A consistent pattern is that stigma is often expressed against unpopular groups disproportionately affects by the local epidemic (Sabatier [1988]). Following Herek (1999), gay men, prostitutes and infection drug users are disproportionately susceptible to HIV stigma and discrimination. He has found that HIV stigma is not necessarily a stigma of the diseased, rather, it is often related to perceived lifestyle choices of infected populations or to perceptions about racial and ethnic minorities. In contrast people who acquire HIV through no action or their own have been referred to as innocent or blameless (Herek [1999]).

3b. Economic Theory and HIV Discrimination

Discrimination is composed of the actions or treatment based on the stigma and directed toward the stigmatized. The studies of discrimination in the labour market have been very popular during the last five decades. However, in analyzing discrimination based on HIV status it is very important to understand what is meant by discrimination and to recognize that it can be of different types and taken different forms.

[10] Given these characteristics, AIDS would have evoked stigma regardless of its specific epidemiology and social history (Herek [1999]).

[11] Socially and personally, people tend to associate AIDS with moral impropriety. HIV/AIDS stigma is fuelled by assumptions about moral integrity and values of people with HIV or AIDS. HIV infection is commonly perceived as the result of a personal choice to engage in bad risky behaviours, and therefore, is at fault if he or she becomes infected (International Centre for Research on Women [2006]).

[12] Younger and better educated respondents consistently manifest lower levels of AIDS stigma than older responders and those with lower level of education.

[13] This confirms De Bruyn's (1999) findings that people's fear of contracting HIV and religious or moral beliefs that lead some people to conclude that having HIV/AIDS is the result of a moral fault deserving of punishment are among the factors contributing to HIV/AIDS stigma.

[14] This implies that the more knowledge people have of HIV model of transmission with HIV/AIDS, the less fearful they are of contracting the disease and the less their manifestation of stigmatization and discrimination against people with AIDS.

HIV-positive workers with abilities, education, training and experiences equal to uninfected-by-HIV-workers are victims of discrimination if they are provided inferior treatment in hiring, occupational access, promotion or wages on the basis of their HIV status. Yet, the theoretical foundations of labour market discrimination go back to the works of Becker (1957, 1972), and Arrow (1972).

Becker's Taste for discrimination theory, instead of making the common assumptions that employers consider only the productivity of employees, that workers ignore the characteristics of those with whom they work, and that customers care only about the qualities of the goods and services provided, suggests that discrimination coefficients incorporate the influence of characteristics unrelated to productivity i.e. health status, on tastes and attitudes. Following Becker's concept and assuming a society in which individuals discriminate against HIV-positive, labour market discrimination exists when employers, employees and customers have a distance and/or distaste for association with HIV-positive and conduct their labour market transactions in a way that is intended to minimize or eliminate such contact. According to Becker, these discriminators "must, in fact, either pay or forfeit income for this privilege" (1957). It has long been recognized that various types of illnesses are associated with great stigma or membership in a social category that result in a spoiled identity setting the individuals apart from others. Taste for HIV discrimination comprises both the objective threat of harm and the subjective perception of risk for harm. Perceived risk often has little to do with objective probabilities of actual harm, but many play an important role in discrimination.

A theoretical development in recent years in the analysis of the consequences of stereotyped reasoning is Arrow's Statistical discrimination (Arrow [1973]; Phelps [1972]; Aigner and Clain [1977]). Discrimination results from the profit maximizing response of employers to uncertainty about the quality of individual workers, while the real or subjective distributions favour the group which receives preferences. The current explanation is that labour market discrimination may emerge from information costs in hiring labour, for instance trouble in acquiring detailed information for each applicant. In a world of imperfect information employers face risks in hiring workers, and specific characteristics become inexpensive screening devices. If employers believe that there is a systematic differential between the HIV infected and the uninfected applicants, in their reliability aptitude and job stability, this is sufficient to create a permanent differential in access availability, wage rates, and promotions. The assumptions suggest that the beliefs of employers and other influential groups that HIV-positive workers are less productive can be self-fulfilling, for these beliefs may cause HIV infected workers to under-invest in education, training, and work skills, such as punctuality. As a result, if employers perceive HIV-positive workers as being generally less productive than majorities, and if it is difficult to measure the actual workers' productivity, then HIV-positive workers with above-average productivity may receive below-average returns. While, in case of great uncertainty exclusionary tactics are asked so as to compensate for lower expected profit and/or higher risk.

In the case of statistical discrimination theory, in contrast with theory of taste for discrimination, employers do not discriminate against HIV-positive applicants because of distaste or risk for harm. Instead they discriminate against them because they believe that hiring and promoting them is not profitable for their firm on average. As demonstrated by Heckman (1998) the correspondence testing does not identify the extent of taste discrimination exclusively. Observed

discrimination can also occur if employers use group information when evaluating applicants, i.e. statistical discrimination is at play.

Thus, any or a combination, of the above explanations can be validated by the outcomes that follow. More importantly, those results can significantly contribute to our perception about what may amongst else affect the opportunities of HIV-positives to access occupations and thus uncover well concealed discrimination which is hard to detect by other means. At the same time, the potential of directly collecting discrimination data may further support antidiscrimination policies, since these policies can only be as good as the information on which they are based (Makkonen [2007]).

4. Methodology

4.a Correspondence Testing Technique

Ever since the seminal work of Becker and Arrow who developed several hypotheses about the causes of discrimination behaviour, economists have been looking for ways to test these hypotheses. In this study we introduce a most unbiased methodology to record discriminatory treatments: discrimination tests. Discrimination testing is a form of social experiment in a real life situation which has to potential to provide statistical data on discriminatory treatments[15]. Field experiments provide a unique opportunity to conduct tests because highlights the circumstances under which unequal treatments occur and provide a powerful means of isolating causal mechanisms.

Following Riach and Rich (2002), in discrimination testing at least two individuals are matched for all relevant characteristics other than the one that is expected to lead to discrimination. The *correspondence test* approach, so named for its simulation of the communication between job applicants and employers, involves sending carefully-matched pairs of written job applications (curriculum vitaes) in response to advertised vacancies, to test for discrimination in labour hiring at the initial stage of selection for interview. The pseudo-seekers are typically matched on such attributes as age, education, experiences and marital status. The goal is to produce pairs of testers who are identical in all relevant characteristics so that any systematic difference in treatment within each pair can be attributed only to the effects of the group characteristic. Reactions from employers are then typically measured by written response or callbacks[16].

In this study we find valuable to focus on one of the earliest steps in the process of finding employment working with firms, and we experimentally examine whether applicants get different treatment depending on their HIV-status [17] .

[15] The technique of conducting carefully controlled field experiments to measure discrimination in the market place is 40 years old. Discrimination tests have been adopted by social scientists from techniques employed by legal activists, who pioneered their use in the enforcement of fair-housing laws during the late 1960s (Riach and Rich [2002]).

[16] By sending pairs of curriculum vitaes to the same firms, ones gains partial control over idiosyncratic differences in firm evaluations of common bundles of characteristics that plague ordinary observational studies. Eliminating common unobserved components makes it possible to construct better tests of the hypothesis of no discrimination (Riach and Rich [2002]). Correspondence test analysts assume that they know which characteristics are relevant to employers, and when such characteristics are sufficiently close to make majority and minority applicants indistinguishable. Applicants must be matched on each of the relevant characteristics; alternatively analysts assume that they know how employers trade off characteristics (Yinger [1986]).

[17] Correspondence Testing can only be effective in demonstrating discrimination at the initial stage of a selection process, as well as in measuring the results of the selection process (Bertrand and Mullainathan [2004]). In our context, however, one cares about whether an

Methodologically, based on Riach and Rich (2002), health condition can be identified by a paragraph, in applicant's curriculum vitae, explaining the applicant's special status[18]. However, it is important to ascertain whether the health condition does encounter discrimination when human capital and employment cost differences are either non-existent or negligible: also the extent to which differential treatment is prompted by various health conditions (Riach and Rich [2002]). Based on the United Kingdom's Disability Discrimination Act of 2005, HIV needs only minor changes in the employment, most of which have no cost. A reasonable adjustment is a change to the workplace or work practices which removes a substantial disadvantage that a HIV positive person might experience because of her/his status[19].

In our study, following ILO (2007) and UNAIDS (2006), we suggest that HIV-positive applicants may want to disclose their status to firm in order to identify whether firms are prone to provide any reasonable adjustments for the recruitment and interview process, or for the successful candidate in commencing employment. Crucially, most people who disclose their HIV status at work want to protect their rights, so that an employer who is discriminating can not say she/he didn't know the employee was HIV-positive (AIDS Legal Council of Chicago [2006]).

Ultimately, the choice about whether to tell others about their HIV status belongs to individuals. Not everyone living with HIV is expected to experience discrimination at work. Yet, it is mandatory to develop a methodology to measure firms' attitudes. By doing so, we to monitor how well firms perform in equality and diversity and in complying with the duties under ILO Code.

Accurate data is needed by government agencies and firms that want to ensure that their hiring policies and practices comply with the ILO Code. Scientific evidence on the extent and nature of discrimination can serve as a compelling, factual baseline for national discussion on equality and discrimination[20]. This kind of paired testing allows for good control over different causal variables, diminishing the possibility that differences in treatment are caused by variables that the researcher can not observe. Although, correspondence testing has mainly been applied in order to study and prove discrimination on the basis of ethnicity or

applicant will eventually get a job. On the other hand, in real life, job offerings are also obtained via informal search and networks. Hence, given these shortcoming the method should be viewed as a complement rather than as a substitute to register and interview data.

[18] In England, Fry (1986), Graham *et al* (1990), tested for disability being confined to a wheelchair involved secretarial areas. In France, Ravand *et al* (1992), found evidence of differential treatments against disabled people seeking employment. Also, in the Netherlands, Gras *et al* (1996), tested for various types of disability being confined to a wheelchair, epileptic or deaf involved professionals in administrative, commercial and secretarial areas. More recently, MacRae and Laverty (2006), tested for disability being confined to cerebral palsy or registered blind in Scotland. All studies found statistically significant outcomes against minorities.

[19] These adjustments may include flexibility for medical appointments and privacy to take medication. Moreover, antiretroviral therapy can have some side-effects, however reasonable adjustments may sometimes be necessary in response to such side-effects of treatments (UNAIDS [2007], ILO [2007]).

[20] Statistical evidence can play a decisive part in legal proceedings; individual claimants often find themselves in need of statistical evidence to back up their claim, particularly where indirect discrimination is at issue. Statistical and other information renders discrimination, which can otherwise remain concealed, visible, making it possible to target it more effectively by means of informed action. Statistical and other scientific knowledge and evidence can give a major boost to awareness raising and sensitizing efforts, and provide a compelling, factual baseline for national on discrimination.

gender, the method is applicable for the studying of discrimination on the basis of health condition; HIV-status. This is important, as it is very difficult to measure this kind of discrimination by employing any other means.

4.b Application Structure

The current experiment was conducted between 2007 and 2008 and involved the capital of Greece, Athens. We applied to vacancies where there was demand for eight-hour and five-day employment. These vacancies were identified through a sample of advertisements, appearing in website newspapers.

In order to measure occupational access discrimination for HIV-positive applicants, we had fabricated two imaginary pairs, equal in human-capital workers, applying to the same job by sending curriculum vitaes using different fax devices or mail addresses.

The two pairs included: A pair of 30-years old single Greek male applicants. A pair of 30-years old single Greek female applicants. In each pair the one applicant disclosed her/his HIV-positive status. Health condition was denoted by a reference in a special information part of the line,

[2]Driven by deontological considerations I inform you that I am seropositive, HIV (+) carrier. I am healthy, productive and fully capable of performing the whole duties of the position. Recommendations upon request[2].

On the other hand, for half of the applicants no explicit information on health status was given. These were classified as the unaffected applicants. The methodology implies that the health reference is accurate for credibly testing the discrimination hypothesis. The theoretical claim to be evaluated is that a productive applicant living with HIV might be a characteristic that results in fear of contagion and/or biased evaluations of her/his skills and profitability, diminishing hiring chances.

The occupational categories were chosen with the purpose of creating a sample that is representative for the Greek private labour market. The sample included occupations that required education on different levels. The two types of pairs of applicants were endowed with the following qualifications: (i) Higher education: *accountants, clerks, economists, lawyers, managers, psychologists, teachers, and technicians*. (ii) Basic education: *clerks, salesmen, and workmen*[21]. As a result, there was a total of four pairs of applicants and 8 curriculum vitaes were written. However for obvious reasons, per job opening we sent either a pair of male applicants or a pair of female applicants[22].

Moreover, it was essential that both the qualifications and the quality of the applications were high, as we expected considerable competition from other applicants. The qualifications and the presentation style of the fictitious applicants were matched as closely as possible, so that they were identical in all employment relevant characteristics but health status.

Also, each application was designed so as to equally convey the type of experience that might make an applicant attractive. Each of the fictitious applicants/testers was allocated a male (female) Greek distinctive first and last name, a telephone number, an e-mail and a postal address. The addresses were

[21] In this study we did not investigate discrimination trends regarding sensitive occupations including, beauticians, doctors, nurses, physiotherapists, chefs, waiters, and personal care providers. However, it is a most interesting research extension which needs extra discussion.

[22] Actually, our experiment it would have been revealed if we had sent to the same vacancy a male and a female applicant living with HIV.

chosen so that to be recognized as similar as possible, in order to indicate the same social class.

The applicants were 30 years old and unmarried. Applicants having higher (basic) education had finished university or technical school (high school), approximately eight (twelve years) ago. For both sexes, applicants having higher (basic) education had six (ten) years of work experience in a similar post to each vacancy applying for. To avoid detection the applicants' high schools, universities, technical schools and previous workplaces were located at different areas in Athens.

Furthermore, both male (female) applicants had similar hobbies [23] and personal characteristics[24], which entailed similar masculinity (feminity). Males (females) who violate genders rules face considerable prejudice as their manner is inconsistent with society's expectations about masculinity (feminity) (Herek [1994]). While, the applicants' physical appearance was not considered in the hiring criteria, since the applicants did not contain photographs and the recruiters did not meet the applicants. In addition, male applicants had carried out military service in different areas[25]. Also, both applicants were prone to provide recommendations upon request.

The curriculum vitaes were faxed or mailed simultaneously, within one day of the advertisement appearance, and if firms were interested about any of the applicants they could be reached either through available postal addresses[26], by telephone contact[27] (voice mail), or by e-mail.

However, given the intent of the experiment was to determine the extent of discrimination against the applicant living with HIV we controlled for all factors which might bias the results (Riach and Rich [2002]). For obvious reasons, the styles of the curriculum vitaes were different for each pair. Yet, in order to control for the possibility the style of an application to influence an employer's response, those -different in style- application forms were equally allocated between the paired applicants. The constructed resumes were then sent to the employer in alternating order.

Finally, the styles of the curriculum vitaes were different for each pair. Yet, in order to control for the possibility the style of an application to influence an employer's response, those -different in style- application forms were equally allocated between the uninfected and HIV-positive applicants[28].

4.c The Model

The most common econometric approach for capturing the effects of discrimination is to see if people who are similar in all observable and economically relevant ways have similar labour market outcomes. The probability of receiving a job interview is estimated as a Probit model:

$$Y_i^*(Callback=1)=\alpha+\beta X_i+e_{i1} \qquad (1)$$

where: Y* is the latent regression explaining the probability of receiving a

[23] Male (female) applicants were fascinated by travels (travels) and sports (cinema).

[24] Both applicants pointed out that they were productive and industrious.

[25] In Greece, having carried out the military service typically boosts a male's probability of being hired. Thus, in order our two applicants to be as equal as it is possible we had to consider this crucial factor too.

[26] However, no firm responded in a written way.

[27] For each phone we use the content of the message left by the employer to match the response to the response to the corresponding resume pair.

[28] The experimental control adjusted in the regression stage.

job interview, α is the constant, X refers to *health status* equals to one (zero) if the respondent is HIV-positive (in all other cases), e is the disturbance, and i refers to the individual.

By construction of the correspondence testing (see, Neumark *et al* [1996], Bertrand and Mullainathan [2004]) all applicants have to be matched in all characteristics other than health status. Having controlled for same but health status across the two applicants, the latter is not expected to be correlated with the error term in each equation. If b'=0 the HIV-positive and the unaffected applicants had the same probability of receiving a job interview. If b'<0 the HIV-positive applicants had a lower probability than the unaffected applicants of receiving a job interview, while if b'>0 the HIV-positive applicants had a higher probability than the unaffected applicants of receiving a job interview.

Equation (1) is estimated separately, as well as, and simultaneously for all type of jobs for each type of applicants and we report marginal effects. For completeness, two models are estimated. The first model controls only for differences in health status between applicants. The second model controls also for application type, sending order, occupation applied and for common time effects. Moreover, in order to correctly analyze the data the intra-class correlation is taken into account. In the estimations that follow full information-adjusted standard errors are reported

5. Estimations

5a. HIV/AIDS in Greece - Preliminary Facts

Greece has subscribed the ″United Nation Millennium Declaration of (2000)″, the ″Declaration of Commitment on HIV/AIDS (2001)″ and joins all coordinate carpentries of the European Union aiming to manage HIV/AIDS epidemic. Yet, no legislation concerning labour protection and HIV/AIDS issues has been implemented so far.

In Greece ($n \approx 10.6$ millions), the cumulative number of reported HIV infections, including AIDS cases, comes up to 8584 [29] (H.C.D.C.P. [2007]). The reported cases of HIV infection were increasing steadily for both men and women up to 2000. At the end of 2000, a turn about in this trend was observed for the first time. This change was also confirmed for 2002. In 2003, the reporting rate was slightly increased compared with 2002 and then increased marginally again in 2004. The reporting rate in 2006 and 2007 are almost the same with that estimated in 2005 when a significant increase was observed. Overall, sexual transmission accounts for the vast majority of HIV reported cases. The larger proportion of cases (46.1%) was diagnosed in men who have sex with other men while significant smaller proportions (23.0%) were persons exposed through heterosexual contract. While a smaller proportion (3.6%) of the transmission category was reported as drug user[30]. By age group, the majority of reported HIV infections were individuals 25 to 44 years old at the time of report. The most prevailing age group in males was the one between 30 to 34 years while the predominant group in females was the one between 25 to 29 (H.C.D.C.P. [2007])[31].

[29] By sex 80.1% of the reported cases of HIV infection were in males and 0.193 were in females.

[30] Transmission category was reported as undetermined for 22.9%.

[31] Based on H.C.D.C.P. (2007), 2829 AIDS cases have been reported in Greece through 2007. By sex 84.6% were males, 15.4% were females. The marked increase in AIDS incidence observed during 1993-1996 is due to the large number of new AIDS cases diagnosed using the expanded case definition. On the contrary the number of AIDS diagnoses fell from 1997 until 2001 after effective therapies were introduced and have remained relatively low during recent

Moreover, illuminative stand Greek firms' responses to HIV/AIDS, conducted by the World Economic Forum (WEF - Executive Opinion Survey [2006]). The vast majority of the responders 95.0% do not feel that HIV/AIDS currently affects their firm operation. As a result 81.0% of the firms do not have a policy concerning HIV/AIDS. While, 40.0% of the firms which adopt a policy have a HIV/AIDS prevention program that provides information about the risks of infection, and 50.0% provides voluntary, confidential, anonymous HIV testing, and 40.0% address the issue of discrimination in promotion, pay or benefits, based on HIV status. Interestingly, the vast majority of the respondents 88.0% do not expect HIV/AIDS to have impacts on their firms up to 2010, while only 10.0% worried about the future. The national findings suggest that Greek firms do not have attempted to quantify the business risk due to HIV/AIDS, and only an insignificant fraction have developed policies to tackle the virus.

5.b Descriptive Statistics

Based on Bertrand and Mullainathan (2004), in neutral review process, firms would rank order resumes based on their quality and call back all applicants that are above a certain threshold. Due to the fact that our applicants have the same human capital the resumes we sent should rank similarly. Hence, irrespective of the human capital of the applicant pool a health-blind selection rule would generate equal treatment among the two applicants per pair.

Following Riach and Rich (2002) it is sound academic to full details of any field experiment. This includes the procedure adopted, and complete results of all test, broken down by occupational category where relevant. The first question one needs to ask in analyzing data is "what constitutes an outcome that exhibits discrimination?". One intuitively plausible measure of the existence of discrimination is the proportion of times that the two applicants who are identical are treated differently by potential employers. Complete results mean the number of applications made, recorded by the outcome for the matched testers at each stage of the hiring process: In a study of majority/minority employment opportunities this means, at the invitation to interview stage recording both rejected/invited, only the majority /minority applicant invited for interview.

The outcome of the correspondence testing is set out in a format which follows McIntosh and Smith (1974) and which has since been adopted in field experiments across Europe (see, Riach and Rich [2002]). Table A - Panel A (Appendix 1), presents male applicants with higher education call back outcomes [32] . The last row shows the aggregated results and from the second column it can be read that applications were sent to 862 job openings. The third column shows that in 452 cases neither individual was invited for interview. In the remaining 410 cases (column four) at least one applicant was invited. In 14 cases (column five) both were invited (equal treatments), in 392 cases (column six) only the unaffected was invited and in 4 cases (column seven) only the HIV-positive was invited. As a result, net

years. The estimated number of AIDS cases in 2006 is lower than those in 2005, while up to 2007 the estimated number of AIDS cases are lower than 2005. Men who have sex with other men remains the group with the highest number of AIDS (56.3%), while transmission through heterosexual contact follows with 23.9%. Transmission through undetermined contact follows with 8.5%, and a smaller proportion (4.0%) of the transmission category was reported as drug user. The majority of cases were aged between 25 and 49 years old at time of diagnosis, with the highest number in those aged 30-34.

[32] The outcomes in Tables A and B (Appendix 2), illustrate how the discrimination rates differ between the occupations.

discrimination[33] against the HIV-positive can be read from the last two columns and is 388 cases or 94.6%. Consequently, although the HIV-positives satisfied the jobs requirements, uninfected applicants were systematically favored over the formers. The statistical significance of any finding of net discrimination was determined by the application of the chi-squared test (Heckman and Siegelman [1992]).

Turning our attention to male applicants with basic education, Panel B, it can be read that applications were sent to 263 job openings. The third column shows that in 146 cases neither individual was invited for interview, while in 117 cases (column four) at least one applicant was invited. In 5 cases (column five) both were invited (equal treatments), in 112 cases (column six) only the unaffected was invited and in none case (column seven) the HIV-positive was invited alone. The rate of net discrimination against the HIV-positive is 112 cases or 95.7% that can solely be attributed to applicants' heath status[34] . On average, regardless education level, as Panel C tabulates, the net discrimination against the HIV-positive is 500 cases or 94.8%. By sending equivalent resumes to apply for entry level jobs revealed a strong HIV discrimination.

Following, female applicants' call back outcomes are reported in Table B (Appendix 1). Panel A., shows that applications were sent to 787 job openings. The third column shows that in 474 cases neither individual with higher education was invited for interview. In 313 cases (column four) at least one applicant was invited. In 18 cases (column five) both were invited (equal treatments), and in 293 cases (column six) only the unaffected was invited. While, in 2 cases (column seven) only the HIV-positive was invited. Net discrimination against the HIV-positive is 291 cases or 92.9%.

Similarly, as shown in Panel B., applications were sent to 392 job openings. The third column shows that in 232 cases neither female individual with lower education was invited for interview. In 160 cases (column four) at least one applicant was invited. In 4 cases (column five) both were invited (equal treatments). In 156 cases (column six) only the unaffected was invited, and in none case (column seven) the HIV-positive was invited alone. So, net discrimination against the HIV-positive is 156 cases or 97.5%[35]. Furthermore, Panel C., shows average results. Net discrimination against the HIV-positive is 447 cases or 94.5%. The outcomes demonstrate a substantial gap in callbacks based on applicants' HIV status.

5.c Health Status-Dummy Estimations

The current experiment features a highly controlled setting with a diverse set of measures, allowing us to generate data that are well suited for evaluating our theoretical mechanism. To be specific, we isolate the taste and/or statistical discrimination hypothesis that are proposed to explain employment constraints for HIV-positive applicants. The severity of the access discrimination is assessed by examining model one's estimations.

[33] The commonest way to measure the overall incidence of discrimination is to count the numbers of times a minority applicant is treated less favourably on a single type of firm behaviour than the majority applicant and then subtract the number of times the majority applicant is treated less favorable, mainly on random incidents. The result is a net measure of the number of acts of discrimination a minority applicant can expect to encounter during each application to a firm.

[34] The differences between Panel A and Panel B, are statistically insignificant tested by the z-test. HIV applicants' education level plays no role in their occupational access.

[35] The differences between Panel A and Panel B (Table B), are statistically insignificant tested by the z-test. HIV applicants' education level plays no role in their access to occupations.

Table A (Appendix 3), shows several significant results that can not be underestimated. Regardless applicants' education level and sex, HIV-positive applicants face significant exclusion rates which by default restricts their options.

Focus on Panel A., the estimated probability of male HIV-positives with higher education to receive an invitation for interview is by 45.2% lower than that of the unaffected applicants indicating that HIV-positives do not enjoy equal chances in access to occupations (Column 1). Similarly, based on Panel B., the estimated probability of male HIV-positives having basic education to receive an invitation for interview is by 42.5% lower than that of the uninfected applicants. Discriminatory practices extremely complicate the job search for applicants living with HIV.

On average, as shown in Panel C., the estimated probability of male HIV-positive applicants to receive an invitation for interview is by 44.6% lower than that of the uninfected applicant[36]. Looking across occupations we find large gaps lying between 35.6%-55.2%, see Appendix 4, Tables A and B, Column (1). Obviously, the degree of discrimination is randomly assigned across occupations disrelated to education level and job status. The estimated probability of HIV-positives to receive an invitation for interview is by 55.2% lower for teachers and technicians, followed by 50.0% for salesmen, by 48.1% for lawyers, by 46.2% for economists, by 43.0% for workmen, by 39.5% for psychologists, by 39.3% for accountants, by 37.7% for clerks with basic education, by 36.1% for managers, and by 35.6% for clerks with higher education than that of the unaffected applicants.

On the other hand, female applicants living with HIV appear to receive more callbacks than males, however, this gender gap it seems to be naïve than any of the HIV gaps. Panel A. (Appendix 3), shows that the estimated probability of HIV-positives with higher education to receive an invitation for interview is by 37.2% lower than that of the unaffected applicants (Column 3). Further, Panel B., shows that the estimated probability of female HIV-positives with basic education to receive an invitation for interview is by 0.405 lower than that of the unaffected applicants.

Moreover Panel C., on average shows, that the estimated probability of female HIV-positives to receive an invitation for interview is by 38.3% lower than that of the unaffected applicants. If we concentrate on each occupation we observe that for female applicants the exclusion rate varies between 29.6%-48.8%, see Appendix 4, Tables A and B, Column (2). The higher discrimination rate is observed for lawyers by 48.8%, followed by 45.6% for saleswomen, by 41.0% for economists, by 40.0% for technicians, by 39.3% for teachers, by 38.8% for workwomen, by 35.2% for clerks with basic education, by 34.5% for clerks with higher education, by 32.9% for accountants, by 29.6% for psychologists, by 27.8% for managers than that of the uninfected applicants. Similarly to males' estimations, the degree of discrimination is randomly defined across occupations which is extraneous to education level and job status.

Although the two applicants are truly similar from employers' perspective the results suggest that those with HIV have differential treatment when searching for jobs. The result implies that HIV positives are discriminated when actual employers make hiring decisions. The outcomes show that HIV-positive applicants face great difficulty in obtaining an interview in all

[36] We re-estimated *model 1* including control variables: Curriculum vitaes' type, sending order, occupation applied and time effects still nonetheless the impact on the outcome is negligible (Columns 2 and 4). Since experimental conditions are equally assigned, these controls do not substantially affect the estimated effect of health status but they make the estimate more precise (*model 2*).

occupations regardless their education level and job-status, and required a willingness to spend amounts of time job-hunting for a chance. As a result, HIV-positives have to spend more resources for an interview as the same observable signal is more precise for the uninfected applicants. Crucially, while the cost of sending additional resumes is naïve per se, the call backed difference could be quite substantial when compared to the rate of arrival of new job openings, taking into account the limited number of new job openings each week. Hence, citing either employer distance-fear and/or employer perception that HIV stigma signals lower productivity, job applicants living with HIV do get substantially far fewer callbacks for each resume they send out.

Despite ILO efforts to encourage openness and discourage discrimination, serious misconceptions and barriers HIV-positives are faced in the Greek market. HIV transmission it might be poorly understood by the vast majority of the national firms in the general population, causing them to feel threatened by the mere presence of the disease. The widespread expectation of stigma, combined with actual experiences as well as racism makes HIV an extremely stigmatized condition. The current estimations envision three reasons for the unparalleled stigmatization and extreme prejudice that has characterized the treatment of application living with HIV, namely the sexual dimension to the crisis, the early linkage of the disease to marginalized groups, and the belief among that HIV is an appropriate punishment visited upon those who have traded caution for hedonist sexual pleasure.

The estimations suggest that discrimination against people living with HIV at work really matters in Greece. As a result, HIV stigma and discriminatory attitudes cuts the supply of labour and threatens the livelihoods of many workers. HIV discrimination leads to violations of basic people rights' as well as affect the realization of other fundamental human rights. One of the most profound consequences of stigma is its impact on their ability to earn living. This kind of discrimination creates an anxious and divided workforce, and wastes the abilities that people with HIV can bring to the workplace, while the recruitment process does not take into account HIV-positive applicants concerns and sensitivities. If that is the case, applicants with HIV lose power, respect and identity through the taking away, or diminishing of their roles.

The estimations suggest that once the stigma becomes evident to employers, applicants become labeled as outsiders, and expectations and assumptions are associated with the individuals from which patterns of response from others emerge during interactions.

The estimations reveal that firms do not seem that protecting staff through workplace activities is a natural first priority of programmes followed by looking to the wider community. It is rather clear that national firms do not have non-discrimination policies, to tackle the stigma that allows HIV/AIDS to flourish.

For Greek firms it is not clear that the workforce is both the most accessible target audience for companies and the one that has the most immediate effect on the bottom line. On the other hand as well, those firms do not offer the HIV-positive applicants the opportunity to discuss any health-related issue, and the applicants are not welcome to discuss any health-related matters.

The current evidences suggest that discrimination continues at alarming levels and the need to examine more closely the effects of HIV/AIDS stigma and discrimination and labour market characteristics on employments for infected populations in Greece. The fight against discrimination requires vigorous enforcement of specific legislation and active identification and analysis of discriminatory patterns in all areas of life, monitoring of the progress made in

elimination of discrimination, adoption of sensitizing and awareness-raising programmes and if the circumstances so warrant adoption of positive action measures to remedy the situation of those individuals and groups that suffer from disadvantages caused by discrimination.

6. Discussion

6a. Legislation Models[37]

Discrimination tests can both enhance our ability to measure discrimination and increase the effectiveness of civil rights law and enforcement designed to counteract it. Discrimination tests link to public policy is especially close. Because of this, strong documentation of discrimination such as that presented can influence the terms of the debate over strengthening equal opportunity legislation. The rapid globalization and its impact on labour markets and working conditions has increased the need to protect workers against HIV/AIDS and other human rights violations (ILO/AIDS [2006]).

In order to prevent the spread of HIV/AIDS mitigate its impact, provide care and support for workers infected and affected by HIV/AIDS and eliminate the stigma and discrimination in the world of works, legislation should adopt a right-based approach in accordance with universally recognized human rights, instruments and more specifically the ILO Code of Practice on HIV/AIDS and the world of work.

Specific HIV/AIDS laws lend themselves to a comprehensive and coordinated approach. They often cover many issues relating to HIV/AIDS national coordination of the fight against epidemic, prevention, protection of rights in employment, education, health services and budget appropriate as well as care and support. In order to be effectively implemented HIV/AIDS legislation should be clear and unambiguous problem it is meant to address, and how it relates to a right-based approach. In this connection, the legislation should also include clear provisions on grievance procedures and should be accompanied by enforcement mechanisms. Ideally, HIV/AIDS legislation should be the outcome of necessary consultations involving the social partners in the world of work to ensure that the provisions are realistic and implementable.

Anti-discrimination and human rights legislation models [38] have the specific objective of ensuring the protection of fundamental rights and freedoms. Anti-discrimination and human rights legislation does not aim primary to punish the author of a prohibited act but rather to educate and provide remedies which fully repair the prejudices caused by the violations of a right. In addition to compensation and reinstatement in employment innovative remedies such as workplace education on non-discrimination can be obtaining (ILO/AIDS [2004]).

On the other hand, disability law model [39] aims to protect people with disability against discrimination and integrate them as fully as possible into society. To ensure equal treatment these laws often contain detailed provisions on the obligation of employers to make reasonable remain in work as long as possible. Therefore these laws can be very useful in providing protection for persons who have started to develop HIV symptoms but are still for work (ILO [2005]). Employers are required to make reasonable adjustments to help people with HIV and to remain at work. These adjustments may include: Making changes to the premises. Altering an employee's

[37] See, Chartier's analysis - ILO (2005).

[38] For instance, see, "Romania: *Emergency Ordinate No. 137* (2000)", and "Canada: Quebec: *Charter of Human Rights and Freedom* (1975)".

[39] For instance, see, "United Kingdom: *Disability Discrimination Act* (2005)", and "China, Hong Kong: *Special Administrative Region Disability Discrimination Ordinate* (1995)".

working hours. Allowing an employee to be absent during working hours for treatment or rehabilitation. Allocating some of an employee's duties to another colleague or transferring him or her to an existing vacancy.

Labour legislation model [40] is used both to regulate the employer-employee relationship and to establish the framework in which workers and employers interact with each other. In an environment where discrimination occurs, it also represents a reminder and guarantee of the fundamental principles and rights at work. The integration of provisions prohibiting HIV discrimination and screening into labour legislation can help protest the rights of HIV-positive workers and job applicants (ILO/AIDS [2004]).

Legislation should be constructed taking into account two respects. The first is the proscription of unfair discrimination and the second is the permission of statutory and other measures aimed at the receiving end of same. The three legislation models show that different regulatory frameworks can be used to eliminate workplace discrimination based on HIV/AIDS and ensure work place prevention as well as social protection.

Different provisions covering HIV/AIDS issues can be incorporated into the anti-discrimination law model, the labour legislation model, and disability law model of the same country. Labour equality is fundamental to the maintenance and propagation of human rights in democratic body politic particularly in an acutely divided society.

Each country has to choose the proper regulatory framework which reflects considerations agreed at the national or regional level after consultation with the social partners and other stakeholders (ILO, [2005]).

[40] For instance, see, "Bahamas: *Employment Act No. 27*, (2001)", "Zimbabwe: *Labour Relations Act No. 6* (2001)", and "Namibia: *National Code on HIV/AIDS in Employment Labour Act* (1992)".

6b. Firms Core Strategies

Rationally, a representative responsible firm wants to recruit an effective high-quality workforce (NAT [2006]). This will mean recruiting on the basis of ability rather than discriminating against the best applicants for unacceptable reasons. It would also mean retaining good employees and ensuring they do not leave as a result of prejudice or discrimination experienced in the workplace. One example of such unacceptable prejudice is discrimination on the basis of someone's HIV status.

Many employers are hesitant to address HIV/AIDS in the workplace because of the sensitivity attached to the issue. Changing, however, the perception of AIDS from a negative personal issue into a positive challenge to secure and impose employees' health creates opportunities for employers to reduce stigma to HIV/AIDS in the wider community, prevent discrimination and fear among workers, and improve productivity and staff morale (A.B.C. on AIDS [2002]).

Demonstration by firms their recognition of the importance of managing HIV/AIDS is a powerful tool for advocacy influencing other companies and sectors. Following, Nattrass, *et al* (2004), global firms have critical questions to answer: Is it worth the investment of their firms to engage in the global fight against HIV/AIDS? What factors inform such a decision, and what are the range of interventions available to firms and their management? To varying degrees, all aspects of employer supported HIV programs contribute a great degree to a largely unqualifiable benefit elevated employee morale. The most immediate way firms can take action on HIV/AIDS is by protecting its most valuable resource: Its employees. Firms should aim to support the implementation of comprehensive workplace, programs, covering, non-discrimination, prevention education, access to voluntary counseling, and testing, as well as care, support and treatment.

The continuing involvement of management in the prevention of HIV/AIDS in the workplaces is of critical importance to the future successes of HIV/AIDS prevention and care and support efforts, as in on going advocacy beyond the workplace with other firms, and government and non-governmental organizations. Firms wishing to protect their workplace from the negative effects of HIV/AIDS can implement fundamental measures.

Management discrimination against HIV positive workers seemed to be due to lack of knowledge and or the absence of protective policies. Discrimination and stigmatization from management made it particularly difficult for individual workers to have their rights. Stigma can easily be prevented through education and good planning of management responses. Improving the knowledge of people can have any effect in diluting their strict and judgmental values as well as decreasing their fear of contagion. This can build employees knowledge and capacity to analyze personal risk behavior and prevent HIV transmission.

An enduring understanding of HIV/AIDS will further help employers and co-employees to feel comfortable working together with HIV-positive co-workers. The pride of place that societies can give to education should based on evidence that education contributes toward the knowledge and personal skills essential for the prevention of HIV, and protects individuals families communities, institutions and nations from the impact of AIDS (UNESCO [2007]).

Workplace policies should also aim to manage sensitive issues such as confidentiality of medical information and continuation of employment for HIV-positive staff, and assure that all testing and counseling services are performed on a voluntary rather than mandatory basis. Developing such policies and practices should be seen as an investment, protecting a core business asset. Human resources are the backbone of every organization and are a firm's main asset. Sustaining HIV/AIDS programmes should be viewed as a means to achieve overall effective human resource management.

7. Conclusion

The association of stigma with disease is not a new phenomenon. Though history, the stigma attached to epidemic illness and social groups associated with them have often hampered treatment and prevention, and have inflicted additional suffering on sick individuals. HIV/AIDS stigma and discrimination is certainly complex and affected by context. But with an increasingly understanding about the nuances of stigma and tools to address and measure it, employers, employees and societies are better trained to reverse stigma's devastating impact on people infected with and affected by HIV and AIDS. Advances in medication mean many people with HIV infection are living long and uninfected lives. The most important message is that people living with HIV are able and entitled to work just like anyone else. People living with HIV can work and enjoy prosperous careers, and they can work successfully in a wide variety of occupations.

The current research offers a purposive framework of key materials and findings which might be significant in relation to public policy concerns and policy development. The strength of this study is that it applies an experimental design in a real-world setting allowing evaluating whether actual employers discriminate against people living with HIV in the searching process.

The estimations postulate that discrimination against people living with HIV at work really matters. The rate of net discrimination against male HIV-positives is found to be between 82.6% and 97.8% among occupations. On the other hand, the rate of net discrimination against female HIV-positives is found to be between 81.6% and 98.8%. The current

study contributes to our understanding of stigma and discrimination in several fields. By measuring and understanding the discrimination mechanism stands an important step if the goal is to find ways to reduce the disadvantage HIV positive applicants face.

More importantly, the results can significantly contribute to the perception about what might amongst else affect the opportunities of certain minority groups to access employment and thus uncover well concealed discrimination which is hard to detect by other means.

Not only is discrimination inimical to the ILO docture of decent work and its fundamental principles and rights at work, but there is also evidence that discrimination undermines efforts to prevent, the spread of the epidemic and to mitigate its impact in the world of work. HIV/AIDS discrimination is a violation of basic human rights.

Societies do need to eliminate stigma, shame, denial, discrimination, inaction and misaction. Trade union representatives, (non) governmental organizations, and human resource managers should often be the first point of call and provide legal advices and find solutions.

On the other hand, a challenge facing firms today is how to protect their own workforce against the spread of HIV/AIDS and to help HIV-positive staff to remain uninfected and productive for many more years. Provision of reasonable care and support services is essential to enable HIV positive employees to continue working as long as possible and fulfill their expected job responsibilities.

Strong action is required particularly through massively expanded and intensified prevention efforts alongside activities to expand access to treatment, care and support. There is an overarching need for strong political commitment at every level and broad social mobilization to end stigma, silence and denial and to change the socio-cultural norms, beliefs, roles and practices that increase HIV vulnerability.

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Appendix 1

Table A. Correspondence Testing Outcomes

Male Applicants

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against HIV-Positives (2) No.	Discrimination Against Unaffected (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)]/(1) %	x^2 test
Panel A.									
Higher Education	862	452	410	14	392	4	388	94.6	380.16*
Panel B.									
Basic Education	263	146	117	5	112	0	112	95.7	112.00*
Panel C.									
Total	1125	598	527	19	504	4	500	94.8	492.12*

Notes: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3).
(*)Statistically Significant at 1%.

Table B. Correspondence Testing Outcomes

Female Applicants

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against HIV-Positives (2) No.	Discrimination Against Unaffected (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)]/(1) %	x^2 test
Panel A.									
Higher Education	787	474	313	18	293	2	291	92.9	287.05*
Panel B.									
Basic Education	392	232	160	4	156	0	156	97.5	156.00*
Panel C.									
Total	1179	706	473	22	449	2	447	94.5	443.03*

Notes: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3).
(*) Statistically Significant at 1%.

Appendix 2

Table A. Correspondence Testing Outcomes
Male Applicants

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against HIV-Positives (2) No.	Discrimination Against Unaffected (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)]/(1) %	x^2 test
Panel A. Higher Education									
1. Accountants	117	70	47	1	46	0	46	97.8	46.00*
2. Clerks	101	63	38	2	36	0	36	94.7	36.00*
3. Economists	106	55	51	2	49	0	49	96.0	49.00*
4. Lawyers	83	37	46	3	41	2	39	84.0	35.37*
5. Managers	105	66	39	1	38	0	38	97.4	38.00*
6. Psychologists	48	25	23	0	21	2	19	82.6	15.69*
7 .Teachers	143	62	81	3	78	0	78	96.2	78.00*
8. Technicians*	159	74	85	2	83	0	83	97.6	83.00*
Panel B. Basic Education									
9. Clerks	122	75	47	1	46	0	46	97.8	46.00*
10.Salesmen	76	36	40	2	38	0	38	95.0	38.00*
11.Workmen	65	35	30	2	28	0	28	93.3	28.00*

Notes: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3).
(*) Statistically Significant at 1%.
**Includes architects, mechanical engineers, electricians, geologists, agriculturists, biologists, chemists, physicists.*

Table B. Correspondence Testing Outcomes

Female Applicants

Outcomes / Occupations	Jobs No.	Neither Invited No.	At least one invited (1) No.	Equal Treatment No.	Discrimination Against HIV-Positives (2) No.	Discrimination Against Unaffected (3) No.	Net Discrimination (2)-(3) No.	Net Discrimination [(2)-(3)]/(1)	x^2 test
Panel A. Higher Education									
1. Accountants	82	53	29	2	27	0	27	93.1	27.00*
2. Clerks	133	86	47	1	46	0	46	97.8	46.00*
3. Economists	73	42	31	1	30	0	30	96.7	30.00*
4. Lawyers	86	37	49	5	42	2	40	81.6	36.36*
5. Managers	79	56	23	1	22	0	22	95.6	22.00*
6. Psychologists	64	42	22	3	19	0	19	86.3	19.00*
7 .Teachers	155	92	63	2	61	0	61	96.8	61.00*
8. Technicians*	115	66	49	3	46	0	46	93.8	46.00*
Panel B. Basic Education									
9. Clerks	122	78	44	1	43	0	43	97.7	43.00*
10.Saleswomen	162	87	75	1	74	0	74	98.8	74.00*
11.Workwomen	108	67	41	2	39	0	39	95.1	39.00*

Notes: The null hypothesis is "Both individuals are treated unfavorable equally often", that is (2)=(3).

(*) Statistically Significant at 1%.

**Includes architects, mechanical engineers, electricians, geologists, agriculturists, biologists, chemists, physicists*

Appendix 3

Table A. Probit Estimations
Marginal Effects

Sexes	Males		Females	
Outcomes / Occupations	*Model 1*	*Model 2*	*Model 1*	*Model 2*
	(1)	*(2)*	*(3)*	*(4)*
Panel A.				
Higher Education	-0.452	-0.456	-0.372	-0.370
	*(0.461)**	*(0.474)**	*(0.429)**	*(0.404)**
Observations	1724	1724	1574	1574
Panel B.				
Basic Education	-0.425	-0.417	-0.405	-0.419
	*(0.456)**	*(0.465)**	*(0.465)**	*(0.404)**
Observations	526	526	784	784
Panel C.				
Total (#)	-0.446	-0.456	-0.383	-0.396
	*(0.460)**	*(0.202)**	*(0.441)**	*(0.456)**
Observations	2250	2250	2358	2358

Notes: (#) Estimations include education control.
Standard errors in the parenthesis
(*) Statistically significant at 1 %.
Model 1 controls only for differences in health status between applicants.
Model 2 controls also for application type, sending order, occupation applied and for common time effects.

Appendix 4

Table A. Probit Estimations

Marginal Effects by Occupation; *Higher Education*

Sexes	Male Applicants		Female Applicants	
Outcomes / Occupations	*Model 1*	*Model 2*	*Model 1*	*Model 2*
	(1)	*(2)*	*(3)*	*(4)*
1. Accountants	-0.393	-0.399	-0.329	-0.334
	*(0.463)**	*(0.498)**	*(0.409)**	*(0.467)**
Observations	234	234	164	164
2. Clerks				
	-0.356	-0.350	-0.345	-0.359
	*(0.430)**	*(0.358)**	*(0.442)**	*(0.399)**
Observations	202	202	266	266
3. Economists				
	-0.462	-0.464	-0.410	-0.424
	*(0.462)**	*(0.459)**	*(0.461)**	*(0.457)**
Observations	212	212	146	146
4. Lawyers				
	-0.481	-0.500	-0.488	-0.510
	*(0.406)**	*(0.604)**	*(0.340)**	*(0.502)**
Observations	166	166	172	172
5. Managers				
	-0.361	-0.362	-0.278	-0.286
	*(0.448)**	*(0.446)**	*(0.387)**	*(0.402)**
Observations	210	210	158	158
6. Psychologists				
	-0.395	-0.390	-0.296	-0.286
	*(0.412)**	*(0.489)**	*(0.361)**	*(0.302)**
Observations	96	96	128	128
7. Teachers				
	-0.552	-0.560	-0.393	-0.389
	*(0.463)**	*(0.470)**	*(0.457)**	*(0.329)**
Observations	286	286	310	310
8. Technicians*				
	-0.552	-0.556	-0.400	0.412
	*(0.472)**	*(0.506)**	*(0.438)**	*(0.502)**
Observations	318	318	230	230

Notes: (*) Statistically significant at 1 %.
Standard errors in the parenthesis
**Includes architects, mechanical engineers, electricians, geologists, agriculturists, biologists, chemists, physicists.*
Model 1 controls only for differences in health status between applicants.
Model 2 controls also for application type, sending order, occupation applied and for common time effects.

Table B. Probit Estimations
Marginal Effects by Occupation; *Basic Education*

Sexes	Male Applicants		Female Applicants	
Outcomes / Occupations	*Model 1*	*Model 2*	*Model 1*	*Model 2*
	(1)	*(2)*	*(3)*	*(4)*
9. Clerks				
	-0.377	-0.398	-0.352	-0.364
	*(0.457)**	*(0.605)**	*(0.444)**	*(0.546)**
Observations	244	244	244	244
10.Salesmen/women				
	-0.500	-0.512	-0.456	-0.467
	*(0.447)**	*(0.453)**	*(0.484)**	*(0.489)**
Observations	152	152	324	324
11.Workmen/women				
	-0.430	-0.427	-0.388	-0.397
	*(0.437)**	*(0.456)**	*(0.446)**	*(0.465)**
Observations	130	130	216	216

Notes: (*) Statistically significant at 1 %.
Standard errors in the parenthesis
Model 1 controls only for differences in health status between applicants.
Model 2 controls also for application type, sending order, occupation applied and for common time effects.

*